

**Corpus Christi Metropolitan Planning Organization  
MITIGATION PLANNING PROTOCOL**

**DRAFT**

## CCMPO Mitigation Planning Protocol

### Need and Purpose Statement

This protocol is promulgated by The Corpus Christi Metropolitan Planning Organization (CCMPO) both in direct response to Section 6001 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and in the interest of helping its constituent agencies and jurisdictions more effectively respond to the sometimes competing demands for protection of the fragile ecosystems of the Texas Coastal Plain and good stewardship of public funds in infrastructure projects.

Section 6001 states:

“(i) GENERAL.—A long-range transportation plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.  
(ii) CONSULTATION.—The discussion shall be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies.”

A considerable body of other public law and policy, including, among many others, the Clean Air Act, Clean Water Act, National Environmental Protection Act, a number of statutes of the State of Texas, and many policy statements by Presidents and Governors also encourage sound planning to help balance the economic, environmental, and social impacts of infrastructure projects.

As the costs of developing new infrastructure or improving existing infrastructure escalate, so do the needs for advance planning to manage the risks and challenges of those projects. CCMPO not only has a duty to meet the requirements for Section 6001 compliance, but also a duty to its service region to provide outstanding planning services that go above and beyond basic requirements. Thus in the spirit of encouraging transportation planning that enhances quality of life while managing cost, CCMPO offers this protocol to its constituents as a living document, intended to improve and evolve through use. In addition, CCMPO has commissioned two studies that serve both as the underpinnings of this protocol and to help people understand how mitigation works in transportation planning and construction:

1. *Avoid, Minimize, Compensate: Infrastructure Mitigation Policy and Implementation in Texas* (CCMPO, 2010) provides planners, practitioners, builders, and users with an overview of the laws and regulations which drive the mitigation of natural resource impacts and the various approaches and tools used to accomplish mitigation;
2. *Protecting Tomorrow: The Roles of Private For-Profit and Nonprofit Organizations in Mitigating Resource Impacts of Infrastructure Projects*

(CCMPO, 2010) offers information, insights, and perspectives into how partnerships with both for profit and not for profit organizations can help manage infrastructure development costs and provide multiple benefits for resource protection, recreation, and quality of life.

We welcome comments and suggestions on this document, and encourage its users to provide feedback often to CCMPO staff on both its relevance and usability.

### **Guiding Principles**

In developing this protocol CCMPO staff and contractors followed and expanded upon the SAFETEA-LU Planning Factors adopted in the CCMPO Transportation Improvement Program. These principles include:

- Support the economic vitality of the metropolitan area. Transportation is a key factor in promoting economic growth. Moving goods and services efficiently and safely can significantly increase productivity. This is especially true in relation to the Port of Corpus Christi, where a smooth transition from sea to land based transportation modes can promote global competitiveness.
- Increase safety for both motorized and non-motorized transportation users. Safety becomes an ever-greater concern as efforts are made to promote bicycle, pedestrian, and public transportation modes to save energy and reduce air pollution. Good planning and engineering combined with advances in traffic management technology can significantly increase safety as traffic counts grow.
- Support homeland and individual security. Hand in hand with safety goes preparedness to meet the threats posed by natural disasters, especially tropical storms and hurricanes, and humans, such as drug and illegal alien trafficking and terrorism. Good design should provide the transportation capacity needed to respond to natural disasters and the features needed to enable law enforcement personnel to secure our borders and enforce the law.
- Increase accessibility and mobility for people and freight. Human accessibility means much more than simply compliance with the Americans with Disabilities Act. It means that people with differing abilities can use public transportation, sidewalks and trails, and roadways smoothly and efficiently, and feel encouraged to do so. Similarly, the efficient and timely transition of freight from sea to rail, rail to truck, truck to sea, or any combination of these can enhance the economic value of the entire transportation system.

