27 January 2005

ENVIRONMENTAL ASSESSMENT
OF
TAINTER GATE CABLE REPLACEMENT
LAKE RED ROCK
MARION COUNTY, IOWA

STATEMENT OF FINDINGS

I. Project Authority.

The Red Rock Dam and Reservoir on the Des Moines River are part of the general comprehensive plan for flood control in the Upper Mississippi River Basin under the authority of Public Law 761, 75th Congress, third session, approved June 28, 1938, which authorized the project for flood control. Recreation and fish and wildlife facilities were subsequently authorized in Public Law 534, 78th Congress (approved December 22, 1944) and the Water Resources Development Act of 1976 (Public Law 94-587).

II. Project Purpose.

The Environmental Assessment (EA) was prepared to evaluate a number of different strategies for the continued maintenance of the dam, including the tainter gate cable replacement and touch-up painting required before 2008.

III. Project Description.

A. The US Army Corps of Engineers, Rock Island District (Corps) is proposing a temporary 10-foot drawdown, lowering of the Red Rock Pool to elevation 732 feet NGVD, to allow for the required inspection and replacement of the tainter gate cables and allow for touch-up painting on the tainter gates as needed. The proposed drawdown would begin in the fall of calendar year 2007. In an effort to minimize sloughing of the bank during a drawdown, the level of the lake would be lowered at a rate of 0.5 feet per day. When the work is completed, the pool would be raised as quickly as possible, while still maintaining outflows of at least 300 cubic feet per second, until the conservation pool elevation of 742 feet NGVD is attained. The total time required for the drawdown, cable replacement, touch-up painting, and pool raise would be approximately 3.4 to 4 months; however, the time to raise the pool is entirely weather dependent.

A traveling bulkhead system would allow individual tainter gate bays to be dewatered, thus eliminating the need for drawdown for tainter gate cable replacement, tainter gate painting, or other repair and maintenance for the tainter gates. Plans are underway to install this system prior to 2022, when cable replacement and total repainting of the tainter gates would be required. However, this installation may not be funded in time for the required tainter gate cable

replacement in 2008. The site is located entirely on Corps of Engineers (Corps) fee title land, acquired in conjunction with the Lake Red Rock Reservoir Project.

In addition to the preferred alternative described above, additional alternatives considered for dewatering the tainter gate bays to perform the necessary repair and maintenance of the tainter gates were developed and include: (a) no action; (b) periodic drawdown; and (c) 10-foot drawdown in the **winter** of 2007/2008 with tainter gate cable replacement with future construction of the bulkhead system.

B. An EA addressing impacts of the proposed project was prepared and circulated for a 30-day public review period, beginning on August 26, 2004.

IV. Public Involvement.

A. The Corps developed a web site in conjunction with the release of the EA for public review and comment, http://www2.mvr.usace.army.mil/Documents/EA/RedRock/TainterGateCable/. Upon release of the EA to the public for review and comments, the EA was posted to the web. This SOF package, with all enclosures, will also be posted to this web site when the SOF and FONSI are signed.

B. A copy of the EA was mailed to the appropriate federal, state, and local governing agencies, all lessees, including the marina, and to all adjoining landowners. In addition, the Corps' Public Affairs Office issued a news release to all local media to coincide with the public review period.

C. Prior to initiation of the proposed drawdown and required repair and maintenance, the appropriate federal, state, and local governing agencies, all lessees, including the marina, and adjoining landowners will be notified.

V. Public Review Comments.

The following is a list of the responses received during the public review period. They appear in the order they were received. A summary of the Corps response follows each comment.

A. Letter from Steven J. O'Braza, Carlisle Public Works, Carlisle, IA, dated 22 September 2004, informing the Corps that the city of Carlisle has their water supply wells located within and near the floodplain of Lake Red Rock. Mr. O'Braza would like information regarding the possible negative effect the drawdown would have on those wells. He also stated that he did not anticipate any problems with the proposed drawdown.

CORPS RESPONSE: Our Hydrology and Hydraulics Branch examined the potential for impacts to shallow wells around the Lake Red Rock area. Based on the available information, we concluded that municipal wells upstream of the dam, including those at Carlisle,

should not be significantly affected by the 10-foot drawdown. Of the public municipal wells where the installation date is known, none are expected to be reduced to an inadequate pumping level, although there may be minor reductions in some well capacities.

B. By telephone conversation record, dated 18 January 2005, Heidi Woeber, U.S. Fish and Wildlife Service, Rock Island Field Office, concurred that no federally threatened or endangered species would be impacted and concurred with the FONSI.

CORPS RESPONSE: None required.

VI. Summary of Environmental Impact Review.

A. An EA was prepared for this project. This review has not identified any potentially significant adverse impacts resulting from the implementation of the project, as proposed. Thus, a FONSI was prepared and included in the EA. However, the comment letter from the City of Carlisle did prompt a further review of the effect of the drawdown on local area shallow wells. The examination of the existing data concluded that municipal wells upstream of the dam should not be significantly affected by the 10-foot drawdown. No public water supply is expected to be reduced to an inadequate pumping level. This information and analysis has been compiled into a report entitled, "Lake Red Rock Groundwater Well Analysis for Tainter Gate Repair Drawdown", dated January 2005. This report, an attachment to this SOF package, will be posted to the Internet as stated in Section IV.a. above. As a result of the EA and subsequent groundwater well investigation, no significant impacts resulting from the implementation of the project have been identified.

VII. Summary of Findings.

I find that the implementation of the project, as proposed, and under the conditions set forth and as prescribed by all applicable regulations, is in the public interest.

2/4/05
Date

Duane P. Gapinski
Colonel, U.S. Army
District Engineer