

Formal Jefferson County Response to Ecology on Changes to the Locally Approved Shoreline Master Program (LA-SMP):

Revised Response to Ecology: In-water Finfish Aquaculture Required Changes #13 - 15

Background: On January 26, 2011 the Washington Department of Ecology (Ecology) issued its conditional approval of the Jefferson County Locally Approved Shoreline Master Program (LA-SMP) pending some required and recommended changes. The County considered 63 possible changes to the LA-SMP and provided the 10/31/2011 Formal Response matrix to Ecology for informal review. Ecology indicated they would accept all the proposed changes, except those that pertained to Ecology's required changes (#13, 14 and 15) regarding in-water finfish aquaculture; the County still proposed a complete prohibition and Ecology will not support such a prohibition of this water-dependent use.

The County continued to study the issues and considered options of how to adequately regulate the use, including the now preferred approach of allowing the use with a conditional use permit (CUP) subject to specific performance standards and geographic limitations. This limited CUP approach is described below in this revised response to Ecology regarding the required changes for in-water finfish aquaculture.

This document serves as an addendum to the October 2011 response matrix and shows what changes the County is now prepared to make to the text of the LA-SMP, pending Ecology's approval. The contents herein would replace in entirety all previously proposed versions of response to Required Changes #13, 14 and 15 (specifically pages 7 – 14 of the October 2011 response matrix). The County's rationale is included at the end of this document, but will not be codified as part of the SMP. Proposed changes are shown below in line-in/line-out bill format with added text shown as underlined, and deleted text shown in ~~strikethrough~~. NOTE: As a courtesy to the reader, this document also shows revisions in response to other required and recommended changes from Ecology and text clarifications proposed by the County in an effort to present a complete package of provisions that would apply to in-water finfish aquaculture; these are indicated as "[Note: See Required/Recommended Change/Proposed Clarification #xx]". Because the County and Ecology have ostensibly come to agreement on these other changes, the additional revisions shown are not specifically presented for the purpose of further revision, but simply to give context to the combined response to Required Changes #13 -15 regarding in-water finfish aquaculture. For questions about this document, please contact Department of Community Development Project Manager Michelle McConnell at 360/379-4484 or mmccconnell@co.jefferson.wa.us.

Public comments on this document may be submitted to: jeffbocc@co.jefferson.wa.us or to **BoCC - SMP Comments, PO Box 1220, Port Townsend, WA 98368** or provided by verbal testimony at the public hearing 6:00 pm, Monday, April 15, 2013, County Courthouse, Superior Court Room.

Response Matrix:

ITEM	LA-SMP Provision	LA-SMP Page	Topic	Ecology's Required or Recommended Change	Jefferson County Response	Changes to the Locally Approved SMP
Ecology's Attachment B. Required Changes						
13	Article 4.3 – Use Table	4-6	Use Table – Net Pens/Finfish	Net Pens/Finfish X* X* X* X* X* X*	Alternative Proposal	Add and delete text to read as indicated in combined response for #13, 14 and 15 below:
14	Article 8.2.B.1 and 2 Article 8.2.C.1 through 6 Article 8.2.D.8 and 9	8-4 to 8-8	Aquaculture – Prohibitions Aquaculture – Shoreline Environment Regulations Aquaculture – Regulations - General	B. Uses and Activities Prohibited Outright 1. Net pens, as defined in Article 2, are prohibited. 2. Finfish aquaculture <u>requires conditional use approval.</u> 3. Applicants for aquaculture activities that use or release herbicides, pesticides, antibiotics, fertilizers, non-indigenous species, parasites, pharmaceuticals, genetically modified organisms, feed or other materials known to be harmful into surrounding waters is prohibited. <u>must demonstrate all significant impacts have been mitigated.</u>	Alternative Proposal	Add and delete text to read as indicated in combined response for #13, 14 and 15 below:
15	Article 8.2.A.12 and 13	8-4	Aquaculture - Policies	12. Net pens, as defined in Article 2, should not be allowed. 13. Finfish aquaculture that uses or releases herbicides, pesticides, antibiotics, fertilizers, pharmaceuticals, non-indigenous species, parasites, genetically modified organisms, or feed into surrounding waters <u>must demonstrate all significant impacts have been mitigated.</u> should not be allowed.	Alternative Proposal	Add and delete text to read as indicated in combined response for #13, 14 and 15 below:

Combined Response for Required Changes #13, 14 and 15:

Add and delete text to read as follows:

Article 2 Definitions

C.26. Critical habitat means habitat areas with which endangered, threatened, sensitive or monitored plant, fish, or wildlife species have a primary association (e.g., feeding, breeding, rearing of young, migrating). Such areas are identified herein with reference to lists, categories, and definitions promulgated by the Washington Department of Fish and Wildlife as identified in WAC 232-12-011 or 232-12-014; in the Priority Habitat and Species (PHS) program of the Department of Fish and Wildlife; or by rules and regulations adopted by the U.S. Fish and Wildlife Service, National Marine Fisheries Service, or other agency with jurisdiction for such designations. See also Habitat of special significance.