- Protect and enhance the environment and other factors
  - Promote energy conservation through more efficient movement of people and goods;
  - Improve quality of life through safer and faster trips that minimize the amount of time spent travelling;
  - Promote consistency between transportation improvements and State and local planned growth and economic development patterns such as coordinating the development of new transportation to support planned commercial land use nodes;
  - Protect the unique and endangered aspects of the Coastal Bend ecosystem through application of the “Avoid, Minimize, Compensate” mitigation guidelines.
  
- Enhance integration and connectivity between transportation modes for people and freight. The development of intermodal facilities and improvement of freight handling at the Port of Corpus Christi provide multiple economic, quality of life, and social benefits through the more efficient movement of goods, services, and people.
  
- Promote efficient system management and operation. The use of new technologies to manage congestion and the coordination of land use and economic development planning with transportation planning to encourage people to live near where they work, shop, and recreate should improve efficiency, speed emergency response, and provide a more flexible transportation system for the future.
  
- Emphasize the preservation of the existing transportation system. More efficient use of rights of way for transportation and other forms of infrastructure, improved design for refurbished bridges and overpasses, intersections, and other facilities, and other planning and design factors can not only extend the life of existing transportation infrastructure, but also better utilize limited public funds in system improvements.

### **Key Planning Factors**

Users of this protocol should seek to balance four key factors in the application of the protocol to future planning efforts:

1. Demand. Both demand for increased transportation capacity and efficiency and the ever-increasing demand for land for all types of use should be taken into account in applying this protocol to the planning process.
  
2. Routing and Construction limiting factors. Natural barriers such as rivers and marshes, other infrastructure rights of way such as gas or electricity transmission corridors, soil types and geology, the human built environment,

and concerns over private property rights all impact both where transportation infrastructure may be built and the relative difficulty of construction.

3. Environmental impact. The use of this protocol is as an aid to the “avoid, minimize, compensate” imperatives of current natural resource protection laws as they are applied in transportation master planning. Users of this protocol should be familiar with the requirements of federal and state law and local ordinances for the protection of air and water quality, habitat, endangered and threatened species, flood control, prime agricultural soils, and the prevention of toxic substance pollution. References to applicable laws are included in Appendix A.
4. Cost. As the development of new or improvement of existing infrastructure becomes more and more costly, finding a balance between doing the right thing for in terms of resource protection versus doing the right thing for public budgets becomes a more and more subjective exercise. One of the key secondary benefits to the use of this protocol should be the opportunity for expert input and opinion to guide planners and identify the greatest potential conflict points as early as possible in the process. Users must make every effort to seek expert opinion from all the various stakeholder sources identified in the protocol.

## Protocol

<b>Activity</b>	<b>Date Complete or Yes/No</b>
<p>1. Identify Proposed New and Changed Infrastructure</p> <p>Efforts should be made in advance to ensure that all GIS data provided by the various jurisdictions, planning agencies and commercial planning firms involved in proposing infrastructure projects is compatible and uses the same or similar conventions for rectifying differences between satellite/aerial imaging, map coordinates and alignments, display, and other factors which effect the accuracy of end products.</p> <p>It is also important that data layers be captured for all natural resource types, all proposed alignments, human population, and political boundaries. Refer to the resource and layer types listed in step 2.1 below.</p>	
<p>1.1. New roads</p> <p>1.1.1. Identify type of road (feeder, controlled access, etc.)</p> <p>1.1.2. Obtain Geographic Information System (GIS) data concerning natural resources impacted, road type and capacity, proposed alignments, right of way requirements, etc.</p>	
<p>1.2. Road expansions and improvements</p> <p>1.2.1. Identify size and changes made to existing ROW</p> <p>1.2.2. Identify size and configuration of new ROW</p> <p>1.2.3. Obtain GIS data concerning natural resources impacted, trip capacity, proposed alignments, right of way requirements, etc.</p>	
<p>1.3. Interchanges</p> <p>1.3.1. Identify configuration and size of facility</p> <p>1.3.2. Identify size and changes made to existing ROW</p> <p>1.3.3. Identify size and configuration of new ROW</p> <p>1.3.4. Obtain GIS data concerning natural resources impacted, trip capacity, proposed alignments, right of way requirements, etc.</p>	

