

photochemical modeling, spatial interpolation of ambient data from existing O<sub>3</sub> monitors, or other quantitative assessment tools to determine the areas where there are projected maximum non-urban O<sub>3</sub> concentrations, and where these regions with elevated O<sub>3</sub> might overlap O<sub>3</sub>-sensitive ecosystems, and other important wilderness areas and Micropolitan Statistical Areas. Federal Land Managers, State, local, or Tribal ecosystem assessment experts, or academic researchers who are familiar with the patterns of vegetation damage and distribution of O<sub>3</sub> sensitive species in their areas should also be consulted. A State may propose establishing or moving a site as part of their annual monitoring network plan due each year as provided in § 58.10; however, such quantitative assessments to determine the required non-urban O<sub>3</sub> monitors shall be updated as part of the assessment of their air quality surveillance system due to the EPA Regional Administrator every 5 years as required by § 58.10.

(d) In some cases, non-urban O<sub>3</sub> monitors may already be operating by monitoring organizations (e.g., the National Park Service) other than the responsible State or local agency. State or local agencies may utilize such O<sub>3</sub> monitors for one or more of the required non-urban monitors under the following provisions:

(1) The O<sub>3</sub> monitor in use by another monitoring organization meets the quality assurance, method requirements, and probe and siting criteria as provided for in Appendices A, C, and E of this part, including any applicable approved waivers according to the conditions of each applicable appendix.

(2) The O<sub>3</sub> monitor is included in the applicable State or local agency annual monitoring network plan as provided for § 58.10.

(3) Data are included in the Annual Air Monitoring Data Certification as provided for in § 58.15.

(4) Data are submitted according to the requirements of § 58.16.

(5) Data are made available to the State or local agency in a timely manner for reports of the air quality index according to the requirements of § 58.50 and to support other real-time data objectives such as national air quality mapping or forecasting.

(6) If for any reason the O<sub>3</sub> monitor is shut down, the applicable State or local agency must address how it proposes to meet the loss of data in the next required annual monitoring network plan as provided for in § 58.10.

(e) States may choose to seek from the EPA Regional Administrator a deviation

from non-urban requirements that either modify or waive these requirements, for example, in a small, relatively urbanized State, in situations where a State believes that one of the required non-urban monitors can meet more than one objective, or where a State can demonstrate that no Micropolitan Statistical Area will experience design value concentrations of at least 85 percent of the NAAQS. When seeking approval of such deviations, the State must provide relevant information specific to the basis for which the waiver is sought. Any deviations based on the Regional Administrator's waiver of requirements must be described in the annual monitoring network plan.

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[FR Doc. E9-16802 Filed 7-15-09; 8:45 am]

BILLING CODE 6560-50-P

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[FWS-R1-ES-2008-0084; 14420-1113-0000-C6]

RIN 1018-AW16

#### Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To Remove the Utah (Desert) Valvata Snail (*Valvata utahensis*) From the List of Endangered and Threatened Wildlife and Proposed Rule

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 12-month petition finding; proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to remove the Utah (desert) valvata snail (*Valvata utahensis*) from the Federal List of Endangered and Threatened Wildlife (List) pursuant to the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*). Based on a thorough review of the best available scientific and commercial data, the Utah valvata snail is more widespread and occurs in a greater variety of habitats in the Snake River than known at the time of listing in 1992. We now know that the Utah valvata snail is not limited to areas of cold-water springs or spring outflows; rather, it persists in a variety of aquatic habitats, including cold-water springs, spring creeks and tributaries, the mainstem Snake River and associated tributary stream habitats, and reservoirs influenced by dam operations. Given

our current understanding of the species' habitat requirements and threats, the species does not meet the definition of a threatened or endangered species under the Act. Therefore, we are proposing to remove the Utah valvata snail from the List, thereby removing all protections provided by the Act.

**DATES:** We will accept comments from all interested parties until September 14, 2009. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by August 31, 2009.

**ADDRESSES:** You may submit comments by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: RIN 1018-AW16, Division of Policy and Directives Management; U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, Suite 222, Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Public Comments Solicited section below for more information).

**FOR FURTHER INFORMATION CONTACT:** Jeffery L. Foss, State Supervisor, Idaho Fish and Wildlife Office, 1387 S. Vinnell Way, Room 368, Boise, ID 83709 (telephone 208/378-5243; facsimile 208/378-5262). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800/877-8339, 24 hours a day, 7 days a week.

#### SUPPLEMENTARY INFORMATION:

##### Public Comments Solicited

Our intent is to use the best available commercial and scientific data as the foundation for all endangered and threatened species classification decisions. Comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule to remove the Utah valvata snail from the List are hereby solicited. Comments particularly are sought concerning:

(1) Additional information regarding the range, distribution, and population size of the Utah valvata snail, including the locations of any additional colonies or populations;

(2) Data on any threats (or lack thereof) to the Utah valvata snail;

(3) Current or planned activities in the areas occupied by the Utah valvata snail

and possible impacts of these activities on this species; and

(4) Data on Utah valvata snail population trends.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We will not accept comments sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>.

If you provide personal identifying information in addition to the required items specified in the previous paragraph, such as your street address, phone number, or e-mail address, you may request at the top of your document that we withhold this information from public review.

However, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours at the Idaho Fish and Wildlife Office, 1387 S. Vinnell Way, Room 368, Boise, ID 83709; by telephone at 208/378-5243.

#### Public Hearing

The Act provides for one or more public hearings on this proposal, if requested. Requests must be received by the date specified in the **DATES** section. Such requests must be made in writing and addressed to the State Supervisor (see **FOR FURTHER INFORMATION CONTACT** section above).

#### Species Information

The Utah valvata snail (*Valvata utahensis*) was first recognized as a species in 1902 from specimens in Utah Lake and Bear Lake, Utah (Walker 1902, p. 125). Its common name has since been changed by the American Fisheries Society to the “desert valvata” in the benchmark text for aquatic invertebrate nomenclature, *Common and Scientific Names of Aquatic Invertebrates from the United States and Canada* (Turgeon *et al.* 1998, p. 109), presumably due to the fact that it is no longer known to occur in Utah. However, because the species is currently listed in the Code of Federal Regulations as the Utah valvata snail, *Valvata utahensis* will be referred to as the Utah valvata snail throughout this proposed rule.

The Utah valvata snail is univoltine (produces one group of eggs per year) with a lifespan of about 1 year. Reproduction and spawning occur

asynchronously between March and October, depending on habitat, with the majority of young spawned between August and October (Cleland 1954, pp. 171–172; U.S. Bureau of Reclamation (USBR) 2003, p. 7). Emergence of a new cohort follows approximately 2 weeks after oviposition (Cleland 1954, p. 170; Dillon 2000, p. 103), and senescent snails (*i.e.*, those approximately 374 days old) die shortly after reproduction (Cleland 1954, pp. 170–171; Lysne and Koetsier 2006a, p. 287).

