

Comments on the United States Fish and Wildlife Service Draft Recovery Plan for the Bruneau Hot Springsnail (*Pyrgulopsis bruneauensis*); Federal Register: January 9, 2001 (Volume 66, Number 6) Page 1688-1689.

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I. BACKGROUND

The following document includes the comments of The Xerces Society on the United States Fish and Wildlife Service Draft Recovery Plan for the Bruneau Hot Springsnail (*Pyrgulopsis bruneauensis*); Federal Register: January 9, 2001 (Volume 66, Number 6) Page 1688-1689.

The Xerces Society is an international nonprofit organization dedicated to protecting biological diversity through the conservation of invertebrates. We have 5000 members throughout the United States and 55 in Idaho. Scott Hoffman Black, Executive Director, has degrees in entomology and aquatic ecology, and years of experience working on endangered species issues.

The Society is pleased that the US Fish and Wildlife Service (Service) is working on a recovery plan for the Bruneau hot springsnail (*Pyrgulopsis bruneauensis*). We think the Service and the author Jeri Wood have done well under the circumstances. There are very few snail-oriented Recovery Plans to compare with, and the history and political complications surrounding the Bruneau listing are unique and essentially without any near precedent in the Act's history.

We do, however, have some concerns and questions about the draft as written.

**II. RECOVERY PLAN HAS NO DESCRIPTION OF SITE-SPECIFIC
MANAGEMENT ACTIONS AS REQUIRED BY THE ENDANGERED SPECIES
ACT**

The principal threat, groundwater pumping and draw down of the aquifer, is well stated in the recovery plan for the Bruneau hot springsnail (Plan) but the actual steps of recovery are not. The Endangered Species Act (ESA, 16 USCS @ 1533(f)(1)) requires that steps of the recovery of the species should be spelled out. The provision was upheld in a recent court case over the recovery plan for the grizzly bear.

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ESA, 16 USCS @ 1533(f)(1)
(B) incorporate in each (recovery) plan--

(i) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species;

1) STEP 1 (IMPLEMENT CONSERVATION MEASURES TO INCREASE WATER LEVELS IN THE REGIONAL GEOTHERMAL AQUIFER) DOES NOT ACHIEVE THE PLAN'S GOAL FOR THE CONSERVATION AND SURVIVAL OF THE SPECIES

The Service asserts that

“Groundwater withdrawal and pumping threaten the Bruneau hot springsnail through a reduction or loss of geothermal spring habitats resulting from the depletion of regional geothermal aquifer underlying the Bruneau Valley area. Within the last 30 years discharge from many of the geothermal springs along Hot Creek and the Bruneau River has decreased greatly or ceased flowing, thus restricting springsnail habitat through the loss of wetted surface. Withdrawals have averaged 66,335 cubic decameters of water per year since 1992 and *have increased annually since 1992* (emphasis added). Monitoring between 1996 and 1999 indicates a return to *declining groundwater levels, even with continued above annual precipitation.*” (emphasis added) (Plan, Pg. 7).

The Draft recovery plan also states that the Bruneau hot springsnail currently survives in only 89 of 155 geothermal springs and seeps and that surveys in the 1990's concluded:

A 27% decline in the total number of springs and seeps since 1991 (from 211 to 155).

A 32% decline in springs occupied by the snail since 1991, from 131 springs to 89.

The populations of this species are in severe decline and all agree the principal threat is groundwater pumping and draw down of the aquifer.

Step 1.1 (*Continue implementation of the State of Idaho Bruneau Hot Springsnail Conservation strategy to meet recovery objectives and criteria set forth in the recovery plan*) is based on the State of Idaho strategy for the conservation of the Bruneau Hot Springsnail. That strategy is based on review of proposals that include: rental of groundwater rights and funding for water conservation and repair of leaking wells by the State of Idaho (Plan, pg. 11). The State has set up a committee to fund individual projects as agencies and individuals submit proposals. The recovery of the species seems to be based on the following:

The State will use the expertise of the (State of Idaho strategic planning) committee to prioritize and fund individual projects as proposals are submitted by agencies or individuals. Project priorities will be determined via the following

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guidelines: 1) cost effectiveness/ sharing; 2) location and proximity to the spring system in the Bruneau River; 3) duration; 4) total water savings expected (Plan Pg. 22).

This step relies on proposals that have not even been submitted. At no place in this section does it lay out how the process above will lead to a reduction of aquifer withdrawal or how it will help recover this imperiled species. This clearly does not meet 16 USCS @ 1533(f)(1) of the ESA, as it does not describe site-specific management actions.

Step 1.2, *Maintain and evaluate the Groundwater Management Area*, states:

Efforts are underway by the Idaho Department of Water Resources to permanently establish a moratorium on all new irrigation and other large volume consumptive uses. *This moratorium however, does not restrict the development of new geothermal wells for domestic uses, or the lowering of pumps in existing wells* (emphasis added) (Plan Pg. 22).

Clearly this step is not intended to increase the amount of water in the aquifer and will result in a net loss if *new geothermal wells for domestic uses, or the lowering of pumps in existing wells, are allowed to occur!*

Step 1.3, *Develop and implement a Water Management District for the Bruneau-Grandview area*, essentially only allows for monitoring. It reads:

Monitoring of groundwater levels at groundwater diversions before and during pumping activities and immediate reporting to the Director of the Idaho Department of Water Resources any (violations) (Plan Pg. 23).

