



Henry County Emergency Management Agency

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EMERGENCY CALL 911

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RAYSVILLE LAKE DAM

EMERGENCY ACTION PLAN

Revision 1, 3/13/2003

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I. Purpose

To ensure that procedures are in place to perform emergency actions in the event of high water levels, increased seepage or further deterioration of the dam and spillway structures that would pose a threat to the stability of Raysville Lake Dam, and to provide emergency warning and evacuation of downstream residents who could be affected should such a threat of failure become imminent.

II. Situation

One belief is that the Raysville Lake Dam was originally constructed in the 1920's as a water source for the railroad. The dam is an earthen dam and includes a cement box spillway and a stone archway over the outlet creek bed and under the county road. Star Boulevard that crosses the top of the dam has been closed to through traffic due to the condition of the dam.

The following has been inserted from the previous version of this document.

"The undergrowth and mature trees which exist on the slopes of the dam are indicative of the state of disrepair of the dam. The deterioration of the structures has, in the opinion of the Indiana Department of Natural Resources (IDNR), reached a critical point. Although a breach of the dam during normal pool with dry conditions downstream would cause minimal damage, a breach at high pool with pre-existing wet conditions downstream would have an immediate effect on up to 26 permanent homes and threatens U.S. 40 located downstream from the dam. Engineering judgement suggests that water could inundate these structures. (See Map Tab B)".

III. Construction Materials

Materials used for construction of the dam were probably obtained locally, which suggests it may consist of loam and gravel. The lack of maintenance of the dam structure, and because of the suspected materials and other identified problems, this dam is classified as a "high hazard, unsafe dam". The "high hazard" refers to the impact to life and property in the event of failure, the "unsafe refers" to the dam not meeting current safety standards.

IV. Seepage

Seepage has been detected at the toe of the slope at the West End of the dam, under the spillway near the concrete barrier and around the stone support structure. Because the suspected materials of which the dam is constructed, and the observed seepage the monitoring of the seepage is important. Increased flow and/or discoloration of the flow may indicate a threat to the stability of the dam.

V. Archway

The stone archway through the dam was constructed using stone and mortar. It is approximately 12 foot 6 inches tall by 15 feet wide and is 15 feet long from the south edge of the spillway to the north or open end of the archway on the south side. The archway is 79.6 feet long through the body of the dam and 13.6 feet tall on the north side opening.

The stone archway through the dam, over which Star Boulevard is carried, has deteriorated to a point that;

1. Stones have dislodged from the arch and continue to fail due to freeze/thaw cycles, mortar deterioration and vandalism.
2. The arch may have shifted and the top of the arch under the roadway portion, and indicates an inward deflection.
3. The base of the arch midway along its east side has an approximately 6 by 5 foot section that has fallen in to the stream bed.

These conditions combine to indicate that the arch is in peril of collapse. Should this occur, there would be a great danger of dam failure. Depending upon rainfall and water level of the reservoir, as well as soil conditions and temperatures, a dam failure could occur immediately upon collapse of the archway or several hours after the collapse.

VI. Lake

Location: N-39 deg.- 48.083', W-085 deg.- 30.210'

The Raysville Lake originally covered approximately 6 acres at a maximum depth of 19 feet. At this size and depth that lake would have contained approximately _____ gallons of water. Due to the years of sediment that has accumulated the lake now covers approximately 5 ½ acres at a maximum depth of _____ feet. The current estimated water volume is _____ gallons. This is a ____% reduction in the volume of water.

VII. PLAN

The combinations of these conditions make it imperative that a Dam Emergency Action Plan be implemented. This plan includes procedures for monitoring warning, and evacuation.

1. MONITORING

The Henry County Emergency Management Director has the responsibility of ensuring that monitoring of the conditions at the site in accordance with Tab C. is accomplished

- a. The IDNR will train the monitors in what areas to watch and when the seepage or status of the archway constitutes a need for increased monitoring or immediate action(s).
(See *Tab C*)

2. The frequency and state of readiness are divided into three categories.

These are:

- a. The first represents the lake at its current conditions. Monitoring is being done on a once weekly basis, unless there is significant rainfall or snowmelt in a 72 hour period and/or any other monitored items change as outlined in Tab C.
- b. The second begins in the event of a significant rainfall or snowmelt occurs. The condition should be immediately reevaluated should there be a significant change in the seepage, either in cloudiness or quantity, or there is a structural change in the spillway or archway. Under these conditions, the level of monitoring will become more frequent. The IDNR Engineers will determine the new frequency. Monitoring will be done by the EMA and/or Henry County Sheriff's Department should more personnel be needed. Local residents who reside near the dam may also assist in monitoring.
- c. The third begins when a breach or collapse is imminent or has occurred. When the water seepage becomes muddy and is of a quantity that indicates a breach is imminent, the hourly or continuous monitoring will commence and notification made as outlined (See Tab D). Monitoring will be coordinated by the Henry County Emergency Management Agency and manpower provided by the Henry County Sheriff's Department if necessary.

3. WARNING

If a breach of the dam should occur or is imminent, local officials may decide based upon information as described above, that an evacuation of the impacted people downstream from the dam must be done.

The warning of the residents will be accomplished by:

1. Immediate radio warning via police and fire dispatch frequencies to all home monitors.
2. Dispatch of local Fire and police to the area to start a door-to-door contact of the affected residents (see index TAB A and attached map TAB B,
3. Dispatch the Henry County Sheriff's department and the Henry County Emergency Management Agency.
4. Contacting WMDH 102.5, WFMS 95.5, WLBC , WKPW 90.7 and the Courier Times,

4. EVACUATION

The decision to evacuate will be made by local authorities but they may receive advice from the Indiana Department of Natural Resources (IDNR) and the State Emergency Management Agency (SEMA). And additional information as described in Tab C. After the decision has been made to evacuate by the county commissioners or their representative, notification of the Henry County Sheriff and Henry County Emergency Management Director will be made, who will coordinate the evacuation and notify the Indiana State Police and Indiana Department of Transportation of the threat of breach. The Henry County Sheriff's Department, Henry County Emergency Management Director, INDOT or ISP will make the decision to close U.S. 40 below the dam. The Henry County Emergency Management Agency, Henry County Sheriffs Department, local emergency services and the Henry County Red Cross will coordinate the evacuation and sheltering of the people and animals evacuated.

5. SHELTERING, FEEDING, AND HOUSING

The Henry County Chapter of the American Red Cross will assume initial responsibility for the sheltering of evacuated persons from the affected areas. Feeding of evacuated persons will be the primary responsibility of the Henry County Chapter of the American Red Cross. Local fire department auxiliaries and/or other volunteer organizations may assist them. Housing will be coordinated through the Red Cross. Other shelters as outlined in the Henry County Emergency Operations Plan will be activated as needed.