Lysne and Koetsier (2006a, p. 288) determined the average size of adult Utah valvata snails to be 0.17 inches (4.32 millimeters (mm)). The Utah valvata snail has been observed to produce egg masses which contained 3 to 12 developing snails (Lysne and Koetsier 2006a, p. 288). Egg masses are approximately 0.39 to 0.06 inches (1.0 to 1.5 mm) in diameter, and young snails are approximately 0.03 inches (0.7 mm) in size upon emergence (Lysne and Koetsier 2006a, p. 289). Utah valvata snail young possess a turbinate shell form and an incipient carina (keel-shaped ridge) on the dorsal surface of the shell, which distinguishes them from the morphologically similar *Valvata humeralis*. Based on field and laboratory observations, the Utah valvata snail is primarily a grazer (Lysne and Koetsier 2006a, p. 287; Frest and Johannes 1992, pp. 13–14).

#### Range

The Utah valvata snail, or at least its closely related ancestors, has been described as ranging widely across the western United States and Canada as far back as the Jurassic Period, 199.6 ± 0.6 to 145.5 ± 4 million years ago (Taylor 1985a, p. 268). Fossils of the Utah valvata snail are known from Utah to California (Taylor 1985a, pp. 286–287). The Utah valvata snail was likely present in the ancestral Snake River as it flowed south from Idaho, through Nevada, and into northeastern California (Taylor 1985a, p. 303). The Snake River escaped to join the Columbia River Basin approximately 2 million years ago (Hershler and Liu 2004, pp. 927–928).

At the time of listing in 1992 (57 FR 59244, December 14, 1992) we reported the range of the Utah valvata snail as existing at a few springs and mainstem Snake River sites in the Hagerman Valley, Idaho (River Mile (RM) 585), a few sites above and below Minidoka Dam (RM 675), and in the American Falls Dam tailwater near Eagle Rock damsite (RM 709). Surveys at the State of Idaho’s Thousand Springs Preserve (RM 585) indicated declining numbers

of snails, with two colonies at or below 6,000 individuals (57 FR 59245).

New data collected since the time of listing indicate that the range of the species is discontinuously distributed in at least 255 miles (410 kilometers (km)) of the Snake River and some associated tributary streams, an increase of nearly 122 river miles (196 km) from the previously known range. Their current range in the Snake River extends from RM 585 near the Thousand Springs Preserve (Bean 2005), upstream to the confluence of the Henry’s Fork with the Snake River (RM 837; Fields 2005, p. 11). Colonies of the Utah valvata snail have been found in the Snake River near the towns of Firth (RM 777.5), Shelley (RM 784.6), Payne (RM 802.6), Roberts (RM 815), and in the Henrys Fork approximately 9.3 miles (15 km) upstream from its confluence with the Snake River (at Snake RM 832.3) (Gustafson 2003). Based on limited mollusk surveys, the species has not been found upstream from the described location on the Henry’s Fork or in the South Fork of the Snake River. Tributary streams to the Snake River where Utah valvata snails have been collected include Box Canyon Creek (RM 588) (Taylor 1985b, pp. 9–10), and at one location in the Big Wood River (WRM 35) (USBR 2003, p. 22). Big Wood River observations require further investigation and may be the result of seasonal transport of Utah valvata snails via irrigation canals that connect the Big Wood and Snake Rivers, or passive transport via waterfowl (Miller *et al.* 2006, p. 2371) between large bodies of water (*i.e.*, reservoirs).

#### Habitat Use

At the time of listing in 1992, the best available data indicated that Utah valvata snails “characteristically require cold, fastwater, or lotic habitats \* \* \* in deep pools adjacent to rapids or in perennial flowing waters associated with large spring complexes” (57 FR 59244, December 14, 1992). In numerous field studies conducted since then, the species has been collected at a wide range of depths, ranging from less than 3.2 feet (1 meter) (Stephenson and Bean 2003, pp. 98–99) to depths greater than 45 feet (14 meters) (USBR 2003, p. 20), and at temperatures between 37.4 and 75.2 degrees Fahrenheit (F) (4 to 24 degrees Celsius (C)) (Lysne 2007; Gregg 2006).

Recent work conducted by the Idaho Department of Fish and Game (IDFG) in the upper Snake River demonstrated that Utah valvata snail presence was positively correlated with water depth (up to 18.37 feet (5.6 meters)) and temperature (up to 63 degrees F (17.2

degrees C)) (Fields 2005, pp. 8–9), and Utah valvata snail density was positively correlated with macrophyte (a water plant large enough to be observed with the unaided eye) coverage, water depth, and temperature (Fields 2006, p. 6). Similarly, Hinson (2006, pp. 28–29) analyzed available data from several studies conducted by the USBR (2001–2004), Idaho Power Company (IPC) (1995–2002), IDFG, Idaho Transportation Department (2003–2004) and others, and demonstrated a positive relationship between Utah valvata snail presence and macrophytes, depth, and fine substrates. One study reported Utah valvata snails in organically enriched fine sediments with a heavy macrophyte community, downstream of an aquaculture facility (RM 588) (Hinson 2006, pp. 31–32).

Survey data and information reported since the time of listing demonstrate that the Utah valvata snail is able to live in reservoirs, which were previously thought to be unsuitable for the species (Frest and Johannes 1992, pp. 13–14; USBR 2002, pp. 8–9; Fields 2005, p. 16; Hinson 2006, pp. 23–33). We now know the Utah valvata snail persists in a variety of aquatic habitats, including cold-water springs, spring creeks and tributaries, the mainstem Snake River and associated tributary stream habitats, and reservoirs.

Alterations of the Snake River, including the construction of dams and reservoir habitats, have changed fluvial processes resulting in the reduced likelihood of naturally high river flows or rapid changes in flows, and the retention of fine sediments (U.S. Environmental Protection Agency (USEPA) 2002, pp. 4.30–4.31), which may also increase potential habitat for the species (e.g., Lake Walcott and American Falls Reservoirs). Utah valvata snail surveys conducted downstream from American Falls Dam (RM 714.1) to Minidoka Dam (RM 674.5), from 1997 and 2001–2007, consistently found Utah valvata snails on fine sediments within this 39-mile (62.9 km) river/reservoir reach of the Snake River (USBR 1997, p. 4; USBR 2003, p. 8; USBR 2004, p. 5; USBR 2005, p. 6; USBR 2007, pp. 9–11; USFWS 2005, p. 119). Surveys conducted downstream of Minidoka Dam (RM 674.5) to Lower Salmon Falls Dam (RM 573.0) have detected Utah valvata snails, including one record from the tailrace area of Minidoka Dam in 2001 (USFWS 2005, p. 120).