E.15. Experimental aquaculture means aquaculture that uses cultivates new species, or uses growing methods or harvesting techniques that have not previously been ~~cultivated~~ used in the state of Washington and that differ significantly from common practice.

H.2. Habitat of special significance means eelgrass beds, kelp beds, rocky reef habitat, geoduck beds, hardshell clam beds, habitat having significant populations or which are important to the feeding, reproduction or other life stages of Dungeness crabs, herring, lingcod/greenling, true cod, soles and flounders, rock fishes, cabezon and other large sculpins, or sea perch, wildlife refuges and habitats of endangered or threatened species, and other habitat that meets the 1986 Interim Guidelines for Salmon Net Pen Culture in Puget Sound. See also Critical habitat.

I.17. In-water finfish aquaculture means the farming or culture of vertebrate or cartilaginous food fish for market sale when raised in facilities located waterward of the ordinary high water mark in freshwater or saltwater water bodies, in either open-flow or contained systems. This includes net pens, sea cages, bag cages and similar floating/hanging containment structures and is intended to reflect the definition of 'marine finfish rearing facilities' (RCW 90.48.220), but does not include temporary restoration/enhancement facilities used expressly to improve populations of native stocks.

Article 4.3 Allowed Use Table

Table 1 - Permitted, Conditional and Prohibited Uses by Shoreline Environment Designation

P = Use may be permitted subject to policies and regulations of Program. May require Shoreline substantial development permit or Statement of exemption approval. See Articles 6, 7, 8, 9 and/or 10 for details.

C(a) = Conditional use administrative. See Articles 2, 9 and 10 for definition, criteria and process details.

C(d) = Conditional use discretionary. See Articles 2, 9 and 10 for definition, criteria and process details.

X = Prohibited use.

* = Exceptions and limitations may apply as noted in the Program. See specific section for details.

	Environment Designations					
	Waterward of OHWM		Landward of OHWM			
	Priority Aquatic	Aquatic	Natural	Conservancy	Shoreline Residential	High Intensity
Aquaculture:						
Net Pens/Finfish	X*	X*	X*	X*	X*	X*
<u>In-water Finfish (including Net Pens)</u>	X	P*	X*/C(d)	X	X	C(d)
<u>Upland Finfish</u>	X	P*	X	C(d)	X	C(d)

Article 8.1 Agriculture

A. Policies – Add new policy:

8. The County recognizes the importance of local food production, both on land and in water areas, when properly managed to control pollution and prevent environmental damage. As consistent with the Jefferson County Comprehensive Plan, RCW 36.70A.030, and RCW 90.58.065, the commercial growth of food fish/finfish, shellfish and other aquatic plants and animals is considered agricultural production, however, for purposes of this Program, such food production that is water-dependent or located in water areas (“in-water”) should be managed as aquaculture and aquaculture activities, as defined in Article 2.

B. Shoreline Environment Regulations – Add and delete text to read:

1. Priority Aquatic: New agricultural activities, except aquaculture, are prohibited. ~~Farming and management of shellfish and other aquatic products are subject to the Aquaculture policies and regulations (Article 8 section 2) of this Program.~~
2. Aquatic: New agricultural activities, except aquaculture, are prohibited.
3. Natural: New agricultural activities, except aquaculture, are prohibited, except that low intensity...

C. Regulations – Add new regulation:

3. Farming and management of food fish/finfish, shellfish or other aquatic plant or animal products shall be subject to the Aquaculture policies and regulations (Article 8 section 2) of this Program.

Article 8.2 Aquaculture

A. Policies

1. Aquaculture is a preferred, water-dependent use of regional and statewide interest that is important to the long-term economic viability, cultural heritage and environmental health of Jefferson County.
2. The County should support aquaculture uses and developments that:
 - i. Protect and improve water quality; and
 - ii. Minimize damage to important nearshore habitats; and
 - iii. Minimize interference with navigation and normal public use of surface waters; and
 - iv. Minimize the potential for cumulative adverse impacts, such as those resulting from in-water structures/apparatus/equipment, land-based facilities, and substrate disturbance/modification (including rate, frequency, and spatial extent).
3. When properly managed, aquaculture can result in long-term ecological and economic benefits. The County should engage in coordinated planning to identify potential aquaculture areas and assess long-term needs for aquaculture. This includes working with the Department of Fish and Wildlife (DFW), the Department of Natural Resources (DNR), area tribes and shellfish interests to identify areas that are suitable for aquaculture and protect them from uses that would threaten aquaculture's long-term sustainability.
4. Aquaculture use and development should locate in areas where biophysical conditions, such as tidal currents, water temperature and depth, will minimize adverse environmental impacts. Individual aquaculture uses and developments should be separated by a sufficient distance to ensure that significant adverse cumulative effects do not occur.
5. The County should support tideland aquaculture use and development when consistent with this Program and protect tidelands and bedlands that were acquired and retained under the Bush and Callow Acts by not permitting non-aquaculture use and development on these tidelands.
6. Intensive residential uses, other industrial and commercial uses, and uses that are unrelated to aquaculture should be located so as not to create conflicts with aquaculture operations.
7. The County should promote cooperative arrangements between aquaculture growers and public recreation agencies so that public use of public shorelines does not conflict with aquaculture operations.
8. Experimental forms of aquaculture involving the use of new species, new growing methods or new harvesting techniques should be allowed when they are consistent with applicable state and federal regulations and this Program.

