

Appendix VII: Planning and Environmental Linkage

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The *SmartMoves* Regional Vision, Goals and Strategies for resilient communities include strategies to conserve natural and cultural resources of the region as well as promoting environmentally sustainable practices. Keeping consistent with this overall strategy, SPC integrates environmental considerations into the transportation planning at an early stage and meets the federal requirements for long range transportation plans in this area.

The Fixing America's Surface Transportation Act (FAST Act) is the current regulation overseeing metropolitan transportation planning. Within this act, congress amended the transportation planning laws to require increased consideration of environmental resources in early metropolitan transportation planning. These provisions focus on several key requirements for the development of metropolitan long range transportation plans:

- FAST Act requires the MPO to consult with the regulatory and resource agencies "responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan," - Regulations for Long Range Transportation Plans (23 C.F.R. § 450.322(g))
- Consultations shall involve "comparison of transportation plans to inventories of natural or historic resources, if available." - Regulations for Long Range Transportation Plans (23 C.F.R. § 450.322(g))
- Consultations shall involve "comparison of transportation plan with State conservation plans or maps, if available" - Regulations for Long Range Transportation Plans (23 C.F.R. § 450.322(f)(7))
- FAST Act requires "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. The discussion may focus on policies, programs, or strategies, rather than at the project level." Regulations for Long Range Transportation Plan Development (23 C.F.R. § 450.322(f)(7))

These provisions originate from a desire to extract benefits for overall transportation project development by considering environmental resources early in the transportation planning process. The early consideration of environmental resources during the transportation planning process can assist the subsequent environmental clearance process and compliance with the

National Environmental Policy Act (NEPA) on individual transportation projects. This concept is referred to as “linking planning and NEPA” or, more generally, “planning and environmental linkage” in transportation planning. This concept can assist in program predictability, project decisions, project deliverability, and mitigation decisions while responding to the desire to improve both transportation and the environment.

The following figure details the process that SPC follows to integrate environmental considerations into the regional long range transportation planning process and to comply with the FAST Act PEL requirements for long range transportation plans.

Regional Integrated Planning Framework



For SmartMoves for a Changing Region, SPC has produced a [detailed online mapping application](#). This application addresses the key PEL requirements of FAST Act that strengthen transportation planning and environmental linkages.

The online mapping application and related maps and documents, in the following areas, address the planning and environmental linkage requirements of FAST Act:

- **Agency Consultation Process** – SPC consulted with regulatory environmental resource and cultural resource agencies in development of the resource inventory and project screening culminating in the presentation to the Pennsylvania Agency Coordination meeting in May. Table 1 summarizes the agency consultations that were conducted.

Table IX-1: Agency Consultation Summary

Consultation Activity	Date
Agency consultation approach review with FHWA and receipt of updated agency contact list	October 2018
Agency consultation invitation letters distributed	December 14, 2018
Face to face consultation meetings with agency representatives from within the SPC Region (USACE, PADEP, PA DCNR, PHMC, Natural Heritage Program)	December 2018 – March 2019
Phone and/or e-mail consultation with additional agency contacts outside of the SPC region	December 2018 – March 2019
Environmental Inventory maps and Project Screening results posted to the PEL web map application for review and comment by agencies.	April 2019
Consultation coordination with PennDOT Environmental Managers (Districts 10-0, 11-0, 12-0)	April 2019
Statewide Agency Coordination Meeting presentation	May 22, 2019
Formal Public Comment Period Address any comments from the public, and federal, state, or Tribal Agencies	May 6, 2019 to June 7, 2019

- **Environmental Inventory and Resource mapping** – A detailed inventory of available planning level data for environmental and cultural resources in the region was assembled; including numerous interactive web maps of the natural and cultural resources of the region.
- **Existing State Conservation Plans and Maps** – FAST Act long range transportation planning regulations require a comparison of transportation plans with state conservation plans. This section presents a list of the state conservation plans and maps that were reviewed and provides links to the plans, maps, and associated resources. Where associated GIS data was available, it has been integrated into the development of the REF and the environmental screening.

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- **Regional Ecosystem Framework (REF)** – This section of the application includes an interactive REF map and describes the development of the REF and its uses in displaying sensitive natural resources and special conservation areas of the region.
 - **Environmental Screening and Integrated Maps** – This section of the application highlights the analysis comparing a sample of plan projects to the environmental inventory. For this plan, the projects selected to be included in the environmental screening were the 138 projects that are part of Stage 2 of the Appendix IV-1: Revenues and Projects Currently Within Fiscal Capacity project list. The projects in this stage are most likely to be TIP candidate projects in the near future and the highest priority to compare to the inventory of environmental and cultural resources. The environmental screening includes over 50 GIS layers representing the key indicators of the environmental resources critical to National Environmental Policy Act clearance. This section includes a summary matrix (Table 2) and integrated maps that show the projects of the plan.
 - **Resiliency Aspects** – The application includes an integrated map showing the plan projects compared to indicators of future vulnerabilities including floodplain and flooded road closure data. For Allegheny County, advanced analysis has been conducted to show road segments with future high risk for flooding, based on the work done by PennDOT for its Extreme Weather Vulnerability Study. In addition, a landslide susceptibility model for the SPC region is under development by SPC and some preliminary results for Allegheny County are included in the integrated resiliency mapping.
 - **Potential Environmental Mitigation Activities** – Discusses the potential options and strategies for environmental mitigation activities for resources with the greatest potential to restore and maintain environmental functions. In identifying the “types of potential environmental mitigation activities,” general examples of mitigation approaches for the most commonly encountered resource categories are presented and discussed in a detailed [mitigation table](#). This table also discusses potential areas to carry out these mitigation options.

This section also includes the interactive SPC wetland mitigation suitability tool. In the case of one of the most commonly impacted natural resources (wetlands), the output from the SPC wetland mitigation suitability tool shows geographically where this mitigation is most appropriate and has the greatest probability of resulting in a sustainable and successful mitigation wetland. This tool can serve as an important starting point to evaluating wetland suitability for mitigation projects or mitigation banks. The potential mitigation sites would still need to be field verified to make a real determination if the site is feasible.