In summary, based on available information, the Utah valvata snail is not as specialized in its habitat needs as we thought at the time of listing. In the Snake River, the species inhabits a

diversity of aquatic habitats throughout its 255-mile (410 km) range, including cold-water springs, spring creeks and tributaries, mainstem and free-flowing waters, reservoirs, and impounded reaches. The species occurs on a variety of substrate types including both fine sediments and more coarse substrates in areas both with and without macrophytes. It has been collected at water depths ranging from less than 3.2 feet (1 meter) to greater than 45 feet (14 meters), and at water temperatures ranging from 37.4 to 75.2 degrees F (3 to 24 degrees C).

#### Population Density

The density of Utah valvata snails at occupied sites can vary greatly. For example, at one cold-water spring site at the Thousand Springs Preserve, the average density in 2003 was 197 snails/square meter (m<sup>2</sup>) (ranging between 0 and 1,724 snails/m<sup>2</sup>) (Stephenson *et al.* 2004, p. 23). In the mainstem Snake River between American Falls Reservoir and Minidoka Dam in 2002, Utah valvata snail densities averaged 91 snails/m<sup>2</sup> (ranging from 0 to 1,188 snails per m<sup>2</sup>), and in American Falls Reservoir densities averaged 50 snails/m<sup>2</sup> (range unavailable) (USBR 2003, p. 20). Above American Falls Reservoir in the mainstem Snake River, Utah valvata snail densities at six sites averaged 117 snails/m<sup>2</sup> (ranging from 0 to 1,716 snails/m<sup>2</sup>) (Fields 2006, pp. 12–13).

Within reservoirs, the proportional occurrence of snails is relatively high. For all field studies and surveys, the highest proportions of samples where Utah valvata snails are present have been collected in lower Lake Walcott Reservoir (USBR 2002, p. 5; USBR 2003, p. 6). For sample years 2001 to 2006, the relative proportion of samples containing Utah valvata snails ranged from 40 (in 2004) to 62 (in 2002) percent of samples collected. Similarly, American Falls reservoir samples contain a high proportion of Utah valvata snails with 21 (in 2001) to 33 (in 2003) percent in collections between 2002 through 2004. Such high proportional occurrence in reservoirs is additional evidence that Utah valvata snails are not restricted to cold-water springs or their outflows.

#### Previous Federal Actions

We listed the Utah valvata snail as endangered on December 14, 1992 (57 FR 59244). Based on the best available data at that time we determined that the Utah valvata snail was threatened by: Proposed construction of new hydropower dams, the operation of existing hydropower dams, degraded

water quality, water diversions, the introduced New Zealand mudsnail (*Potamopyrgus antipodarum*), and the lack of existing regulatory protections (57 FR 59244). In 1995, we published the Snake River Aquatic Species Recovery Plan (Plan), which included the Utah valvata snail. Critical habitat has not been designated for this species.

On April 11, 2006, we initiated a 5-year review for the species in accordance with section 4(c)(2) of the Act (71 FR 18345). On December 26, 2006, the Service received a petition from the Governor of Idaho and attorneys from several irrigation districts and canal districts requesting that the Utah valvata snail be removed from the List. On June 6, 2007, the Service published a **Federal Register** notice announcing that the petition presented substantial scientific information indicating that removing the Utah valvata snail from the List may be warranted, and the initiation of a 12-month status review of the species, to be conducted concurrent with our 5-year review (72 FR 31264). As part of our best available scientific and commercial data analysis, we conducted a 30-day peer review on a draft status-review document, which was completed in September 2007 (USFWS 2007). The Summary of Factors Affecting the Species section below represents the best available scientific and commercial data resulting from our analysis and applicable updates from the previous peer review process.

#### Summary of Factors Affecting the Species

Section 4 of the Act (16 U.S.C. 1533) and implementing regulations (50 CFR part 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Federal List of Endangered and Threatened Wildlife. Changes in the List can be initiated by the Service or through the public petition process. Section 4 (b)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*) requires that, for any petition containing substantial scientific and commercial information that listing may be warranted, we make a finding within 12 months of receiving the petition on whether the petitioned action is: (a) Not warranted, (b) warranted, or (c) warranted, but that immediate proposal of a regulation implementing the petitioned action is precluded by pending proposals to determine whether other species are threatened or endangered.

Under section (4) of the Act, a species may be determined to be endangered or threatened on the basis of any of the following five factors: (A) Present or

threatened destruction, modification, or curtailment of habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We must consider these same five factors in delisting a species. We may delist a species according to 50 CFR 424.11(d) if the best available scientific and commercial data indicate that the species is neither endangered nor threatened for the following reasons: (1) The species is extinct; (2) the species has recovered and is no longer endangered or threatened; and/or (3) the original scientific data used at the time the species was classified were in error.

A species is "endangered" for purposes of the Act if it is in danger of extinction throughout all or a significant portion of its range and is "threatened" if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The word "range" in the significant portion of its range (SPR) phrase refers to the range in which the species currently exists. The word "significant" in the SPR phrase refers to the value of that portion to the conservation of the species.

*Factor A. The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range*

**Construction of New Hydropower Dams**

In our 1992 final rule listing the Utah valvata as an endangered species, we stated: "Six proposed hydroelectric projects, including two high dam facilities, would alter free-flowing river reaches within the existing range of [the Utah valvata snail]. Dam construction threatens the [Utah valvata snail] through direct habitat modification and moderates the Snake River's ability to assimilate point and non-point pollution. Further hydroelectric development along the Snake River would inundate existing mollusk habitats through impoundment, reduce critical shallow, littoral shoreline habitats in tailwater areas due to operating water fluctuations, elevate water temperatures, reduce dissolved oxygen levels in impounded sediments, and further fragment remaining mainstem populations or colonies of these snails" (57 FR 59251).

Since the time of listing, proposed hydroelectric projects discussed in the 1992 final rule are no longer moving forward. The A.J. Wiley project and Dike Hydro Partners preliminary

permits have lapsed; the Kanaka Rapids, Empire Rapids, and Boulder Rapids permits were denied by the Federal Energy Regulatory Commission (FERC) in 1995; there was a notice of surrender of the preliminary permit for the River Side Project in 2002; and two other proposed projects, the Eagle Rock and Star Falls Hydroelectric Projects were denied preliminary permits by the FERC. In 2003, a notice was provided of surrender of preliminary permit for the Auger Falls Project. Information provided by the State of Idaho indicates that all proposals and preliminary permits for the construction of new dams along the mid-Snake River have either lapsed or been denied by the FERC (Caswell 2006). Additionally, recent studies have shown that the Utah valvata snail is not as limited in its habitat needs as we had thought at the time of listing (see Species Information section above).