9. The County should support community restoration projects associated with aquaculture when they are consistent with this Program.
10. Commercial and recreational shellfish areas including Shellfish Habitat Conservation Areas are critical habitats. Shellfish aquaculture activities within all public and private tidelands and bedlands are allowed uses. Such activities include but are not limited to bed marking, preparation, planting, cultivation, and harvest. ~~Nothing in this program should be construed as to preclude their use.~~ [Note: See Required Change #12]
11. Chemicals and fertilizers used in aquaculture operations should be used in accordance with state and federal laws, and this Program.
12. Finfish aquaculture that uses or releases herbicides, pesticides, antibiotics, fertilizers, pharmaceuticals, non-indigenous species, parasites, viruses, genetically modified organisms, ~~or~~ feed, or other materials known to be harmful into surrounding waters should not be allowed unless significant impacts to surrounding habitat and conflicts with adjacent uses are effectively mitigated.
13. The County should prefer in-water finfish aquaculture use and development that operates with fully-contained systems that treat effluent before discharge to local waters over open net pen systems.
14. The County should allow in-water finfish aquaculture in the open waters of the Strait of Juan de Fuca only when the area seaward of the shore extends a considerable distance, and when consistent with other provisions of this Program.
15. The County should prohibit in-water finfish aquaculture in waters of Jefferson County where there are habitat protection designations in place and/or water quality issues documented.

B. Uses and Activities Prohibited Outright

1. In-water finfish aquaculture use/development, including net pens as defined in Article 2, shall be prohibited in the following areas due to established habitat protection designations and/or water quality issues:
 - a. Protection Island Aquatic Reserve or within fifteen hundred feet (1,500') of the boundary;
 - b. Smith and Minor Islands Aquatic Reserve or within fifteen hundred feet (1,500') of the boundary;
 - c. Discovery Bay, south of the boundary of the Protection Island Aquatic Reserve;
 - d. South Port Townsend Bay Mooring Buoy Management Plan Area; and
 - e. Hood Canal, south of the line extending from Tala Point to Foulweather Bluff, including Dabob and Tarboo Bays.

C. Shoreline Environment Regulations

1. Priority Aquatic: Aquaculture activities may be allowed subject to the use and development regulations of the adjacent upland shoreline environment, except finfish aquaculture is prohibited.
2. Aquatic: Aquaculture activities may be allowed subject to the use and development regulations of the adjacent upland shoreline environment.

3. Natural: Aquaculture activities, except for geoduck aquaculture, may be allowed subject to policies and regulations of this Program. Geoduck aquaculture may be allowed with a conditional use permit (C(d)). Finfish aquaculture is prohibited, except in-water finfish aquaculture may be allowed with a conditional use permit (C(d)) where the area within the County's jurisdiction extends seaward more than eight (8) miles from the OHWM, as measured perpendicularly from shore.
4. Conservancy: Aquaculture activities, except for geoduck aquaculture, may be allowed subject to policies and regulations of this Program. Geoduck and upland finfish aquaculture may be allowed with a conditional use permit (C(d)). In-water finfish aquaculture is prohibited.
5. Shoreline Residential: Aquaculture activities, except for geoduck aquaculture, may be allowed subject to policies and regulations of this Program. Geoduck aquaculture may be allowed with a conditional use permit (C(d)). Finfish aquaculture is prohibited.
6. High Intensity: Aquaculture activities may be allowed subject to policies and regulations of this Program, except upland finfish aquaculture may be allowed with a conditional use permit ((C)d).

D. Regulations – General

1. When a shoreline permit is issued for a new aquaculture use or development, that permit shall apply to the initial siting, construction, and/or planting or stocking of the facility or farm. If the initial approval is a shoreline substantial development permit, it shall be valid for a period of five (5) years with a possible one-year extension. If the initial approval is a conditional use permit, it shall be valid for the period specified in the permit.
2. Ongoing maintenance, harvest, replanting, restocking of, or changing the species cultivated in any existing or permitted aquaculture operation is not considered new use/development, and shall not require a new permit, unless or until: **[Note: See Proposed Clarification #21]**
 - i. The physical extent of the facility or farm is expanded by more than twenty-five percent (25%) or more than twenty-five percent (25%) of the facility/farm changes operational/cultivation methods compared to the conditions that existed as of the effective date of this Program or any amendment thereto. If the amount of expansion or change in cultivation method exceeds twenty-five percent (25%) in any ten (10) year period, the entire operation shall be considered new aquaculture and shall be subject to applicable permit requirements of this section; or
 - ii. The facility proposes to cultivate species not previously cultivated in the state of Washington.
3. Aquaculture uses and activities involving hatching, seeding, planting, cultivating, raising and/or harvesting of planted or naturally occurring shellfish shall not be considered development, as defined in Article 2, and shall not require a shoreline substantial development permit, unless:
 - i. The activity substantially interferes with normal public use of surface waters; or
 - ii. The activity involves placement of any structures as defined in Article 2; or
 - iii. The activity involves dredging using mechanical equipment such as clamshell, dipper, or scraper; or
 - iv. The activity involves filling of tidelands or bedlands.
4. The County shall assess the potential for interference described in 8.2.C.3 on a case-by-case basis. All proposed new aquaculture uses or developments shall submit a Joint Aquatic Permit Application (JARPA)

and SEPA checklist to enable assessment by the county. Activities shall not be considered to substantially interfere with normal public use of surface waters, unless:

