

OFFICE OF COASTAL MANAGEMENT

COASTAL USE PERMITS

**GUIDE TO DEVELOPING
ALTERNATIVES, JUSTIFICATION
DRAINAGE AND COASTAL HAZARD
ANALYSES
FOR
PROPOSED USES WITHIN THE
LOUISIANA COASTAL ZONE**

Introduction

One of the goals of the Office of Coastal Management (OCM) is to achieve a balance between conservation of coastal resources and development of the coastal zone. Development in the coastal zone is encouraged but avoidance of unnecessary impacts to coastal resources is essential in order to protect those resources for future generations. To accomplish this goal, OCM reviews every Coastal Use Permit (CUP) application with the objective of avoiding and/or minimizing adverse impacts wherever possible. Pursuant to La. RS 49:214.27.B and C., OCM uses the Coastal Use Guidelines, found in LAC Title 43, Part I, Chapter 7, Subpart B, §701-719, to determine the type of information needed to fully evaluate a particular use and the adverse impacts that must be avoided to the maximum extent practicable. All coastal uses must be in conformance with all applicable Coastal Use Guidelines in order to receive approval from OCM.

Part of these guidelines, §701.H, charges OCM with ensuring that the public benefits of a proposed coastal use clearly outweigh any adverse impacts to public resources resulting from that use. **Public benefits** include providing goods and/or services to users that currently do not have reasonable access to such goods and/or services, increasing permanent employment opportunities and increasing public revenues. **Coastal resources** include coastal waters, wetlands, fisheries, wildlife and unique ecological/coastal features such as ridges, cheniers, salt domes, beaches and dunes. These resources provide value to the public in the form of storm and flood protection, nursery grounds for commercial and recreational fishing, critical habitat for endangered species and improved water quality. Public resources also include existing structures and infrastructure. **Adverse impacts** are direct or indirect loss and/or negative alteration of a public resource as well as negative impact on concurrent and neighboring coastal users and include such things as increased intensity or frequency of flooding, accelerated erosion and salt water intrusion.

Review of a proposed coastal use using the Coastal Use Guidelines includes asking questions such as:

1. Can adverse impacts from a proposed use on coastal resources and/or user groups be avoided by moving the use to an area which results in less adverse impact to coastal resources and/or users?
2. If the use cannot be moved, can demand for the proposed goods and/or services in the area to which they will be introduced be documented?
3. If a use cannot be moved and demand can be demonstrated, can the use be redesigned/reconfigured, or can different methods be used to accomplish the use, which results in less damage to coastal resources?

To answer these questions, OCM requires that the applicant provide Alternatives, Justification, Drainage and Coastal Hazard Analyses in sufficient detail to demonstrate a thorough consideration of the respective subjects. In an effort to recognize the differences between small and large projects, and/or low and high coastal resource impact projects, OCM has developed a tiered approach to Analysis development. Factors such as, but not limited to, the complexity of the development, surrounding land use, type and level of resource impact and coastal use objective(s) are used to determine the range of alternatives to be considered in the Alternatives Analysis and the information and level of detail required for the Justification, Drainage and Coastal Hazard Analyses. This guide was developed to assist applicants for

Coastal Use Permits with determining, in general, the type of information and level of detail needed to fully evaluate a proposed coastal use's potential impacts and benefits and therefore it's conformance with the Coastal Use Guidelines. Any combination of analyses may be required depending on the nature of the proposed coastal use and the potential adverse impacts that may occur from that use.

Alternatives and Justification Analyses

To fully evaluate a proposed coastal use's benefits and impacts, Alternatives and/or Justification Analyses are required during review of a use from which adverse impacts to coastal resources are, in OCM's opinion, likely to occur. The Alternatives Analysis should address several options for project siting that are compared equally for feasibility and will allow OCM to determine the least damaging feasible site for the proposed use. The Alternatives Analysis should provide documentation that clearly demonstrates that reasonable efforts were made to find less damaging sites and should provide an explanation for why each less damaging site was not feasible. The Alternatives Analysis also should address alternate site configuration, alternate methods of construction, and how adverse impacts to coastal resources will be minimized.

The Justification Analysis should include sufficient detail to clearly demonstrate demand for the proposed use and will allow OCM to determine the public need the proposed use. The Justification Analysis should explain the goods and/or services that the proposed coastal use will provide and include documentation that clearly demonstrates a public demand for, or public benefit resulting from, the proposed use. The analysis should provide enough information for OCM to determine that there is a reasonable chance that the project will be successful and not result in a situation where large scale destruction of resources is permitted for a project that fails economically, floods, causes flooding on adjacent areas or in some other way fails the public.

