

ENVIRONMENTAL MITIGATION

SAFETEA-LU

The Safe, Accountable, Flexible, Efficient Transportation Act: a Legacy for Users (SAFETEA-LU), which was passed by Congress and signed by President Bush in August of 2005, established new requirements for the preparation of transportation plans. One of these new provisions requires MPOs to discuss;

“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. This discussion shall be developed in consultation with federal, state, and tribal wildlife, land management, and regulatory agencies.”

Therefore, this chapter will serve as an introduction to a concentrated effort by the NATS MPO, the SWMPC, to place greater emphasis on the environmental impact of federally funded transportation projects in the region, and to develop and maintain partnerships with private and public state and local governments/ agencies and Native American Tribes who can assist in the development of the LRTP and TIP.

The NATS MPO is considered to be a small MPO. Its federal aid STP revenues are around \$0.5 million per fiscal year. Therefore, the focus for transportation has traditionally been to preserve the existing system, and federal aid disbursements are generally utilized for rehabilitation/reconstruction projects and bus replacements. However, global warming trends, sprawling land use patterns, habitat fragmentation, and the local economy necessitate greater integration of transportation planning with general land use planning. The following paragraphs describe the efforts of the SWMPC to assess potential environmental impacts of the projects in the LRTP as well as a description of potential mitigation activities. This document is intended to be a work in progress, rather than a static or exhaustive description of transportation-related environmental considerations. Therefore, the last section discusses future efforts to be undertaken by the SWMPC and its partners.

It is important to note that in order to develop this chapter, and assess potential environmental impacts of NATS LRTP projects, the SWMPC used a consultation process to enlist the assistance of many partners and complete the following steps:

1. SWMPC consulted with submitting agencies to review projects listed in the current LRTP. Agencies were asked to verify that projects were not adding capacity, altering traffic patterns, and were within the existing right-of-way.
2. In order to develop the environmental mitigation maps, agencies such as the Southwest Michigan Land Conservancy, the Nature Conservancy, and Berrien County shared data files with SWMPC. Additional data was requested, but not received, from the State Historic Preservation Office and the Pokagon Band of Pottawatomis Indians.
3. SWMPC environmental planners assisted in identifying important environmental features, in developing buffer sizes, and in reviewing the plan.

Per guidance from local FHWA representatives (*Addressing Consultation and Environmental Mitigation SAFTEA-LU Requirements in Plan & TIP Updates*), during the week of December 11, 2006, a list of projects from the LRTP was sent to each agency that submitted a project. Agency contacts were asked to review each of their projects and determine responses to the following four questions:

- Will this project add capacity?
- Will this project alter traffic patterns?
- Are all proposed improvements in the existing right-of-way?
- Is the project resurfacing, safety, bus replacement, etc.?

A list of the projects submitted to the local agencies and their responses are located in Appendix J.

In general, projects were resurfacing/reconstruction projects that were entirely within the existing right-of-way, and were not adding capacity or altering traffic patterns.

Assessing Impact: Define and Inventory Environmentally Sensitive Areas

In addition to the examination of LRTP projects, utilizing a collaborative process, SWMPC staff has begun to identify environmentally and historically/culturally sensitive areas within the NATS boundaries. Features identified include the following:

- Floodplains
- Wetlands
- Parks, trails, and other recreational lands(not including golf courses or camps)
- Cemeteries
- Other conservation easements
- Aquifer recharge areas
- Other water features (lakes, ponds, rivers, and streams)
- Woodlands
- Well heads
- Cultural, historical, archeological significant sites

Once identified, MPO staff utilized GIS software to map the sensitive areas along with the 2035 LRTP projects. Each project was mapped with a buffer, depending on the type of environmental resource⁵, to show the potential area that could be affected. Water features, wetlands, floodplains, and woodlands sites were given a buffer size of 1320 feet, or one-quarter mile. Parklands, cemeteries, conservation easements and cultural sites were given a 250-foot buffer.

Findings

The environmental assessment included in this document is intended to serve as an initial screening of each transportation project's proximity to sensitive environmental features and is to be used to prevent potential negative impacts on the environment. The spreadsheet and maps found in Appendix J demonstrate the results of the feature identification and draw attention to areas to be examined further at the project level. The spreadsheet and maps indicate which projects are adjacent to various environmental features, but do not identify the level of potential impacts. This inventory

⁵ Project type was not considered to be a substantial factor in determining buffer size because projects listed in the LRTP are rehabilitation, resurface, or reconstruction projects.

of environmental features in no way substitutes a more in-depth, project level environmental assessment or impact statement where one is required.

