

## **MARICULTURE/AQUACULTURE**

The culture of estuarine, marine and freshwater species in coastal areas can reduce or degrade habitats used by native stocks of commercially and recreationally important fisheries. Additional guidelines for Water Intakes/Discharges and Drainage Canals and Ditches may also apply. The following criteria should be employed to reduce or eliminate adverse impacts:

- a. Facilities should be located on uplands. Wetlands should not be enclosed or impounded for mariculture purposes, including hatchery or grow-out operations.
- b. Water intakes should be designed to minimize entrainment and impingement of native fauna. In addition, water intake guidelines are applicable.
- c. Water discharge should be treated to avoid significant degradation of the receiving water (e.g. thermal, sediment, chemical, etc.) and should be located only in areas having good mixing characteristics. This may necessitate holding water temporarily in a retention basin prior to discharge. In addition, water intake guidelines are applicable.
- d. Where cage mariculture operations are undertaken, water depths and circulation patterns should be investigated and should be adequate to preclude the build-up of waste products, excess feed and chemical agents.
- e. Mariculture sites should be stocked with hatchery-reared organisms only. Non-native species should be certified to be disease-free and sterile. Project design features that avoid escape or accidental release of cultured species are required. The Texas Parks and Wildlife Department should be contacted regarding exotic species permits. The rearing of ecologically undesirable species is not recommended since escape and accidental release of these species is virtually assured.
- f. Water from existing aquatic ecosystems should not be diverted for mariculture/aquaculture if it would result in the degradation of the water source of the fish and wildlife resources it supports.