

# MARICULTURE

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## Goals

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**Economic Opportunities and Community Development.** Provide opportunities to increase income and diversify the state's economy through the use of state tide and submerged lands for mariculture.

**Optimum Use of Areas.** Maximum the optimum use of the most suitable mariculture areas.

## Guidelines

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The Department of Natural Resources cannot authorize finfish operations under state law at the present time. Without legislative direction and sufficient data, this plan is unable to adequately address the siting and cumulative impacts from finfish mariculture facilities. Should the legislature legalize finfish, the department will develop policy prior to authorizing finfish mariculture operations. The policy will address siting guidelines to protect habitat areas, harvest activities, and other land uses; development standards; development bonds; and other subjects as necessary.

Shellfish mariculture is currently legal, and the department must adjudicate applications for that use. The guidelines below apply to shellfish mariculture. Various groups within state government are working on mariculture policy. Working groups addressing mariculture guidelines include those within DNR, ADF&G, and the Governor's Interagency Mariculture Work Group. The department expects that mariculture guidelines will continue to evolve over the next few years as the state gains experience and data, the legislature gives further direction, and the various working groups complete their studies. Therefore, the guidelines in this section are

somewhat general. Authorizations for mariculture will be consistent with the more detailed policies as they are developed. These more detailed policies will be added to this chapter during periodic review of the plan. Finally, all DNR authorizations for mariculture must meet the management intent and guidelines of this plan.

**A. Mariculture and Competing Uses.** Mariculture may be allowed on state tidelands where there is no significant conflict. The siting of mariculture facilities may be more difficult on crucial fish and wildlife habitat, tidelands designated for log transfer or storage, mineral transfer or access, commercial activities, or recreation (see Recreation, Coordination and Public Notice, and Fish and Wildlife Habitat and Harvest Area guidelines in this chapter and Chapter 3). These areas will be available for mariculture (a) if the land manager determines that it is possible to site, design, and operate the two or more uses compatibly in the area; or (b) there is no feasible or prudent alternative for mariculture while such an alternative exists for the competing use. In no case will mariculture be allowed to foreclose access to mineral, timber, or recreation resources unless feasible or prudent alternative access exists. However, in some cases it may be in the public interest to concentrate activities in one bay, (e.g., pen-reared salmon and timber transfer) rather than allowing the proliferation of activities in many bays.

**B. Separation Between Facilities.** The siting and spacing of mariculture operations should minimize the risk of disease transmission, competition with wild stocks of fish and shellfish, and water quality degradation through separation between operators. Permit holders that may be affected by a proposed operation should be notified and given an opportunity to comment.

**C. Upland Owner Support for Mariculture Objectives.** Upland owners are encouraged to identify areas where mariculture (including upland facilities) should and should not be developed and to communicate their conclusions to the department and to the mariculture industry.

**D. Mariculture Caretaker Facilities.** Floating caretaker facilities for mariculture operations are allowed in areas where there is no significant competing use. Floating caretaker facilities for mariculture operations will not be allowed in designated recreation or personal use areas unless the regional manager determines that there is no feasible or prudent alternative. The determination will be made available for public comment.

**E. Siting Near Anadromous Fish Streams.** Mariculture facilities will not be sited within 300 feet of the mouth of an anadromous fish stream at mean lower low water without the approval of ADF&G.

**F. Performance Standards.** The regional manager will attach reasonable performance standards to the permit or lease for project development and operation. The performance standards are to ensure the permitted area is used for the approved activity, the proposal is economically viable, and the permit is not held for speculation or removal of a land base from competition. In all cases the approved development plan must be adhered to. If the performance standards are not met, the permit or lease may be cancelled. DNR may require a bond of sufficient size to cover the cost of clean-up and rehabilitation of the permit or lease area.

**G. Development Plans.** A development plan will be required before a lease or permit application for mariculture facilities is approved. The preferred approach is for the application and development plan requirements to serve (at the minimum) as the basis for DNR, ADF&G, DEC, ACMP, and upland owner review. The development plan will be consistent with applicable agreements estab-

lished through the Governor's Interagency Task Force on mariculture.

**H. Preferred Storage Sites.** Because they are less biologically productive than salt marshes and tideflats, gravel and sand beaches are generally the preferred sites for onshore storage of shellfish while waiting for PSP test results and shipment.

**I. Dispersion of Organic Deposits.** Mariculture facilities should be sited where currents are strong enough to disperse organic deposits and in areas with the least productive benthic habitats. Siting should avoid small embayments with sills, areas with natural restrictions to tidal exchange, or areas with existing water quality problems.

**J. Coast Guard Approval.** Permits or leases will not be given until the U.S. Coast Guard has certified that the proposed facility will not be a significant navigational hazard.

**K. Other Guidelines Affecting Mariculture.** Other guidelines will affect mariculture management practices. See in particular the following sections of this chapter.

- Coordination and public notice
- Fish and wildlife habitat and harvest areas
- Public access
- Recreation, tourism, cultural and scenic resources
- Transportation and utilities
- Shoreline development

## **Summary of Policies**

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**Types of Mariculture.** Mariculture includes a variety of operations. Each type of mariculture has its own set of environmental and processing requirements and creates its own unique impacts, problems, and opportunities. The needs and impacts for growing seaweed on a rope or salting a beach for clams are likely to be quite different from more developed "sea farming." Some may require little or no land area; others may require a significant area for processing and caretaker facilities.

**Management Intent and Guidelines.** Because of the difficulty in identifying areas suitable for the variety of mariculture types, the plan does not designate areas for mariculture. Rather, the plan indicates the management intent for each area. Mariculture may be allowed on state tidelands if it can be made consistent with the intent. For example, the plan may indicate the primary intent for a particular area is a log transfer site. Mariculture may be allowed if the ability to use the area for log transfer operations is maintained. The siting of mariculture may be more difficult on tidelands designated for log transfer or storage, mineral transfer or access, commercial activities, crucial fish and wildlife habitat, or recreation. However, these areas will be available for mariculture if it is possible to site, design, and operate mariculture in a manner compatible with the designated use, or if there is no feasible and prudent alternative for mariculture while one exists for the competing use.

In this way, mariculture may be allowed in most of Prince William Sound, though it must sometimes meet strict guidelines. The most restrictive guidelines apply to state tidelands adjacent to USFS proposed wilderness areas. In these areas, mariculture or other tideland facilities may be allowed "if they are mostly underwater and cause only limited impact on the fish and wildlife, recreation, tourism, and wilderness values" and if they do not create "long-term visual impacts." Other guidelines exist for the most important and frequently used recreation areas, anchorages, commercial fishing harvest areas, commercial fishing harvest areas, and sport fishing sites.

**Public Notice.** Because the industry is new and its impacts on other activities are not yet clear, public notice of a proposed permit or lease for mariculture facilities will be sent to adjacent upland owners, user groups, and communities that may be affected by the activity. (This notice is in addition to the department's existing public notice procedures.)