All of the proposed transportation projects listed in the spreadsheet are adjacent to at least one environmental feature. Woodlands, wetlands, aquifer recharge areas, floodplains, and well locations were the most common features to fall within project buffers. The least common features within project buffers were cemeteries, parks, trails, recreation lands, and areas of cultural significance. Depending on the project, environmental features may need to be studied further, in order to develop project-level mitigation strategies to minimize any possible negative effects on the environment. Environmental features also may influence transportation project timing and costs.

It is important to note that the features identified are not an exhaustive list, nor is this environmental assessment considered completed. Mapped features include those for which data were readily available. Environmental assessment will be an ongoing process, and future long range planning will reflect a continued effort to expand the scope of this effort.

Mitigation Guidelines

Each project proposed in the LRTP should be examined for potential environmental impacts prior to being programmed into the TIP. This is particularly important in an area like the NATS area where natural features are abundant and important to residents. Because each NATS project was adjacent to at least one environmental feature, it is important to implement planning and construction practices that will protect the natural environment and cultural resources. The following are general guidelines that, if implemented, will help to ensure solid planning practices and enhance general quality of life within the NATS boundaries.

Planning and Design Guidelines

- Utilize Context Sensitive Solutions (CSS) throughout the planning and project development process, beginning as early as possible. CSS is a collaborative process that is designed to solicit public and stakeholder input when developing transportation projects.

- Identify the area of potential impact connected to each transportation project, including the immediate area as well as related project development areas.
- Regularly update the environmental features inventory to determine if any environmentally sensitive resources could be impacted by the project.
- Coordinate the LRTP with the County Hazard Mitigation Plan.
- Coordinate transportation projects with local plans, such as comprehensive plans, watershed management plans, recreation plans, etc.
- Regularly collaborate and meet with local community officials and other relevant stakeholders to discuss environmental issues and goals.
- Where impacts are unavoidable, mitigate them to the fullest extent possible.
- Incorporate storm water management into design.
- Reduce the size of and need for culverts where possible.
- Promote public education on protecting sensitive features in land use planning.

Construction and Maintenance Guidelines

- Include all special requirements that address environmentally sensitive resources into plans and estimates used by contractors and subcontractors.
- Distribute information regarding activities prohibited in environmentally sensitive areas.
- Minimize construction and staging areas with clearly marked boundaries.
- Utilize the least intrusive construction techniques and materials.
- Avoid disturbing the site as much as possible.
 - Protect established vegetation (especially tree and drip zones, where tree roots are located) and habitat. If disruption is unavoidable, replace with native species as soon as possible.
 - Implement sediment and erosion control techniques.
 - Do not stockpile materials in sensitive areas.
 - Protect water quality by controlling runoff, regularly sweeping streets, protecting storm drains from construction debris, and implementing salt management techniques.
 - Protect cultural and historic resources, including surrounding soils and materials.
 - Minimize noise and vibrations.

- Provide for solid waste disposal
 - Use the least hazardous substances possible, and ensure that such substances are properly handled, stored, and disposed.
- Keep construction activities away from wildlife crossings and corridors.
- Reduce land disturbances through efficient organization of construction activities
- Avoid equipment maintenance, fueling, leaks, spraying, etc. near sensitive areas.
- Incorporate Integrated Pest Management techniques if pesticides are used during maintenance.
- Conduct on-site monitoring during and immediately following construction to ensure that environmental resources are protected as planned.
- Utilize buffer strips to protect sensitive features.
- Where possible, realign/design routes or interchanges to protect sensitive features.
- Consider alternatives to capacity expansion.
- Promote proactively restoring sites/building corridors during road projects.

It is important to note that these guidelines are suggested as steps to mitigate potentially harmful effects of transportation projects on the natural environment. The SWMPC has no authority to require implementation of these guidelines. However, this information is intended to inform the construction process, from planning to implementation, and to ensure better coordination with general land use planning practices. ⁶

⁶ AASHTO Center for Environmental Excellence. Environmental Stewardship Practices, Procedures, and Policies for Highway Construction and Maintenance.

http://environment.transportation.org/environmental_issues/construct_maint_prac/compendium/manual/

GVMC. 2035 Long Range Transportation Plan for the Grand Rapids Metropolitan Area. Draft Document February 1, 2007.

SEMCOG. Integrating Environmental Issues in the Transportation Planning Process. Guidelines for Road and Transit Agencies. January 2007.