Secord Dam Preliminary Design and Engineering Report

SUBMITTED TO THE FEDERAL ENERGY REGULATORY COMMISSION

Boyce Hydro recently submitted the Secord Dam auxiliary spillway design concept plans and preliminary engineering report to the Federal Energy Regulatory Commission (FERC).

The Secord Dam submittal is required by FERC to maintain compliance with FERC Dam Safety standards. Secord Dam currently does not have adequate spillway capacity to meet federal regulations. If generation of hydro-electric power is to continue at the Secord Dam, additional spillway capacity must be constructed.

Four Lakes Operations Company has been coordinating with Boyce to prepare the submittal to FERC. The submittal includes a Probable Maximum Flood (PMF) study and also includes preparing a preliminary design of a new auxiliary spillway. The new spillway is initially being considered on the eastern side of the dam. In general, an auxiliary spillway activates after the existing flood gates are open and water flow exceeds the capacity of current flood gate capability. FERC requires this spillway to significantly minimize the risk of the dam washing out during an extreme flood event. Below is an illustration of where a Secord Lake auxiliary spillway may be located and the directional flow of water through it.







It is prudent to determine the long-term cost and benefit of constructing a new auxiliary spillway to meet FERC requirements and maintain hydro-electric power generation. It is critical to consider the most safe and economic path forward. If hydro-electric power is revoked, modifications and improvements to the dam will still be necessary to meet State of Michigan dam safety requirements.

Four Lakes Task Force has been clear that it wants to maintain hydro-electric power only if it is a benefit to the Special Assessment District and to Gladwin and Midland counties. How is this benefit determined? We conduct a cost-benefit analysis that, simply put, weighs the long-term operational costs verses the capital improvement costs.

Four Lakes Operations Company is coordinating with FLTF, Boyce Hydro and FERC to fully vet the methods of maintaining compliance and keeping hydro power. The recent design submittal to FERC for spillway improvements is the first of many steps that will be required. Should FERC concur with the preliminary study submittal, the next step is for FLO to conduct a thorough cost-benefit analysis to weigh the benefit for the SAD to meet FERC requirements.