- i. They occur in, adjacent to or in the immediate vicinity of ~~public waters including~~ public tidelands; and [Note: See Required Change #18]
 - ii. They involve the use of floating ropes, markers, barges, floats, or similar apparatus on a regular basis and in a manner that substantially obstructs public access, or passage from public facilities such as parks or boat ramps; or they exclude the public from more than one acre of surface water on an ongoing or permanent basis.
5. Aquaculture activities not listed in 8.2.DC.3 and listed activities that fail to meet any of the criteria in 8.2.C.4 A.2 shall require a shoreline substantial development permit (SDP) or conditional use permit (CUP), and shall be subject to all of the following regulations: [Note: See Recommended Change #13]
- i. Subtidal, intertidal, floating, and upland structures and apparatus associated with aquaculture use shall be located, designed and maintained to avoid adverse effects on ecological functions and processes.
 - ii. The County shall consider the location of proposed aquaculture facilities/farms to prevent adverse cumulative effects on ecological functions and processes and adjoining land uses. The County shall determine what constitutes acceptable placement and concentration of commercial aquaculture in consultation with state and federal agencies and Tribes based on the specific characteristics of the waterbody, reach, drift cell, and uplands in the vicinity of the farm/facility.
 - iii. Upland structures accessory to aquaculture use that do not require a waterside location or have a functional relationship to the water shall be located landward of shoreline buffers required by the Program.
 - iv. Overwater work shelters and sleeping quarters accessory to aquaculture use/development shall be prohibited.
 - v. Floating/hanging aquaculture structures and associated equipment shall not exceed six (6) feet in height above the water's surface. The Administrator may approve hoists and similar structures greater than six (6) feet in height when there is a clear demonstration of need. The six foot height limit shall not apply to vessels.
 - vi. Floating/hanging aquaculture facilities and associated equipment, except navigation aids, shall use colors and materials that blend into the surrounding environment in order to minimize visual impacts.
 - vii. Aquaculture use and development shall not materially interfere with navigation, or access to adjacent waterfront properties, public recreation areas, or tribal harvest areas. Mitigation shall be provided to offset such impacts where there is high probability that adverse impact would occur. This provision shall not be interpreted to mean that an operator is required to provide access across owned or leased tidelands at low tide for adjacent upland owners.
 - viii. Aquaculture uses and developments, except finfish aquaculture, shall be located at least six hundred (600) feet from any National Wildlife Refuge, seal and sea lion haulouts, seabird nesting colonies, or other areas identified as critical feeding or migration areas for birds and mammals. Finfish facilities, including net pens, shall be located 1,500 feet or more from such areas. The County may approve

lesser distances based upon written documentation that US Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW) and affected tribes support the proposed location.

- ix. Aquaculture use and development shall be sited so that shading and other adverse impacts to existing red/brown macro algae (kelp), and eelgrass beds are avoided.
- x. Aquaculture uses and developments that require attaching structures to the bed or bottomlands shall use anchors, such as helical anchors, that minimize disturbance to substrate.
- xi. Where aquaculture use and development are authorized to use public facilities, such as boat launches or docks, the County shall reserve the right to require the applicant/proponent to pay a portion of the maintenance costs and any required improvements commensurate with the applicant's/proponent's use.
- xii. Aquaculture use and development shall employ non-lethal, non-harmful measures to control birds and mammals. Control methods shall comply with existing federal and state regulations.
- xiii. Aquaculture use and development shall avoid use of chemicals, fertilizers and genetically modified organisms except when allowed by state and federal law.
- xiv. Non-navigational directional lighting associated with aquaculture use and development shall be used wherever possible and area lighting ~~should~~ shall be avoided and minimized to the extent necessary to conduct safe operations. Non-navigational lighting shall not adversely affect vessel traffic.

xv. Aquaculture waste materials and by-products shall be disposed of in a manner that will ensure strict compliance with all applicable governmental waste disposal standards, including but not limited to the Federal Clean Water Act, Section 401, and the Washington State Water Pollution Control Act (RCW 90.48).

- 6. Prior to approving a permit for floating/hanging aquaculture use and development or bottom culture involving structures, the County may require a visual analysis prepared by the applicant/proponent describing effects on nearby uses and aesthetic qualities of the shoreline. The analysis shall demonstrate that adverse impacts on the character of those areas are effectively mitigated.

E. Regulations – Finfish

- 1. The culture of finfish, including net pens as defined in Article 2, may be allowed with a discretionary conditional use approval (C(d)) subject to the policies and regulations of this Program. The following standards and criteria apply for all in-water finfish aquaculture use/development, per the recommendations of the 1986 Interim Guidelines (Weston/SAIC), the 1986 Aquaculture Siting Study (EDAW Inc.), the 1988 Use Conflict Study (Boyce), and the 1990 Final Programmatic Environmental Impact Statement - Preferred Alternative (Parametrix). In the event there is a conflict between these requirements, the more restrictive shall prevail. Upon availability of any other subsequently state-approved guidance, the more protective requirements shall prevail.

