federal register

Thursday
July 31, 1997

Part III

Environmental Protection Agency

40 CFR Part 131

Water Quality Standards for Idaho; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 131

[FRL–5864–2]

Water Quality Standards for Idaho

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: EPA is promulgating water quality standards applicable to the waters of the United States in the State of Idaho. These standards supersede certain aspects of Idaho's water quality standards that EPA disapproved in 1996. EPA disapproved those standards after concluding they were inconsistent with the Clean Water Act and EPA's implementing regulations. The proposal to this rulemaking was published in the **Federal Register** on April 28, 1997. EPA is promulgating new use designations for 5 specified waterbodies in the state of Idaho, as well as a variance procedure that may be used to obtain relief from those use designations. Today's rule also establishes temperature criteria applicable to bull trout spawning and rearing in specified waterbodies. Finally, EPA is promulgating a federal rule to supersede the state's excluded waters provision. EPA is not promulgating certain other aspects of the proposed rule, due either to further analysis by EPA or to state action which addressed these issues. These and other changes from the proposal are addressed in detail in the body of this preamble and in the response to comments document included in the administrative record for this rulemaking.

EFFECTIVE DATE: September 2, 1997.

ADDRESSES: The administrative record for today's final rule is available for public inspection at EPA Region 10, Office of Water, 1200 Sixth Avenue, Seattle, Washington, 98101, between 8:00 a.m. to 4:30 p.m. For access to the docket materials, call Lisa Macchio at 206–553–1834 for an appointment. A reasonable fee may be charged for copies.

FOR FURTHER INFORMATION CONTACT: Lisa Macchio at U.S. EPA Region 10, Office of Water, 1200 Sixth Avenue, Seattle, Washington, 98101 (telephone: 206–553–1834), or William Morrow in U.S. EPA Headquarters at 202–260–3657.

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A. Potentially Affected Entities

Citizens concerned with water quality in Idaho may be interested in this rule. Entities discharging pollutants to waters of the United States in Idaho could be indirectly affected by this rule since water quality standards are used in determining National Pollutant Discharge Elimination System (NPDES) permit limits. Categories and entities which may ultimately be affected include:

Category	Examples of potentially affected entities
Industry	Industries discharging pollutants to surface waters in Idaho.
Municipalities	Publicly-owned treatment works discharging pollutants to surface waters in Idaho.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. This table lists the types of entities that EPA is now aware could potentially be affected by this action. Other types of entities not listed in the table could also potentially be affected by this action. To determine whether your facility is affected by this action, you should carefully examine the applicability criteria in § 131.36 of Title 40 of the Code of Federal Regulations (CFR). If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in **FOR FURTHER INFORMATION CONTACT** section.

B. Background

1. Statutory and Regulatory Authority

The preamble to the April 28, 1997 proposal provided a general discussion of EPA's statutory and regulatory authority to promulgate water quality standards. See 62 FR 23004–23005. EPA incorporates that discussion by reference here. Commenters questioned EPA's authority to promulgate certain aspects of the proposal. EPA is responding to those comments in the appropriate sections of this preamble, and in the response to comments document included in the administrative record for this rulemaking. Where appropriate, EPA's responses expand upon the discussion of statutory and regulatory authority found in the proposal.

2. Factual Background

EPA also incorporates by reference the factual background provided in the

preamble to the proposal, which covered Idaho's 1994 submittal of its water quality standards package, EPA's disapproval of certain aspects of this package, and the District Court's decision in *ICL* v. *Browner* ordering EPA to promulgate standards to supersede those that had been disapproved. See 62 FR 23005.

Shortly before the April 28, 1997 proposal, Idaho submitted the results of temporary rulemaking actions to address certain aspects of EPA's June 25, 1996 disapproval. This March 23, 1997, submittal includes permanent rules that had been adopted by the State Board of Health and Welfare in November of 1996 (addressing, among other things, antidegradation) and temporary rules adopted February of 1997 (addressing use designations for Lindsay Creek and West Fork Blackbird Creek). Because of the proximity of this submittal to EPA's court-ordered deadline for proposing federal water quality standards, EPA was not able to act on this submission prior to proposal. On May 27, 1997, EPA approved the State's new antidegradation policy and conditionally approved the use designations for Lindsay and West Fork Blackbird Creeks subject to completion of consultation required under section 7 of the Endangered Species Act (ESA). For the Lindsay and West Fork Blackbird Creek designations, final approval is also contingent upon completion of steps necessary to convert the state rulemaking from temporary to permanent status.

On June 19, 1997, Idaho adopted another temporary rule addressing unclassified waters, mixing zones, temperature criteria for bull trout, and use designations for 29 specific waterbodies that had been the subject of EPA's June 25, 1996 disapproval. On June 25, 1997, Idaho submitted a package for EPA's approval that included these temporary rulemakings, as well as use attainability analyses for certain other waterbodies addressed in the June 25, 1996 disapproval. On July 15, 1997, EPA issued a letter conditionally approving the unclassified waters, mixing zone, and use designation aspects of the state's submittal subject to both the completion of ESA section 7 consultation and the state taking the steps necessary to convert the rule from temporary to permanent status. Both the May 27, 1997, and the July 15, 1997, approval letters are included in the docket for today's rulemaking. The rationales for these approval actions are discussed in detail below.

3. Responses to Comments on Procedural Issues

EPA received comments on a number of issues related to the procedural aspects of this rulemaking. Because these comments relate to all aspects of the rule, they will be addressed first.

Comment: Many commenters complained about the brevity of the comment period. Commenters requested extensions of varying length, asserting that the short public comment period means that the proposed rule will not receive the public review it deserves. Some commenters objected to the form of notice used by EPA, claiming that publication in the **Federal Register** is not adequate.

Response: None of the comments included a showing that the 30 days comment period provided was inadequate as a matter of law. While EPA strives to accommodate requests for reasonable extensions to the extent practicable, a 30 day extension was not feasible here, given both the statutory deadline for final promulgation and the Court's order requiring a final rule by July 21, 1997. The inflexible deadline for promulgation meant that any extension of time for the comment period would necessarily shorten the time available for EPA to review comments received. Since comments received from the public are only meaningful to the extent the Agency has time to review them, EPA decided that a 30-day comment period was optimal in this case. EPA believes that the significant turnout at the public hearing, the volume of written comments, and the diverse interests represented by the commenters demonstrate that meaningful public review was available on the proposal.

To maximize the utility of the 30 days which EPA was able to provide, the agency issued an advance notice in the **Federal Register** that it planned to propose water quality standards to address the Idaho standards it had disapproved in June 1996, issued press statements at the time of the advance notice and the proposal, and put a copy of the proposal on the Internet. At the hearing, EPA also made available a fact sheet which explained how to find the proposal on the Internet.

EPA acknowledges that this rulemaking raised complicated technical issues, and that it is likely that information relevant to today's rule will continue to surface. EPA has attempted to provide streamlined mechanisms, such as the provisions for modification of the bull trout temperature criterion and variance provisions for use designations, that facilitate EPA's ability to address new information.

As to the assertion that a **Federal Register** notice does not provide adequate notice, EPA notes that under the Administrative Procedure Act, the **Federal Register** is the required mechanism for providing notices of proposed rulemaking, and as a matter of law the public is deemed to be on notice of matters which have been so published. However, to enhance public awareness, EPA issued press statements at critical times, and is aware of at least one newspaper article publicizing the hearing.

Comment: The Idaho Department of Environmental Quality (IDEQ) commented that despite numerous requests by DEQ to EPA over the past year for EPA to identify which state waters required more stringent temperature criteria to protect bull trout, DEQ did not learn of the breadth of EPA's proposal to designate thousands of waters in Idaho for bull trout until publication in the **Federal Register** notice in late April. This, IDEQ claimed, did not allow sufficient time to respond.

Response: One of the two sources EPA used for identifying bull trout streams was a list compiled by a state agency, Idaho Department of Fish and Game (IDFG). The waters in the other source, the data base complied by the interagency Interior Columbia Ecosystem Management Project, overlapped substantially with the waters on the list. Accordingly, although the state may not have known the exact list to be proposed by EPA until it appeared in the **Federal Register**, the state should have been generally aware of the potential magnitude of bull trout distribution in Idaho.

Comment: Commenters argued that there was inadequate opportunity for oral comment because EPA held only one hearing a mere two weeks after publication of notice in the **Federal Register**.

Response: EPA held two sessions, one during the day, and one during the evening, to accommodate people with different work and travel schedules. While the formal 2 week notice of the hearing was dictated by the extremely short schedule imposed by the District Court (a schedule which EPA sought unsuccessfully to have modified), EPA did take the extra steps described above to alert the public to the rulemaking. EPA scheduled the hearing at the middle, rather than the end, of the public comment period in order to provide an opportunity for the public to ask questions about the rule to facilitate their final, written comments. The vast

majority of commenters at the public hearing later submitted more detailed written comments.

Comment: Commenters stated that the administrative record should have been made available in Boise, as well as Seattle. Commenters recounted that, at one of the public hearings, an EPA employee represented that a copy of the record would be made available in Boise, and that an index of the record would be available to those who requested it, but that no notice was given to the public of such availability. This, the commenters claimed, violated the spirit, if not the letter, of the Administrative Procedure Act. The commenters requested that EPA extend the comment period to allow the public to review the record in Boise.

Response: The administrative record upon which the proposal was based was assembled and available to the public in EPA's Region X office in Seattle at the time of publication of the proposed rule in the **Federal Register**. Region X is the EPA region which is responsible for matters involving the state of Idaho. There is nothing in the APA which specifies where an administrative record must be made available. Indeed, in many EPA rulemakings, the administrative record is maintained at EPA Headquarters in Washington, DC; where an EPA rulemaking concerns a particular state or single location, the record is typically maintained in the offices of the regional office with responsibility for that state.

In the present case, an EPA employee stated at the hearing that EPA would also make a copy of the administrative record available in Boise shortly after. In accordance with that offer, a copy with an index was made available to the public in EPA's Boise Operations Office approximately a week after the hearing. While EPA had indicated at the hearing a willingness to mail a copy of the index in the meanwhile, it turned out that the administrative record itself (including an index) could be made available as quickly as an index could be mailed out, so there was no need to mail out the index alone as an interim measure.

Comment: Commenters argued broadly that the proposed rulemaking violates due process. A commenter also argued specifically that the proposed rulemaking does not comply with EPA's public participation rules (40 CFR part 25).

Response: For the reasons stated above, EPA believes that its rulemaking in this case provided ample notice, formal and informal, to the public of what EPA was proposing, why it was proposing, and the basis for the proposal, and that it provided adequate time for public comment.

EPA was required to shorten the time periods for public notice and comment from those cited by the commenter because of the Court's order. As the proposal explained, EPA's regulations allow exceptions to the otherwise applicable time periods in such circumstances. See 40 CFR 25.2(d): ''Specific provisions of court orders which conflict with this part, such as court-established timetables, shall take precedence over the provisions of this part.'' While the commenter is correct that the Court's order did not itself specifically direct EPA to limit the public comment period, the order did establish a specific timetable for proposal and promulgation which indirectly required such a result. EPA notes that the Court's original February 20, 1997, order directed EPA to issue a final rule by April 21 and thus did not allow time for *any* comment period. In response to EPA's motion for reconsideration which sought an extension to allow development of a proposed rule and cited 40 CFR Part 25, the Court directed the agency to propose a rule by April 21, and to promulgate a final rule by July 21, 1997. Within the constraints of the schedule imposed by the Court, EPA did take what steps it could to enhance the public's ability to comment, through its advance notice and the like. *See* responses to previous comments.

4. Indian Country Issues

Today's promulgation does not apply to waters in Indian country. Although the proposal did not address the applicability of designated uses or the bull trout temperature criteria to waters in Indian country, it was never EPA's intent to establish such uses or criteria for waters in Indian country by this rule. As explained in the discussion below, today's rule clarifies that the temperature criteria do not apply to waters located in Indian country. Regarding the use designations for specific water bodies, EPA found after the proposal that certain proposed use designations would affect waters in Indian country. For the reasons set forth below, EPA has excluded these from the final rule.

C. Unclassified Waters

1. Proposal

On April 28, 1997, EPA proposed to promulgate a default use designation for unclassified waters for the state of Idaho which provided for the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water. Specifically, EPA proposed cold water biota and primary contact recreation beneficial uses for unclassified waters. EPA proposed such standards because EPA had determined that Idaho's designated beneficial use for unclassified waters was incomplete and therefore inconsistent with the CWA and EPA's implementing regulations at 40 CFR part 131 (see 62 FR 23005).

2. Recent Idaho Actions

On June 19, 1997, Idaho revised its unclassified waters designated beneficial use to provide for the protection of cold water biota and primary or secondary contact recreation. (The revised provision also changes the terminology from ''unclassified'' to ''undesignated'' for clarity.) On July 15, 1997, EPA approved Idaho's revised beneficial use for unclassified waters as being consistent with the CWA and EPA's implementing regulations.

Idaho's revised designated beneficial use for unclassified waters provides the same level of protection for aquatic life that EPA had proposed, cold water biota. This is consistent with EPA's findings that the majority of native Idaho fish are classified as cold water species and the presence of these species occurs throughout the entire State (62 FR 23006).

With respect to recreation, Idaho's revised designated beneficial use for unclassified waters affords the state some discretion as to whether to which recreational use—primary or secondary contact recreation—to apply to any specific unclassified water. EPA determined this flexibility was acceptable because Idaho's bacteria criteria for secondary contact recreation is equivalent to EPA's bacteria criteria for primary contact recreation. EPA believes that maintaining water quality sufficient for primary contact recreation meets the minimum requirements of the CWA regardless of whether or not a water body is actually designated for primary contact recreation. For example, there may be situations where primary contact recreation is undesirable (e.g., streams used as a source for public drinking water) or unsafe (e.g., streams with high velocity and large rocks), yet the state may want to maintain water quality sufficient for primary contact (e.g., because incidental swimming does occur or because a downstream segment is designated for primary contact recreation.

In addition, Idaho established in its unclassified waters beneficial use designation a process by which the state can designate undesignated waters. Idaho's process at IDAPA

16.01.02.101.01. b. and c. specifies that the state may reexamine relevant data to substantiate a specific use designation for a specific water body when reviewing activities for consistency with water quality standards. This provision essentially codifies the existing state process for moving a water body from the undesignated waters category (16.01.02.101.) to the waters with specific use designations (16.01.02.110–160) category. Idaho's process for establishing beneficial use designations for specific water bodies includes, among other things, public participation, and a change to the state's water quality standard. Whenever a state revises its water quality standards, those revisions are subject to EPA review and approval. On July 15, 1997, EPA approved this aspect of Idaho's unclassified waters beneficial use designation as being consistent with the CWA and EPA's implementing regulations at 40 CFR part 131.

Because Idaho has adopted a revised unclassified waters beneficial use designation which EPA has determined to be in accordance with the Act, a federal designated beneficial use for unclassified waters is no longer required under section 303(c)(4).

D. Stream Segments With Specific Beneficial Use Designations

EPA had proposed to promulgate use designations for specific water body segments which lacked the ''fishable/swimmable'' goal uses established in the CWA. Specifically, EPA proposed coldwater biota for 35 segments, salmonid spawning for 5 segments, and primary contact recreation for 44 segments. EPA proposed such uses because EPA had determined that Idaho's designated beneficial uses for these water body segments were incomplete and therefore inconsistent with the CWA and EPA's implementing regulations at 40 CFR part 131. See 62 FR 23007 for a more detailed discussion of EPA's proposal.

1. Primary Contact Recreation

i. Proposal

In EPA's Proposed Rule (62 FR 23003), primary contact recreation was a proposed designated beneficial use for 44 waterbody segments which were lacking a use designation of primary contact recreation. The State had already designated secondary contact recreation for those 44 water body segments. Although EPA had determined that Idaho's water quality criteria for the protection of secondary contact recreation are as stringent as EPA's recommended criteria for the protection of primary contact recreation (see EPA's May 27, 1997, approval letter), EPA proposed primary contact recreation as it believed it was required to by the terms of the District Court's order. The proposal solicited comment on the option of accepting Idaho's secondary contact recreation use as protective of swimming.

ii. Comments

Several commenters supported promulgating primary contact recreation as the ''swimmable'' use in Idaho. Other commenters objected to primary contact recreation as a designation but supported secondary as the ''swimmable'' use. EPA believes that where a state's secondary contact recreation criteria are stringent enough to protect primary contact recreation, the choice between secondary and primary contact recreation use designations should be left to the State's discretion. Although section 510 of the CWA does not preclude states from adopting standards which are more stringent than required by the Act, EPA's implementing regulations do not require states to do so. EPA has determined that in light of the state's bacteriological criteria, Idaho's secondary contact recreation use is sufficient and is consistent with the CWA.

iii. Final Rule

EPA's water quality standards regulation at 40 CFR 131.11 requires, in part, that in establishing criteria, States must adopt criteria with sufficient coverage of parameters and of adequate stringency to protect the designated use. States may adopt criteria published by EPA under section 304(a) of the CWA, criteria modified to reflect site specific conditions, or criteria based on other scientifically defensible methods. States are not required to have criteria more stringent than section 304(a) criteria unless it is determined that such criteria do not protect the designated uses. Except for fecal coliform bacteria, the same criteria are applicable to primary contact recreation and to secondary contact recreation. EPA has determined that Idaho's secondary contact recreation bacteriological criteria are as stringent as the recommended section 304(a) Guidance for the protection of swimming, i.e., primary contact recreation, and are consistent with the CWA and the requirements at 40 CFR 131.11. Therefore, a federal designated beneficial use of primary contact recreation for those waters already designated for secondary contact recreation is no longer required under CWA section 303(c)(4). For these reasons, EPA is not designating primary contact recreation for those 44 water body segments identified in the proposed rule.

2. Cold Water Biota

i. Proposal

In June of 1996, EPA determined that Idaho had not assigned an aquatic life use for 35 waterbody segments (62 FR 23008–23009). In EPA's proposed rule, EPA proposed designating cold water biota as the appropriate beneficial use. EPA determined that a cold water biota use designation, as defined in the State's water quality standards, is an aquatic life use category appropriate for those streams. See 62 FR 23008 for a more detailed discussion of EPA's proposal. EPA solicited comment on whether this held true for the 35 specific waterbodies.

ii. Recent Idaho Actions

To date, Idaho has revised the designated beneficial uses for the majority of the 35 waterbody segments lacking cold water biota designations. On February 11, 1997, the state adopted a temporary rule designating cold water biota for West Fork Blackbird Creek (SB–4211). By letter dated June 25, 1997, the State submitted to EPA additional revised water quality standards which were adopted as a temporary rule by the Idaho Board of Health and Welfare and became effective on June 20, 1997. As part of this revised rule, the State designated 29 of the 35 waterbody segments for cold water biota. By letter dated May 27, 1997, EPA conditionally approved the cold water biota uses for West Fork Blackbird Creek as being in accordance with the CWA and EPA's implementing regulations at 40 CFR 131.10. On July 15, 1997, EPA likewise conditionally approved the June 20, 1997 temporary rule addressing 29 segments. Therefore EPA is not promulgating cold water biota for these segments.

Although these revisions meet the substantive requirements of 40 CFR part 131, the State has not completed certain administrative requirements (e.g., public notice and comment). In addition, the State's Legislature must also review the revised water quality standards before the standards become final. If these designated beneficial uses are adopted as final without modification by the Board or Legislature, EPA's approval will become unconditional. If they are modified, EPA's approval will no longer be applicable, and Idaho will have to resubmit the revised standard to EPA for review and approval. Because EPA's approval is not yet unconditional, the

Agency is not withdrawing the proposal for these segments.

