

Alternatives and Justification Analyses Guide

Transportation

1.0 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, reefs, 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 and Justification 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 its 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.

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. If reviewing this guide prior to submission of a JPA, the information presented herein should be taken into consideration and addressed while developing the project. In most cases, alternatives, or the lack thereof, are evident and a simple discussion of the options considered is sufficient. This information can be provided in steps 11b-c of the Joint Permit Application. If the information is not provided in or attached to the JPA, the OCM permit analyst will review the project and determine if any less damaging alternatives are evident. Additional information may be requested by the permit analyst in order to address the less damaging options he/she identified. 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).

Transportation features include roads, bridges and ferries, construction and maintenance of which typically are undertaken by state or local governmental bodies, or in the case of ferries, private companies. This guide is focused more transportation features constructed by municipal entities. For the purposes of application processing, air and rail developments should refer to our commercial or industrial developments guides depending on the nature of the activity; boat traffic should refer to our Marinas, Ports or Recreational Facilities guides depending on the nature of the activity; and bike and foot trails should refer to the Recreational Facilities guide.

If, in OCM's opinion, adverse impacts to coastal resources will occur during construction, maintenance and/or operation of a proposed activity, Alternatives and Justification Analyses will be required. The level of detail needed in the Analyses is dependent on whether the activity is maintenance of existing features, expansion of existing features or installation of new features. Please note that a feasibility study done during the course of project development can be submitted as the Alternatives and Justification Analyses. If a feasibility study has not been done, the below information will assist in the development of Alternatives and Justification Analyses. OCM encourages applicants to avoid adverse impacts to coastal resources to the maximum extent practicable and will provide assistance with identifying alternate sites, minimizing impacts and developing a Justification Analysis.

2.0 Maintenance and Expansion of Existing Transportation Features

Maintenance of existing facilities includes activities such as resurfacing of existing roads, cleanout of existing roadside ditches replacement of existing bridge support structures and repair and/or replacement of existing ferry docks and loading ramps. In some cases, normal repairs and the rehabilitation, replacement or maintenance of existing structures do not require a Coastal Use Permit provided that:

1. the structure or work was lawfully in existence, currently serviceable, and in active use during the year preceding the repair, replacement or maintenance; and
2. the repair or maintenance does not result in an encroachment into a wetland area greater than that of the previous structure or work; and
3. the repair or maintenance does not involve dredge (the removal by excavation or any other means of native material, including soil, sand, mud, clay and semisolid sediment, regardless of whether the material supports or is supporting vegetation, from any lands or water bottoms in the coastal zone of Louisiana) or fill activities; and
4. the repair or maintenance does not result in a structure or facility that is significantly different in magnitude or function from the original; and
5. the activity is not located within one-quarter mile of a barrier island; or on a chenier, barrier beach, dune, salt dome or other similar isolated, raised landform.

Please note, however, that an exemption determination from OCM is exclusive to OCM and does not relieve the applicant from obtaining other local, state or federal permits, as required by law.

Cold planing, resurfacing and restriping of existing roads; installation of signage; replacement of existing bridge/dock support structures (fenders, pilings and bulkheads if no dredge or fill is required); maintenance of road-side ditches and drainage features (if the material is removed from the site and disposed of at an approved facility); or replacement of existing surface features (dock planks, railings, loading ramps, approach/deck resurfacing) do not require a Coastal Use Permit unless dredge or fill is required, work will extend outside of the existing footprint and/or staging areas are located outside of existing rights-of-way. Maintenance activities that do not qualify for the above exemption, including, but not limited to, maintenance of revetments, embankments and banklines; installation of erosion control material; and location of staging areas outside of existing, constructed rights-of-way will require a Coastal Use Permit.

Expansion of existing transportation facilities includes any activity that increases the footprint of the existing feature and will require a Coastal Use Permit. Activities such as, but not limited to, road/bridge widening, turn lane installation, installation of new drainage features on existing roads/bridges; and ferry dock expansion are considered expansion activities. If, in OCM's opinion, adverse impacts to coastal resources may occur from proposed non-exempt maintenance activities or expansion activities, brief Alternatives and Justification Analyses will be required. The information required in the analyses is dependent on the nature of the maintenance activity and the extent of resource impacts.

2.1 Alternatives Analysis

OCM recognizes that maintenance and expansion activities are site-specific, therefore, an Alternatives Analysis for maintenance and expansion activities need not address alternate sites for performing the activity. The analysis instead should address the methods and equipment to be used to perform the maintenance or expansion activity and a location of the staging area(s) that minimize adverse impacts to coastal resources to the maximum extent practicable. Only those aspects of the proposed maintenance activity that result in adverse impacts to coastal resources need be addressed. The analysis can take the form of a brief narrative that identifies all practical options for performing the work and locating staging areas.

2.1.1 Method(s) and Equipment

OCM understands that the methods and equipment used to perform maintenance and expansion activity may be limited by the type of activity to be done. If the methods and/or equipment used to perform the maintenance or expansion activity will result in adverse impacts to coastal resources, and options exist, the Alternatives Analysis should include:

1. An explanation of the method(s) to be used to perform the maintenance or expansion work. The narrative should identify and discuss all practical options for performing the work and explain why each was eliminated or chosen. The narrative should identify and explain any limiting factors. If using economics as a deciding factor in method selection, provide cost comparisons of all methods considered.

