October 1, 1991, the following amendment of the Board's Final Findings, Conclusions and Order is hereby ORDERED:

Conclusion of Law VIII at p. 28 is amended to add Condition No. 11 as follows:

> The parties shall comply with an Agreement entered into between the Jamestown Klallam Tribe and the Gunstone Family, so far as it applies to each party, attached hereto as Exhibit No. 1. The Agreement will produce no new enforcement obligations for Clallam County but may be enforced by the Gunstones or the Tribe under, inter alia, the Shoreline Management Act.

DONE at Lacey, WA, this 8th day of ~~December~~ January, 1992.

SHORELINES HEARINGS BOARD

Harold S. Zimmerman (A.K.)
HAROLD S. ZIMMERMAN, Chairman

Judith A. Bendor
JUDITH A. BENDOR, Member

Annette S. McGee
ANNETTE S. McGEE, Member

Nancy Burnett
NANCY BURNETT, Member

William A. Harrison
WILLIAM A. HARRISON
Administrative Appeals Judge

BEFORE THE SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF A SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT DENIED BY CLALLAM COUNTY TO JAMESTOWN KLALLAM TRIBE and SEA FARM OF WASHINGTON, JAMESTOWN KLALLAM TRIBE and SEA FARM OF WASHINGTON, Appellants, and STATE OF WASHINGTON, DEPARTMENT OF NATURAL RESOURCES and DEPARTMENT OF AGRICULTURE, Intervenors, v. CLALLAM COUNTY, Respondent, and SAVE DISCOVERY BAY FOUNDATION and GUNSTONE FAMILY, Intervenors and Cross-Appellants.	SHB Nos. 88-4 & 88-5 FINAL FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

This matter is the appeal and cross-appeal from the denial of a shorelines substantial development permit for a salmon net pen facility.

The matter came on before the Shorelines Hearings Board, William A. Harrison, Administrative Appeals Judge, Presiding. Sitting as the Board were Wick Dufford, Chairman, Judith A. Bendor, Harold S. Zimmerman, Nancy Burnett, Robert C. Schofield and Richard Gidley, Members.

Appellant Jamestown Klallam Tribe and Sea Farms of Washington appeared by John A. Woodring, Attorney at Law. Intervenor Department of Natural Resources appeared by Jay D. Geck, Assistant Attorney General. Intervenor Department of Agriculture appeared by Betty J. Edwards, Assistant Attorney General. Respondent Clallam County appeared by Christopher Melly, Deputy Prosecuting Attorney. Intervenor and cross-appellant Gunstone Family, appeared by Peter J. Eglick, Attorney at Law. Intervenor and cross-appellant Save Discovery Bay Foundation, appeared by Gloria M. Champeaux, Member.

The hearing was conducted at Sequim, Washington on September 23, 1988; and at Seattle on September 26, 27, 28, 29, and 30, 1988; and at Lacey on October 3, 4, and 5, 1988. Gene Barker and Associates provided court reporting services.

Witnesses were sworn and testified. By stipulation, certain witnesses gave depositions which were admitted as testimony during November, 1988. Exhibits were examined. The Board viewed the site of

the proposed development in the company of the parties. Closing briefs were filed by December 2, 1988. From testimony heard or read and exhibits examined, the Shorelines Hearings Board makes these

FINDINGS OF FACT

I

This matter arises within Discovery Bay in Clallam County and concerns a proposal for rearing salmon in net pens. Discovery Bay is on the northern shore of the Olympic Peninsula between Sequim and Port Townsend.

II

On April 27, 1987, appellants Sea Farm of Washington and Jamestown Klallam Tribe filed an application with Clallam County for a shoreline substantial development permit. The proposed net pen development for which the permit was sought would consist of 42 floating salmon pens, each 40 feet square. These would be paired into 21double file with a central walkway 8 feet wide. There would also be service floats for food storage and a security shelter. The surface area covered by the pens, walkway and service floats would total just under 2 acres. The net pen configuration would be 900 feet long by 93 feet wide.

III

The long axis of the net pens would roughly parallel the western shore of Discovery Bay. The distance offshore ranges from 1,300 feet at the southwest corner to 1,700 feet at the northwest corner of the

pens. The pens would be 15 feet deep, floating in depths of 156-192 feet. These distances and depths are relative to mean lower low water.

IV

The walkway railings would extend 4 feet above water surface. The 20'x 40' food storage float would be loaded to a height of 5 feet above water surface. The security shelter, 10' x 12' would be 10 feet above water surface.

V

The net pens would be attached to the bottom by an array of anchors tethered to the pens' perimeter. The area of bottom encompassed by the anchors totals some 48 acres.

VI

The object of the proposal is to market the pen-reared salmon for service in restaurants. This would occur when the salmon has reached a weight of about nine pounds. The proposal is for a maximum production of 540,000 pounds of salmon per year from these net pens.

VII

Food for the salmon rearing would be loaded onto appellants' boats at the marina in nearby Sequim Bay although appellants do not propose that any structures be built at the marina in connection with this net pen proposal. Although the fish may be killed at the pen site, there would be no processing or sales at the pen site. The fish would be landed at the marina in Sequim Bay, and taken to market elsewhere.

VIII

The net pens would be offshore at a point approximately mid-way between Diamond Point and Eagle Creek. Diamond Point is the western headland at the mouth of Discovery Bay. Eagle Creek is about 9,000 feet south of Diamond Point.

IX

Diamond Point is fully developed as a residential community. The point protrudes at nearly sea level so that many homes there are at approximately water level.

X

The shore adjacent to the net pen site differs from Diamond Point in that it rises steeply from the water. Except for a narrow strip of beach, it consists of a 200 foot high bluff running at least 3,000 feet in either direction from the proposed pen site. The land on top of the bluff is predominately state land managed for forestry. The beach at the toe of the bluff, including tidelands, is privately owned by intervenor and cross-appellant, the Gunstone Family.

XI

The Gunstones have harvested clams for market since 1927. They specialize in native littleneck clams sold for service in restaurants. They enhance their beaches by adding shells and fine gravel and by removing star fish and moon snails. However, harvesting is done by hand. The Gunstone beaches in Discovery Bay, Sequim Bay and Killiset Harbor yield 300,000 pounds of native littleneck clams

per year. The Gunstone beach nearest the offshore net pen site has yielded 30,000 pounds of native littleneck clams when harvested in the past. This included uplands and tidelands from the Diamond Point community southward to Eagle Creek and some distance beyond. That beach has commercial densities of clams. The greater density is opposite or north of the offshore net pen site.

XII

In response to numerous net pen proposals in Puget Sound the State Department of Ecology has commissioned a scientific report entitled, "Recommended Interim Guidelines for the Management of Salmon Net Pen Culture in Puget Sound" (hereafter, "Guidelines"). These Guidelines are intended to provide a basis for management of salmon net pen culture in Puget Sound until completion of a programmatic environmental impact statement. The Guidelines recite that:

> It is the opinion of state agencies that those facilities sited and operated in accordance with these guidelines will result in little or no adverse environmental effects (sic) within those areas of potential impact addressed by the guidelines. Guidelines, p.1 (Exhibit A-9, herein).

The Guidelines have not been adopted as regulations. Nonetheless, we find them, in the context of the evidence presented here, to be persuasive.

XIII

By a declaration dated June 22, 1987, the Clallam County Director

of Community Development found the Discovery Bay net pen proposal to be consistent with the Guidelines. Based upon this and conditions arising from consideration of an environmental checklist, the Director issued a Determination of Non-Significance (DNS) under the State Environmental Policy Act, Chapter 43.21C RCW. He found that the proposal would not have a probable significant adverse impact on the environment. This finding and DNS were sustained by the Board of Clallam County Commissioners. A copy of the DNS was sent to Jefferson County.

XIV

By action taken at its meeting of July 13, 1987, the Clallam County Shoreline Advisory Committee approved the Discovery Bay net pen proposal with nine enumerated conditions. In so approving, the Advisory Committee adopted staff findings that potential impacts to the environment have been identified and are considered non-significant.

XV

By Resolution No. 11 (undated) entered in 1988, the Board of Clallam County Commissioners denied the shoreline substantial development permit application for the net pen proposal in Discovery Bay. The Resolution recites that the applicant, Sea Farms and Jamestown Klallam Tribe, failed to show that the project is consistent with control of pollution and prevention of damage to the

environment. Specific reference was made in the Resolution to conflict between the proposal and the commercial shellfish beds in Discovery Bay.