Idaho's June 25, 1997, submission included a Use Attainability Analysis (UAA) for Soda Creek (BB 310) to support its decision not to designate an aquatic life use (cold water biota) for Soda Creek. Because of the expedited schedule dictated by the court order, and because the UAA did not fully explain its conclusions EPA was unable to conclude its review of the State's UAA. Therefore EPA is maintaining the cold water biota use designation in today's final rule. If after such review, EPA is able to conclude that the State's UAA supports the unattainability of aquatic life for this segment, EPA will initiate rulemaking to withdraw the federal use designation for Soda Creek.

iii. Comments

While EPA received some general comments that cold water biota was not uniformly appropriate across the State, we received no data specific to Shields Gulch, Canyon Creek, or Blackfoot River for which a cold water biota beneficial use is being designated. In addition the State commented that they had no water quality data for Shields Gulch or Blackfoot River.

One commenter stated that cold water biota was not an ''existing'' use for the South Fork Coeur d'Alene River. EPA defines existing uses at 40 CFR 131.3(g) as ''those uses actually attained in the waterbody on or after November 28, 1975.'' Information and data obtained from the Idaho Division of Environmental Quality supports cold water biota as an existing use for the South Fork Coeur d'Alene River. EPA received no data to refute this. As for Canyon Creek, although EPA did not receive information from any commenters which would indicate that cold water biota is unattainable is this water body segment, information EPA had on water chemistry in Canyon Creek showed that some parameters are exceeded. However, based on this information EPA was unable to conclude that cold water biota use is unattainable. An appropriate evaluation of use attainability considers physical and biological as well as chemical indicators.

In addition, none of the commenters specifically contended that a cold water biota use was unattainable on any of the five streams at issue on account of compliance costs. To the extent that commenters did raise cost concerns, EPA's cost methodology indicates that the costs (which are not direct costs in any event) would be less than predicted by the commenters. See Section K of the preamble.

iv. Final Rule

Because the State has designated cold water biota for 29 of the waters in the proposed rule, EPA's final rule addresses only 5 of the original segments proposed. As stated in the proposed rule, in designating beneficial uses, EPA is relying on the rebuttable presumption implicit in the CWA and EPA's regulations at 40 CFR part 131, that in the absence of data to the contrary, ''fishable'' uses are attainable. As discussed above, the record supports the reasonableness of this presumption, and none of the comments rebutted it with respect to any of the water bodies for which EPA is promulgating designated uses. In the future, if additional data indicate that the promulgated uses are not appropriate, EPA's final rule can be revised and/or withdrawn.

For the reasons described above, EPA is promulgating cold water biota as a designated beneficial use for the following 5 segments: Canyon Creek (below mining impact)—PB 121S, South Fork Coeur d'Alene River (Daisy Gulch to mouth)—PB 140S, Shields Gulch (below mining impact)—PB 148S, Blackfoot River—USB 360, and Soda Creek—BB 310.

3. Salmonid Spawning

i. Proposal

In conferring with National Marine Fisheries Service prior to EPA's April 28, 1997, proposed rule, EPA obtained preliminary data indicating that for West Fork Blackbird Creek, Grasshopper Creek, Little Bear Creek, Blackbird Creek and Panther Creek, salmonid spawning was an appropriate designated beneficial use to ensure ''fishable'' water quality for these five water body segments. The data indicated the presence of salmonids and therefore EPA concluded salmonid spawning was an existing use. Based on this information EPA proposed salmonid spawning as a designated beneficial use for these segments.

ii. Recent Idaho Actions

On February 11, 1997, Idaho designated salmonid spawning biota for West Fork Blackbird Creek (SB–4211). By letter dated May 27, 1997, EPA conditionally approved this use designation. As part of Idaho's June 20 temporary rule (by letter dated June 25, 1997) salmonid spawning was also designated a beneficial use for Little Bear Creek, Blackbird Creek and Panther Creek. The State did not designate Grasshopper Creek for salmonid spawning as data it had for this creek indicated that salmonid spawning was not an appropriate use.

With regard to Panther Creek, EPA understands that the State intended to designate this creek for salmonid spawning but that, because of a typographical error, the chart in the temporary rule did not reflect salmonid spawning for this segment. By letter dated July 10, 1997, Idaho explained that on July 22, 1997 the Idaho Board of Health and Welfare will be requested to amend the temporary rule to correct this error. This error is expected to be corrected shortly.

On July 15, 1997, EPA conditionally approved salmonid spawning use designation for Little Bear Creek and Blackbird Creek. Because EPA's approval is not yet unconditional, the Agency is not withdrawing the proposal for these segments.

iii. Comments

EPA received additional information since the proposed rule which indicates that salmonid spawning is not an appropriate use for Grasshopper Creek. EPA determined that although Grasshopper Creek may have the potential to support salmonid spawning as a future designated beneficial use, insufficient data exist to justify this use designation at this time. Therefore neither the State's revisions nor EPA's final rule designates salmonid spawning for Grasshopper Creek.

4. Waters Located in Indian Country

After the proposal was published, EPA ascertained that certain streams that EPA disapproved on June 25, 1997, were located in Indian country. EPA's National Indian Policy recognizes Tribal governments as the primary parties for setting standards and for making environmental policy decisions affecting their reservation environments, consistent with Agency standards and regulations. In a memorandum by President Clinton dated April 29, 1994, each executive agency is instructed to operate within a government-to-government relationship with federally recognized tribal governments. EPA is to consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments. The President's memorandum also states that executive departments and agencies shall assure that tribal government rights and concerns are considered during the development of plans, programs, and activities affecting tribal trust resources. EPA determined that promulgation of these designated uses could be viewed as such an action, and

so sought consultation before proceeding. After consultation with the relevant tribal governments, EPA determined that it would not be appropriate to proceed with the designation of uses for these streams at this time.

In this case, the proposal to designate uses on streams wholly or partially in Indian country was unintentional and inadvertent, done without forethought towards either the desires of the tribal authorities or how these designated uses would have functioned in the absence of a complete set of water quality standards (e.g., accompanying criteria, an antidegradation policy). The tribal authorities were unanimous in their wish that EPA not proceed with designating these beneficial uses, preferring instead to approach the water quality standards in a holistic manner and within a time frame that accommodates other tribal priorities.

As a result of this consultation process, portions of Hangman Creek (PB 450S), Three Mile Creek (CB 1321), Cottonwood Creek (CB 1322), Blackfoot River (USB 360) and Bannock Creek (USB 430), which are partially located in Indian country are being excluded from this rule, as well as the entirety of Plummer Creek (PB 340S), Cottonwood Creek (CB 152) and Rock Creek (PB 451S). If not in Indian country, Plummer Creek and Cottonwood Creek (CB 152) would have been excluded because the state has adopted acceptable uses for them.

E. Temperature Criteria for Threatened and Endangered Species

1. Bull Trout

i. Temperature Criteria

a. Proposal. The temperature criteria in Idaho's 1994 submittal applicable to the cold water biota use classification (22°C or less with a maximum daily average of 19°C) and salmonid spawning use classification (13°C or less with a maximum daily average of 9°C) does not provide an adequate level of protection for bull trout. Therefore, on June 25, 1996, EPA disapproved Idaho's temperature criteria applicable within geographic ranges where bull trout occur.

EPA derived the proposed temperature criteria for Idaho streams designated as bull trout habitat using EPA's temperature criteria guidance (*Temperature Criteria for Freshwater Fish: Protocol and Procedures;* U.S. EPA, 1977). The EPA protocol recommends expression of temperature criteria in two forms: (1) a short-term maxima (protection against lethal conditions, usually for a duration of 24 hours), and (2) a mean temperature value (expressed as the maximum weekly average temperature) that is designed to protect critical life stage functions such as spawning, embryogenesis, growth, maturation and development. Sufficient data were available to derive temperature criteria as maximum weekly average temperatures (MWAT) that EPA determined would be protective of various bull trout life stages, including spawning, egg incubation, juvenile rearing and adult migration. Because of the complex life history of bull trout, EPA proposed temperature criteria which would span a calendar year, but that would vary depending on the presence and thermal tolerances of various bull trout life stages. See 62 FR 23012 for a more detailed discussion of EPA's proposal.

b. Recent Idaho Actions. On June 20, 1997, Idaho adopted a temporary rule with revised temperature criteria for bull trout. The State's rule established a seven-day moving average of 12°C based on daily average water temperatures, or shall not exceed a seven-day moving average of 15°C based on daily maximum water temperatures during July, August and September.

Although Idaho has revised the temperature criteria applicable to bull trout, the State did not provide information explaining the scientific basis for the criteria. The Water Quality Standards Regulations at 40 CFR 131.11(a) state, in part, that states must adopt criteria to protect designated uses and that such criteria must be based on ''sound scientific rationale.'' EPA was unable to determine, based on the State's submission or other information available to EPA, what the scientific rationale was for Idaho's 1997 temperature. Therefore, EPA was unable to determine that Idaho's 1997 temperature criteria are protective of bull trout spawning and rearing.

Because EPA was unable to determine that Idaho's criteria are protective of bull trout spawning and rearing, EPA disapproved Idaho's 1997 temperature criteria for bull trout on July 15, 1997. Therefore, EPA is proceeding with a federal promulgation of temperature criteria for bull trout as required by § 303(c) of the CWA. If at a later date, Idaho submits a scientific rationale in support of the 1997 criteria, and EPA is able to determine that the technical basis is consistent with 40 CFR 131.11, then EPA will initiate rulemaking to withdraw the federal criteria in today's rule.

c. Comments. Comment: Commenters asserted that EPA lacks authority to disapprove Idaho's temperature criteria as they relate to bull trout, and hence lacks authority to promulgate federal temperature criteria for bull trout. According to these commenters, under 40 CFR 131.5, EPA's limited role in overseeing state WQS is to ensure that states designate uses and establish criteria to protect the designated uses. Because Idaho had designated a use of ''cold water biota,'' and had criteria protective of that use, EPA lacks authority to disapprove Idaho's temperature criteria as they relate to bull trout. One commenter cited language in the preamble to the 1983 revisions to part 131 which the commenter claimed evidenced that EPA did not intend to second guess states on their choices of designated uses. Commenters argued that, in setting temperature criteria for bull trout, EPA was essentially creating a new beneficial use, which would be a subcategory of cold water biota, and that it is beyond EPA's authority to designate subcategories of uses. Commenters also asserted that it has been EPA's longstanding position that protection of specific species within the fishable use designation is left solely to the discretion of the state.

Response: EPA agrees that its role in reviewing state water quality criteria is to ensure the criteria are protective of designated uses. However, EPA must also ensure that the state has designated uses consistent with the goals of the CWA, including the ''fishable/swimmable'' goals. EPA therefore does not agree with the commenters'' implication that a state has unfettered discretion in how it designates uses. Section 131.10(a) provides that ''[e]ach State must specify *appropriate* water uses to be achieved and protected,'' taking into account the various goals of the CWA (emphasis added). It follows that EPA must disapprove a state's use designations if they are not appropriate in light of those goals.

The commenters' argument that a state has absolute discretion concerning when to designate subcategories of uses misconstrues the intent of EPA's regulations. These commenters point to § 131.10(c), which provides that ''[s]tates may adopt sub-categories of a use.'' It is true that a state need not adopt subcategories. However, the regulations require a state to designate appropriate uses given the goals of the CWA, and to adopt criteria protective of those uses. So, for instance, if the weight of evidence shows that salmonid spawning is an appropriate use, a state must adopt criteria protective of that use. In such a situation, a state may choose whether to designate subcategories of uses applicable to

particular waters, so that criteria protective of salmonid spawning can be narrowly targeted to those areas where they are needed, or in the alternative to designate only one ''fishable'' use and apply it throughout the state. However, if it is the latter, the criteria accompanying that use would have to be protective of salmonid spawning, because a state could not designate a single ''fishable'' use and then adopt criteria protective of some fish but not others. For this reason, most states in such a situation would be likely to designate subcategories of uses even though not required to by EPA's regulation. See also EPA's response to the next comment below.

As explained in EPA's June 25, 1996 disapproval letter, the state failed to do either of these fully. While Idaho had a salmonid spawning subcategory with criteria intended to be protective of bull trout, it did not apply this subcategory to all bull trout waters. At the same time, cold water biota temperature criteria, which do apply to, among other things, all bull trout waters, were not stringent enough to protect bull trout. EPA is promulgating more stringent temperature criteria to protect bull trout in those waters where they are present. It is clearly within EPA's authority to promulgate standards meeting the requirements of the Act that support this use.

Regarding the assertion that it is EPA's longstanding policy to defer to state's designation of uses, EPA believes this is incorrect to the extent it implies that EPA will defer to use designations that do not meet the requirements of the CWA. EPA notes that these commenters did not offer any specifics to support their claim. In the preamble to the 1983 revisions to 40 CFR Part 131 EPA stated that, ''for EPA to mandate certain levels of aquatic life protection within a use would override the primary authority of the state to adopt use classifications and supporting criteria through public hearings.'' 48 FR 51410. This and other statements were made in response to comments urging EPA to adopt national minimum levels of protection for water quality. EPA's 1983 preamble response is generally reflective of the structure and purpose of section 303, which contemplates that the duty to establish water quality standards lies with the state in the first instance. However, it is just as apparent from the structure of the Act and EPA's regulations that EPA's oversight role carries with it an obligation to act so that the requirements of the Act are met. The commenters' argument that EPA must always defer to a state's choices regarding designation of uses and levels of protection is clearly contrary to this oversight responsibility.

Comment: A number of commenters questioned EPA's authority to promulgate temperature criteria for bull trout. Several commenters pointed out that, since bull trout have not yet been listed as endangered or threatened, EPA could not rely on the authority of the ESA to support its action. Commenters also argued that, in setting temperature criteria for bull trout, EPA is attempting to designate ''critical habitat'' under the ESA without following proper ESA procedures. Commenters noted a number of alleged failures to follow proper ESA procedure for bull trout. Commenters also argued that, the ESA aside, EPA lacks authority under the CWA to promulgate temperature criteria for bull trout. These commenters asserted that the CWA does not require states to protect the most sensitive species under the ''fishable'' use, and that likewise, the CWA does not authorize EPA to promulgate criteria protective of the most sensitive species of fish.

Response: EPA acknowledges that the proposal's explanation of statutory authority to promulgate temperature criteria focused on the ESA rather than the CWA, when it should have given equal standing to both statutes. This confusion occurred because two of the species being addressed, snails and sturgeon, have been listed pursuant to the ESA. For bull trout, EPA is relying on its CWA authority to promulgate criteria protective of appropriate uses. Some commenters apparently inferred this anyway, as several commented extensively on the authority under the CWA to promulgate criteria protective of bull trout. Because EPA is relying on CWA authority for bull trout criteria, it follows that adherence to ESA procedures for bull trout are not at issue here.

In developing criteria for bull trout, EPA has used the best available information to determine the location of bull trout spawning and rearing, and has developed temperature criteria protective of spawning and rearing based upon its review of the literature and the comments received. EPA believes this analysis, described in detail above, follows the mandate of section 131.11(a)(1) that water quality standards criteria ''be based on sound scientific rationale and [ ] contain sufficient parameters or constituents to protect the designated uses.''

EPA believes the CWA and EPA's regulations require that criteria be protective of the most sensitive species within the ''fishable'' use. Protecting a use category such as ''fishable,'' or a subcategory such as ''cold water biota,'' plainly must mean protecting all of the species-specific activities that occur within that category, including the most sensitive. The position advocated by commenters—that not all species or activities within a use category need to be protected—would lead to results that are obviously contrary to the goals of the Act. These commenters do not explain how they would resolve the question of which species within a use category would have to be protected and which not. Presumably, the commenters's approach would allow states to pick and choose which species within a use category are deserving of protection. It would therefore allow a state to establish criteria protective of only the least sensitive aquatic species, while ignoring the rest. EPA believes, to the contrary, that the only reasonable reading of the Act and EPA's regulations requires that water quality standards protect for all aquatic life that are present or normally expected to be present, to the extent supported by the factual record. Today's promulgation helps to fulfill this requirement by establishing criteria protective of bull trout to the extent supported by sound scientific rationale.

Comment: One commenter suggested that EPA's criteria should be consistent with the four-state region in which bull trout are found, with specific reference to Oregon's recently adopted criteria. Other commenters also referenced Oregon's criteria as an acceptable option.

Response: As EPA works with each state during the triennial review process, information on the approaches utilized by adjacent states is shared and considered. EPA reviewed Oregon's temperature criteria and technical support documents during the development of this rule. Following further review of the literature, EPA is adopting a criteria equivalent to that recently adopted by the State of Oregon.

Comment: Several commenters challenged EPA's use of the maximum weekly average temperature (MWAT). These commenters asserted that the criteria, measured as average daily temperatures, was not adequately protective. They indicated that by allowing a weekly mean it is feasible that the daily temperature regime could be 10°C +/−5°C. One suggested that it would be more biologically defensible for EPA to find a means to limit maximum temperatures or diel fluctuations at the same time as ensuring that MWAT does not exceed fixed limits. Several of the commenters suggested using a 7-day average of daily maximum temperatures, some

commenters favoring this approach because it would provide greater protection, others for the relative ease and practicality of implementation.

Response: EPA has revised its proposal to account for potential impacts from diurnal fluctuations and is promulgating a maximum weekly maximum temperature (MWMT) criterion, based on an average of the daily maximum for a moving consecutive 7-day period. EPA's criteria guidance documents, which were followed in the development of the proposed criteria, recommend that an instantaneous maxima be adopted in association with the MWAT to provide, in part, protection from diurnal fluctuations. EPA was unable to determine from the literature and field data a fixed instantaneous maxima and therefore did not include a maxima criterion in the proposed rule. Following consideration of comments and the literature, it was determined that protection from maximum temperatures was needed to protect the species. Therefore, EPA modified the proposed rule and is changing from the proposed MWAT approach to the MWMT adopted in this rule. The MWMT is believed to provide greater protection over temperature maxima compared to the MWAT and is consistent with other temperature criteria recommended for bull trout.

Comment: Several commenters suggested that EPA needed to modify the bull trout criteria to account for natural conditions and the natural variability.

Response: In reviewing data on temperature and bull trout presence/absence, EPA found streams supporting bull trout populations where summer maxima temperatures exceeded 10°C and where summer maxima were somewhat cooler. However, most commenters only provided data on presence and absence of bull trout and did not provide data on the health of these populations. EPA was therefore unable to conclude based on this data that bull trout are fully supported at temperatures above 10°C. Presence and absence data may be best suited for establishing the limits of bull trout distribution. However, data on presence and absence, without supporting information on abundance or population health, does not enable definitive determinations of criteria that will be protective. Protection of optimal conditions is essential if a species is to be protected with an adequate margin of safety, and is also desirable because bull trout have been proposed to be listed as a ''threatened species'' under the Endangered Species Act. Maintenance of optimal conditions is considered important in the restoration of the population.

Nevertheless, EPA acknowledges the difficulties and uncertainty that exists in defining absolute, numeric temperature criteria that account for all types of natural and site-specific variability in stream temperatures (both spatially and temporally) found among Idaho streams. For example, availability of cold water refugia may ameliorate the impacts of suboptimal temperatures under some circumstances and might result in supporting bull trout populations. However, sufficient data was not available to determine exactly how much cold water refugia must be available (and when and how long it must be available) to support bull trout populations experiencing otherwise suboptimal conditions. The promulgation of a single criterion necessarily rests on assumptions about the consistency of conditions among Idaho streams. EPA believes the assumptions made here are reasonable, and are in any case unavoidable in this instance, due to the lack of site-specific data. In addition, to address concerns about the site-specific nature of temperature criteria for bull trout, EPA has included a provision in today's rule providing a streamlined mechanism for modifying the promulgated criterion on a site-specific basis.

Comment: Several commenters requested that EPA modify the criteria and suggested summer criteria values of 15°C, 12°C and 10°C, expressed as a seven-day average of daily maximum temperatures (or in some cases seven-day average of daily average temperatures), as a more appropriate criteria. Several of these commenters cited literature to support their case that the proposed criteria was either over-or under-protective and that EPA should either raise or lower the proposed criteria.

