

ENVIRONMENTAL CONSIDERATION OF PLAN IMPACTS

The Safe, Accountable, Flexible, Efficient Transportation Act; a Legacy for Users (SAFETEA-LU) establishes requirements for long range transportation plans. One of the requirements is that the impacts of plan projects on the environment, both natural and human be discussed along with the mitigation strategies. It is anticipated that in doing so, conflict areas and potential mitigation strategies will be identified early in the planning process saving valuable time and resources. SAFETEA-LU also requires that this activity be undertaken with the involvement of federal, state, tribal and other resource (regulatory) agencies. The SAFETEA-LU is currently extended through March 2012 by a continuing Resolution of the Congress.

In consultation with ODOT, WVDOT and FHWA, Bel-O-Mar prepared a list of resource agencies for the early and continued involvement in the transportation planning process. These agencies are now invited to comment on the transportation planning products at various stages of development. A detailed participation process is presented in the Participation Plan for the area. The Participation Plan is another SAFETEA-LU requirement.

During the year 2007, the Ohio Department of Transportation took the initiative to obtain, organize and provide relevant data to all MPOs in the state. The data provided for Belmont County included:

- Wetlands
- Threatened and Endangered Species
- Indiana Bat Habitat
- Parklands and Conservation Areas
- State and National Scenic Rivers
- National Register Features
- Superfund Sites and Watershed Areas

On the West Virginia side, all of the above data sets, except threatened and endangered species and superfund sites were available. This data was utilized in the long range plan adopted in 2008. After further research, it was decided to update, where applicable, the same data sets with most recent updates. One hundred year floodplain data set is added to the previously available data sets. In addition, the data for superfund sites for Ohio and Marshall Counties was also available. Although the data themes essentially remained the same, the most recent available data sets are used in this plan. This data is used within a vector Geographic Information System (GIS) for overlaying the plan projects to identify potential areas of conflict.

Transportation projects vary in size, type and potential to affect the environment. The impact on the environment can be from negligible to significant. The National Environmental Policy Act (NEPA) requires specific actions with documented process to address the variations in environmental impact of transportation projects.

- An Environmental Impact Statement is required for projects with known significant impact on the environment.
- An Environmental Assessment is required of projects with no known significant affect on the environment. A Finding of No Significant Impact (FONSI) is required for these projects.

- Categorical Exclusions/Project Memorandum. These are projects/actions that do not individually or cumulatively have a significant affect on the natural and built environment. These projects/actions do not require mitigation activities.

In order to view potential effect of plan projects, the operational improvements and system preservation type of projects were separated from the project list. No separate or cumulative effect is anticipated from these projects. A one quarter mile buffer was created around projects involving capacity upgrade, new construction and interchange modification/upgrade. These buffered areas were overlaid on each digital data set obtained from ODOT and other regulatory agencies. Maps of these overlays are posted on our website www.belomar.org/trans.htm . Projects in the overlay can be traced to the project list in this document.

The overlays indicate that all projects in this plan are within the Indiana Bat habitat and will affect wetlands at varying degrees. All projects in Marshall County and Ohio County are within the 100 year floodplain. However, for the most part, I-70 projects in Ohio County will not be affected due to vertical separation. In Belmont County, only the Hanover Street Project (B-4) touches the 100 year flood plain boundary. All other projects in Belmont County are outside of this flood zone.

In Ohio County, the I-70 upgrade project (O-4) shows that Stone Arch Bridge on Wheeling Creek near Kruger Street, Shepherd Hall (Osiris Temple) at the intersection of WV88 and Kruger Street and Feay Inn on Burkham Court are within the project buffer. However, the interstate has a vertical separation at this location and it appears there will not be any negative impact on these structures.

No other area of conflict is readily visible as a result of overlays. In reviewing the overlays, the limitations and generalization of the data should be understood. Datasets vary from 1:24,000 to 1:100,000 scale with horizontal accuracy ranging from 40' to over 160'. There are inherent problems in overlays involving datasets from multiple sources and of multiple scales and origins. In light of these issues, only generalized observations can be made from the available data. The objective of observations in this section is to start a preliminary discussion on environmental conflicts and potential mitigation actions.

Environmental Mitigation Strategies

The NEPA process for project development will be followed for all projects. Detailed mitigation actions will be identified as part of the project development process and NEPA requirements. The resource agencies input will be sought throughout the planning process and suggested mitigation actions will be addressed. Relevant mitigation policies/actions will be identified and acted upon as needed. Bel-O-Mar will strive to seek alternatives with minimal or no negative impact on the environment.