2. General— All in-water finfish aquaculture proposals for facilities/operations shall:
- a. Provide the County, at the applicant/operator's expense, a site characterization survey, baseline surveys, and annual monitoring as described in the 1986 Interim Guidelines, or subsequent documents approved by the State. The applicant/operator shall also provide the County with copies of all survey and monitoring reports submitted to WA Departments of Ecology, Fish & Wildlife, and Natural Resources.
 - b. Submit an operations plan that includes projections for:
 - i. Improvements at the site (e.g. pens, booms, etc.) and their relationship to the natural features (e.g. bathymetry, shorelines, etc.);
 - ii. Number, size and configuration of pens/structures;
 - iii. Schedule of development and maintenance;
 - iv. Species cultured;
 - v. Fish size at harvest;
 - vi. Annual production;
 - vii. Pounds of fish on hand throughout the year;
 - viii. Average and maximum stocking density
 - ix. Source of eggs, juveniles, and broodstock;
 - x. Type of feed used;
 - xi. Feeding method;
 - xii. Chemical use (e.g. antifouling, antibiotics, etc.); and
 - xiii. Predator control measures.
 - c. Provide County with documentation of adequate property damage and personal injury commercial insurance coverage as required by Washington Department of Natural Resources and other agencies.

2. Bottom Sediments & Benthos

- a. The depth of water below the bottom of any in-water finfish aquaculture facility shall meet the minimum required by the 1986 Interim Guidelines (i.e. 20 – 60 feet at MLLW), as based on facility production capacity (Class I, II or III) and the mean current velocity at the site, measured as noted in the Guidelines or by more current data/methodology.
- b. In-water finfish aquaculture operations shall be prohibited where mean current velocity is less than 0.1 knots (5 cm/sec).
- c. The pen configuration (e.g. parallel rows, compact blocks of square enclosures, or clusters of various sized round enclosures, whether oriented in line with or perpendicular to the prevailing current direction) of any in-water finfish aquaculture facility shall be designed and maintained to minimize the depth and lateral extent of solids accumulation.
- d. The use of unpelletized wet feed shall be prohibited to minimize undigested feed reaching the benthos or attracting scavengers in the water column.
- e. Anchoring or mooring systems shall utilize adequately-sized helical devices or other methods to minimize disturbance to the benthos.

3. Water Quality

- a. All in-water finfish aquaculture facilities shall be designed, located and operated to avoid adverse impacts to water temperature, dissolved oxygen and nutrient levels, and other water quality parameters. Facilities must comply with National Pollutant Discharge Elimination Standards (NPDES) requirements.
 - b. All in-water finfish aquaculture facilities shall monitor water quality and net cleaning activities to comply with State requirements (including WAC 173-201A-210), especially during periods of naturally high water turbidity. Additional net cleaning activities shall be performed, as needed, to ensure State water quality standards are met.
4. Phytoplankton
- a. In-water finfish aquaculture facility production capacity shall be limited in nutrient sensitive areas to protect water quality and shall not exceed 1,000,000 pounds annual production per square nautical mile. The following shall apply for specific geographic areas:
 - i. In the main basin of Puget Sound (area south of the sill at Admiralty Inlet extending to the line between Tala Point and Foulweather Bluff, including Port Townsend Bay, Kilisut Harbor, and Oak Bay, and extending to the County's boundary midway to Whidbey Island), annual production shall be limited by the site characteristics in compliance with this Program.
 - b. Applicants shall demonstrate through field and modeling studies that the proposed fish farms will not adversely affect existing biota.
5. Chemicals
- a. Only FDA-approved chemicals shall be allowed on a case-by-case basis for anti-fouling, predator control and other purposes. The use of tributyltin (TBT) is prohibited and all chemical use shall be reported to the State as required.
 - b. When necessary, vaccination is preferred over the use of antibiotics. Only FDA-approved antibiotics shall be used and such use shall be reported to the State as required. Operator shall take all necessary precautions to ensure that nearby sediments and shellfish do not accumulate significant amounts of antibiotics.
6. Food fish & Shellfish
- a. All in-water finfish aquaculture facilities shall be located to avoid adverse impacts to habitats of special significance (as defined in Article 2) and populations of food fish and shellfish as follows, as determined on a case-by-case basis:
 - i. When adjacent to any wildlife refuge, sanctuary, aquatic reserve or similar area intended to protect threatened or endangered species, locate a minimum of 300 feet in all directions from such protected areas;
 - ii. When water depth is less than 75 feet, locate at least 300 feet down-current and 150 feet in all other directions from significant habitats;