Response: EPA has reviewed the literature and available field data to support its derivation of appropriate temperature criteria for bull trout. Based on this review, EPA decided to modify its proposed temperature criteria to reflect criteria for the protection of spawning and juvenile rearing, bull trout life stages considered most critical and most at risk from thermal impacts. Based on temperatures judged to be required for maintaining optimal juvenile growth and rearing, and the initiation of adult spawning, EPA established a criterion of 10°C expressed as a consecutive seven-day average of daily maximum temperatures for June, July, August and September. EPA acknowledges that juvenile bull trout can be found in streams with temperatures reported to be higher than 10°C, but that available information suggests that temperatures approaching 15°C reflect suboptimal conditions for juvenile rearing and growth and that optimal conditions are closer to 10°C. Furthermore, available data indicates that temperatures at or below 9–10°C are required to initiate spawning, which can begin in mid-to late-August.

Comment: Several commenters suggested that EPA's criterion should only apply to those periods where temperature conditions are critical to bull trout; late summer and fall. Several of these commenters suggested that, due to the predictable pattern of stream temperatures over a year in a given channel, that a standard which addresses stream temperatures at the most critical time of the year would also adequately address stream temperature throughout the rest of the year. One commenter suggested that such a change was necessary to account for the natural variations which are present from year to year.

Response: EPA agrees with the commenters and is promulgating a criterion which is to be applied during June, July, August and September, as these times are defined in the literature as critical period for spawning and juvenile rearing of bull trout. Such criteria enable greater flexibility due to natural variability and focus on the life stages considered most critical and vulnerable to high temperatures.

Comment: Several commenters suggested that EPA should, to various degrees, rely on the Governor's Bull Trout Conservation Plan for the protection and recovery of bull trout. Other commenters supported EPA in not relying on the Governor's Bull Trout Conservation Plan.

Response: EPA has reviewed the Governor's Bull Trout Conservation Plan and has determined that although this plan sets forth a strategy towards the maintenance and restoration of the complex interacting groups of native bull trout populations throughout Idaho it falls short of meeting the requirements of section 303(c) of the Clean Water Act. Specifically, the plan does not adopt a temperature criterion protective of bull trout nor does it specifically identify waters in which bull trout are present.

Comment: One commenter suggested that the proposal was oversimplified and did not account for the migratory characteristics of bull trout or the need for healthy riparian habitat. Several other commenters also mentioned that EPA should expand the scope of the rule to also address the habitat requirements of the bull trout.

Response: The only portion of Idaho's criterion, relative to the protection of bull trout, which was disapproved in EPA's June 25, 1996 disapproval letter was the temperature criteria in place to protect bull trout. Since EPA's authority to promulgate is limited to those items which are submitted to EPA for review and approval/disapproval and which EPA disapproves, EPA does not have the authority to promulgate habitat criteria under this rule.

Comment: Two commenters suggested that the current cold water biota criteria are not protective of the adult life stages of bull trout and thus a temperature criteria applicable to adult life stages should also be promulgated. One commenter suggested that this criteria be established at 12° C and another suggested an annual maximum temperature criteria of 15° C.

Response: Available information indicates that juvenile rearing and adult spawning are the life stages that most limit bull trout (and other salmonid) production. Available data also suggests that bull trout distribution is best defined by maximum summer temperatures and that these life stages are currently most vulnerable to increased temperatures in the summer and early fall. In general, less information is known about the temperature requirements and locations of adult bull trout and migratory corridors compared to other life stages. EPA concluded that the information available was not sufficient to support going forward with temperature criteria for adult bull trout at this time. Therefore, given the importance of juvenile and spawning life stages to bull trout production and EPA is promulgating temperature criteria designed specifically for the protection of natal juvenile rearing and spawning areas. EPA believes that if these criteria are met, natural variability in stream temperatures will result in attainment of appropriate temperatures during other times of the year.

Comment: Several commenters noted that the proposed criteria were unrealistic and were not achievable.

Response: The bull trout temperature criteria adopted under this rule were determined based on EPA's evaluation of the literature and available field data. EPA recognizes that there are streams where bull trout are present at higher temperatures than those adopted under this rule but in most cases, information was not available to determine the relative health of these populations. However, because several factors can act to alter temperature impacts on bull trout which can vary on a site-specific basis (e.g., availability of cold water refugia), EPA has provided a streamlined mechanism through which criteria for specific streams may be modified. This mechanism should provide relief in streams which do support bull trout populations yet the criteria adopted under this rule are unachieveable.

d. Final Rule. In order to provide the level of protection required under the Clean Water Act, EPA is promulgating a site-specific temperature criterion for those waterbody segments where bull trout spawn and juvenile bull trout rear. EPA's action supersedes the State's temperature criterion only for the specific waterbodies listed in § 131.33(a)(2) of the final rule.

As indicated in the rule language itself, the bull trout temperature criterion does not apply to waters located in Indian country, to the extent any may be implicated in the waters listed in § 131.33(a)(2). Although the proposal did not address this possibility, it was never EPA's intent to promulgate temperature criteria for waters in Indian country. The purpose of this rulemaking is to promulgate standards for waters that are outside of Indian country and for which certain State standards were found to be inadequate. EPA has consulted with the appropriate tribal authorities. All affected tribal governments requested that EPA allow the Tribes to develop their own standards for their reservations and thus not include tribal waters in today's promulgation. See section D.4 above.

Because the data indicate there may be aberrational segments where bull trout have slightly different temperature ranges, and because future information may make it possible to refine the list of waterbodies where bull trout spawn and juvenile bull trout rear, the final rule provides a mechanism for adjusting the bull trout temperature criterion on a site-specific basis. This provision is discussed in more detail below.

This Rule establishes a maximum weekly maximum temperature (MWMT) criterion of 10 °C for the months of June, July, August and September for the protection of bull trout spawning and juvenile rearing in natal streams, expressed as an average of daily maximum temperatures over a consecutive 7-day period. This criterion are focussed on reproduction (adult spawning) and juvenile rearing life stages because these have been cited as critical life stages or ''ecological bottlenecks'' limiting the production of salmonids, including bull trout (Goetz, 1989; McPhail and Murray, 1979). Furthermore, high temperatures during summer have most often been reported as a factor limiting the distribution and abundance of bull trout, with juvenile rearing and adult spawning being considered as the life stages most at risk from high summer and fall temperatures (Buchanan and Gregory, 1997; ORDEQ, 1995; Shepard et al., 1984; Fraley and Shepard, 1989; Goetz, 1989; Riehle, 1993). EPA believes that these criteria are adequately protective of bull trout in that they provide explicit protection for the most critical and vulnerable life stages. Further, EPA believes that during other times of the year, natural seasonal variability in stream temperatures and temperature controls established to meet summer maximum criteria, if operated, will likely result in attainment of adequate temperatures during the remainder of the year. These criteria are also consistent with other temperature criteria that have been established or recommended to protect bull trout (Buchanan and Gregory, 1997; ORDEQ, 1995; and the U.S. Forest Service's Inland Native Fish Strategy).

For several reasons, EPA decided to express the final temperature criteria for bull trout as a consecutive seven-day average of daily maximums (MWMT) rather than a consecutive seven-day average of daily averages (MWAT) as originally proposed. Greater diurnal fluctuations around the mean daily temperature can be one effect of intensive watershed management (e.g., loss of riparian vegetative cover). For this and other reasons, EPA's Guidelines for deriving temperature criteria recommend both longer-term average criteria (MWAT) and short-term maximum criteria. However, after reviewing the literature on bull trout temperature requirements and considering comments on EPA's proposed bull trout temperature criteria, EPA concludes that the available data were insufficient to derive temperature criteria to be protective of short-term temperature extremes (e.g., daily maxima). As asserted by several commenters, use of a MWAT without some control on the daily maxima might not adequately reflect such increases in diurnal variability where the mean temperatures do not change substantially. Therefore, EPA agrees that greater control over thermal maxima is desired and that while use of the two-number criterion is most desirable (i.e., weekly average and daily maximum), in the face of insufficient data, use of a MWMT is appropriate. In addition, use of the MWMT is consistent with other temperature criteria that have been established or recommended to protect bull trout (Buchanan and Gregory, 1997; ORDEQ, 1995; and the U.S. Forest

Service's Inland Native Fish Strategy). EPA's expression of the criterion in terms of a consecutive seven-day average of daily maximums, however, will provide for a mean daily temperature that are somewhat below (possibly several degrees) the maximum, depending upon stream hydrology and watershed characteristics.

Maintenance of this criterion for spawning and juvenile bull trout rearing in their natal streams in the summer months (June, July, August and September) should result in attainment of appropriate thermal conditions for other life stages (i.e., adult holding and migration) during the remainder of the year. The restrictions on lowering water quality provided for in the Tier 2 provisions of Antidegradation will serve as further insurance.

EPA has considered the comments and data submitted, evaluated the literature, and conferred with fisheries scientists from the Idaho Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Forest Service (USFS), U.S. Bureau of Land Management (BLM) and the Interior Columbia River Basin Ecosystem Management Project (USFS, BLM) in revising the proposed criterion to be protective of bull trout spawning and juvenile rearing and meet the goals of the Clean Water Act.

This revised criterion is within the range of maximum summer temperatures associated with optimal juvenile bull trout rearing (higher densities when known) in watersheds in Idaho, Oregon, Montana, British Columbia and Alberta. Protection of optimal conditions is desirable because Columbia River Basin bull trout populations have recently been proposed by the U.S. Fish and Wildlife Service for listing as a ''threatened species'' under the Endangered Species Act. It is recognized that some authors have found sites with juvenile bull trout present, which have warmer summer maxima (Fraley and Shepard, 1989; Saffel and Scarnecchia, 1995; Adams, 1994; Thurow and Schill, 1996), while others have noted sites with cooler summer maxima (McPhail and Murray, 1979; Ratliff, 1992; Riehle, 1993). In many such studies, information on thermal conditions supporting optimal densities is lacking.

The literature indicates that bull trout may be one of the most intolerant species of salmonids to warm temperatures. Buchanan and Gregory (1997) summarized that, to provide adequate protection for cold water species like bull trout, water temperature criteria must be substantially lower than traditional criteria, and must accommodate seasonal requirements of specific life history stages. Also, they suggested that slight increases in water temperature can tip the balance of competitive interactions to the detriment of coldwater species, even though temperature criteria would be well within the thermal requirements of the species. Rieman and McIntyre (1993) suggested that water temperature is likely to be an important and inflexible habitat requirement for bull trout.

Cavender (1977) noted that bull trout have an affinity for cold waters fed by mountain glaciers and snowfields. Also, Rich (1996) found that bull trout were more likely to occur in mountain streams with northerly aspects. Rieman and McIntyre (1995) found juvenile bull trout at elevations as low as 1520 m, but the frequency of juvenile bull trout occurrence increased sharply at about 1600 m, from this observation they assumed that 1600 m is the lower limit of spawning and initial juvenile rearing of bull trout in the Boise River, and suggested that this was influenced by stream temperature.

Pratt (1992) also noted that water temperature may be an important feature of juvenile bull trout habitat. Bull trout spawn in late summer through fall (late August–November) and have a long egg incubation period (typically lasting from early fall to April). High temperatures, therefore, are a concern for inhibiting spawning, as well as limiting its success in the late summer and early fall. Saffel and Scarnecchia (1995) indicated that high temperatures may be physiologically constraining on juvenile bull trout. Shephard et al. (1984) found that fish growth decreased during the warmer summer months despite increased primary productivity.

EPA's establishment of this criterion for bull trout spawning and juvenile rearing is consistent with other temperature management objectives and criteria recently adopted by state and federal natural resource management agencies, as noted in the following examples:

(1) The State of Idaho, through the Governor's 1996 Bull Trout Conservation Plan, recently recognized the unique temperature requirements for all life stages of bull trout. The Plan indicated that bull trout require temperatures between 9 and 15°C, with spawning success increasing at temperatures less than 10°C and optimum spawning temperatures being 2 to 4°C.

(2) The U.S. Forest Service's Inland Native Fish Strategy (1995) for its Intermountain, Northern and Pacific Northwest Regions contains Interim Riparian Management Objectives for desired conditions for fish habitat of inland native fish, which includes bull trout. The interim objective for water temperature is a maximum water temperatures below 59°F (15°C) within adult holding habitat and below 48°F (9°C) within spawning and rearing habitats, measured as a 7-day moving average of daily maximum temperatures. These temperatures were recommended and supported by the U.S. Fish & Wildlife Service, a full partner in the development of the Strategy and its Environmental Assessment.

(3) The Oregon Department of Environmental Quality (ODEQ) recently conducted an extensive evaluation of the effect of water temperature on bull trout in its *Final Issue Paper—Temperature, 1992–1994 Water Quality Standards Review* (ODEQ, 1995). The State of Oregon adopted the following:

> An absolute numeric criterion of 10°C (50°F) based on a 7-day average of the maximum daily temperature for waters of Oregon determined by Department of Environmental Quality to support or to be necessary to maintain the viability of native bull trout. If temperature exceed 10°C (50°F), the stream and riparian conditions would be required to be restored or allowed to return to the most unaltered condition feasible for the purpose of attaining the coldest streams temperature possible under natural background conditions.

Buchanan and Gregory (1997), as members of the temperature technical subcommittee for the above water quality standards revisions, found that the literature supported an optimal temperature range for both bull trout spawning and juvenile rearing of 4–10°C. This was presented in Figure 2–3, Bull Trout Temperature Requirements by Life History Stage and Time Period as Reported in the General Literature, for the Final Issue Paper—Temperature (ODEQ, 1995).

I. Spawning.

Based on EPA's review of the literature, a stream temperature range of 4–10°C appears to be necessary to maintain successful bull trout spawning, although it appears that bull trout do seek out colder temperatures. A number of authors have noted the temperature appears to be a critical factor with the initiation of spawning migrations occurring at 9–10°C. A temperature range of 6–8°C is believed to approximate the optimum spawning temperatures of bull trout (Idaho Department of Fish and Game).

Heimer (1965) noted that areas with cooler water temperatures (9–10°C) in the Clark Fork River, Idaho, attracted

bull trout during the spawning season, and that there was especially high spawning use in these areas with groundwater upwelling. The average daily maximum temperature during peak redd construction in the Flathead River, Montana tributaries was 8–9°C, although some spawning activity was observed in water temperatures as high as 12°C (Flathead River Basin Steering Committee, 1983). Fraley and Shephard (1989) found in the Flathead River drainage that the initiation of spawning appeared to be related largely to water temperatures of 9–10°C. This temperature was also described by McPhail and Murray (1979) as the threshold temperature for the initiation of spawning in Mackenzie Creek in British Columbia. Shepard et al. (1984) found that bull trout spawning activity began when maximum daily water temperatures dropped below 9°C.

Swanberg (1996) suggested that bull trout begin their upriver migrations in the fall in the Blackfoot River, Montana, as a result of spikes in a fluctuating temperature regime, and that these migrations are done in order to seek refuge in cooler tributaries. Other authors have made similar observations in Rapid River, Idaho drainage where bull trout initiated upriver migrations to spawn when water temperatures reach 10°C or above (Elle et al., 1994; Elle, 1995). Schill *et al.* (1994) also noted in Rapid River that at the start of spawning season pairing behavior began after the average water temperature dropped sharply from 10°C–6.5°C.

II. Egg Incubation.

EPA has reviewed the literature and examined temperature data from several bull trout streams in Idaho, Oregon, and Montana and has found that, if summer temperatures, June to September, meet EPA's temperature criterion, late fall and winter temperatures should provide for successful bull trout egg incubation. Incubation of bull trout eggs requires temperatures ranging from 1 to 6°C and occurs at optimum temperatures of approximately 4°C (ODEQ, 1995; Weaver and White, 1985; McPhail and Murray, 1979; Carl, 1985).

Fraley and Shephard (1989) reported water temperatures of 1.2–5.4°C for the successful incubation of bull trout embryos. McPhail and Murray (1979) noted that bull trout egg-to-fry survival varied with different water temperatures of 0–20%, 60–90% and 80–95% of the eggs survived to hatching in water temperatures of 8–10°C, 6°C and 2–4°C, respectively. Weaver and White (1985) report 4–6°C as being needed for egg incubation of bull trout embryos in Montana streams. Hatching of eggs generally occurs 100 to 145 days after spawning, with bull trout alevins requiring at least 65 to 90 days after hatching to absorb their yolk sacs (Pratt, 1992). As such, incubation occurs from late fall to early spring, a period in which the temperatures in the headwater streams in which bull trout spawn will be low due to natural seasonal water temperature patterns. Weaver and White (1985) observed stream temperatures of 1.2 to 5.4°C during the incubation period of October to March.

III. Juvenile Rearing.

Goetz (1989) noted that the maximum summer temperature is a controller of juvenile bull trout distribution. Temperatures less than 12°C appear to be most suitable for juvenile rearing, with optimal conditions for rearing and growth occurring between 4 and 10°C (ODEQ, 1995). Based on field observations of the presence of juvenile bull trout in Idaho streams, 12°C also appears to be a maximum temperature where juveniles are found (Idaho Department of Fish and Game).

Pratt (1985) found juvenile bull trout predominately in the upper and middle reaches of Lake Pend Oreille tributaries. Saffel and Scarnecchia (1995) observed that the density of juvenile bull trout was negatively related with the maximum summer temperature in six tributaries of Lake Pend Oreille. They found the highest number of juvenile bull trout in streams where the summer maxima ranged from 7.8 to 13.9°C. Juveniles will reside in their natal streams for two to five years (Carl, 1985).

Pratt (1984) observed only juvenile bull trout in habitats with temperatures of 5–12°C influenced by cold springs (5°C). Shepard et al. (1984) also observed the highest densities of juvenile bull trout in stream reaches in the Flathead River basin which were associated with cold perennial springs. Bonneau and Scarnecchia (1996) found that juvenile bull trout predominately (94%) chose the coldest water available (8–9°C) in a plunge pool, which contained a strong side-to-side thermal gradient (8–15°C) at the confluence of Sullivan Springs and Granite Creek, tributary to Lake Pend Oreille. These juvenile bull trout were observed to avoid the remaining pool habitat area (76%), which had temperatures of 9.1–15°C. Similarly, juvenile bull trout were observed only in the middle reach of Sun Creek, Oregon, where heavy influxes of groundwater more than doubled the stream flow (Dambacher et al., 1992). The middle reach of Sun Creek reported August temperatures ranging from 5.6–10°C.

Shepard et al. (1984) reported the highest densities of bull trout in Montana streams at temperatures of 12°C and below, some presence of bull trout at 15–18°C, and complete absence of bull trout in streams with temperatures exceeding 19°C. Adams (1994) observed various life stages of bull trout in four streams in the Weiser River, Idaho, drainage where the average daily temperatures were from 2–12°C, and summer maxima as high as 20°C, although some groundwater influxes did provide cool water sanctuaries, but the extent was unknown. These high temperatures were suggested to limit downstream distribution for bull trout.

Fraley and Shepard (1989) noted that juvenile bull trout were rarely observed in streams with maximum water temperatures at or above 15°C, and were found close to the substrate at those temperatures. Also, they found that juvenile bull trout migrated upstream in their natal stream to grow, and many of these upper stream reaches were not utilized by adult spawners. Thurow (1987) also found higher densities of juvenile bull trout in the headwater (colder) stream reaches of the South Fork Salmon River, Idaho. Thurow and Schill (1996) did record summer water temperatures of 9–13.5°C in Profile Creek, tributary to the South Fork Salmon River, while observing the diel behavior of juvenile bull trout. Elle (1995) observed in Rapid River that the out migration of juvenile bull trout occurred when the stream temperatures dropped below 10°C.