Concepts for implementing mitigation can take many forms depending on the type of resources and level of transportation impacts at the regional level. Other factors such as agency consultation, funding, availability of land, etc. also determine where, when and how mitigation is approved. Examples of mitigation strategies that have been developed through consultation with the resource agencies include:

- Wetland acquisition and restoration
- Detention and sediment basins
- Purchase of buffer strips along streams and rivers

- Enhancement of parkland or recreation areas for a community
- Habitat connectivity strategies to prevent fragmentation
- Watershed based strategies
- River cleanups

The vector GIS databases used for the plan project overlays lack necessary detail and precision. The vector datasets are not conducive for environmental analyses involving simultaneous stacking of multiple datasets for identifying area size of multiple conflicts and comparing cumulative conflict of one scenario to another in a quantitative way.

In the overlay exercises the conflict areas were identified by visual inspection only. In contrast, raster datasets lend themselves to operations resembling matrices and are very suitable for spatial modeling and analyses requiring stacking of GIS layers and answering queries that cannot be answered in vector GIS environment. Thus, Bel-O-Mar will explore the use of raster GIS and look into the availability of raster datasets to enhance the quality of environmental analyses and mitigation actions.

The financially constrained projects in each county are listed below:

Belmont County

B-1 Mall Road/Connector Road. Improve Mall Road including widening, signals, turn lanes, etc., from Banfield Road to US 40. Project to include widening on US 40 from Mall Road to Eric Drive. Also construction of a new connector roadway from US 40 South to intersection of Mall Road/Banfield Road.

Anticipated Year of Construction: 2015

Plan Funds: \$10,000,000

B-2 IR70/Mall Road Interchange. Modification to existing Mall Road interchange with IR 70. Construct new eastbound exit and westbound entrance ramps at new location with new access roads.

Anticipated Year of Construction: 2020

Plan Funds: \$34,500,000

B-3 IR70/US40/SR331 Interchange Modification. The project will modify the interchange of IR 70, US40 and SR 331 to improve the traffic flow in the area of the SR 331 US 40 IR 70 Interchange.

Anticipated Year of Construction: 2015

Plan Funds: \$27,452,766

B-4 Intersection Improvements at SR7 intersections with Hanover and Aetna Streets. Upgrade signals and add a right turn lane in the southbound direction at both Aetna and Hanover Streets.

Anticipated Year of Construction: 2014

Plan Funds: \$0

B-5 IR70 Upgrade. Upgrade approximately 2 miles of I-70 to six lanes from SR9 to Mall Road.

Anticipated Year of Construction: 2031

Plan Funds: \$22,000,000.

Ohio County

O-1 Add a right turn lane on Kruger Street at the US 40 intersection.

Anticipated Year of Construction: 2012

Plan Funds: \$0

O-2 Install a new signal system at the I-70 EB off ramp intersection with US 40 just east of Kruger Street.

Anticipated Year of Construction: 2016

Plan Funds: \$213,000

O-3 Construct a new interchange on I-70 between Elm Grove/Triadelphia interchange and the Cabela Drive interchange.

Anticipated Year of Construction: 2016

Plan Funds: \$0

O-4 Upgrade I-70 to six lanes from Elm Grove/Triadelphia interchange to Cabela Drive.

Anticipated Year of Construction: 2022

Plan Funds: \$44,400,000

Marshall County

M-1 WV2 from intersection of 6th Street to intersection of US 250 widen to five lanes for two way left turn lane (TWLTL).

Anticipated Year of Construction: 2014

Plan Funds: \$0

M-2 Upgrade WV2 to four lanes from 0.12 miles South of CR 29 (M.P. 6.46) to 0.33 miles South of CR 27 (M.P. 7.41).

Anticipated Year of Construction: 2012

Plan Funds: \$0

M-3 Upgrade WV2 to four lanes from 0.18 miles South of CR 78 (M.P. 4.50) to 0.12 miles South of CR 29 (M.P. 6.46).

Anticipated Year of Construction: 2016

Plan Funds: \$14,945,000

M-4 Radii improvements at the intersection of US 250 and Jefferson Avenue in Moundsville.

Anticipated Year of Construction: 2016

Plan Funds: \$562,000

M-5 Upgrade County Line Bridge (CR 5) from one lane to two lanes.

Anticipated Year of Construction: 2013

Plan Funds: \$0

M-6 Upgrade Rude Bridge (CR 5) from one lane to two lanes.

Anticipated Year of Construction: 2014

Plan Funds: \$0