- iii. When water depth is greater than 75 feet, locate at least 150 feet from significant habitat.
 - b. The County shall designate protective buffer zones around habitats of special significance in accordance with marine area spatial planning efforts led by the State, when such guidance and methodologies are available.
7. Importation of New Fish Species
- a. All in-water finfish aquaculture facilities shall comply with existing State and federal regulations to ensure importation of new and/or non-native species does not adversely affect existing and/or native species.
8. Genetic Issues
- a. In compliance with State and federal requirements, in-water finfish aquaculture facilities that propose to culture species native to local waters should use stocks with the greatest genetic similarity to local stocks.
 - b. When there is increased risk of interbreeding or establishment of naturalized populations of the cultured species that would in conflict with native stocks, only sterile or mono-sexual fish shall be allowed.
 - c. All in-water finfish aquaculture facilities shall locate a minimum distance from river mouths where wild fish could be most vulnerable to genetic degradation, as determined on a case-by-case basis or by State guidance.
9. Escapement and Disease
- a. All in-water finfish aquaculture facilities shall comply with State and federal requirements to control pests, parasites, diseases, viruses and pathogens and to prevent escapement including, but not limited to, those for certified eggs, approved import/transport and live fish transfer protocols, escapement prevention, reporting and recapture plans, and disease inspection and control per RCW 77.15.290, RCW 77.115, WAC 220-76 and WAC 220-77 and other requirements as appropriate.
 - b. The use of regional broodstock is preferred.
 - c. As consistent with the above mentioned Washington statues and administrative rules, and other applicable authorities, all in-water finfish aquaculture facility operators shall provide the County with a Disease Response Plan to detail specific actions and timelines to follow when an outbreak is detected. The plan shall address transport permit denial, quarantine, confiscation, removal, and other possible scenarios, identify what agencies will be notified or involved, what alternate facilities may be used, a public information/outreach strategy and other appropriate information.
10. Marine Mammals & Birds
- a. All in-water finfish aquaculture facilities shall locate a minimum of 1,500 feet from habitats of special significance for marine mammals and seabirds.

- b. Only non-lethal techniques (e.g. anti-predator netting) shall be allowed to prevent predation by birds and/or mammals on the cultured stocks.

11. Visual Quality

- a. All in-water finfish aquaculture facilities shall conduct a Visual Impact Assessment to evaluate and document the following siting and design variables in order to minimize visual impacts to adjacent and surrounding uses:
 - i. Locate offshore from low bank shorelines rather than high bluff areas where angle of viewing becomes more perpendicular to the plane of water making the facility more visually evident;
 - ii. Locate offshore a minimum of 1,500 feet from ordinary high water mark, or a minimum of 2,000 feet when higher density residential development is present along the adjacent upland. The County may require a greater distance as determined by a visual impact assessment.
 - iii. Facilities shall be designed to maximize a horizontal profile to repeat the plane of the water surface rather than project vertically above the water surface. Vertical height shall be the minimum feasible, not to exceed 10 feet from the surface of the water.
 - iv. Facilities shall be designed so that the overall size and surface area coverage does not exceed 10% of the normal cone of vision, dependent on the foreshortening created by the offshore distance and the average observation height.
 - v. Facilities shall be designed to borrow from the form of structures and materials already in the environment (e.g. pilings, docks, marinas) and to blend with the predominate color schemes present (i.e. blue, green, gray, neutral earth tones). The colors of white and black shall be minimized as they have highly variable appearance in response to lighting conditions. Bright colors such as red, yellow, and orange shall be avoided, unless required for safety purposes. The use of a variety of materials or colors shall be limited and ordered.
 - vi. Facilities proposed to locate in the vicinity of existing in-water finfish aquaculture facilities shall evaluate the aggregate impacts and cumulative effects of multiple operations in the same area.
 - vii. Facilities shall be designed and located so that the surface area of individual operations does not exceed 2 acres of surface coverage and no more than one operation per square nautical mile
 - viii. Land based access for parking, staging, launching, and storage associated with any in-water finfish aquaculture facilities shall be evaluated for visual impacts and conflicts with adjacent upland uses.

12. Navigation, Military Operations and Commercial Fishing

- a. When appropriate, in-water finfish aquaculture facilities shall be located close to shore and near existing navigational impediments (i.e. marinas, docks).
- b. All in-water finfish aquaculture facilities shall be designed, located and operated to avoid conflict with military operations.

- c. The County shall notify, as appropriate, marinas, ports, recreational and commercial boating/fishing organizations, and local tribes about comment opportunities during the permit review process, especially re: proposed location of fish farm and related navigational aids.

13. Human Health

- a. All in-water finfish aquaculture facilities shall be designed, located and operated to:
 - i. Ensure adequate water quality compatible with good husbandry practices;
 - ii. Report any known bacteriological characteristics of fish food used;
 - iii. Ensure proper storage of fish food to avoid alteration or degradation of feed quality; and
 - iv. Regularly monitor and report presence of parasites in farmed fish.
 - v. Comply with federal, state and local food safety requirements including, but not limited to, source identification and country of origin labeling, and Hazard Analysis & Critical Control Points Plan.