Based on the above, EPA has determined that its final criterion for bull trout temperature is reasonable and reflects sound science.

ii. Distribution

a. Proposal. At the time of EPA's disapproval action, EPA had not identified the exact geographic areas inhabited by bull trout. In deriving a list of water bodies where revised temperature criteria are needed in order to protect bull trout for the proposal, EPA relied upon bull trout distribution data from the Interior Columbia Basin Ecosystem Management Project (ICBEMP) as well as bull trout distribution data from the Idaho Department of Fish and Game. See 62 FR 23013 for a more detailed discussion of EPA's proposal.

b. Recent Idaho Actions. On June 19, 1997, Idaho adopted a temperature criteria for bull trout but did not indicate which water bodies the criteria apply. On July 15, 1997, EPA disapproved this new criteria because EPA was unable to determine that the criteria was protective of bull trout

spawning and rearing. In order to protect an aquatic life species, the water quality criteria must have a point of application. Idaho's temperature criteria specified only that the criteria would be applied to known bull trout spawning and juvenile rearing stream segments as identified by the Department based on best available data or as specifically designated under the Idaho Water Quality Standards. The implementation components of a criterion (e.g., point of application) are considered along with the numeric values themselves to determine if the criteria as a whole are sufficient to protect the use (40 CFR 131.11). To date, no stream segments have been specifically designated as a bull trout spawning and juvenile rearing stream, nor has any reference to a specific list of waters been provided to EPA. Therefore, in order to ensure that bull trout spawning and rearing will be protected, EPA has included a list of stream segments as part of the bull trout criteria in today's rule (§ 131.33(a)(1)).

c. Response to Comments. Comment: Commenters objected to EPA's approach to designating waterbodies where the temperature criteria for bull trout spawning and rearing would apply. The strongest objectors took the view that water quality standards should not be tied to specific stream segments. Rather, the applicability of designated uses should be left to another process, such as the Governor of Idaho's bull trout plan. These commenters based their practical objection in part on the fact that, under the proposal, a rulemaking would be required each time the temperature criteria needs to be modified to reflect new information. The more moderate objections pointed to the over inclusiveness of the proposal, and asserted that EPA can not apply temperature criteria to waterbodies where the presence of bull trout has not been verified. These commenters pointed out that, by its own terms, the list encompasses ''known, suspected and/or predicted'' spawning and rearing areas, and argued that EPA can not apply criteria to waters beyond those that are ''known'' to host these activities. Commenters objected to the fact that the rule included migratory corridors merely because EPA could not determine how to exclude these. Another commenter argued generally that inclusion of waterbodies other than headwaters is inappropriate because waters at lower elevations have higher natural temperatures to which bull trout have adapted.

Response: EPA disagrees with the commenters who argue that waterbodies do not need to be specified for bull trout temperature criteria. A water quality standard cannot be implemented unless it applies to a specified location. Moreover, the mechanism for determining where the criteria apply must have regulatory effect (e.g., cannot exist only in guidance), to be the basis for imposing requirements through subsequent regulatory actions, such as issuance of an NPDES permit. EPA has done that here by naming in the regulation the specific waterbodies where the criteria apply, and providing a streamlined mechanism for modifying the list.

As described above, EPA has substantially modified its approach to designating waterbodies where bull trout temperature criteria will apply from that found in the proposal. This has occurred, in part, as a response to the comments received. The proposal acknowledged that its approach to applying bull trout temperature criteria might be over inclusive to some extent. EPA believes this modified approach substantially reduces the likelihood that waters that do not contain bull trout will be regulated by this rule. In addition, EPA has modified the proposal by adding a streamlined procedure for removing waterbodies where it can be shown that bull trout do not in fact exist. This responds to those commenters who wish to avoid future rulemakings in the event new information becomes available.

Regarding the comment that EPA may not designate waterbodies other than those where bull trout have been confirmed as present, EPA disagrees that this is the only reasonable way to designate applicable waters. EPA agrees that it would be arbitrary and capricious to designate waters merely on the basis of conjecture. However, the ICBEMP data base relied upon by EPA in this rulemaking to predict the presence of bull trout spawning and rearing is based on sound scientific methodology that results in a high degree of predictive accuracy. The ICBEMP data base focuses on a number of parameters known to correlate to the presence of bull trout, and predicts the presence of bull trout elsewhere only where those parameters are known to be present. EPA combined the ICBEMP data base with that developed by the Idaho Department of Fish and Game. The IDFG data base lists waters where bull trout are known to be present, and also includes waters where bull trout are suspected to be present based on the best professional judgement of Department officials. EPA believes that since the Idaho Fish and Game Department is the agency with the most expertise and the most current information regarding the location of bull trout, it is appropriate to defer to its judgement and to include waters where, according to the Department, bull trout are either known or suspected to be present.

If EPA were constrained to using a method of designating waterbodies that relied only upon direct human observations of the presence of bull trout spawning and rearing, the result would most certainly be under inclusive, and therefore under protective of the species. EPA believes the approach that is most reasonable and most consistent with the goals of the CWA is to identify those waterbodies where spawning and rearing have been observed to exist and then expand upon this using accurate modeling techniques or the best professional judgement of officials for an agency such as the Idaho Fish and Game Department. When it can be shown this approach errs in the direction of overprotection, the streamlined procedures for deleting waterbodies from the list should provide an adequate corrective mechanism.

In the final rule, EPA believes it has succeeded in excluding waterbodies that would be used only for migration and not for spawning and rearing. Additionally, by excluding river main stems, EPA has drastically reduced the number of low elevation waterbodies affected by this rule. This is responsive to the comments suggesting that spawning and rearing occur only in headwaters.

Comment: Several commenters requested that individual streams either be removed from or added to the list of streams covered under this rule. Very few of these commenters submitted factual data to support their request, although several noted that they had data available or referred to sources where the data may be available.

Response: Due to the short court-ordered time frame for development of this rule, EPA was unable to pursue the acquisition of data not provided directly to EPA during the comment period. However, EPA has provided opportunity within the rule to modify the list of streams to which the rule applies and encourages these commenters to pursue such modification where they have the factual data to indicate presence/absence of bull trout in specific waters. Additionally, several of the streams which commenters requested be removed from the list were removed during our review and modification of the proposed list. These streams include the Boise River below Lucky Peak Reservoir and the Snake River near Lewiston.

d. Final Rule. The final rule includes a list of waterbodies for which site-specific temperature criterion are needed to protect bull trout spawning and juvenile rearing. In deriving this list, EPA has relied on bull trout distribution data from the 1994–5 Interior Columbia Basin Ecosystems Management Project (ICBEMP) (Quigley and Arbelbide, in press) ''Key Salmonid'' database for known and predicted bull trout spawning and juvenile rearing, and the updated version (April 1997) of the Idaho Department of Fish and Game (IDFG) Digital Bull Trout Distribution database.

The merging of these two databases resulted in a list of streams designated specifically for bull trout spawning and juvenile rearing, as well as some streams utilized for all life stages, and other streams used only as migratory corridors. In order to exclude those streams used only for life stages other than spawning and juvenile rearing (i.e., migratory corridors, adult rearing, etc.), the following steps were taken to modify the list of streams:

(1) The entire IDFG data set, which addresses all life stages, was overlaid with certain portions of the ICBEMP data set. The portions of the ICBEMP database which were used included ''known'' bull trout spawning and juvenile rearing, ''predicted'' spawning and juvenile rearing, and ''predicted present'', i.e., migratory or seasonal habitats that could include some spawning and juvenile rearing streams. Known migratory corridors were not included.

(2) Based on statements made by IDFG staff, EPA concluded that the IDFG data set on bull trout habitat contained recently updated information that was not included in the ICBEMP data set. Therefore, EPA determined that the majority of the IDFG data set, especially tributaries, should be retained in the rule in order to utilize the most recent information.

(3) Those areas denoted by ICBEMP as ''predicted present'' bull trout habitat used by all life stages which do not overlap with areas listed by IDFG for all life stages were assumed to have less of a probability of being spawning and juvenile rearing streams. Therefore, these waterbodies were deleted from the list of streams to which the rule would apply.

(4) Based on the literature reviewed and comments received, EPA assumed that bull trout do not use main stem river systems for spawning and juvenile rearing habitat, because of elevated water temperatures and the lack of appropriate spawning substrate. The main stem rivers are utilized by bull trout principally as migratory corridors and adult holding habitat. This is due to the naturally higher water temperatures and greater food abundance. Bull trout are almost exclusively piscivorous. Therefore, only the headwater portions of main stem rivers were retained in the rule. All other segments of the main stem rivers were deleted, regardless of whether they were denoted by either the IDFG, ICBEMP, or both.

The list represents EPA's attempt to compile a comprehensive list of streams in Idaho utilized for bull trout spawning and juvenile rearing without including waters utilized only for adult migration and rearing or streams in which bull trout are not likely to occur. The resulting list for which site-specific temperature criteria are being promulgated can be found in subsection (a)(2) of today's rule.

iii. Modifications to Bull Trout Criteria and Distribution

Although the promulgated list of waterbodies where bull trout temperature criteria apply represents the best information now available, EPA believes it is appropriate to have some measure of flexibility to modify this list as new information on bull trout distribution arises. This is important in light of ongoing monitoring activities by the State of Idaho and several Federal agencies. Therefore, EPA has modified the proposal by adding a procedure whereby listed waterbodies can be removed or temperature criteria modified through a determination of the Region 10 Regional Administrator (RA). EPA believes this procedure can provide expeditious relief from the requirements of these temperature criteria when such a change is supported by an adequate factual record. Although the procedure for making a determination under paragraph (a)(3) is not a rulemaking, each determination would be a final agency action, and would therefore be subject to consultation pursuant to section 7 of the ESA as appropriate.

Section 131.33(a)(3) sets forth procedures for modifying, on a site-specific basis, either the temperature criterion in paragraph (a)(1) or the list of waterbodies in paragraph (a)(2). Paragraph (a)(3)(i) allows the RA to remove a waterbody, or a portion of a waterbody, from the list if a finding can be made that bull trout spawning and rearing is not an existing use at a specified location. Paragraph (a)(3)(ii) allows the RA to modify upwards the temperature criterion of paragraph (a)(1) if a finding can be made that bull trout would be fully supported at the higher temperature at a specific waterbody or portion thereof. EPA wishes to emphasize that these findings must be based on an adequate factual record. Since these determinations essentially modify a site-specific criterion, the record must be complete and compelling enough to support a site-specific criterion in the first instance, and must also effectively rebut whatever information was used to support today's promulgation for the specific waterbody. It is also important to note that EPA expects any requests for a modification under section (a)(3) to be accompanied by a complete and adequate supporting record that is consistent with EPA's existing policies and procedures for developing site-specific criteria. This burden for a complete and adequate supporting record falls upon the person requesting the modification. EPA does not intend to supply information lacking from a request, and will not act on any request that is missing critical information or otherwise deemed incomplete.

EPA expects that support for the removal of a waterbody pursuant to paragraph (a)(3)(i) will normally consist of documentation that bull trout are not currently present. While bull trout may constitute an ''existing use'' if it has been present since 1975, a requestor under paragraph (a)(3)(i) will not normally carry the burden of demonstrating that this is not the case. Unless there is information to the contrary, EPA will assume that the current absence of bull trout also indicates a historical absence. However, where there is information of a historical presence that qualifies as an ''existing use,'' that information would have to be rebutted.

The procedures of paragraph (a)(3) are designed to ensure that the public will have adequate input on any determination. Paragraph (a)(3)(iii) provides that the public will have notice of and an opportunity to comment on any proposed determination. If this notice can be combined with another concurrent and related process, such as action on an NPDES permit, EPA will endeavor to do so. Paragraph (a)(3)(iv) requires the RA to make publicly available any proposed determination and the factual record supporting it, and to make publicly available the record of past decisions.

EPA plans to develop a mailing list to facilitate public awareness of final determinations to modify stream listing or temperature criteria under these procedures. Persons wishing to be notified of such determinations should send their names and addresses to Lisa Macchio at U.S.EPA Region 10, Office of Water, 1200 Sixth Avenue, Seattle,

Washington, 98101 (telephone: 206–553–1834).

The procedures in paragraph (a)(3) provide a mechanism for removing a waterbody from the list, or for modifying the temperature criterion upwards. That is, paragraph (a)(3) can only be used to modify today's rulemaking in a less stringent direction. EPA recognizes that new information might also support, for instance, the addition of a waterbody to the list. While it would have been desirable to provide a similar streamlined mechanism for modifying the list in a more stringent direction, EPA was concerned that a procedure that could increase the scope of today's promulgation through a process less rigorous than formal notice and comment rulemaking might not be consistent with the Administrative Procedures Act. However, paragraph (a)(3)(v) makes clear that EPA can promulgate additional site-specific criteria for bull trout through rulemaking.

2. Sturgeon

i. Proposal

EPA proposed temperature criteria for the Kootenai River from Bonners Ferry to Shorty's Island to protect for critical spawning and egg incubation life stages for white sturgeon. EPA proposed a minimum weekly average of 8 °C followed by an 8-week time period (which was to begin no later than May 21) where the maximum weekly average does not exceed the upper spawning temperature limit of 14 °C. Due to the limited time available prior to the proposal, EPA was able to look at only a small subset of the temperature data for the Kootenai River. Based on this limited analysis, as well as preliminary discussions with FWS and Army Corps of Engineers (COE), EPA had concluded that the 8 °C minimum could be attained by May 21 and that a 14 °C maximum temperature was reasonable. See 62 FR 23010 for a more detailed discussion of EPA's proposal.

ii. Recent Idaho Actions

Idaho adopted revised water quality standards which were issued as a temporary rule by the Board of Health and Welfare and became effective on June 20, 1997. This revised rule establishes a 14•C maximum seven day moving average water temperature (based on daily average temperatures) within the Kootenai River from Bonners Ferry to Shorty's Island from May 1 through July 1.

EPA reviewed the state's revised criteria, the scientific literature, and additional temperature data for the Kootenai River provided during the comment period. EPA again conferred with FWS in evaluating temperature criteria which would provide adequate protection of sturgeon spawning.

EPA received comments from COE which indicated water temperature at Bonners Ferry is controlled by several factors other than outflows at Libby Dam. These factors include tributary inflow volume and temperature, water depth and local hydrometerological conditions. Consequently, these factors and inputs may have a greater role in controlling the onset of the timing of sturgeon spawning than EPA originally believed. These factors along with the multi-agency efforts for the recovery of Kootenai River white sturgeon, which includes experimentation of flow releases at Libby Dam by the COE, may define more precisely the optimal conditions needed for sturgeon spawning and egg incubation. Although available information suggests that 14°C is a reasonable upper temperature limit, the current optimal conditions for Kootenai River white sturgeon spawning and egg incubation, as well as the temperature ranges and flow regimes which would provide for these conditions, are not entirely certain.

The State's 1997 standard establishes a 14°C maximum temperature criteria for the two month spawning period. This time period and upper temperature limit is consistent with the literature EPA has reviewed. Partly because of the uncertainty in defining optimal spawning conditions for Kootenai River white sturgeon, along with (1) influences other than flow releases at Libby Dam and (2) COE and FWS efforts in experimentation with operational guidelines at Libby Dam, EPA determined that establishing a 14°C maximum criteria from May 1 through July 1 without establishing a minimum temperature criteria, would provide for the necessary temperature (thermal) protection for spawning and egg incubation as well as temporal flexibility as over times when such life stages can occur. EPA will continue to track this issue as more information becomes available.

Therefore, by letter dated July 15, 1997, EPA conditionally approved the State's temporary temperature criteria as being in accordance with the CWA and EPA's implementing regulations at 40 CFR 131.11. EPA's approval eliminates the need for federal criteria to protect sturgeon. Because EPA's approval is not yet unconditional, the Agency is not withdrawing the proposal for these criteria at this time.

3. Snails

i. Proposal

EPA proposed a maximum daily average temperature of 18°C in the Middle Snake River from river mile 518 to river mile 709. Given the limited time EPA had to develop the proposed rule and the limited data available at the time, EPA's proposed temperature criteria appeared to be reasonable. See 62 FR 23011 for a more detailed discussion of EPA's proposal.

ii. Comments

Although no additional data on the temperature requirements for these snails was obtained during the comment period, EPA did receive several comments with regard to the proposed temperature criteria for snails.

One commenter noted that the FWS recovery plan recommends an annual average temperature of 18°C, and that EPA was proposing a daily average. This commenter questioned how EPA converted a suggested 18°C annual average temperature to a maximum daily average. EPA proposed this because it had determined that an annual average temperature did not make sense for the protection of the species since it would allow the low winter time temperatures to offset the high summer temperatures. Without further information at the time of proposal, EPA's sense of FWS's recommendation for temperature criteria in the recovery plan, was they were targeting a temperature lower than the current Idaho temperature criteria applicable to cold water biota. Therefore a daily average of 18°C was proposed. As discussed below, EPA has since concluded that it could not be confirmed that Idaho's existing temperature criteria are inadequate to provide the temperature protection recommended in the recovery plan.

Another commenter questioned whether it was reasonable and appropriate to establish an 18°C temperature criteria throughout a significant portion of the river (rivermile 518 to 709) because snails are isolated in specific habitats within the river. Therefore the criteria should only apply to those specific portions where snails are known to exist, not all segments as EPA proposed. Based on the information available, EPA is unable to determine the precise locations of all snail habitat. In addition, EPA has determined that available data do not confirm that Idaho's existing temperature criteria are inadequate to protect snails.

Another commenter stated snail populations are more abundant than

first assumed in 1992 and good populations of certain listed snails were found in river and reservoir habitats where the proposed standard is exceeded during the summer. However, data was not provided to show the correlation between presence, health of species and temperature requirements. Presence of snails does not necessarily indicate temperature threshold for optimal conditions of the species. Upon the availability of relevant information on snail requirements, EPA will further evaluate appropriate numeric criteria.

Several commenters stated that they believed the proposed 18°C standard is essential to the survival of the Snake River mollusks but provided no additional data to justify this. EPA does not have the information to determine whether or not this may be true.

One commenter believed that until further data are available, the standard for the snails should be lowered to 14°C to accommodate the Banbury Springs lanx. EPA lacks the appropriate data to support lowering the temperature criteria to 14°C.

iii. Final Rule

After a more thorough evaluation of available data and information on the temperature requirements of these snails, EPA has been unable to confirm that Idaho's existing temperature criteria are inadequate to protect the snails. Therefore EPA is withdrawing its disapproval of Idaho's criteria and is not promulgating final temperature criteria for aquatic snails in the Middle Snake River. EPA will continue to work with FWS on this issue as more information becomes available and will revisit this issue in future triennial reviews.

F. Antidegradation Policy

EPA's June 25, 1996 letter disapproved part of Idaho's antidegradation policy because it did not protect Tier III waters (Outstanding Resource Waters) from point sources. The State revised its antidegradation policy to refer to point sources as well as nonpoint sources, and submitted this revision to EPA. The commenters generally expressed the view that under the circumstances a federal promulgation was unnecessary. EPA approved this revision on May 27, 1997 as satisfying our objection and meeting the requirements of the Clean Water Act. Because section 303(c)(4) of the CWA does not require EPA to promulgate a standard in these circumstances, today's final rule does not include an antidegradation policy.

G. Mixing Zone Policy

1. Proposal

On April 28, 1997, EPA proposed to amend Idaho's mixing zone policy for point source discharges. EPA had determined that Idaho's exemption of certain narrative criteria from applying to water quality within a mixing zone was inconsistent with the CWA and EPA's implementing regulations at 40 CFR part 131 (see 62 FR 23014). EPA's proposed amendment to Idaho's mixing zone policy would apply Idaho's existing narrative surface water quality criteria at 16.01.02.200. to water quality within a mixing zone.

2. Recent Idaho Actions

On June 19, 1997, Idaho revised its mixing zone policy to delete the exemption from narrative surface water criteria at 16.01.02.200. EPA approved Idaho's revised mixing zone policy on July 15, 1997, because it addressed EPA's objection and meets the requirements of the CWA and EPA's implementing regulations at 40 CFR Part 131. Therefore, a federal promulgation for water quality within a mixing zone is no longer necessary.

H. Excluded Waters Provision

1. Proposal

IDAPA 16.01.02.101.03. of Idaho's standards excludes from water quality standards those unclassified waters which are ''outside public lands but located wholly and entirely upon a person's land.'' EPA disapproved this section and proposed a modification to ensure that any waters of the United States which fell within this exclusion would be covered by the standards applicable to unclassified waters. EPA explained that this modification was necessary because all waters of the United States must be protected by water quality standards. It is possible that some waters ''located wholly and entirely upon a person's land'' could be waters of the United States. In such instances, those waters would be protected by the CWA.

