

SRA-1200  
ENV-1.10

Mr. Jeff Foss  
Supervisor  
U.S. Fish and Wildlife Service  
Snake River Basin Office  
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Boise, ID 83709

Subject: Section 7 Endangered Species Act Consultation for Operation and Maintenance for Upper Snake River Basin Projects above Brownlee Reservoir—Amendment to Biological Assessment to Add Proposed Action (FWS File #1008.0151.05 OALS #1-4-05-F-0401)

Dear Mr. Foss:

The *Biological Assessment for Bureau of Reclamation Operations and Maintenance in the Snake River Basin Above Brownlee Reservoir* (Upper Snake BA) was submitted to the U.S. Fish and Wildlife Service (FWS) on November 30, 2004. Dr. T. Frest and Edward Johannes of Deixis Consultants, Seattle, Washington, provided positive verification on December 29, 2004, that some snails' samples collected by Reclamation in 1996 and 1997 included the endangered Snake River physa. Accordingly, Reclamation provided supplemental information to its Biological Assessment to FWS by letter dated January 25, 2005. Based on the supplemental information and analysis provided, Reclamation concluded that the future operations and routine maintenance actions associated with Reclamation's upper Snake River projects may affect, but are not likely to adversely affect, the Snake River physa. We received a February 10, 2005, letter from you indicating that you did not agree with our determination and suggesting that we discuss options for completing the consultation and addressing the new Snake River physa information.

In response to these discussions, Reclamation has decided to amend its November 2004 Upper Snake BA to include another proposed action. The proposed action involves conducting up to 5 years of Snake River physa surveys and studies. A detailed description of this proposed action is enclosed. The enclosure provided with this letter amends our BA submitted on November 30, 2004.

We appreciate the continued collaborative efforts and willingness of your agency to meet with us to work through the consultation issues. If you have any questions, please call Ms. Lesa Stark, Endangered Species Act Program Manager, at 208-383-2260.

Sincerely,

Jerrold D. Gregg  
Area Manager

Enclosure

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(w/encl to each above)

## **Future Surveys and Studies for Snake River Physa Below Minidoka Dam**

### **Proposed Action**

Snail samples collected from the Snake River below Minidoka Dam by Reclamation in 1996 and 1997 were recently examined by J. Keebaugh of Orma J. Smith Museum of Natural History and thought to possibly include endangered Snake River physa. In December 2004, Dr. T. Frest and E. Johannes of Deixis Consultants, Seattle, Washington, identified two of the six 1996 samples and five of the eight 1997 samples as Snake River physa (Hopper 2005). They concluded that none of the specimens was living when collected. Dr. A. R. Wethington of Purdue University also examined the samples in February 2005 and identified them as *Physa gyrina* and *Physa acuta* rather than Snake River physa (Wethington 2005).

This action consists of surveys for the endangered Snake River physa in the Snake River reach below Minidoka Dam and, if live Snake River physa are found, additional studies. Beginning in the 2005 fall season, Reclamation will conduct surveys in the Minidoka reach of the Snake River in southern Idaho, beginning at the Minidoka Dam original powerhouse [RM (River Mile) 675] and extending downstream to approximately one mile below Jackson Bridge (RM 669). The details of this action are described below.

### **Action Area**

The action area associated with this proposed action consists of the river reach and corridor from Minidoka Dam (RM 675) extending downstream to approximately one mile below Jackson Bridge (RM 669).

### **Proposed Action Framework**

Reclamation will establish a Technical Team, described in Section 2.15.5, to help design survey and study protocols, review and interpret the results, and provide biological recommendations. Three years of Snake River physa surveys will be conducted within a five year period, beginning in the fall 2005 season. Surveys for Snake River physa will be conducted during months when irrigation flows are occurring and immediately following the end of the irrigation season under low flow conditions (October). If no live Snake River physa are found, all survey activities for Snake River physa will cease and this proposed action will end.

If live Snake River physa are found, data will be collected at the specific site(s) from which the Snake River physa were recovered to characterize habitat conditions using protocols identified by the Technical Team (See Section 2.15.4). The Technical Team

will annually recommend future surveys or studies based on findings from previous years work. Reclamation managers will review survey/study progress and approve plans for the coming year.

If live Snake River physa are found, Reclamation and the U.S. Fish and Wildlife Service (FWS) will evaluate any Endangered Species Act (ESA) consultation needs. If Reclamation determines that its future operations above Milner Dam will adversely affect the Snake River physa, Reclamation will consider the Technical Team biological recommendations to address potential adverse effects and will determine a management response. Any actions taken by Reclamation that are outside of the scope of the proposed action above Milner Dam as described in the November 2004 Biological Assessment (Reclamation 2004) would require additional analysis of effects to Snake River physa and other ESA-listed species. Depending upon the conclusions of this assessment, Reclamation may request concurrence from FWS if they conclude not likely to adversely affect or it may re-initiate formal consultation with FWS.

## **Survey and Study Descriptions**

Thorough surveys will be conducted to locate Snake River physa within the Minidoka reach (RM 669 – 675). To help ensure quality species identification, experts with ecological and taxonomic expertise will be hired to work with Reclamation biologists to provide on-site taxonomic identification.