XVI

Appellants Sea Farms and Jamestown Klallam Tribe appeal from the County's denial. Their request for review was filed before us on February 8, 1988 (SHB No. 88-5). On the same date, intervenors and cross-appellants Save Discovery Bay Foundation and the Gunstone family, filed their request for review challenging the County's DNS, but supporting the County's denial of the shoreline permit.

XVII

The evidence before us can be classified into seven major subject headings. These concern the proposed net pens' effect regarding 1) nitrogen, 2) sedimentation, 3) antibiotics, 4) disease, 5) aesthetics, 6) use conflicts, and 7) economics. Finally, there is the question of whether the net pens would be located in an estuary.

XVIII

Nitrogen. The concern with regard to nitrogen is that the net pen fish would introduce nitrogen to the water by excretion or urination. Unconsumed fish food would also be a nitrogen source. Nitrogen is a nutrient which, in certain circumtances, might stimulate phytoplankton productivity (i.e. initiate or sustain blooms). Certain types of phytoplankton when stimulated to abundance are harmful to marine organisms.

XIX

The extent to which net pen nitrogen might stimulate or sustain phytoplankton blooms varies with the nitrogen concentration existing at the site before net pens are added. This is because higher nitrogen concentrations, if already in existence, would fulfill most or all of the phytoplankton's capacity to use it. Therefore, in such circumstances, addition of nitrogen from net pens would not further affect the phytoplankton. Conversely, low background concentrations of nitrogen may not fulfill that capacity. The increment added by net pens could then have a growth inducing effect on phytoplankton. The Guidelines developed by DOE are cognizant of this relationship. Therefore the Guidelines have set aside portions of Puget Sound and connecting waters as not recommended for net pens due to low nitrogen concentrations. These areas are:

1. Budd Inlet
2. Holmes Harbor
3. Hood Canal south of Hazel Point.

(Guidelines, p. 21).

The Guidelines also recognize these places where nitrogen concentrations are so high as to require no limit on net pen production from the standpoint of phytoplankton concern:

1. Strait of Juan de Fuca
2. Strait of Georgia

3. San Juan Islands

4. Main Basin of Puget Sound

5. Southern Puget Sound in the vicinity of Tacoma Narrows, Nisqually Reach and Anderson Island.

(Guidelines, p. 21).

Lastly, the Guidelines identify the remainder of Puget Sound and connecting waters as having nitrogen concentrations that will allow net pens if they are limited in annual production and therefore nitrogen output. (Guidelines, p. 20). This remainder has been divided into 19 sub-areas, one of which is Discovery Bay. The Guidelines prescribe a maximum annual fish production from net pens in each sub-area. In the case of Discovery Bay the maximum annual production is 540,000 pounds of fish from net pens. (Guidelines, Table 5, p. 30). This is the amount proposed in the matter now before us.

XX

The proposed 540,000 pounds per year fish production would increase by approximately 1% the nitrogen flux now introduced to the Bay by tidal action. This is the conservative percentage increase prescribed by the Guidelines. Moreover, the physical processes of advection and turbulent mixing of wastes, passing the site will dilute the nitrogen produced by the fish at a rate that greatly exceeds its utilization by the phytoplankton. The nitrogen produced by the net

pen proposal would be unlikely to cause either local blooms of phytoplakton or any significant change in the phytoplankton crop in Discovery Bay.

XXI

Sedimentation. The net pen culture of salmon results in both excess feed and fish feces which settle to the sea floor. This organic sediment will decay, consuming oxygen as it does so. When the rate of decay reaches the rate of deposition, a steady state accumulation of sediment will occur. The steady state accumulation of sediment can affect benthic organisms beneath it. The degree of oxygen consumption and effect on benthic organisms varies with the volume of sediment and the degree to which current and depths contribute to its dispersal.

XXII

The Guidelines recommend that neither the net pen nor its sediments should be located in "habitats of special significance." Such habitats are defined as those important to commercial or sports fisheries, that are of critical ecological importance or that are especially sensitive to degradation by net pen culture activities. (Guidelines, p. 17). Except under circumstances not shown here, habitats of special significance are defined to occur only in depths of 75 feet or less at mean lower, low water (MLLW). (Guidelines, pp. 17-18). Outside habitats of special significance, net pen sediments

are subject to Guideline recommendations on currents and depths at the site in question. In particular, a mean current speed of 0.1 knot (5 cm/sec.) is recommended at the mid point between net bottom and sea bottom at the least depth measured at MLLW. (Guidelines, p. 14). Also, the depth below net bottom is recommended as 60 feet or more at the 0.1 current speed just described. (Guidelines, p. 15).

XXIII

The net pen proposal at issue would produce a steady state accumulation of sediment in an oblong pattern on the same axis as the net pens. The sediment would extend some 600 feet north of the pens, some 400 feet south and some 330 feet shoreward to the west and 300 feet to the east. However, the thickness of the sediment would be a maximum of one inch. This would be in an oval shaped area of 5 acres directly under or close to the pens. The outer contour of sediment would encompasss some 28 acres. In the outer 19 acres of that area, maximum sediment thickness would be four one-hundredths of one inch. Sediment from the proposal would not enter a habitat of special significance as defined by the Guidelines since the sediment would be confined to depths greater than 90 feet MLLW. The site of the net pen proposal meets the mean current speed recommendation of the Guidelines for 0.1 knot at mid-point. It exceeds the 60 foot depth recommendation of the guidelines by having a least depth, below nets, of 141 feet.

XXIV

The sediments from the net pen proposal would consume oxygen at the rate of .36 mg/l up to 13 feet above the accumulation. This would not be a measureable effect, and disolved oxygen concentrations would rapidly return to ambient concentrations as the currents mix and transport depleted water away from the site. There would likely be a change in the benthic community directly under the sediments involving a shift to greater numbers of fewer species. Overall, sediment from the net pen proposal is not likely to have an adverse biological effect.

XXV

Disease. Bacteria of the genus Vibrio, including both pathogenic and nonpathogenic species, are widely distributed in the water, biota and sediments of Puget Sound. Net pen culture may potentially lead to increased numbers of such bacteria due to the organically rich sediments. Vibrio bacteria pathogenic to fish such as Vibrio anguillarum, are not normally virulent unless the host animal is stressed. Thus, the danger posed by such fish pathogens is that the disease vibrosis will be contracted by the net pen fish which are under stress due to their confinement. There is no evidence that net pen culture has contributed to an increased incidence of vibrosis in wild fish. Similarly, the viral disease V.E.N. in native Pacific herring could pose a risk to the net pen salmon. However, there is no evidence of adverse impact of salmon net pens on herring schools.

XXVI

Research at Milford Laboratory in Connecticut has shown that the fish pathogen Vibrio anguillarum, in sea water at very low concentrations, is implicated in the larval disease of oysters in an east coast hatchery. These experiments did not attempt to duplicate the temperature or other environmental conditions found in Puget Sound and related waters. The experience with an oyster hatchery maintained in Clam Bay near Manchester, Washington, is that no harm resulted to the oysters from use of sea water in Clam Bay despite the prolonged presence of a large salmon net pen development within Clam Bay, about one-quarter mile from the hatchery. There are native littleneck clams and substantial numbers of geoducks existing in Clallam Bay.

XXVII

Intervenors and cross-appellants have stipulated that importation of exotic fish disease is not at issue. The evidence does not establish a concern in this regard.

XXVIII

A Vibrio bacteria pathogenic to humans, Vibrio parahaemolyticus, has been identified as causing gastroenteritis with symptoms which include diarrhea, abdominal cramps, nausea and vomiting. People who eat raw or insufficiently cooked shell fish or fin fish containing V. parahaemolyticus can contract gastroenteritis with the symptoms just described. Unless a person is particularly vulnerable, treatment if

given is usually through a physician at their office, rather than hospitalization.

While vibrio parahaemolyticus is widespread in Puget Sound, not all strains cause human illness. Moreover, the cool temperatures which persist throughout the year in much of Puget Sound prevent the species from reaching densities necessary to cause infection. Studies at the University of British Columbia have noted the presence of V. parahaemolyticus in summer when water temperatures equal or exceed 17 degrees centigrade and salinities were equal to or below 13 parts per thousand. The same studies, in winter, failed to detect any V. parahaemolyticus when water temperatures were less than 14 degrees centigrade and salinities were greater than 13 parts per thousand. At or near the surface of the site in question, temperatures have approached but not equaled 17 degrees centigrade. At the bottom, where enriched sediments would be found, temperatures do not exceed 12 degrees centigrade. Salinities at or near the site are on the order of 30 parts per thousand. It is unlikely that V. parahaemolyticus bacteria would reach densities necessary to cause infection at or near the site of the proposed net pens.