2. Comments

Comment: A number of commenters objected to the scope of EPA's definition of waters of the United States or asked for clarification of the definition. Some suggested that the statutory phrase ''navigable waters'' be used instead.

Response: The CWA uses the term ''navigable waters'' but defines that term in section 502 to mean ''the waters of the United States, including the territorial seas.'' Because the phrase ''navigable waters,'' taken out of context, can be confusing and erroneously imply that navigability is the key to CWA jurisdiction, EPA chose to use the term ''waters of the United States'' for this rulemaking.

EPA's regulations define waters of the United States to include isolated waters:

The use, degradation or destructive of could affect interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes: or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purpose by industries in interstate commerce * * *

The definition also provides that waste treatment systems are generally not waters of the United States.

Because of questions about isolated waters, EPA published in the preamble to its section 404 state program regulations a fuller explanation of this part of the definition {53 FR 20765 (June 6, 1988)}. The discussion provides some additional examples of the ways in which the interstate commerce requirement could be satisfied, i.e., if waters are or would be used as habitat by certain migratory birds, are or would be used as habitat by endangered species, or are used to irrigate crops sold in interstate commerce. (With respect to the latter, as explained below, if such irrigation waters are man-made waterways, they are outside the scope of today's rulemaking, even if waters of the United States, because they are not addressed by the state's excluded waters provision but rather protected under a different state provision.)

EPA's definition of waters of the United States has been in place in substantially its current form for approximately 20 years, and has been upheld and applied by numerous courts. Accordingly, EPA does not understand the commenters to be asking EPA to revise that definition but rather to be seeking a better understanding of the overlap between waters of the United States and the waters which are excluded under Idaho's provision, that is, a better understanding of the waters actually affected by EPA's proposed rule.

An important starting place is the scope of the state's ''private waters'' exclusion. First, that section does not apply to man-made waterways, which are instead addressed by Idaho 16.01.02.101.02, which protects man-made waterways for the uses for which they are developed unless specifically designated in Idaho Sections 110. through 160. for other or additional uses. Hence, man-made waterways are

not affected by EPA's proposal, whether or not they are waters of United States, because they were not part of the private waters exclusion from standards. Second, the Idaho exclusion only applies to waters ''located wholly and entirely upon a person's land.'' In other words, ponds which extend across property lines, or streams which flow across property lines were never excluded from standards under the state provision, and thus are not affected by EPA's proposal.

In short, the waters which might be affected by EPA's proposal are the very limited subset of waters in Idaho which (1) are not man-made waterways, (2) are confined entirely to a particular person's land *and* (3) satisfy the commerce test for isolated waters under the definition of waters of the United States.

Comment: The federal government has no right, or need, to regulate the quality of waters on private land. Regulating downstream waters is sufficient.

Response: Under the commerce clause of the United States Constitution, Congress may regulate activities on private property in order to protect interstate and foreign commerce. The Clean Water Act represents an exercise of that authority.

One of the fundamental principles of the CWA is that water moves in hydrological cycles and that it is necessary to control pollution at the source to fully protect the nation's waters. To exclude all waters on private property from protection and instead to attempt to deal with polluted water after it crosses the property line to public land would be ineffective and contrary to the CWA's principles.

On the other hand, where a waterbody on private land is isolated and has no effect on other waterbodies and does not itself have an interstate commerce nexus, we agree that there is no need to regulate it, and indeed such waters are not encompassed by the definition of waters of the United States nor regulated under today's rule.

Comment: The cold water biota use which EPA proposed for unclassified waters is an inappropriate use for most private waters.

Response: Idaho has since revised its ''unclassified waters'' provision (now denominated ''undesignated waters'') and the revision has been approved by EPA. Therefore, today's final rule does not contain a federal unclassified waters provision. The revised Idaho provision presumes that most waters in the state support cold water biota and primary and secondary recreation beneficial uses. However, the revised provision also provides that during the review of any new or existing activity on an undesignated water, the department may examine all relevant data on beneficial uses and, where the department determines after public notice that uses other than cold water biota and primary or secondary recreation are appropriate, may use the new information in making compliance determinations. Thus, to the extent that any ''private'' waters are waters of the United States, and a regulated person has information indicating that cold water biota is not an appropriate use, he may present information to the state and ask for a determination that another use is more appropriate.

3. Final Rule

The state did not revise this provision to address EPA's concerns and, as discussed above, none of the comments provided a basis for withdrawing EPA's objection or modifying the proposal. Accordingly, EPA is promulgating this provision as proposed to ensure that all waters of the United States are protected by water quality standards.

I. Federal Variances

1. Proposal

The proposed rule authorized the Regional Administrator to grant federal WQS variances when subsequent data showed that the uses that had been promulgated by EPA were unattainable in the near term for a particular pollutant. The proposal explained that EPA has approved states' granting variances from state water quality standards in such circumstances (i.e., where removing a designated use entirely could have alternatively been allowed). EPA expressed the view that it was appropriate to provide a comparable federal process because EPA's use designations relied (at least in part) on a rebuttable presumption that fishable/swimmable uses were attainable. The proposed procedures linked the variance application process to the NPDES permit process for efficiency, and set out the criteria for granting or denying federal variances. See 62 FR 23015 for a more detailed discussion of EPA's proposed variance procedure.

2. Comments

Comment: Variances should be used infrequently and cautiously to avoid undercutting water quality standards.

Response: EPA agrees. Under the proposed and final language, variances may be granted only when there is data demonstrating to the Regional Administrator's satisfaction that the requirements of 40 CFR 131.10(g) are met and that granting the variance will not jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat, in accordance with the Endangered Species Act. In addition, any proposed decision to issue a variance will be subject to public notice and comment. Moreover, the final rule includes use designations for only five segments, and the variance provision only applies to those use designations. These requirements and circumstances should limit the use of variances to appropriate situations.

Comment: To avoid adverse effects on listed species, variances should consider the needs of listed species and should include mitigation plans.

Response: Because the granting of a variance under the procedure in question is a federal action, EPA will consult with the FWS and/or NMFS pursuant to section 7 of the ESA where a proposed variance may affect a listed species. Mitigation measures developed as part of such consultation may be included in the final variances as needed.

Comment: The proposal is too narrow because it makes variances available only to NPDES applicants. Nonpoint sources may also need variances; variances may be needed in the TMDL process.

Response: When first approved of by EPA, variances were conceived of as a mechanism which allowed CWA permits to be written to assure compliance with water quality standards, as required by section 301(b)(1)(C), while providing temporary relief when the uses under the existing standards were not presently attainable. EPA tied the proposal to the NPDES permit process, because that is the only EPA regulatory program which requires compliance with the applicable water quality standards, and therefore the main context in which the need for a such a variance would arise.

The comments concerned with the application of variances to non-point sources seem to be based on an assumption that, without a variance, nonpoint sources unable to meet a federal standard (or TMDL) would be vulnerable to suit or similar enforcement action. However, the CWA does not make water quality standards (or TMDLs) directly enforceable; that is, EPA's enforcement authority under section 309 of the Act and citizen suits under section 505 cannot be used to enjoin or seek penalties from someone simply because they are violating a water quality standard. Rather, enforcement actions are directed against

persons discharging without a permit or failing to comply with a permit or an administrative order.

As mentioned above, the final rule establishes use designations for only five water body segments. None of the comments singled out these segments as ones where a variance would likely be needed for non-NPDES activities. Persons who nonetheless see the need for a variance in non-NPDES contexts, for example, an applicant for a CWA section 404 permit to discharge dredged and fill material who has data indicating that a designated use is unattainable, may of course petition EPA to revise a water quality standard, either by removing a use entirely or by granting a variance.

Comment: Under the proposal, variances may be granted only for standards in paragraphs (a) and (b), that is, beneficial uses for unclassified waters and 53 specific water bodies. Variances should also be available for streams subject to the bull trout temperature criteria.

Response: The bull trout criteria only apply to streams where the best available information shows that bull trout actually spawn, incubate, or rear, in other words, streams where bull trout are an existing use. Variances may not be used to modify such existing uses. However, as discussed in section E. of this preamble, if EPA determines that bull trout are in fact not present in a segment of a listed bull trout stream, the bull trout criteria will not be applied to that segment. In addition, if bull trout are present in a given location, but the data indicates that less stringent temperature criteria would fully protect the bull trout there, paragraph (a)(3) of the final rule provides procedures for a site-specific temperature modification. These procedures are a more appropriate means to provide the relief sought by the commenters.

Comment: A discharger should be allowed to apply for a variance at any time, not just when submitting an NPDES application. The circumstances justifying the variance may not arise, or be apparent, until after the initial NPDES application.

Response: EPA agrees that greater flexibility is appropriate, and is adding language to the rule to allow later applications for variances if the need or factual basis for the variance was not available when the NPDES application was filed. This exception should be used only when necessary. EPA will be in the best position to process the variance and NPDES permit applications expeditiously if they are filed concurrently.

One of the commenter's examples involved the situation where EPA reopens a permit to change permit conditions. This is unlikely to create the need for a variance. Under 40 CFR 122.62, a permit may be reopened to reflect new or revised water quality standards only at the permittee's request, unless there is a specific reopener clause in the permit providing otherwise.

Comment: One commenter asked that the expiration date of a variance be able to extend past the 5 years in the proposal when the permit reflecting it remains in effect.

Response: It is not necessary to extend the term of the variance itself in these circumstances. NPDES permits are issued for terms not to exceed 5 years. However, under the Administrative Procedures Act and 40 CFR 122.7, where a permittee files a timely application for permit renewal, and EPA does not complete its decision by the expiration of the original permit, the original permit continues in effect until a decision is reached. Unless the original permit had contained a schedule of compliance requiring compliance with the underlying standard at some specified time, the original permit would continue to reflect the variance until superseded by the new permit. Whether the new permit would reflect the variance would depend on whether a request for a variance renewal had been granted.

3. Final Rule

For the reasons above, the final variance procedure is essentially the same as the proposal, but modified to allow applications for variances to be filed after NPDES permit applications are filed in certain circumstances. EPA is making this procedural modification because there are circumstances where the need or the factual basis for a variance may not be apparent at the time the NPDES permit application is filed. For example, the final permit may be sufficiently more stringent than the draft permit that the applicant can demonstrate that complying with the final limit would cause substantial and widespread social and economic impact. In addition, a discharger to a stream affected by today's promulgation may have already filed an NPDES renewal application. A discharger with an existing permit will not be subject to permit conditions reflecting today's standards until its permit is renewed (unless the discharger requests that its existing permit be reopened for this purpose); such a discharger will be able to submit any variance request with its application for permit renewal.

J. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is ''significant'' and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this is not a ''significant regulatory action'' under the terms of Executive Order (E.O.) 12866, and is therefore not subject to OMB review. As explained more fully below in section L (Regulatory Flexibility Act), EPA's final rule does not itself establish any requirements directly applicable to regulated entities. In addition, there is significant flexibility and discretion in how the final rule will be implemented within the National Pollutant Discharge Elimination System (NPDES) permit program. While implementation of today's rule may ultimately result in some new or revised permit conditions for some dischargers, EPA's action today does not impose any of these as yet unknown requirements on dischargers. Nonetheless, consistent with the intent of E.O. 12866, EPA has estimated (within the limits of these uncertainties) the possible indirect costs which might ultimately result from this rulemaking. The following is a summary of the regulatory impact analysis (RIA) prepared for this final rule. Further discussion is included in the full RIA, which is included in the docket for this rulemaking.

Under the CWA, costs cannot be a basis for adopting water quality criteria that will not be protective of designated uses. If a range of scientifically defensible criteria that are protective can be identified, however, costs may be considered in selecting a particular criterion within that range. As long as

existing uses are protected, costs may be considered in designating beneficial uses if the incremental controls would cause substantial and widespread social and economic impact on the community such that the uses are not attainable. EPA's regulations also include other factors that may be considered in designating uses (see 40 CFR 131.10(g)).

The designated uses and water quality criteria of today's final rule are not enforceable requirements until separate steps are taken to implement them. Therefore, this final rule does not have an immediate effect on dischargers or the community. Until actions are taken to implement these designated uses and criteria, there will be no economic effect on any dischargers or the community.

In the short time prior to proposal EPA attempted to assess, to the best of its ability, compliance costs for facilities that could eventually be indirectly affected by the designated uses and water quality criteria in the proposed rule. However, EPA was unable to find all of the information necessary to accurately estimate these potential costs. Although the costs were not expected to be significant, EPA developed a methodology to estimate the potential indirect cost impacts on facilities discharging pollutants to waters subject to the numeric water quality criteria and uses established by the proposal.

Following proposal, EPA continued to gather additional data and information on the facilities and waters needed to evaluate use attainability and the costs attributable to the rule. In addition, as discussed in sections C, D, and E, the State of Idaho undertook several actions that significantly reduced the number of waters covered by this rulemaking and, subsequently, the scope of the RIA for today's final rule. EPA also solicited public comment and supporting data on the facilities and waters it intended to evaluate as part of the RIA, and on the methodology it planned to use to estimate costs associated with implementation of the rule. EPA has reviewed the State actions and the comments and data provided by the public as well as the information and data it gathered during the public comment period, and has estimated the potential costs to facilities as an indirect result of attaining numeric water quality criteria and uses in the final rule. EPA has included this information in the record for today's final rulemaking.

1. Use Attainability

As described for the proposal, in order to properly assess the impact of EPA's new use designations in Idaho, EPA performed a preliminary evaluation to determine if fishable/swimmable uses were attainable for all assessed water body stream segments affected by the proposal. For this analysis, EPA extracted chemical-specific data from the EPA Storage and Retrieval Water Quality File (STORET) data base. If EPA found that significant exceedances of water quality criteria (in terms of relative magnitude above the applicable criteria, duration of exceedance above the criteria, and the number and types of pollutants) has occurred, then an upgrade of designated uses may not be appropriate. Based on this preliminary analysis, EPA found periodic exceedances of water quality criteria for several water body stream segments for several specific parameters. However, due to the age of most of the data, and the fact that data for all applicable parameters were not available, EPA could not definitively conclude that a downgrade for any water body stream segment affected by the proposed rule was justified by stream condition. Therefore for purposes of estimating the cost of the proposed rule, EPA conservatively assumed that the new use designation would apply to all affected water bodies. This assumption was considered conservative because if the use of a particular water body could not be attained, then less stringent criteria would apply to the water body and all discharges to the water body (and most likely lower potential costs).

For the proposal, EPA acknowledged that an appropriate evaluation of use attainability should consider physical, biological, and chemical indicators to properly evaluate whether a use can be attained. EPA also requested data and information that would support use attainability analyses for the final rule. EPA received limited data as part of the public comments that could be used to support use attainability analyses for the final rule.

As described in section D, this final rule designates cold water biota protection for five water body segments. Data and information was submitted as part of the public comments for only one of the five water body segments (South Fork Coeur d'Alene). In particular, chemical-specific information was submitted for primarily metal parameters. The information showed that exceedances of applicable EPA aquatic life water quality criteria occur for several metal parameters, and that ambient metal levels in mining areas may be due in part to natural metal levels that occur in mineralized areas (e.g., from natural seeps, etc.). However, EPA believes that elevated levels of metals may also be a result of historical contamination from past mining operations. Notwithstanding, as discussed in section D, these exceedances alone, do not prevent the stream from supporting cold water biota. In addition, none of the commenters specifically contended that a cold water biota use was unattainable on any of the five streams at issue on account of compliance costs. To the extent that the commenters did raise cost concerns, as shown below, EPA's cost methodology indicates that the costs (which are not direct costs in any event) would be significantly less than predicted by many of the commenters.

EPA has considered this data in its evaluation of the potential impact of this rulemaking to dischargers. As described in section K.2 below, EPA estimated a range of costs to account for the flexibility and discretion related to implementing water quality standards within the NPDES permit program. Particularly under the low-end, EPA assumed that dischargers would take advantage of the alternative regulatory approaches available, as opposed to installing costly controls to meet permit limits. It is under this low-end scenario that EPA acknowledged that background data exceeded water quality criteria, and assumed that dischargers would only incur costs related to pursuing an alternative regulatory approach (e.g., site-specific criteria). However, if these alternative regulatory approaches were not pursued or were not successful (e.g., data to produce site-specific criteria did not result in less stringent criteria), EPA estimated the costs under a high-end scenario. As such, the high-end scenario is considered a worst-case scenario because all facilities with effluent quality expected to exceed their permit limits would require installation and operation of additional control measures with no possible opportunity to reduce costs using alternative regulatory approaches allowed for under the national water quality standards and NPDES permit programs.

2. Overview of Methodology to Estimate Potential Costs Related to New Use Designations

In general, the approach to deriving costs for the final rule is the same as the approach described for the proposal. However, due to the reduced scope of the final rule, as compared to the proposal, all NPDES permitted dischargers to the five water body segments were evaluated for potential costs.

As described in the proposal, the new use designations being proposed by EPA, by themselves, will have no impact or effect. However, when the water quality criteria to protect these

uses are applied to dischargers through the NPDES permit program, then costs may be incurred by regulated entities (i.e., point source dischargers) but these costs can vary significantly because of the wide range of control strategies available to dischargers. Since EPA, as the NPDES permitting authority, also has significant flexibility and discretion in how it chooses to implement water quality criteria, analysis of potential costs would be difficult to perform for all potentially affected entities, especially within the time-frame to promulgate this rule. As a result, EPA estimated the potential costs attributable to the final rule by developing a range of detailed cost estimates for all NPDES permitted point source dischargers that discharge to the five water body segments.

The actual impact of the final rule will depend upon how the NPDES permit is developed and on which control strategy the discharger selects in order to bring the facility into compliance. In writing NPDES permits EPA determines the need for water quality-based effluent limits (WQBELs) and, if WQBELs are required, derive WQBELs from applicable water quality criteria. The implementation procedures used to derive WQBELs for this analysis were based on the methods recommended in the EPA *Technical Support Document for Water Quality-based Toxics Control* (or TSD) (EPA/505/2–90–001; March 1991). Specifically, a projected effluent quality (PEQ) was calculated. A PEQ is considered an effluent value statistically adjusted for uncertainty to estimate a maximum value that may occur. The PEQ for each selected pollutant was compared to the projected WQBEL. If the PEQ exceeded the projected WQBEL, a reasonable potential existed to exceed the WQBEL. Pollutants with a reasonable potential to exceed then were analyzed to determine potential costs to achieve the projected WQBEL.

Prior to estimating compliance costs, an engineering analysis of how each sample facility could comply with the projected WQBEL was performed. The costs were then estimated based on the decisions and assumptions made in the analysis. To ensure consistency and reasonableness in estimating the general types of controls that would be necessary for a facility to comply with the final rule (assuming that implementation of the rule resulted in more stringent requirements), as well as to integrate into the cost analysis the other alternatives available to regulated facilities, a costing decision matrix, described in more detail in the proposed rule, was used for each sample facility. Specific rules were established in the matrix to provide the reviewing engineers with guidance in consistently selecting control options.

Since dischargers can request a variety of regulatory alternative approaches available within the national water quality standards and NPDES permit programs (e.g., site-specific criteria, variances, compliance schedules, etc.), EPA also developed a low-end cost estimate assuming that these regulatory alternatives would be used to reduce costs under certain conditions. In particular, when the estimated costs to comply with WQBELs, based on new use designations, exceeded a cost-effectiveness trigger, then it was assumed that the discharger would pursue a regulatory alternative option. The triggering methodology used for this analysis was modeled after other regulatory impact analyses prepared by EPA for other water quality standards rulemakings.

Finally, for the five stream segments with specific use designation, once a cost range was established for the facilities EPA conducted a preliminary analysis of whether or not these uses are attainable. To make this determination EPA evaluated limited biological and chemical information on the five stream segments, the magnitude of the implementation costs on the individual facilities and the economic strength of the facilities that may incur costs as a result of today's rule.

3. Results for Stream Segments With Specific Use Designation

EPA identified 12 facilities that possess NPDES permits to discharge to the five water body segments affected by the final rule. To estimate costs for each facility, EPA obtained data from NPDES permit files (permit application, permit, fact sheet or statement of basis), downloaded effluent monitoring data from EPA's Permit Compliance System (PCS), and extracted ambient background data from EPA's STORET system.