14. Recreation

- a. All in-water finfish aquaculture facilities shall ensure compliance with State and federal requirements, especially when location is proposed near underwater park facilities.
- b. All in-water finfish aquaculture facilities shall be located a minimum of 1,000 feet from any recreational shellfish beach, public tidelands, public access facilities (e.g. docks or boat ramps) or other areas of extensive or established recreational use.
- c. In-water finfish aquaculture operators shall inform the Notice to Mariners and other appropriate entities for nautical chart revisions and notify other sources that inform recreational uses (e.g. boaters, divers, shellfish harvesters).

15. Noise

- a. All in-water finfish aquaculture facilities shall be designed, located and operated to:
 - i. Ensure compliance with state and federal noise level limits;
 - ii. Require mufflers and enclosures on all motorized fish farm equipment;
 - iii. When appropriate, prefer electric motors over internal combustion engines.
- b. The County may require an acoustical study, conducted at the applicant/operator's expense, to ensure any audible impacts are identified and adequately addressed.

16. Odor

- a. All in-water finfish aquaculture facilities shall be designed, located and operated to:
 - i. Ensure compliance with state limits regarding nuisances and waste disposal;
 - ii. Follow best management practices including, but not limited to:
 - 1. Daily removal and disposal of dead fish and other waste;
 - 2. Regular cleaning of nets and apparatus;
 - 3. Storage of food in closed containers;

- 4. Walkway design and use allows spilled food to fall into the water.
- iii. Maximize the distance between the facility and nearby residential use/development, downwind location preferred, to minimize impacts resulting from foul odors.

17. Lighting and Glare

- a. Facilities shall comply with USCG requirements for operational and navigational lighting. The height of the light source above the water surface shall be the minimum necessary, not to exceed 80 inches, unless otherwise specified by State or federal requirements.
- b. Facilities shall be designed so that any glare or shadows caused by the solar orientation are minimized.
- c. Facilities shall utilize materials that minimize glare caused by sunlight or artificial lighting.

18. Upland Shoreline Use

- a. All in-water finfish aquaculture facilities shall be designed, located and operated to minimize incompatible uses and degradation of upland area.

19. Local Services

- a. All in-water finfish aquaculture facilities shall be designed, located and operated to:
 - i. Provide estimates of high, average, and low volumes of waste to be produced, including catastrophic events;
 - ii. Provide a waste management plan to include the method and frequency of collection, storage and disposal; and
 - iii. Ensure compliance with local, state, federal waste disposal requirements.
- b. Equipment, structures and materials shall not be discarded in the water and shall not be abandoned in the upland.

F. Regulations – Application Requirements

- ~~6~~ 1. Prior to issuing a permit for any proposed ~~bottom culture or floating/hanging culture~~ aquaculture use or development, the County may require copies of permit applications and/or studies required by state and federal agencies to ensure provisions of this Program are met, including, but not limited to, the following information:
- i. Anticipated harvest cycles and potential plans for future expansion or change in species grown or harvest practices
 - ii. Number, types and dimensions of structures, apparatus or equipment.
 - iii. Predator control methods.
 - iv. Anticipated levels of noise, light, and odor and plans for minimizing their impacts.
 - v. Potential impacts to animals, plants, and water quality due to the discharge of waste water from any upland development.

- vi. Proof of application for an aquatic lands lease from the Washington State Department of Natural Resources (DNR) or proof of lease or ownership if bedlands are privately held.
 - vii. Department of Health (DOH) Shellfish Certification Number.
 - viii. Department of Fish and Wildlife (DFW) commercial aquatic farm or non-commercial, personal consumption designation.
 - ix. Proof of application for any permits required by the U.S. Army Corps of Engineers, Department of Health, or other agency
 - x. Proof of application for any state and federal permits/approvals including any required federal consultation under Section 7 of the Endangered Species Act (16 U.S.C. § 1531 et seq., ESA).
- ~~7.2.~~ 2. Prior to approving a permit for floating/hanging or upland aquaculture use and development or bottom culture involving structures, the County may require a visual analysis prepared by the applicant/proponent describing effects on nearby uses and aesthetic qualities of the shoreline. The analysis shall demonstrate that adverse impacts on the character of those areas are effectively mitigated.

Jefferson County Rationale:

Finfish Aquaculture Provisions

Jefferson County proposes to allow new finfish aquaculture use/development with a discretionary conditional use permit, with some differentiation between the regulation of upland and in-water facilities. Review of proposals for conditional discretionary uses are subject to specific criteria and performance standards, public notice, written public comment, and at the discretion of the Shoreline Administrator, an optional public hearing procedure determined by the project's potential impacts, size or complexity in compliance with the Jefferson County Code, Chapter 18.40, Section 520 (JCC 18.40.520). This Type III quasi-judicial permit review process also includes review by Washington Department of Ecology as the state's legislative authority for shoreline management and final decision by a Hearing Examiner.

Upland finfish aquaculture use/development would be allowed with a discretionary conditional use permit limited to the Aquatic, Conservancy and High Intensity shoreline designations. The limitation to Conservancy and High Intensity designations is appropriate given such industrial use of natural resources is not compatible in Natural designated areas with significantly intact shoreline functions and processes or in Shoreline Residential designated areas with higher densities of single family residential use/development where the risk of conflict between incompatible uses is highest. This limited allowance recognizes that an upland operation may require water intake and discharge components located waterward of the ordinary high water mark (OHWM).

