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

Printed on Recycled Paper
Waters Requiring Supplemental Spawning and Incubation Protection For Salmonid Species

Prepared by:
Sabrina Payne
Washington State Department of Ecology
Water Quality Program

Revised January 2011
Publication Number 06-10-038
Persons with a hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.
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 criteria 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).
An unlinked map indicates no summer spawning data for that particular area.

1. Nooksack
2. San Juan
3. Lower Skagit/Samish
4. Upper Skagit
5. Stillaguamish
6. Island
7. Snohomish
8. Cedar/Sammamish
9. Duwamish/Green
10. Puyallup/White
11. Nisqually
12. Chambers/Clover
13. Deschutes
14. Kennedy/Goldsborough
15. Kitsap
16. Skokomish/Dosewallips
17. Quilcene/Snow
18. Elwha/Dungeness
19. Lyre/Hoko
20. Soleduc
21. Queets/Quinault
22. Lower Chehalis
23. Upper Chehalis
24. Willapa
25. Grays/Elochoman
26. Cowlitz
27. Lewis
28. Salmon/Washougal
29. Wind/White Salmon
30. Klickitat
31. Rock/Glade
32. Walla Walla
33. Lower Snake
34. Palouse
35. Middle Snake
36. Esquatzel Coulee
37. Lower Yakima
38. Naches
39. Upper Yakima
40. Alkaki/Squilchuck
41. Lower Crab
42. Grand Coulee
43. Upper Crab/Wilson
44. Moses Coulee
45. Wenatchee
46. Entiat
47. Chelan
48. Methow
49. Okanogan
50. Foster
51. Nespelem
52. Sanpoil
53. Lower Lake Roosevelt
54. Lower Spokane
55. Little Spokane
56. Hangman
57. Middle Spokane
58. Middle Lake Roosevelt
59. Colville
60. Kettle
61. Upper Lake Roosevelt
62. Pend Oreille
Supplemental Spawning/Incubation Criteria

Legend

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
Supplemental Spawning/Incubation Criteria

Legend

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

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

Department of Ecology:
June 4, 2008
Supplemental Spawning/Incubation Criteria

Legend

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

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

0 1 2 4 Miles

Department of Ecology
June 4, 2008
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

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

Department of Ecology:
June 4, 2008
Supplemental Spawning/Incubation Criteria

Legend
Spawning/Incubation Criteria
Salmon and Trout Spawning
- Sept. 15-July 1

Other Water and Open Features
- Lakes and Streams
- Marine Waters
- Public Land

0 1 2 4 Miles
WRIA 10  Puyallup-White
Supplemental Spawning/Incubation Criteria

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

Other Water and Open Features
- Tribal Reservations
- Lakes & Wide Streams
- Marine Waters
- Glaciers
- Public Land

0 1 2 Miles
WRIA 16 - SKOKOMISH-DOSEWALLIPS

Supplemental Spawning/Incubation Criteria

Legend

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

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

Department of Ecology:
June 4, 2008
WRIA 17 - QUILCENE-SNOW
Supplemental Spawning/Incubation Criteria

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

Department of Ecology:
June 4, 2008
S
i
C
WRIA 18 - ELWHA-DUNGENESS
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

0 1 2 4 Miles

Department of Ecology:
June 4, 2008