

Operations & Maintenance Manual



White Cloud Dam

Newaygo County, Michigan

Dam ID: 526

T13N, R12W

Prepared by:
OMM Engineering, Inc.

Prepared For:
City of White Cloud

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GENERAL INFORMATION

This document is the Operations and Maintenance Manual for the White Cloud Dam and it provides operational procedures and recommendations to be utilized during normal operation and maintenance of the dam.

The White Cloud Dam is located on the White River in the City of White Cloud. The dam was built in 1872 and is 18.89 feet high, 950-foot-long earthen embankment with three spillways. The dam's impoundment is 475 acres. The Principal Spillway and the Secondary Spillway control the impoundment elevation and flow during normal conditions. The Emergency Spillway is an overflow structure, designed to overtop when the other spillways cannot adequately pass the flow through the dam. The dam structure supports State Street in the City of White Cloud and Silver Drive in Everett Township.

The White Cloud Dam is listed as a High Hazard Dam by the Michigan DEQ. This dam is noteworthy because of its location upstream from M-37 and the Marquette Railroad Bridge just south of the City of White Cloud. A failure on this dam would likely result in loss of life and/or damage to structures, roads, utilities, crops and the environment. It is unknown if a failure of the White Cloud Dam would cause a failure of the Hesperia Dam.

The White Cloud Dam has experienced two failures since it was constructed in 1872. The dam was destroyed by flooding in 1910 and reconstructed the same year. The dam failed again during the flood of September 1986. During this event the area experienced torrential rainfall. The dam was repaired in 1990. Additional repairs were made in 2018 based on corrective items identified in inspections.

The dam is presently owned and operated by the City of White Cloud whose address is 12 North Charles Street, P.O. Box 607, White Cloud, MI 49349. Contact number (231) 689-1194.

Since the dam is considered a high hazard potential dam an Emergency Action Plan (EAP) is required under Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The EAP entitled "White River Emergency Evacuation Plan for Dam Failure and Flooding" has been prepared and is maintained by Newaygo County Emergency Services Department whose address is 306 S. North Street, P.O. Box 885, White Cloud, MI 49349. The latest version of the Emergency Action Plan (EAP) is dated the 2017 Edition. A copy of the EAP is included in Appendix C. Contact at Newaygo County Emergency Services is Abigail B. Watkins P.E.M., M.E.P. Director. Phone number is (231) 689-7354.

DAM DATA SHEET

General Information:

Dam Name:	White Cloud Dam
State ID:	526
Hazard Potential Classification:	High
Year Constructed:	1872
Year(s) Modified:	1910 - Rebuilt after destroyed by flood 1975 - Embankment crest elevation raised by 3 feet 1978 - Auxiliary Spillway was installed 1986 - Dam failed during severe flooding 1990 - Reconstructed with addition of RCC overflow spillway 2016 - Repairs
County:	Newaygo

Dam Information:

Type:	Earth Fill Embankment
Length:	950 feet
Height:	18.9 feet
Spillways:	Principal Spillway: 10 feet wide, cast in place concrete Auxiliary Spillway: 8 feet wide, cast in place concrete Overflow Spillway: 140 feet, roller-compacted concrete (RCC)
Spillway gates:	Principal Spillway: Center gate, 11 feet wide (motor operated) Right gate, 9 feet wide Left gate, 9 feet wide Auxiliary Spillway: 8 feet wide (motor operated)
Elevation of Top of Dam:	851.0 - Top of concrete wall
Elevation of Emergency Overflow Spillway:	848.9 - Elevation of centerline of roadway
Design High Water Level:	847.4 - Provides 1.5 feet of free board below emergency overflow elevation
Normal Pool Water Level:	845.1 - Summer (June through October) 844.1 - Winter (November through May)

Reservoir Information:

Waterway:

South Branch White River

Total Drainage Area:

94.6 square miles

Contributing Drainage Area:

81.6 square miles

Surface Impoundment:

50 acres

Design Discharge, 200-year flood
(0.5% chance)

2,600 cubic feet per second (7/25/2019 – Copy of
hydrologic data request and estimation is included
in Appendix D for reference).

FLOW REGULATING PROCEDURES

A. GENERAL

1. Normally water will pass through the facility by flowing through either the PRINCIPAL spillway or the AUXILIARY spillway. Each spillway is equipped with a system of stoplogs, slide gates and bar grates to protect the slide gate and a catwalk system to allow a person to access the slide gate operator.
2. In the event of a flows greater than the design flows (200-year, 0.5% chance flood) water can also pass through the facility by overtopping the depressed portion of the embankment. The top and the downstream face of the depressed portion of the embankment is capped with concrete so as to withstand the forces of erosion when water overtops the system. This depressed area of the embankment is considered as an EMERGENCY spillway.

IT IS NOT ACCEPTABLE TO OPERATE THE FACILITY BY FIXING STOPLOGS AND SLIDE GATES IN THE PRIMARY AND AUXILLIARY SPILLWAY AT A DESIRED LAKE LEVEL AND EXPECT THE EMERGENCY SPILLWAY TO HANDLE ALL FLOW RATES IN EXCESS OF NORMAL. ANY EVENT THAT RESULTS IN FLOW OVER THE EMERGENCY SPILLWAY IS CONSIDERED AN EMERGENCY EVENT AND WOULD RESULT IN IMPLEMENTATION OF THE PROCEDURES AND NOTIFICATIONS OUTLINED IN THE EAP PREPARED AND MONITORED BY THE NEWAYGO COUNTY EMERGENCY SERVICES DEPARTMENT.

3. Water levels behind the dam are maintained and controlled seasonally and as needed during major rain events using the stoplog system.

Normal Pool Elevation (June through October): 845.1+/-
Norma Pool Elevation (November through April): 844.1+/-

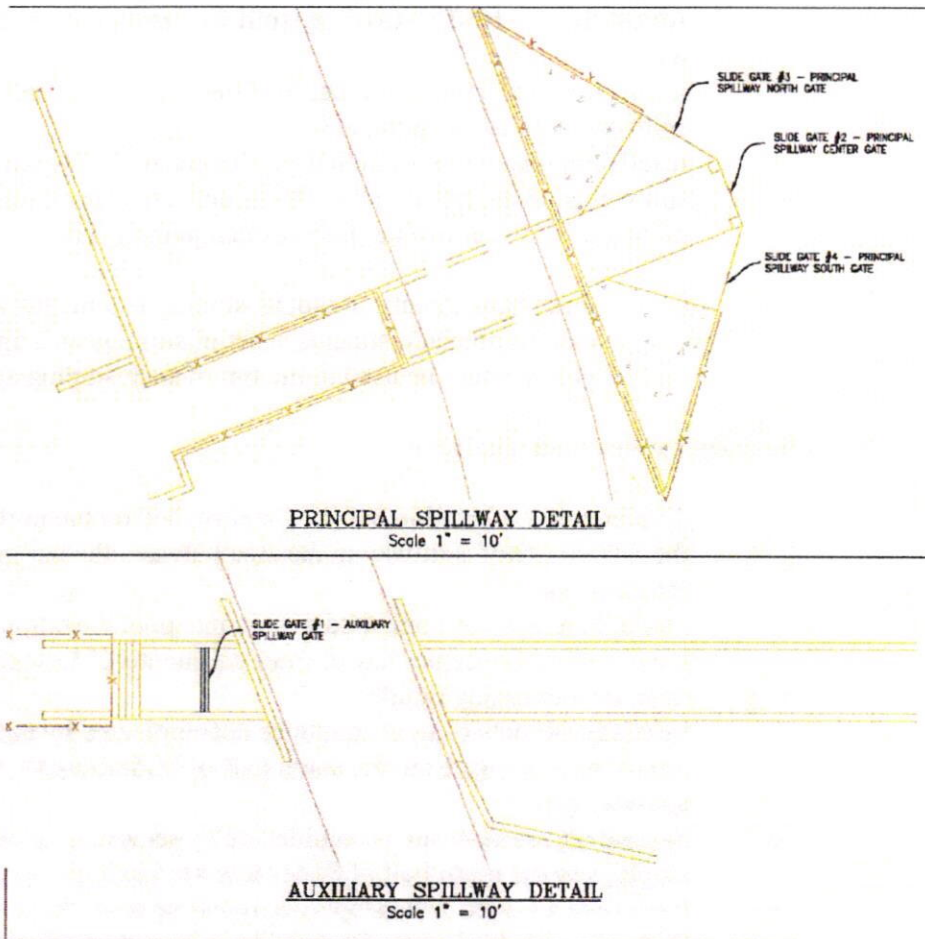
4. A system of slide gates are provided in front of the stoplogs to provide for bottom discharge during normal flows and to restrict the flow during a flood and allow the stoplogs to be accessed for removal or replacement

Bottom discharge allows lower temperature water to be discharged downstream which is better for the fish species downstream.

5. Bar grates are provided in front of the slide gates to protect the gates from being damaged by large floating/semi-floating objects carried downstream by flow in the river that could bend, warp or otherwise damage the gates.

6. Slide Gate identification and location

- a. Slide Gate #1 – Auxiliary spillway gate
- b. Slide Gate #2 – Principal spillway center gate
- c. Slide Gate #3 – Principal spillway north gate
- d. Slide Gate #4 – Principal spillway south gate



B. NORMAL OPERATION

1. Normal Seasonal Pool Elevations

- a. Summer (June through October): 845.1+/-
- b. Winter (November through April): 844.1+/-

2. Initial stop log and slide gate Summer settings (Pool Elevation 845.4+/-).
For winter settings, subtract 1 foot from elevations listed.

- a. Install stoplogs in Gate #2 (Principal spillway center gate) to elevation 845.00+/-.

- b. Adjust Slide Gate #2 (Principal spillway center gate) to be open 18 inches
- c. Install stoplogs in Slide Gate #3 (Principal spillway north gate) & Slide Gate #4 (Principal spillway south gate) to elevation 845.00+/-.
- d. Adjust Slide Gates #3 (Principal spillway north gate) & Slide Gate #4 (Principal spillway south gate) to be open 18 inches.
- e. Adjust Slide Gate #1 (Auxiliary spillway gate) to be open 12 inches.
- f. Install stoplogs in the north half of Slide Gate #1 (Auxiliary spillway gate) to elevation 845.00+/-.
- g. Install stoplogs in the south half of Slide Gate #1 (Auxiliary spillway gate) at elevation 844.80+/- and adjust as required to maintain the water level at the seasonal pool elevation.

(1) Fine Adjustments: a typical stoplog is 6 inches wide. For making fine adjustments, a set of stoplogs of 2 inches and 4 inches could be used in the top of each stoplog system

3. Adjustments to maintain lake level

- a. A reference to elevation 845.1+/- is provided on the north wall of the AUXILIARY spillway in the area between the bar grate and the slide gate.
- b. Check lake level as compared to seasonal pool elevation desired at a minimum of once per day or more frequently if flow rates in the river are increasing rapidly.
- c. First adjustments of flow should be accomplished by adding or removing stoplogs from the south half of Slide Gate #1 Auxiliary spillway gate.
- d. Second adjustments are accomplished by removing or adding stoplogs to the north half of Slide Gate #1 Auxiliary spillway gate.
- e. Each time a 6-inch wide stoplog is removed from the north half of Slide Gate #1, Slide Gate #1 should be opened an additional 6 inches from its initial setting.

C. HIGH FLOW OPERATION

- 1. Increasing flow rate in river causing lake level to rise (Summer settings (Pool Elevation 845.1+/-))
 - a. **GENERAL NOTE REGARDING THE REMOVAL OF STOPLOGS:** As stoplogs are removed from the gates, the rate of water flowing over the remaining stoplogs increases making it more and more difficult to remove additional stoplogs. The rate of flow can be temporarily reduced to allow stoplog removal by first

closing the slide gate and restricting the rate of flow under it... after the additional stoplogs are removed, the slide gate should be reopened to the proper elevation.

- b. As river flows increase, pool elevation should be monitored daily until normal pool elevation is maintained. In extreme rainfall events or quick spring thaws, pool elevation may need to be monitored hourly. Also, monitor boat launch site. Once water is within a couple feet of the opening in the concrete walls, close the boat launch and sandbag the opening in the freeboard wall near the edge of pavement.
 - c. Remove one 6-inch stoplog from the south half of Slide Gate #1 (Auxiliary spillway gate)
2. If lake level continues to rise
 - a. Remove one 6-inch stoplog from the north half of Slide Gate #1 (Auxiliary spillway gate)
 - b. Open Slide Gate #1 (Auxiliary spillway gate) an additional 6 inches.
3. If lake level continues to rise
 - a. Remove one 6-inch wide stoplog from Slide Gate #2 – Principal spillway center gate
 - b. Open Slide Gate #2 – Principal spillway center gate an additional 6 inches
4. If lake level continues to rise
 - a. Remove one 6-inch stoplog from Slide Gate #3 – Principal spillway north gate
 - b. Open Slide Gate #3 – Principal spillway north gate an additional 6 inches
5. If lake level continues to rise
 - a. Remove one 6-inch stoplog from Slide Gate #4 – Principal spillway south gate
 - b. Open Slide Gate #4 – Principal spillway south gate an additional 6 inches
6. If lake level continues to rise
 - a. Repeat steps "1" through "6" until the rate of discharge through the two spillways is equal to the flow in the river and the lake level remains at a constant elevation

7. If lake level continues to rise

- a. In the event that flows in the river cause the lake level to rise even after all stoplogs have been removed and all slide gates are fully open, the water level will increase until water starts to flow through the EMERGENCY SPILLWAY. When this condition occurs, flow in the river has reached or exceeded the design flow for the facility. EMERGENCY NOTIFICATION AND EVACUATION PROCEDURES AS OUTLINED BY THE NEWAYGO COUNTY WHITE RIVER EMERGENCY EVACUATION PLAN FOR DAM FAILURE OR FLOODING SHOULD BE ACTIVATED. COPY OF THE PLAN CAN BE FOUND IN APPENDIX C.
 - i. City of White Cloud responsibilities include:
 - 1. Closing the road way over the dam
 - 2. Flood fight operations including diking, sandbagging, ect.
 - 3. Conduct primary flood monitoring and spotting.

D. SUBSIDING FLOW OPERATION

- 1. If decreasing flow rates in river cause the lake level to subside and no additional rains are in the forecast, slowly adjust stoplogs and slide gates as described below until normal pool levels are observed.
 - a. Add one 6-inch stoplog to Slide Gate #4 – Principal spillway south gate (maintain top at or below elevation 845.00)
 - b. Lower slide Slide Gate #4 – Principal spillway south gate by 6 inches (maintain a minimum opening under slide gate 4 of 18 inches)

2. If lake level continues to subside
 - a. Add one 6-inch stoplog to Slide Gate #3 – Principal spillway north gate (maintain top at or below elevation 845.00)
 - b. Lower Slide Gate #3 – Principal spillway north gate by 6 inches (maintain a minimum opening under Slide Gate #3 – Principal spillway north gate of 18 inches)
3. If lake level continues to subside
 - a. Add one 6-inch stoplog to Slide Gate #2 – Principal spillway center gate (maintain top at or below elevation 845.00)
 - b. Lower Slide Gate #2 – Principal spillway center gate by 6 inches (maintain a minimum opening under Slide Gate #2 – Principal spillway center gate of 18 inches)
4. If lake level continues to subside
 - a. Add one 6-inch stoplog to the north half of Slide Gate #1 – Auxiliary spillway gate (maintain top at or below elevation 845.00)
 - b. Lower Slide Gate #1 – Auxiliary spillway gate by 6 inches (maintain a minimum opening under Slide Gate #1 – Auxiliary spillway gate of 12 inches)
5. If lake level continues to subside
 - a. Add one 6-inch stoplog to the south half of Slide Gate #1 – Auxiliary spillway gate (maintain top at or below elevation 845.00)
6. If lake level continues to subside
 - a. Repeat steps "1" through "6" until the rate of discharge is equal to the flow in the river and the lake level remains at a constant elevation of 845.10. Pool levels should be monitored daily during adjustments until pool elevation is stabilized at the desired elevation.

MAINTENANCE PROCEDURE AND SCHEDULE

A. BAR GRATE

1. GENERAL

- a. The bar grates in front of gates on the PRINCIPAL spillway hinge at the upper supports. At normal water levels in the lake, these grates can be swung up clear of the water and supported on a floating raft for performing maintenance work. The bar grate in the AUXILIARY spillway is held in place with a pin at each of the upper corners of the grate. With the pins removed, the entire grate can be removed for maintenance.

2. Debris removal

- a. Inspect and clean in spring and in fall of each year

3. Paint

- a. Inspect annually
- b. Repaint every 5 years or do touch up painting as required to protect steel from corrosion

B. SLIDE GATES

1. Operation and maintenance information to be provided by the slide gate manufacturer
2. Operate gates annually to assure they move freely.

C. STOPLOGS

1. Inspect annually and replace any stoplogs that appear weak or damaged

D. CATWALK SYSTEM

1. Inspect annually and repaint as necessary to keep steel surfaces free from corrosion

E. FENCE

1. Inspect annually and repair/replace as necessary

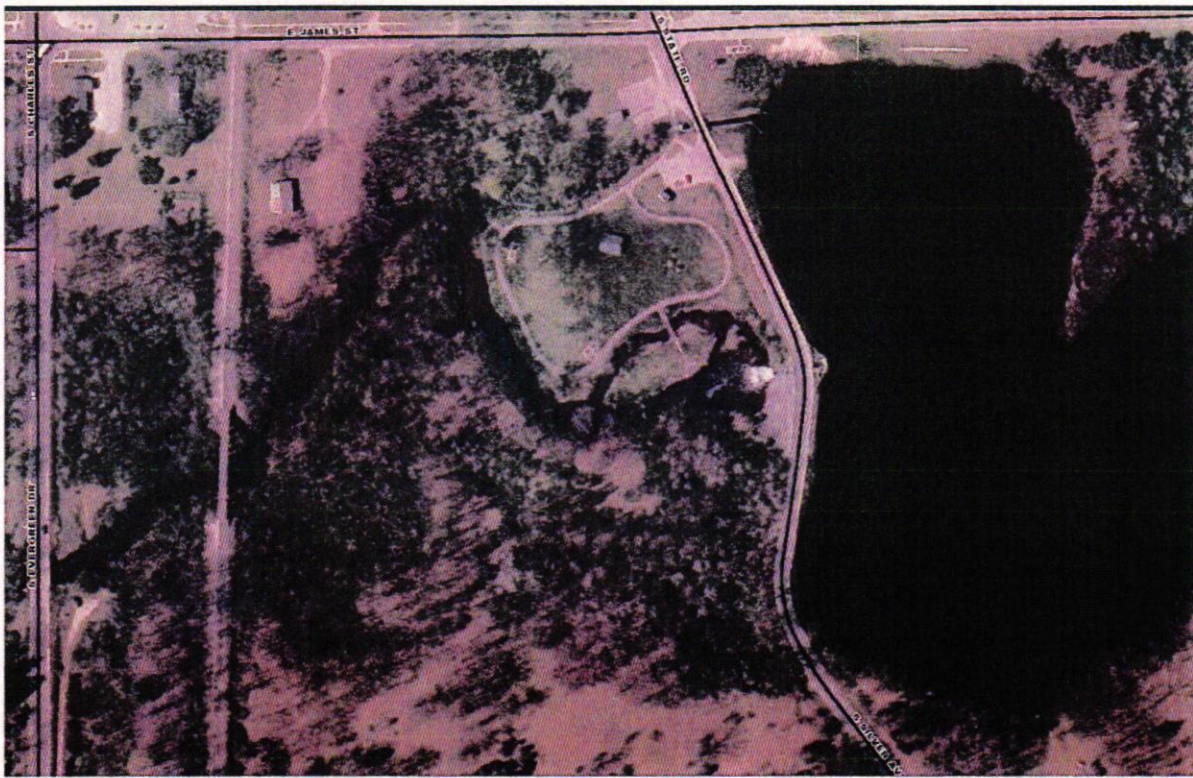
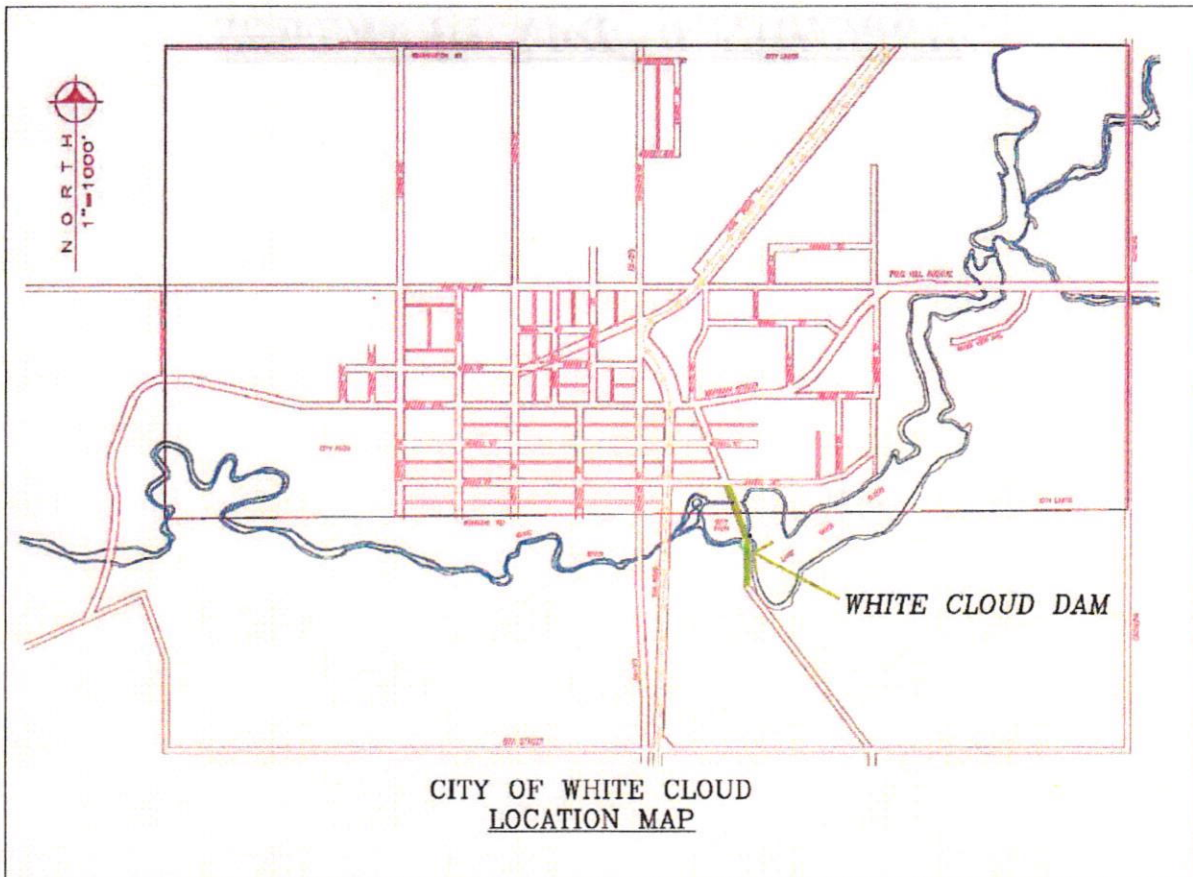
F. CONCRETE WALLS AND SURFACES

1. Inspect annually and repair as necessary

G. EMBANKMENTS

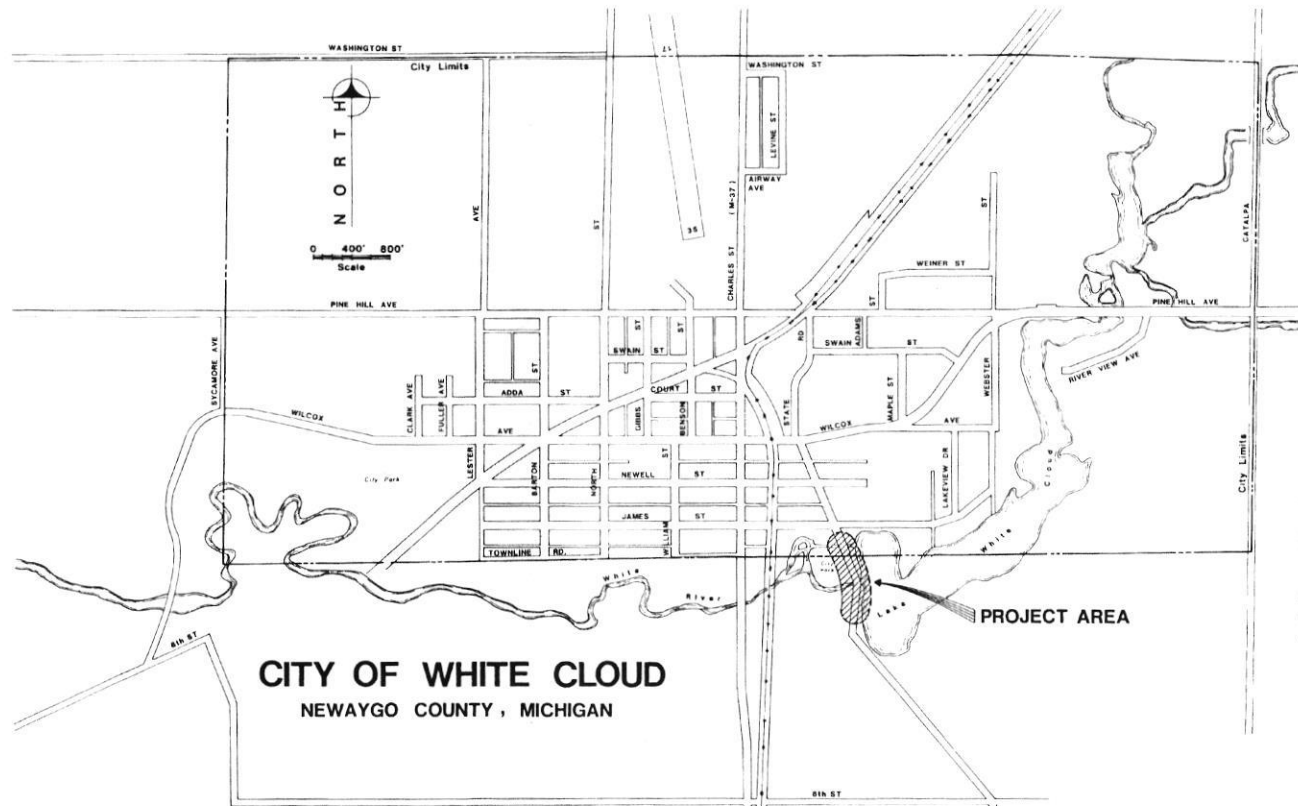
1. Maintain embankment with regular mowing to the toe of slope
2. Keep free of trees/brush

APPENDIX A – LOCATION MAP/AERIAL IMAGERY



APPENDIX B - DAM DRAWINGS

WHITE CLOUD DAM RECONSTRUCTION



SHEET INDEX

1. Cover Sheet
2. Site Plan
3. Embankment Reconstruction
4. Embankment Cross Sections
5. Fencing and Wingwall Repair: Principal Spillway
6. Slide Gates: Principal Spillway
7. Catwalks: Principal Spillway
8. Slide Gate, Catwalk and Channel Wall Repairs: Auxiliary Spillway
9. Bar Grate and Retaining Wall Details

NOTE: Revised December, 1989 to reflect OMR review comments.