XXIX

Antibiotics. The proposed net pen development would employ antibiotics as a means to combat the bacteria pathogenic to fish such as V. anguillarum. The antibiotic employed would be approved by the U.S. Food and Drug Administration for food fish (probably

oxytetracycline). In Japan, various chemotherapeutic agents have been used for treating bacterial infections in cultured fish for the last 25 years. This prolonged use of chemotherapeutics, while not necessarily comparable to the proposal before us, has resulted in drug resistant fish pathogenic bacteria. Research in Japan has shown that drug resistance is carried on "R plasmids" which are genetic entities. The R plasmids have been shown to be transferrable among different bacterial hosts. Under laboratory conditions, researchers have observed the transfer of R plasmids from the fish pathogen V. anguillarum to the human pathogen V. parahaemolyticus.[1/] These R plasmids were stably maintained. However, drug resistant strains of V. parahaemolyticus were not isolated. Thus the public health concern of an antibiotic resistant V. parahaemolyticus remains unproven even in fish culturing which is well established and more extensive than is practiced here. While research in this area bears watching, we do not find it presently persuasive that this proposal is likely to induce antibiotic resistant V. parahaemolyticus. Moreover, we have found V. parahaemolyticus unlikely to be present in densities necessary to cause infection at the site in question. (See Finding of Fact XXVIII, above.)

1/ Characteristically, seafood poisoning from V. parahaemolyticus predominates in Japan because of the custom of eating raw seafood. Once contracted, the resulting gastroenteritis is treated with antibiotics.

XXX

Aesthetics. The proposed net pen development would be visible from the residential communities of Diamond Point, Beckett Point and Cape George which are located on Discovery Bay. We find that at distances of 2,000 feet or more, the visual effect of the proposal would not be significant. Thus, the Diamond Point community, 3,000 feet from the proposal would realize little visual impact. This is true to an even greater degree for the Beckett Point community more than 6,000 feet distant and the Cape George community more than 10,000 feet distant. The shore adjacent to the proposed net pen site consists of a bluff some 200 feet high with undeveloped state timberlands running back from the bluff top. The closest residence to the proposal is atop the bluff and 1,950 feet away. That residence would be subject to an aesthetic effect from the proposal which would be moderate, at most. It is improbable, based on comparable net pen developments, that the proposal would have a negative effect on residential property values. The aesthetic effect of the proposed net pens, if well kept and developed in colors which blend with the aquatic environment, would be low to moderate.

XXXI

Use Conflicts. The two chief uses of Discovery Bay which are alleged to conflict with the proposed net pens are fishing and tow boat activity. As to fishing, there is no commercial salmon fishing

in Discovery Bay due to depressed stocks. Commercial bottom fishing is limited in Discovery Bay due to depressed stocks. Recreational fishing is available over most of Discovery Bay's 6,000 - 7,000 surface acres of which the proposal would use 2 surface acres. The 48 acre grid of anchor lines would limit but not necessarily prevent recreational fishing.

The proposed net pen site overlaps to a minor extent with a sport fishing location previously charted by Department of Fisheries north of the pen site. The pen site is also on the periphery of a winter blackmouth sport fishing area previously located on fishing derby maps. The net pen proposal is unlikely to have any significant adverse effect upon fishing or related navigation.

XXXII

With regard to tow boat activity, Discovery Bay is used as a safe-haven for tow boats pulling log rafts in inclement weather. Predominent winter winds are from the south so that towboats anchor between Beckett Point and Cape George when seeking refuge. The proposed net pens would not interfere with anchorage there. Predominant summer winds are from the west so that towboats anchor at a point about half way between the proposed net pen site and Eagle Creek. (This anchorage is designated "A" on Exhibit R-6H, herein). A typical tow boat and log raft, at anchor, would be some 1,300 feet long. The distance from the summer anchorage just described to the net pens is approximately 3,000 feet. The net pen proposal is

unlikely to have any significant adverse effect upon tow boat navigation.

XXXIII

Economics. An established market exists for the sale of salmon like those which the proposal would produce. The proposal has the potential for success if operated carefully.

XXXIV

Estuary. The term "estuary" is defined in the Clallam County Shoreline Master Program (CCSMP) to mean:

> The seaward end or the widened delta shaped tidal mouth of a river valley where freshwater mixes with, and measureably dilutes, seawater and where tidal effects are evident. (CCSMP, Glossary, No. 37, p. 112).

Intervenors and cross-appellants contend that the whole of Discovery Bay, including the proposed net pen site is an estuary. We disagree. The definition in the CCSMP specifically limits an estuary to a river valley or its delta.[2/] While certain streams or rivers empty into Discovery Bay, we do not find this sufficient to deem the entire Bay "a river valley". Moreover, the CCSMP definition of estuary requires freshwater to be mixing with and measureably diluting seawater. Salinity comparisons between the site in Discovery Bay and a control point out of the Bay in the Strait of Juan de Fuca do not support the existence of such mixing in any material sense. As measured in parts

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2/ The Department of Ecology guideline for master programs is in accord. It declares: "An estuary is that portion of a coastal stream . . . ". WAC 173-16-050.

per thousand during July through October, 1987, and June of 1988, surface salinity at the site averaged 30.7 versus 30.66 in the Strait. Similarily, there are minimal differences in salinity between various depths at the site, either considered alone or by comparison with the Strait. Lastly, there has been no evidence to indicate any difference in habitat quality between the proposed net pen site and the greater saltwaters of the Strait. The proposed net pen site is not located within an estuary.

XXXV

Provisions of the Shoreline Master Program at Issue. The Clallam County Shoreline Master Program defines "Aquaculture" as:

> Aquaculture is the farming or culturing of game and food fish, or aquatic plants and animals in fresh or salt water areas, and may include such developments as fish hatcheries, rearing pens, shorebased structures and shellfish rafts. Excluded from this definition is the private husbanding or harvesting of anadromous fish, as prohibited by Washington State Law.
>
> Aquaculture practices pertain to any activity directly related to growing, handling or harvesting of aquaculture produce, including but not limited to, propogation, enhancement and rehabilitation of said fisheries resources. Excluded from the definition are related commercial uses such as wholesale and retail sales, processing, packaging or freezing facilities.
>
> (CSSMP, Section 5.02A, p. 42, emphasis added).

XXXVI

The site of the proposed salmon net pens is designated "Conservancy". CCSMP Designation of Environments, p. 119.

XXXVII

Within the Conservancy environment:

Aquaculture developments utilizing submerged or floating structures are a permitted use, subject to the policies and regulations.

CCSMP, Section 5.02 c.4.b.1., p. 45.

XXXVIII

The CSSMP aquaculture policies are as follows:

1. Aquaculutre activities and structures should be located in areas where vessel navigation is not severely restricted.

2. Potential locations for aquaculture enterprises and practices are relatively restricted, due to specific biophysical requirements, such as water quality, temperatures, substrate, dissolved oxygen and, in coastal waters, salinity. Therefore, special emphasis and consideration should be given to these factors when considering other water dependent uses in those areas having high potential for aquaculture.

3. Due to the formative and experimental nature of aquaculture technology and practices, attention should be given to encouraging the introduction of, and experimentation with, new aquaculture methods, devices, and practices in designated areas only.

4. Particular attention should be addressed toward the possible effects that aquaculture practices may have on the long term ecological stability of the aquatic ecosystem and any secondary deterimental effects that could arise as a result of various aquacultural practices.

5. Development ancillary to aquaculture should be located inland off the shorelines, unless clearly dependent upon a shoreline or overwater location.

6. The enhancement or rehabilitation of water bodies and their adjacent habitat by public or private entities for purposes of increasing yields or production of fisheries resources should be encouraged.

7. Aquaculture structures and facilities should be located and designed to not significantly degrade unique scenic aspects of the area.

CCSMP, Section 5.02 B., p. 42.

XXXIX

A pertinent CCSMP aquaculture regulation provides:

> As aquaculutre is a preferred, water dependent use, special emphasis shall be given to identifying and resolving resource use conflicts between aquaculture and other water dependent uses in areas having a high potential for aquaculuture development.

