



Department of Energy

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JAN 13 2000

Mr. Craig Fischenich, Ph. D., PE
Research Waterways Experiment Station
3904 Halls Ferry Road
Vicksburg, MS 39180

DOE-0286-00

Dear Mr. Fischenich,

PADDYS RUN STREAM RESTORATION

During your visit to the Fernald Environmental Management Project on December 9, 1999, we discussed the benefit of videotaping the Paddys Run stream channel during a period of high flow. The enclosed videotape was prepared on January 4, 2000, following a storm event that dropped 4.06 inches of rain over a period of approximately 18 to 20 hours. This video was made approximately 8 hours after the rainfall had ceased. Ideally, the video would have been made during the storm event, but unfortunately, was not possible. I hope this footage of the stream during flow conditions will supplement the observations made during your site visit. Also enclosed is a map that illustrates the locations described in the video.

Of particular interest is location #11, where logs were placed to function as bendway weirs. The storm event resulted in the failure of the stream bank downstream of the weirs. During the site visit, you had recommended that we remove the logs because there had been scour beneath and behind the logs such that some of the logs were suspended above the creek bed. As can be seen on the video, however, there is no damage to the bank in the area of the weirs, but dramatic damage immediately downstream of the weirs. A suggested interpretation has been that during high flow events the weirs function as intended, but during normal flow conditions scouring occurs. Your interpretation and recommendation for an immediate course of action at this location (i.e. remove or keep the logs) given this video footage will be appreciated.

Thanks again for your participation in this project. We are currently gathering the most updated estimates of the arial extent of excavations adjacent to the channel to assist in the development of a comprehensive stream restoration design. We will be transmitting this information to you as well as additional design criteria in the near future.

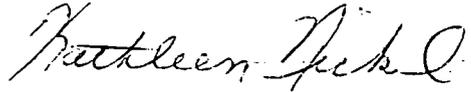
Mr. Craig Fischenich

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JAN 13 2000

If you have questions regarding this information, please call me at (513) 648-3166.

Sincerely,



Kathleen Nickel
Department of Energy
Operable Unit 5

FEMP:Nickel

cc:

R. J. Janke, OH/FEMP

J. Reising, OH/FEMP

P. Yerace, OH/FEMP

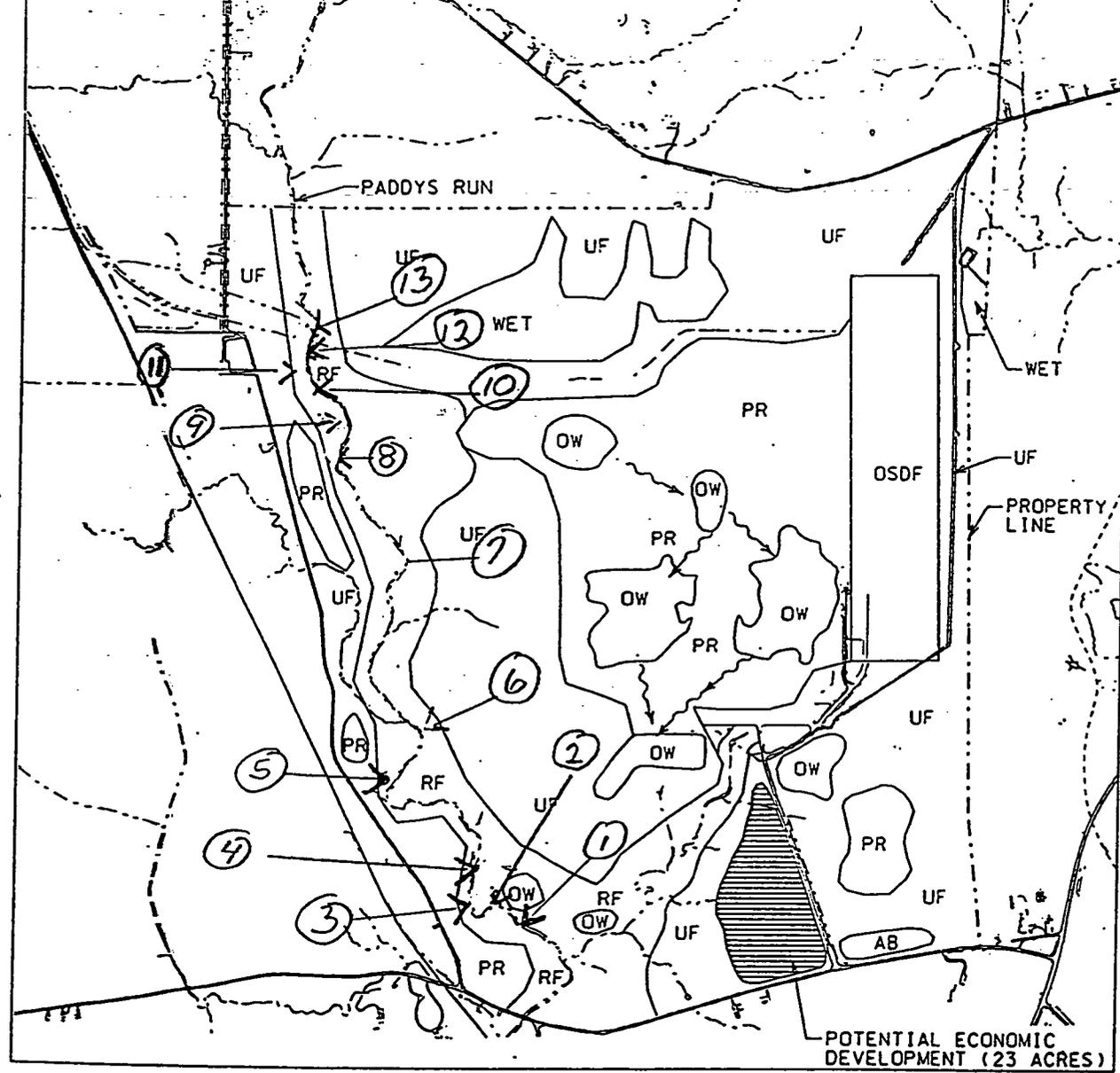
J. D. Chiou, Fluor Fernald/52-0

E. Woods, Fluor Fernald/65-2

AR Coordinator, Fluor Fernald/78

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LEGEND:

- AB AESTHETIC BARRIER
- PR PRAIRIE
- UF UPLAND FOREST
- RF RIPARIAN FOREST
- OW OPEN WATER
- WET WETLAND
- ← DRAINAGE PATTERN



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FIGURE 1-1. CONCEPTUAL FINAL LAND-USE