**Operation of Existing Hydropower Dams**

In the 1992 final rule, we discussed peak-loading, the practice of artificially raising and lowering river levels to meet short-term electrical needs by local run-of-the-river hydroelectric projects, as a threat to the Utah valvata snail. Peak-loading was described as "a frequent and sporadic practice that results in dewatering mollusk habitats in shallow, littoral shoreline areas" (57 FR 59252). Studies conducted since the time of listing have shown the Utah valvata snail is able to persist in reservoirs, contrary to our understanding of the species at the time of listing (USFWS 2005, p. 105; 57 FR 59244, 59245). For example, Lake Walcott (RM 702.5 to 673.5; upstream of Minidoka Dam) appears to contain the largest population of Utah valvata snails in the Snake River system (USFWS 2005, pp. 111–112). This is likely due to relatively good water quality in the reservoir compared to downstream sections of the Snake River near Hagerman where water quality is influenced by agricultural, municipal, and aquaculture flows into the river. In lower Lake Walcott, there is a large area of suitable Utah valvata snail habitat that remains submerged despite annual drawdowns (the reservoir fluctuates by no more than 5 feet (1.5 meters) annually, thereby limiting the number of snails affected by dewatering and desiccation). Further, surveys conducted in the mainstem Snake River in 1997, 1998, and 2001, from American Falls Dam (RM 714.1) to Lake Walcott (RM 702.5) indicate a fairly large and viable population of Utah valvata snails even though shoreline habitats in this stretch undergo annual dewatering (USFWS

2005, p. 119). In American Falls reservoir, dam operations and fluctuating flows have been estimated to kill between 5 and 40 percent of the Utah valvata snails in most years. Nevertheless, Utah valvata snails continue to persist in these reservoirs with relatively high proportional occurrence (USFWS 2005, p. 119).

**Degraded Water Quality**

In the final listing rule, we stated: "The quality of water in [snail] habitats has a direct effect on the species [*sic*] survival. The [Utah valvata snail] require[s] cold, well-oxygenated unpolluted water for survival. Any factor that leads to deterioration in water quality would likely extirpate [the Utah valvata snail]" (57 FR 59252). As described above in the Species Information section, our understanding of the species' habitat requirements has changed substantially since 1992. Furthermore, new information has become available indicating both (a) improvements to Snake River water quality, and (b) the ability of Utah valvata snail to inhabit and persist in reaches of the Snake River rich in nutrients (e.g., nitrogen and phosphorus).

Factors that are known to degrade water quality in the Snake River include reduced water flow, warming due to impoundments, and increases in the concentration of nutrients, sediment, and pollutants reaching the river from agricultural and aquaculture inputs (USFWS 2005, p. 106). Several water-quality assessments have been completed for the Snake River by the USEPA, USBR, U.S. Geological Survey (USGS), and IPC. All of these assessments generally demonstrate that water quality in the Snake River of southern Idaho meets Idaho's water-quality criteria for the protection of aquatic life for some months of the year, but may be poor in reservoirs or during summer high temperatures and low flows, based on water-quality criteria such as dissolved oxygen (Clark *et al.* 1998, pp. 20–21, 24–27; Clark *et al.* 2004, pp. 38–40; Clark and Ott 1996, p. 553; Clark 1997, pp. 1–2, 19; Meitl 2002, p. 33).

Several reaches of the Snake River are classified as water-quality-impaired due to the presence of one or more pollutants (e.g., Total Phosphorus (TP), sediments, total coliforms) in excess of State or Federal guidelines. Nutrient-enriched waters primarily enter the Snake River via springs, tributaries, fish-farm effluents, municipal waste-treatment facilities, and irrigation returns (USEPA 2002, pp. 4–18 to 4–24). Irrigation water returned to rivers is

generally warmer, contains pesticides or pesticide byproducts, has been enriched with nutrients from agriculture (e.g., nitrogen and phosphorous), and frequently contains elevated sediment loads. Pollutants in fish-farm effluent include nutrients derived from metabolic wastes of the fish and unconsumed fish food, disinfectants, bacteria, and residual quantities of drugs used to control disease outbreaks. Elevated levels of fine sediments, nitrogen, and trace elements (including cadmium, chromium, copper, lead, and zinc) have been measured immediately downstream of several aquaculture discharges (Hinson 2003, pp. 42–45). Additionally, concentrations of lead, cadmium, and arsenic have been detected in snails collected from the Snake River (Richards 2003). Studies have shown another native Snake River snail, the Jackson Lake springsnail (*Pyrgulopsis robusta*), to be relatively sensitive to copper (a common component in algacides) and pentachlorophenol, a restricted use pesticide/wood preservative (Ingersoll 2006).

The effects of pollutants detected in the Snake River (e.g., metals, pesticides, excess nutrients) on the growth, reproduction, and survival of the Utah valvata snail have not been evaluated. However, the evidence available to us (including several intensive survey efforts) does not indicate that the population is declining or that the range of the species is contracting. Furthermore, the Utah valvata snail has been documented to occur in low-oxygen, organically-enriched sediments with heavy macrophyte communities downstream of an aquaculture facility (RM 588) (Hinson 2003, p. 17), indicating that the species may not be as sensitive to these pollutants as we once suspected. Based on the current best available information, we are not aware that water quality in the Snake River limits growth, reproduction, or survival of the Utah valvata snail in any portion of its range.

There have been substantial declines in total dissolved solids (TSS) primarily as a result of changing irrigation practices. There have also been substantial declines in TP from changing agricultural practices and changing aquaculture feeds in the middle Snake River downstream of Lake Walcott. Data collected by the Idaho Department of Environmental Quality (IDEQ) show decreases of TSS near 64 percent compared to 1990 levels, and decreases of TP near 33 percent compared to 1990 levels (Buhidar 2006). The specific water-quality parameters required for the survival and persistence

of the Utah valvata snails are not known. However, the Utah valvata snail occurs over a relatively large documented range of over 255 river miles (410 km) (USFWS 2005, pp. 110–113) and has the ability to tolerate and persist in a variety of aquatic habitats with some degree of water-quality degradation (Lysne and Koetsier 2006b, pp. 234–237). For example, studies conducted by the USBR in 2003 in Lake Walcott Reservoir indicated the highest Utah valvata snail densities occurred in the lower reservoir, where the sediments had the greatest percentage of organic content (an indicator that oxygen levels are likely low) (Hinson 2006, p. 19).

*Summary of Factor A:* Our understanding of the habitat needs of the Utah valvata snail has changed substantially since the species was listed in 1992. Survey data collected since 1992 indicate that the geographic range of the species in the Snake River is approximately 122 river miles (196 km) larger than known at the time of listing, that it occurs in a variety of substrate types (e.g., fines to cobble size) and flows, and that it tolerates a range of water-quality parameters. Threats pertaining to the construction of new hydropower dams as cited in the 1992 final rule have not been realized as the plans for dam construction have expired or been withdrawn. The operation of existing hydropower dams and reservoirs likely affect the distribution of the Utah valvata snail along the shoreline areas due to fluctuating flows and seasonal dewatering; however, the species appears to persist in these reservoirs with relatively high proportional occurrence. There is no information to suggest that degraded water quality is affecting the species' population numbers or distribution. Evidence indicates that improvements have been made in Snake River water-quality parameters including TSS and TP in some Snake River reaches since listing. Therefore, destruction, modification, or curtailment of the Utah valvata snail's habitat or range is not currently putting the species in danger of extinction, and is not likely to result in the endangerment or extinction of the species in the foreseeable future.

