

APPENDIX F :
**SALMONID FISH HABITAT USE SCHEDULE FOR NORTH COAST
BASIN RIVERS AND STREAMS**

Salmonid Fish Habitat Use

Salmonid fish (salmon and trout) are present throughout the North Coast subbasins planning area, although the various stocks/species use different parts of watersheds at different times, and not all stocks/species are present in all watersheds. Salmonid habitat use has been defined for many watersheds in the North Coast Subbasins. This information was used in the North Coast Subbasins TMDL for determining the appropriate period for applying separate criteria of the temperature standard. The temperature standard includes a year-round criterion of 64°F for protection of migration and rearing, and 55°F criterion for protection of spawning and egg incubation through fry emergence. Both of these criteria are applied as a 7-day average of daily maximum temperatures. In addition, increases in water temperature due to anthropogenic sources of heat are not permitted when the biological integrity of populations of federally threatened or endangered species would be impaired. In practice, this is most important for determining appropriate discharge limits for point sources of heat (e.g., wastewater treatment plants).

The following tables were provided by Joe Sheahan of the Oregon Department of Fish and Wildlife. Tables were developed based on observations and professional judgment of local fishery biologists. These tables suggest significant variability among streams for some species.

Specific Information is provided for the following watersheds:

Nehalem Subbasin

- Lower Nehalem River;
- Upper Nehalem River;
- North Fork Nehalem River;
- Cook Creek;
- Salmonberry River;
- Other Lower Nehalem Tributaries;

Necanicum Subbasin

- Necanicum River and Tributaries;
- Ecola Creek and Tributaries;

Lower Columbia/Youngs River Subbasin

- Youngs River;
- Wallooski River;
- Other Columbia River Estuary Tributaries.

Lower Nehalem River (below Highway 26) Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

█ Represents periods of peak use based on professional opinion.

▒ Represents lesser level of use based professional opinion

X Represents periods of use based on reported observation.

□ Represents periods of presence-no level of use indicated

■ Not present

Upper Nehalem River (above Highway 26) Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Represents periods of peak use based on professional opinion. Represents lesser level of use based professional opinion X Represents periods of use based on reported observation. Represents periods of presence-no level of use indicated Not present												

North Fork Nehalem River Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
<p>Represents periods of peak use based on professional opinion.</p> <p>Represents lesser level of use based professional opinion</p> <p>X Represents periods of use based on reported observation.</p> <p>Represents periods of presence-no level of use indicated</p> <p>Not present</p>												

Cook Creek Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

Represents periods of peak use based on professional opinion.
 Represents lesser level of use based professional opinion
X Represents periods of use based on reported observation.
 Represents periods of presence-no level of use indicated
 Not present

Salmonberry River Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Winter Steelhead		■	■	■	■							
Spring Chinook							■	■	■			
Fall Chinook											■	■
Coho	■										■	■
Cutthroat Trout - resident/migratory							■	■	■	■	■	■
Adult Holding												
Winter Steelhead							■	■	■			
Spring Chinook							■	■	■			
Fall Chinook											■	■
Coho											■	■
Cutthroat Trout - resident/migratory												
Adult Spawning												
Winter Steelhead			■	■	■	■						
Spring Chinook								■	■	■		
Fall Chinook											■	■
Coho	■										■	■
Cutthroat Trout - resident/migratory	■	■	■	■	■	■						■
Egg Incubation through Fry Emergence												
Winter Steelhead			■	■	■	■	■					
Spring Chinook	■	■	■	■	■	■			■	■	■	■
Fall Chinook		■	■	■	■	■					■	■
Coho	■	■	■	■	■	■					■	■
Cutthroat Trout - resident/migratory	■	■	■	■	■	■					■	■
Juvenile Rearing												
Winter Steelhead	■	■	■	■	■	■	■	■	■	■	■	■
Spring Chinook		■	■	■	■	■	■	■	■	■	■	■
Fall Chinook			■	■	■	■	■	■	■	■	■	■
Coho	■	■	■	■	■	■	■	■	■	■	■	■
Cutthroat Trout - resident/migratory	■	■	■	■	■	■	■	■	■	■	■	■
Downstream Juvenile Migration												
Winter Steelhead		■	■	■	■	■						
Spring Chinook		■	■	■	■	■						
Fall Chinook		■	■	■	■	■						
Coho		■	■	■	■	■						
Cutthroat Trout - resident/migratory		■	■	■	■	■						

- Represents periods of peak use based on professional opinion.
- Represents lesser level of use based professional opinion
- X Represents periods of use based on reported observation.
- Represents periods of presence-no level of use indicated
- Not present

Other Lower Nehalem Tributaries Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

Represents periods of peak use based on professional opinion.
 Represents lesser level of use based professional opinion
X Represents periods of use based on reported observation.
 Represents periods of presence-no level of use indicated
 Not present

Necanicum River and Tributaries Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

■ Represents periods of peak use based on professional opinion.

■ Represents lesser level of use based professional opinion

X Represents periods of use based on reported observation.

■ Represents periods of presence-no level of use indicated

■ Hatchery stock not native to the drainage

■ Not present

Ecola Creek and Tributaries Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
<div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 2px;"> Represents periods of peak use based on professional opinion. </div> <div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 2px;"> Represents lesser level of use based professional opinion </div> <div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 2px;"> X Represents periods of use based on reported observation. </div> <div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 2px;"> Represents periods of presence-no level of use indicated </div> <div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 2px;"> Not present </div>												

Youngs River Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho	HL											
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum	HP HL											
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum	HL HP HP HP HP HL											
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

Represents periods of peak use based on professional opinion.

Represents lesser level of use based professional opinion

X Represents periods of use based on reported observation.

Represents periods of presence-no level of use indicated

HP Historically present peak

HL Historically present lesser level

Hatchery stock not native to the drainage

Not present

Wallooskee River Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho	HL											
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum	HP HL											
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum	HL HP HP HP HP HL											
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

[Light Gray Box] Represents periods of peak use based on professional opinion.
 [Dark Gray Box] Represents lesser level of use based professional opinion
 X Represents periods of use based on reported observation.
 [White Box] Represents periods of presence-no level of use indicated
 HP Historically present peak
 HL Historically present lesser level
 [Dark Gray Box] Hatchery stock not native to the drainage
 [Yellow Box] Not present

Other Columbia River Estuary Tributaries (Mouth to Tongue point) Anadromous

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Upstream Adult Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho	HL											
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Holding												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Adult Spawning												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Egg Incubation through Fry Emergence												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Juvenile Rearing												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												
Downstream Juvenile Migration												
Summer Steelhead												
Winter Steelhead												
Spring Chinook												
Fall Chinook												
Coho												
Chum												
Sockeye												
Cutthroat Trout - resident/migratory												

Represents periods of peak use based on professional opinion.

Represents lesser level of use based professional opinion

X Represents periods of use based on reported observation.

Represents periods of presence-no level of use indicated

HP Historically present peak

HL Historically present lesser level

Hatchery stock not native to the drainage

Not present