CCSMP, Section 5.04 C.5.C., p. 46.

XXXX

The CCSMP policies and regulations not specific to aquaculture, at issue here, are: 1) Goals and General Policies I, III, VI, VII and VIII. CCSMP pp. 5-6, 2) Conservancy Policies, Nos. 1, 4, 5 and 6. CCSMP Section 3.03 C. pp. 10-11, and Natural Systems Regulations, Sections 4.01, 4.05, 4.07 and 4.12. CCSMP Chapter 4, pp. 20-37. The full text of these is set out in the CCSMP, of which we take offical notice, and which is marked for identification as "O.N.-1" of this record. The above policies and regulations relate to preservation of scenic qualities, recognition of water quality as a prime goal, regulation of governmental units on the same basis as private

interests, protection of public interest, consideration of long term benefits, economic development, access to marine beaches, preference for uses which minimally reduce opportunities for other future uses, preservation of aesthetic qualities, and regulations for marine beaches, estuaries, bays, coves, headlands and subtidal shorelines.

XXXXI

Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such. From these Findings of Fact, the Board makes these

CONCLUSIONS OF LAW

I

We review the proposed development for consistency with the Shoreline Management Act and the Clallam County Shoreline Master Program. See RCW 90.58.140(2)(b). Where, as here, an issue is raised as to compliance with the State Environmental Policy Act (SEPA), we will review such compliance also. WAC 461-08-175(2)(a) and chapter 43.21C RCW.

II

SEPA. Intervenors and cross-appellants challenge the determination of non-significance made under SEPA. They first contend that the Shoreline Advisory Committee, and not the Director of Community Planning, should have issued the threshold determination for Clallam County. Reference is made to local ordinances of Clallam County which provide:

> Following a public hearing on any permit and before making a decision to recommend approval, denial or conditional approval of a permit, the Shoreline Advisory Committee shall determine the environmental significance of the proposed development.
> CCC Section 35.01.180.
>
> In the event the Shoreline Advisory Committee determines the proposal will not have a significant adverse effect on the quality of the environment, it shall prepare a proposed declaration of nonsignificance in accordance with the requirements of the Council on Environmental Policy and the Clallam County Policy Ordinance.
> CCC Section 35.01.190.

Equally important, however, is the state regulation implementing SEPA as adopted by Department of Ecology (successor to the Council on Environmental Policy). This provides:

> Agency SEPA procedures shall designate or provide a method of designating the responsible official with speed and certainty (WAC 197-11-906(1)(d)). This designation may vary depending upon the nature of the proposal. The responsible official shall carry out the duties and functions of the agency when it is acting as the lead agency under these guidelines . . .
> WAC 197-11-910.

The Clallam County Environmental Policy Ordinance, Ch. 27.01, designates the planning director (Director of Community Development) as the Responsible Official for SEPA threshold determinations. Thus under the State SEPA regulation and local SEPA ordinance, the Director of Community Development was correct in issuing the threshold determination. The Director of Community Development is the Responsible Official. The Responsible Official makes the threshold

determination under state SEPA regulation. WAC 197-11-310(2). The Shoreline Advisory Committee (S.A.C.) was not the Responsible Official. However, it did adopt the finding on non-significance contained in the threshold determination. This adoption followed S.A.C. hearings in which intervenors and cross-appellants participated. We conclude that the threshold determination was issued by the correct Clallam County official.

III

Intervenors and cross-appellants next contend that the DNS made by Clallam County is inconsistent with SEPA. The DNS is a determination which shall be accorded substantial weight. RCW 43.21C.090. Viewing the evidence before us as a whole, we conclude that the DNS was not shown to be erroneous.

IV

Clallam County Shoreline Master Program (CCSMP) The proposed salmon net pen development is "aquaculture" as defined in the CCSMP. Section 5.02 A, p. 42, text at Finding of Fact XXXV, above. We have previously concluded that it is not commercial development. "Order on Motions for Summary Judgment", herein, entered July 29, 1988. As an aquaculture development which uses submerged or floating structures, the proposal is a permitted use, subject to policies and regulations, in the conservancy environment where it is proposed. CCSMP, Section 5.02 C.4. b.l., p. 45., text at Finding of Fact XXXVII, above.

V

Appellants have shown that the salmon net pen proposal, properly conditioned, is unlikely to have a significant adverse effect regarding nitrogen, sedimentation, antibiotics or disease. It is unlikely that the proposal will have a significant adverse effect upon clams or other aquatic resources. The proposal, properly conditioned, was also shown to be unlikely to result in significant conflict with other aquatic uses or to have a significantly adverse aesthetic effect. The proposal, properly conditioned, would be be consistent with the applicable CCSMP policies and regulations.

VI

The proposed development would not be located in an estuary as defined in the CCSMP. Glossary, No. 37, p. 112, text at Finding of Fact XXXIV. Those provisions of the CCSMP applicable to proposals in an estuary do not apply.

VII

Shoreline Management Act. The proposed development, properly conditioned, would contribute to the statewide production of food and yet be consistent with prevention of damage to the environment. This is consistent with the policy of the Shoreline Management Act including those applicable to shorelines of statewide significance. RCW 90.58.020. See also WAC 173-16-060(2). Appellants have shown that this proposal was not improperly segmented to exclude any shoreline, land-based development as none is proposed for support of

these net pens. The proposal, properly conditioned, would be consistent with the Shoreline Management Act.

VIII

The proposed development meets the requirements of both the Clallam County Shoreline Master Program and the Shoreline Management Act provided that the following conditions are imposed:

1. The proposal shall meet all standards in the "Recommended Interim Guidelines for the Management of Salmon Net Pen Aquaculture in Puget Sound" prepared by Science Applications International Corporation for the Washington State Department of Ecology, December, 1986. The standards of the Guidelines include, among other standards, the maximum limitation of one percent increase in nitrogen flux and the maximum limitation of 540,000 pounds of annual fish production.

2. Predator control methods shall be limited to netting.

3. The applicant shall post a $6,500 savings account assignment (payable upon demand bond) with Clallam County under provisions of Chapter 35.01.130 of the Shoreline Management Ordinance for the purpose of removal of the facility in the event of abandonment.

4. The net pens shall be limited to the culturing and rearing of salmon.

5. Any shore based facility shall be prohibited at Diamond Point within the Rural/Conservancy environments from the east line of Lot 1, Section 16, Township 30N, Range 2W, south to the county line.

6. No lighting is allowed other than for navigation and shielded lighting in the security shed.

7. Engines or motors used for power generation or aeration shall be installed with sound dampening enclosures.

8. Neutral colors which blend with the aquatic environment shall be used for the project.

9. The permit shall be valid only for those activities outlined in the application.

10. The poundage of salmon in the pens shall not exceed 25% of annual production until after December of the first calendar year of operation nor 50% of annual production until after April of the second calendar year of operation. The monitoring required by Section 6.3 of the Interim Guidelines shall be conducted when the poundage of salmon in the pens reaches 25% of annual production and again at 50% of annual production. Thereafter, monitoring shall be according to the Interim Guidelines under Condition 1., above.

IX

The above conditions are each supported by the evidence before us. The first nine conditions were recommended by the County Shoreline Advisory Committee or staff and are agreed to by appellants. We have not imposed the Shoreline Advisory Committee's recommended conditions 1) limiting the proposal to Atlantic salmon and 2) requiring a shellfish monitoring program by Washington State Department of Fisheries. As to the first of these, the evidence does not support exclusion of Pacific salmon culture. For that reason, the condition which we prescribe is limited to salmon culture generally. As to the second of these, the evidence shows that Department of

Fisheries does not deem it necessary to conduct monitoring in addition to that of the Guidelines. Because of the importance of the existing clam resource in Discovery Bay, however, we have imposed condition No. 10, above. Under it, the net pen proposal must be phased-in with monitoring as prescribed in the Guidelines at the end of each preliminary phase. The phase-in which we require is consistent with appellant's studies. Exhibit A-11, Table 5, p. 40. Monitoring at full production, and after, is to be in accordance with the Guidelines under Condition No. 1., above. The monitoring will assure compliance with the substantive requiremnts of the Guidelines, also imposed by Condition No. 1., above. If at any time the monitoring indicates a failure to meet the substantive Guideline requirements, Clallam County may take appropriate action, including permit recision under RCW 90.58.140(8). Recision would be reviewable here. RCW 90.58.180. The monitoring requirements and recision remedy are precautionary, however, and do not diminish our conclusion that the proposal, as conditioned, is consistent with the CCSMP and the Shoreline Management Act.