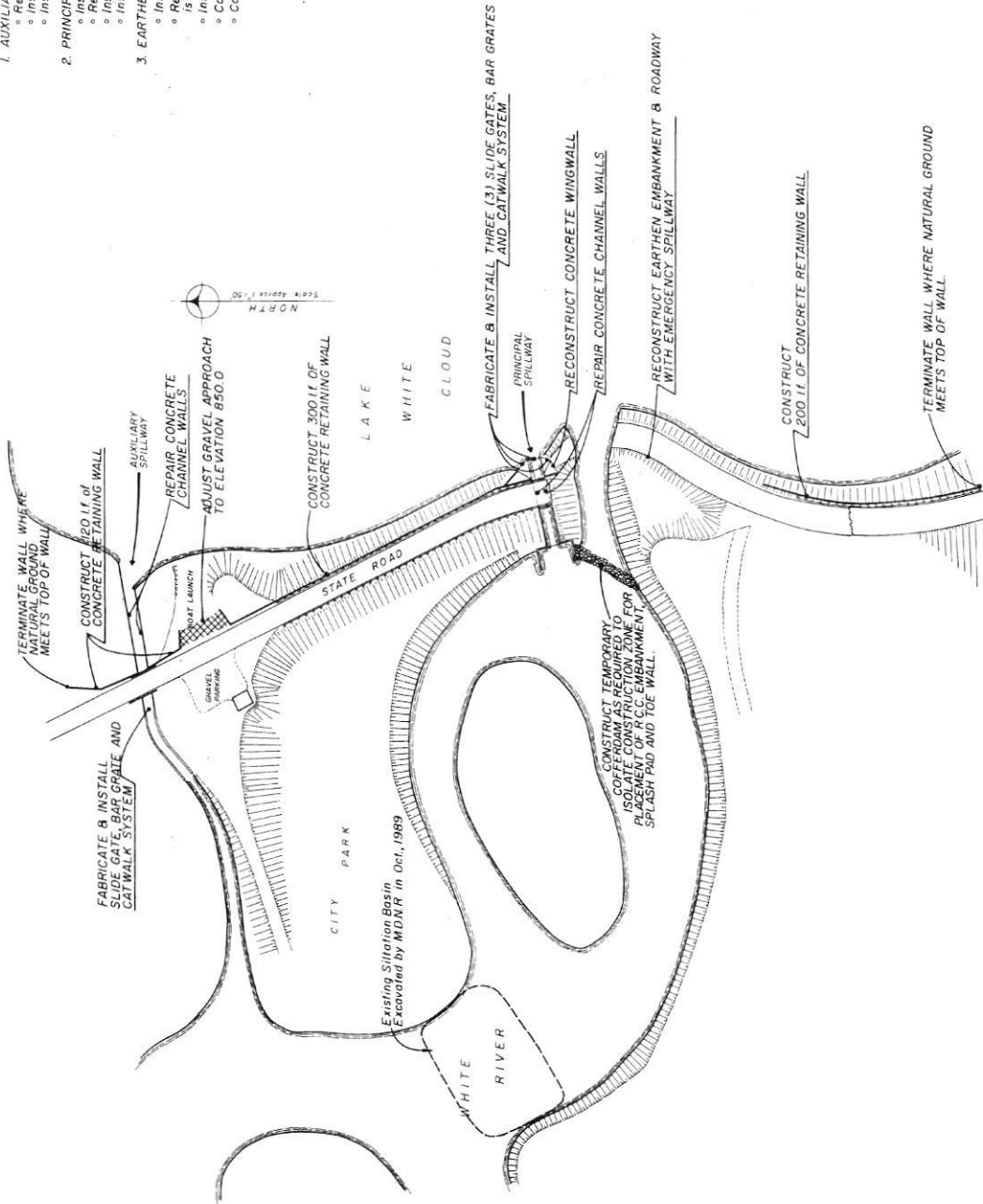


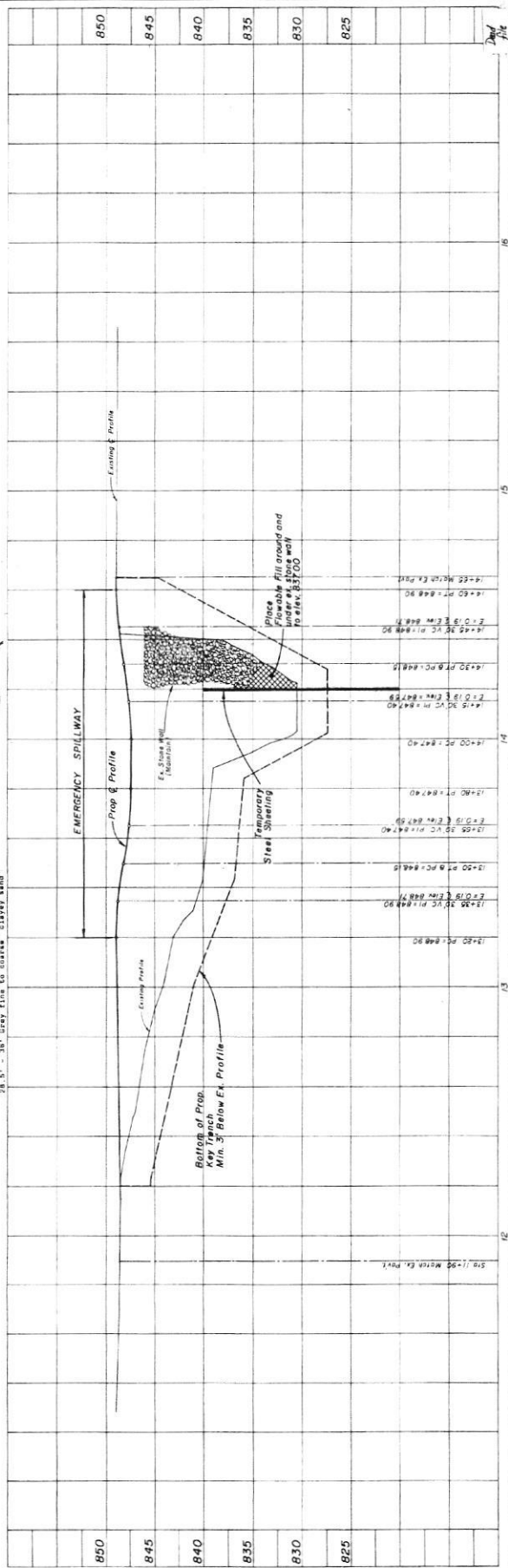
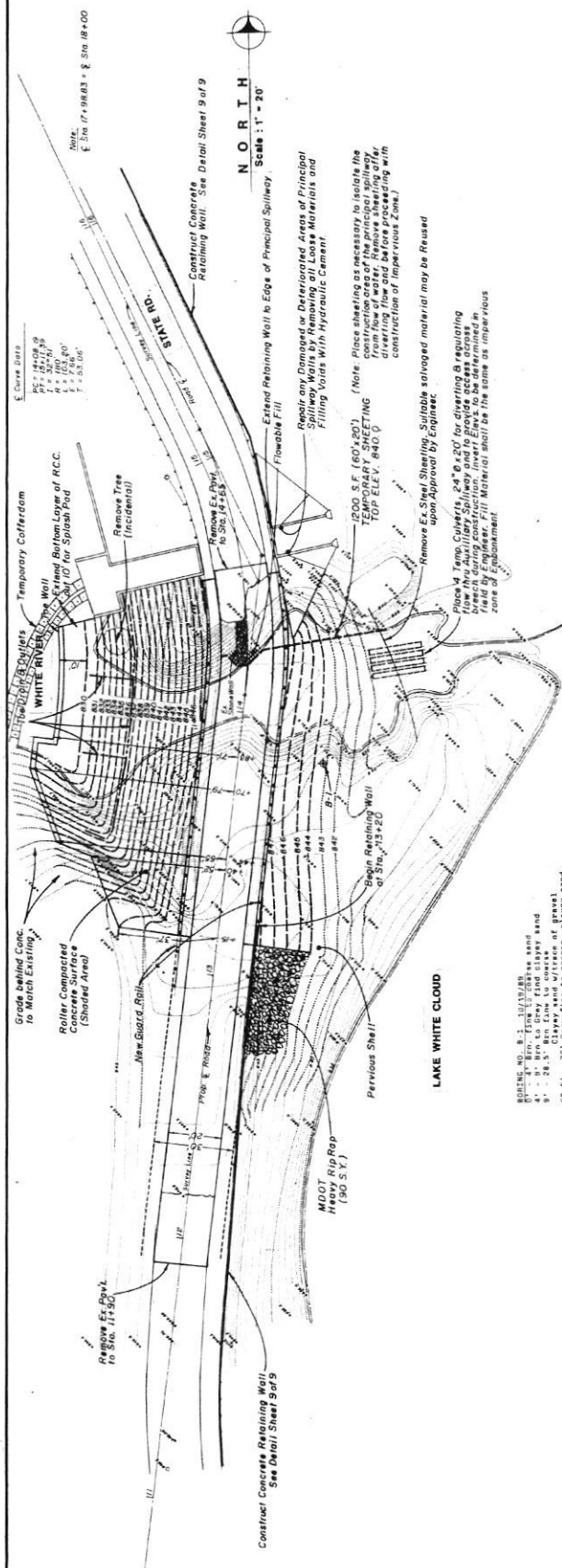
olson, meyers & may, inc.
civil engineers
1550 s. beltline se
grand rapids, mi. 49506
616-957-4350

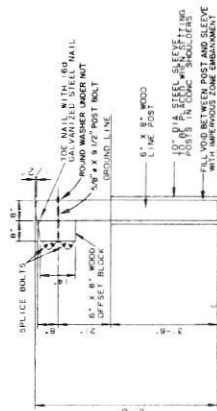
project number	01355
sheet number	1 of 9

CONSTRUCTION PRIORITY SCHEDULE

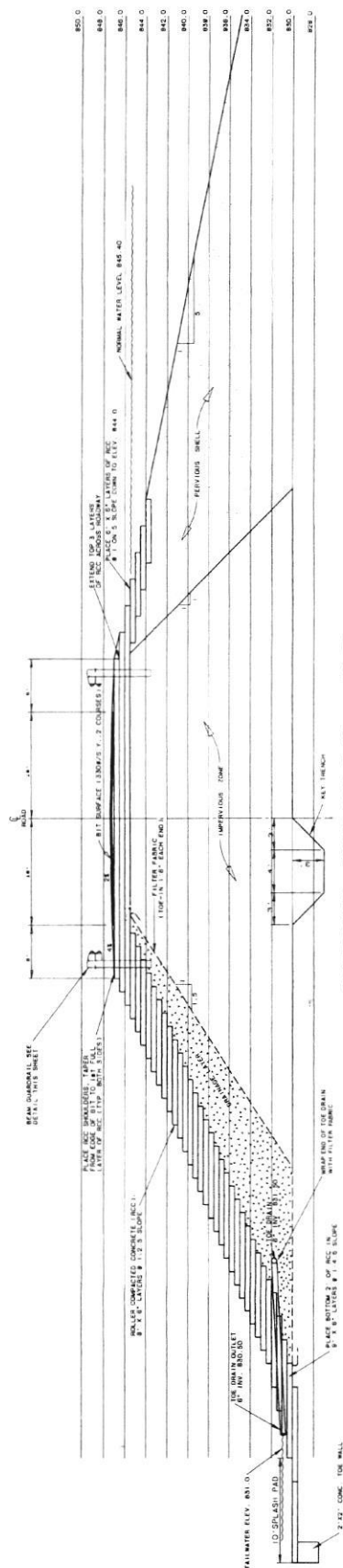
- 1. **AUXILIARY SPILLWAY AREA**
 - o Repair Concrete Channel Walls
 - o Install Slide Gate & Bar Grate
 - o Install Catwalk
- 2. **PRINCIPAL SPILLWAY AREA**
 - o Install Temporary Sheeting
 - o Rebuild South Wingwall
 - o Install Slide Gates & Bar Grates
 - o Install Catwalk System
- 3. **EARTHEN EMBANKMENT AREA**
 - o Install Temporary Culverts
 - o Regulate Flow Through Culverts Until Flow is Diverted to Auxiliary Spillway
 - o Install Cofferdam
 - o Construct Emergency Spillway
 - o Construct Retaining Walls



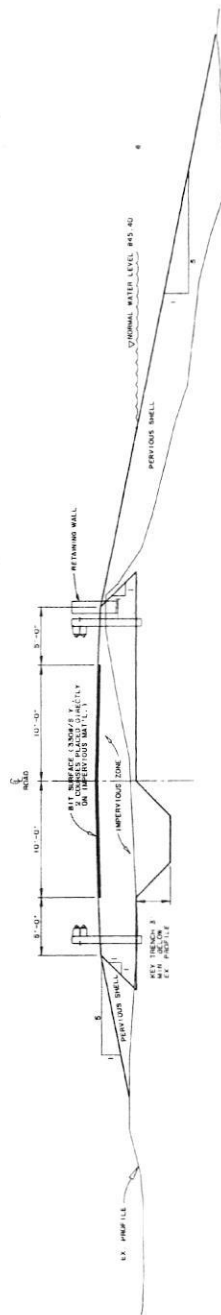




TYPICAL MDOT - TYPE B
BEAM GUARDRAIL 8 POST
TYPICAL POST SPACING = 6'-3"
NO SCALE



EMERGENCY SPILLWAY @ Stg. 14+00



TYPICAL SECTION THRU EMBANKMENT @ Sta. 13+00

OUTSIDE OF EMERGENCY SPILLWAY
SCALE 1" = 5'

City of White Cloud Newaygo County, Michigan WHITE CLOUD DAM RECONSTRUCTION		REVISIONS BY DATE REVISIONS IN ACCORDANCE WITH DATE
APPROVED BY WATER DEPT. NUMBER E. 20		NAME DATE
REVIEWED IN ACCORDANCE WITH DATE		BY DATE REVISIONS IN ACCORDANCE WITH DATE

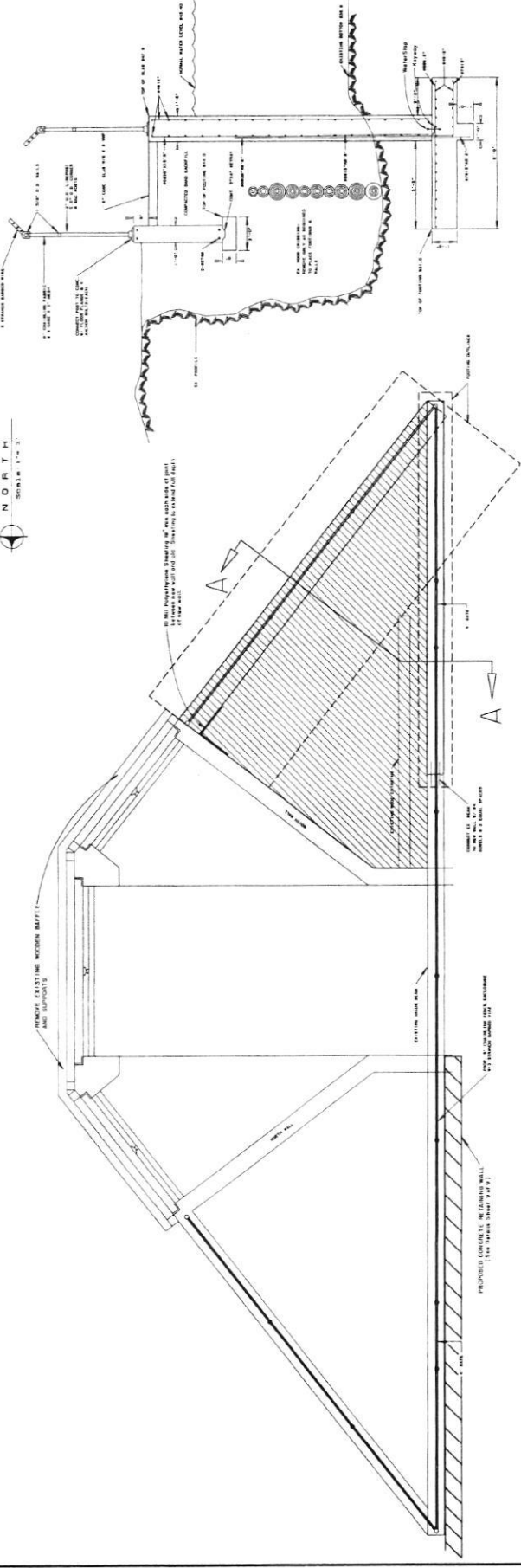
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 1000 N. MILLING RD
 GRAND RAPIDS, MI 49508
 616-791-1300
 616-791-1300



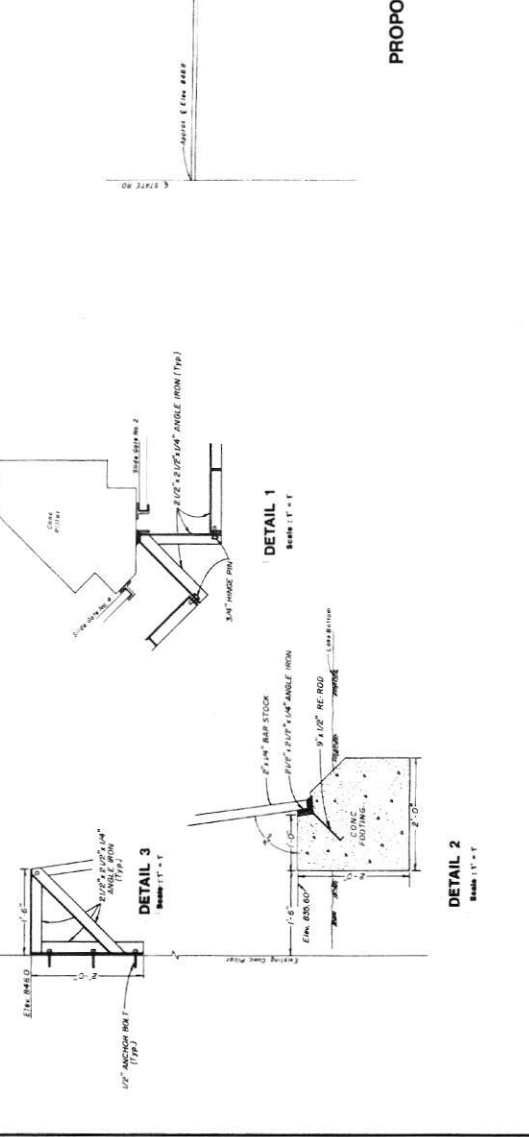
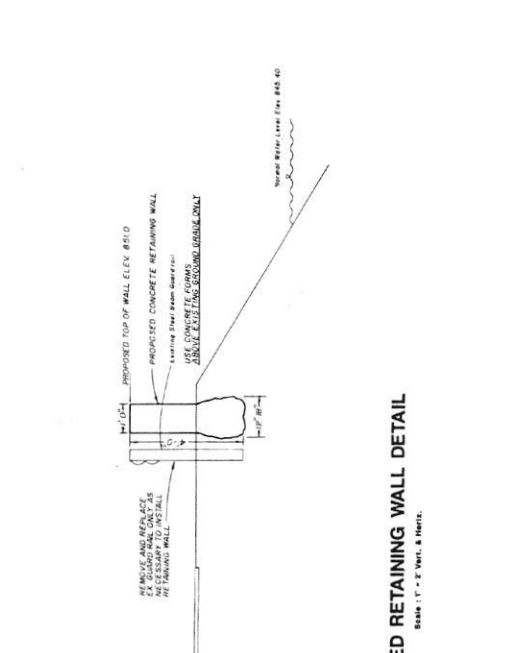
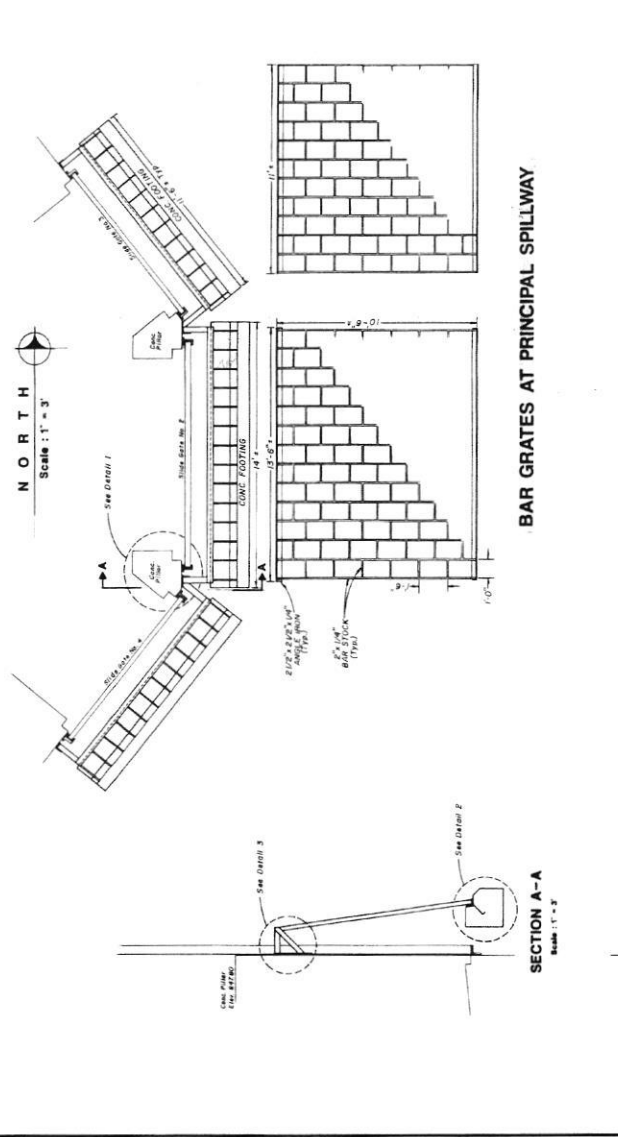
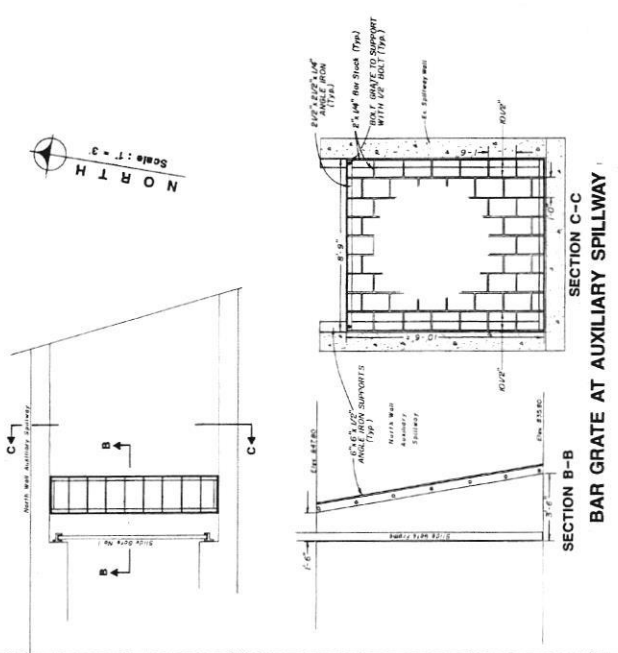
PROJECT NUMBER	1305
DATE	11/11/11
DESIGNED BY	J.L. B. J.L./B.S.B.
CHECKED BY	H.C.B. H.C./B.S.B.
DATE	11/11/11

SECTION A-A

- Notes:
1. Existing fence and roadway to be removed and replaced with existing concrete wall.
 2. All new concrete shall be cast in place and finished with a broom finish.
 3. All new concrete shall be cast in place and finished with a broom finish.
 4. All new concrete shall be cast in place and finished with a broom finish.
 5. All new concrete shall be cast in place and finished with a broom finish.