*Factor B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

Based on the best available scientific and commercial data, we believe that overutilization for commercial, recreational, scientific, or educational purposes is not currently putting the Utah valvata snail in danger of extinction, and is not likely to result in

the endangerment or extinction of the species in the foreseeable future. There is no known commercial or recreational use of the species and collections for scientific or educational purposes are limited in scope and extent. While collection could result in mortality of individuals within a small area, they are unlikely to have population-level effects because only a few individuals and institutions are interested in collecting the species and the life-history strategy of the species makes populations relatively resilient to limited mortality (i.e., invests little in reproduction, relatively high reproductive output (many eggs laid at a time), early age of reproduction, and short lifespan).

*Factor C. Disease or Predation*

Parasitic trematodes similar to those of the genus *Microphallus* have been identified in some freshwater snails (e.g., *Pyrgulopsis robusta*) that share similar habitats in the Snake River in Idaho (Dybdahl *et al.* 2005, p. 8). However, the occurrence of trematode parasites on Utah valvata has not been studied.

Predators of the Utah valvata snail have not been documented; however, we assume that some predation by native and non-native species occurs. Aquatic snails in general are prey for numerous invertebrates and vertebrates (Dillon 2000, pp. 274–304), and predation on other aquatic snails by crayfish and fish is well documented (Lodge *et al.* 1994, p. 1265; Martin *et al.* 1992, p. 476; Merrick *et al.* 1992, p. 225; Lodge *et al.* 1998, p. 53; McCarthy and Fisher 2000, p. 387).

Based on the best available scientific and commercial data, we believe that the threat of disease or predation is not placing the Utah valvata snail in danger of extinction, and is not likely to result in the endangerment or extinction of the species in the foreseeable future. The life-history strategy of the Utah valvata makes populations relatively resilient to limited mortality due to parasites or disease (i.e., invests little in reproduction, relatively high reproductive output (many eggs laid at a time), early age of reproduction, and short lifespan).

*Factor D. Inadequacy of Existing Regulatory Mechanisms*

In the final listing rule, we found inadequate regulatory mechanisms to be a threat because: (1) Regulations were inadequate to curb further water withdrawal from groundwater spring outflows or tributary spring streams, (2) it was unlikely that pollution-control regulations would reverse the trend in nutrient loading any time soon, (3) there

was a lack of State-mandated protections for invertebrate species in Idaho, and (4) regulations did not require FERC or the U.S. Army Corps of Engineers to address Service concerns regarding licensing hydroelectric projects or permitting projects under the Clean Water Act for unlisted snails. Below, we address each of these concerns in turn.

#### Groundwater Withdrawal Regulations

Since 1992, new information has become available clarifying the habitat requirements of the Utah valvata snail. The species is not limited to cool, fast-water, or lotic habitats, or perennial flowing waters associated with large spring complexes, as previously believed. The species is able to live in a variety of aquatic habitats, and is locally abundant throughout a 255-mile (410 km) stretch of the Snake River in tributary streams, mainstem Snake River, and in reservoirs that are managed for annual drawdowns.

The Idaho Department of Water Resources (IDWR) manages water in the State of Idaho. Among the IDWR's responsibilities is the development of the State Water Plan (IDWR 2006a). The State Water Plan was updated in 1996 and included a table of federally threatened and endangered species in Idaho, such as the Utah valvata snail. The State Water Plan outlines objectives for the conservation, development, management, and optimum use of all unappropriated waters in the State. One of these objectives is to "maintain, and where possible enhance water quality and water-related habitats" (IDWR 2006a). It is the intent of the State Water Plan that any water savings realized by conservation or improved efficiencies is appropriated to other beneficial uses (e.g., fish and wildlife, hydropower, or agriculture). Another IDWR regulatory mechanism is the ability of the Idaho Water Resource Board to appropriate water for minimum stream flows when in the public interest (IDWR 2006b).

Since 1992, the IDWR and other State agencies have also created additional regulatory mechanisms that limit future surface and groundwater development, including the continuation of various moratoria on new consumptive water rights and the designation of Water Management Districts (Caswell 2007). The State is working with numerous interested parties to stabilize aquifer levels and enhance cold-water-spring outflows from the Eastern Snake River Plains. The recently proposed Comprehensive Aquifer Management Plan (CAMP) for the Eastern Snake River Plains area identifies water conservation measures to be

implemented (Barker *et al.* 2007). The goal of the CAMP is to "sustain the economic viability and social and environmental health of the Eastern Snake Plain by adaptively managing a balance between water use and supplies." The CAMP will include several alternatives in an attempt to increase water supply, reduce withdrawals from the aquifer, and decrease overall demand for groundwater (Barker *et al.* 2007).

In addition, the State of Idaho established moratoria in 1993 (the year after listing) that restricted further surface-water and groundwater withdrawals for consumptive uses from the Snake River Plain aquifer between American Falls Reservoir and C.J. Strike Reservoir. The 1993 moratoria were extended by Executive Order in 2004 (Caswell 2006, attachment 1). However, these actions have not yet resulted in stabilization of aquifer levels. Depletion of spring flows and declining groundwater levels are a collective effect of drought conditions, changes in irrigation practices (the use of central-pivot sprinklers contribute little to groundwater recharge), and groundwater pumping (University of Idaho 2007). The effects of groundwater pumping downstream in the aquifer can affect the upper reaches of the aquifer, and the effects of groundwater pumping can continue for decades after pumping ceases (University of Idaho 2007).

Thus, we anticipate groundwater levels will likely continue to decline in the near future, even as water-conservation measures are implemented, and are being developed. Nevertheless, the extinction or endangerment of the Utah valvata snail is unlikely given its ability to survive and persist in a wide variety of aquatic habitats not dependent upon groundwater outflows.

#### Pollution Control Regulations

Since 1992, reductions in sediment (TSS) and phosphorus (TP) loading have improved water quality in localized reaches of the Snake River (Buhidar 2005) (see Factor A above). Various State-managed water-quality programs are being implemented within the range of the Utah valvata snail. These programs are tiered off of the Clean Water Act (CWA), which requires States to establish water-quality standards that provide for (1) the protection and propagation of fish, shellfish, and wildlife, and (2) recreation in and on the water. As required by the CWA, Idaho has established water-quality standards (e.g., for water temperature and dissolved oxygen) for the protection of cold-water biota (e.g., invertebrate

species) in many reaches of the Snake River. The CWA also specifies that States must include an antidegradation policy in their water quality regulations that protects water-body uses and high-quality waters. Idaho's antidegradation policy, updated in the State's 1993 triennial review, is detailed in their Water Quality Standards (IDEQ 2009).

