Waters Requiring Supplemental Spawning and Incubation Protection For Salmonid Species

Revised January 2011
Publication Number 06-10-038

As Described in:
The Proposed Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A
Waters Requiring Supplemental Spawning and Incubation Protection For Salmonid Species

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Revised January 2011
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Waters Requiring Supplemental Spawning and Incubation Protection for Salmonid Species

This publication is part of the Water Quality Standards for Surface Waters of the State of Washington (Chapter 173-201A WAC). The maps contained within this publication describe where and when additional temperature criteria are required to ensure protection for the incubation of salmon, trout, and char. Spawning information provided within this publication should be used in conjunction with other aquatic life use information provided in the surface water quality standards. Temperature criteria that apply outside of the spawning seasons can be found in Chapter 173-201A-600 and 602 (Table 602).

The salmonid populations targeted for the additional protection are those that have eggs and embryos developing in the stream bed in late spring to early fall. Salmonid populations which begin spawning in late fall or whose young have emerged from the stream gravels before late spring do not require added protection.

A spawning temperature of 13°C (as a 7-day average of daily maximum temperatures) is used to protect summer reproduction areas for salmon and trout, and a criterion of 9°C (as a 7-day average of daily maximum temperatures) is used to protect summer reproduction by native char species (bull trout and Dolly Varden). The following maps provide the locations where these criteria are to be applied along with the dates to which they apply.

The state is divided into Water Resource Inventory Areas (WRIA). These large watersheds aid in water management activities. Maps of each WRIA showing waters that require more protective temperature criterion make up the body of this publication. A statewide WRIA map is located in the front of this publication. (If there is no map for a given WRIA, this indicates there is no summer spawning data for that particular area.)

Note: The maps herein show only where and when supplemental temperature criteria are required to protect the summer season spawning of salmonids. For some of these waters more stringent year-round criteria (7-day average daily maximum of 12°C) must be met to protect use by native char. Refer to Chapter 173-201A-602 (Table 602) to identify where more restrictive criteria have been designated to protect native char (bull trout and Dolly Varden).
Washington State Water Resource Inventory Areas

An unlinked map indicates no summer spawning data for that particular area.

1. Nooksack 17. Quilcene/Snow 33. Lower Snake 49. Okanogan
2. San Juan 18. Elwha/Dungeness 34. Palouse 50. Foster
9. Duwamish/Green 25. Grays/Elochoman 41. Lower Crab 57. Middle Spokane

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WRIA 1 NOOKSACK
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
- Salmon and Trout Spawning
  - 13°C From Aug. 1 - July 15
  - 13°C From Sept. 1 - July 1
  - 13°C From Feb. 15 - June 15
  - 13°C From Sept. 15 - July 1

Other Water and Open Features
- Tribal Reservations
- Lakes & streams unchanged
- Marine water
- Public Land

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### WRIA 7 - SNOHOMISH

Supplemental Spawning/Incubation Criteria

**Map Details:**
- **Legend:**
  - **Spawning/Incubation Criteria**
    - Salmon and Trout Spawning: 13°C from Sept. 15-May 15
    - 13°C from Sept. 15-June 15
    - 13°C from Sept. 15-July 1
    - 13°C from Feb. 15-June 15
  - **Other Water and Open Features**
    - Tribal Reservations
    - Lakes & streams unchanged
    - Marine Waters
    - Public Land

**Scale:**
- 0 1 2 4 Miles

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WRIA 15 - KITSAP

Supplemental Spawning/Incubation Criteria

Legend

Spawning/Incubation Criteria
- 13°C from Sept. 1- June 15
- 13°C from Sept. 15 - June 15
- 13°C from Sept. 15 - May 15

Other Water and Open Features
- Tribal Reservations
- Lakes and streams unchanged
- Marine Water
- Public Land

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Supplemental Spawning/Incubation Criteria

Legend

- **Spawning/Incubation Criteria**
  - **Salmon and Trout Spawning**
    - 13°C from Sept. 15 to July 1
    - 13°C from Sept. 1 to July 1

- **Other Water and Open Features**
  - Lakes and streams unchanged
  - Marine water
  - Glaciers
  - Public land

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Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13°C Aug. 15-June 15
- 13°C Aug. 1-June 15
- 13°C Sept. 1-June 15
- 13°C Sept. 1-July 1

Open Water and Other Features
- Lakes & streams unchanged
- Glaciers
- Marine Water
- Tribal Reservations
- Public Land

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WRIA 20 SOLEDUCK-HOH

Supplemental Spawning/Incubation Criteria

Legend

Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13°C from Sept. 1-July 1
- 13°C from Feb. 15-July 1

Other Water and Open Features
- Tribal Reservations
- Lakes & streams unchanged
- Marine Water
- Glaciers
- Public Land