<p>1.4. Bridges</p> <p>1.4.1. Identify configuration and size of facility</p> <p>1.4.2. Identify size and changes made to existing ROW</p> <p>1.4.3. Identify size and configuration of new ROW</p> <p>1.4.4. Obtain GIS data concerning natural resources impacted, bridge capacity, proposed alignments, right of way requirements, etc.</p>	
<p>2. ID Mitigation Needs of Proposed Routes</p> <p><i>See Avoid, Minimize, Compensate: Infrastructure Mitigation Policy and Implementation in Texas (CCMPO, 2010) and Protecting Tomorrow: The Roles of Private For-Profit and Nonprofit Organizations in Mitigating Resource Impacts of Infrastructure Projects (CCMPO, 2010) for additional information on mitigation planning and the role of partnerships in managing mitigation costs.</i></p> <p>Evaluate for each alternative route:</p>	
<p>2.1. Geospatial analysis</p>	
<p>2.1.1. Soils</p> <p>2.1.1.1. Are any soils in any ROW alignment listed as Prime Agricultural Soils by State or Local agricultural councils?</p> <p>If “Yes,” ensure that local Natural Resources Conservation Service and Texas Agrilife Extension Service representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.1.1.2. Are any soils in any ROW alignment identified by state or federal wildlife officials as potential critical species habitat or particularly conducive to the growth of habitat?</p> <p>If “Yes,” ensure that local US Fish &amp; Wildlife Service (USFWS) and/or Texas Parks &amp; Wildlife Department (TPWD) representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>

<p>2.1.2. Hydrology</p> <p>2.1.2.1. Wetlands</p> <p>2.1.2.1.1. Are wetlands (either designated or ephemeral) present in the proposed ROW?</p> <p>2.1.2.1.2. Quantify the area of wetlands disturbed or destroyed</p> <p>2.1.2.1.3. Do any of the wetlands support known populations of endangered or threatened species? Which species?</p> <p>If “Yes,” ensure that local USFWS and/or TPWD representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p> <p>YES/NO</p>
<p>2.1.2.1.4. Do any of the wetlands provide biofiltering of stormwater or irrigation runoff from industrial, agricultural, or other nonpoint sources?</p> <p>If “Yes,” ensure that local Environmental Protection Agency (EPA,) US Army Corps of Engineers (USACE) and/or Texas Commission on Environmental Quality (TCEQ) representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.1.2.2. Rivers and streams</p> <p>2.1.2.2.1. Are rivers or streams (designated as either Waters of the United States or Waters of the State of Texas) present in the proposed ROW?</p> <p>2.1.2.2.2. Quantify the area of stream and/or river bank disturbed</p>	<p>YES/NO</p>
<p>2.1.2.2.3. Do the riparian corridors, floodplains, or floodways of the rivers or streams support known populations of endangered or threatened species? Which species?</p> <p>If “Yes,” ensure that local USFWS and/or TPWD representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>

<p>2.1.2.2.4. Are agricultural buffers funded by either federal or state funds that provide biofiltering of stormwater or irrigation runoff from agricultural or other nonpoint sources present?</p> <p>If “Yes,” ensure that USDA Natural Resources Conservation Service (NRCS) or Texas AgriLife Extension Service agents are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.1.2.3. Lakes and ponds</p> <p>2.1.2.3.1. Are lakes or ponds present in the proposed ROW?</p> <p>2.1.2.3.2. Quantify the area of lake and/or pond disturbed</p>	<p>YES/NO</p>
<p>2.1.2.3.3. Do the riparian corridors of the lake or pond banks support known populations of endangered or threatened species? Which species?</p> <p>If “Yes,” ensure that local USFWS and/or TPWD representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.1.2.3.4. Are agricultural buffers funded by either federal or state funds that provide biofiltering of stormwater or irrigation runoff from agricultural or other nonpoint sources present?</p> <p>If “Yes,” ensure that USDA Natural Resources Conservation Service (NRCS) or Texas AgriLife Extension Service agents are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.1.3. Land Use</p> <p>2.1.3.1. Identify all land uses in the proposed ROWs</p>	