NEW CONCRETE CONSTRUCTION



APPENDIX C – EMERGENCY ACTION PLAN



NEWAYGO COUNTY
WHITE RIVER EMERGENCY EVACUATION PLAN
FOR DAM FAILURE AND FLOODING
2017 EDITION



Prepared by:
Newaygo County Emergency Services Department
306 S North Street, PO Box 885
White Cloud, Michigan 49349
Abigail B. Watkins P.E.M, M.E.P Director
(231) 689-7354

Geographical Data & Map Provided by: Newaygo County Geographic Information Systems

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PART III: DAM FAILURE HAZARD SPECIFIC ANNEX

Dam Failure Hazard Specific Annex

- Attachment 1 – Condition A: Emergency Notification Flowchart for the White Cloud Dam
- Attachment 2 – Overview of Population Impacts for White Cloud Dam Condition A
- Attachment 3 – Evacuation Zone Maps and Addresses
- Attachment 4 – Local State of Disaster (Template for Dam Failure)
- Attachment 5 – Evacuation Press Release (Template for Dam Failure)

PART IV: FLOOD HAZARD SPECIFIC ANNEX

Flood Hazard Specific Annex

- Attachment 1a – Flood Impact Areas Upstream
- Attachment 1b – Flood Impact Areas Downstream
- Attachment 2 – Local State of Emergency (Template for Flood)
- Attachment 3a – Evacuation for Flood Press Release Template
- Attachment 3b – Flood Safety Fact Sheet
- Attachment 3c – PH Flood Fact Sheet

PREFACE

The worst recorded dam failure in U.S. history occurred in Johnstown, Pennsylvania, in 1889. More than 2,200 people were killed when a dam upstream from Johnstown failed; sending a huge wall of water downstream which completely inundated the town.

Dams in Michigan are regulated by Part 307, Inland Lake Levels, and Part 315, Dam Safety, of The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. As defined the Act, a dam means an artificial barrier, including dikes, embankments, and appurtenant works, that impounds, diverts, or is designed to impound or divert water, or water and any other liquid or material in the water, and that is or will, when complete, be 6 feet or more in height, and has or will have an impounding capacity at design flood elevation of 5 surface acres or more. In Michigan there are 2,500 dams.

The DEQ also classifies dams into three different categories:

1. High Hazard Potential: Failure may cause serious damage to inhabited homes, agricultural buildings, campgrounds, recreational facilities, industrial or commercial buildings, public utilities, main highways or class I carrier railroads, or where environmental degradation would be significant, or where danger to individuals exists with the potential for loss of life. (Sec.31503 [11])
2. Significant Hazard: failure may cause damage limited to isolated inhabited homes, agricultural buildings, structures, secondary highways, short line railroads, or public utilities, where environmental degradation may be significant, or where and danger to individuals exists. (Sec. 31505 [5])
3. Low Hazard: failure may cause damage limited to agriculture, uninhabited buildings, township or county roads, where environmental degradation would be minimal, and danger to individuals is slight or nonexistent. (Sec. 31504 [2])

Of the 2,500 dams in Michigan, according to the United States Army Corps of Engineers National Inventory of Dams, 1,005 of them are state regulated under the Department of Environmental Quality. 170 of those State Regulated Dams are identified as High Hazard and 154 are identified as Significant Hazard dams. The White Cloud Dam is classified by the DEQ and the National Inventory of Dams as being a High Hazard Dam due to its reservoir capacity and failure impacts downstream.

The Newaygo County Emergency Services Department, in conjunction with the Newaygo County Local Emergency Planning Team and The City of White Cloud, have developed this evacuation plan for the affected areas downstream from the White Cloud Dam on the White River. This plan should be used in conjunction with the current Newaygo County Emergency Operations Plan. This plan meets the Emergency Action Plan requirements under Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, Section 324.31523

Part I – Introduction

Purpose

The purpose the Newaygo County White River Evacuation Plan is to save lives, minimize damage, and enhance emergency response operations during an Emergency Classification at the White Cloud Dam on the White River within Newaygo County. This plan sets forth the emergency response organizational structure and management system under which Newaygo County will operate during a dam failure or flooding incident. It describes how different government and non-governmental entities will interact with each other to effectively disseminate out emergency alerts and information, conduct emergency evacuations, and shelter persons who would be impacted by a dam failure or flooding event on the White River. This plan is a supporting Hazard Specific Annex to the Newaygo County Emergency Operations Plan.

Scope

The Newaygo County White River Evacuation Plan is local in application and pertains to any four of the Emergency Classifications at the White Cloud Dam on the White River within Newaygo County. It describes actions necessary to accomplish the warning and evacuation of areas within Newaygo County which may be impacted by flood waters.

Objectives

The objectives of the Newaygo County White River Evacuation Plan are:

1. To establish guidance for disseminating out emergency alerts and emergency information to impacted areas.
2. To establish clear lines of authority and responsibility for managing emergency response operations during an Emergency Classification at the White Cloud Dam on the White River within Newaygo County.
3. To establish guidance for conducting emergency evacuations including identifying impacted areas, emergency evacuation routes, and supporting evacuation facilities including reception centers and temporary emergency shelters.
4. To establish guidance for securing the impacted area including perimeter and access.
5. To establish guidance for search and rescue and recovery.
6. To establish guidance for short term recovery.

Plan Components

The developed guidelines and procedures for dealing with existing and potential emergency incidents on the White River are defined in the plan below. The basic plan, and the functional and hazard-specific annexes outline an organized, systematic method to mitigate, prevent, prepare for, respond to, and recover from incidents.

Basic Plan

The Basic Plan describes the purpose, scope, situation, policies, and concept of operations for the response and recovery activities to an Emergency Classification at the White Cloud Dam on the White River within Newaygo County.

Dam Failure Hazard Specific Annex

The Dam Failure Hazard Specific Annex describes incident goals, operational period objectives, safety considerations, and other critical response objectives for the response to and recovery from a Condition A – Imminent Failure of the White Cloud Dam on the White River within Newaygo County. This section of the plan also contains supporting planning documents including Inundation Maps, Evacuation Zone information, Evacuation routes and shelters, etc.

Flood Hazard Specific Annex

The Flood Hazard Specific Annex describes incident goals, operational period objectives, safety considerations, and other critical response objectives for the response to and recovery from a Condition C – High Flows of the White Cloud Dam on the White River within Newaygo County. This section of the plan also contains supporting planning documents including Inundation Maps, Evacuation Zone information, Damage Assessment Supporting documentation, etc.

PUBLIC ACCESS

(Supervised and Documented Access For Official Use Only)

The Introduction and Basic Plan sections of the Newaygo County White River Evacuation Plan 2016 are public documents. Access to both are available on the Newaygo County Emergency Services Department Website at <http://www.countyofnewaygo.com/EmergencyServices.aspx>

Both the Dam Failure Hazard Specific Annex and Flood Hazard Specific Annex sections, which include personal contact information, inundation and evacuation maps, and other supporting documentation are considered except from the Michigan Freedom of Information Act (MCL 15.243y). Unauthorized possession of this information to the extent that it pertains to a specific vulnerable target could constitute a violation of the Michigan Anti Terrorism Act (MCL 750.543r).

The information contained in this document is intended for official emergency preparedness use only.

Part II – Basic Plan**NEWAYGO COUNTY WHITE RIVER EMERGENCY
EVACUATION PLAN**

UNDER THE AUTHORITY VESTED IN ME BY P.A. 390, "THE MICHIGAN EMERGENCY MANAGEMENT ACT" AND "THE NEWAYGO COUNTY EMERGENCY MANAGEMENT RESOLUTION", I CERTIFY THAT THIS NEWAYGO COUNTY WHITE RIVER EVACUATION PLAN DATED **2016** IS A SUPPORTING PLAN TO THE NEWAYGO COUNTY EMERGENCY OPERATIONS PLAN DATED 2015 AND IS THE OFFICIAL EMERGENCY PLANNING DOCUMENT FOR THE WHITE RIVER DURING RESPONSE AN EMERGENCY CLASSIFICATION AT THE WHITE CLOUD DAM ON THE WHITE RIVER WITHIN NEWAYGO COUNTY.

PATRICK GARDNER, Chairperson
Newaygo County Board of Commissioners

Date

DON BARNHARD, Mayor
City of White Cloud

Date

ABIGAIL B. WATKINS P.E.M., M.E.P, Director
Newaygo County Emergency Services
Department

Date

HAZARD ANALYSIS

Newaygo County is vulnerable to a wide range of natural, technological and human-related hazards. Managing these many varied threats, and protecting life and property, are the challenges faced by emergency management officials at all levels of government. In order to attain effective emergency management capability, an understanding of the multitude of hazards that confront the County must first be obtained, and then a plan must be developed to systematically address those threats.

A hazard analysis provides an understanding of the potential threats facing the community. By pinpointing the location, extent and magnitude of past disasters or emergency situations, and by examining knowledge of new or emerging risks, it is possible to estimate the probability of such events occurring and the vulnerability of people and property. By viewing this information along with relevant land use, economic, and demographic information from a well prepared "community profile," emergency management coordinators can make assumptions about those segments of the community that might be impacted in a given situation. This, in turn, allows them to set priorities and goals for resource allocation and response, recovery, and mitigation activities prior to an incident occurring.

The following Dam Failure and Flooding Hazard Information comes from the Newaygo County Hazard Management Plan 2015 Edition.

Hazard Description

Flood hazards in Michigan include dam failures, riverine flooding, urban flooding, and Great Lakes shoreline flooding, and erosion. Flooding in Michigan can cause extensive property damage, reduced quality of life, and even injuries and deaths. Flooding can be caused by weather hazards including thunderstorms, severe winter weather, and extreme temperatures, technological hazards including dam failures, sewer pumping, and lift station failures, and human related hazards such as terrorism, sabotage, or civil disturbances.

Every year, flooding causes more than \$2 billion of property damage in the U.S. Floods can damage or destroy public and private property, disable utilities, make roads and bridges impassable, destroy crops and agricultural lands, cause disruption to emergency services, and result in fatalities. People may be stranded in their homes for several days without power or heat, or they may be unable to reach their homes at all. Long-term collateral dangers include the outbreak of disease, widespread animal death, broken sewer lines causing water supply pollution, downed power lines, broken gas lines, fires, and the release of hazardous materials. In a high risk area, a home has at least a 26% chance of being damaged by a flood during the course of a 30-year mortgage, compared to a 9% chance of being damaged by fire.

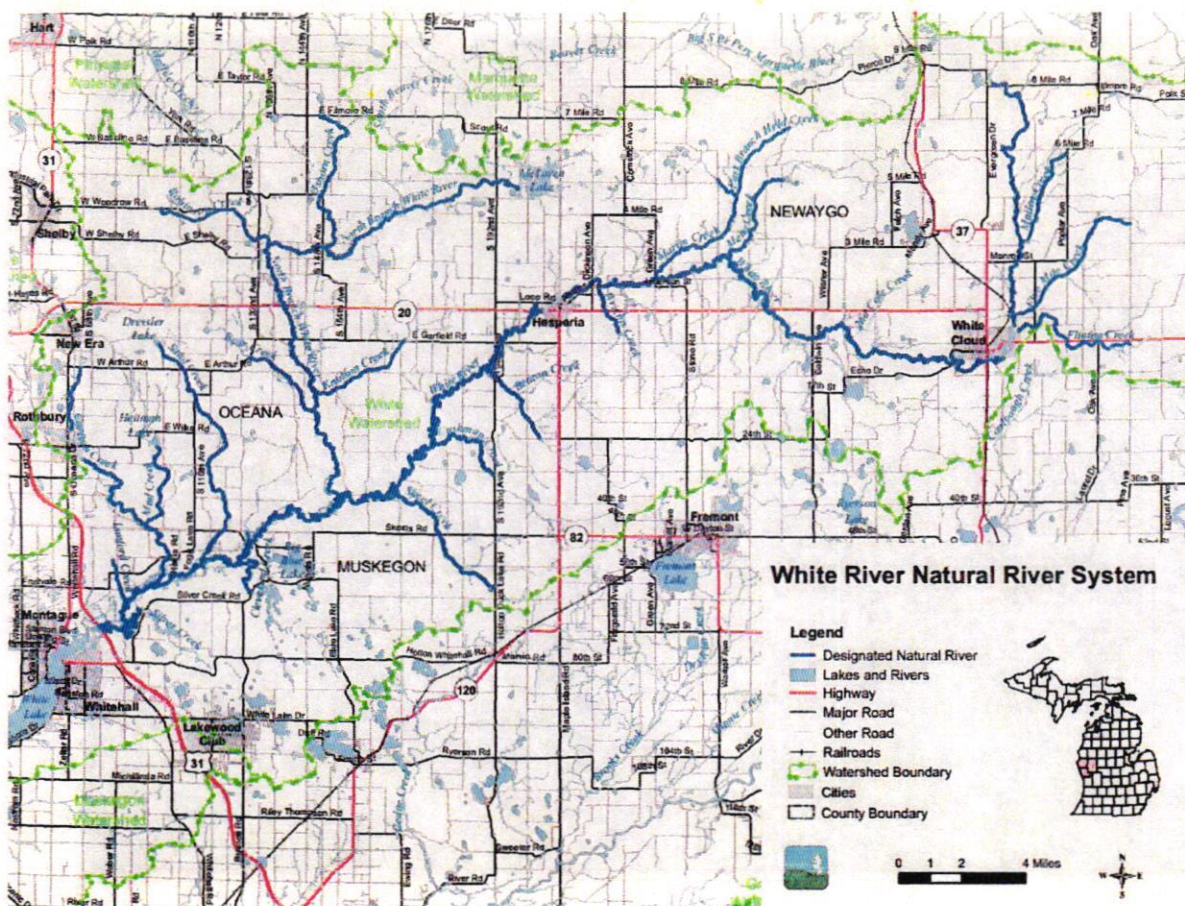
Flooding in Newaygo County

Like many Michigan communities, Newaygo County is permeated with numerous lakes, rivers, and streams of varying sizes, including 234 natural lakes and ponds, 356 miles of rivers and streams covering 12,543 acres. Naturally, these have resulted in a significant amount of seasonal and permanent housing development along the scenic waterways and have added to the area's popularity in recreational activities.

Along with the role that the water base has played in the jurisdiction's development, it has also resulted in a significant flooding risk to those same areas of the population. Minor flooding occurs annually along the low lying areas of the Muskegon River and White River, which regularly affect the permanent and seasonal residences in the associated sub-divisions.

The White River

The White River Watershed is located in west central Michigan and is approximately 83 miles long from its start in northeastern Newaygo County to its mouth at White Lake and eventually, Lake Michigan. It covers 344,166 acres and spans three counties: Muskegon, Newaygo, and Oceana. The White River is divided into two branches, the North Branch and the South Branch. The North Branch has headwaters in central Oceana County while the South Branch originates in eastern Newaygo County.



The White River rises from the extensive Oxford Swamp in north central Newaygo County and flows in a southwesterly direction into White Lake then into Lake Michigan, near the towns of Whitehall and Montague. The White River system drains a surface area of approximately 300,000 acres and includes about 253 miles of streams.

White Cloud Dam

The White Cloud Dam is located on the White River in the City of White Cloud. The dam was built in 1872 and is 18.89 foot high, 950 foot long earthen embankment with three spillways. The dam's impoundment is 475 acres. The Principal Spillway and the Secondary Spillway control the impoundment elevation and flow during normal conditions. The Emergency Spillway is an overflow structure, designed to overtop when the other spillways cannot adequately pass the flow through the dam. The dam structure supports State Street in the City of White Cloud and S Sliver Ave in Everett Township.

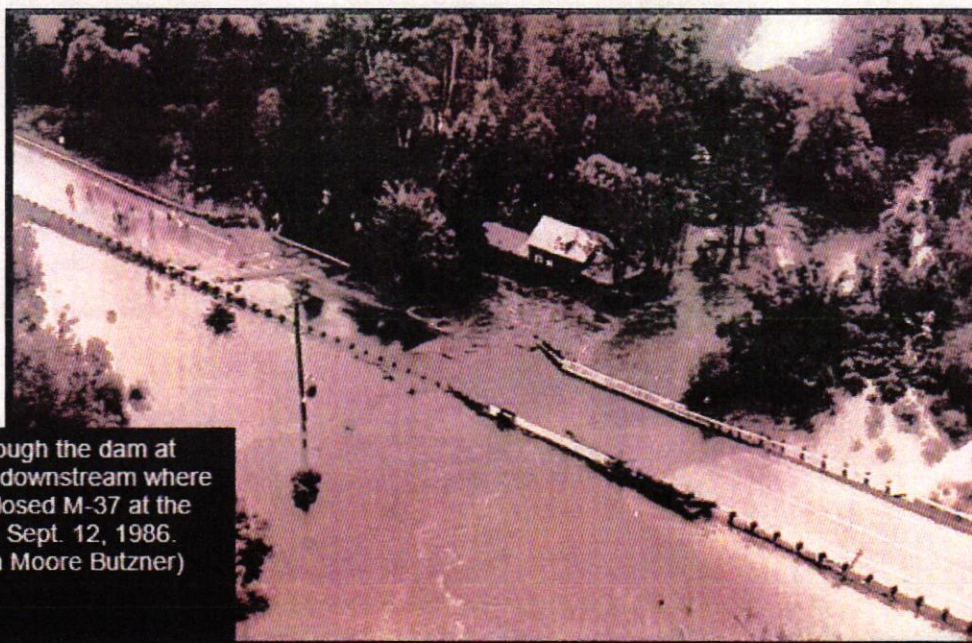
The dam is presently owned and operated by the City of White Cloud. Policing and maintenance of the Dam and roadway inside the White Cloud City limits is under the jurisdiction of the City of White Cloud. Policing and maintenance of the roadway outside the city limits is the jurisdiction of the Newaygo County Sheriff's Office and Newaygo County Road Commission.



The White Cloud Dam is listed as a High Hazard Dam by the Michigan DEQ. This dam is noteworthy because of its location upstream from M-37 and the Marquette Railroad Bridge just south of the City of White Cloud. A failure on this dam would likely result in loss of life and/or damage to structures, roads, utilities, crops and the environment. It is unknown if a failure of the White Cloud Dam would cause a failure of the Hesperia Dam.

The White Cloud Dam has experienced two failures since 1872. The dam was destroyed by flooding in 1910 and reconstructed the same year. The dam failed again during the flood of September 1986. During this event the area experienced torrential rainfall. Beginning on September 10, 1986 a slow moving low-pressure system moved across the middle of the Lower Peninsula. In a 24-hour period, the intense rainstorm produced rainfall ranging from 8 to 17 inches over an area 60 miles wide and 180 miles long. In Big Rapids, 19" of rain fell from September 9 to 12. The storm resulted in thousands of people being evacuated due to flooding. Five people were killed and 89 injured. (Up to ten were killed, if indirect effects are included.) About 30,000 homes suffered basement and structural damage and 3,600 miles of roadways were impassable as a result of the failure of four primary bridges and hundreds of secondary road bridges and culverts.

The heavy rainfall resulted in 11 dam failures and 19 others that threatened with failure, resulting in about 1,500 people being evacuated downstream of the dams. The failure and threatened failure of these dams was primarily the result of inadequate spillway capacity. Most of the dams were constructed without an emergency spillway, and didn't have an adequate inspection and maintenance program. The excessive rainfall resulted in the design capacity of the dam being exceeded, causing failure of the dam or intentional breaching of the embankment to save certain portions of the structure. The White Cloud Dam was reconstructed in 1990, with the addition of the overflow spillway to increase the dam's capacity.



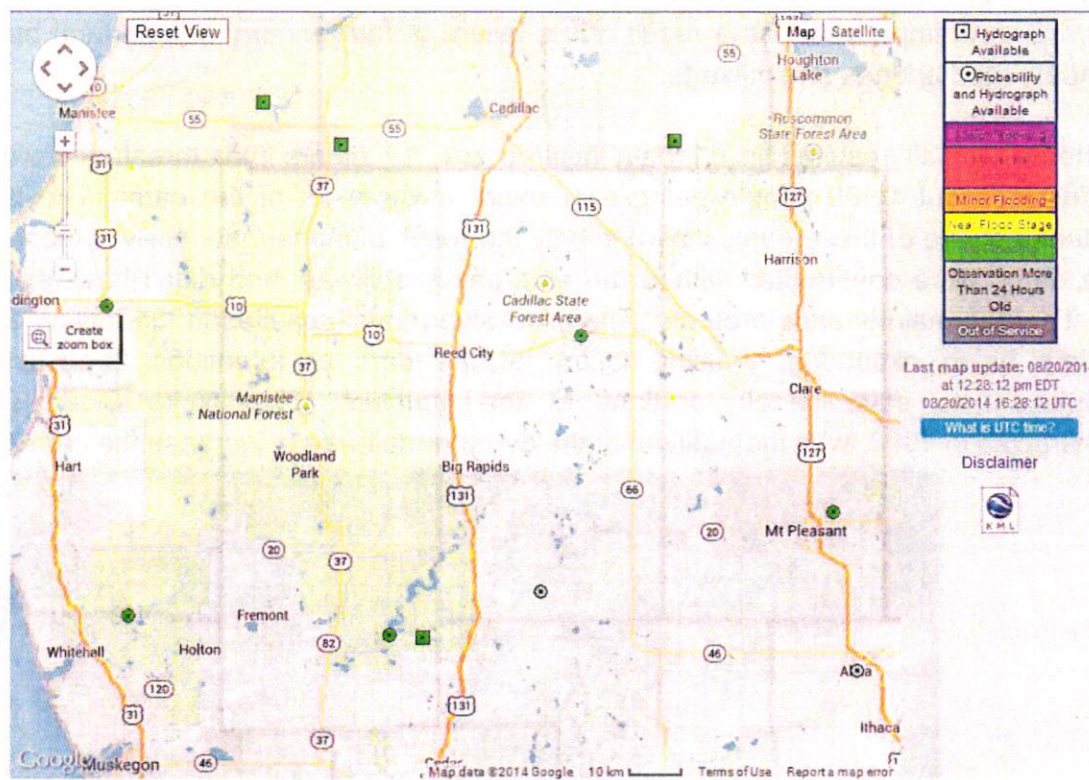
After flood waters burst through the dam at White Cloud, water rushed downstream where it flooded residences and closed M-37 at the south edge of White Cloud, Sept. 12, 1986. (Grand Rapids Press/ Anna Moore Butzner)

Emily Rose Bennett

Hazard Monitoring

A system of United States Geological Survey (USGS) stream gauges exists across Michigan and is linked with a real-time remote monitoring system through the internet (www.waterwatch.usgs.gov). Most gauges commonly measure the height and volume of water flowing through rivers. Live updates and old records from the gauges are available online. Local, State, and Federal agencies rely on the data for flood forecasting and issuing permits.

The White River within Newaygo County does not have a United States Geological Survey (USGS) River Gage or National Weather Service Advanced Hydrologic Prediction Service Forecast Point. The only USGS River Gage on the White River is located downstream of the White Cloud Dam and Hesperia Dam in Whitehall, Michigan. Therefore there are no known or recorded river depths, flood impacts, or flood warning mechanisms in place for the White River in Newaygo County.



Planning Assumptions

The following all-hazards planning assumptions have been developed to provide a foundation for planning and response considerations. They include key concepts that must be taken into account throughout all phases of mitigation, preparedness, response, and recovery.

The Newaygo County White River Evacuation Plan assumes:

- The White River within Newaygo County is susceptible to a wide range of natural, technological, and man-made conditions that could result in four emergency classifications of sufficient magnitude to overwhelm available local capabilities and resources AND significantly threaten the lives, property, and environment.
- It is the principle responsibility of the Newaygo County Government to protect the life and health of persons along the White River within Newaygo County. Thus it is the responsibility of the Newaygo County Government to maintain a system to provide for the safety and welfare of its citizens when emergencies / disasters occur.
- A major disaster could occur at any time, and at any place. In many cases, dissemination of warning to public safety officials and the public and implementation of increased readiness measures may be possible; however, some emergency situations occur with little or no warning.
- A “Sunny Day Failure” could occur at any time without warning. Action is required immediately to save lives and protect property. Newaygo County public safety officials, the Emergency Operations Center, City of White Cloud, and other key stakeholders are trained to act quickly and knowledgeably during an incident through the development, maintenance, and exercising of the plan.
- Maintaining the Newaygo County White River Evacuation Plan and providing frequent opportunities for the general public, public safety officials, emergency operations center staff, elected officials and other key stakeholders to exercise the plan can improve Newaygo County’s readiness to respond to an during an Emergency Classification at the White Cloud Dam on the White River within Newaygo County..
- The Newaygo County Emergency Operations Plan is the primary emergency response plan for Newaygo County and its comprising jurisdictions (townships, cities, villages). The Newaygo County White River Evacuation Plan is a supporting plan to the Newaygo County Emergency Operations Plan dated 2015 and is the official emergency management planning document for responding to an Emergency Classification at the White Cloud Dam on the White River within Newaygo County.

