

PAUL R. LEPAGE GOVERNOR BG JAMES D. CAMPBELL COMMISSIONER

## STATE OF MAINE DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT MAINE EMERGENCY MANAGEMENT AGENCY 72 STATE HOUSE STATION AUGUSTA, MAINE 04333-0072

PHONE: 207-624-4400/800-452-8735 FAX: 207-287-3178 **DAM SAFETY**  ROBERT P. McALEER
DIRECTOR

May 2, 2013

Verso Paper Jim Brooks PO Box 1200 Bucksport, ME 04416

Subject:

#110 Alamoosook Dam Condition Assessment

Dear Jim:

Your dam was seen by the State Dam Inspector and the Assistant State Dam Inspector between August 1, 2011 and December 31, 2011. Here is a summary of the site assessment and recommended actions.

## **General Information**

Alamoosook dam is a 15' high, 165' long, concrete mass gravity (CMG) dam owned and operated by Verso Paper. The dam is located in the Town of Orland, ME, and is accessed from Soper Road. Features include; a 20' long, CMG, non-overflow, left abutment; a 70' flashboarded, CMG spillway; one 6' wide waste gate; a 3 gated concrete intake structure; a fishway, a 35' long CMG non-overflow right abutment and a separate downstream powerhouse. Access to the dam control areas and the powerhouse were fenced and locked. The dam is located at the outlet of Alamoosook Lake which drains into Duck Cove. A breach of the dam will impact Upper Falls Road and Duck Cove. The EAP is current.

## **Condition Assessment**

Inspection 6/8/11 by Tony Fletcher (MEMA) and Peter Fogg (Verso). The spillway flashboards overflowed 2" (26 cfs) and the fishway was flowing. No debris blocked the spillway or fishway. No misalignment or settlement was noted in any exposed concrete surface and the structure appeared stable. The right non-overflow section showed some downstream efflorescence, possibly due to AAR (alkaliaggregate reaction). Steel surfaces were rusty in places. Toe drains were not found and the toe area could not be examined. Gates appeared operational. No leakage was seen from any of the visible abutment and foundation contacts.

## Recommendation

Action by dam owner: Test EAP, remove trees from left abutment area, test all gates by individually opening and closing, repaint rusted steel surfaces, lower dam so that toe area may be inspected by MEMA when water is low enough. Action by MEMA: Facilitate EAP test, do toe inspection. (*Most of the above was completed in 2012*).