In general, the greater the resource or user group impacts, the more detail required for both the Alternatives and Justification Analyses. Using the information contained in these analyses, OCM can effectively evaluate the proposed coastal use's conformance with the applicable Coastal Use Guidelines (specifically §701.F.3, 5, 7, 8, 10, 13, 16 and 19; §701.G.2 and 6; §701.H; §701.I; and all applicable Use Specific Guidelines).

Drainage and Coastal Hazard Analyses

In 2007 the State adopted the *Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast* (the Master Plan). The Master Plan lays out four Coast-Wide Planning Objectives of the State and outlines coastal restoration and protection projects that can be implemented to restore and protect our coast. Objective #1 of the Master Plan is to "*Reduce Economic Losses from storm based flooding to residential, public, industrial and commercial infrastructure...*" On January 23, 2008, Governor Jindal signed executive order BJ 08-07 charging that "All state agencies shall administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with the Master Plan and public interest to the maximum extent possible". OCM is responsible for ensuring that development within the Coastal Zone of Louisiana is sited and constructed to minimize the risk of damage from flooding and other coastal hazards. A Drainage Analysis is used to evaluate the potential adverse impacts related to surface water

movement that may be associated with proposed coastal uses. A Coastal Hazard Analysis is used to identify the potential coastal hazards that may affect a proposed coastal use and addresses methods of reducing damages from those coastal hazards.

A Drainage Analysis will be required any time a proposed coastal use may alter surface water flow such that the coastal use has an adverse impact on existing drainage patterns. **Adverse impacts** include increased flooding to or drainage from adjacent properties and detrimental alternation of upstream and downstream flow rates. Types of uses that may affect drainage involve the placement of a significant amount of fill (i.e. fill resulting in a noticeable change in site elevation), changes in surface material such that water retention capabilities are reduced (i.e. going from pervious to non-pervious large surfaces) and coastal uses that reroute or relocate existing drainage features (levees, berms, jetties, dykes and drainage canals). A typical Drainage Analysis includes explanations and illustrative maps of existing drainage patterns and how those patterns are going to be altered by the proposed coastal use. Existing and altered flow rates in existing ditches, canals and channels also should be included if applicable. Using this information OCM can effectively evaluate a proposed coastal use's conformance with the applicable Coastal Use Guidelines (specifically §701.F.2, 4, 11, 15-19; §701.G.1, 3-12, 15, 16, 18 and 20; §701.H; §701.I; and all applicable Use Specific Guidelines).

Coastal Hazards such as hurricanes and related storm surge, flooding, subsidence, saltwater intrusion, sea level rise, etc. are a fact of life in coastal Louisiana. Any proposed coastal use sited in an area at risk from a particular coastal hazard requires a Coastal Hazard Analysis. This study should identify the potential risks and address minimization of adverse impacts resulting from the identified risks, whether to or by the proposed use. For example, a coastal hazard study for an application to build a house or subdivision in an area of high risk for hurricanes should identify the risks associated with hurricanes and address how the proposed structure(s) and project features will be designed and sited to avoid being damaged by those risks and becoming debris that can then damage other structures. Using this information OCM can effectively evaluate a proposed coastal use's conformance with Executive Order BJ 08-07 and the applicable Coastal Use Guidelines (specifically §701.2; 8, 11, 14, 15, 16, and 19; §701.G.2, 10, 14, 15, 19 and 20; §701.H; §701.I and all applicable Use Specific Guidelines).

Proposed Coastal Uses

All of the above analyses are not required for every type of coastal use and the type of information and level of detail required to address potential concerns varies within and between uses. OCM has taken a tiered approach to these analyses and has graded the level of detail required to be reflective of the extent of potential resource impacts. In general, the greater the risk to coastal resources, the more detailed the required analyses must be.

Several types of coastal uses are addressed in this guide however exclusion from this guide does not mean that other types of coastal uses do not require Alternatives, Justification, Drainage and Coastal Hazard Analyses. Likewise, all types of coastal uses will be reviewed on a case-by-case basis using the Coastal Use Guidelines to determine which, if any, of the analyses are required and to what level of detail they should be developed. Depending on the nature of the proposed use and the type and extent of adverse impact that may occur, information in addition to that suggested in a particular guide may be required, if in OCM's opinion, such additional information is necessary to fully evaluate the proposed coastal use.

An explanation for the need for any additional information OCM may request will be provided with the request for information.

Guides have been or will be developed for the following types of coastal uses. The highlighted sections represent existing guides.

Residential Developments

Marinas

Municipal Activities

Utilities

Levees

Transportation

Drainage

Recreational Facilities (Parks, Playgrounds, Ball Fields)

Pipelines

Oil & Gas Facilities

Commercial Facilities

Industrial Facilities

Port Facilities

Drainage and Coastal Hazards Analyses