Concept of Operations

To assure appropriate and prompt response to an emergency situation at the White Cloud Dam, this Newaygo County White River Evacuation Plan as required by Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, Section 324.31520, has classified potential emergency situation or conditions according to the relative urgency as follows:

Condition A: Failure is Imminent or has occurred.

Condition A will be activated where a failure either has occurred, is occurring, or is obviously about to occur. Once it has been determined that there is no longer any time available to attempt corrective measures to prevent the failure, the *Failure is Imminent or Has Occurred* warning should be issued. The City of White Cloud will immediately notify Newaygo County Central Dispatch who will then notify appropriate local authorities according to the Emergency Notification Flow Chart. In addition, the City of White Cloud shall notify the Michigan Department of Environmental Quality Dam Safety Division who may authorize emergency orders under Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, Section 324.31521. Newaygo County Emergency Services Department, if not already done so, will activate the Emergency Operations Center and implement local evacuation plans.

Condition B: Potential failure situation is developing.

Condition B will be activated when a potential failure situation is developing which allows for further analysis/decisions to be made before dam failure is considered to be a foregone conclusion. This is a situation where a failure may eventually occur, but preplanned actions taken during certain events may moderate or alleviate failure. Even if failure is inevitable, more time is generally available than in a Failure has occurred situation to issue warnings and or to take preparedness actions.

Condition C: High Flow Emergency condition.

Condition C will be activated when the flow conditions are as such that flooding is expected to occur downstream of the dam. Use of this classification allows for early warning of downstream areas during flood conditions. While the amount of flooding may be beyond control, information on the amount of releases from the dam is provided to authorities for any decisions on the need for evacuations. Condition C at the White Cloud Dam is quantified by all three lift gates are opened and additional spill is required; and/or local run-off increases river levels downstream.

Condition D: Non-Failure Emergency condition.

Condition D will be activated when a situation is developing that will not, by itself, lead to a failure but requires investigation and notification to internal and/or external personnel. External notification will be made only when the public could be affected. An example would be if a

gate malfunctioned which may lead to unexpected high releases that could pose a hazard to the downstream public.

Incident Response

Successful management of emergencies / disasters requires rapid decision making to complex problems by government officials and emergency service agencies. For disasters, history has proven that the most challenging of these involve unclear direction for initial response, authority, mutual aid, and evacuation. Pursuant to Act 390, P.A. 1976, as amended, and the Newaygo County Emergency Services Resolution 01-005-15, dated January 28, 2015, Newaygo County has an established Emergency Operations Plan to save lives, minimize damage, and enhance emergency response operations during any incident within Newaygo County. This plan sets forth the emergency response organizational structure and management system under which Newaygo County will operate. It describes how different government and non-government entities will interact with each other to respond effectively during any disaster or emergency situation. In addition, this plan assigns various emergency objectives and responsibilities that may need to be performed when circumstances call for response and recovery measures outside the realm of normal operations.

As the Newaygo County White River Evacuation Plan is a supporting plan to the Newaygo County Emergency Operations Plan, the following describes specific Incident Response Considerations for responding to an Emergency Classification at the White Cloud Dam on the White River within Newaygo County.

Situation Recognition and Assessment

The City of White Cloud Department of Public Works staff are identified as operators of the White Cloud Dam. An operator is responsible for monitoring, recording, and interpretation of changes to dikes and flows in accordance with the written Operation and Maintenance Plan. Operators are also trained to analyze, evaluate, and initiate corrective actions for emergency conditions impacting the dam.

Any unusual situations detected or observed will be reported by the operator to the DPW Supervisor. The DPW Supervisor will immediately become involved in the evaluation of any detected abnormalities. In addition, the DPW Supervisor may request additional engineering guidance through the pre-identified, contracted engineering firm. The DPW Supervisor, in the event of any emergency, will take immediate action necessary to prevent failure and to prevent or minimize loss of life and property. He/she will initiate predetermined emergency notification procedures base on emergency conditions. In the case of an active or failure, The DWP staff will also regulate spill as needed to maintain the integrity of the dam and public safety as long as operator's safety will allow.

Emergency Notification to Local, State, and Federal Response Organizations

In the event of an emergency condition at the White Cloud Dam, it is important for the City of White Cloud to notify all appropriate agencies, organizations, and individuals based on predetermined procedures for each emergency condition. Utilizing established Notification Flow Charts and Warning Diagrams, the City of White Cloud will begin emergency notifications. Once the City of White Cloud notifies Newaygo County Central Dispatch (911), Central Dispatch is responsible for notification to the first responder organizations responding to the emergency condition.

In addition, it is important for the City of White Cloud to notify the Michigan Department of Environmental Quality Dam Safety Division of any sudden or unprecedented flood or unusual or alarming circumstance or occurrence existing or anticipated that may affect the safety of the dam. Any emergency drawdowns, repairs, breaching, or other action taken in response to an emergency condition should also be reported.

Emergency Orders

Under Section 31520 of Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, the Michigan Department of Environmental Quality Dam Safety Division may issue emergency orders by written notice including an order to immediately repair, draw down, breach, or cease operation of a dam where a dam is in imminent danger of failure and is causing or threatening to cause harm to public health, safety, welfare, property, or the natural resources or the public trust in those natural resources. If an owner fails to comply with an order, or is unavailable or unable to be contacted, then the department may undertake immediate repair, drawdown, breaching, or cessation of operation, as may be necessary to alleviate the danger, and may recover from the owner the costs incurred in a civil action commenced in a court of competent jurisdiction. The department may terminate an emergency order upon a determination in writing that all necessary emergency actions have been complied with by the owner and that an emergency no longer exists.

Incident Management

The National Incident Management System (NIMS) is a set of principles that provides a systematic, proactive approach guiding government agencies at all levels, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life or property and harm to the environment. This system ensures that those involved in incident response/recovery understand what their roles are and have the tools they need to be effective.

The NIMS and utilization of the incident command system is recognized as the standard for incident management. Newaygo County will operate in accordance with the principles and concepts of NIMS and the Incident Command System (ICS). The Incident Command System (ICS) will be used to manage all incidents and major planned events. The use of this system allows the Newaygo County to be readily integrated into the emergency response system used

by local emergency services agencies throughout Michigan.

Activation of the Emergency Operations Center

At the direction of the Chief Elected Official and Board of Commissioners, Newaygo County Emergency Services daily operations focus is on large and/or unusual emergency events. NCES is specifically tasked and trained to coordinate and support “large” or “unusual” emergencies that are out of scope of day-to-day emergency responses. Upon notification of an emergency condition at the White Cloud Dam, Newaygo County Emergency Services will initiate one of three defined levels of response: Advisory, Activation, or Emergency. All response actions will be in accordance to procedures identified in the Newaygo County Emergency Operations Plan and the Newaygo County White River Evacuation Plan via the local emergency operations center and Incident Command System.

Communications and Information Exchange

Throughout an Emergency Condition at the White Cloud Dam, it is imperative to maintain close contact between City of White Cloud and the Local Emergency Operations Center. As the situation develops, routine times should be established for information sharing and updates between the City of White Cloud and the Emergency Services Director. If the local Emergency Operations Center is fully activated, the City of White Cloud will appoint a liaison to the EOC to assist with technical information and emergency population protection measures.

Public Alert and Notification

It is the responsibility of the Newaygo County to direct the alert and notification of emergency events and/or hazardous situations to the public, response agencies, and critical officials by the utilization of available warning systems. Utilizing a leveled warning system, officials are able to appropriately select and utilize available warning mechanisms to alert and notify targeted audiences of emergency conditions. The goal is to quickly make the information common knowledge and current.

For all emergency conditions except Condition A: Failure is imminent or has occurred, Targeted and/or Comprehensive Warning Systems will be utilized. Targeted Warning Systems are designed to alert and notify a local, defined location, or identified population of emergency events and/or hazardous situations. Warning messages are Community Level or Advisory Level Messages which are typically written or audible. Targeted audiences include response agencies, critical officials, reporting authorities, and defined locations and or populations. Comprehensive Warning Systems are designed for a rapid dissemination of alerts AND public information to a variety of public mechanisms. The goal is to quickly make the alert & information common knowledge. Warning messages are or Advisory Level or Alert Level Messages which are typically written and rebroadcasted. Targeted audiences include the general public within Newaygo County and surrounding areas. Examples of these types of systems includes but is not limited to:

- ✓ **Nixle Engage:** Nixle connects public safety agencies to their community residents via text, web, and email to distribute out alert, advisories, and community messages. Qualifying agencies can use Nixle Connect Plus to author and send geographically targeted emergency messages via FEMA's Integrated Public Alert & Warning System (IPAWS). IPAWS encompasses multiple alert networks including the Wireless Emergency Alert (WEA) and the Emergency Alert System (EAS) to provide rapid, multi-channel distribution of your most critical messages.
- ✓ **Personal Notifications:** Door to door visits or vehicle public address system notifications to area homes and businesses by emergency responders. Notifies high percentage of population within a defined area or vulnerable audience with direct message. Highly effective in absence of other alerting systems or situations needing personal contact.
- ✓ **NOAA Weather Radios:** Activation of NOAA Weather radio monitors & associated systems alerts monitors with audible tone and subsequent voice announcement as well as through various other services (i.e. website, weather systems). Is the recognized standard for all-hazards warning nationwide and is tied into multiple local, state, and regional warning services.

For Condition A: Failure is imminent or has occurred, the Integrated Public Alert and Warning System (IPAWS) system will be utilized. IPAWS is for issuance of critical public alerts and warnings of severe urgency disseminated to all available warning systems and the widest range of audience. IPAWS is designed for the Highest Alert Level Message and warning information that has an extreme urgency. IPAWS will reach the mass population of Newaygo County and surrounding areas.

Public Protective Measures

Michigan Emergency Management Act – (P.A. 390, 1976, Sec 2 & 10, as amended) describes the powers invested in established emergency management programs to declare a local state of emergency, activate emergency response and recovery plans, and authorizes the furnishing of aid, assistance, and directives under those plans. Specific notations include directing and coordinating local multi-agency response to emergencies and providing for the health and safety of persons and property.

Locally, emergency evacuation can only be recommended to homeowners. Michigan law provides for explicit authority to the Governor to compel protective measures such as a mandatory evacuation for catastrophic emergencies. All Public Protective Measures, including non-mandatory evacuation, road closures, public access site closures, emergency utility shut offs, etc are coordinated through the Newaygo County Emergency Operations Center. Considerations for carrying out emergency protective measures can be located within Part III – Dam Failure Hazard Specific Annex or Part IV – Flood Hazard Specific Annex of this Emergency Plan.

Public Information

All Public Information will be managed according to the public information strategy, guidelines, and Standard Operating Procedures established by the Newaygo County Emergency Operations Plan. All public information officers, both public and private, will work in coordination with the lead Newaygo County Public Information Officer through the Joint Information Center. All information will be cleared through the Newaygo County Board of Commissioners Chief Elected Official, Incident Commander, and the City of White Cloud.

Recovery Operations

The Newaygo County Emergency Operations Center will coordinate all recovery operations including access and re-entry, debris removal, restoration of utilities, infrastructure repairs, disaster assistance, etc. Recovery operations will be phased in nature and be impacted by the time required for flood waters to recede to normal levels after a flood or dam failure. This will vary depending upon ground saturation, distance downstream, and the extent of failure.

Access and re-entry

Trained field damage assessment teams will assess all homes, businesses, roadways and bridges for damage as soon as the area is no longer impacted by flood waters. Based on safety considerations, damage assessment teams in conjunction with public safety officials will determine if it is safe to grant access to a specific area. Field Damage Assessment teams will also post each home and business with either a Certificate of Re-Entry or a Certificate of Inspection.

Safety Inspections

Homes and businesses which have been posted with a Certificate of Inspection will require additional safety inspections by the Building Inspector's Office, Environmental Health Sanitarian, or State Inspector's Office prior to being allowed to return. These initial inspections are free of charge and are for the safety of the homeowner and/or business.

1. **Electrical Inspection** is required if more than 18" of water was on the first floor, water submerged the breaker box, or the electrical meter was submerged or damaged.
2. **Building Inspection** is required if more than 18" of water was on the first floor for more than one day, foundation is cracked or shifted, home has major damaged or is destroyed.
3. **Mechanical Inspection** is required if there is damage to the furnace, hot water heater, propane tank, or other utilities within the home that would impact the safety of the homeowner.

If a permit needs to be filed to complete necessary work, ie. rewiring a flooded breaker box and all connecting electrical wires, the homeowner will be required to pay the permit fees.

Restoration of Utilities

Utility companies will not restore utilities to the impacted area unless deemed safe and marked by the Field Damage Assessment Teams, Public Safety Officials, and/or the Building Inspector's Office. Homes and businesses which require additional safety inspections or permit work to be completed, will be required to complete the work prior to having utilities restored.

Debris Removal

Debris removal from private property will be a rare occurrence and limited **ONLY** to those situations where there is a clear danger (present / imminent / potential) to public health and/or safety. Examples include but are not limited to:

- 1) dangerously leaning / damaged trees or limbs over public rights-of-way or other public spaces
- 2) partially or totally collapsed structures that could endanger the public
- 3) debris that poses a clear and present fire danger
- 4) debris that negatively impacts critical infrastructure and/or services
- 5) hazardous household waste (HHW) which if left unaddressed poses an imminent threat to public health and/or safety.

Debris that does not meet these (or similar) circumstances is the responsibility of individual property owners. Private debris brought to the roadway right-of-way and/or taken to established Collection Centers in accordance with published guidelines will be removed by designated debris management forces.

Disaster Assistance

Based on the impacts and damage to the community from the emergency condition at the White Cloud Dam, the Newaygo County Emergency Operations Center will follow all State and Federal guidelines in an effort to receive disaster assistance resources to help the community recover.

Plan Maintenance

Maintenance of the Newaygo County White River Evacuation Plan shall be the responsibility of the Newaygo County Local Emergency Planning Team in conjunction with the City of White Cloud. All plan reviews and revisions, training, exercises, and after action reviews shall be facilitated by this team.

Plan Review

The Newaygo County White River Evacuation Plan will be maintained in accordance with current standards of the county plan and the county government. Review of this plan should be

accomplished annually by the Newaygo County Board of Commissioners Public Safety Committee.

Training

Newaygo County will conduct regular training on the Newaygo County White River Evacuation Plan to educate Emergency Operations Center Staff, public safety personnel, elected officials, and other key stakeholders on their roles and responsibilities before, during, and after an incident at the White Cloud Dam.

Exercises

Newaygo County will conduct hazard specific exercises as needed to provide practical experience and maintain operational readiness.

After Action Reviews

After all training, exercises, potential incidents, and plan activations, Newaygo County in conjunction with the City of White Cloud may conduct an After Action Review to evaluate the Newaygo County White River Evacuation Plan's strengths and weaknesses and to identify corrective measures for improvement.

Authorities/References:**Federal:**

1. Federal Guidelines for Dam Safety, June 1979.
2. National Response Coordination Framework, January 2008
3. Presidential Policy Directive 5, National Incident Mgt System
4. Presidential Policy Directive 8, National Preparedness

State:

1. The Michigan Natural Resources and Environmental Protection Act, 1994 PA 451 Part 307 and Part 315 as amended
2. Michigan Public Act 390, ie the Emergency Management Act
3. Michigan Emergency Operations Plan, 2012

Local:

1. Newaygo County Emergency Services Resolution, 2015
2. Newaygo County Emergency Operations Plan, 2015
3. Newaygo County Hazard Management Plan, 2015.
4. City of White Cloud Dam Operation and Maintenance Plan.

Part III – Dam Failure Hazard Specific Annex

Purpose

The purpose of this Dam Failure Hazard Specific Annex is to provide guidance for the Emergency Operations Center, public safety officials, the City of White Cloud, and the general public during a dam failure event on the White River which requires the Newaygo County to implement emergency protective measures.

Scope:

This Dam Failure Hazard Specific Annex will be activated when one or more of the following conditions have been identified:

1. **Condition A: Failure is Imminent or has occurred.** Condition A will be activated where a failure either has occurred, is occurring, or is obviously about to occur. Once it has been determined that there is no longer any time available to attempt corrective measures to prevent the failure, the Failure is Imminent or Has Occurred warning should be issued. The City of White Cloud will immediately notify Newaygo County Central Dispatch who will then notify appropriate local authorities according to the Emergency Notification Flow Chart. In addition, the City of White Cloud shall notify the Michigan Department of Environmental Quality Dam Safety Division who may authorize emergency orders under Part 315, Dam Safety of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, Section 324.31521. Newaygo County Emergency Services Department, if not already done so, will activate the Emergency Operations Center and implement local evacuation plans.
2. **Condition B: Potential failure situation is developing.** Condition B will be activated when a potential failure situation is developing which allows for further analysis/decisions to be made before dam failure is considered to be a foregone conclusion. This is a situation where a failure may eventually occur, but preplanned actions taken during certain events may moderate or alleviate failure. Even if failure is inevitable, more time is generally available than in a Failure has occurred situation to issue warnings and or to take preparedness actions.

3. **The Grand Rapids National Weather Service issues a Flash Flood Warning for the White River.** A Flash Flood Warning is issued to inform the public, emergency management and other cooperating agencies that flash flooding is in progress, imminent, or highly likely. Flash Flood Warnings are urgent messages as dangerous flooding can develop very rapidly, with a serious threat to life and/or property. Flash Flood Warnings are usually issued minutes to hours in advance of the onset of flooding.
4. **The Grand Rapids National Weather Service issues a Flash Flood Watch for the White River.** A Flash Flood Watch is issued to indicate current or developing conditions that are favorable for flash flooding. The occurrence is neither certain nor imminent. A watch is typically issued within several hours to days ahead of the onset of possible flash flooding.

This Hazard Specific Annex will remain in effect until the above conditions have been lifted or expired.

General Response Considerations:

When this Dam Failure Hazard Specific Annex is activated, the following response considerations should be followed throughout the event:

- ✓ Utilize an Area Command Structure and Full EOC activation to provide multi-agency coordination for incident management.
- ✓ Ensure the City of White Cloud assigns a liaison to the EOC
- ✓ Establish a mechanism to visibly monitor river levels
- ✓ Establish and maintain a consistent method for maintaining accountability of personnel and equipment through staging areas, unity of command, and span of control.
- ✓ Ensure perimeter and access control is maintained.
- ✓ Maintain daily briefings with the EOC, Consumers Energy, local officials, and public safety agencies utilizing the EOC Incident Briefing Form.
- ✓ Actively utilize a north and south Joint Information Center to manage public information. This event will receive national media attention and a JIC will be critical in distributing out consistent information to the public.
- ✓ Develop and maintain a system to manage reports of missing persons, pets, and family reunification.

- ✓ Establish system for caring for injured, ill, and deceased patients and animals.
- ✓ Establish alternate long term emergency coverage for law enforcement, fire / rescue, and EMS services.

AGENCY SPECIFIC PROCEDURES

Agency	Description
Fire Dept.	<ul style="list-style-type: none"> • Establish/Interface Unified Incident Command System • Implement rescue operations for affected victims/populations • Coordinate community protection measures, i.e. evacuation from endangered areas • Modify fire suppression strategy to affected areas based on flood conditions
Public Works	<ul style="list-style-type: none"> • Establish/Interface Unified Incident Command System • Implement prioritized road, bridge, and drain infrastructure maintenance/repair • Coordinate long-term road closures and traffic control • Coordinate flood fight operations including diking, sandbagging, etc. • Conduct primary flood monitoring and spotting
Law Enforcement	<ul style="list-style-type: none"> • Interface with Incident Command System/Unified Command Post. • Assist in population rescue (i.e. Marine resources) • Assist in community protective measures (i.e. evacuation, in-place sheltering, etc.). • Implement short-term, immediate traffic control for flooded areas and resulting hazards • Coordinate population reunification and missing persons operations • Provide additional support as necessary.
Emergency Medical	<ul style="list-style-type: none"> • Interface with Incident Command System/Unified Command Post. • Provide medical support for emergency rescue operations • Provide additional support as necessary.
9-1-1 / Warning	<ul style="list-style-type: none"> • Activate emergency services (fire, police, emergency management) • Coordinate activation of community warning systems as directed by IC • Relay damage reports / status to National Weather Service GR as necessary
Additional Agencies	<ul style="list-style-type: none"> • Newaygo County Emergency Services for EOC / emergency plan support • American Red Cross for provision of reception centers, re-unification, shelters • Newaygo Animal Control to support animal evacuation management • Local Utility Companies/Crews for utility shut-off & management

Further response support will be provided by extension of the NIMS Incident Command System and/or activation of the Newaygo County Emergency Plan.

Specific Response Considerations:

In addition to the General Response Considerations, the following Specific Response Considerations should be utilized at the following stages. (Note: The White River within Newaygo County does not have a United States Geological Survey (USGS) River Gage or National Weather Service Advanced Hydrologic Prediction Service Forecast Point. The only USGS River Gage on the White River is located downstream of the White Cloud Dam and Hesperia Dam in Whitehall, Michigan. Therefore there are no known or recorded river depths, flood impacts, or flood warning mechanisms in place for the White River in Newaygo County).

Upon notification of **Condition B: Potential Failure Situation is Developing or Flash Flood Watch for the Muskegon River**

- ✓ Pre-stage Incident Response Resources to pre-designated staging areas in preparation for the incident to escalate to a Condition A: Failure is Immanent or has occurred.
- ✓ Consider putting pre-identified local and State resources on standby.
- ✓ Close the roadway over the dam at S State Road at E James Street in the City of White Cloud and S Silver Ave in Everett Township at 500 S Silver Ave.
- ✓ Proactively communicate information to the population within the dam failure inundation areas to give them ample time to prepare.

Upon notification of **Condition A: Failure is Immanent or has occurred or Flash Flood Warning for the Muskegon River**

- ✓ As conditions permit, immediately begin conduct door-to-door notifications of populations expected to be impacted by the rising flood waters. Utilize the "Evacuation Zone Maps" to determine impacts.
- ✓ Establish pre-designated Staging Areas for incoming response resources to report to.
- ✓ Coordinate with the Board Chair to Declare a Local State of Emergency. Request state closure of the Muskegon River below the Rodgers Dam to Lake Michigan and authorize emergency power shutoff of the impacted area.

- ✓ Establish evacuation routes, traffic control points, reunification centers, medical triage points, and secure a perimeter around the area.
- ✓ Monitor all bridge crossings over the White River for need for closure. These include:
 - Pere Marquette Railroad Bridge over White River
 - S Evergreen Drive (M-37) in Everett Twp (MDOT Bridge)
 - Echo Drive (Old M-20) in Everett Twp (Structure #7709)
 - Baldwin Ave in Lincoln Twp (Structure #7742)
 - One Mile Road in Lincoln Twp (M-20) MDOT Bridge
 - Luce Ave in Lincoln Twp and Denver Twp (Structure #7775)
 - Green Ave in Denver Twp (Structure #7744)
 - Fitzgerald Ave in Denver Twp (Structure #7760)
 - Dickinson Ave in Denver Twp (Structure #7743)
- ✓ Request pre-identified Local, State, and Federal assets.

Initial Incident Objectives

Management by objective is a key characteristic of NIMS and one which Newaygo County follows. Incident objectives, per NIMS are “statements of guidance and direction necessary for the selection of appropriate strategies and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed”.

The following initial incident objectives identify what must be accomplished within the identified operational period. These incident objectives set guidance and strategic direction, but do not specify tactics. In addition, Incident Command has the authority to identify additional incident objectives as situations arise which need to be address.

Operational Objectives for the first Operational Period (Evacuation). This operational period starts upon notification of a Condition A at the Hardy or Croton Projects.

- ✓ As conditions safely allow, immediately conduct door-to-door evacuations within the pre-identified evacuation zones. All evacuations should be completed within three hours of initial implementation.
- ✓ As conditions safely allow, conduct victim extrications within the pre-identified evacuation zones as needed.

- ✓ Within a half hour, establish pre-identified triage sites, staging areas, and reunification centers.
- ✓ Within one hour, establish a secured perimeter around the White River Area including road closures, bridge closures, and alternate traffic routes.
- ✓ Within two hours, establish a system to manage reports of missing persons and family re-unification.

Operational Objectives for the second Operational Period (Search and Rescue and Recovery). This operational period starts upon the completion of evacuation.

- ✓ Establish a North Operations Branch and a South Operations Branch to manage all search and rescue and recovery operations if bridges are not passable.
- ✓ As conditions safely allow, conduct search and rescue and recovery operations in identified Divisions.
- ✓ Maintain triage, treatment, and transport sites for injured victims and personnel. Spectrum Health Gerber Memorial (South of River) or Spectrum Health Big Rapids (North of River).

Operational Objectives for the third Operational Period (Damage Assessment and Debris Removal). This operational period starts once flood waters have receded and areas are now accessible. It is anticipated that during this time, Recovery operations will continue.

- ✓ Conduct field damage assessment as soon as areas are accessible. Mark and document structures for the building inspector's office.
- ✓ Conduct initial debris removal operations utilizing all available resources. The goal is to reduce hazards in the impacted areas making it safer for homeowners and businesses to return.
- ✓ Conduct debris removal operations within the Navigable Waterway.
- ✓ Upon completion of field damage assessment, establish a re-entry plan for homeowners and business to start returning to their properties.
- ✓ Establish a system for controlling national volunteer programs assistance to homeowners.

- ✓ Establish a debris removal plan for household hazardous waste and contaminated debris.

Operational Objectives for the fourth Operational Period (Initial Recovery). This operational period starts once property owners have been allowed to start returning to the impacted areas.

