



State of Washington

DEPARTMENT OF FISH AND WILDLIFE

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Protocols for Use of Hatchery Seed for Native Oyster Restoration

The over-arching objectives of WDFW guidance for native oyster restoration is the rebuilding of natural oyster bed habitat supported by self-sustaining populations of native oysters. WDFW has requirements in place for hatchery production of Olympia oysters aimed at minimizing potential genetic risk plus introductions or spread of diseases and pests associated with using hatchery-produced animals for restoration.

Genetic Conservation

As some embayments hosting restoration sites support natural production and recruitment of Olympia oysters, not all sites are candidates for hatchery seed. WDFW emphasizes habitat enhancement (e.g. shell placement) over planting of hatchery-produced seed at such sites.

- Restoration sites for the placement of hatchery seed vs. clean cultch must be approved by WDFW.

Currently, small volumes of Olympia oyster seed is being produced in a limited number of hatcheries for aquaculture purposes. An expansion of commercial production beyond current levels, or the production of Olympia oyster seed in commercial hatcheries for restoration purposes must abide by the same requirements being utilized by Washington's shellfish restoration hatchery operated by the Puget Sound Restoration Fund. Longer-term, WDFW is likely to implement similar requirements for all production of Olympia oysters. The essential requirements of production and use of hatchery seed related to native oyster restoration are:

- Proposals for hatchery-production and use native oyster seed for restoration must be submitted to WDFW for review and approval.
- Sourcing of broodstock and planting of seed must be in accordance with WDFW's sub-basin approach (e.g. seed produced from South Sound broodstock can only be planted in South Sound).
- Broodstock must be collected from approved wildstock sources that avoids use of hatchery-origin oysters and be of local provenance to the sub-basin where restoration is planned.
- A minimum of 1,200 wild broodstock should be used for each production cycle. Note that the Puget Sound Restoration Fund attempts to collect 1,500 to account for any mortality prior to or during spawning. Broodstock may only be used to produce a single year's cohorts and must be refreshed annually.
- Use volitional spawning methods over a minimum of four weeks.

- WDFW requires that that broodstock is returned to the site of collection after use in the hatchery, where appropriate. Return of broodstock requires WDFW approval and a permit.
- Collection of broodstock, planting of seed, and return of broodstock to source locations require WDFW transfer permits.

Disease Control

WDFW also seeks to minimize the risk of accidental introduction or spread of disease or pest organisms associated with restoration activities. The essential requirements of disease control and prevention related to native oyster restoration are:

- WDFW shellfish transfer permits are required for transfers of broodstock to and from the hatchery, for transfers of seed from the hatchery, and for seed to restoration sites.
- Shell (cultch) used for habitat enhancement or for setting seed must come from WDFW inspected and approved sources.
- An annual health screening of broodstock by a WDFW-approved pathologist is required before transfer to the hatchery. Testing has a seasonal timing requirement (must occur during summer months of July or August).
- A health screening of seed before it leaves the hatchery is required.
- Details of required health screens can be provided by WDFW.
- WDFW does not permit “shell recycling,” or using shell from sources not approved for use by WDFW (e.g. restaurants, other sources that have not been inspected and approved).
- Conditions to ensure broodstock and seed transfers do not carry unwanted hitchhikers such as oyster drills and European green crab will accompany transfer permits.
- Additional permit conditions may apply depending on specifics of facility or circumstance.