

### 6.3.1 Strategies and Actions for the North Coast Stratum

#### North Coast Stratum for Oregon Coast Coho Salmon

**Independent Populations:** Necanicum, Nehalem, Tillamook and Nestucca

**Dependent Populations:** Ecola, Arch Cape, Short Sands, Spring, Watseco, Netarts, Rover, Sand, and Neskowin

**Current Status:** Moderate level of certainty that the North Coast Stratum is sustainable

**Primary Limiting Factor:** Stream complexity (all North Coast Stratum populations)

**Secondary Limiting Factors:** Water quality (Nehalem and Tillamook populations)

#### Recovery Strategy for the North Coast Stratum

The basic recovery strategy for coho salmon populations in the North Coast Stratum aims to protect freshwater and estuarine reaches that currently contain high quality habitat, and restore reaches with potential for additional high quality habitat. Actions will particularly focus on increasing the amount and quality of winter rearing habitat by improving stream and estuarine habitat complexity. Efforts are needed to increase amounts of large wood and pool habitat, and to connect side channels, wetlands, and other off-channel areas. Actions will also improve water quality, especially by reducing summer water temperatures and agricultural runoff in the Tillamook population area.

#### Key Strategies and Actions for the North Coast Stratum

- Revise local regulatory mechanisms to increase protection and restoration of watershed processes that promote winter and summer rearing habitats including Oregon's Agricultural Water Quality Management Act, Oregon Forest Practices Act, FEMA National Floodplain Insurance Program, and state beaver statutes and administrative rules.
- Develop and approve scientifically credible, thorough Strategic Action Plans for the Necanicum, Nehalem, Tillamook, and Nestucca populations, consistent with ESU-level common framework.
- Implement the Strategic Action Plans to protect and restore ecosystem processes and functions and coho salmon habitats. Activities should include restoring habitat capacity for rearing juvenile coho salmon by increasing large wood loading, beaver habitat, and wetland/ off-channel connectivity, and by increasing native riparian vegetation to provide bank stability and shade stream reaches.
- Collaborate with governmental and non-governmental organizations and others to identify, and implement, actions that will protect and restore watershed processes, provide stream complexity for juvenile rearing, connect side channels, wetland and off-channel habitats, and reduce fine sediment levels.
- Coordinate with ODEQ, ODF, ODA and others to improve water quality, especially water temperatures, to increase carrying capacity and provide high quality summer rearing habitat for juvenile coho salmon.

- Collaborate with SWCDs, ODA, and others to increase effectiveness of current agricultural water quality area rules and plans in order to meet water quality goals in the Tillamook population area.
- As resources allow, develop and approve scientifically credible, thorough Strategic Action Plans for the Ecola, Arch Cape, Short Sands, Spring, Watseco, Netarts, Rover, Sand, and Neskowin populations, consistent with ESU-level common framework.
- Provide and support public outreach, education, and volunteer actions to protect and restore ecosystem process and functions and improve juvenile coho salmon rearing habitats.
- Improve wood recruitment to support long-term increases in habitat complexity by improving timber harvest activities and agricultural practices.
- Increase habitat complexity by increasing large wood, boulders, or other instream structure and conducting riparian planting projects.
- Improve floodplain connectivity by increasing beaver abundance and reducing or limiting development of channel confining structures, including roads and infrastructure.

## Priority Watershed Actions

### *Agriculture Lands*

1. Protect riparian areas adjacent to stream channels.
2. Plant and restore riparian vegetation adjacent to stream channels.
3. Increase habitat complexity by increasing large wood, boulders, or other instream structure.
4. Improve lateral connectivity between stream channels and adjacent wetlands.

### *Timber Lands*

1. Increase protection of riparian reserves and no-touch buffer widths.
2. Eliminate the construction of permanent new roads.
3. Decommission roads where practicable.
4. Increase habitat complexity by increasing large wood, boulders, or other instream structure.

## Secondary Watershed Actions

### *Beaver Management*

1. Develop a beaver conservation plan.
2. Prohibit killing beaver within the range of OC coho salmon by any entity other than a state agency and only when all other options are exhausted.
3. Create a program to educate landowners and the public in general about the benefits of beaver to the health of our ecosystems, with a focus on benefits to salmonids and opportunities to conserve and manage beaver through cost effective, non-lethal management practices (Pollock et al. 2004; DeVries et al. 2012).
4. Incorporate beaver conservation into restoration actions.