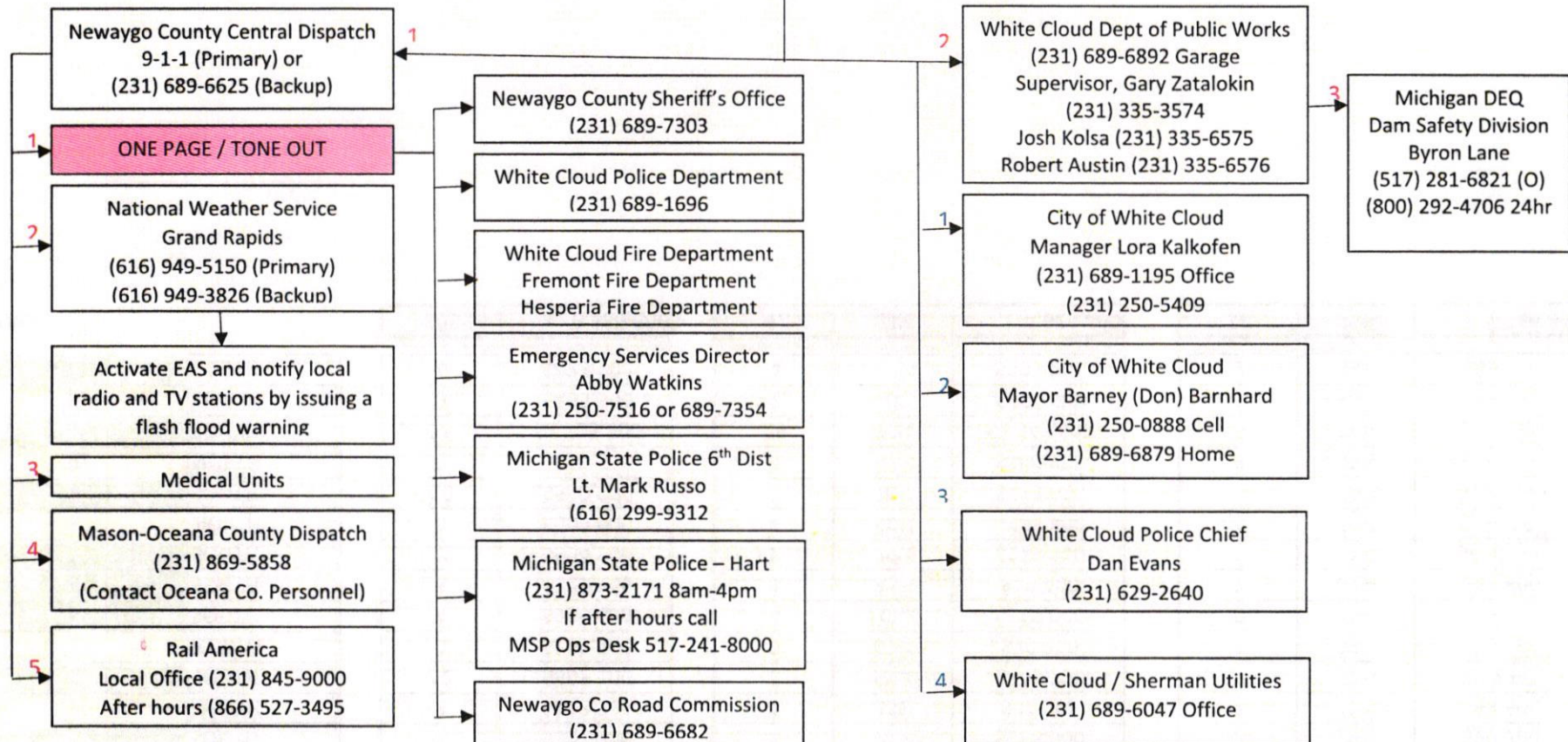
- ✓ Conduct a coordinated re-entry process in accordance with the established re-entry plan.
- ✓ Conduct national volunteer program operations for assistance to homeowners and businesses.
- ✓ Conduct large scale debris removal operations.



Emergency Notification Flowchart for White Cloud Dam CONDITION A: FAILURE IS IMMINENT OR HAS OCCURRED

INFORMATION RECEIVED FROM PUBLIC
If observer is "John Q Public" or anyone other than the City of White Cloud, DO NOT immediately activate Condition A. First verify report by contacting the City of White Cloud Department of Public works at 231-689-6892 or

CITY OF WHITE CLOUD



DAM FAILURE EVACUATION SUMMARY

EVACUATION ZONE	NORTH OR SOUTH
1	SOUTH
2	NORTH
3	SOUTH
4	NORTH
5	SOUTH
6	SOUTH
7	SOUTH
8	NORTH
9	SOUTH
10	NORTH
11	SOUTH
12	NORTH
13	SOUTH

TOTALS

TOTALS	
# OF HOMES	ASSESSED VALUE
7	\$437,200
3	\$148,900
12	\$602,100
3	\$155,200
4	\$190,000
3	\$127,200
7	\$594,000
8	\$509,000
10	\$549,200
7	\$657,500
25	\$1,715,300
10	\$455,300
6	\$423,900

105	6,564,800
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FULL YEAR RESIDENTS		
# OF HOMES	PERCENT OF TOTAL	ASSESSED VALUE
5	71%	\$366,500
1	33%	\$85,300
7	58%	\$349,200
2	67%	\$70,200
4	100%	\$190,000
1	33%	\$70,400
2	29%	\$173,500
4	50%	\$366,300
7	70%	\$427,600
4	57%	\$489,800
19	76%	\$1,343,500
7	70%	\$354,500
4	67%	\$337,200

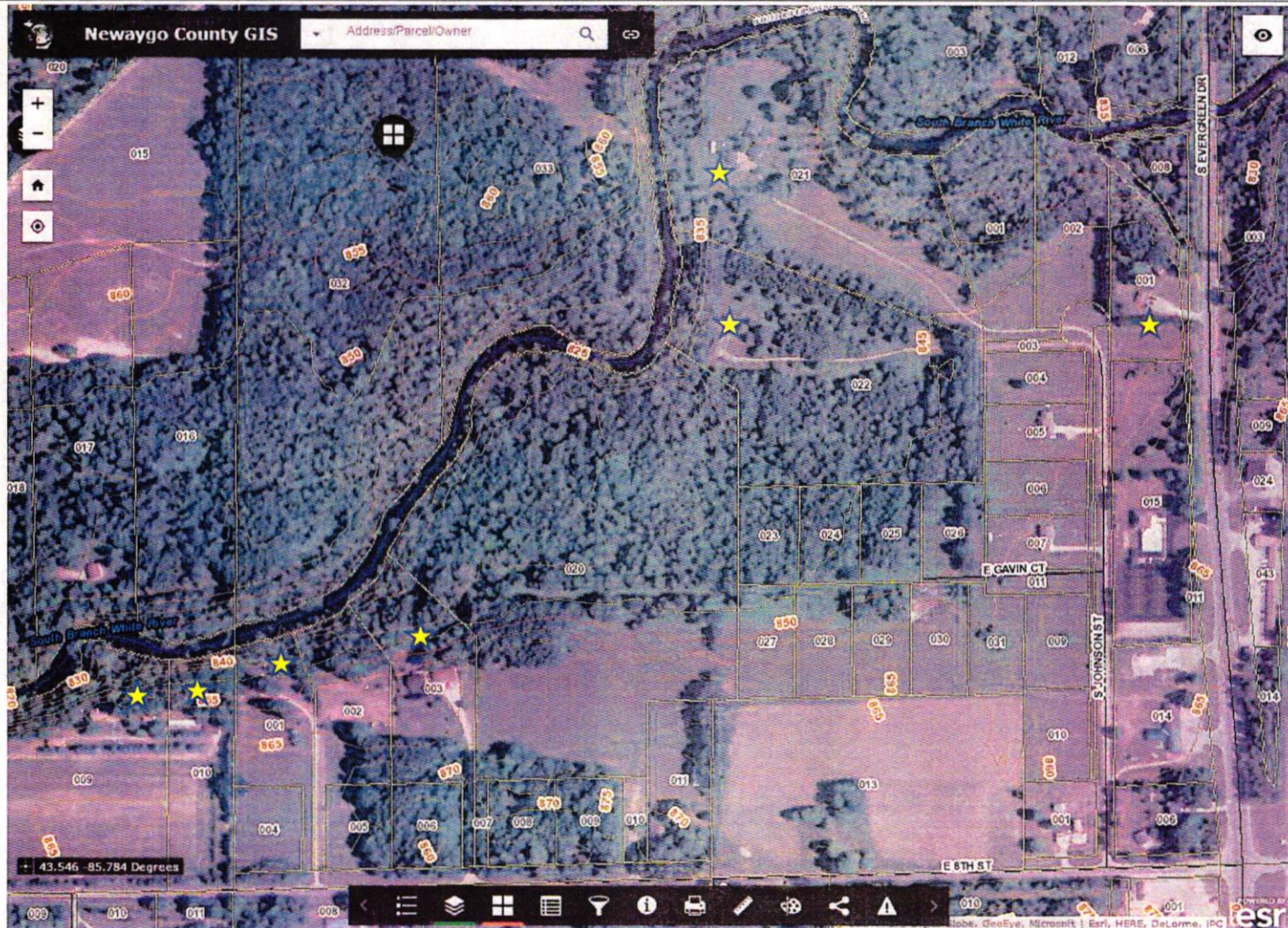
67	64%	4,624,000
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SEASONAL RESIDENTS		
# OF HOMES	PERCENT OF TOTAL	ASSESSED VALUE
2	29%	\$70,700
2	67%	\$63,600
5	42%	\$252,900
1	33%	\$85,000
0	0%	\$0
2	67%	\$56,800
5	71%	\$420,500
4	50%	\$142,700
3	30%	\$121,600
3	43%	\$167,700
6	24%	\$371,800
3	30%	\$100,800
2	33%	\$86,700

38	36%	1,940,800
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Evacuation Zone 1 – South of the River (IMMEDIATE RISK – Less than 1 Mile Downstream from the White Cloud Dam (Everett Twp))

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
475 S Evergreen Drive	Brian Shafer	Full	58,900		
581 S Johnson Street	Kevin Torongeau	Full	71,900		
585 S Johnson Street	Larry Brock	Full	63,900		
899 E 8 th Street	Eric Johnson	Full	65,800		
845 E 8 th Street	Robert Meier	Seasonal	46,300		
791 E 8 th Street	Martin Mitrius Sr	Seasonal	24,400		
767 E 8 th Street	David Mitrius	Full	106,000		



Evacuation Zone 2 – North of the River: Less than 3 Miles Downstream from the White Cloud Dam (Everett Twp)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
808 E Townline Rd	Dennis Mitrius	Seasonal	37,800		
800 E Townline Rd	David Hudson	Full	85,300		
674 E Townline Rd	Debra Russo	Seasonal	25,800		



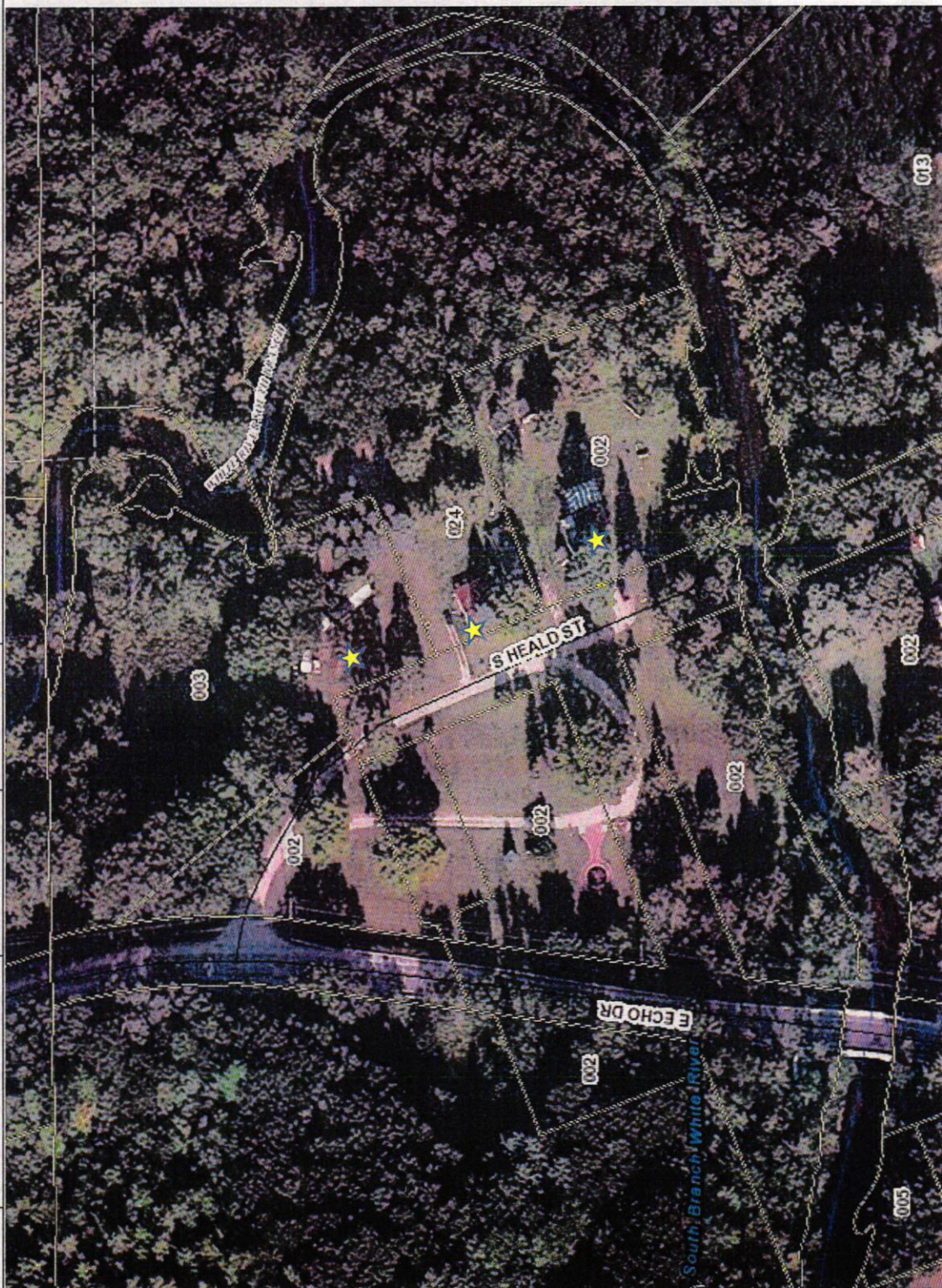
Evacuation Zone 3 – South of the River: Less than 3 Miles Downstream from the White Cloud Dam (Everett Twp)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
634 S Post Road	Lawrence D'Amico Jr	Seasonal	130,100		
468 E Deer Road	Ronald Buist	Full	27,200		
484 E Deer Road	David Anderson	Seasonal	23,300		
506 E Deer Road	Colleen Kleinhans	Full	48,600		
531 E Deer Road	Doug Weaver	Full	117,700		
540 E Deer Road	Christopher Feldpausch	Full	64,300		
558 E Deer Road	Howard and Linda Miller	Seasonal	43,800		
572 E Deer Road	Joseph Ryznar	Seasonal	29,500		
590 E Deer Road	Robert Mahoney	Seasonal	26,200		
600 E Deer Road	Dan Etterman	Full	8,600		
516 E Post Drive	Ronald Michael Larson	Full	31,600		
486 E Post Drive	Wayne Larson	Full	51,200		



Evacuation Zone 4 – North of the River: Less than 3 Miles Downstream from the White Cloud Dam (Everett Twp)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
482 S Heald St	Ann Schneider	Full	31,000		
464 S Heald St	Stephen Carroll	Full	39,200		
442 S Heald St	Stephen Carroll	Seasonal	85,000		



Evacuation Zone 5 – South of the River: Downstream from the White Cloud Dam (Everett Twp)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
524 S Dowling St	Terry Allers	Full	45,000		
496 S Dowling St	Ellis Davis	Full	39,400		
466 S Dowling St	Geraldine Vincent	Full	52,400		
448 S Dowling St	Sharon Schroeder	Full	53,200		



Evacuation Zone 6– South of the River: Downstream from the White Cloud Dam (Sherman Twp)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
386 S McClelland Ave	Betty Sarber	Full	70,400		
300 S McClelland Ave	Dustin Sarber	Seasonal	39,100		
264 S McClelland Ave	Troy Kent	Seasonal	17,700		



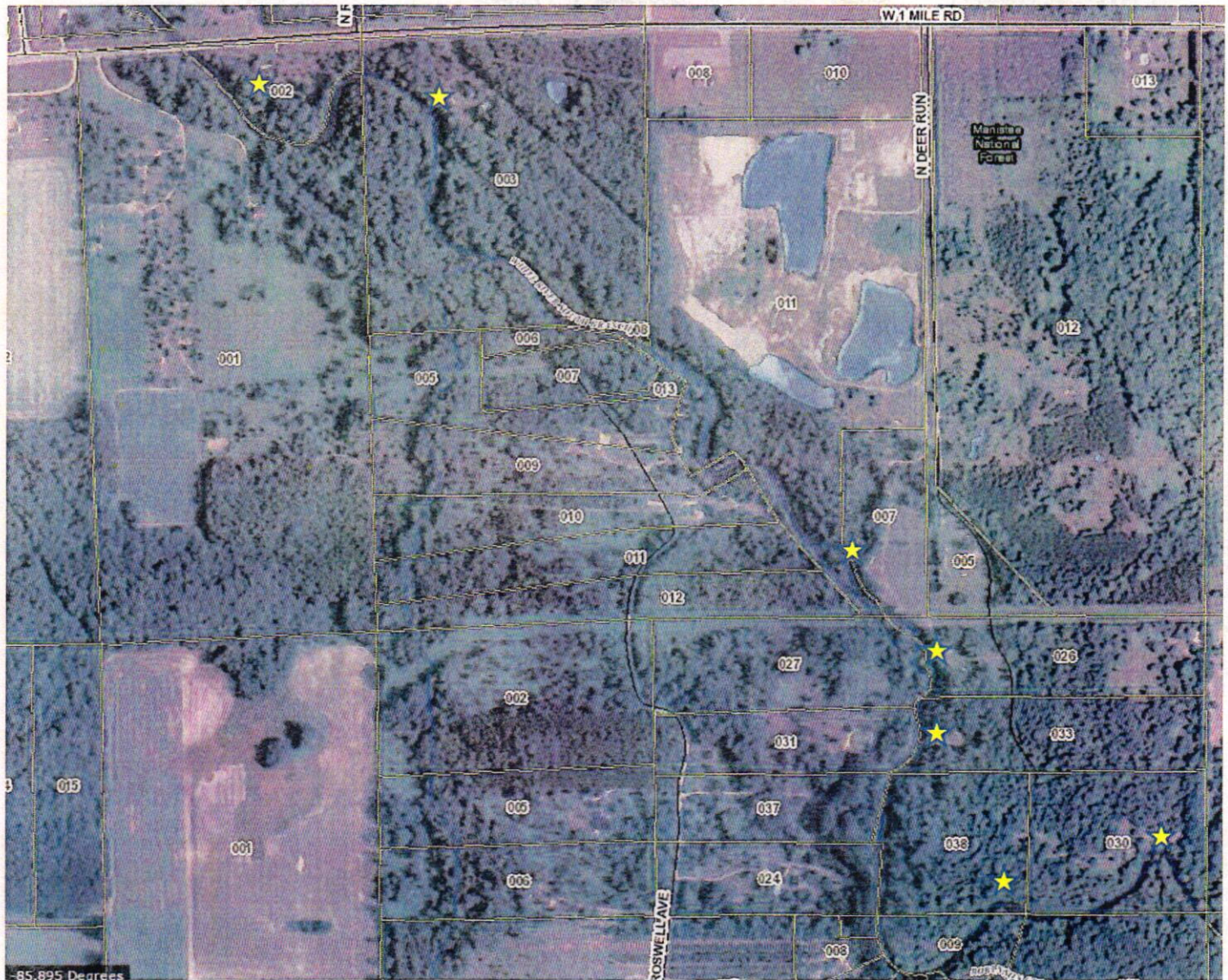
Evacuation Zone 7 – South of the River: Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
239 N Wisner Ave	Leon Troeger	Seasonal	83,900		
109 N Wisner Ave	John Stewart	Seasonal	165,700		
85 N Baldwin Ave	Alan Vanderhoof	Seasonal	75,900		
3377 W Baseline Rd	Kenneth Nielsen	Full	89,500		
3439 W Baseline Rd	Darin Esing	Seasonal	41,500		
3497 W Baseline Rd	Gerald Suchner	Full	75,000		
3505 W Baseline Rd	Perry Ackerman	Seasonal	53,500		



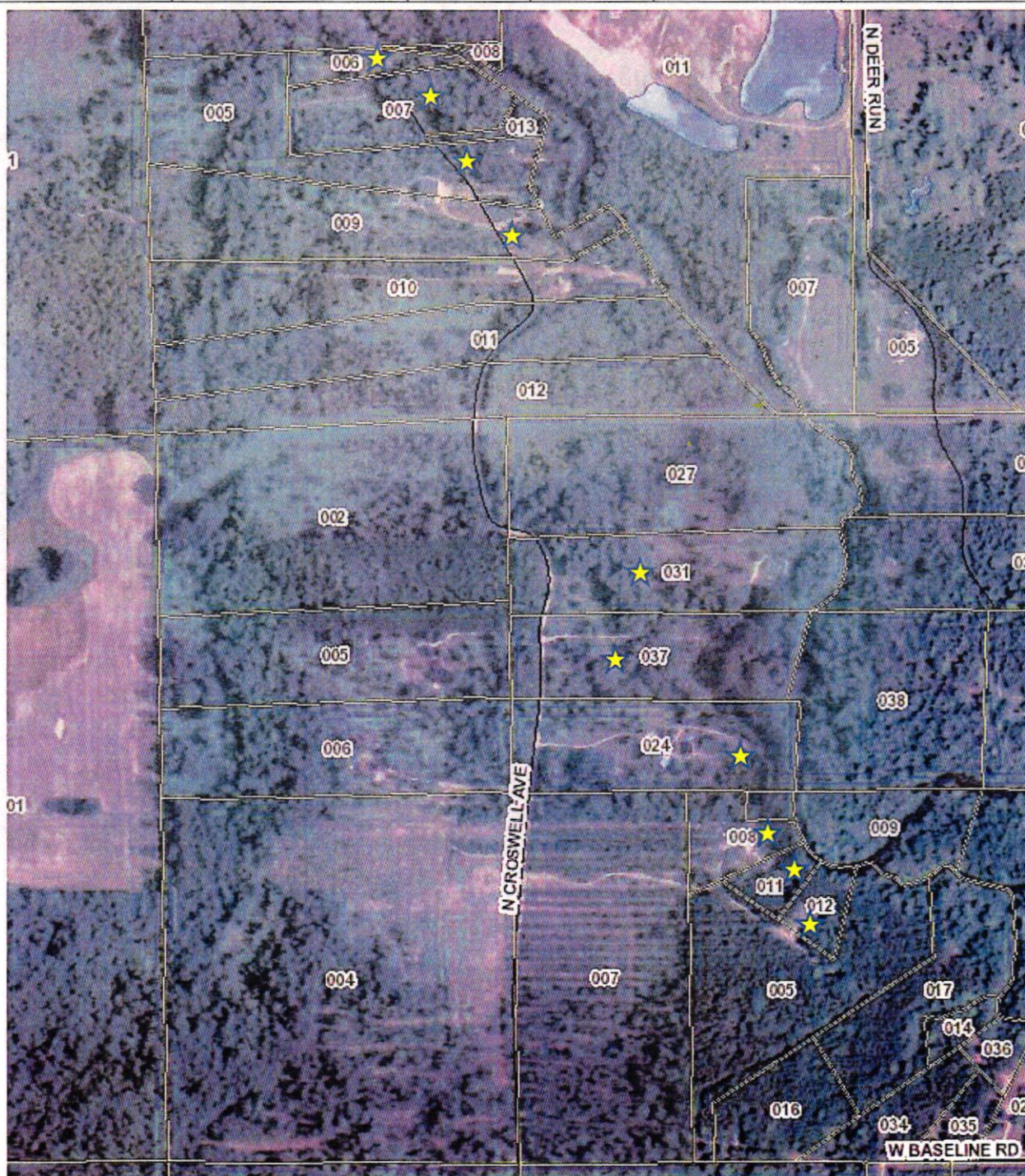
Evacuation Zone 8 – Northeast of the River: Downstream from the White Cloud Dam (Lincoln Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
292 N Deer Run	Elizabeth Deshano	Seasonal	45,500		
283 N Deer Run	Robert Piccard	Seasonal	30,500		
341 N Deer Run	Timothy Hooker	Full	31,300		
403 N Deer Run	Beth Mlynarchek	Seasonal	37,200		
483 N Deer Run	Brian Hable	Full	77,700		
3800 W 1 Mile Rd	Amy DeLong	Seasonal	29,500		
4144 W 1 Mile Rd	Brent Harting	Full	155,800		
4282 W 1 Mile Rd	Kimmerly R Erger	Full	101,500		