The IDEQ works closely with the USEPA to manage point and non-point sources of pollution to water bodies of the State through the National Pollutant Discharge Elimination System (NPDES) program under the CWA. IDEQ has not been granted authority by the USEPA to issue NPDES permits directly, all NPDES permits are issued by the USEPA Region 10 (USEPA 2009). These NPDES permits are written to meet all applicable water-quality standards established for a water body to protect human health and aquatic life. Waters that do not meet water-quality standards due to point and non-point sources of pollution are listed on EPA's 303(d) list of impaired water bodies. States must submit to EPA a 303(d) list (water-quality-limited waters) and a 305(b) report (status of the State's waters) every two years. IDEQ, under authority of the State Nutrient Management Act, is coordinating efforts to identify and quantify contributing sources of pollutants (including nutrient and sediment loading) to the Snake River basin via the Total Maximum Daily Load (TMDL) approach. In water bodies that are currently not meeting water-quality standards, the TMDL approach applies pollution-control strategies through several of the following programs: State Agricultural Water Quality Program, Clean Water Act section 401 Certification, BLM Resource Management plans, the State Water Plan, and local ordinances. Several TMDLs have been approved by the EPA in stream segments within the range of the Utah valvata snail in the Snake River or its tributaries (Buhidar 2006), although most apply only to TSS, TP, or temperature.

#### State Invertebrate Species Regulations

There are no State regulatory protections for the Utah valvata snail in Idaho. The primary threats to the species, as identified in our listing rule, were related to the loss or alteration of habitat. The lack of specific regulations protecting individual Utah valvata snails does not, by itself, imply that the species is threatened or endangered.

#### Federal Consultation Regulations

The discussion regarding the lack of a Federal regulatory mechanism in the 1992 listing rule was primarily related

to the proposed construction of six dams within the range of the species coupled with our belief at the time of listing that the species required cold, fast-water, or lotic habitats. As stated above, dams are no longer being proposed for construction and our understanding of Utah valvata snail habitat requirements has changed. Thus, the importance of a regulatory mechanism to address these threats is no longer a significant issue with regard to the conservation of the Utah valvata snail.

*Summary of Factor D:* Although there are no specific State regulations protecting the Utah valvata snail, the primary threats identified in the final listing rule were related to the loss or alteration of the species' habitat. Furthermore, as our understanding of the species' habitat requirements has changed, so has our understanding of the species' conservation and regulatory needs. Regulatory mechanisms such as Idaho's water-quality standards and TMDLs will continue to apply to habitats that the Utah valvata snails occupy should we finalize this delisting proposal. Therefore, the inadequacy of existing regulatory mechanisms does not presently endanger the Utah valvata snail, nor is it likely to do so in the foreseeable future.

#### *Factor E. Other Natural or Manmade Factors Affecting the Species' Continued Existence*

The final listing rule stated that New Zealand mudsnails were not yet abundant in cold-water spring flows with colonies of the Utah valvata snail, but that they likely did compete with the species in the mainstem Snake River habitats (57 FR 59254). Surveys have found that Utah valvata snails and New Zealand mudsnails frequently co-occur in cold-water spring, mainstem Snake River, and reservoir habitats (37 percent co-occurrence in combined habitat types), which may indicate that these two species are able to co-exist or that they actually have slightly different resource preferences (e.g., periphytic vs. epilithic algae) (Hinson 2006, p. 42). However, Hinson (2006, p. 41) also notes that the overlap in habitat utilization between the Utah valvata snail and the New Zealand mudsnail could lead to direct competition for resources between these two species.

The USBR reported that New Zealand mudsnails are increasing in Lake Walcott, yet the densities observed were substantially lower than those observed in mainstem Snake River habitats downstream (USBR 2003, p. 19, USBR 2005, p. 6). Further upstream, the distribution of New Zealand mudsnails

currently appears to be limited to the upper end of American Falls Reservoir near the input of the Snake and Portneuf rivers (USBR 2003, p. 21). Surveys conducted even further upstream in the Snake River and tributaries (Field 2004, 2005, pp. 8–12) found moderate-to-high densities of the New Zealand mudsnail at five sites. However, Field (2005, p. 10) stated that the current distribution of New Zealand mudsnails in the Snake River above American Falls Reservoir could more strongly reflect patterns of introductions rather than habitat preferences. Populations of the New Zealand mudsnail are not known to occur in the Wood River.

*Summary of Factor E:* The New Zealand mudsnail frequently co-occurs with the Utah valvata snail and may be competing for habitat or food. The New Zealand mudsnail can reach extremely high densities in the middle Snake River (Richards *et al.* 2001, p. 375), and has been recorded at moderate-to-high densities at five sites in tributaries to the Snake River and the Snake River above American Falls Reservoir. Populations of the New Zealand mudsnail are not known to occur in the Wood River. The overall impact on the Utah valvata snail from the invasion of the New Zealand mudsnail is unknown (Lysne 2003, pp. 85–86; Hinson 2006, p. 41). However, after approximately 20 years of co-occurrence there is no evidence suggesting that the New Zealand mudsnail has caused local extirpations of the Utah valvata snail. Although this does not rule out potential future effects to the Utah valvata snail's distribution or abundance, the current evidence does not support the conclusion that the New Zealand mudsnail presently endangers the Utah valvata snail, nor that it is likely to do so in the foreseeable future.

#### **Foreseeable Future**

For the purposes of this proposed rule, the "foreseeable future" is the period of time over which events or effects reasonably can or should be anticipated, or trends reasonably extrapolated, such that reliable predictions can be made concerning the status of the species. As discussed above in the Summary of Factors section, we determined that the primary threats that were identified at the time the Utah valvata snail was listed in 1992 (construction of new, and operation of existing, hydropower dams; water quality and quantity; inadequacy of regulatory mechanisms; and the introduction of a new invasive snail (*i.e.*, the New Zealand mudsnail)) no longer exist (e.g., new dams), have improved (e.g., water quality), or have not been as severe as expected (e.g., the

New Zealand mudsnail). All indications, based on our improved understanding of the Utah valvata snail's range, habitat requirements, and ecology, suggest that the Utah valvata snail is more widely distributed and occurs in a variety of ecological settings over a 255-mile (410 km) range of the Snake River. Much of the Snake River within the range of the Utah valvata is influenced by seasonal dam operations for hydroelectric or agricultural purposes, yet the species persists in these varied mainstem Snake River systems, including impounded reservoir habitats (e.g., Lake Walcott and American Falls reservoirs). In short, given the available information, we can not reasonably predict or anticipate that threats to the Utah valvata snail will increase in severity in the future such that they would lead the species to become threatened or endangered throughout all or a significant portion of its range.