X

Any Finding of Fact deemed to a Conclusion of Law is hereby adopted as such. From these Conclusions of Law, the Board enters this

ORDER

The denial of a shoreline substantial development permit by Clallam County is reversed. The matter is remanded to Clallam County for issuance of a shoreline substantial development permit containing the conditions set out in Conclusion of Law VIII, hereof.

DONE at Lacey, WA, this 15TH day of May, 1989.

SHORELINES HEARINGS BOARD

WICK DUFFORD, Chairman

JUDITH A. BENDOR, Member

HAROLD S. ZIMMERMAN, Member

NANCY BURNETT, Member

ROBERT C. SCHOFIELD, Member

RICHARD GIDLEY, Member

WILLIAM A. HARRISON
Administrative Appeals Judge

Library

BEFORE THE SHORELINES HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF A SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT DENIED BY CLALLAM COUNTY TO JAMESTOWN KLALLAM TRIBE and SEA FARM OF WASHINGTON, JAMESTOWN KLALLAM TRIBE and SEA FARM OF WASHINGTON, Appellants, and STATE OF WASHINGTON, DEPARTMENT OF NATURAL RESOURCES and DEPARTMENT OF AGRICULTURE, Intervenors, v. CLALLAM COUNTY, Respondent, and SAVE DISCOVERY BAY FOUNDATION and GUNSTONE FAMILY, Intervenors and Cross-Appellants.	SHB Nos. 88-4 & 88-5 FINAL FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

This matter is the appeal and cross-appeal from the denial of a shorelines substantial development permit for a salmon net pen facility.

The matter came on before the Shorelines Hearings Board, William A. Harrison, Administrative Appeals Judge, Presiding. Sitting as the Board were Wick Dufford, Chairman, Judith A. Bendor, Harold S. Zimmerman, Nancy Burnett, Robert C. Schofield and Richard Gidley, Members.

Appellant Jamestown Klallam Tribe and Sea Farms of Washington appeared by John A. Woodring, Attorney at Law. Intervenor Department of Natural Resources appeared by Jay D. Geck, Assistant Attorney General. Intervenor Department of Agriculture appeared by Betty J. Edwards, Assistant Attorney General. Respondent Clallam County appeared by Christopher Melly, Deputy Prosecuting Attorney. Intervenor and cross-appellant Gunstone Family, appeared by Peter J. Eglick, Attorney at Law. Intervenor and cross-appellant Save Discovery Bay Foundation, appeared by Gloria M. Champeaux, Member.

The hearing was conducted at Sequim, Washington on September 23, 1988; and at Seattle on September 26, 27, 28, 29, and 30, 1988; and at Lacey on October 3, 4, and 5, 1988. Gene Barker and Associates provided court reporting services.

Witnesses were sworn and testified. By stipulation, certain witnesses gave depositions which were admitted as testimony during November, 1988. Exhibits were examined. The Board viewed the site of

the proposed development in the company of the parties. Closing briefs were filed by December 2, 1988. From testimony heard or read and exhibits examined, the Shorelines Hearings Board makes these

FINDINGS OF FACT

I

This matter arises within Discovery Bay in Clallam County and concerns a proposal for rearing salmon in net pens. Discovery Bay is on the northern shore of the Olympic Peninsula between Sequim and Port Townsend.

II

On April 27, 1987, appellants Sea Farm of Washington and Jamestown Klallam Tribe filed an application with Clallam County for a shoreline substantial development permit. The proposed net pen development for which the permit was sought would consist of 42 floating salmon pens, each 40 feet square. These would be paired into 21double file with a central walkway 8 feet wide. There would also be service floats for food storage and a security shelter. The surface area covered by the pens, walkway and service floats would total just under 2 acres. The net pen configuration would be 900 feet long by 93 feet wide.

III

The long axis of the net pens would roughly parallel the western shore of Discovery Bay. The distance offshore ranges from 1,300 feet at the southwest corner to 1,700 feet at the northwest corner of the

pens. The pens would be 15 feet deep, floating in depths of 156-192 feet. These distances and depths are relative to mean lower low water.

IV

The walkway railings would extend 4 feet above water surface. The 20'x 40' food storage float would be loaded to a height of 5 feet above water surface. The security shelter, 10' x 12' would be 10 feet above water surface.

V

The net pens would be attached to the bottom by an array of anchors tethered to the pens' perimeter. The area of bottom encompassed by the anchors totals some 48 acres.

VI

The object of the proposal is to market the pen-reared salmon for service in restaurants. This would occur when the salmon has reached a weight of about nine pounds. The proposal is for a maximum production of 540,000 pounds of salmon per year from these net pens.

VII

Food for the salmon rearing would be loaded onto appellants' boats at the marina in nearby Sequim Bay although appellants do not propose that any structures be built at the marina in connection with this net pen proposal. Although the fish may be killed at the pen site, there would be no processing or sales at the pen site. The fish would be landed at the marina in Sequim Bay, and taken to market elsewhere.

VIII

The net pens would be offshore at a point approximately mid-way between Diamond Point and Eagle Creek. Diamond Point is the western headland at the mouth of Discovery Bay. Eagle Creek is about 9,000 feet south of Diamond Point.

IX

Diamond Point is fully developed as a residential community. The point protrudes at nearly sea level so that many homes there are at approximately water level.

X

The shore adjacent to the net pen site differs from Diamond Point in that it rises steeply from the water. Except for a narrow strip of beach, it consists of a 200 foot high bluff running at least 3,000 feet in either direction from the proposed pen site. The land on top of the bluff is predominately state land managed for forestry. The beach at the toe of the bluff, including tidelands, is privately owned by intervenor and cross-appellant, the Gunstone Family.

XI

The Gunstones have harvested clams for market since 1927. They specialize in native littleneck clams sold for service in restaurants. They enhance their beaches by adding shells and fine gravel and by removing star fish and moon snails. However, harvesting is done by hand. The Gunstone beaches in Discovery Bay, Sequim Bay and Killiset Harbor yield 300,000 pounds of native littleneck clams

per year. The Gunstone beach nearest the offshore net pen site has yielded 30,000 pounds of native littleneck clams when harvested in the past. This included uplands and tidelands from the Diamond Point community southward to Eagle Creek and some distance beyond. That beach has commercial densities of clams. The greater density is opposite or north of the offshore net pen site.

XII

In response to numerous net pen proposals in Puget Sound the State Department of Ecology has commissioned a scientific report entitled, "Recommended Interim Guidelines for the Management of Salmon Net Pen Culture in Puget Sound" (hereafter, "Guidelines"). These Guidelines are intended to provide a basis for management of salmon net pen culture in Puget Sound until completion of a programmatic environmental impact statement. The Guidelines recite that:

> It is the opinion of state agencies that those facilities sited and operated in accordance with these guidelines will result in little or no adverse environmental effects (sic) within those areas of potential impact addressed by the guidelines. Guidelines, p.1 (Exhibit A-9, herein).

The Guidelines have not been adopted as regulations. Nonetheless, we find them, in the context of the evidence presented here, to be persuasive.

XIII

By a declaration dated June 22, 1987, the Clallam County Director

of Community Development found the Discovery Bay net pen proposal to be consistent with the Guidelines. Based upon this and conditions arising from consideration of an environmental checklist, the Director issued a Determination of Non-Significance (DNS) under the State Environmental Policy Act, Chapter 43.21C RCW. He found that the proposal would not have a probable significant adverse impact on the environment. This finding and DNS were sustained by the Board of Clallam County Commissioners. A copy of the DNS was sent to Jefferson County.

XIV

By action taken at its meeting of July 13, 1987, the Clallam County Shoreline Advisory Committee approved the Discovery Bay net pen proposal with nine enumerated conditions. In so approving, the Advisory Committee adopted staff findings that potential impacts to the environment have been identified and are considered non-significant.

XV

By Resolution No. 11 (undated) entered in 1988, the Board of Clallam County Commissioners denied the shoreline substantial development permit application for the net pen proposal in Discovery Bay. The Resolution recites that the applicant, Sea Farms and Jamestown Klallam Tribe, failed to show that the project is consistent with control of pollution and prevention of damage to the

environment. Specific reference was made in the Resolution to conflict between the proposal and the commercial shellfish beds in Discovery Bay.