Surveys in the Minidoka Reach will focus on locating rocky substrates with good water flow, as well as select depositional zones around Jackson Bridge. While the entire reach will be searched for these habitats, emphasis will be placed on the tailrace pool and the area around Jackson Bridge

Due to seasonally high flows that occur in this reach, surveys will need to be conducted when target locations are accessible and safe. Additionally, snails are seasonally abundant and more likely to be present in detectable numbers during late spring, summer, and early fall. All documented live Snake River physa were observed in the field during the month of August (Taylor 1988). Where appropriate, surveys will be conducted in mid-to-late summer to capture this period. However, most surveys will be conducted during low water periods (March or late October) to allow for wading access and safe dive conditions. October surveys in these areas are critical to help ensure that any local population/colony has had sufficient time to increase following the reproductive cycle, but has not yet begun to decline to its naturally lower winter densities.

Surveys will be conducted primarily in habitats that remain watered throughout the year. Suction dredging can be particularly damaging to small fragile shells (e.g., Snake River physa) and will not be the only method of collection. Surveys will include visual inspection of appropriate substrate by divers and other researchers as well as suction dredging. Given the rarity of the Snake River physa, surveys in appropriate habitats will be particularly thorough (see paragraph below). However, given the limited knowledge of the species, it is possible that the snail might be present in habitats not currently

regarded as appropriate, and some survey effort will be conducted in habitats other than those described as appropriate (e.g., lower velocity, mixed substrates).

No less than 20, and preferably 30, samples will be taken from the targeted (preferred) habitat at each location to provide some level of statistical certainty of species presence or absence. This level of sampling will be conducted for both suction dredging and visual inspection at each sample location.

If live Snake River physa are found, additional studies will occur to gather information to assess potential effects to the species due to future project operations. Efforts will be made to estimate the size, local density, and distributional extent of the colony(ies). If the colony(ies) are of adequate size, tissue samples will be taken and preserved to allow for genetic analysis. Habitats occupied and resources used by Snake River physa will be measured and/or described, including, but not limited to water quality parameters (e.g., temperature, dissolved oxygen, nitrogen, phosphorous, pH, hardness, and turbidity), substrate type and size, depth, water velocity, food abundance, etc. Permanent plots will be established to monitor changes in habitat characteristics and water quality parameters. The amount and extent of occupied and unoccupied habitat will be quantified. Future, long-term Snake River physa colony monitoring will be designed if Reclamation's proposed action above Milner Dam is determined to have an adverse effect on the Snake River physa. Study details will be determined by the Technical Team.

Total survey, study, and documentation costs will not exceed \$2.0 million through the year 2010.

## **Technical Team Roles and Responsibilities**

Reclamation will work cooperatively with the FWS to formulate a Snake River physa survey and technical review protocol. A Technical Team, consisting of FWS and Reclamation biologists and an independent physa specialist(s), will collect data, provide review, and provide study oversight. The Technical Team will design identification protocols for Snake River physa. These identification protocols will include peer review from individuals with specific expertise in the identification and classification of the family Physidae.

Members of the Technical Team not involved in the actual collection of data will provide periodic on-site review of data collection to ensure data quality. In addition, those members will provide data collection assistance as needed. The Technical Team will meet following each survey/study period to review and discuss results, field conditions, and any other pertinent information. Reclamation will approve adaptive changes to survey/study locations, methods, and protocols recommended by the Technical Team.

The Technical Team will produce annual interim reports and final reports regarding the results of annual surveys and studies. If no Snake River physa are found, the Technical Team will produce one final report for the initial survey period. If Snake River physa are

found, annual reports will be produced by the Technical Team for the Snake River physa colony studies.

## **Survey and Study Review**

The Technical Team will agree upon protocols for a scientific peer review process of surveys and studies. Malcologist(s) with specific expertise in the family Physidae ecology and identification will provide independent peer review of survey/study design and results as well as taxonomic verification. Contractors for storage within Reclamation projects above Milner Dam, Tribes with interests in the upper Snake River basin, and the State will be provided copies of annual updates and reports and an opportunity to meet and comment.

## **Duration of the Proposed Action**

Reclamation will conduct up to three years of absence/presence surveys within a five year period, beginning in the 2005 fall season. If no live Snake River physa are found after these initial surveys, the proposed action will cease. Surveys and studies described in this proposed action will not exceed five years of data collection, with final survey/study documentation to be completed no later than 2010. However, it is possible that the surveys/studies may conclude prior to 2010 if new information, scientific developments on taxonomy, FWS status reviews indicate a change in status for Snake River physa, or if Reclamation re-initiates formal consultation. After completion of the surveys/studies and with results in hand, Reclamation will proceed in conformance with the ESA regulations.

## **Literature Cited**

<b>Parenthetical Reference</b>	<b>Bibliographic Citation</b>
Hopper 2005	Hopper, D. 2005. Notes on Snake River physa from meeting with Dr. T. Frest, December 29, 2004. U.S. Fish and Wildlife Service, Boise, ID.
Reclamation 2004	U.S. Bureau of Reclamation (Reclamation). 2004. Biological Assessment for Bureau of Reclamation Operations and Maintenance in the Snake River Basin Above Brownlee Reservoir. Pacific Northwest Region and Snake River Area, Boise, Idaho
Wethington 2005	Wethington, A. R. 2005. The physids of the Snake River, Idaho. Unpublished report for U.S. Bureau of Reclamation. Purdue University, Indiana.