Memorandum

To: Programs, Projects and Operations Subcommittee

Subject: Site D-4 Dredging Request from Game and Parks Commission (NGPC)

Date: November 29, 2007

From: Gerry Bowen

As a part of the Papillion Creek Watershed P.L. 566 Project, the Natural Resource Conservation Service, with the District as local sponsor, constructed Site D-4 above Cunningham Lake to correct an erosion problem on one of the tributaries above Cunningham Lake in Douglas County. The project was completed in 1985.

As you may be aware, Cunningham Lake and D-4 were drained for a renovation project for Cunningham Lake. The NGPC and the City of Omaha has nearly completed the renovation project for that included fishery rehabilitation and selective dredging of the main lake. NGPC believes that an opportunity exists to continue the dredging operation into D-4 which will provide additional sediment storage above Cunningham Lake, but also will help reestablish a fishery in D-4.

The District has received a request from the NGPC to assist on a project to dredge Papio Site D-4 (see attached). They plan to dredge approximately 100,000 cubic yards of sediment from D-4 at an estimated cost of $500,000. They have requested that the NRD cost share half of this amount, or $250,000. If approved by the Board, the funds would be included in the FY 2009 Budget.

A draft interlocal agreement is attached for your consideration. Management recommends approval.

- It is recommended that the Subcommittee recommend to the Board that the General Manager be authorized to execute an Interlocal Cooperation Act Agreement with the Nebraska Game and Parks Commission to equally share the cost of construction, up to a maximum District cost of $250,000 on a project to dredge Papillion Creek Watershed Site D-4, subject to changes deemed necessary by the General Manager, and accepted as to form by District Legal Counsel.
November 26, 2007

John Winkler, General Manager
Papio-Missouri River NRD
8901 So. 154th Street
Omaha, NE 68138

Dear John:

The Nebraska Game and Parks Commission (NGPC), through the Aquatic Habitat Program, has partnered with the City of Omaha to rehabilitate Glenn Cunningham Reservoir. Phase 1 of the rehabilitation included excavation of approximately 450,000 yds$^3$ of lake bottom sediment, stabilizing roughly 4,000 ft of eroding shoreline, modifying the outlet structure to facilitate wetland development and renovating the fish community. The City of Omaha has further plans to improve infrastructure such as roads, trails, camping pads, mooring docks and playground equipment.

Phase 2 of the plan, titled the Pawnee Wetland, includes constructing a sediment weir and excavating over 100,000 yds$^3$ of soil material upstream of Hwy 36. This wetland will provide a last line of defense against watershed erosion. Papio D4, a sediment control structure located on a subwatershed tributary emptying directly into the wetland, is a vital link to the success of the project. Unfortunately D4, which is currently drained, appears to have already lost much of its volume to sediment. Without excavating to create additional storage, it will soon be nonfunctional and material will pass directly into the wetland immediately upstream of the weir.

As manager of the NGPC's Aquatic Habitat Program, I am proposing to cost share with the Papio-Missouri River NRD the removal of approximately 100,000 yds$^3$ of sediment from Papio D4. Using a unit cost of $4.70/yds$^3$, the price paid for excavation in Glenn Cunningham Reservoir, I estimate it will take roughly $500,000 to remove this amount. If the Papio-Missouri River NRD choses to participate, its share would not exceed $250,000. The Nebraska Game and Parks Commission would hire a consultant to design
and engineer the project and a contractor to excavate. Further, the NGPC will contribute no less than $250,000 of Aquatic Habitat Program funds to this endeavor.

I greatly appreciate your time in considering this matter and look forward to hearing from you soon.

Sincerely,

Randle L. Winter, Manager
Aquatic Habitat Program

c: Pat Slaven, City of Omaha
   Don Gabelhouse, NGPC Fisheries Div.
   Dave Tunink, NGPC Fisheries Div.
   Jeff Jackson, NGPC Fisheries Div.
   Steve Satra, NGPC Fisheries Div.
Figure 2. Well nests for the Papio Missouri River Natural Resources District's Water Quality Monitoring Program, as of November 2007