XVI

Appellants Sea Farms and Jamestown Klallam Tribe appeal from the County's denial. Their request for review was filed before us on February 8, 1988 (SHB No. 88-5). On the same date, intervenors and cross-appellants Save Discovery Bay Foundation and the Gunstone family, filed their request for review challenging the County's DNS, but supporting the County's denial of the shoreline permit.

XVII

The evidence before us can be classified into seven major subject headings. These concern the proposed net pens' effect regarding 1) nitrogen, 2) sedimentation, 3) antibiotics, 4) disease, 5) aesthetics, 6) use conflicts, and 7) economics. Finally, there is the question of whether the net pens would be located in an estuary.

XVIII

Nitrogen. The concern with regard to nitrogen is that the net pen fish would introduce nitrogen to the water by excretion or urination. Unconsumed fish food would also be a nitrogen source. Nitrogen is a nutrient which, in certain circumtances, might stimulate phytoplankton productivity (i.e. initiate or sustain blooms). Certain types of phytoplankton when stimulated to abundance are harmful to marine organisms.

XIX

The extent to which net pen nitrogen might stimulate or sustain phytoplankton blooms varies with the nitrogen concentration existing at the site before net pens are added. This is because higher nitrogen concentrations, if already in existence, would fulfill most or all of the phytoplankton's capacity to use it. Therefore, in such circumstances, addition of nitrogen from net pens would not further affect the phytoplankton. Conversely, low background concentrations of nitrogen may not fulfill that capacity. The increment added by net pens could then have a growth inducing effect on phytoplankton. The Guidelines developed by DOE are cognizant of this relationship. Therefore the Guidelines have set aside portions of Puget Sound and connecting waters as not recommended for net pens due to low nitrogen concentrations. These areas are:

1. Budd Inlet
2. Holmes Harbor
3. Hood Canal south of Hazel Point.

(Guidelines, p. 21).

The Guidelines also recognize these places where nitrogen concentrations are so high as to require no limit on net pen production from the standpoint of phytoplankton concern:

1. Strait of Juan de Fuca
2. Strait of Georgia

3. San Juan Islands

4. Main Basin of Puget Sound

5. Southern Puget Sound in the vicinity of Tacoma Narrows, Nisqually Reach and Anderson Island.

(Guidelines, p. 21).

Lastly, the Guidelines identify the remainder of Puget Sound and connecting waters as having nitrogen concentrations that will allow net pens if they are limited in annual production and therefore nitrogen output. (Guidelines, p. 20). This remainder has been divided into 19 sub-areas, one of which is Discovery Bay. The Guidelines prescribe a maximum annual fish production from net pens in each sub-area. In the case of Discovery Bay the maximum annual production is 540,000 pounds of fish from net pens. (Guidelines, Table 5, p. 30). This is the amount proposed in the matter now before us.

XX

The proposed 540,000 pounds per year fish production would increase by approximately 1% the nitrogen flux now introduced to the Bay by tidal action. This is the conservative percentage increase prescribed by the Guidelines. Moreover, the physical processes of advection and turbulent mixing of wastes, passing the site will dilute the nitrogen produced by the fish at a rate that greatly exceeds its utilization by the phytoplankton. The nitrogen produced by the net

pen proposal would be unlikely to cause either local blooms of phytoplakton or any significant change in the phytoplankton crop in Discovery Bay.

XXI

Sedimentation. The net pen culture of salmon results in both excess feed and fish feces which settle to the sea floor. This organic sediment will decay, consuming oxygen as it does so. When the rate of decay reaches the rate of deposition, a steady state accumulation of sediment will occur. The steady state accumulation of sediment can affect benthic organisms beneath it. The degree of oxygen consumption and effect on benthic organisms varies with the volume of sediment and the degree to which current and depths contribute to its dispersal.

XXII

The Guidelines recommend that neither the net pen nor its sediments should be located in "habitats of special significance." Such habitats are defined as those important to commercial or sports fisheries, that are of critical ecological importance or that are especially sensitive to degradation by net pen culture activities. (Guidelines, p. 17). Except under circumstances not shown here, habitats of special significance are defined to occur only in depths of 75 feet or less at mean lower, low water (MLLW). (Guidelines, pp. 17-18). Outside habitats of special significance, net pen sediments

are subject to Guideline recommendations on currents and depths at the site in question. In particular, a mean current speed of 0.1 knot (5 cm/sec.) is recommended at the mid point between net bottom and sea bottom at the least depth measured at MLLW. (Guidelines, p. 14). Also, the depth below net bottom is recommended as 60 feet or more at the 0.1 current speed just described. (Guidelines, p. 15).

XXIII

The net pen proposal at issue would produce a steady state accumulation of sediment in an oblong pattern on the same axis as the net pens. The sediment would extend some 600 feet north of the pens, some 400 feet south and some 330 feet shoreward to the west and 300 feet to the east. However, the thickness of the sediment would be a maximum of one inch. This would be in an oval shaped area of 5 acres directly under or close to the pens. The outer contour of sediment would encompasss some 28 acres. In the outer 19 acres of that area, maximum sediment thickness would be four one-hundredths of one inch. Sediment from the proposal would not enter a habitat of special significance as defined by the Guidelines since the sediment would be confined to depths greater than 90 feet MLLW. The site of the net pen proposal meets the mean current speed recommendation of the Guidelines for 0.1 knot at mid-point. It exceeds the 60 foot depth recommendation of the guidelines by having a least depth, below nets, of 141 feet.

XXIV

The sediments from the net pen proposal would consume oxygen at the rate of .36 mg/l up to 13 feet above the accumulation. This would not be a measureable effect, and disolved oxygen concentrations would rapidly return to ambient concentrations as the currents mix and transport depleted water away from the site. There would likely be a change in the benthic community directly under the sediments involving a shift to greater numbers of fewer species. Overall, sediment from the net pen proposal is not likely to have an adverse biological effect.

XXV

Disease. Bacteria of the genus Vibrio, including both pathogenic and nonpathogenic species, are widely distributed in the water, biota and sediments of Puget Sound. Net pen culture may potentially lead to increased numbers of such bacteria due to the organically rich sediments. Vibrio bacteria pathogenic to fish such as Vibrio anguillarum, are not normally virulent unless the host animal is stressed. Thus, the danger posed by such fish pathogens is that the disease vibrosis will be contracted by the net pen fish which are under stress due to their confinement. There is no evidence that net pen culture has contributed to an increased incidence of vibrosis in wild fish. Similarly, the viral disease V.E.N. in native Pacific herring could pose a risk to the net pen salmon. However, there is no evidence of adverse impact of salmon net pens on herring schools.

XXVI

Research at Milford Laboratory in Connecticut has shown that the fish pathogen Vibrio anguillarum, in sea water at very low concentrations, is implicated in the larval disease of oysters in an east coast hatchery. These experiments did not attempt to duplicate the temperature or other environmental conditions found in Puget Sound and related waters. The experience with an oyster hatchery maintained in Clam Bay near Manchester, Washington, is that no harm resulted to the oysters from use of sea water in Clam Bay despite the prolonged presence of a large salmon net pen development within Clam Bay, about one-quarter mile from the hatchery. There are native littleneck clams and substantial numbers of geoducks existing in Clallam Bay.

XXVII

Intervenors and cross-appellants have stipulated that importation of exotic fish disease is not at issue. The evidence does not establish a concern in this regard.

XXVIII

A Vibrio bacteria pathogenic to humans, Vibrio parahaemolyticus, has been identified as causing gastroenteritis with symptoms which include diarrhea, abdominal cramps, nausea and vomiting. People who eat raw or insufficiently cooked shell fish or fin fish containing V. parahaemolyticus can contract gastroenteritis with the symptoms just described. Unless a person is particularly vulnerable, treatment if

given is usually through a physician at their office, rather than hospitalization.

While vibrio parahaemolyticus is widespread in Puget Sound, not all strains cause human illness. Moreover, the cool temperatures which persist throughout the year in much of Puget Sound prevent the species from reaching densities necessary to cause infection. Studies at the University of British Columbia have noted the presence of V. parahaemolyticus in summer when water temperatures equal or exceed 17 degrees centigrade and salinities were equal to or below 13 parts per thousand. The same studies, in winter, failed to detect any V. parahaemolyticus when water temperatures were less than 14 degrees centigrade and salinities were greater than 13 parts per thousand. At or near the surface of the site in question, temperatures have approached but not equaled 17 degrees centigrade. At the bottom, where enriched sediments would be found, temperatures do not exceed 12 degrees centigrade. Salinities at or near the site are on the order of 30 parts per thousand. It is unlikely that V. parahaemolyticus bacteria would reach densities necessary to cause infection at or near the site of the proposed net pens.