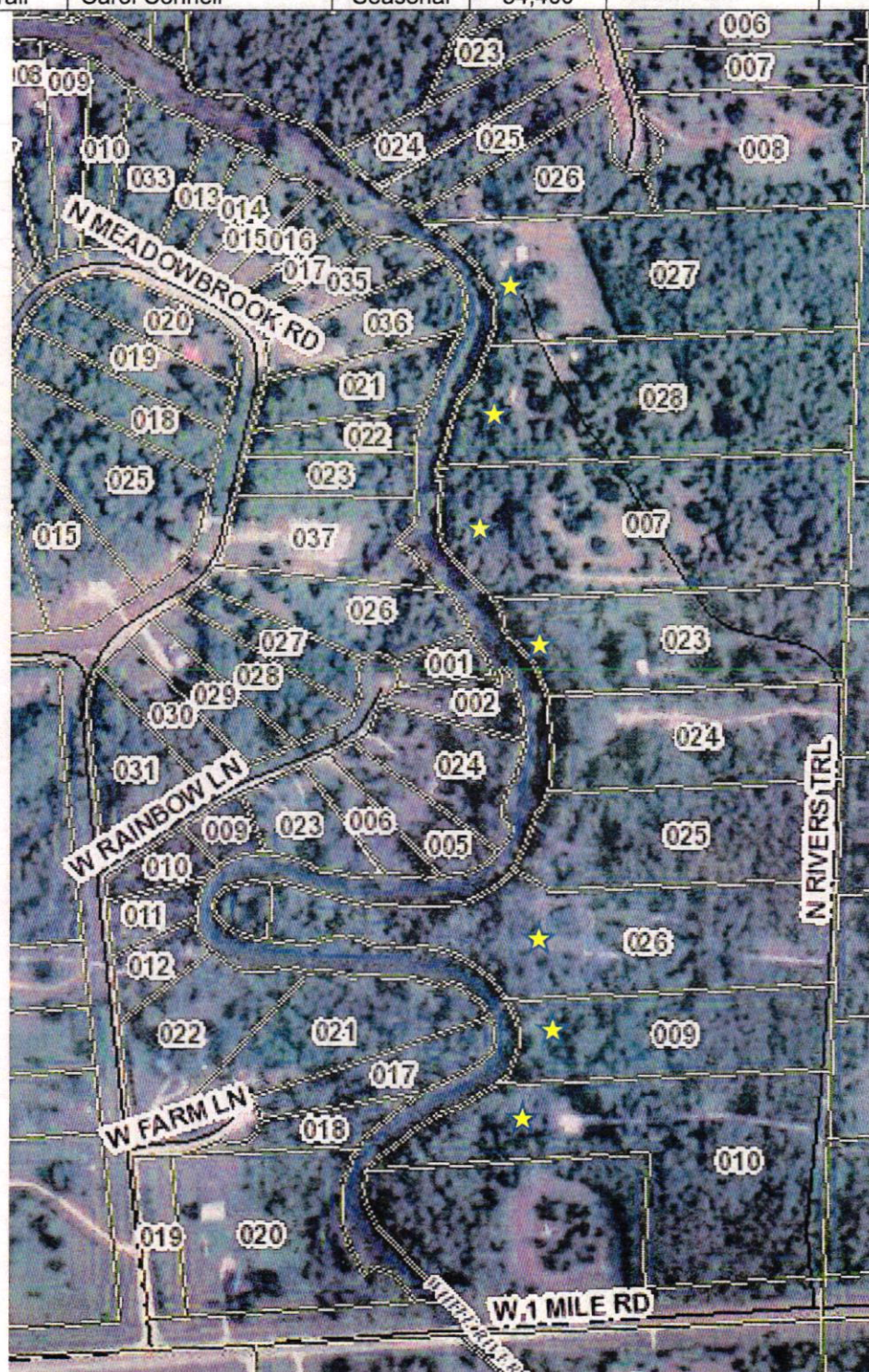
Evacuation Zone 9 – South of the River: Downstream from the White Cloud Dam (Lincoln Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
3869 W Baseline Rd	Robert Dickerson	Full	22,100		
3899 W Baseline Rd	Chris Cook	Full	44,400		
3907 W Baseline Rd	David Hunt	Full	32,600		
230 N Croswell Ave	Janice Vandermolen	Full	88,500		
292 N Croswell Ave	Patrick Sibley	Seasonal	61,900		
324 N Croswell Ave	Mario Cosenza	Full	96,200		
510 N Croswell Ave	Lon Dekuiper	Full	73,300		
539 N Croswell Ave	Keith Mines	Full	70,500		
577 N Croswell Ave	Curtis Pollie	Seasonal	19,900		
617 N Croswell Ave	Patrick Corbett	Seasonal	39,800		



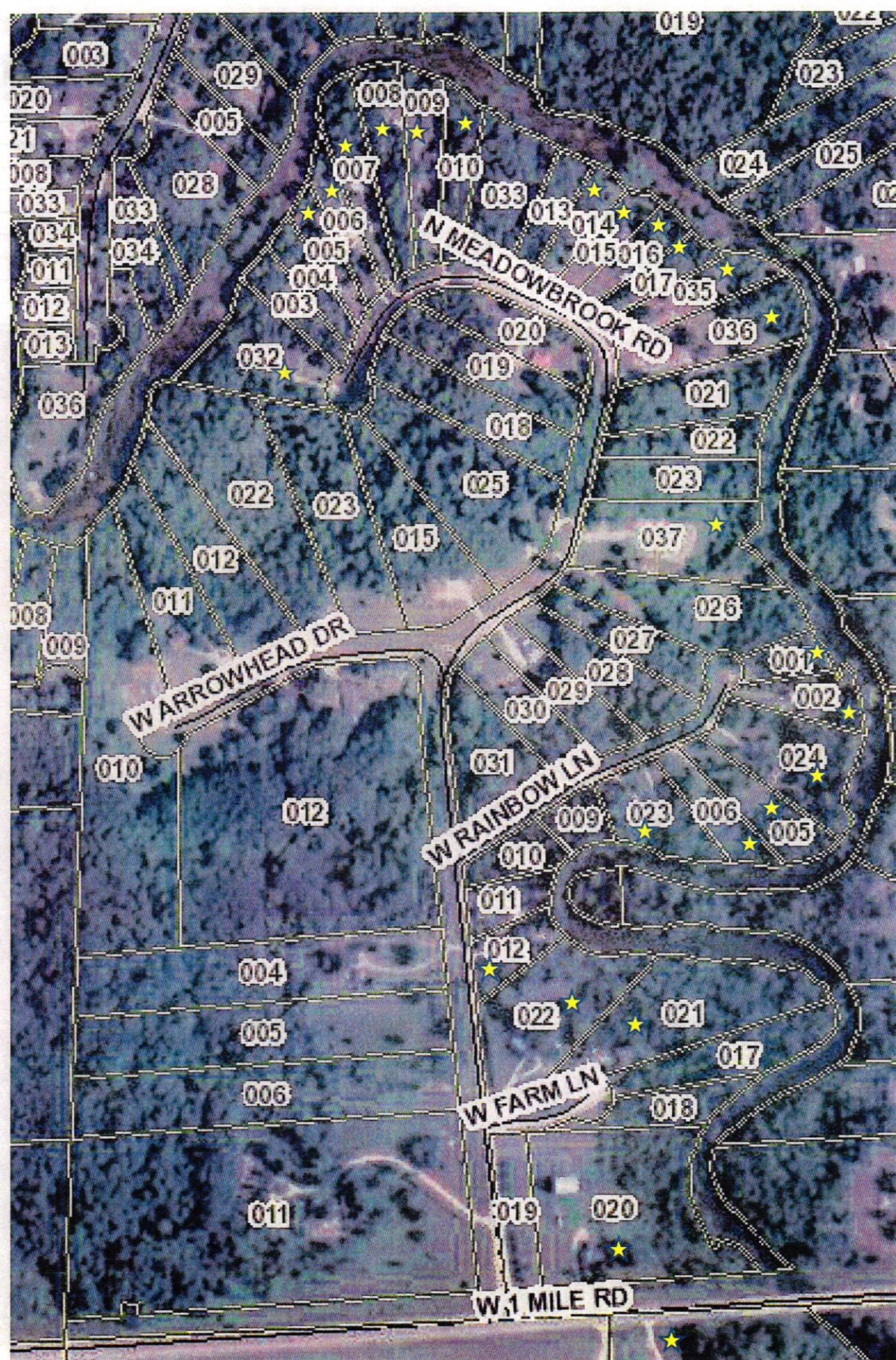
Evacuation Zone 10 – Northeast of the River: Downstream from the White Cloud Dam (Lincoln Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
869 N Rivers Trail	Quinn Vandenberg	Full	109,500		
951 N Rivers Trail	Bob Springstead	Full	220,000		
1025 N Rivers Trail	Rodney Pentoney	Full	74,200		
1037 N Rivers Trail	Randy Eshenroder	Seasonal	59,600		
1091 N Rivers Trail	Ronald Hills	Full	86,100		
1119 N Rivers Trail	Richard Kobylski	Seasonal	53,700		
1175 N Rivers Trail	Carol Connell	Seasonal	54,400		



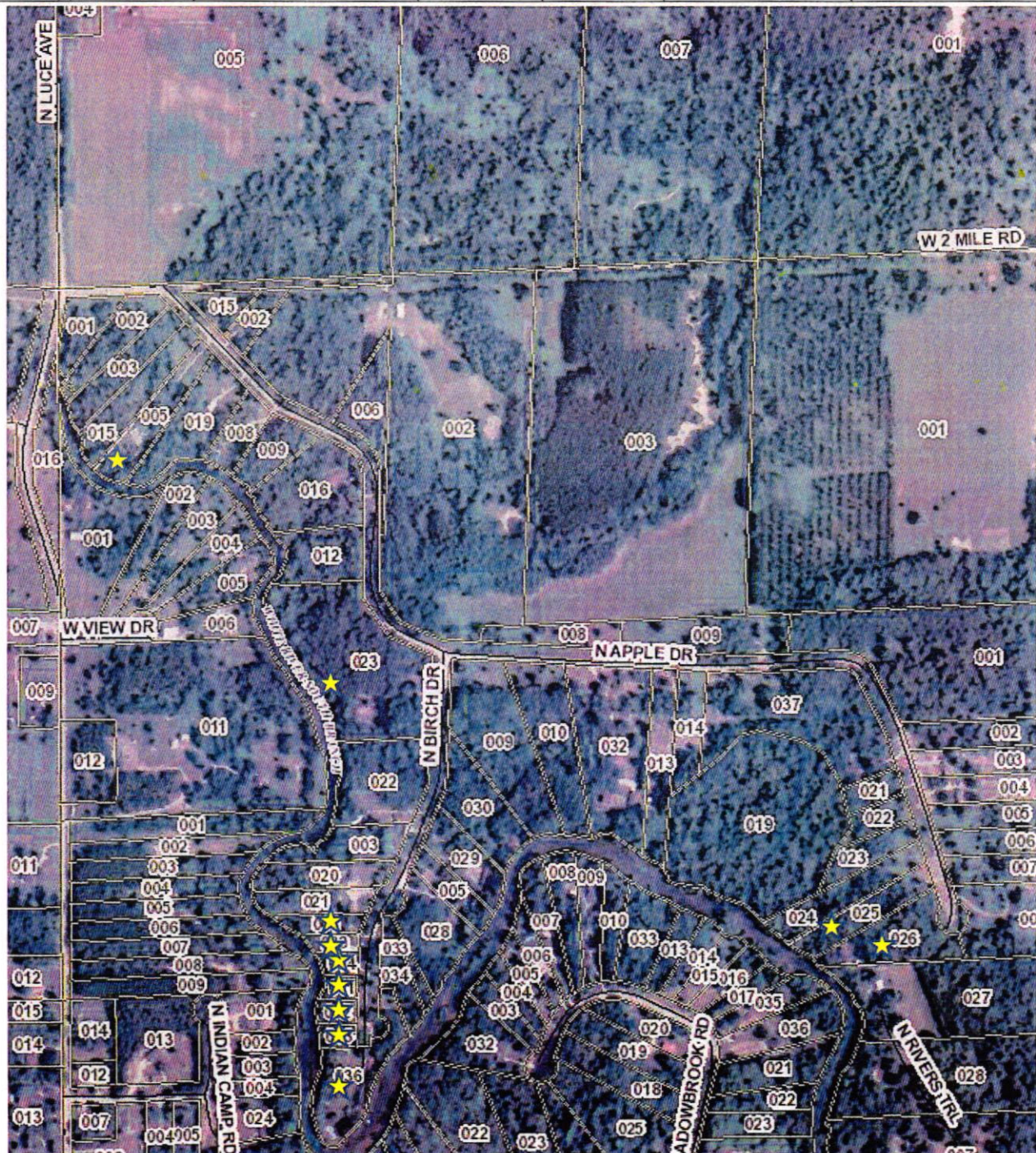
Evacuation Zone 11 – Southwest of the River: Downstream from the White Cloud Dam (Lincoln Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
4330 W 1 Mile Road	Gary Smalligan	Full	130,000		
4409 W 1 Mile Road	Korena Langeries	Full	42,400		
4403 W Farm Lane	Steven Wever	Full	94,500		
920 N Meadowbrook	Bradley Smith	Full	75,300		
930 N Meadowbrook	Flora Hitts	Full	48,300		
950 N Meadowbrook	VACANT	VACANT	61,200		
4398 W Rainbow Ln	Mark Bacon	Full	95,400		
4380 W Rainbow Ln	David Vanderkooi	Seasonal	44,000		
4368 W Rainbow Ln	Robert Post	Seasonal	84,800		
4340 W Rainbow Ln	Bruce Cook	Seasonal	48,700		
4344 W Rainbow Ln	James Frankic	Full	55,700		
1086 N Meadowbrook	Kelly Alger	Full	124,700		
1120 N Meadowbrook	Jennifer Bowen	Seasonal	44,800		
1122 N Meadowbrook	Timothy Schirmer	Full	74,800		
1132 N Meadowbrook	Claude Biles	Full	65,500		
1140 N Meadowbrook	Kenneth Boivin	Seasonal	88,300		
1148 N Meadowbrook	Patricia Wildfong	Full	54,600		
1156 N Meadowbrook	John Huschke	Full	57,500		
1164 N Meadowbrook	Abraham Rodriguez	Full	56,200		
1180 N Meadowbrook	Michael Vanderploeg	Full	62,200		
1194 N Meadowbrook	Gordon Thompson	Full	63,500		
1200 N Meadowbrook	Dorothy Krieg	Full	71,000		
1210 N Meadowbrook	Jeanne Langan	Full	51,200		
1236 N Meadowbrook	Richard Irish	Full	33,400		
1268 N Meadowbrook	Kathe Day-Schirmer	Full	87,300		



Evacuation Zone 12 – Southwest of the River: Downstream from the White Cloud Dam (Lincoln Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
1225 N Apple Drive	Kevin Driscoll	Full	54,500		
1237 N Apple Drive	Jeffery Daugherty	Full	61,600		
1119 N Birch Drive	Jeffrey Barton	Full	70,500		
1167 N Birch Drive	Clyde Wilks	Seasonal	16,300		
1183 N Birch Drive	Alan Palencar	Seasonal	14,000		
1207 N Birch Drive	Mary Wood	Full	61,600		
1217 N Birch Drive	Robert Postmus	Full	28,200		
1227 N Birch Drive	Eugene Feters	Full	33,200		
1237 N Birch Drive	Kenneth Mendez	Seasonal	70,500		
1561 N Apple Drive	Deborah Brinkman	Full	44,900		



Evacuation Zone 13 – Southwest of the River: Downstream from the White Cloud Dam (Lincoln Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
1330 N Luce Ave	Scott Huyser	Full	128,100		
4695 W View Drive	Russell Potter	Full	106,600		
4743 W View Drive	Shelia Thorsen	Seasonal	60,600		
4755 W View Drive	James Berean	Full	46,500		
4767 W View Drive	Larry Messing	Full	56,000		
4779 W View Drive	Irving Hoch	Seasonal	26,100		



**NEWAYGO COUNTY**

Patrick Gardner, Chairperson

1087 Newell Street, PO Box 885, White Cloud MI 49349

Phone: (231) 689-7200 / Fax: (231) 689-7205

DECLARATION FOR A LOCAL "STATE OF EMERGENCY"

TO: Commanding Officer – Michigan State Police Emergency Management and Homeland Security Department; District # 6 District Coordinator Lt. Mark Russo

WHEREAS, beginning on the **DD** day of **MM**, **YYYY**, the County of Newaygo has suffered (or there is an imminent threat of) widespread, or severe damage, injury, or loss of property resulting from (**insert incident type**) which has (**insert impacts**).

WHEREAS, the **Chief Elected Official of the Newaygo County Board of Commissioners** has determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property,

NOW, THEREFORE, BE IT PROCLAIMED BY THE CHIEF ELECTED OFFICIAL BY THE NEWAYGO COUNTY BOARD OF COMMISSIONERS IN ACCORDANCE WITH SECTION 10(b) OF MICHIGAN PUBLIC ACT 390, P.A. 1976 AS AMENDED:

1. That a Local State of Emergency is hereby declared for **Newaygo County**.
2. The Local State of Emergency shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by the **Newaygo County Board of Commissioners**.
3. This declaration of a Local State of Emergency shall be given prompt and general publicity and shall be filed promptly with the Michigan State Police Emergency Management Division, Michigan State Police Newaygo Post, and the **Newaygo County Clerk**.
4. This declaration of a Local State of Emergency activates the **Newaygo County Emergency Operations Plan** to direct the jurisdiction's response and recovery efforts and resources so that local resources are being utilized to the fullest possible extent. This includes activation of the jurisdiction's emergency operations center for coordination and control and utilization of the National Incident Management System by disaster relief forces.
5. That this proclamation shall take effect immediately from and after its issuance.

ORDERED this **DD** day of **MM**, **YYYY**.

CEO, Newaygo County Board of Commissioners

Date

Local State of Emergency Declaration

SUBMITTAL INSTRUCTIONS

1. **This format should be used to request a Governor's Emergency or Disaster Declaration pursuant to Act 390, P.A. 1976, as amended, and the Michigan Emergency Management Plan (MEMP).**
2. **This message should be transmitted to appropriate MSP sources via MI CIMS, Fax, LEIN, and/or E-Mail (listed in order of transmittal preference) in the same manner as the Incident Report and "State of Emergency" Declaration to:**

MSP/EMHSD District Coordinator	MSP/EMHSD Commanding Officer	MSP OPERATIONS	MSP Post 62, Hart Post Commander
MI CIMS: Mark Russo	MI CIMS: MI SEOC Damage Assmt	MI CIMS: MI SEOC Damage Assmt	MI CIMS: LT Jeffery White
Fax: (616) 866-3997	Fax: (517) 333-4987	Fax: (517) 214-6815	Fax: (231) 873-7700
LEIN: N/A	LEIN: ELES	LEIN: ELOP	ORI: MI6406600
E-Mail: russom3@michigan.gov	E-Mail: emdseoc@michigan.gov	E-Mail: operationslts@michigan.gov	E-Mail: whitej25@michigan.gov
Phone: (616) 299-9312	Phone: (517) 336-6198	Phone: (877) 616-4677	Phone: (231) 873-2171

3. **If using MI CIMS to submit the request**, please update the "EM Program Status" and attach the declaration to the report.
4. **IF MI CIMS is unavailable and using facsimile, LEIN or EMAIL will delay the information, the telephone should be used.** If the telephone is used, MI CIMS and or hardcopy confirmation must be forwarded as soon as possible.
5. **If using E-Mail**, to ensure that MSP Operations has received the EMAIL transmission, please call (877) 616-4677 or send a brief LEIN message, indicating that an email message has been sent. Be sure to provide your phone number and email address for data verification.
6. **This request will not be acted upon without sufficient data to substantiate the need for assistance.**
7. **In accordance with Section 12 of Act 390, P.A. 1976, as amended, the chief executive official of a county or municipality may initiate or authorize this request for their political subdivision**
8. A copy of this declaration should be kept on file with the local Clerk (County Clerk for counties; City or Township Clerk for municipal emergency management programs).



Newaygo County, Michigan

EMERGENCY OPERATIONS CENTER



*** * * NEWS RELEASE * * ***

(Insert Date)

FOR IMMEDIATE RELEASE: PRESS RELEASE SUBJECT / TITLE

Newaygo County, MI. - Due to significant flooding, the White Cloud Dam located on the White River near the City of White Cloud is at imminent risk of failure. In response, the Grand Rapids National Weather Service has issued a Flash Flood Warning for the White River below the White Cloud Dam. All persons in the area of the White River in Newaygo County should evacuate the area immediately and move to higher ground.

During evacuation, please take the following steps below:

- Evacuation centers have been set up at the Newaygo County Commission on Aging located at 93 S Gibbs street in the City of White Cloud and Hesperia Community Schools located at 96 S Division Street, Hesperia MI. PLEASE REPORT TO ONE OF THESE EVACUATION CENTER LOCATIONS TO ENSURE YOU AND YOUR FAMILY ARE SAFE AND TO OBTAIN ADDITIONAL INFORMATION.
- Follow instructions from public safety officials in the area.
- Follow recommended evacuation routes. Do not take shortcuts, they may be blocked
- Collect only essential items to take with you including prescription medications.
- Take all family members and pets with you.
- If you have transportation, offer assistance to your neighbors if they have no transportation.
- Be alert for washed out roads and bridges. Do not drive into water covering the road or flooded areas and Stay away from downed power lines.
- Continue monitoring your radio, Nixle, and Newaygo ES's Facebook Page for additional information.
- ONLY call 9-1-1 to report a life threatening condition.

Due to the flood conditions, the Chief Elected Official of the Newaygo County Board of Commissioners has issued a Local State of Emergency for Newaygo County in accordance with Public Act 390. Due

to unsafe conditions in the area, an executive order has also been issued restricting access to the area and closing of all roads and bridge crossings near the White River as necessary. To prevent further injuries and property damage, power may be shut off to the impacted areas.

Incident Commanders and the Newaygo County Emergency Operations Center are coordinating with the City of White Cloud, the Department of Environmental Quality, and the National Weather Service Grand Rapids Office to actively monitor the changing conditions and communicate information out to residences impacted by the dam failure. As the situation changes, additional information will be released by the Newaygo County Emergency Operations Center utilizing Nixle. Please visit <http://www.nixle.com/> to register for alerts and view emergency information for where you live.

###

EMERGENCY NOTIFICATION WORKSHEET

Message Developed by: Responsible Authority

Message Reviewed by: Additional Representatives

Message Transmittal:

<input type="checkbox"/> Nixle or EAS	<input type="checkbox"/> Citywatch	<input type="checkbox"/> NOAA S.A.M.E. Weather
<input type="checkbox"/> Email	<input type="checkbox"/> Media Outlets	<input type="checkbox"/> NWS Chat
<input type="checkbox"/> Personal Notifications	<input type="checkbox"/> Social Media	<input type="checkbox"/> Fax

Local Television

TV 13 WZZM	WOOD TV 8	Fox 17 WXMI	TV 9 & 10 and Fox 32
Phone: 616-599-1300	Phone: 616-771-9633	Phone: 616-364-1717	Phone: 231-775-3478 x3301
Fax: 616-785-1301	Fax: 616-456-5755	Fax: 616-364-6018	Fax: 231-775-2731
E-Mail: news@wzzm13.com	E-Mail: newsroom@woodtv.com	E-Mail: news@fox17online.com	E-Mail: news@9and10news.com

Local Radio

STAR 105.7 FM WOOD	WBRN 100.9 FM	WYBR 102.3 FM & 1460 AM	WLAW 92.5 FM
Phone: 616-459-1919	Phone: 231 796-7000	Phone: 231 796-7000	Phone: 1-877-925-6885x
Fax: 616-732-3330	Phone: Jeff 231-598-1338	Phone: 231-598-9102	Phone: 231-830-0176
E-Mail: news@woodradio.com	Phone: 231-796-5835	Phone: 231-598-2588	Phone: (616) 774-8461
	Fax: 231-796-7951	Fax: 231-796-7951	
	E-Mail: news@wwbr.com	E-Mail: news@wybr.com	Email: Kevin.matthews@citcomm.com

Local Paper and Social Media

GRAND RAPIDS PRESS	MLIVE	Facebook
Phone: 616-224-2350	Phone: 800-878-1400	User Name: nces@co.newaygo.mi.us
Fax: 616-222-5269		Password required
E-Mail: grnews@mlive.com	E-Mail: munews@mlive.com	http://www.facebook.com/newaygoes

Specialized Warning

Nixle	CityWatch	EAS and NOAA Weather Alerts
Support Desk (877) 649-5373	Phone: (231) 689-7013	Phone: (616) 949-5150
User name and password req.	Mailbox Number: 3100	Monthly authentication code required
https://agency.nixle.com/login/	https://cww.countyofnewaygo.com	Email: james.maczko@noaa.gov

Part IV – Flood Hazard Specific Annex

Purpose

The purpose of this Flood Hazard Specific Annex is to provide guidance for the Emergency Operations Center, public safety officials, the City of White Cloud, and the general public during a flooding event on the White River which requires the Newaygo County to implement emergency protective measures.