#### **Conclusion of the Rangewide 5-Factor Analysis**

As required by the Act, we considered the five potential threat factors to assess whether the Utah valvata snail is threatened or endangered throughout its range (our analysis of whether there are significant portions of the species' range that are threatened or endangered follows this section). Information collected since the species' listing in 1992 indicates that the Utah valvata snail is widely distributed and occurs in a variety of ecological settings over a 255-mile range of the Snake River. Much of the Snake River within the range of the Utah valvata is influenced by seasonal dam operations for hydroelectric or agricultural purposes, yet the species persists in these varied mainstem Snake River systems, including impounded reservoir habitats (e.g., Lake Walcott and American Falls reservoirs). None of the threats that we identified in the 1992 listing appear to be significant to the species in light of our current understanding of its status. Nor have we identified any other threats to the species. Therefore, we find that the Utah valvata snail is not in danger of extinction throughout its range, nor is it likely to become so in the foreseeable future.

The Service has determined that the original data for classification of the Utah valvata snail used in 1992 were in error. However, it is important to note that the original data for classification constituted the best available scientific and commercial data available at the time and were in error only in the sense that they were incomplete. The primary considerations for proposing to delist

the Utah valvata snail are described in the five-factor analysis above.

### Significant Portion of the Range Analysis

Having determined that the Utah valvata snail does not meet the definition of a threatened or endangered species throughout its range, we must next consider whether there are any significant portions of its range where it is in danger of extinction or is likely to become endangered in the foreseeable future. On March 16, 2007, a formal opinion was issued by the Solicitor of the Department of the Interior, "The Meaning of 'In Danger of Extinction Throughout All or a Significant Portion of Its Range'" (U.S. DOI 2007). We have summarized our interpretation of that opinion and the underlying statutory language below. A portion of a species' range is significant if it is part of the current range of the species and is important to the conservation of the species because it contributes meaningfully to the representation, resiliency, or redundancy of the species. The contribution must be at a level such that its loss would result in a decrease in the ability to conserve the species.

The first step in determining whether a species is threatened or endangered in a significant portion of its range is to identify any portions of the range of the species that warrant further consideration. The range of a species can theoretically be divided into portions in an infinite number of ways. However, there is no purpose to analyzing portions of the range that are not reasonably likely to be significant and threatened or endangered. To identify only those portions that warrant further consideration, we determine whether there is substantial information indicating that (i) the portions may be significant and (ii) the species may be in danger of extinction there or likely to become so within the foreseeable future. In practice, a key part of this analysis is whether the threats are geographically concentrated in some way. If the threats to the species are essentially uniform throughout its range, no portion is likely to warrant further consideration. Moreover, if any concentration of threats applies only to portions of the range that are unimportant to the conservation of the species, such portions will not warrant further consideration.

If we identify any portions of a species' range that warrant further consideration, we then determine whether in fact the species is threatened or endangered in any significant portion of its range. Depending on the biology of the species, its range, and the threats

it faces, it may be more efficient in some cases for the Service to address the significance question first, and in others the status question first. Thus, if the Service determines that a portion of the range is not significant, the Service need not determine whether the species is threatened or endangered there; conversely, if the Service determines that the species is not threatened or endangered in a portion of its range, the Service need not determine if that portion is significant.

The terms "resiliency," "redundancy," and "representation" are intended to be indicators of the conservation value of portions of the species' range. Resiliency of a species allows the species to recover from periodic disturbance. A species will likely be more resilient if large populations exist in high-quality habitat that is distributed throughout the range of the species in such a way as to capture the environmental variability within the range of the species. It is likely that the larger size of a population will help contribute to the viability of the species. Thus, a portion of the range of a species may make a meaningful contribution to the resiliency of the species if the area is relatively large and contains particularly high-quality habitat or if its location or characteristics make it less susceptible to certain threats than other portions of the range. When evaluating whether or how a portion of the range contributes to resiliency of the species, it may help to evaluate the historical value of the portion and how frequently the portion is used by the species. In addition, the portion may contribute to resiliency for other reasons—for instance, it may contain an important concentration of certain types of habitat that are necessary for the species to carry out its life-history functions, such as breeding, feeding, migration, dispersal, or wintering.

Redundancy of populations may be needed to provide a margin of safety for the species to withstand catastrophic events. This does not mean that any portion that provides redundancy is a significant portion of the range of a species. The idea is to conserve enough areas of the range such that random perturbations in the system act on only a few populations. Therefore, each area must be examined based on whether that area provides an increment of redundancy that is important to the conservation of the species.

Adequate representation insures that the species' adaptive capabilities are conserved. Specifically, the portion should be evaluated to see how it contributes to the genetic diversity of

the species. The loss of genetically based diversity may substantially reduce the ability of the species to respond and adapt to future environmental changes. A peripheral population may contribute meaningfully to representation if there is evidence that it provides genetic diversity due to its location on the margin of the species' habitat requirements.

Applying the process described above we evaluated a recent genetic study of the Utah valvata snail (Miller *et al.* 2006) and the ecological settings in which the species occurs throughout its range. We divided the range into three population units for further analysis: The Wood River population unit, the Snake River population unit, and the Hagerman population unit. Both the Wood River and Hagerman populations are separated geographically, and in the case of the Hagerman population, genetically and ecologically. Geographically, the Upper Snake and Henry's Fork Rivers and reservoirs of the Snake River are proximal and have a greater potential for connectivity of the Utah valvata snail populations in these reaches. They were analyzed as one unit: the Snake River population unit. We then evaluated whether each unit constitutes a significant portion of the range of the species, and if so, whether that portion was threatened or endangered.

#### Wood River Population Unit

There is a high degree of uncertainty concerning the distribution and abundance of the species in the Wood River since there has been only one documented colony and systematic surveys have not been conducted. Based on the limited information we have on the Utah valvata snail in the Wood River, this colony does not appear to exist in an unusual or unique ecological setting or contain a large portion of the habitat or individuals (in fact, it appears to constitute an extremely small portion of the overall habitat and number of individuals). Further, recent genetic work conducted by Miller *et al.* (2006, pp. 2367–2372) found that the Wood River occurrence is not genetically divergent or unique from the Snake River population unit. Because of genetic similarities between Utah valvata snails in the Snake River and Wood River units, the Wood River unit could provide some redundancy to the species if the Snake River unit (see below for further information) is extirpated by a catastrophic event. However, given that Utah valvata are distributed discontinuously along 255 miles (410 km) of the Snake River unit, a catastrophic event of the magnitude



necessary to simultaneously eliminate all Utah valvata colonies from the Snake River unite is highly unlikely. In addition, due to the geographic separation of the Wood River unit from the Snake River unit, it is unlikely that the Wood River unit would be a significant source of snails to recolonize the Snake River. Therefore, given these factors, we determined the Wood River population unit did not provide a significant contribution to the species with regard to redundancy, resiliency, and representation, and was not evaluated further.