XXIX

Antibiotics. The proposed net pen development would employ antibiotics as a means to combat the bacteria pathogenic to fish such as V. anguillarum. The antibiotic employed would be approved by the U.S. Food and Drug Administration for food fish (probably

oxytetracycline). In Japan, various chemotherapeutic agents have been used for treating bacterial infections in cultured fish for the last 25 years. This prolonged use of chemotherapeutics, while not necessarily comparable to the proposal before us, has resulted in drug resistant fish pathogenic bacteria. Research in Japan has shown that drug resistance is carried on "R plasmids" which are genetic entities. The R plasmids have been shown to be transferrable among different bacterial hosts. Under laboratory conditions, researchers have observed the transfer of R plasmids from the fish pathogen V. anguillarum to the human pathogen V. parahaemolyticus.[1/] These R plasmids were stably maintained. However, drug resistant strains of V. parahaemolyticus were not isolated. Thus the public health concern of an antibiotic resistant V. parahaemolyticus remains unproven even in fish culturing which is well established and more extensive than is practiced here. While research in this area bears watching, we do not find it presently persuasive that this proposal is likely to induce antibiotic resistant V. parahaemolyticus. Moreover, we have found V. parahaemolyticus unlikely to be present in densities necessary to cause infection at the site in question. (See Finding of Fact XXVIII, above.)

1/ Characteristically, seafood poisoning from V. parahaemolyticus predominates in Japan because of the custom of eating raw seafood. Once contracted, the resulting gastroenteritis is treated with antibiotics.

XXX

Aesthetics. The proposed net pen development would be visible from the residential communities of Diamond Point, Beckett Point and Cape George which are located on Discovery Bay. We find that at distances of 2,000 feet or more, the visual effect of the proposal would not be significant. Thus, the Diamond Point community, 3,000 feet from the proposal would realize little visual impact. This is true to an even greater degree for the Beckett Point community more than 6,000 feet distant and the Cape George community more than 10,000 feet distant. The shore adjacent to the proposed net pen site consists of a bluff some 200 feet high with undeveloped state timberlands running back from the bluff top. The closest residence to the proposal is atop the bluff and 1,950 feet away. That residence would be subject to an aesthetic effect from the proposal which would be moderate, at most. It is improbable, based on comparable net pen developments, that the proposal would have a negative effect on residential property values. The aesthetic effect of the proposed net pens, if well kept and developed in colors which blend with the aquatic environment, would be low to moderate.

XXXI

Use Conflicts. The two chief uses of Discovery Bay which are alleged to conflict with the proposed net pens are fishing and tow boat activity. As to fishing, there is no commercial salmon fishing

in Discovery Bay due to depressed stocks. Commercial bottom fishing is limited in Discovery Bay due to depressed stocks. Recreational fishing is available over most of Discovery Bay's 6,000 - 7,000 surface acres of which the proposal would use 2 surface acres. The 48 acre grid of anchor lines would limit but not necessarily prevent recreational fishing.

The proposed net pen site overlaps to a minor extent with a sport fishing location previously charted by Department of Fisheries north of the pen site. The pen site is also on the periphery of a winter blackmouth sport fishing area previously located on fishing derby maps. The net pen proposal is unlikely to have any significant adverse effect upon fishing or related navigation.

XXXII

With regard to tow boat activity, Discovery Bay is used as a safe-haven for tow boats pulling log rafts in inclement weather. Predominent winter winds are from the south so that towboats anchor between Beckett Point and Cape George when seeking refuge. The proposed net pens would not interfere with anchorage there. Predominant summer winds are from the west so that towboats anchor at a point about half way between the proposed net pen site and Eagle Creek. (This anchorage is designated "A" on Exhibit R-6H, herein). A typical tow boat and log raft, at anchor, would be some 1,300 feet long. The distance from the summer anchorage just described to the net pens is approximately 3,000 feet. The net pen proposal is

unlikely to have any significant adverse effect upon tow boat navigation.

XXXIII

Economics. An established market exists for the sale of salmon like those which the proposal would produce. The proposal has the potential for success if operated carefully.

XXXIV

Estuary. The term "estuary" is defined in the Clallam County Shoreline Master Program (CCSMP) to mean:

> The seaward end or the widened delta shaped tidal mouth of a river valley where freshwater mixes with, and measureably dilutes, seawater and where tidal effects are evident. (CCSMP, Glossary, No. 37, p. 112).

Intervenors and cross-appellants contend that the whole of Discovery Bay, including the proposed net pen site is an estuary. We disagree. The definition in the CCSMP specifically limits an estuary to a river valley or its delta.[2/] While certain streams or rivers empty into Discovery Bay, we do not find this sufficient to deem the entire Bay "a river valley". Moreover, the CCSMP definition of estuary requires freshwater to be mixing with and measureably diluting seawater. Salinity comparisons between the site in Discovery Bay and a control point out of the Bay in the Strait of Juan de Fuca do not support the existence of such mixing in any material sense. As measured in parts

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2/ The Department of Ecology guideline for master programs is in accord. It declares: "An estuary is that portion of a coastal stream . . . ". WAC 173-16-050.

per thousand during July through October, 1987, and June of 1988, surface salinity at the site averaged 30.7 versus 30.66 in the Strait. Similarily, there are minimal differences in salinity between various depths at the site, either considered alone or by comparison with the Strait. Lastly, there has been no evidence to indicate any difference in habitat quality between the proposed net pen site and the greater saltwaters of the Strait. The proposed net pen site is not located within an estuary.

XXXV

Provisions of the Shoreline Master Program at Issue. The Clallam County Shoreline Master Program defines "Aquaculture" as:

> Aquaculture is the farming or culturing of game and food fish, or aquatic plants and animals in fresh or salt water areas, and may include such developments as fish hatcheries, rearing pens, shorebased structures and shellfish rafts. Excluded from this definition is the private husbanding or harvesting of anadromous fish, as prohibited by Washington State Law.
>
> Aquaculture practices pertain to any activity directly related to growing, handling or harvesting of aquaculture produce, including but not limited to, propogation, enhancement and rehabilitation of said fisheries resources. Excluded from the definition are related commercial uses such as wholesale and retail sales, processing, packaging or freezing facilities.
>
> (CSSMP, Section 5.02A, p. 42, emphasis added).

XXXVI

The site of the proposed salmon net pens is designated "Conservancy". CCSMP Designation of Environments, p. 119.

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BEFORE THE SHORELINE HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF A SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT DENIED BY CLALLAM COUNTY TO JAMESTOWN KLALLAM TRIBE and SEA FARM OF WASHINGTON, JAMESTOWN KLALLAM TRIBE, and SEA FARM OF WASHINGTON, Appellants, and STATE OF WASHINGTON, DEPARTMENT OF NATURAL RESOURCES and DEPARTMENT OF AGRICULTURE, Intervenors, v. CLALLAM COUNTY, Respondent, and SAVE DISCOVERY BAY and GUNSTONE FAMILY, Intervenors and Cross Appellants.	SHB Nos. 88-4 and 88-5 ORDER ON MOTIONS FOR SUMMARY JUDGMENT

On May 20, 1988, appellants filed their Motion for Partial Summary Judgment in the above matter. On June 9, 1988, intervenors and cross appellants filed their Reply to appellant's motion and also filed a Cross Motion for Summary Judgment. On July 13, 1988, appellants filed their response to intervenors' and cross appellants' Motions for Summary Judgment.

Having considered these together with the following:

1. Appellants' memorandum filed May 20, 1988.
2. Affidavit of Dr. John Forster dated May 13, 1988, with attachments thereto.
3. Affidavit of Jack Rensel dated May 16, 1988, with attachments thereto.
4. Intervenors and cross appellants' memorandum filed June 9, 1988.
5. Affidavit of Betty Joyce Enbysk dated June 7, 1988, with attachments thereto.
6. Affidavit Robert I. Meinig, dated June 8, 1988.
7. Memorandum of appellants in response to cross motion for summary judgment filed June 14, 1988,

together with the records and files herein, and being fully advised the Board now concludes as follows:

1. <u>Commercial Development or Feed Lot</u>.

