

# Interim Risk Reduction Measures At Lower Fox River Dams

## ***FACT SHEET***

### **Background**

To ensure that dams owned and operated by the Corps of Engineers do not present unacceptable risks to the public, USACE developed and is implementing a risk-based process to prioritize dam safety deficiencies on a nationwide basis.

As part of this process, USACE dams are being screened and assigned a safety classification rating. The new dam safety classification system spotlights dams and navigation locks with compelling problems first, so a national priority can be assigned for funding, studies, investigations and remedial work.

### **Dam Safety Screening and Interim Risk Reduction Measures**

On 31 May 2007, the Corps released Engineering Circular (EC) 1110-2-6064, Interim Risk Reduction Measures (IRRM) for Dam Safety, which included a Dam Safety Action Classification (DSAC) table. The DSAC rating system describes a policy for developing, preparing, and implementing interim risk reduction measures to reduce the probability of unacceptable performance of Corps dams. Interim risk reduction measures, which may be structural or non-structural, are short term efforts to reduce dam safety risks while long term solutions are being pursued.

### **Fox River Dam Status**

The Corps of Engineers owns and operates nine dams along the Lower Fox River, between Lake Winnebago and Green Bay

for a variety of purposes including navigation, water supply, flood control, and recreation.

The Corp's screening system classified five of the nine federal dams located on the Lower Fox River as DSAC II. This means the dam must be brought up to industry dam safety standards because it has been deemed urgent and either unsafe or potentially unsafe. The dams received the DSAC II rating due to cracking around the gate anchorages. The five dams that received DSAC II ratings are: Upper Appleton Dam, Rapide Croche Dam, Little Chute Dam, Cedars Dam, and De Pere Dam.

### **What we are doing now**

The Detroit District is preparing an Interim Risk Reduction Measures Plan. Measures recommended will be implemented by the end of the fiscal year. The draft IRRMP plan recommends the following measures:

(1) Sealing existing cracks. This action would help protect the reinforced concrete structures from further damage by keeping water out of the cracks.

(2) Replace gate arm bolts. Recent work at De Pere Dam found unacceptable wear at the gate arm bolts. Replacement of all gate arm bolts is recommended.

(3) Perform tabletop emergency exercises, update Emergency Action Plan and risk communication plan.

(4) Increase monitoring and reporting activities.

(5) Review gate operational procedures to limit unnecessary loading.

(6) Update hydraulic studies and inundation mapping.