In-water finfish aquaculture use/development, including net pens and floating contained systems, is also proposed to be allowed with a discretionary conditional use permit. The use would be limited to the Aquatic shoreline designation 1) when adjacent to High Intensity shoreline designation, or 2) when adjacent to the Natural shoreline designation but only when more than eight (8) miles of County jurisdiction extends seaward from shore, such as in the Strait of Juan de Fuca.

Several geographic limitations would also apply to ensure protection of sensitive habitat areas and areas with degraded water quality. In-water finfish aquaculture would be prohibited in the following areas:

- Protection Island Aquatic Reserve;
- Smith & Minor Islands Aquatic Reserve;
- Discovery Bay;
- South Port Townsend Bay; and
- Hood Canal.

Further, all proposals for new in-water finfish aquaculture use/development would need to meet the detailed performance standards for siting and operations, including but not limited to topics such as:

- Site surveys and Monitoring;
- Facility Operations Plan;
- Insurance Coverage;
- Bottom Sediments and Benthos;
- Water Quality;
- Phytoplankton;
- Chemicals;
- Food fish and Shellfish;
- Importation of New Fish Species;
- Genetic Issues;
- Escapement and Disease;
- Visual Quality;
- Navigation, Military Operations and Commercial Fishing;
- Human Health;
- Recreation;
- Noise;
- Odor;
- Lighting and Glare;
- Upland Shoreline Use; and
- Local Services.

The County recognizes a complete prohibition of a water-dependent, preferred shoreline use may make the County vulnerable to a legal challenge. Instead the County proposes to allow the use only in appropriate areas in order to ensure no net loss of shoreline resources and to minimize use conflicts that result from incompatible activities in close proximity. This approach will provide appropriate shoreline locations where this intensive industrial agricultural use can occur while 1) ensuring adequate protection of nearshore habitat such as marine riparian and submerged aquatic vegetation, benthic communities, and migration corridors for endangered salmonids, and 2) minimizing the potential for use conflicts anticipated along most Natural, Conservancy, and Shoreline Residential designated shorelines. The specific performance standards made part of this SMP are consistent with state guidance on finfish aquaculture use/development with respect to siting,

use conflicts, and environmental impacts. Further, the provisions clarify aquaculture as a subset of agricultural use/development to be managed by the more specific aquaculture policies and regulations of the Program.

The County recognizes many concerns still exist regarding the risks and potential impacts related to in-water finfish aquaculture, such as:

- Biodeposits – food and feces;
- Chemical Use - pesticides, pharmaceuticals, etc;
- Disease - bacteria, viruses;
- Parasites - sea lice;
- Escapement - GMOs, breed/compete with natives; and
- Impacts to Puget Sound – low dissolved oxygen, shellfish beds, forage fish, kelp & eelgrass, mammals, ongoing restoration efforts.

However, the County has conducted additional review of available technical information and consulted with experts in the fields of fish health, water quality permitting, escapement and genetics, and commercial and enhancement net pen operations. This further consideration of the complex issues related to in-water finfish aquaculture has allowed the County to conclude that such a limited allowance with reliance on the existing regulatory requirements of multiple state and federal agencies is a reasonable and adequate approach to striking a balance between outright prohibition and across the board allowance.

Arising from Ecology’s response, the County conducted further investigation in greater detail of the science in support of and opposition to finfish aquaculture, with special focus on in-water operations such as net pens. The Finfish Bibliography includes some 125 documents including peer-reviewed journal articles, state and federal agency policy and technical guidance, permit samples from existing Puget Sound net pen operations, Shoreline Master Programs from other Puget Sound jurisdictions, a programmatic EIS document and other sources of pertinent information. The Bibliography includes documentation submitted during formal public comment and constitutes a representative sample of the available science. The Bibliography contains recently published “current” science such as the February 2011 report of Michael Price *et al.* on juvenile salmon runs.

Recent correspondence from Ecology to the Northwest Straits Commission (September 2011) clarifies that the state relies primarily on key documents such as the 1986 Aquaculture Siting Study and Guidelines, and the 2002 NOAA Technical Memo #53. The County has considered these same sources of information and others from that era (i.e. 1988 Use Conflicts Study; 1990 Final Programmatic EIS; 2001 NOAA Technical Memo #49), but also relies on more current science from the 2003 – 2011 era.

The statute requires that the SMP balance appropriate shoreline activities with adequate protection of the resources. The SMP Guidelines (WAC 173-26-186) require that shoreline use and development is regulated to ensure “no net loss of ecological functions”. Further, the Guidelines (WAC 173-26-201(3)(g)) require that when less is known the SMP take a more protective approach to avoid unanticipated impacts and to reasonably assure that shoreline resources are protected. The current science is inconsistent. Therefore, the County concludes it has no choice but to err at this time on the side of caution and protection. The County believes the science dictates that in-water finfish aquaculture, including net pens, must be limited.

The County proposes to modify the *Locally Approved SMP* to include these provisions as a matter of legislative discretion and after a “reasoned, objective evaluation of the relative merits of the conflicting data” collected by this County as is allowed per WAC 173-26-201(2)(a)(iii).