**Table 6-3.** Habitat component specific actions to restore high quality coho salmon habitat in the North Coast Stratum.

Action id	Habitat component	Strategy	Action	Area	Priority
NCS-1	Tributaries	Improve water quality by improving water temperature	Improve water quality by improving stream shade	Tillamook and Nehalem Populations	High
NCS-2	Tributaries	Improve water quality by improving water temperature	Improve water quality by improving stream shade	Tillamook and Nehalem Populations	Medium
NCS-3	Tributaries	Improve wood recruitment to support long-term increases in habitat complexity	Improve timber harvest activities (increased harvest buffers on private and state timberlands)	All Populations	High
NCS-4	Tributaries	Increase habitat complexity	Improve agricultural practices (disallow stream channel dredging in ESA-listed streams flowing through or adjacent to ag lands)	All Populations	Medium
NCS-5	Tributaries	Increase habitat complexity	Increase large wood, boulders, or other instream structure	All streams where coho salmon would benefit immediately	High
NCS-6	Tributaries	Increase habitat complexity	Increase large wood, boulders, or other instream structure	All Populations	Medium
NCS-7	Tributaries	Increase habitat complexity	Conduct riparian planting projects on streams that flow through or adjacent to agricultural lands to increase wood recruitment to streams	All Populations	High
NCS-8	Off-Channel	Increase habitat complexity and connectivity to side-channels	Increase large wood, boulders, or other instream structure	All Populations	Medium
NCS-9	Off-Channel and Wetlands	Increase habitat complexity and connectivity and access to alcoves, off-channel ponds, floodplains, and wetlands	Increase beaver abundance	All Populations	Medium
NCS-10	Wetlands	Improve direct and indirect wetland connectivity to streams	Reduce existing and limit development of channel confining structures including roads and infrastructure in the floodplain that disconnect wetlands from tributaries and mainstems	All Populations	Medium
NCS-11	Mainstems	Improve wood recruitment to support long-term increases in habitat complexity	Improve state agricultural practices (grazing and hay production buffers on ag land adjacent to ESA-listed streams)	Tillamook Population	High
NCS-12	Mainstems	Improve wood recruitment to support long-term increases in habitat complexity	Improve state agricultural practices (grazing and hay production buffers on ag land adjacent to ESA-listed streams)	All Populations	Medium
NCS-13	Mainstems	Improve water quality by improving water	Improve water quality by improving stream shade	Tillamook and Nehalem	High

Action id	Habitat component	Strategy	Action	Area	Priority
		temperature		Populations	
NCS-14	Mainstems	Improve water quality by improving water temperature	Improve water quality by improving stream shade	All Populations	Medium
NCS-15	Mainstems	Improve water quality by improving water temperature	Improve water quality by improving instream flows	Tillamook Population	High
NCS-16	Mainstems	Improve marginal and streambank habitat complexity	Increase large wood and marginal and streambank habitat structure	All streams where coho salmon would benefit immediately	High
NCS-17	Mainstems	Improve marginal and streambank habitat complexity	Increase large wood and marginal and streambank habitat structure	All Populations	Medium
NCS-18	Mainstems	Improve wood recruitment to support long-term increases in habitat complexity	Improve timber harvest activities (increased harvest buffers on private industrial timberlands, reduce road densities on private and federal timberlands)	All streams where coho salmon would benefit immediately	High
NCS-19	Mainstems	Improve wood recruitment to support long-term increases in habitat complexity	Improve timber harvest activities (increased harvest buffers on private industrial timberlands, reduce road densities on private and federal timberlands)	All Populations	Medium
NCS-20	Mainstems	Increase habitat complexity	Improve state and federal regulations and permitting of gravel mining (retain gravel bar form and function).	Tillamook and Nehalem Populations	Medium
NCS-21	Estuary	Increase access to sloughs, side channels, and floodplains	Reduce fish passage barriers to floodplains by managing tidegate presence and operations.	All Estuaries	High
NCS-22	Estuary	Increase access to sloughs, side channels, and floodplains	Reduce fish passage barriers to floodplains by reducing or setting dikes back.	All Estuaries	High