Scope:

This Flood Hazard Specific Annex will be activated when one or more of the following conditions have been identified:

1. **Condition D: Non-Failure Emergency Condition.** Condition D will be activated when a situation is developing that will not, by itself, lead to a failure but requires investigation and notification to internal and/or external personnel. External notification will be made only when the public could be affected. An example would be if a gate malfunctioned which may lead to unexpected high releases that could pose a hazard to the downstream public.
2. **Condition C: High Flow Emergency condition.** Condition C will be activated when the flow conditions are as such that flooding is expected to occur downstream of the dam. Use of this classification allows for early warning of downstream areas during flood conditions. While the amount of flooding may be beyond control, information on the amount of releases from the dam is provided to authorities for any decisions on the need for evacuations. Condition C at the White Cloud Dam is quantified by all three lift gates are opened and additional spill is required; and/or local run-off increases river levels downstream.
3. **The Grand Rapids National Weather Service issues a Flood Watch.** Watch products associated with flooding are typically issued within a day or more of the event. The confidence level for an event to occur when a Watch is issued is 50-80%. When a Watch is issued, you should begin to gather more information about the situation and determine what actions you will need to take should a warning be issued.
4. **The Grand Rapids National Weather Service issues a Flood Warning or Advisory.** Warnings or Advisories are issued when confidence is greater

than 80% that an event will occur. Depending on the type of event, these may be issued anywhere from hours before an event to days in advance of an event.

This Hazard Specific Annex will remain in effect until the above conditions have been lifted or expired.

Basic Response Considerations:

When this Flood Hazard Specific Annex is activated, the following response considerations should be followed throughout the event: (Note: The White River within Newaygo County does not have a United States Geological Survey (USGS) River Gage or National Weather Service Advanced Hydrologic Prediction Service Forecast Point. The only USGS River Gage on the White River is located downstream of the White Cloud Dam and Hesperia Dam in Whitehall, Michigan. Therefore there are no known or recorded river depths, flood impacts, or flood warning mechanisms in place for the White River in Newaygo County).

- ✓ Coordinate with local field teams to actively monitor and document impacts in low lying areas within the floodplain
- ✓ Actively maintain communications with the City of White Cloud and the National Weather Service Office utilizing
 - NWS Chat
 - Phone or email Communications
 - Direct Liaison
- ✓ Maintain daily briefings with the EOC, the City of White Cloud, local officials, and public safety agencies utilizing the EOC Incident Briefing Form.
- ✓ Actively issue advanced public information and warning messages to allow property owners enough time to act. Targeted information should be communicated about
 - Current conditions
 - Expected conditions over the next 24 hours
 - Emergency protective measures to take

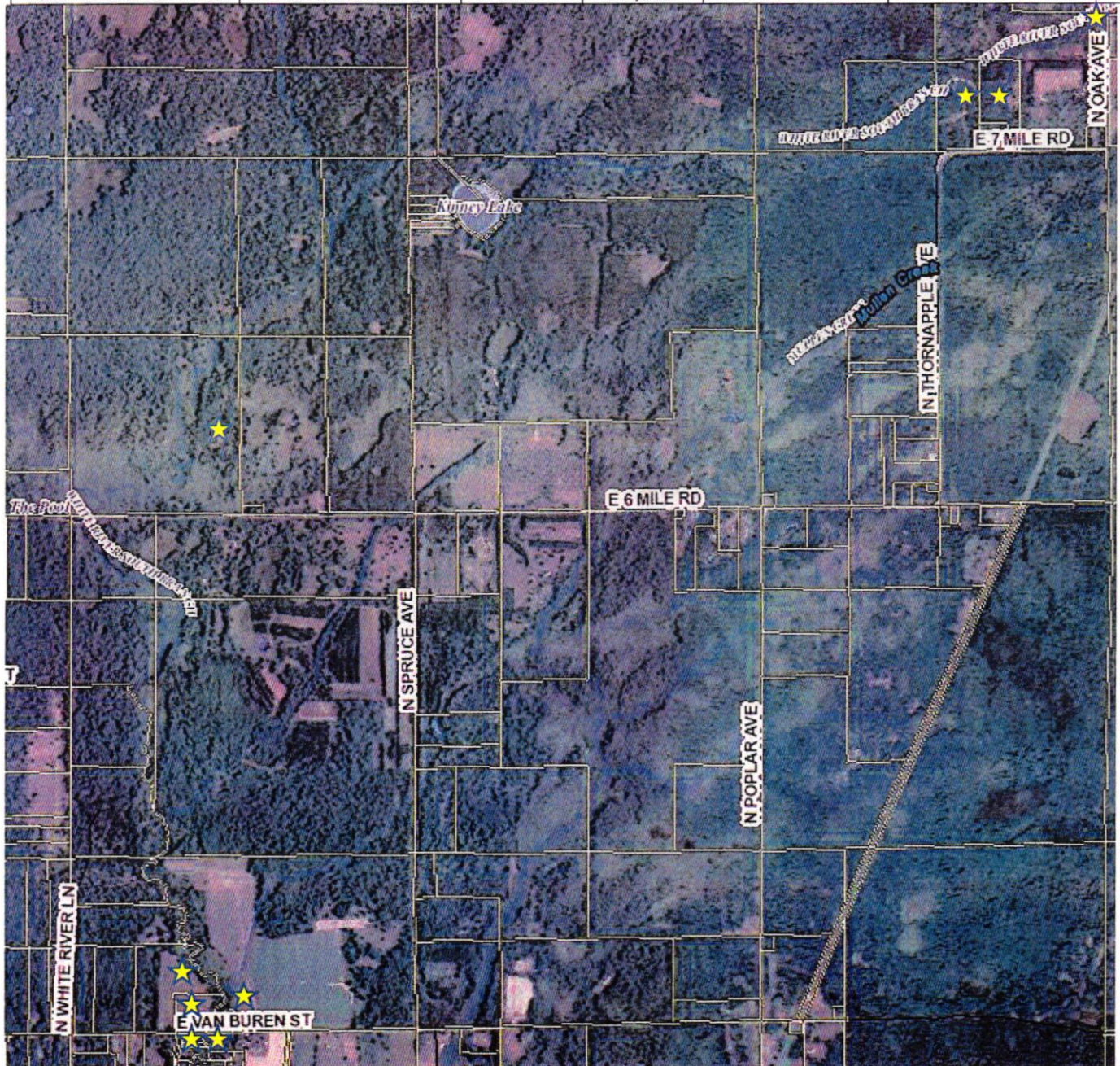
AGENCY SPECIFIC PROCEDURES

Agency	Description
Fire Dept.	<ul style="list-style-type: none"> • Establish/Interface Unified Incident Command System • Implement rescue operations for affected victims/populations • Coordinate community protection measures, i.e. evacuation from endangered areas • Modify fire suppression strategy to affected areas based on flood conditions
Public Works	<ul style="list-style-type: none"> • Establish/Interface Unified Incident Command System • Implement prioritized road, bridge, and drain infrastructure maintenance/repair • Coordinate long-term road closures and traffic control • Coordinate flood fight operations including diking, sandbagging, etc. • Conduct primary flood monitoring and spotting
Law Enforcement	<ul style="list-style-type: none"> • Interface with Incident Command System/Unified Command Post. • Assist in population rescue (i.e. Marine resources) • Assist in community protective measures (i.e. evacuation, in-place sheltering, etc.). • Implement short-term, immediate traffic control for flooded areas and resulting hazards • Coordinate population reunification and missing persons operations • Provide additional support as necessary.
Emergency Medical	<ul style="list-style-type: none"> • Interface with Incident Command System/Unified Command Post. • Provide medical support for emergency rescue operations • Provide additional support as necessary.
9-1-1 / Warning	<ul style="list-style-type: none"> • Activate emergency services (fire, police, emergency management) • Coordinate activation of community warning systems as directed by IC • Relay damage reports / status to National Weather Service GR as necessary
Additional Agencies	<ul style="list-style-type: none"> • Newaygo County Emergency Services for EOC / emergency plan support • American Red Cross for provision of reception centers, re-unification, shelters • Newaygo Animal Control to support animal evacuation management • Local Utility Companies/Crews for utility shut-off & management

Further response support will be provided by extension of the NIMS Incident Command System and/or activation of the Newaygo County Emergency Plan.

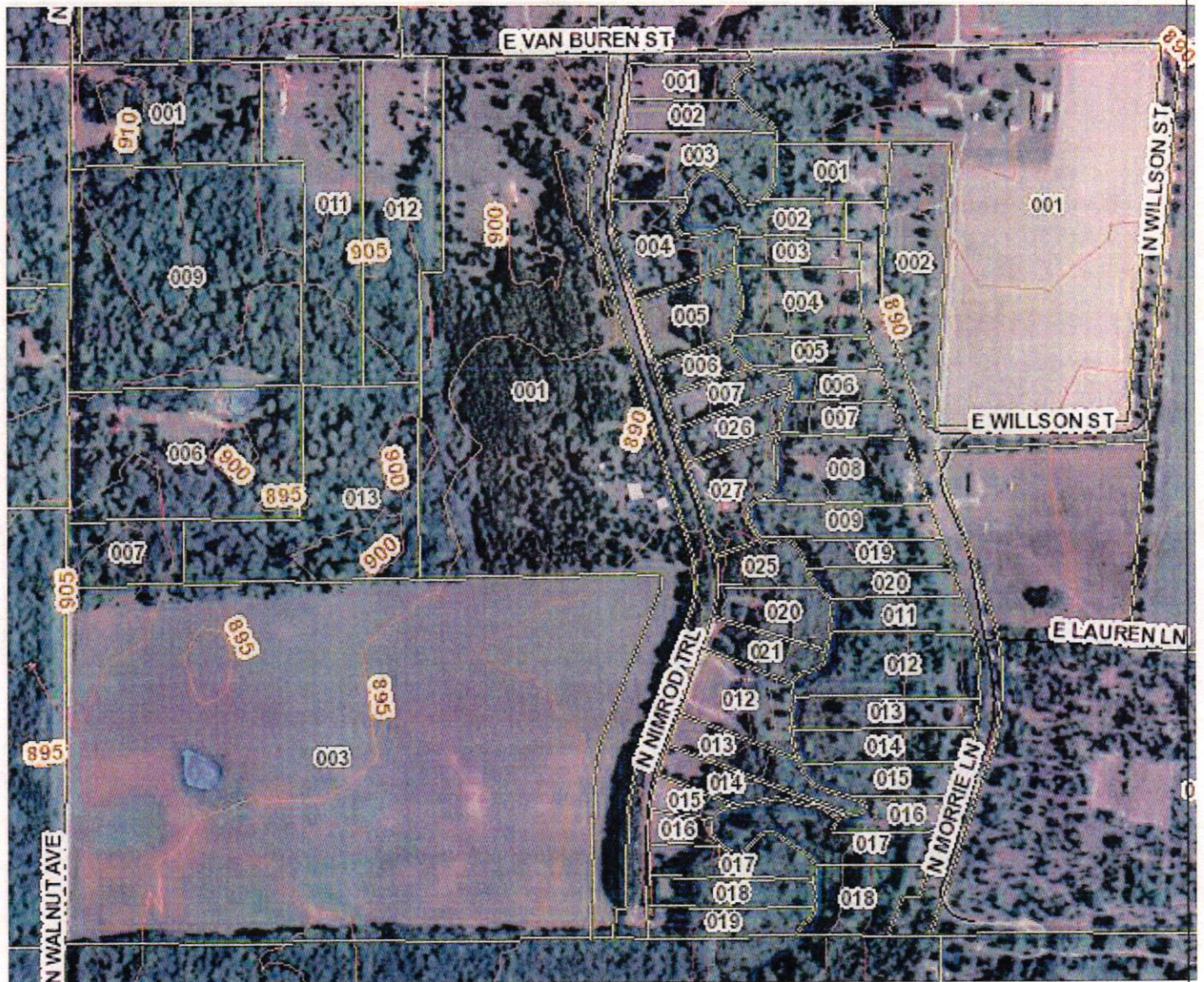
White River Upstream from the White Cloud Dam Low Lying Properties (Wilcox Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
5845 N Oak Ave	Maus Family	Full	16,000		
3775 E 7 Mile Road	William Gurd	Seasonal	44,700		
3667 E 7 Mile Road	James Coon	Full	111,900		
1875 E 6 Mile Road	Oliver Wagemaker	Seasonal	131,100		
1799 E Vanburen Ave	William Mong	Full	99,800		
1891 E Vanburen Ave	Clinton Mason	Full	75,000		
2007 E Vanburen Ave	Esther Willson	Full	223,400		
2028 E Vanburen Ave	Esther Willson	Seasonal	52,000		
1894 E Vanburen Ave	John Carothers	Full	20,700		



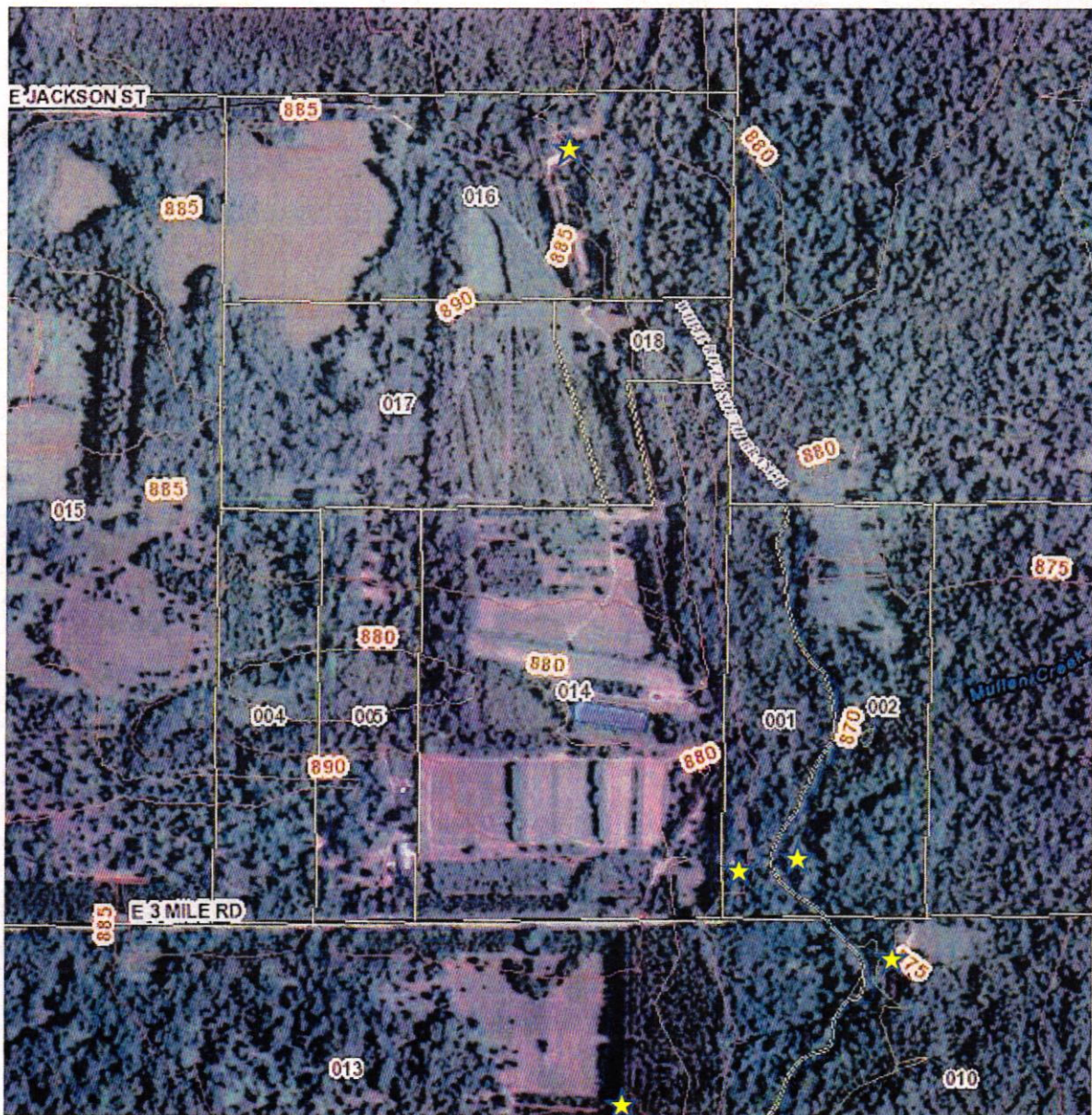
White River Upstream from the White Cloud Dam Low Lying Properties (Wilcox Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
3542 N Nimrod Trail	Gerald Morton	Seasonal	49,400		
3506 N Nimrod Trail	Troy Nevins	Seasonal	32,300		
3448 N Nimrod Trail	Carol Russo	Seasonal	29,200		
3412 N Nimrod Trail	Randall Franklin	Seasonal	16,600		
3392 N Nimrod Trail	Randall Franklin	Full	68,000		
3326 N Nimrod Trail	Susan Straub	Seasonal	38,400		
3266 N Nimrod Trail	Jeff McNabney	Full	33,000		



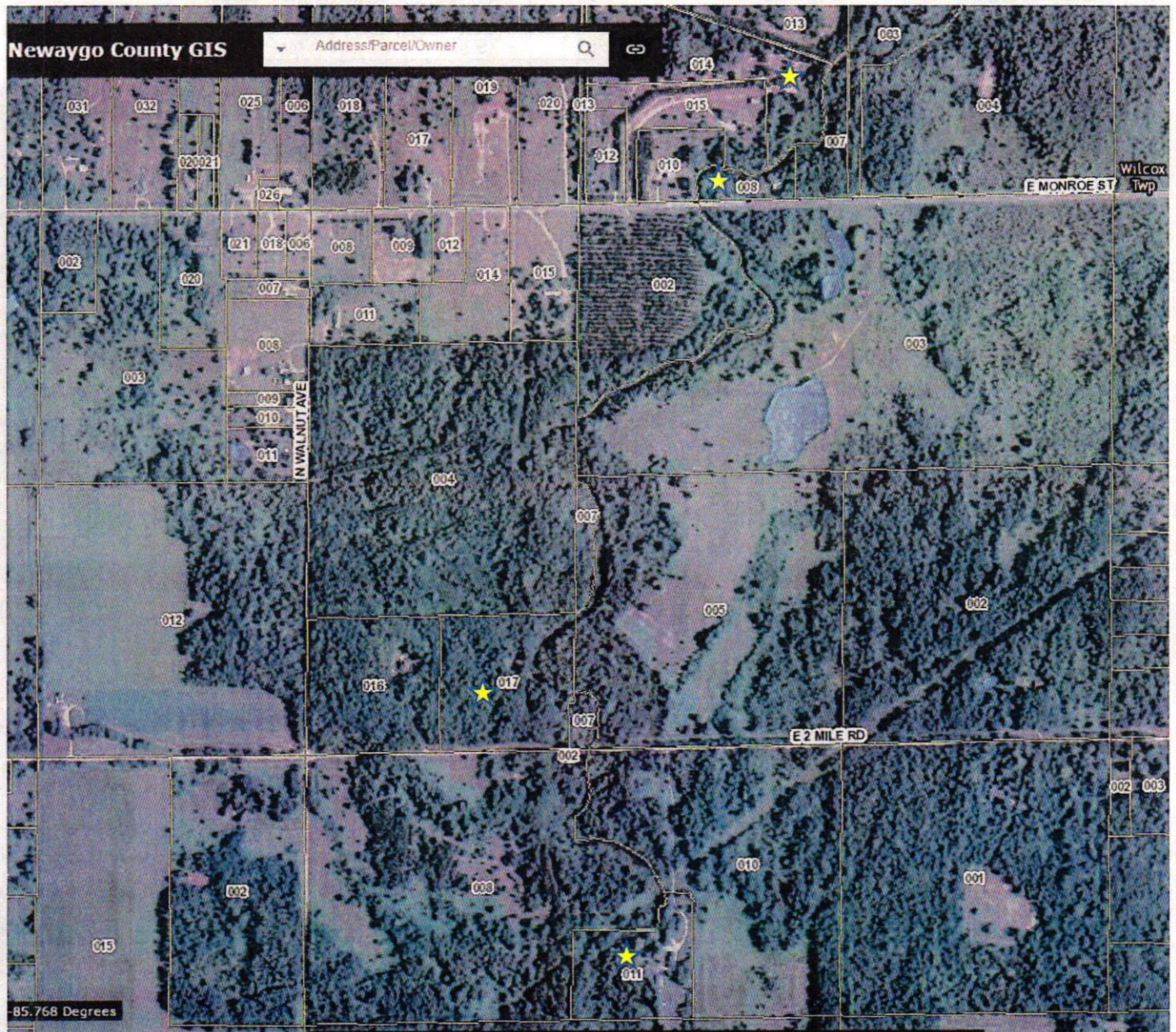
White River Upstream from the White Cloud Dam Low Lying Properties (Wilcox Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
1972 E Jackson St	Randy Breen	Full	78,100		
2049 E 3 Mile Road	Douglas Rose	Seasonal	73,200		
2009 E 3 Mile Road	Randy Breen	Seasonal	48,600		
2092 E 3 Mile Road	White River Club	Business	86,800		
1956 E 3 Mile Road	Abby Dilley	Seasonal	110,400		



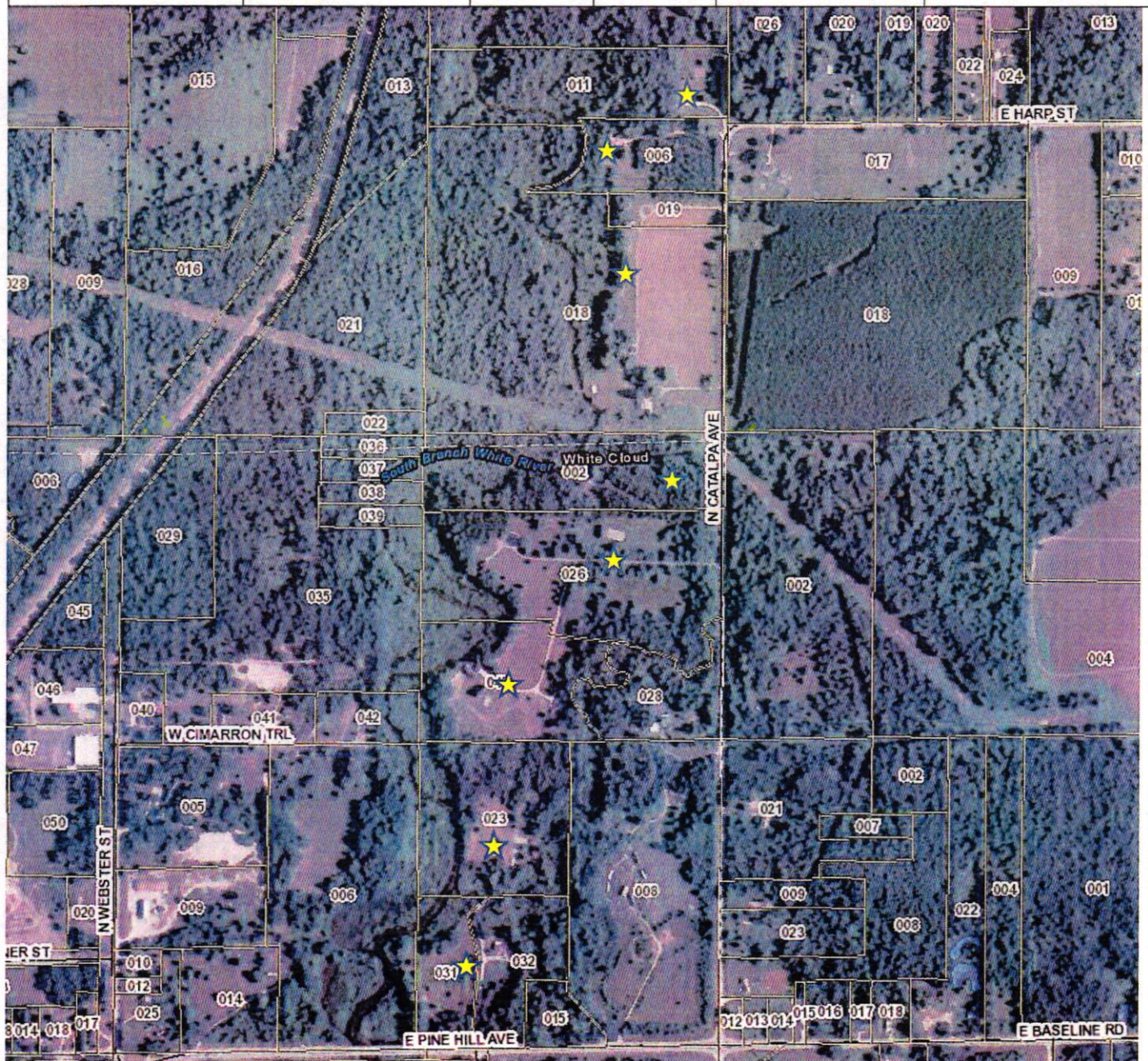
White River Upstream from the White Cloud Dam Low Lying Properties (Wilcox Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
1837 E Monroe	Bruce Farr	Seasonal	64,800		
1929 E Monroe	Mike Bachert	Full	35,100		
1747 E 2 Mile Road	James Goyings	Seasonal	39,500		
1870 E 2 Mile Road	Catherine Behrends	Seasonal	102,700		



White River Upstream from the White Cloud Dam Low Lying Properties (Wilcox Twp)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
625 N Catalpa Ave	Robert McGowen	Full	54,800		
597 N Catalpa Ave	Michael Davis	Full	49,400		
429 N Catalpa Ave	Robert Taube	Full	76,500		
375 N Catalpa Ave	Allen Thorington	Full	66,100	City of White Cloud	
321 N Catalpa Ave	Donald Rudert	Full	114,100	City of White Cloud	
269 N Catalpa Ave	Brian Miller	Full	90,100	City of White Cloud	
1865 E Pine Hill	Lisa Jacobs	Full	36,900	City of White Cloud	
1825 E Pine Hill	Stephen Redman	Full	29,500	City of White Cloud	