#### *Snake River Population Unit*

The Snake River population unit contains the largest and widest ranging portion of the overall Utah valvata snail population and contributes substantially to the resiliency, representation, and redundancy of the species. As mentioned above, the Snake River population was analyzed as one unit because the Upper Snake and Henry's Fork Rivers and reservoirs of the Snake River are proximal and have a greater potential for connectivity of the Utah valvata populations in these reaches. Other information contributing to its significance includes: (1) Additional surveys in this unit would likely find more colonies of Utah valvata snail, since most surveys conducted since 1992 have been project based and systematic surveys have not yet occurred throughout much of this reach; (2) the uppermost reaches of the Snake River unit, including the Henry's Fork River where Utah valvata snail occurs, is not influenced by dam and other water management operations, and water quality is considered to be better than that found in the Wood River or Hagerman reaches further downstream in the Snake River; (3) Lower Lake Walcott Reservoir has high densities and high proportional occurrence of the Utah valvata snail and likely provides refugia for the species primarily due to the human-induced stability of this reservoir environment; and (4) genetically, the Snake River population unit represents the ancestral haplotypes of this species (Miller *et al.* 2006, p. 2368).

For all of these reasons, we determined that the Snake River population unit of the Utah valvata snail constitutes a significant portion of the species' range. The Snake River population unit was then evaluated to determine if the Utah valvata snail is threatened or endangered in this portion of its range. This unit covers a wide geographic range and provides a wide variety of suitable habitats for Utah valvata snail in both reservoir and

riverine reaches. This unit likely contains the largest number of individuals and colonies of the Utah valvata snail and would likely sustain the species into the foreseeable future independent of the other population units.

Water quality is relatively good in the upstream (Henry's Fork) reaches of this unit compared to other population units, and the New Zealand mudsnail has not become established throughout this unit. Therefore, in the context of new information regarding the species' habitat and ecology, we likewise conclude that the Snake River population unit of Utah valvata snail is not threatened or endangered.

#### *Hagerman Population Unit*

The best available data indicate that the Hagerman population unit is likely isolated and separated geographically from other Utah valvata snail colonies further upstream that constitute the Snake River population unit, but overall represents a small area of occupancy compared to the rest of the range of the species. The geographic isolation of the Hagerman population unit is an important consideration; the Miller *et al.* (2006) genetics paper suggests that Utah valvata snails found in cold-water spring outflows at the Thousand Springs Preserve may have been genetically isolated for over 10,000 years and should be evaluated to determine if they can reproduce with other Utah valvata snails elsewhere in their range. This population unit also has a unique ecological setting compared to the other two units, as the species mainly occurs in tributary springs (and at their cold-water outflows), and not in reservoir or riverine habitats.

In light of the above, we concluded that the Hagerman population unit may constitute a significant portion of the range of the Utah valvata snail. To determine if the Utah valvata snail is either threatened or endangered in this portion of the range, we evaluated the threat factors of water quality and effects, current hydropower operations, and the New Zealand mudsnail, and potential for other invasive species effects in the future.

Currently, water quality is not considered to be a threat that is of high severity or magnitude to the Hagerman population unit for the reasons outlined in Factor A of the rangewide analysis. Furthermore, two cold-water spring outflows, Box Canyon and Thousand Springs, provide a relatively high-quality and stable aquatic environment for some Utah valvata snail colonies. Although flows have recently declined in some cold-water springs due to

groundwater withdrawals, and water quantity and quantity could decrease over time if flows are not preserved, the Utah valvata snail would continue to persist in the mainstem Snake River in the Hagerman reach where it can tolerate variable water temperatures and water quality. Although there is evidence of some density-dependent effects and competition where the New Zealand mudsnail co-occurs with the Utah valvata snail, the Utah valvata snail continues to persist in these habitats. Despite approximately 20 years of co-occurrence of the New Zealand mudsnail and Utah valvata snail, there is no evidence suggesting that the New Zealand mudsnail has caused local extirpations of the Utah valvata snail in Hagerman reach. Therefore, we conclude that the Hagerman population unit of the Utah valvata snail is not threatened or endangered in this portion of its range.

In summary, our understanding of the Utah valvata snail's habitat requirements, range, and threats has changed since the time of listing. From studies conducted since 1992, we now know that the species occurs over a much larger geographic range in the Snake River and is able to live in a variety of aquatic habitats and is not limited to cold, fast-water, or lotic habitats, or in perennial flowing waters associated with large spring complexes as previously believed. In addition, the proposed construction of six new hydropower facilities as discussed at the time of listing is no longer a threat. The Utah valvata snail is now known to occur in, and persist in, aquatic habitats influenced by dam operations (*e.g.*, reservoirs, and at elevated water temperatures), and the species co-exists in a variety of Snake River aquatic habitats with the invasive New Zealand mudsnail. We have determined that none of the existing or potential threats, either alone or in combination with others, are likely to cause the Utah valvata snail to become in danger of extinction within the foreseeable future throughout all or any significant portion of its range. The Utah valvata snail no longer requires the protection of the Act, and, therefore, we are proposing to remove it from the Federal List of Endangered and Threatened Wildlife.

#### **Effects of This Rule**

If made final, this rule would revise 50 CFR 17.11(h) to remove the Utah valvata snail from the Federal List of Endangered and Threatened Wildlife. The prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, would no longer apply to this species.

Federal agencies would no longer be required to consult with the Service under section 7 of the Act in the event that activities they authorize, fund, or carry out may affect the Utah valvata snail. There is no critical habitat designated for this species.

#### Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our proposed rule is based on scientifically sound data, assumptions, and analyses. We will send peer reviewers copies of this proposed rule immediately following publication in the **Federal Register** and will invite them to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposal to delist the Utah valvata snail. We will consider all comments and information received during the comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

#### Public Hearings

Section 4(b)(5)(D) of the Act requires that we hold one public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal in the **Federal Register** (see **DATES**). Such requests must be made in writing and be addressed to the State Supervisor at the address in the **FOR FURTHER INFORMATION CONTACT** section above.

#### Clarity of This Proposed Rule

We are required by Executive Orders 12866 and 12988 and by the

Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (a) Be logically organized;
- (b) Use the active voice to address readers directly;
- (c) Use clear language rather than jargon;
- (d) Be divided into short sections and sentences; and
- (e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, *etc.*

#### Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

#### National Environmental Policy Act

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted

pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

#### References Cited

A complete list of all references cited herein is available upon request from the Idaho Fish and Wildlife Office (see **ADDRESSES**).

#### Author

The primary author of this document is the Idaho Fish and Wildlife Office (see **ADDRESSES**).

#### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

#### Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

#### PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

#### § 17.11 [Amended]

2. Section 17.11(h) is amended by removing the entry for “Snail, Utah valvata” under “SNAILS” from the List of Endangered and Threatened Wildlife.

Dated: July 7, 2009.

**James J. Slack,**

*Acting Director, U.S. Fish and Wildlife Service.*

[FR Doc. E9–16837 Filed 7–15–09; 8:45 am]

**BILLING CODE 4310–55–P**