

June 7, 2013

Mr. Robert Davis, PE
Wisconsin DNR – Fitchburg Service Center
3911 Fish Hatchery Road
Fitchburg WI, 53711

Re: Indianford Dam – Sequence Number 608, Field File Number 53.04
MARS Project Number: 1587 – 01

VIA: EMAIL

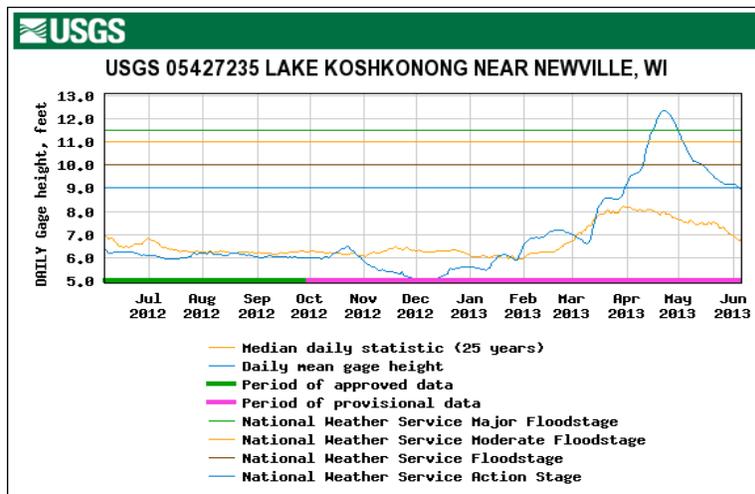
Dear Rob,

On behalf of the Rock Koshkonong Lake District (RKLD), we present the following:

Indianford Dam safety inspection schedule

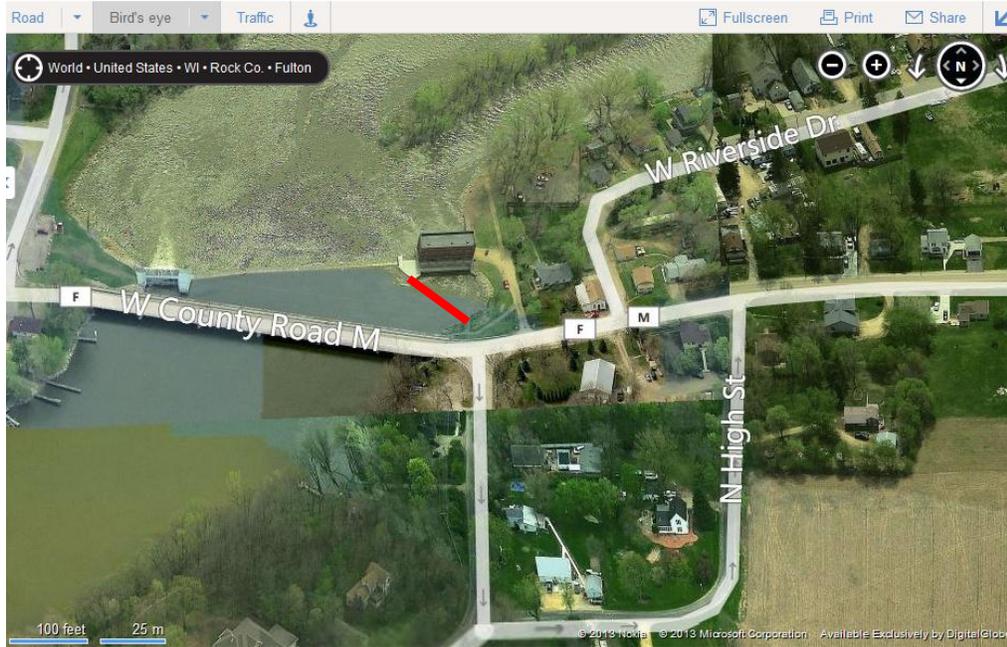
RKLD has authorized Montgomery Associates to conduct the dam inspection and reporting for the Indianford Dam. We appreciated your help several months ago in obtaining electronic copies of the DNR file, which we will use to augment the file data available from RKLD. We are currently reviewing this information.

We would like to conduct the field inspection of the dam during relatively low water, to provide the best opportunity for observation of the structure. The graph below illustrates water levels on Lake Koshkonong over the past year and also the median water levels observed for the period of record. In “normal” years, we would expect low-water conditions to be prevalent in July through October. However, because flood water elevations on the Rock River are receding very slowly, it does not appear water levels will be at the summer targets, or below, until possibly August or even September. We will probably conduct our inspection work at the same time as the proposed trash rack investigation (see below), and will coordinate with you on that schedule. We plan to provide our inspection report to DNR in October 2013. However, we’re letting you know now that our schedule may be pushed back somewhat depending upon Rock River levels. We will keep you informed regarding our schedule.



Investigation of debris accumulation at the Indianford Dam trash racks

As you know, the powerhouse trash racks are subject to debris accumulation that can restrict the amount of water that can be passed through the powerhouse wicket gates. RKLD would like to conduct a field investigation to confirm conditions in the lower portion of the trash racks and on the riverbed in the vicinity of the trash rack entrance. This investigation would be conducted by placing a temporary cofferdam across the river as shown on the air photo (from Bing maps) below.



The temporary cofferdam would be placed approximately in the alignment indicated by the red line in the above photograph. It would extend from the existing concrete platform adjacent to the powerhouse to the bank of the river downstream of the County Highway Bridge. We anticipate that the crest elevation of the temporary cofferdam would be at or below that of the concrete platform, and we would monitor water levels so as to allow us to implement a contingency plan should flood conditions develop. As we have discussed, RKLD will consider using a “portadam” approach to constructing the temporary cofferdam, but it may well be cheaper and easier to construct the cofferdam using crushed stone. All materials used to construct the cofferdam (including crushed stone) would be removed at the conclusion of the investigation. We anticipate that after the cofferdam has isolated the area of the trash racks from the River, the water will be pumped out of this section, and investigation activities will include the following:

1. Clearing debris that has accumulated against the trash racks
2. Investigating the structural condition of the racks, noting any damage, and working with equipment suppliers to determine the best course of action for repairing damage, as necessary.
3. Clearing of debris that may have accumulated on the riverbed upstream of the trash racks

4. Based on the characteristics of the debris that we find on the riverbed and against the trash racks, RKLD would like to confirm an approach to long-term control of debris clogging of the trash racks. This approach could involve both diversion of debris away from the trash racks and over the crest of the dam using some sort of barrier as well as or possibly instead of a mechanical debris clearing system installed on the trash racks. We invite DNR's input and suggestions on this issue, including observations on site when we have the riverbed and trash racks dewatered.
5. On-site meetings with equipment suppliers to view the exposed trash racks and powerhouse structure, in order to provide ideas and quotations on an appropriate mechanized trash rack clearing mechanism, or on debris diversion barriers. It is possible that we would be able to install portions of the debris control systems selected during the course of the water level drawdown at the trash racks.

We would like to complete this work during low-water conditions when it is least likely that the hydraulic capacity of the wicket gates will be needed to meet Lake Koshkonong water level operating order requirements. Given the high water level conditions described above, we anticipate that the best time to complete this work will be in August or September 2013.

Please consider this description a formal request on behalf of RKLD for authorization to install a temporary cofferdam, conduct investigations described above, and then remove the cofferdam. Please contact us with any additional information you may need to support this request.

Please contact Brian Christianson, RKLD chairman, at 608-347-4002 or me at 608 839-4422 with any questions.

Sincerely,

Montgomery Associates: Resource Solutions, LLC



Robert J. Montgomery, PE
Principal

Copy: Brian Christianson