This again will not decrease the amount of water pumped from the aquifer, will not help recovery, and *does not meet the definition of 16 USCS @ 1533(f)(1) of the ESA.*

Step 1.4, *Repair leaking artesian wells*, is a needed activity and we support this action. There is no documentation on how much this will help increase pressure in the geothermal aquifer. The Plan states it will conserve groundwater and *maintain* pressure in the aquifer. This implies that there will be no net gain in pressure and therefore no real recovery of the species.

Step 1.5, *Expand groundwater monitoring in the Bruneau, Sugar, and Little Valleys to include the effects of granting additional water rights*, states:

Groundwater monitoring should include a review of any additional requests for new water rights (including agricultural and domestic water rights) and their potential effects on decreasing water levels in the geothermal aquifer (Plan Pg. 23).

According to the Plan, there is a likelihood that there will be a net loss in water from the aquifer and hence a net loss in habitat of the species.

Step 1.6, *Investigate opportunities to use alternative water sources in lieu of water from the geothermal aquifer*, states that there is a shallow coldwater aquifer perched above the deeper geothermal aquifer and that this may be a substitute for the geothermal source. There is no data to show how much water this might replace from the geothermal aquifer or to determine what impacts this may have on other wildlife species or water quality.

Step 1.7, *Implement the Conservation Reserve Program (CPR) to conserve water from the geothermal aquifer*, is a positive step but it in no way meets the letter of the ESA. The Service has no control over pricing for this program, which is the limiting factor. The Service admits, “area landowners have indicated that (the current rental fees) will not provide the necessary incentive to continue participating in the Conservation Reserve Program” (Plan Pg 24). Because this step will likely not lead to a reduction of water pumped from the aquifer it does not meet with the ESA criteria for a successful recovery plan.

Everyone is in agreement that implementing conservation measures to increase water levels in the regional geothermal aquifer is needed to recover this species. But the Plan does not outline any specific measures to ensure that the species will recover and as stated above this does not meet the intent of the ESA.

2). OTHER RECOVERY GOALS ARE NOT ADEQUATE TO PROTECT THE SPECIES.

Recovery steps 2, 3, 6, 7, and 8, although important, have nothing to do with recovery. Steps 2) groundwater monitoring, 3) monitoring the survival and recovery of the Bruneau Hot Springsnail, 6) further research needs, 7) secure funding for implementation of recovery tasks, and 8) recovery plan assessment are all important monitoring, research, assessment and funding activities but do not directly relate to species recovery (except that funding is needed for all activities).

We support Step 4, which would reduce or eliminate Tilapia and Gambusia (if it is feasible), and we support reopening of habitat near Indian Bathtub itself. We also support springsnail, relocation, as long as it is to sites in the very immediate vicinity.

We also support and actions in Step 5, but believe they should go farther. The dangers from continued grazing seem to be understated. Despite assurances about fencing, cattle have repeatedly gotten into the habitat area--and more effective measures need to be taken to secure the hot springs and seeps. We also support the assessment and regulation of any federal land exchanges within the Little, Sugar, or Bruneau Valleys. We agree that no land exchanges should occur if future uses would result in development of the geothermal aquifer, but cannot think of a single example of a land exchange that would not allow the potential for more pumping.

Although we support steps above, they will not lead to recovery of this species because the principal threat, groundwater pumping and draw down of the aquifer, are not

addressed. In short this document does not detail real recovery steps and is therefore not legal under the ESA. The recovery plan needs to be amended to include concrete implementable steps.

II. OTHER ISSUES OF CONCERN

1). CAN THE SERVICE PASS THE CONSERVATION OF AN ENDANGERED SPECIES TO THE STATE AGENCY?

Idaho Department Water Resources can only manage groundwater use for the purpose of fulfilling senior water rights and not for the protection of fish and wildlife resources. The ESA in this case should take precedent over state water law.

2) DELISTING IS FLAWED

The necessity of increasing water levels in the geothermal aquifer is clear. We feel it needs to be restored to, and stabilized at, its historic level. A definite goal of decreasing withdrawal as well as increasing recharge should be established, preferably at a level of withdrawal less than that typical for 1978-1991 (49,900 acre-feet per year).

Measurement of success should not necessarily be by number of springs and seeps occupied, but by increases in total area occupied and numbers of specimens (total population size). Most of the so-called springs are really tiny recharge seeps along a particular rock face, which has secondary mineralization and other indicators that the whole face once flowed. In its present reduced flow state, there appear to be many tiny springs. If flow is increased, it is quite likely that many of these will coalesce laterally. (Terry Frest, Personal communication 2000).

Thus, the recovery goal in terms of number of springs may be hard to achieve and have little meaning. And increases in area occupied and in population size would be easier to demonstrate and document. Perhaps better would be a return to historic springflow levels of 12,453 cubic dekameters or at least a substantially larger amount (volume) than now available in snail-inhabited areas (Terry Frest, Personal communication 2000).

Assessment should also take place at more than one well because recharge in, and withdrawal from, a given aquifer both need to be assessed using several scattered wells arranged across the aquifer area (Terry Frest, Personal communication 2000)

3) OTHER POTENTIAL THREATS

There is also danger that other snails, such as aquarium taxa, could get introduced into the recovery area. These are raised in the Snake River Plain and could compete very directly with *P. bruneauensis*. Bowler and Frest listed introductions and other non-native taxa, such as *Melania* and *Thiara*, are becoming real problems in northern Utah but so far are minor in southern Idaho (Terry Frest, Personal communication 2000). Given the very real problems with the New Zealand mudsnail elsewhere in wide areas of the Snake River Plain, a contingency plan should be made to ensure these exotic snails are not introduced into the recovery area.