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Legend

Spawning/Incubation Criteria
- Salmon and Trout Spawning
  - 13°C from Sept. 15-May 15
  - 13°C from Sept. 15-July 1

Other Water and Open Features
- Public Land
- Lakes & streams unchanged
- Marine Water
- Glaciers
- Tribal Reservations
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13°C from Sept. 15-July 1
- 13°C from Feb. 15-July 1
Other Water and Open Features
- Lakes & streams unchanged
- Marine Water
- Public Land

0 1 2 4 Miles
WRIA 23  UPPER CHEHALIS

Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13°C from Sept. 15-July 1
- 13°C from Oct. 1-May 15
- 13°C from Feb. 15-July 1

Other Water and Open Features
- Lakes & streams unchanged
- Tribal Reservations
- Public Land

13°C from Sept. 15-July 1
13°C from Oct. 1-May 15
13°C from Feb. 15-July 1
Supplemental Spawning/Incubation Criteria

Legend

Spawning/Incubation Criteria
Salmon and Trout Spawning
13°C from Feb. 15-June 15

Open Water and Other Features
Lakes & streams unchanged
Public Land

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WRIA 27 LEWIS
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13°C from Sept. 1 - June 15
- 13°C from Feb. 15 - June 15
Char Spawning
- 9°C from Aug. 21 - May 15
Other Water and Open Features
- Lakes & streams unchanged
- Public Land
WRIA 29 WIND-WHITE SALMON
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13° from Aug. 15-June 15
- 13° from Sept. 15-June 15
- 13° from Feb. 15-June 15

Other Water and Open Features
- Glaciers
- Lakes & streams unchanged
- Public Land

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WRIA 30 KLICKITAT
Supplemental Spawning/Incubation Criteria

Legend

Spawning/Incubation Criteria
- Salmon and Trout Spawning
  - 13°C from Aug. 15 - June 15
  - 13°C from Sept. 15 - June 15
  - 13°C from Feb. 15 - June 1
  - 13°C from Feb. 15 - June 15

Other Water and Open Features
- Tribal Reservations
- Lakes & streams unchanged
- Glaciers
- Public Land

0 1 2 4 Miles
WRIA 31 ROCK-GLADE

Supplemental Spawning/Incubation Criteria

Legend

Spawning/Incubation Criteria
Salmon and Trout Spawning
13°C from Feb. 15 - June 1

Other Water and Open Features

Lakes & streams unchanged

Public Land
WRIA 32 WALLA WALLA
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
- Salmon and Trout Spawning
  - 13°C from Feb. 15-June 15
  - 13°C from Feb. 15-June 1
  - 13°C from Sept. 15-June 15
- Char Spawning
  - 9°C from Aug. 21-May 15
  - 9°C from Sept. 1-May 15
Other Water and Open Features
- Lakes & streams unchanged
- Public Land

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WRIA 35 MIDDLE SNAKE

Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
- Salmon and Trout Spawning
  - 13°C from Sept. 1-June 15
  - 13°C from Feb. 15-June 15
  - 13°C from Feb. 15-June 1
- Char Spawning
  - 9°C from Sept. 1-May 15
Other Water and Open Features
- Lakes & streams unchanged
- Public Land

012 4 Miles

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WRIA 37 LOWER YAKIMA
Supplemental Spawning/Incubation Criteria

Legend

Spawning/Incubation Criteria
Salmon and Trout Spawning

13°C from Feb. 15-June 15

Char Spawning

9°C from Sept 1-May 15

Open Water and Other Features

Tribal Reservations
Lakes and streams unchanged
Public Land

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WRIA 38 NACHES
Supplemental Spawning/Incubation Criteria

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WRIA 39 UPPER YAKIMA
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- 13°C from Sept. 15 - June 15
- 13°C from Sept. 15 - May 15
- 13°C from Feb. 15 - June 15

Open Water and Other Features
- Lakes & streams unchanged
- Public Land

0 1 2 4 Miles
Supplemental Spawning/Incubation Criteria

- **Salmon and Trout Spawning**
  - 13°C From Aug. 15-July 1
  - 13°C From Aug. 15-May 15
  - 13°C From Oct 1-June 15
  - 13°C From Aug. 15-July 1

- **Char Spawning**
  - 9°C From Sept. 1-May 15

- **Other Water and Open Features**
  - Lakes & steams unchanged
  - Glaciers
  - Public Land

Legend

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WRIA 48 METHOW
Supplemental Spawning/Incubation Criteria

Legend
- Lakes & Streams unchanged
- Tribal Reservations
- Public Land
- Spawning/Incubation Criteria
  - Salmon and Trout Spawning
  - Other Water and Open Features

Temperature from Feb 15 - June 15

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