For each facility, EPA performed an evaluation of reasonable potential to exceed water quality-based effluent limits (WQBELs) based on applicable water quality criteria to protect new use designations (i.e., cold water biota protection). EPA considered any pollutant for which water quality criteria existed and for which data were available. EPA assumed that reasonable potential existed if a permit limit for the pollutant of concern was included in the existing permit for the sample facility. In the absence of a permit limit, but where monitoring data were available, EPA evaluated reasonable potential based on the monitoring data and the procedures contained in the TSD (EPA 505/2–90–001; March 1991).

To calculate WQBELs, EPA used the TSD procedures to derive maximum daily and monthly average limits. Background concentrations were based on the average of data contained in STORET for upstream monitoring stations (including nearby tributaries); in the absence of background data, EPA assumed zero. Critical low flows were calculated from data contained in the United States Geological Survey (USGS) Daily Flow file data base for nearby gage stations; the 1-day, 10-year low flow (1Q10) was used for acute aquatic life protection and the 7-day, 10-year low flow (7Q10) was used for chronic aquatic life protection. In the absence of stream flow data, EPA conservatively assumed zero low flow.

Once WQBELs were derived, EPA derived cost estimates that represent the cost to remove the incremental amount of pollutant(s) to levels needed to comply with WQBELs (based on the existing effluent limit or reported effluent quality in the absence of a limit). This assessment was based on an evaluation of the performance of existing treatment system units, as well as consideration of other possible control options (e.g., waste minimization, additional new treatment units).

Based on evaluation of the facilities that may be impacted, EPA estimates that the total potential cost resulting from new designation for the five water body segments will range from $1.2 million to $10.5 million. Under the low-end, the costs for individual facilities ranged from $0 (i.e., no projected impact) to just over $640,000. Under the low-end, 3 facilities were assumed to pursue alternative regulatory approaches. Under the high-end, the costs for individual facilities ranged from $0 (i.e., no projected impact) to $5,700,000. Under the high-end, no facilities were assumed to pursue alternative regulatory approaches.

The total baseline pollutant load for the 12 facilities is just over 71,000 toxic pound-equivalents per year (pollutant toxic weights were derived using the EPA criterion for copper, 5.6 micrograms per liter, as the standardization factor). The pollutant load reduction under the low-end scenario is 21 percent or 14,800 toxic pound-equivalents per year. Cadmium, lead, and mercury account for 87 percent of the total pollutant load reduction under the low-end. Under the high-end scenario, the pollutant load reduction is 98 percent or 70,200 toxic

pound-equivalents per year. Lead, mercury, and silver account for over 80 percent of the total pollutant load reduction under this scenario.

Under the low-end scenario, capital and operation and maintenance (O&M) costs accounted for over 66 percent of the annual costs; costs for pursuing regulatory alternatives accounted for just under 34 percent of the total annual costs. Consistent with the intent of the high-end scenario, capital and O&M costs account for 100 percent of the total annual costs. Under the low- and high-end scenarios, cadmium, lead, and zinc accounted for approximately 74 and 69 percent of the total annual costs, respectively.

While EPA was only able to gather limited economic information on the affected facilities in the time allowed by the Court for this rulemaking, this information and EPA's regulatory impact analysis did not support a finding that the uses in today's rule are not attainable. EPA's analysis indicated that under the high-end scenario one facility could potentially incur relatively higher costs when compared to the other 11 facilities subject to today's rule. However, EPA could not conclude based on the information in the record that those costs would result in widespread social and economic impact because the facility is an abandoned mining operation designated as a Superfund site with ongoing remediation. Should such information become available for any of the facilities, the Agency could consider this information under the variance provision in today's rule.

4. Overview of Approach to Estimate Potential Costs Related to New Temperature Criteria

EPA received many comments related to EPA's proposed temperature criteria to protect certain threatened and endangered species (Kootenai River white sturgeon, freshwater aquatic snails, and bull trout). As described in section E, as a result of these comments and associated State actions, this final rule includes new temperature criteria only for the protection of bull trout in a limited number of water body segments (see § 131.33(a) of the final rule).

Although the number of water body segments that are affected by EPA's new temperature criteria in the final rule has been reduced from the proposal, certain facilities may still be impacted by the final rule. Therefore, EPA assessed the potential costs to comply with the new temperature criteria for bull trout.

EPA's approach to estimate costs included three steps. First, ambient temperature data was collected for each water body segment impacted by the new temperature criteria and compared to the criteria contained in § 131.33(a). Due to the fact that many of the water body segments are small tributaries in the headwater areas of the water body, limited ambient data existed. In the absence of ambient data for a particular water body, then temperature data for other water bodies within the hydrologic basin were used as a surrogate.

For any water body that had background ambient temperatures below the new temperature criteria, EPA identified NPDES permitted dischargers on those segments and evaluated the reasonable potential for the discharge to cause an exceedance in the downstream temperature. If a reasonable potential to exceed was determined, then costs were estimated to install controls that would reduce discharge temperatures.

Although EPA is projecting the potential costs to point sources, EPA also received several comments related to the potential large economic impact that could occur as a result of the new temperature criteria, particularly for the agricultural and forestry segments of the Idaho economy. As described earlier, the scope of the new temperature criteria has resulted in a limited number of water body segments for which revised temperature criteria are required. However, EPA has only estimated costs to point source facilities that are subject to numeric WQBELs included in NPDES permits. The point sources included in this study only include those that discharge to waters within the State designated for protection of bull trout. Under the CWA, EPA has direct authority regarding permits issued under the NPDES. EPA did not calculate costs for any program for which it does not have enforceable authority, such as agricultural and forestry-related nonpoint sources.

Further, agricultural and forestry-related nonpoint source discharges are technically difficult to model and evaluate for costing purposes because they are intermittent, highly variable, and occur under different hydrologic or climatic conditions than continuous discharges from industrial and municipal facilities, which are evaluated under critical low flow or drought conditions. Thus, the evaluation of agricultural and forestry-related nonpoint source discharges and their effects on the environment are highly site-specific and data intensive.

EPA predicted how the final temperature criteria for bull trout protection may be implemented by the State through numeric effluent limits for NPDES facilities and attempted to predict the actions these facilities may need to take in order to comply with effluent limits based on the new criteria. EPA envisions that some of these costs may involve efforts to defer new effluent limits until studies are undertaken to allocate temperature reductions throughout a watershed and, where appropriate, EPA has included the costs of these studies in the analysis. Although EPA has focused on calculating costs to individual NPDES permitted facilities, EPA believes that a comprehensive watershed approach that addresses all significant sources of high temperature discharges will often present more cost-effective approaches. EPA and the State may ask or require these sources to implement best management practices or participate in a comprehensive watershed management planning approach.

5. Results for Stream Segments With New Temperature Criteria

There are 1877 water body segments for which EPA has established new temperature criteria for the protection of bull trout. Based on data contained in PCS, EPA estimates that there are 37 NPDES permitted facilities located on these 1877 water body segments. Of the 37 NPDES dischargers, eight facilities are classified as a major discharger, and 29 are classified as minor dischargers. The largest categories of dischargers that make up the 37 dischargers are mine sites (15 total; 6 majors and 9 minors), municipal wastewater treatment plants (9 total; 1 major and 8 minors), and fish hatcheries (6 total; 1 major and 5 minors).

Of the 37 NPDES facilities, three facilities (1 major mine, 1 major municipal wastewater treatment plant, and 1 minor municipal wastewater treatment plant) contained permit limits for temperature discharges. Evaluation of these three facilities was conducted using water quality data from STORET, three USGS data sets not contained in STORET, and PCS monitoring data. The USGS data sets included the National Water Quality Assessment (NAWQA), the National Water Quality Networks (NQN), and a specific data request made to the Idaho USGS for continuously monitored temperature. The Hydrological Unit Code (HUC) for each of the three sample facilities (determined from PCS) was used to gather data from STORET and the USGS data sets. Flow and temperature data were not found for any monitoring stations in STORET for the three HUCs. The three USGS data sets contained no monitoring stations in the HUC that corresponded to each of the facilities.

Because of the lack of ambient temperature and flow data for streams, data for flow was complied using USGS gauging stations.

As discussed in proposal for this rule, an accurate evaluation of the need for and cost for temperature controls requires extensive data for both ambient conditions (air and water) and the effluent discharge. Since the specific data was not readily available for the final rule analysis for any of the sample facilities, the following discussion describes the potential range of costs that could result from implementation of the final temperature criteria for protection of bull trout.

If it is assumed that each of 37 facilities were to pursue alternative regulatory approaches to comply with the temperature criteria, the total annual costs are estimated to be just over $1 million. Alternative regulatory relief would be considered feasible for a facility should ambient receiving water conditions indicate that criteria can not be achieved (e.g., habitat unsuitable for bull trout, natural background temperatures higher than criteria, etc.). In fact, EPA evaluated the limited background ambient temperature data that were available and found that some waters (based on limited, historical data) may naturally exceed the temperature to protect bull trout. Under these circumstances, a facility could pursue alternatives such as the derivation of a site-specific criterion. The cost for a facility to pursue regulatory alternatives was based on those used in the Regulatory Impact Analysis prepared for the final Great Lakes Water Quality Guidance.

Alternatively, if it is assumed that each of the 37 facilities were to conservatively incur costs to install and operate temperature control equipment, the total annual costs are estimated to be just under $9 million per year. This high-end cost estimate is based upon the installation and operation of cooling towers at each facility. This assumption is considered a worst-case scenario for several reasons. First, not all types of facilities produce wastewater with elevated temperatures that would require reduction (e.g., fish hatcheries, mining sites that do not include milling operations that require cooling waters, and minor municipal dischargers). Second, since many of the facilities that discharge to bull trout protection streams are classified as minor dischargers, they are not expected to discharge wastewater at a volume or at a temperature that would effect the receiving water quality. Finally, the incremental decrease in temperatures would be expected to relatively small for most discharges, with the possible exception of cooling water discharges. As such, the use of cooling towers for all discharges is unrealistic and most likely not cost efficient (i.e., there are other relatively simple and inexpensive practices such as cooling ponds that could be used in place of cooling towers to adequately reduce temperatures). Therefore, EPA believes that the total annual costs to comply with the temperature criteria in today's final rule will be at the lower end of the cost range.

K. Regulatory Flexibility Act as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996

The Regulatory Flexibility Act (RFA) provides that, whenever an agency publishes a rule under 5 U.S.C. 553, after being required to publish a general notice of proposed rulemaking, an agency must prepare a regulatory flexibility analysis unless the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. 5 U.S.C. 604 and 605. The Administrator is today certifying, pursuant to section 605(b) of the RFA, that this final rule will not have a significant impact on a substantial number of small entities. Therefore, the Agency did not prepare a regulatory flexibility analysis.

Under the CWA water quality standards program, States must adopt water quality standards for their waters that must be submitted to EPA for approval. If the Agency disapproves a State standard, EPA must promulgate standards consistent with the statutory requirements. These State standards (or EPA-promulgated standards) are implemented through the NPDES program that limits discharges to navigable waters except in compliance with an EPA permit or permit issued under an approved State program. The CWA requires that all NPDES permits must include any limits on discharges that are necessary to meet State water quality standards.

Thus under the CWA, EPA's promulgation of water quality standards where State standards are inconsistent with statutory requirements establishes standards that are implemented through the NPDES permit process by authorized States, or, in the absence of an approved State NPDES program, by EPA. EPA implements the NPDES program in Idaho. EPA and authorized States have discretion in deciding how to meet the water quality standards and in developing discharge limits as needed to meet the standards. While State or EPA implementation of federally-promulgated water quality standards *may* result in new or revised discharge limits being placed on small entities, the standards themselves do not apply to any discharger, including small entities.

Today's final rule imposes obligations on EPA but, as explained above, does not itself establish any requirements that are applicable to small entities. As a result of this action, EPA will need to ensure that permits issued in the State of Idaho include any limitations on discharges necessary to comply with the standards in the final rule. EPA and the State have a number of discretionary choices associated with permit writing and total maximum daily load (TMDL) calculations and waste load allocations (WLAs) which can affect the burden felt by any small entity as a result of EPA action to implement the final rule. While implementation of the final rule may ultimately result in some new or revised permit conditions for some dischargers, including small entities, EPA's action today does not impose any of these as yet unknown requirements on small entities.

The RFA requires analysis of the impacts of a rule on the small entities *subject to the rules' requirements.* See *United States Distribution Companies* v. *FERC,* 88 F.3d 1105, 1170 (D.C. Cir. 1996). Today's final rule establishes no requirements applicable to small entities, and so is not susceptible to regulatory flexibility analysis as prescribed by the RFA. (''[N]o analysis is necessary when an agency determines that the rule will not have a significant economic impact on a substantial number of small entities *that are subject to the requirements of the rule,*'' *United Distribution* at 1170, quoting *Mid-Thaws Elec. Co-op* v. *FERC,* 773 F.2d 327, 342 (D.C. Cir. 1985) (emphasis added by *United Distribution* court).) The Agency is thus certifying that today's final rule will not have a significant economic impact on a substantial number of small entities, within the meaning of the RFA.

L. Submission to Congress and the General Accounting Office

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's **Federal Register**. This rule is not a major rule as defined by 5 U.S.C. 804(2).

M. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written Statement, including a cost-benefit analysis, for proposed and final rules with ''Federal Mandates'' that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written Statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the rule an explanation why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of the affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

As noted above, this final rule is limited to water quality standards for a limited number of waters within the State of Idaho. EPA believes that today's final rule contains no regulatory requirements that might significantly or uniquely affect small governments. EPA also believes that this final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any one year. Thus, today's final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

N. Paperwork Reduction Act

Today's rulemaking imposes no new or additional information collection activities subject to the Paperwork Reduction Act (44 U.S.C. 3501 et seq.). Therefore, no Information Collection request will be submitted to the Office of Management and Budget for review in compliance with the Paperwork Reduction Act.

List of Subjects in 40 CFR Part 131

Environmental protection, Indians—lands, Intergovernmental relations, Water pollution control, Water quality standards.

Dated: July 21, 1997.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, 40 CFR part 131 is amended as follows:

PART 131—WATER QUALITY STANDARDS

1. The authority citation for part 131 continues to read as follows:

Authority: 33 U.S.C. 1251 *et seq.*

Subpart D—[Amended]

2. Section 131.33 is added to read as follows:

§ 131.33 Idaho.

(a) *Temperature criteria for bull trout.* (1) Except for those streams or portions of streams located in Indian country, or as may be modified by the Regional Administrator, EPA Region X, pursuant to paragraph (a)(3) of this section, a temperature criterion of 10 °C, expressed as an average of daily maximum temperatures over a seven-day period, applies to the waterbodies identified in paragraph (a)(2) of this section during the months of June, July, August and September.

(2) The following waters are protected for bull trout spawning and rearing:

(i) BOISE-MORE BASIN: Devils Creek, East Fork Sheep Creek, Sheep Creek.

(ii) BROWNLEE RESERVOIR BASIN: Crooked River, Indian Creek.

(iii) CLEARWATER BASIN: Big Canyon Creek, Cougar Creek, Feather Creek, Laguna Creek, Lolo Creek, Orofino Creek, Talapus Creek, West Fork Potlatch River.

(iv) COEUR D'ALENE LAKE BASIN: Cougar Creek, Fernan Creek, Kid Creek, Mica Creek, South Fork Mica Creek, Squaw Creek, Turner Creek.

(v) HELLS CANYON BASIN: Dry Creek, East Fork Sheep Creek, Getta Creek, Granite Creek, Kurry Creek, Little Granite Creek, Sheep Creek.

(vi) LEMHI BASIN: Adams Creek, Alder Creek, Basin Creek, Bear Valley Creek, Big Eightmile Creek, Big Springs Creek, Big Timber Creek, Bray Creek, Bull Creek, Cabin Creek, Canyon Creek, Carol Creek, Chamberlain Creek, Clear Creek, Climb Creek, Cooper Creek, Dairy Creek, Deer Creek, Deer Park Creek, East Fork Hayden Creek, Eighteenmile Creek, Falls Creek, Ferry Creek, Ford Creek, Geertson Creek, Grove Creek, Hawley Creek, Hayden Creek, Kadletz Creek, Kenney Creek, Kirtley Creek, Lake Creek, Lee Creek, Lemhi River (above Big Eightmile Creek), Little Eightmile Creek, Little Mill Creek, Little Timber Creek, Middle Fork Little Timber Creek, Milk Creek, Mill Creek, Mogg Creek, North Fork Kirtley Creek, North Fork Little Timber Creek, Paradise Creek, Patterson Creek, Payne Creek, Poison Creek, Prospect Creek, Rocky Creek, Short Creek, Squaw Creek, Squirrel Creek, Tobias Creek, Trail Creek, West Fork Hayden Creek, Wright Creek.

(vii) LITTLE LOST BASIN: Badger Creek, Barney Creek, Bear Canyon, Bear Creek, Bell Mountain Creek, Big Creek, Bird Canyon, Black Creek, Buck Canyon, Bull Creek, Cedar Run Creek, Chicken Creek, Coal Creek, Corral Creek, Deep Creek, Dry Creek, Dry Creek Canal, Firbox Creek, Garfield Creek, Hawley Canyon, Hawley Creek, Horse Creek, Horse Lake Creek, Iron Creek, Jackson Creek, Little Lost River (above Badger Creek), Mahogany Creek, Main Fork Sawmill Creek, Massacre Creek, Meadow Creek, Mill Creek, Moffett Creek, Moonshine Creek, Quigley Creek, Red Rock Creek, Sands Creek, Sawmill Creek, Slide Creek, Smithie Fork, Squaw Creek, Summerhouse Canyon, Summit Creek, Timber Creek, Warm Creek, Wet Creek, Williams Creek.

(viii) LITTLE SALMON BASIN: Bascum Canyon, Boulder Creek, Brown Creek, Campbell Ditch, Castle Creek, Copper Creek, Granite Fork Lake Fork Rapid River, Hard Creek, Hazard Creek, Lake Fork Rapid River, Little Salmon River (above Hazard Creek), Paradise Creek, Pony Creek, Rapid River, Squirrel Creek, Trail Creek, West Fork Rapid River.

(ix) LOCHSA BASIN: Apgar Creek, Badger Creek, Bald Mountain Creek, Beaver Creek, Big Flat Creek, Big Stew Creek, Boulder Creek, Brushy Fork, Cabin Creek, Castle Creek, Chain Creek, Cliff Creek, Coolwater Creek, Cooperation Creek, Crab Creek, Crooked Fork Lochsa River, Dan Creek, Deadman Creek, Doe Creek, Dutch Creek, Eagle Creek, East Fork Papoose Creek, East Fork Split Creek, East Fork Squaw Creek, Eel Creek, Fern Creek, Fire Creek, Fish Creek, Fish Lake Creek, Fox Creek, Gass Creek, Gold Creek, Ham Creek,

Handy Creek, Hard Creek, Haskell Creek, Heather Creek, Hellgate Creek, Holly Creek, Hopeful Creek, Hungery Creek, Indian Grave Creek, Jay Creek, Kerr Creek, Kube Creek, Lochsa River, Lone Knob Creek, Lottie Creek, Macaroni Creek, Maud Creek, Middle Fork Clearwater River, No-see-um Creek, North Fork Spruce Creek, North Fork Storm Creek, Nut Creek, Otter Slide Creek, Pack Creek, Papoose Creek, Parachute Creek, Pass Creek, Pedro Creek, Pell Creek, Pete King Creek, Placer Creek, Polar Creek, Postoffice Creek, Queen Creek, Robin Creek, Rock Creek, Rye Patch Creek, Sardine Creek, Shoot Creek, Shotgun Creek, Skookum Creek, Snowshoe Creek, South Fork Spruce Creek, South Fork Storm Creek, Split Creek, Sponge Creek, Spring Creek, Spruce Creek, Squaw Creek, Storm Creek, Tick Creek, Tomcat Creek, Tumble Creek, Twin Creek, Wag Creek, Walde Creek, Walton Creek, Warm Springs Creek, Weir Creek, Wendover Creek, West Fork Boulder Creek, West Fork Papoose Creek, West Fork Squaw Creek, West Fork Wendover Creek, White Sands Creek, Willow Creek.