2.1.2 Staging Areas

The staging area(s) needed to perform the maintenance and expansion activities should be of the minimum size necessary to safely store and access equipment and should be located to avoid adverse impacts to coastal resources. If staging area location will be determined by the contractor performing the work, those areas outside of the permitted construction right-of-way must be approved by OCM. A separate permit or a revision to the construction permit will be required prior to preparation and use of the staging area. If coastal resources will be impacted by staging areas, the above narrative should include:

2. A discussion of all practical staging area locations and an explanation of why each was eliminated or chosen. The narrative also should explain the need for the size(s) of the staging area(s); any limitations that may be present on site; and include a discussion of any special equipment requirements. Illustrations and site layout plans may helpful in demonstrating space requirements and limitations.

2.2 Justification Analysis

The Justification Analysis should be a narrative that explains the nature and extent of the proposed maintenance or expansion work and why the maintenance or expansion is required (i.e. what are the consequences of not performing the maintenance activities). A purpose and need statement can be provided as justification for maintenance and expansion activities. If coastal resource impacts account for 20.0% or more of total project impacts for expansion activities, the feasibility study done during the normal course of project planning should be provided. How expansion activities will affect existing evacuation capacity also should be addressed.

3.0 Construction of New Transportation Features

New transportation features include the construction of previously non-existent roads and bridges and the lengthening of existing roads. If, in OCM's opinion, adverse impacts (including impacts from secondary development) to coastal resources may occur during or after construction, Alternatives and Justification Analyses will be required.

3.1 Alternatives Analysis

The goal of an Alternatives Analysis is to find a route for the proposed road which results in the least amount of adverse impact to coastal resources while allowing the project to fulfill its main objective(s). The Alternatives Analysis provides an objective method of performing a fair and thorough consideration of feasible options for the location, construction, operation and maintenance of the proposed transportation feature. OCM encourages applicants to utilize routes that avoid or minimize both direct and indirect adverse impacts to coastal resources to the maximum extent practicable. **Feasible routes** are defined as any route that can support the main objective(s) of the proposed development. Current aerial photography and/or specific knowledge of the area can be used to identify feasible routes. Project objective(s), surrounding land use, total project impact and type and extent of coastal resource impacts should be considered when selecting feasible alternative routes.

Documentation that clearly demonstrates that each route was compared equally and explains why each route was eliminated or chosen will be required. Documentation that supports the reasons for elimination should be included with the analysis. All alternate routes and the preferred route must be compared using, at a minimum, the factors identified below. If other factors not identified by OCM are used to compare sites, please define those factors and explain how they were used to evaluate each route. Table 1 can be used to determine the minimum range of alternatives and level of detail that should be considered when developing an Alternatives Analysis.

Table 1 – Determining the Range of Alternatives that should be considered when proposing a new transportation feature.

Scope of Development	Resource Impacts (% of total project impacts)		
	Low (<10%)	Med (10.01-30%)	High (>30.01%)
Small (one mile or less)	Category 1	Category 2	Category 3
Large (more than one mile)	Category 2/3*	Category 2/3*	Category 3
* If more than 5 acres of resource impact will occur, higher level of detail is required.			

If following the NEPA process, documentation of that process is sufficient to address the Alternatives Analysis. If not following the NEPA process, a minimum of two (**Category 1**), three (**Category 2**) or five (**Category 3**) alternate feasible routes/sites, along with the no-build option must be considered. Each route/site should be compared using the same parameters and should, at a minimum, include the items listed below (for exceptions see #2 and #7).

1. Define the project objective(s) and identify the proposed features required to meet the objective(s). Identify any project objectives that may limit the range of alternatives to be considered. Identify the area(s) to/from which the proposed transportation feature will provide access and why this access is necessary.
2. Identify, on a map, each route/site considered. If less than the minimum number of routes/sites, as specified above, have been considered, please explain why and provide documentation demonstrating the efforts made to find alternate routes/sites. If some routes/sites were given preliminary consideration only to be eliminated before final review, please list these alternatives and explain why they were eliminated.
3. Describe each route/site considered. Include topography, water/wetland features, habitat type(s) present and amount of impact to each. If access to the property is limited or unavailable, explain the limitations and provide any information that can be gained about the route using current photography and topographic and habitat maps. Identify any limiting factors and explain how those factors limit development.
4. Describe the surrounding land use(s) within one-half (½) mile of each route/site considered. Include type and extent of existing use and any planned future uses, if known. Identify any known secondary development that may occur along the new transportation feature.

5. Identify the current zoning of the properties along the route(s)/site(s).
6. Explain how the use will affect existing evacuation routes and times.
7. Provide a narrative explaining the reasons for the elimination/selection of each route/site. Please note that the factors used to compare each route/site should be identified and should be consistent among routes/sites, however, if some routes/sites were given preliminary consideration only to be eliminated before final review, please list these alternatives and explain why they were eliminated.
8. Provide a narrative that explains the minimum necessary width of the proposed right-of-way. Include any regulatory requirements and site limitations that affect the width chosen. Illustrations and site layout plans may helpful in demonstrating space requirements and limitations.

3.2 Justification Analysis

The Justification Analysis should clearly demonstrate a public need and/or demand for the proposed services. The analysis should include data that identifies current access options and current traffic patterns and volumes. It should explain how the new transportation feature will improve the existing traffic patterns and volumes and how it will affect evacuation capacity. The most common form of Justification Analysis for new transportation features is a feasibility study done during the normal course of planning and should be provided in its entirety.