Under the Clallam County Shoreline Master Program (CCSMP),

aquaculture is an authorized activity in a conservancy environment while commercial developments and feed lot operations are not permitted:

> Permitted uses are: timber harvesting on a sustained yield basis, agricultural uses such as pasture and range lands and aquaculture. Uses not permitted area: the removal of sand and gravel from marine beaches, rivers, streams and creeks; mining; commercial and industrial developments, ports, feed lot operations, log booming and marinas.
>
> CCSMP, Sec. 3.03 C. 1. Emphasis added.

We hold that the proposed net pen facility is neither a commercial development nor a feed lot within the meaning of the CCSMP. Moreover, we hold that the proposed net pen facility is aquaculture under the CCSMP, and should be reviewed under the standards relating to aquaculture.

Commercial Development.

Appellants have filed the affidavit of Dr. John Forster which states that:

> There will be no retail or wholesale sale of fish at the net-pen site or in any element of the operation for which we are requesting permit approval. We will strictly culture and raise fish at the net pens.
>
> Affidavit, page 4, paragraph 4.

Dr. Forster is the President of appellant, Sea Farms of Washington. From this uncontroverted affidavit we conclude that there is no proposal for wholesale and retail trade or other business activity

within the net pen proposal before us for review. As such, the proposed development does not qualify as commercial development under the CCSMP definition:

> The CCSMP concisely defines commercial development.
>
> Commercial developments are those uses which involve interchange of goods, wares or commodities <u>such as wholesale and retail trade or other business activities</u> requiring structures ranging from small businesses within residences to large buildings. Agricultural, <u>aquacultural</u>, or forest management practices not requiring structures are <u>excluded</u> from this definition.
>
> CCSMP Sec. 5.04 A. Emphasis added.

Perhaps more importantly, the CCSMP defines aquaculture as follows:

> Aquaculture is the <u>farming or culturing</u> of game and <u>food fish</u>, or aquatic plants and animals in fresh or salt water areas, and may include such developments as fish hatcheries, <u>rearing pens</u>, shorebased structures and shellfish rafts. Excluded from this definition is the private husbanding or harvesting of anadromous fish, as prohibited by Washington State Law. Aquaculture practices pertain to any activity directly related to growing, handling, or harvesting of aquaculture produce, including, but not limited to, propagation, enhancement and rehabilitataion of said fisheries resources. Excluded from this definition are related <u>commercial uses such as wholesale and retail sales, processing, packaging or freezing facilities.</u>
>
> CCSMP, Sec. 5.02 A. Emphasis added.

This specific definition at Sec. 5.02 A. takes precedence over the general definition of commercial development, at Sec. 5.02 A., above, where the subject is aquaculture. Again, there are no wholesale or retail sales or activity beyond culturing and raising fish to render

the proposal commercial. Rather, the proposal falls within the specific definition for aquaculture. Such definition allows structures such as net pens, and therefore does not prohibit all structures. A shoreline master program is to be construed so that no portion is rendered meaningless or superfluous. See Stone v. Sheriff's Dept., 110 Wn.2d (1988). Such a careful reading of the CCSMP resolves any apparent inconsistency. See Bellevue v. Mociulski, 51 Wn. App. 855, 859 (1988).

As we noted in Cruver v. San Juan County and Webb, SHB No. 202 (1976) the proposal is for "growing and harvesting a crop, akin to agriculture, the step before wholesale." Accord Penn Cove Seafarms v. Island County, SHB No. 84-4 (1984) and Holland v. Kitsap County, SHB No. 86-22 (1987). Summary judgment should be granted for appellants that the proposed development is for aquaculture, not commercial development.

Feed Lot.

We find no merit in the characterization of the proposal as a feed lot in as much as the CCSMP definition of aquaculture specifically contemplates farming or culturing fish in rearing pens, Sec. 5.02 A. above, and the CCSMP then goes on to make aquaculture a permitted use. Sec. 3.03 C. 1. above. This specific regulatory scheme prevails over an analogy to traditional, land based feed lots. Summary judgment should be granted for appellants that the proposed development is for aquaculture, not a feed lot.

2. Floating Home.

The Clallam County Shoreline Master Program (CCSMP) defines a floating home as:

> A floating structure used in whole or in part for human habitation as a dwelling unit, and which is moored, anchored or otherwise secured in the waters.

CCSMP, Glossary, item 41. Emphasis added.

Appellants have filed the affidavit of Dr. John Forster which states that:

> We propose to construct a small 10 foot by 12 foot by 10 foot high shelter at the net pen location for maintaining our administrative operation at the site, storing necessary equipment and providing a covered shelter for employees to be protected from inclement weather. We will need to constantly monitor the fish activities and protect our investment on a 24-hour basis. No persons will be living at the site and our personnel will rotate frequently for these after-hour duties. We have similar shelter and work arrangements at our net-pen operation in Port Angeles.

Affidavit, page 4, paragraph 5.

Dr. Forster is the President of appellant, Sea Farms of Washington. From this noncontroverted affidavit we conclude that the proposed shelter would not be a dwelling unit but a security shelter incidental to the net pen operation. In reaching this conclusion we are cognizant of the likelihood that the shelter may contain eating or sanitary facilities. Yet it is not the facilities which classify the structure, but its use. Here the structure is to be used to provide security for the net pens. Such a de minimis structure is incidental

to the water dependent aquaculture use. See also Department of Ecology v. City of Tacoma and Hugh Barden, SHB Nos. 83-42 and 84-27 (1985) pp. 3 and 11. Summary judgment should be granted for appellants that the proposed security shelter is a strucure incidental to aquaculture, and is not a floating home.

3. Segmentation

Whether the shore-based operations attendant to the proposed development was properly segmented was addressed by appellants' affidavit. However, all facts and reasonable inferences must be construed in favor of the non-moving party in summary judgment. Turngren v. King County, 104 Wn. 2d 293, 312, 705 P.2d 258 (1985). In doing so we conclude that genuine issues of material fact persist and that summary judgment should be denied.

4. Estuary.

Opposing affidavits filed herein establish genuine issues of material fact, and summary judgment should be denied.

5. Procedure in Issuance of DNS.

For the same reasons as set forth in paragraph 3. above, summary judgment should be denied.

6. County Proceedings: Alleged lack of right to Cross-Examination and alleged violation of the Appearance of Fairness Doctrine.

Each of these issues are beyond the scope of the Pre-Hearing Order

entered March 25, 1988. That Order limited the subsequent course of the proceedings to the issues set forth therein. For this reason the above issues are barred. See Kitsap County v. Natural Resources, 99 Wn. 2d 386, 389, 662 P.2d 381 (1983).

Had these issues been included in the Pre-Hearing Order, we would decline to resolve them in any event. The hearing before the Board is de novo. San Juan County v. Natural Resources, 28 Wn. App. 796, 626 P.2d 995 (1981). Because of de novo review we can provide adequate procedural safeguards without considering an appearance of fairness claim raised against local officials. Washington Environmental Council, et. al. v. Douglas County, et. al., SHB Nos. 86-34, 86-36 and 86-39 (1988). The same is true as to a claim that cross examination was not allowed in local proceedings. This form of review enhances the consideration of each case on its merits.

7. Cross Motion for Summary Judgment.

The Cross-Motion for Summary Judgment filed by Intervenors/Cross-Appellants on June 9, 1988, does not violate the Pre-Hearing Order. Such Cross-Motions were limited to the issues raised by appellants' Motion for Partial Summary Judgment filed May 20, 1988. The effect is merely to allow entry of judgment for the non-moving party where appropriate as a matter of law. That procedure is correct even without Cross-Motion. See generally, Orland, Wash. Rules Practice (1983) Sec. 5656, p. 442 and cases cited therein.

WHEREFORE IT IS ORDERED:

1. Summary Judgment is granted to appellants that the proposed development is aquaculutre, not commercial development and not a feed lot.

2. Summary Judgment is granted to appellants that the proposed security shelter is a structure incidential to aquaculture and not a floating home.

3. Summary Judgment is denied as to all other issues for which it was sought, except the issues of cross examination and appearance of fairness in County proceedings which are barred.

DONE at Lacey, Washington, this 29th day of July, 1988.

SHORELINE HEARINGS BOARD

WICK DUFFORD, Chairman

JUDITH A. BENDOR, Member

HAROLD S. ZIMMERMAN, Member

NANCY BURNETT, Member

LES ELDRIDGE, Member

Dennis J. McLerran, by [illegible]
DENNIS J. McLERRAN, Member

WILLIAM A. HARRISON
Administrative Appeals Judge