White Cloud Lake / White River Low Lying Properties (City of White Cloud)

ADDRESS	NAME	Seasonal/ Full	Assd. Value	Comments	Damage
1869 E River View	Larry Boger	Full	30,400		
1795 E River View	Kenneth Phillips	Full	38,900		
1749 E River View	Kay Frantz	Full	19,500		
272 S Webster St	Virgil Houle	Full	38,300		
1600 E James St	Kay Barber	Seasonal	17,500		
1566 E James St	Marilyn Beaudry	Full	-		
1556 E James St	Mildred Shroats	Seasonal	19,800		
1546 E James St	Duane Emery	Full	31,500		
1542 E James St	David Meyers	Full	15,600		
1526 E James St	Rita Dargis	Seasonal	17,000		
1440 E James St	Fremont Develop.	Business	33,300		



Flood Impact Area Downstream from the White Cloud Dam (Everett Twp)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
531 E Deer Road	Doug Weaver	Full	117,700		
540 E Deer Road	Christopher Feldpausch	Full	64,300		
558 E Deer Road	Howard and Linda Miller	Seasonal	43,800		
572 E Deer Road	Joseph Ryznar	Seasonal	29,500		
590 E Deer Road	Robert Mahoney	Seasonal	26,200		
600 E Deer Road	Dan Etterman	Full	8,600		



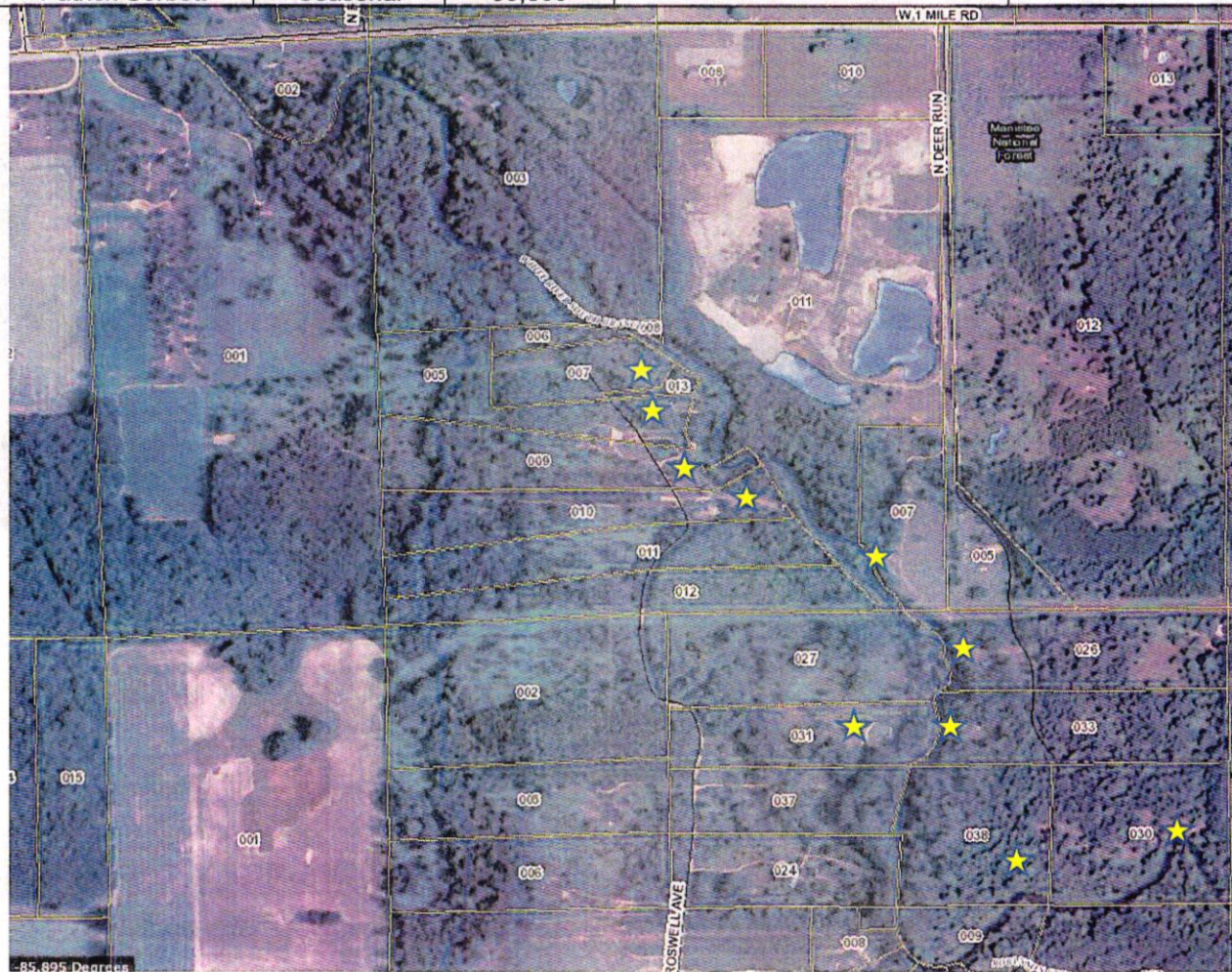
Flood Impact Area Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
239 N Wisner Ave	Leon Troeger	Seasonal	83,900		
109 N Wisner Ave	John Stewart	Seasonal	165,700		
85 N Baldwin Ave	Alan Vanderhoof	Seasonal	75,900		
3377 W Baseline Rd	Kenneth Nielsen	Full	89,500		
3439 W Baseline Rd	Darin Esing	Seasonal	41,500		
3497 W Baseline Rd	Gerald Suchner	Full	75,000		
3505 W Baseline Rd	Perry Ackerman	Seasonal	53,500		



Flood Impact Area Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
292 N Deer Run	Elizabeth Deshano	Seasonal	45,500		
283 N Deer Run	Robert Piccard	Seasonal	30,500		
341 N Deer Run	Timothy Hooker	Full	31,300		
403 N Deer Run	Beth Mlynarchek	Seasonal	37,200		
483 N Deer Run	Brian Hable	Full	77,700		
324 N Croswell Ave	Mario Cosenza	Full	96,200		
510 N Croswell Ave	Lon Dekuiper	Full	73,300		
539 N Croswell Ave	Keith Mines	Full	70,500		
577 N Croswell Ave	Curtis Pollie	Seasonal	19,900		
617 N Croswell Ave	Patrick Corbett	Seasonal	39,800		



Flood Impact Area Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
4368 W Rainbow Ln	Robert Post	Seasonal	84,800		
4340 W Rainbow Ln	Bruce Cook	Seasonal	48,700		
4344 W Rainbow Ln	James Frankic	Full	55,700		



Flood Impact Area Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
1140 N Meadowbrook	Kenneth Boivin	Seasonal	88,300		
1148 N Meadowbrook	Patricia Wildfong	Full	54,600		
1156 N Meadowbrook	John Huschke	Full	57,500		
1164 N Meadowbrook	Abraham Rodriguez	Full	56,200		
1180 N Meadowbrook	Michael Vanderploeg	Full	62,200		
1194 N Meadowbrook	Gordon Thompson	Full	63,500		
1200 N Meadowbrook	Dorothy Krieg	Full	71,000		
1210 N Meadowbrook	Jeanne Langan	Full	51,200		
1236 N Meadowbrook	Richard Irish	Full	33,400		
1268 N Meadowbrook	Kathe Day-Schirmer	Full	87,300		



Flood Impact Area Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
1119 N Birch Drive	Jeffrey Barton	Full	70,500		
1167 N Birch Drive	Clyde Wilks	Seasonal	16,300		
1183 N Birch Drive	Alan Palencar	Seasonal	14,000		
1207 N Birch Drive	Mary Wood	Full	61,600		
1217 N Birch Drive	Robert Postmus	Full	28,200		
1227 N Birch Drive	Eugene Feters	Full	33,200		
1237 N Birch Drive	Kenneth Mendez	Seasonal	70,500		



Flood Impact Area Downstream from the White Cloud Dam (Lincoln Township)

ADDRESS	NAME	Seasonal/Full	Assd. Value	Comments	Damage
1330 N Luce Ave	Scott Huyser	Full	128,100		
4695 W View Drive	Russell Potter	Full	106,600		
4743 W View Drive	Shelia Thorsen	Seasonal	60,600		
4755 W View Drive	James Berean	Full	46,500		
4767 W View Drive	Larry Messing	Full	56,000		
4779 W View Drive	Irving Hoch	Seasonal	26,100		



**NEWAYGO COUNTY**

Patrick Gardner, Chairperson

1087 Newell Street, PO Box 885, White Cloud MI 49349

Phone: (231) 689-7200 / Fax: (231) 689-7205

DECLARATION FOR A LOCAL "STATE OF EMERGENCY"

TO: Commanding Officer – Michigan State Police Emergency Management and Homeland Security Department; District # 6 District Coordinator Lt. Mark Russo

WHEREAS, beginning on the **DD** day of **MM**, **YYYY**, the County of Newaygo has suffered (or there is an imminent threat of) widespread, or severe damage, injury, or loss of property resulting from (**insert incident type**) which has (**insert impacts**).

WHEREAS, the **Chief Elected Official of the Newaygo County Board of Commissioners** has determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property,

NOW, THEREFORE, BE IT PROCLAIMED BY THE CHIEF ELECTED OFFICIAL BY THE NEWAYGO COUNTY BOARD OF COMMISSIONERS IN ACCORDANCE WITH SECTION 10(b) OF MICHIGAN PUBLIC ACT 390, P.A. 1976 AS AMENDED:

1. That a Local State of Emergency is hereby declared for **Newaygo County**.
2. The Local State of Emergency shall continue for a period of not more than seven days from the date of this declaration unless continued or renewed by the **Newaygo County Board of Commissioners**.
3. This declaration of a Local State of Emergency shall be given prompt and general publicity and shall be filed promptly with the Michigan State Police Emergency Management Division, Michigan State Police Newaygo Post, and the **Newaygo County Clerk**.
4. This declaration of a Local State of Emergency activates the **Newaygo County Emergency Operations Plan** to direct the jurisdiction's response and recovery efforts and resources so that local resources are being utilized to the fullest possible extent. This includes activation of the jurisdiction's emergency operations center for coordination and control and utilization of the National Incident Management System by disaster relief forces.
5. That this proclamation shall take effect immediately from and after its issuance.

ORDERED this **DD** day of **MM**, **YYYY**.

CEO, Newaygo County Board of Commissioners

Date

Local State of Emergency Declaration

SUBMITTAL INSTRUCTIONS

1. **This format should be used to request a Governor's Emergency or Disaster Declaration pursuant to Act 390, P.A. 1976, as amended, and the Michigan Emergency Management Plan (MEMP).**
2. **This message should be transmitted to** appropriate MSP sources via MI CIMS, Fax, LEIN, and/or E-Mail (listed in order of transmittal preference) in the same manner as the Incident Report and "State of Emergency" Declaration to:

MSP/EMHSD District Coordinator	MSP/EMHSD Commanding Officer	MSP OPERATIONS	MSP Post 62, Hart Post Commander
MI CIMS: Mark Russo	MI CIMS: MI SEOC Damage Assmt	MI CIMS: MI SEOC Damage Assmt	MI CIMS: LT Jeffery White
Fax: (616) 866-3997	Fax: (517) 333-4987	Fax: (517) 214-6815	Fax: (231) 873-7700
LEIN: N/A	LEIN:	LEIN: MI3300100	ORI: MI6406600
E-Mail: russom3@michigan.gov	E-Mail: emdseoc@michigan.gov	E-Mail: operationslts@michigan.gov	E-Mail: whitej25@michigan.gov
Phone: (616) 299-9312	Phone: (517) 284-3745	Phone: (517) 241-8000	Phone: (231) 873-2171

3. **If using MI CIMS to submit the request**, please update the "EM Program Status" and attach the declaration to the report.
4. **IF MI CIMS is unavailable and using facsimile, LEIN or EMAIL will delay the information, the telephone should be used.** If the telephone is used, MI CIMS and or hardcopy confirmation must be forwarded as soon as possible.
5. **If using E-Mail**, to ensure that MSP Operations has received the EMAIL transmission, please call (877) 616-4677 or send a brief LEIN message, indicating that an email message has been sent. Be sure to provide your phone number and email address for data verification.
6. **This request will not be acted upon without sufficient data to substantiate the need for assistance.**
7. **In accordance with Section 12 of Act 390, P.A. 1976, as amended, the chief executive official of a county or municipality may initiate or authorize this request for their political subdivision**
8. A copy of this declaration should be kept on file with the local Clerk (County Clerk for counties; City or Township Clerk for municipal emergency management programs).



Newaygo County, Michigan

EMERGENCY OPERATIONS CENTER



* * * NEWS RELEASE * * *

(Insert Date)

FOR IMMEDIATE RELEASE: PRESS RELEASE SUBJECT / TITLE

Newaygo County, MI. - Due to heavy rainfall over this past weekend, the Grand Rapids National Weather Service has issued a Flood Warning for the Muskegon River near Croton. The USGS Croton River Gauge is used to determine the river levels. As of 10:00 am, the Muskegon River near Croton was at 13.1 feet with flows at 12,167 cubic feet per second. Flood stage is at 9.0 feet.

It is expected to see river levels over 13 feet. Reliability of the forecast is based on current and forecasted river, weather and reservoir conditions. Light precipitation is predicted for Thursday, but should not add to the flooding issues. 256 homes in the flowing areas are anticipated to be impacted by flood waters:

- Leisure Land Subdivision in Bridgeton Township
- Sycamore Flats in Ashland Township
- 100th Ave in Ashland Township
- Old Women's Bend in Garfield Township
- Anderson Flat's in Garfield Township
- Fright Hill in Bridgeton Township
- Homesite Park in Bridgeton Township
- River Ridge in Ashland Township
- Bell Meadow Drive in Bridgeton Township
- Devil's Hole in Brooks Township
- Sarrell Street in the City of Newaygo
- Maple Island Ave and South River Road in Bridgeton Township
- W Fern Glen in Ashland Township
- Salmon Run Drive in Brooks Township
- Croton Shoals in Croton Township
- Cottonwood Flats in Brooks Township
- Gould Park in Brooks Township

Newaygo County is requesting all residents within the areas anticipated to be impacted by flood waters to self evacuate now. During evacuation, please take the following steps below:

- Evacuation Shelters have been set up at (Insert shelter location).
- The evacuation route established is (insert evacuation routes).
- Collect only essential items to take with you including prescription medications.
- Turn off your main breaker in your homes electrical panel.
- Turn off any propane tanks located on your property. If there is a risk of flooding, insure your propane tank is strapped down.
- Close and lock all doors and windows.
- Take all family members and pets with you.
- If you have transportation, offer assistance to your neighbors if they have no transportation.
- Follow recommended evacuation routes. Do not take shortcuts, they may be blocked.
- Be alert for washed out roads and bridges. Do not drive into water covering the road or flooded areas and Stay away from downed power lines.
- Continue monitoring your radio, Nixle, and Newaygo ES's Facebook Page for additional information.
- If you need assistance evacuating call (231) 689-7307 or call 9-1-1 to report a life threatening condition.

Due to the flood conditions, the Chief Elected Official of the Newaygo County Board of Commissioners has issued a Local State of Emergency for Newaygo County in accordance with Public Act 390. Due to unsafe conditions on the Muskegon River, an executive order has also been issued closing down all County and Township controlled public access sites along the Muskegon River until the Flood Warning has been lifted. In addition, the Michigan Department of Natural Resources have closed down all State controlled public access sites on the Muskegon River in Newaygo County. All use of these properties will be prohibited until further notice. Violation of this order shall be enforced under MCL 750.552 (Trespass) by State and Local law enforcement.

Due to very unsafe river conditions that accompany rapid currents, high water, and dangerous debris, the public is being asked avoid the Muskegon River area until the Flood Warning has been lifted.

The following roads are currently closed due to flooding:

- Bridgeton Township: Main Street off from Turner – S. of 128th
- Bridgeton Township: S. River Drive and Maple Island
- Bridgeton Township: Fitzgerald and 124th
- Ashland Township: Sugar Bush and Maple Drive off Croswell

For additional road condition information, please go to www.newaygoroads.org.

Newaygo County Emergency Services is coordinating with Consumers Energy and the National Weather Service Grand Rapids Office to actively monitor the changing conditions and communicate information out to residences impacted by the rising floodwaters. As the situation changes, additional information will be released by the Newaygo County Emergency Operations Center utilizing Nixle.

Please visit <http://www.nixle.com/> to register for alerts and view emergency information for where you live.

###

EMERGENCY NOTIFICATION WORKSHEET

Message Developed by: Responsible Authority

Message Reviewed by: Additional Representatives

Message Transmittal:

<input type="checkbox"/> Nixle or EAS	<input type="checkbox"/> Citywatch	<input type="checkbox"/> NOAA S.A.M.E. Weather
<input type="checkbox"/> Email	<input type="checkbox"/> Media Outlets	<input type="checkbox"/> NWS Chat
<input type="checkbox"/> Personal Notifications	<input type="checkbox"/> Social Media	<input type="checkbox"/> Fax

Local Television

TV 13 WZZM	WOOD TV 8	Fox 17 WXMI	TV 9 & 10 and Fox 32
Phone: 616-599-1300	Phone: 616-771-9633	Phone: 616-364-1717	Phone: 231-775-3478 x3301
Fax: 616-785-1301	Fax: 616-456-5755	Fax: 616-364-6018	Fax: 231-775-2731
E-Mail: news@wzzm13.com	E-Mail: newsroom@woodtv.com	E-Mail: news@fox17online.com	E-Mail: news@9and10news.com

Local Radio

STAR 105.7 FM WOOD	WBRN 100.9 FM	WYBR 102.3 FM & 1460 AM	WLAW 92.5 FM
Phone: 616-459-1919	Phone: 231 796-7000	Phone: 231 796-7000	Phone: 1-877-925-6885x
Fax: 616-732-3330	Phone: Jeff 231-598-1338	Phone: 231-598-9102	Phone: 231-830-0176
E-Mail: news@woodradio.com	Phone: 231-796-5835	Phone: 231-598-2588	Phone: (616) 774-8461
	Fax: 231-796-7951	Fax: 231-796-7951	
	E-Mail: news@wwbr.com	E-Mail: news@wybr.com	Email: Kevin.matthews@citcomm.com

Local Paper and Social Media

GRAND RAPIDS PRESS	MLIVE	Facebook
Phone: 616-224-2350	Phone: 800-878-1400	User Name: nces@co.newaygo.mi.us
Fax: 616-222-5269		Password required
E-Mail: grnews@mlive.com	E-Mail: munews@mlive.com	http://www.facebook.com/newaygoes

Specialized Warning

Nixle	EAS and NOAA Weather Alerts
Support Desk (877) 649-5373	Phone: (616) 949-5150
User name and password req.	Monthly authentication code required
https://agency.nixle.com/login/	Email: james.maczko@noaa.gov



FLOODS AND YOUR HOME

Natural Disasters

Protecting your home during flood situations can involve a variety of actions, from inspecting and maintaining the property to installing protective devices or materials.

Before A Flood

- **Determine the risk of flooding for your area**
 - The U.S. Geological Survey (USGS)
<http://water.usgs.gov/pubs/>
 - The National Weather Service
<http://www.weather.gov/>
- **Identify potential hazards on your property.**
 - Know how to turn off electrical power, gas and water supplies.
 - Secure unstable materials that are outside your home (e.g. patio furniture, fuel tanks).
 - Protect your well by using heavy plastic and duct tape to seal the well cap and top of the well casing.
- **Protect your home.**
 - Build with or install flood-resistant materials.
 - Buy and install sump pumps with backup power (e.g., battery-operated).
 - Install backflow valves or plugs to prevent flood water from entering.
 - Place furnace, water heater, washer, dryer on cement blocks above projected flood elevation.
- **Stockpile emergency building materials.**
 - Plywood, plastic sheeting, lumber, nails, hammer, saw, pry bar, sandbags, shovel.
- **Safeguard your possessions.**
 - Create a room-by-room inventory of your possessions, include receipts and photos.
 - Gather copies of critical documents, such as finance records, insurance policies.
 - Keep these lists in a secure place (e.g. safe deposit box, waterproof container).
- **Flood insurance.**
 - Obtain flood insurance
 - Most standard home owner insurance policies do not cover floods.
 - The National Flood Insurance program is available in most areas. For more information www.floodsmart.gov

During a Flood

- **Stay informed.**
 - Listen to the radio or television for situation developments and evacuation instructions.
 - Do not ignore evacuation orders.
 - Follow designated evacuation routes.
- **If you must evacuate,**
 - Ensure your family's safety first.
 - Gather your emergency supply kit; take only essential items with you.
 - Shut off electrical power and natural gas or propane tanks to avoid fire, electrocution, or explosions.

After a Flood

- **Return home only when officials have declared the area safe.**
- **Before entering - Assess the situation.**
 - Assess the impact and areas of damage to your home.
 - Identify sharp objects, dangerous materials, downed power lines, damaged gas lines, or other hazards (e.g., chemical spills).
 - If you smell natural or propane gas, or hear a hissing noise, leave immediately and call the fire department.
 - If power lines are down outside your home or buildings, do not step in any standing water.
- **Approach entrances carefully.**
 - Parts of your home or building structures may be collapsed or damaged.
 - Check if porch roofs and overhangs have all their supports.
- **Keep power off until an electrician has inspected your system for safety.**
- **Account for your inventory.**
 - Compare the list with the one prepared prior to the incident.
 - Take photographs of all damage for insurance or emergency assistance purposes.
- **Contact your insurance company or the National Flood Insurance program to file your claim.**
 - Your adjuster will need evidence of the damage to your home and possessions to prepare your claim.
 - Keep accurate records listing all clean-up and repair bills, flood-related living expenses and actual losses (furniture, appliances, clothing, etc).

FLOODS AND YOUR HOME

Natural Disasters



• Clean and disinfect items.

- Walls, hard-surfaced floors, and many other household surfaces should be cleaned with soap and water and disinfected with a solution of 1 cup of bleach to five gallons of water.
- Thoroughly disinfect surfaces that may come in contact with food, such as counter tops, pantry shelves, refrigerators, etc.
- Areas where small children play should also be carefully cleaned.
- Wash all linens and clothing in hot water, or dry clean; For items that cannot be washed or dry cleaned, (mattresses, upholstered furniture), air dry in the sun, then spray thoroughly with disinfectant.
- Steam clean all carpeting. If there has been a backflow of sewage into the house, wear rubber boots and waterproof gloves during cleanup.
- Remove and discard contaminated household materials that cannot be disinfected, such as wallcoverings, cloth, rugs, and drywall.

• Prevent carbon monoxide poisoning.

- Alternative sources of fuel or electricity for heating, cooling, or cooking can cause carbon monoxide to build up in a home, garage, or camper.
- Never run a gas-powered equipment (generator, pressure washer, engines) inside, even if the doors or windows are open.
- Avoid running gas-powered equipment near open windows, doors, or vents where exhaust can enter indoor enclosed areas.

• Clean up safely.

- Be aware of hazards that may cause injury to you or others cleaning up - these can include chain saw or pressure washer injuries, electrical or chemical hazards, heat exposure.
- Have an electrician check the house's electrical system before turning the power on again.
- If the house has been closed up for several days. Enter briefly to open doors and windows to let the house air out for awhile (at least 30 minutes) before you stay for any length of time.
- Presume your home has been contaminated with mold.
- Use fans and dehumidifiers to remove excess moisture. Fans should be placed so air blows outwards rather than inwards.
- Have your home heating, ventilating, and air-conditioning (HVAC) system checked and cleaned by a maintenance or service professional who is experienced in mold clean-up before you turn it on.

• Prevent mold growth.

- Remove any items that have been wet for more than 48 hours, that cannot be thoroughly cleaned and dried.
- Porous items include carpeting, carpet padding, upholstery, wallpaper, drywall, floor and ceiling tiles, insulation material, some clothing, leather, paper, wood, and food -can remain a source of mold growth and should be removed from the home.
- When in doubt, take it out!

• Well and pump inspection.

- There is a danger of electrical shock from any electrical device that has been flooded.
- Do not turn on the pump and electrical system until equipment has dried and been checked by a qualified electrician, or well professional.
- Swiftly moving flood water can carry large debris that can damage the hardware, construction or casing of wells and pumps.
- Flood water could have also entered the well and contaminated it.
- Well water should be sampled and tested for contamination prior to use for drinking, cooking or cleaning.
- Call you state laboratory certification officer or contact the Safe Drinking Water hotline (1-800-426-4791) <http://www.epa.gov/safewater/hotline/index.html>

• Septic systems.

- Septic systems should not be used immediately after floods; drain fields will not work until water in the soil absorption field is lower than the water level around the house.
- Floodwater may have also broken septic lines. Have your septic tank professionally inspected and serviced; septic tanks may contain dangerous gases.

Information adapted from publications by the Centers for Disease Control and Prevention, the American Red Cross, the Federal Emergency Management Agency, the Environmental Protection Agency, and University of Wisconsin Extension.

For more information, see www.Pre4AgThreats.org