(x) LOWER CLARK FORK BASIN: Cascade Creek, East Fork, East Fork Creek, East Forkast Fork Creek, Gold Creek, Johnson Creek, Lightning Creek, Mosquito Creek, Porcupine Creek, Rattle Creek, Spring Creek, Twin Creek, Wellington Creek.

(xi) LOWER KOOTENAI BASIN: Ball Creek, Boundary Creek, Brush Creek, Cabin Creek, Caribou Creek, Cascade Creek, Cooks Creek, Cow Creek, Curley Creek, Deep Creek, Grass Creek, Jim Creek, Lime Creek, Long Canyon Creek, Mack Creek, Mission Creek, Myrtle Creek, Peak Creek, Snow Creek, Trout Creek.

(xii) LOWER MIDDLE FORK SALMON BASIN: Acorn Creek, Alpine Creek, Anvil Creek, Arrastra Creek, Bar Creek, Beagle Creek, Beaver Creek, Belvidere Creek, Big Creek, Birdseye Creek, Boulder Creek, Brush Creek, Buck Creek, Bull Creek, Cabin Creek, Camas Creek, Canyon Creek, Castle Creek, Clark Creek, Coin Creek, Corner Creek, Coxey Creek, Crooked Creek, Doe Creek, Duck Creek, East Fork Holy Terror Creek, Fawn Creek, Flume Creek, Fly Creek, Forge Creek, Furnace Creek, Garden Creek, Government Creek, Grouse Creek, Hammer Creek, Hand Creek, Holy Terror Creek, J Fell Creek, Jacobs Ladder Creek, Lewis Creek, Liberty Creek, Lick Creek, Lime Creek, Little Jacket Creek, Little Marble Creek, Little White Goat Creek, Little Woodtick Creek, Logan Creek, Lookout Creek, Loon Creek, Martindale Creek, Meadow Creek, Middle Fork Smith Creek, Monumental Creek, Moore Creek, Mulligan Creek, North Fork Smith Creek, Norton Creek, Placer Creek, Pole Creek, Rams Creek, Range Creek, Routson Creek, Rush Creek, Sawlog Creek, Sheep Creek, Sheldon Creek, Shellrock Creek, Ship Island Creek, Shovel Creek, Silver Creek, Smith Creek, Snowslide Creek, Soldier Creek, South Fork Camas Creek, South Fork Chamberlain Creek, South Fork Holy Terror Creek, South Fork Norton Creek, South Fork Rush Creek, South Fork Sheep Creek, Spider Creek, Spletts Creek, Telephone Creek, Trail Creek, Two Point Creek, West Fork Beaver Creek, West Fork Camas Creek, West Fork Monumental Creek, West Fork Rush Creek, White Goat Creek, Wilson Creek.

(xiii) LOWER NORTH FORK CLEARWATER BASIN: Adair Creek, Badger Creek, Bathtub Creek, Beaver Creek, Black Creek, Brush Creek, Buck Creek, Butte Creek, Canyon Creek, Caribou Creek, Crimper Creek, Dip Creek, Dog Creek, Elmer Creek, Falls Creek, Fern Creek, Goat Creek, Isabella Creek, John Creek, Jug Creek, Jungle Creek, Lightning Creek, Little Lost Lake Creek, Little North Fork Clearwater River, Lost Lake Creek, Lund Creek, Montana Creek, Mowitch Creek, Papoose Creek, Pitchfork Creek, Rocky Run, Rutledge Creek, Spotted Louis Creek, Triple Creek, Twin Creek, West Fork Montana Creek, Willow Creek.

(xiv) LOWER SALMON BASIN: Bear Gulch, Berg Creek, East Fork John Day Creek, Elkhorn Creek, Fiddle Creek, French Creek, Hurley Creek, John Day Creek, Kelly Creek, Klip Creek, Lake Creek, Little Slate Creek, Little Van Buren Creek, No Business Creek, North Creek, North Fork Slate Creek, North Fork White Bird Creek, Partridge Creek, Slate Creek, Slide Creek, South Fork John Day Creek, South Fork White Bird Creek, Warm Springs Creek.

(xv) LOWER SELWAY BASIN: Anderson Creek, Bailey Creek, Browns Spring Creek, Buck Lake Creek, Butte Creek, Butter Creek, Cabin Creek, Cedar Creek, Chain Creek, Chute Creek, Dent Creek, Disgrace Creek, Double Creek, East Fork Meadow Creek, East Fork Moose Creek, Elbow Creek, Fivemile Creek, Fourmile Creek, Gate Creek, Gedney Creek, Goddard Creek, Horse Creek, Indian Hill Creek, Little Boulder Creek, Little Schwar Creek, Matteson Creek, Meadow Creek, Monument Creek, Moose Creek, Moss Creek, Newsome Creek, North Fork Moose Creek, Rhoda Creek, Saddle Creek, Schwar Creek, Shake Creek, Spook Creek, Spur Creek, Tamarack Creek, West Fork Anderson Creek, West Fork Gedney Creek, West Moose Creek, Wounded Doe Creek.

(xvi) MIDDLE FORK CLEARWATER BASIN: Baldy Creek, Big Cedar Creek, Browns Spring Creek, Clear Creek, Middle Fork Clear Creek, Pine Knob Creek, South Fork Clear Creek.

(xvii) MIDDLE FORK PAYETTE BASIN: Bull Creek, Middle Fork Payette River (above Fool Creek), Oxtail Creek, Silver Creek, Sixteen-to-one Creek.

(xviii) MIDDLE SALMON-CHAMBERLAIN BASIN: Arrow Creek, Bargamin Creek, Bat Creek, Bay Creek, Bear Creek, Bend Creek, Big Elkhorn Creek, Big Harrington Creek, Big Mallard Creek, Big Squaw Creek, Bleak Creek, Bronco Creek, Broomtail Creek, Brown Creek, Cayuse Creek, Center Creek, Chamberlain Creek, Cliff Creek, Colt Creek, Corn Creek, Crooked Creek, Deer Creek, Dennis Creek, Disappointment Creek, Dismal Creek, Dog Creek, East Fork Fall Creek, East Fork Horse Creek, East Fork Noble Creek, Fall Creek, Filly Creek, Fish Creek, Flossie Creek, Game Creek, Gap Creek, Ginger Creek, Green Creek, Grouse Creek, Guard Creek, Hamilton Creek, Horse Creek, Hot Springs Creek, Hotzel Creek, Hungry Creek, Iodine Creek, Jack Creek, Jersey Creek, Kitchen Creek, Lake Creek, Little Horse Creek, Little Lodgepole Creek, Little Mallard Creek, Lodgepole Creek, Mayflower Creek, McCalla Creek, Meadow Creek, Moose Creek, Moose Jaw Creek, Mule Creek, Mustang Creek, No Name Creek, Owl Creek, Poet Creek, Pole Creek, Porcupine Creek, Prospector Creek, Pup Creek, Queen Creek, Rainey Creek, Ranch Creek, Rattlesnake Creek, Red Top Creek, Reynolds Creek, Rim Creek, Ring Creek, Rock Creek, Root Creek, Runaway Creek, Sabe Creek, Saddle Creek, Salt Creek, Schissler Creek, Sheep Creek, Short Creek, Shovel Creek, Skull Creek, Slaughter Creek, Slide Creek, South Fork Cottonwood Creek, South Fork Chamberlain Creek, South Fork Kitchen Creek, South Fork Salmon River, Spread Creek, Spring Creek, Starvation Creek, Steamboat Creek, Steep Creek, Stud Creek, Warren Creek, Webfoot Creek, West Fork Chamberlain Creek, West Fork Rattlesnake Creek, West Horse Creek, Whimstick Creek, Wind River, Woods Fork Horse Creek.

(xix) MIDDLE SALMON-PANTHER BASIN: Allen Creek, Arnett Creek, Beaver Creek, Big Deer Creek, Blackbird Creek, Boulder Creek, Cabin Creek, Camp Creek, Carmen Creek, Clear Creek, Colson Creek, Copper Creek, Corral Creek, Cougar Creek, Cow Creek, Deadhorse Creek, Deep Creek, East Boulder Creek, Elkhorn Creek, Fawn Creek, Fourth Of July Creek, Freeman Creek, Homet Creek, Hughes Creek, Hull Creek, Indian Creek, Iron Creek, Jackass Creek, Jefferson Creek, Jesse Creek, Lake

Creek, Little Deep Creek, Little Hat Creek, Little Sheep Creek, McConn Creek, McKim Creek, Mink Creek, Moccasin Creek, Moose Creek, Moyer Creek, Musgrove Creek, Napias Creek, North Fork Hughes Creek, North Fork Iron Creek, North Fork Salmon River, North Fork Williams Creek, Opal Creek, Otter Creek, Owl Creek, Panther Creek, Park Creek, Phelan Creek, Pine Creek, Pony Creek, Porphyry Creek, Pruvan Creek, Rabbit Creek, Rancherio Creek, Rapps Creek, Salt Creek, Salzer Creek, Saw Pit Creek, Sharkey Creek, Sheep Creek, South Fork Cabin Creek, South Fork Iron Creek, South Fork Moyer Creek, South Fork Phelan Creek, South Fork Sheep Creek, South Fork Williams Creek, Spring Creek, Squaw Creek, Trail Creek, Twelvemile Creek, Twin Creek, Weasel Creek, West Fork Blackbird Creek, West Fork Iron Creek, Williams Creek, Woodtick Creek.

(xx) MOYIE BASIN: Brass Creek, Bussard Creek, Copper Creek, Deer Creek, Faro Creek, Keno Creek, Kreist Creek, Line Creek, McDougal Creek, Mill Creek, Moyie River (above Skin Creek), Placer Creek, Rutledge Creek, Skin Creek, Spruce Creek, West Branch Deer Creek.

(xxi) NORTH AND MIDDLE FORK BOISE BASIN: Abby Creek, Arrastra Creek, Bald Mountain Creek, Ballentyne Creek, Banner Creek, Bayhouse Creek, Bear Creek, Bear River, Big Gulch, Big Silver Creek, Billy Creek, Blackwarrior Creek, Bow Creek, Browns Creek, Buck Creek, Cabin Creek, Cahhah Creek, Camp Gulch, China Fork, Coma Creek, Corbus Creek, Cow Creek, Crooked River, Cub Creek, Decker Creek, Dutch Creek, Dutch Frank Creek, East Fork Roaring River, East Fork Swanholm Creek, East Fork Yuba River, Flint Creek, Flytrip Creek, Gotch Creek, Graham Creek, Granite Creek, Grays Creek, Greylock Creek, Grouse Creek, Hot Creek, Hungarian Creek, Joe Daley Creek, Johnson Creek, Kid Creek, King Creek, La Mayne Creek, Leggit Creek, Lightening Creek, Little Queens River, Little Silver Creek, Louise Creek, Lynx Creek, Mattingly Creek, McKay Creek, McLeod Creek, McPhearson Creek, Middle Fork Boise River (above Roaring River), Middle Fork Corbus Creek, Middle Fork Roaring River, Mill Creek, Misfire Creek, Montezuma Creek, North Fork Boise River (above Bear River), Phifer Creek, Pikes Fork, Quartz Gulch, Queens River, Rabbit Creek, Right Creek, Roaring River, Robin Creek, Rock Creek, Rockey Creek, Sawmill Creek, Scenic Creek, Scotch Creek, Scott Creek, Shorip Creek, Smith Creek, Snow Creek, Snowslide Creek, South Fork Corbus Creek, South Fork Cub Creek, Spout Creek, Steamboat Creek, Steel Creek, Steppe Creek, Swanholm Creek, Timpa Creek, Trail Creek, Trapper Creek, Tripod Creek, West Fork Creek, West Warrior Creek, Willow Creek, Yuba River.

(xxii) NORTH FORK PAYETTE BASIN: Gold Fork River, North Fork Gold Fork River, Pearsol Creek.

(xxiii) AHSIMEROI BASIN: Baby Creek, Bear Creek, Big Creek, Big Gulch, Burnt Creek, Christian Gulch, Dead Cat Canyon, Ditch Creek, Donkey Creek, Doublespring Creek, Dry Canyon, Dry Gulch, East Fork Burnt Creek, East Fork Morgan Creek, East Fork Pahsimeroi River, East Fork Patterson Creek, Elkhorn Creek, Falls Creek, Goldberg Creek, Hillside Creek, Inyo Creek, Long Creek, Mahogany Creek, Mill Creek, Morgan Creek, Morse Creek, Mulkey Gulch, North Fork Big Creek, North Fork Morgan Creek, Pahsimeroi River (above Big Creek), Patterson Creek, Rock Spring Canyon, Short Creek, Snowslide Creek, South Fork Big Creek, Spring Gulch, Squaw Creek, Stinking Creek, Tater Creek, West Fork Burnt Creek, West Fork North Fork Big Creek.

(xxiv) PAYETTE BASIN: Squaw Creek, Third Fork Squaw Creek.

(xxv) PEND OREILLE LAKE BASIN: Branch North Gold Creek, Cheer Creek, Chloride Gulch, Dry Gulch, Dyree Creek, Flume Creek, Gold Creek, Granite Creek, Grouse Creek, Kick Bush Gulch, North Fork Grouse Creek, North Gold Creek, Plank Creek, Rapid Lightning Creek, South Fork Grouse Creek, Strong Creek, Thor Creek, Trestle Creek, West Branch Pack River, West Gold Creek, Wylie Creek, Zuni Creek.

(xxvi) PRIEST BASIN: Abandon Creek, Athol Creek, Bath Creek, Bear Creek, Bench Creek, Blacktail Creek, Bog Creek, Boulder Creek, Bugle Creek, Canyon Creek, Caribou Creek, Cedar Creek, Chicopee Creek, Deadman Creek, East Fork Trapper Creek, East River, Fedar Creek, Floss Creek, Gold Creek, Granite Creek, Horton Creek, Hughes Fork, Indian Creek, Jackson Creek, Jost Creek, Kalispell Creek, Kent Creek, Keokee Creek, Lime Creek, Lion Creek, Lost Creek, Lucky Creek, Malcom Creek, Middle Fork East River, Muskegon Creek, North Fork Granite Creek, North Fork Indian Creek, Packer Creek, Rock Creek, Ruby Creek, South Fork Granite Creek, South Fork Indian Creek, South Fork Lion Creek, Squaw Creek, Tango Creek, Tarlac Creek, The Thorofare, Trapper Creek, Two Mouth Creek, Uleda Creek, Priest R. (above Priest Lake), Zero Creek.

(xxvii) SOUTH FORK BOISE BASIN: Badger Creek, Bear Creek, Bear Gulch, Big Smoky Creek, Big Water Gulch, Boardman Creek, Burnt Log Creek, Cayuse Creek, Corral Creek, Cow Creek, Edna Creek, Elk Creek, Emma Creek, Feather River, Fern Gulch, Grape Creek, Gunsight Creek, Haypress Creek, Heather Creek, Helen Creek, Johnson Creek, Lincoln Creek, Little Cayuse Creek, Little Rattlesnake Creek, Little Skeleton Creek, Little Smoky Creek, Loggy Creek, Mule Creek, North Fork Ross Fork, Pinto Creek, Rattlesnake Creek, Ross Fork, Russel Gulch, Salt Creek, Shake Creek, Skeleton Creek, Slater Creek, Smokey Dome Canyon, South Fork Ross Fork, Three Forks Creek, Tipton Creek, Vienna Creek, Weeks Gulch, West Fork Big Smoky Creek, West Fork Salt Creek, West Fork Skeleton Creek, Willow Creek.

(xxviii) SOUTH FORK CLEARWATER BASIN: American River, Baker Gulch, Baldy Creek, Bear Creek, Beaver Creek, Big Canyon Creek, Big Elk Creek, Blanco Creek, Boundary Creek, Box Sing Creek, Boyer Creek, Cartwright Creek, Cole Creek, Crooked River, Dawson Creek, Deer Creek, Ditch Creek, East Fork American River, East Fork Crooked River, Elk Creek, Fivemile Creek, Flint Creek, Fourmile Creek, Fox Creek, French Gulch, Galena Creek, Gospel Creek, Hagen Creek, Hays Creek, Johns Creek, Jungle Creek, Kirks Fork American River, Little Elk Creek, Little Moose Creek, Little Siegel Creek, Loon Creek, Mackey Creek, Meadow Creek, Melton Creek, Middle Fork Red River, Mill Creek, Monroe Creek, Moores Creek, Moores Lake Creek, Moose Butte Creek, Morgan Creek, Mule Creek, Newsome Creek, Nuggett Creek, Otterson Creek, Pat Brennan Creek, Pilot Creek, Quartz Creek, Queen Creek, Rabbit Creek, Rainbow Gulch, Red River, Relief Creek, Ryan Creek, Sally Ann Creek, Sawmill Creek, Schooner Creek, Schwartz Creek, Sharmon Creek, Siegel Creek, Silver Creek, Sixmile Creek, Sixtysix Creek, Snoose Creek, Sourdough Creek, South Fork Red River, Square Mountain Creek, Swale Creek, Swift Creek, Taylor Creek, Tenmile Creek, Trail Creek, Trapper Creek, Trout Creek, Twentymile Creek, Twin Lakes Creek, Umatilla Creek, West Fork Big Elk Creek, West Fork Crooked River, West Fork Gospel Creek, West Fork Newsome Creek, West Fork Red River, West Fork Twentymile Creek, Whiskey Creek, Whitaker Creek, Williams Creek.

(xxix) SOUTH FORK PAYETTE BASIN: Archie Creek, Ash Creek, Baron Creek, Basin Creek, Bear Creek, Beaver Creek, Big Spruce Creek, Bitter Creek, Blacks Creek, Blue Jay Creek, Burn Creek, Bush Creek, Camp Creek, Canyon Creek, Casner Creek, Cat Creek, Chapman Creek, Charters Creek, Clear Creek, Coski Creek, Cup Creek, Dead Man Creek, Deadwood River, Deer Creek, East Fork Deadwood Creek, East

Fork Warm Springs Creek, Eby Creek, Elkhorn Creek, Emma Creek, Fall Creek, Fence Creek, Fern Creek, Fivemile Creek, Fox Creek, Garney Creek, Gates Creek, Goat Creek, Grandjem Creek, Grouse Creek, Habit Creek, Helende Creek, Horse Creek, Huckleberry Creek, Jackson Creek, Kettle Creek, Kirkham Creek, Lake Creek, Lick Creek, Little Tenmile Creek, Logging Gulch, Long Creek, MacDonald Creek, Meadow Creek, Middle Fork Warm Springs Creek, Miller Creek, Monument Creek, Moulding Creek, Ninemile Creek, No Man Creek, No Name Creek, North Fork Baron Creek, North Fork Canyon Creek, North Fork Deer Creek, North Fork Whitehawk Creek, O'Keefe Creek, Packsaddle Creek, Park Creek, Pass Creek, Pinchot Creek, Pine Creek, Pitchfork Creek, Pole Creek, Richards Creek, Road Fork Rock Creek, Rock Creek, Rough Creek, Scott Creek, Silver Creek, Sixmile Creek, Smith Creek, Smokey Creek, South Fork Beaver Creek, South Fork Canyon Creek, South Fork Clear Creek, South Fork Payette River (above Rock Creek), South Fork Scott Creek, South Fork Warm Spring Creek, Spring Creek, Steep Creek, Stratton Creek, Topnotch Creek, Trail Creek, Wapiti Creek, Warm Spring Creek, Warm Springs Creek, Whangdoodle Creek, Whitehawk Creek, Wild Buck Creek, Wills Gulch, Wilson Creek, Wolf Creek.