<p>2.1.3.1.1. Do any of the proposed alignments bring traffic into close proximity with major industrial plants?</p> <p>2.1.3.1.2. Does that proximity pose potential human health or safety concerns?</p>	<p>YES/NO</p> <p>YES/NO</p>
<p>2.1.3.2. Identify current and projected human population in the proposed ROWs</p> <p>2.1.3.3. Identify political boundaries in the proposed ROWs</p>	
<p>2.1.4. Vegetation and Habitat</p> <p>2.1.4.1.1. Identify vegetation types in the proposed ROWs</p> <p>2.1.4.1.2. Does the vegetation support known populations of endangered or threatened species? Which species?</p> <p>If “Yes,” ensure that local USFWS and/or TPWD representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.1.4.1.3. Does the vegetation have the potential to support populations of endangered or threatened species? Which species?</p> <p>If “Yes,” ensure that local USFWS and/or TPWD representatives are asked to review and comment on proposed alignments.</p>	<p>YES/NO</p>
<p>2.2. Site Surveys</p>	
<p>2.2.1. Conduct minimal site survey(s) ONLY as absolutely required (follow ground-truthing principles below)</p>	
<p>2.2.2. Site survey ground-truthing principles</p> <p>2.2.2.1. Conduct site surveys only when absolutely necessary</p>	

<p>2.2.2.2. Identify all field work on all projects first, then plan travel to minimize time and cost</p> <p>2.2.2.3. Request private property access only when absolutely necessary</p> <p>2.2.2.3.1. ALWAYS contact landowners in advance</p> <p>2.2.2.3.2. DO NOT proceed without positive landowner contact</p> <p>2.2.2.3.3. Use photo documentation ONLY after receiving landowner permission</p> <p>2.2.2.3.4. Identify sites by number only, and do not equate specific sites to proposed routes in any public documents</p>	
<p>2.3. Prioritize routing based upon Avoid, Minimize, Compensate</p> <p>2.3.1. Goal: Minimum mitigation actions</p> <p>2.3.2. Use: Advisory to final routing decisions during design</p>	
<p>2.3.3. Quantify mitigation required for each route</p> <p>2.3.3.1. Geospatial analysis and site survey</p> <p>2.3.3.2. Assign score of High/Medium/Low to each route</p> <p>2.3.3.2.1. High = Largest amount of mitigation required</p> <p>2.3.3.2.2. Low = Least amount of mitigation required</p> <p>2.3.3.2.3. Medium = may have multiple routes with similar levels of mitigation required</p>	
<p>2.3.4. Evaluate for mitigation approach and mechanism</p> <p>2.3.4.1. Identify sites where minimization is possible</p> <p>2.3.4.1.1. Geospatial analysis</p>	

<p>2.3.4.1.2. Secondary research (as required)</p> <p>2.3.4.1.3. Stakeholder input (as required)</p>	
<p>2.3.4.2. Recommend approach and mechanism</p> <p>2.3.4.2.1. Permittee-responsible – use only when two or less sites require minor mitigation</p> <p>2.3.4.2.2. Banking – preferred option for projects requiring mitigation of three or more sites</p> <p>2.3.4.2.3. In-lieu fee – not recommended for CCMPO purposes</p>	
<p>2.4. Conduct Stakeholder Consultation (done in coordination with entire planning document)</p>	
<p>2.4.1. Draft review</p> <p>2.4.1.1. Electronic distribution to stakeholders</p> <p>2.4.1.2. Comment deadline – not less than 30 days</p> <p>2.4.1.3. Input reminders – every 10 business days</p>	
<p>2.4.2. Final draft review (done in coordination with applicable planning document [e.g MTP or TIP] review/input)</p> <p>2.4.2.1. Electronic distribution to stakeholders</p> <p>2.4.2.2. Request formal comment (as required)</p> <p>2.4.2.3. Stakeholder conference</p> <p>2.4.2.4. Comment review and analysis</p>	
<p>3. Publish Planning Document</p>	