(xxx) SOUTH FORK SALMON BASIN: Alez Creek, Back Creek, Bear Creek, Bishop Creek, Blackmare Creek, Blue Lake Creek, Buck Creek, Buckhorn Bar Creek, Buckhorn Creek, Burgdorf Creek, Burntlog Creek, Cabin Creek, Calf Creek, Camp Creek, Cane Creek, Caton Creek, Cinnabar Creek, Cliff Creek, Cly Creek, Cougar Creek, Cow Creek, Cox Creek, Curtis Creek, Deep Creek, Dollar Creek, Dutch Creek, East Fork South Fork Salmon River, East Fork Zena Creek, Elk Creek, Enos Creek, Falls Creek, Fernan Creek, Fiddle Creek, Fitsum Creek, Flat Creek, Fourmile Creek, Goat Creek, Grimmet Creek, Grouse Creek, Halfway Creek, Hanson Creek, Hays Creek, Holdover Creek, Hum Creek, Indian Creek, Jeanette Creek, Johnson Creek, Josephine Creek, Jungle Creek, Knee Creek, Krassel Creek, Lake Creek, Landmark Creek, Lick Creek, Little Buckhorn Creek, Little Indian Creek, Lodgepole Creek, Loon Creek, Maverick Creek, Meadow Creek, Middle Fork Elk Creek, Missouri Creek, Moose Creek, Mormon Creek, Nasty Creek, Nethker Creek, Nick Creek, No Mans Creek, North Fork Bear Creek, North Fork Buckhorn Creek, North Fork Camp Creek, North Fork Dollar Creek, North Fork Fitsum Creek, North Fork Lake Fork, North Fork Lick Creek, North Fork Riordan Creek, North Fork Six-bit Creek, Oompaul Creek, Paradise Creek, Park Creek, Peanut Creek, Pepper Creek, Phoebe Creek, Piah Creek, Pid Creek, Pilot Creek, Pony Creek, Porcupine Creek, Porphyry Creek, Prince Creek, Profile Creek, Quartz Creek, Reeves Creek, Rice Creek, Riordan Creek, Roaring Creek, Ruby Creek, Rustican Creek, Ryan Creek, Salt Creek, Sand Creek, Secesh River, Sheep Creek, Silver Creek, Sister Creek, Six-Bit Creek, South Fork Bear Creek, South Fork Blackmare Creek, South Fork Buckhorn Creek, South Fork Cougar Creek, South Fork Elk Creek, South Fork Fitsum Creek, South Fork Fourmile Creek, South Fork Salmon River, South Fork Threemile Creek, Split Creek, Steep Creek, Sugar Creek, Summit Creek, Tamarack Creek, Teepee Creek, Threemile Creek, Trail Creek, Trapper Creek, Trout Creek, Tsum Creek, Two-bit Creek, Tyndall Creek, Vein Creek, Victor Creek, Wardenhoff Creek, Warm Lake Creek, Warm Spring Creek, West Fork Buckhorn Creek, West Fork Elk Creek, West Fork Enos Creek, West Fork Zena Creek, Whangdoodle Creek, Willow Basket Creek, Willow Creek, Zena Creek.

(xxxi) ST. JOE R. BASIN: Bad Bear Creek, Bean Creek, Bear Creek, Beaver Creek, Bedrock Creek, Berge Creek, Bird Creek, Blue Grouse Creek, Boulder Creek, Broadaxe Creek, Bruin Creek, California Creek, Cherry Creek, Clear Creek, Color Creek, Copper Creek, Dolly Creek, Dump Creek, Eagle Creek, East Fork Bluff Creek, East Fork Gold Creek, Emerald Creek, Fishhook Creek, Float Creek, Fly Creek, Fuzzy Creek, Gold Creek, Heller Creek, Indian Creek, Kelley Creek, Malin Creek, Marble Creek, Medicine Creek, Mica Creek, Mill Creek, Mosquito Creek, North Fork Bean Creek, North Fork Saint Joe River, North Fork Simmons Creek, Nugget Creek, Packsaddle Creek, Periwinkle Creek, Prospector Creek, Quartz Creek, Red Cross Creek, Red Ives Creek, Ruby Creek, Saint Joe River (above Siwash Creek), Setzer Creek, Sherlock Creek, Simmons Creek, Siwash Creek, Skookum Creek, Thomas Creek, Thorn Creek, Three Lakes Creek, Timber Creek, Tinear Creek, Trout Creek, Tumbledown Creek, Wahoo Creek, Washout Creek, Wilson Creek, Yankee Bar Creek.

(xxxii) UPPER COEUR D'ALENE BASIN: Brown Creek, Falls Creek, Graham Creek.

(xxxiii) UPPER KOOTENAI BASIN: Halverson Cr, North Callahan Creek, South Callahan Creek, West Fork Keeler Creek

(xxxiv) UPPER MIDDLE FORK SALMON BASIN: Asher Creek, Automatic Creek, Ayers Creek, Baldwin Creek, Banner Creek, Bear Creek, Bear Valley Creek, Bearskin Creek, Beaver Creek, Bernard Creek, Big Chief Creek, Big Cottonwood Creek, Birch Creek, Blue Lake Creek, Blue Moon Creek, Boundary Creek, Bridge Creek, Browning Creek, Buck Creek, Burn Creek, Cabin Creek, Cache Creek, Camp Creek, Canyon Creek, Cap Creek, Cape Horn Creek, Casner Creek, Castle Fork, Casto Creek, Cat Creek, Chokebore Creek, Chuck Creek, Cliff Creek, Cold Creek, Collie Creek, Colt Creek, Cook Creek, Corley Creek, Cornish Creek, Cottonwood Creek, Cougar Creek, Crystal Creek, Cub Creek, Cultus Creek, Dagger Creek, Deer Creek, Deer Horn Creek, Doe Creek, Dry Creek, Duffield Creek, Dynamite Creek, Eagle Creek, East Fork Elk Creek, East Fork Indian Creek, East Fork Mayfield Creek, Elk Creek, Elkhorn Creek, Endoah Creek, Fall Creek, Fawn Creek, Feltham Creek, Fir Creek, Flat Creek, Float Creek, Foresight Creek, Forty-five Creek, Forty-four Creek, Fox Creek, Full Moon Creek, Fuse Creek, Grays Creek, Grenade Creek, Grouse Creek, Gun Creek, Half Moon Creek, Hogback Creek, Honeymoon Creek, Hot Creek, Ibex Creek, Indian Creek, Jose Creek, Kelly Creek, Kerr Creek, Knapp Creek, Kwiskwis Creek, Lime Creek, Lincoln Creek, Little Beaver Creek, Little Cottonwood Creek, Little East Fork Elk Creek, Little Indian Creek, Little Loon Creek, Little Pistol Creek, Lola Creek, Loon Creek, Lucinda Creek, Lucky Creek, Luger Creek, Mace Creek, Mack Creek, Marble Creek, Marlin Creek, Marsh Creek, Mayfield Creek, McHoney Creek, McKee Creek, Merino Creek, Middle Fork Elkhorn Creek, Middle Fork Indian Creek, Middle Fork Salmon River (above Soldier Creek), Mine Creek, Mink Creek, Moonshine Creek, Mowitch Creek, Muskeg Creek, Mystery Creek, Nelson Creek, New Creek, No Name Creek, North Fork Elk Creek, North Fork Elkhorn Creek, North Fork Sheep Creek, North Fork Sulphur Creek, Papoose Creek, Parker Creek, Patrol Creek, Phillips Creek, Pierson Creek, Pinyon Creek, Pioneer Creek, Pistol Creek, Placer Creek, Poker Creek, Pole Creek, Popgun Creek, Porter Creek, Prospect Creek, Rabbit Creek, Rams Horn Creek, Range Creek, Rapid River, Rat Creek, Remington Creek, Rock Creek, Rush Creek, Sack Creek, Safety Creek, Salt Creek, Savage Creek, Scratch Creek, Seafoam Creek, Shady Creek, Shake Creek, Sheep Creek, Sheep Trail Creek, Shell Creek, Shrapnel Creek, Siah Creek, Silver Creek, Slide Creek, Snowshoe Creek, Soldier Creek, South Fork Cottonwood Creek, South Fork Sheep Creek, Spike Creek, Springfield

Creek, Squaw Creek, Sulphur Creek, Sunnyside Creek, Swamp Creek, Tennessee Creek, Thatcher Creek, Thicket Creek, Thirty-two Creek, Tomahawk Creek, Trail Creek, Trapper Creek, Trigger Creek, Twenty-two Creek, Vader Creek, Vanity Creek, Velvet Creek, Walker Creek, Wampum Creek, Warm Spring Creek, West Fork Elk Creek, West Fork Little Loon Creek, West Fork Mayfield Creek, White Creek, Wickiup Creek, Winchester Creek, Winnemucca Creek, Wyoming Creek.

(xxxv) UPPER NORTH FORK CLEARWATER BASIN: Adams Creek, Avalanche Creek, Bacon Creek, Ball Creek, Barn Creek, Barnard Creek, Barren Creek, Bear Creek, Beaver Dam Creek, Bedrock Creek, Bill Creek, Bostonian Creek, Boundary Creek, Burn Creek, Butter Creek, Camp George Creek, Canyon Creek, Cayuse Creek, Chamberlain Creek, Clayton Creek, Cliff Creek, Coffee Creek, Cold Springs Creek, Collins Creek, Colt Creek, Cool Creek, Copper Creek, Corral Creek, Cougar Creek, Craig Creek, Crater Creek, Cub Creek, Davis Creek, Deadwood Creek, Deer Creek, Dill Creek, Drift Creek, Elizabeth Creek, Fall Creek, Fire Creek, Fix Creek, Flame Creek, Fly Creek, Fourth of July Creek, Fro Creek, Frog Creek, Frost Creek, Gilfillian Creek, Goose Creek, Grass Creek, Gravey Creek, Grizzly Creek, Hanson Creek, Heather Creek, Henry Creek, Hidden Creek, Howard Creek, Independence Creek, Jam Creek, Japanese Creek, Johnagan Creek, Johnny Creek, Junction Creek, Kelly Creek, Kid Lake Creek, Kodiak Creek, Lake Creek, Laundry Creek, Lightning Creek, Little Moose Creek, Little Weitas Creek, Liz Creek, Long Creek, Marten Creek, Meadow Creek, Middle Creek, Middle North Fork Kelly Creek, Mill Creek, Mire Creek, Monroe Creek, Moose Creek, Negro Creek, Nettle Creek, Niagra Gulch, North Fork Clearwater River (Fourth of July Creek), Nub Creek, Osier Creek, Perry Creek, Pete Ott Creek, Placer Creek, Polar Creek, Post Creek, Potato Creek, Quartz Creek, Rapid Creek, Rawhide Creek, Roaring Creek, Rock Creek, Rocky Ridge Creek, Ruby Creek, Saddle Creek, Salix Creek, Scurry Creek, Seat Creek, Short Creek, Shot Creek, Siam Creek, Silver Creek, Skull Creek, Slide Creek, Smith Creek, Snow Creek, South Fork Kelly Creek, Spud Creek, Spy Creek, Stolen Creek, Stove Creek, Sugar Creek, Swamp Creek, Tinear Creek, Tinkle Creek, Toboggan Creek, Trail Creek, Vanderbilt Gulch, Wall Creek, Weitas Creek, Williams Creek, Windy Creek, Wolf Creek, Young Creek.

(xxxvi) UPPER SALMON BASIN: Alder Creek, Alpine Creek, Alta Creek, Alturas Lake Creek, Anderson Creek, Aspen Creek, Basin Creek, Bayhorse Creek, Bear Creek, Beaver Creek, Big Boulder Creek, Block Creek, Blowfly Creek, Blue Creek, Boundary Creek, Bowery Creek, Broken Ridge Creek, Bruno Creek, Buckskin Creek, Cabin Creek, Camp Creek, Cash Creek, Challis Creek, Chamberlain Creek, Champion Creek, Cherry Creek, Cinnabar Creek, Cleveland Creek, Coal Creek, Crooked Creek, Darling Creek, Deadwood Creek, Decker Creek, Deer Creek, Dry Creek, Duffy Creek, East Basin Creek, East Fork Salmon River, East Fork Valley Creek, East Pass Creek, Eddy Creek, Eightmile Creek, Elevenmile Creek, Elk Creek, Ellis Creek, Estes Creek, First Creek, Fisher Creek, Fishhook Creek, Fivemile Creek, Fourth of July Creek, Frenchman Creek, Garden Creek, Germania Creek, Goat Creek, Gold Creek, Gooseberry Creek, Greylock Creek, Hay Creek, Hell Roaring Creek, Herd Creek, Huckleberry Creek, Iron Creek, Job Creek, Jordan Creek, Juliette Creek, Kelly Creek, Kinnikinic Creek, Lick Creek, Lightning Creek, Little Basin Creek, Little Beaver Creek, Little Boulder Creek, Little West Fork Morgan Creek, Lodgepole Creek, Lone Pine Creek, Lost Creek, MacRae Creek, Martin Creek, McKay Creek, Meadow Creek, Mill Creek, Morgan Creek, Muley Creek, Ninemile Creek, Noho Creek, Pack Creek, Park Creek, Pat Hughes Creek, Pig Creek, Pole Creek, Pork Creek, Prospect Creek, Rainbow Creek, Redfish Lake Creek, Road Creek, Rough Creek, Sage Creek, Sagebrush Creek, Salmon River (Redfish Lake Creek), Sawmill Creek, Second Creek, Sevenmile Creek, Sheep Creek, Short Creek, Sixmile Creek, Slate Creek, Smiley Creek, South Fork East Fork Salmon River, Squaw Creek, Stanley Creek, Stephens Creek, Summit Creek, Sunday Creek, Swimm Creek, Taylor Creek, Tenmile Creek, Tennel Creek, Thompson Creek, Three Cabins Creek, Trail Creek, Trap Creek, Trealor Creek, Twelvemile Creek, Twin Creek, Valley Creek, Van Horn Creek, Vat Creek, Warm Spring Creek, Warm Springs Creek, Washington Creek, West Beaver Creek, West Fork Creek, West Fork East Fork Salmon River, West Fork Herd Creek, West Fork Morgan Creek, West Fork Yankee Fork, West Pass Creek, Wickiup Creek, Williams Creek, Willow Creek, Yankee Fork.

(xxxvii) UPPER SELWAY BASIN: Basin Creek, Bear Creek, Burn Creek, Camp Creek, Canyon Creek, Cliff Creek, Comb Creek, Cooper Creek, Cub Creek, Deep Creek, Eagle Creek, Elk Creek, Fall Creek, Fox Creek, Goat Creek, Gold Pan Creek, Granite Creek, Grass Gulch, Haystack Creek, Hells Half Acre Creek, Indian Creek, Kim Creek, Lake Creek, Langdon Gulch, Little Clearwater River, Lodge Creek, Lunch Creek, Mist Creek, Paloma Creek, Paradise Creek, Peach Creek, Pettibone Creek, Running Creek, Saddle Gulch, Schofield Creek, Selway River (above Pettibone Creek), South Fork Running Creek, South Fork Saddle Gulch, South Fork Surprise Creek, Spruce Creek, Squaw Creek, Stripe Creek, Surprise Creek, Set Creek, Tepee Creek, Thirteen Creek, Three Lakes Creek, Triple Creek, Wahoo Creek, White Cap Creek, Wilkerson Creek, Witter Creek.

(xxxviii) WEISER BASIN: Anderson Creek, Bull Corral Creek, Dewey Creek, East Fork Weiser River, Little Weiser River, above Anderson Creek, Sheep Creek, Wolf Creek.

(3) Procedures for site specific modification of listed waterbodies or temperature criteria for bull trout.

(i) The Regional Administrator may, in his discretion, determine that the temperature criteria in paragraph (a)(1) of this section shall not apply to a specific waterbody or portion thereof listed in paragraph (a)(2) of this section. Any such determination shall be made consistent with § 131.11 and shall be based on a finding that bull trout spawning and rearing is not an existing use in such waterbody or portion thereof.

(ii) The Regional Administrator may, in his discretion, raise the temperature criteria in paragraph (a)(1) of this section as they pertain to a specific waterbody or portion thereof listed in paragraph (a)(2) of this section. Any such determination shall be made consistent with § 131.11, and shall be based on a finding that bull trout would be fully supported at the higher temperature criteria.

(iii) For any determination made under paragraphs (a)(3)(i) or (a)(3)(ii) of this section, the Regional Administrator shall, prior to making such a determination, provide for public notice of and comment on a proposed determination. For any such proposed determination, the Regional Administrator shall prepare and make available to the public a technical support document addressing each waterbody or portion thereof that would be deleted or modified and the justification for each proposed determination. This document shall be made available to the public not later than the date of public notice.

(iv) The Regional Administrator shall maintain and make available to the public an updated list of determinations made pursuant to paragraphs (a)(3)(i) and (a)(3)(ii) of this section as well as the technical support documents for each determination.

(v) Nothing in this paragraph (a)(3) shall limit the Administrator's authority to modify the temperature criteria in paragraph (a)(1) of this section or the list of waterbodies in paragraph (a)(2) of this section through rulemaking.

(b) *Use designations for surface waters.* In addition to the State adoped use designations, the following water body segments in Idaho are designated for cold water biota: Canyon Creek (PB 121)—below mining impact; South Fork Coeur d'Alene River (PB 140S)—Daisy Gulch to mouth; Shields Gulch (PB 148S)—below mining impact; Blackfoot River (USB 360)—Equalizing Dam to mouth, except for any portion in Indian country; Soda Creek (BB 310)—source to mouth.

(c) *Excluded waters.* Lakes, ponds, pools, streams, and springs outside public lands but located wholly and entirely upon a person's land are not protected specifically or generally for any beneficial use, unless such waters are designated in Idaho 16.01.02.110. through 160., or, although not so designated, are waters of the United States as defined at 40 CFR 122.2.

(d) *Water quality standard variances.* (1) The Regional Administrator, EPA Region X, is authorized to grant variances from the water quality standards in paragraph (b) of this section where the requirements of this paragraph (d) are met. A water quality standard variance applies only to the permittee requesting the variance and only to the pollutant or pollutants specified in the variance; the underlying water quality standard otherwise remains in effect.

(2) A water quality standard variance shall not be granted if:

(i) Standards will be attained by implementing effluent limitations required under sections 301(b) and 306 of the CWA and by the permittee implementing reasonable best management practices for nonpoint source control; or

(ii) The variance would likely jeopardize the continued existence of any threatened or endangered species listed under section 4 of the Endangered Species Act or result in the destruction or adverse modification of such species' critical habitat.

(3) Subject to paragraph (d)(2) of this section, a water quality standards variance may be granted if the applicant demonstrates to EPA that attaining the water quality standard is not feasible because:

(i) Naturally occurring pollutant concentrations prevent the attainment of the use; or

(ii) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

(iii) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

(iv) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way which would result in the attainment of the use; or

(v) Physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like unrelated to water quality, preclude attainment of aquatic life protection uses; or

(vi) Controls more stringent than those required by sections 301(b) and 306 of the CWA would result in substantial and widespread economic and social impact.

(4) *Procedures.* An applicant for a water quality standards variance shall submit a request to the Regional Administrator not later than the date the applicant applies for an NPDES permit which would implement the variance, except that an application may be filed later if the need for the variance arises or the data supporting the variance becomes available after the NPDES permit application is filed. The application shall include all relevant information showing that the requirements for a variance have been satisfied. The burden is on the applicant to demonstrate to EPA's satisfaction that the designated use is unattainable for one of the reasons specified in paragraph (d)(3) of this section. If the Regional Administrator preliminarily determines that grounds exist for granting a variance, he shall publish notice of the proposed variance. Notice of a final decision to grant a variance shall also be published. EPA will incorporate into the permittee's NPDES permit all conditions needed to implement the variance.

(5) A variance may not exceed 5 years or the term of the NPDES permit, whichever is less. A variance may be renewed if the applicant reapplies and demonstrates that the use in question is still not attainable. Renewal of the variance may be denied if the applicant did not comply with the conditions of the original variance.

[FR Doc. 97–19797 Filed 7–30–97; 8:45 am]

BILLING CODE 6560–50–P