Tamiami Trail Modifications: Next Steps Project

National Park Service
U.S. Department of the Interior

South Florida Natural Resources Center
Everglades National Park

Introduction

The need to eliminate barriers to overland flow of water in the Everglades is now considered one of the indisputable tenets of restoration. Much scientific information in support of this requirement has been amassed in recent decades indicating the importance of removing these barriers to flow in order to restore natural marsh connectivity. Science informs us that it is not sufficient to simply provide a particular volume of water to these wetlands to attain restoration. Flows must mimic the natural water depths and flooding durations, be distributed across this landscape in a manner that best approximates historical flow patterns, and travel at sufficient velocities to promote the maintenance of ridge and slough landscape characteristics. Sufficient water quality must also be achieved. Only when all of these conditions are met will the natural system respond in a manner that will promote marsh conditions capable of supporting the unique flora and fauna characteristic of the Everglades.

The Tamiami Trail (U.S. Highway 41) has long been recognized as one of the primary barriers to flow of water through the ecosystem. While the 1992 General Design Memorandum for the Modified Water Deliveries to Everglades National Park Project (16 U.S.C. § 410r-S) recommended a plan to address this problem, it only included minor modifications to Tamiami Trail. Subsequent analyses conducted by the U.S. Army Corps of Engineers indicated that additional modifications to the Trail were needed, however, modifications considered were either too expensive or provided too little restoration benefit. Indeed, the final plan currently being constructed as part of the implementation of the Modified Water Deliveries Project is recognized as only a first step in the modifications to Tamiami Trail needed for full restoration.

In recognition of this, the 2009 Omnibus Appropriations Act (Act) (H.R. 1105; P.L. 111-008, March 11, 2009), directed the Department of the Interior and the National Park Service to evaluate the feasibility of additional bridging for the Tamiami Trail necessary to improve the ecological connectivity within the remaining natural Everglades, including Everglades National Park and the State of Florida Water Conservation Areas. The Act further directed that more natural water flow and habitat restoration within the Everglades be achieved. The report, *Tamiami Trail Modifications: Next Steps Project, Summary of Findings and Draft Environmental Impact Statement*, responds to the direction set forth in the Act and summarizes the findings in the Draft Environmental Impact Statement, which is presently out for the 60 day public comment period that will begin with the publication of the Notice of Availability in the Federal Register. The key finding is that an additional 5.5 miles of bridging and raising the balance of the 10.7-mile highway corridor are necessary to achieve the Act's restoration objectives. When combined with the 1-mile bridge presently under construction, 6.5 miles of the 10.7-mile stretch of the Tamiami Trail that is the focus of this evaluation would be bridged should Congress authorize and fund the roadway modifications. This level of bridging would eliminate historical hydrologic constraints and allow for more natural sheet flow patterns, improving ecological conditions throughout much of the southern Everglades, including the Water Conservation Areas and Everglades National Park. The increased water volumes and flow distributions would reestablish the seasonal water depths and flooding durations that are critical to the survival of fish and wildlife species, including many endangered species. The National Park Service evaluation now underway for the Tamiami Trail responds directly to the 2008 findings of the National Academy of Sciences in its Biennial Report to Congress which warned that unless near-term progress with respect to restoration benefits is achieved, the Everglades would experience irreversible loss of natural resource values and function.

Tamiami Trail Modifications: Next Steps Project – Key Findings and Summary of Draft Environmental Impact Statement

The 2009 Omnibus Appropriations Act direction and recent science on restoration requirements, including science conducted by the State of Florida, provided the foundation for the National Park Service's analysis of the question of how much additional bridging is needed and the benefits and impacts associated with the six alternatives that are the subject of the current evaluation. Eight separate factors were assessed by a project delivery team that included representatives of the National Park Service, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the South Florida Water Management District, the Florida Department of Environmental Protection, the Florida Department of Transportation, and the Miami-Dade County Department of Environmental Resource Management. These factors included marsh connectivity, marsh water velocity, reconnection of the ridge and slough landscape, vehicular wildlife mortality, preservation of cultural resources, and wetland loss. Analysis of the alternatives found a strong positive correlation between the amount of bridge span and the benefits provided and culminated in the selection of Alternative 6E as the preferred alternative as set forth in the Draft Environmental Impact Statement that is available for public comment. This alternative, consisting of four spans of bridging totaling 5.5 miles and road raising, provides the greatest environmental benefits. In addition to analyses conducted by the National Park Service, the U.S. Army Corps of Engineers evaluated the alternatives and affirmed the National Park Service's selection of an additional 5.5 miles of bridging as the preferred alternative.

Although a similar project to bridge the Tamiami Trail is included in the Comprehensive Everglades Restoration Plan and is authorized for implementation by the U.S. Army Corps of Engineers in the Water Resources Development Act of 2000, the National Park

Service lacks the authority to construct the modifications that it has determined to be necessary for restoration. However, if this project is authorized, funded, and implemented in conjunction with other planned restoration projects, ecological connectivity between the marshes located in the Water Conservation Areas and Everglades National Park will be substantially improved. Further, it will also be possible to move larger volumes of water through the Water Conservation Areas to Everglades National Park in a more natural sheetflow pattern, improving ecological conditions throughout the park and within the Water Conservation Areas. The increased water volumes and improved flow distributions will reestablish seasonal water depths and flooding durations that are critical to the survival of many fish and wildlife species, including the federally endangered Wood Stork, Everglade Snail Kite, and Cape Sable Seaside Sparrow, and state listed Roseate Spoonbill. Alternative 6E will also enable the reconnection of Water Conservation Area 3 to Everglades National Park, reducing the severity and duration of dry-down events in one compartment of this region (Water Conservation Area 3B) and the prolonged deep-water conditions associated with loss of tree islands in the southern portion of Water Conservation Area 3A. Achievement of the many ecological benefits through the implementation of Alternative 6E will not adversely affect Native American Indian camps located on the Tamiami Trail, as it provides for a one-half mile set-aside on either side of existing Native American Indian camps. The proposed location of the bridge spans also maintains access to existing airboat tour operations.

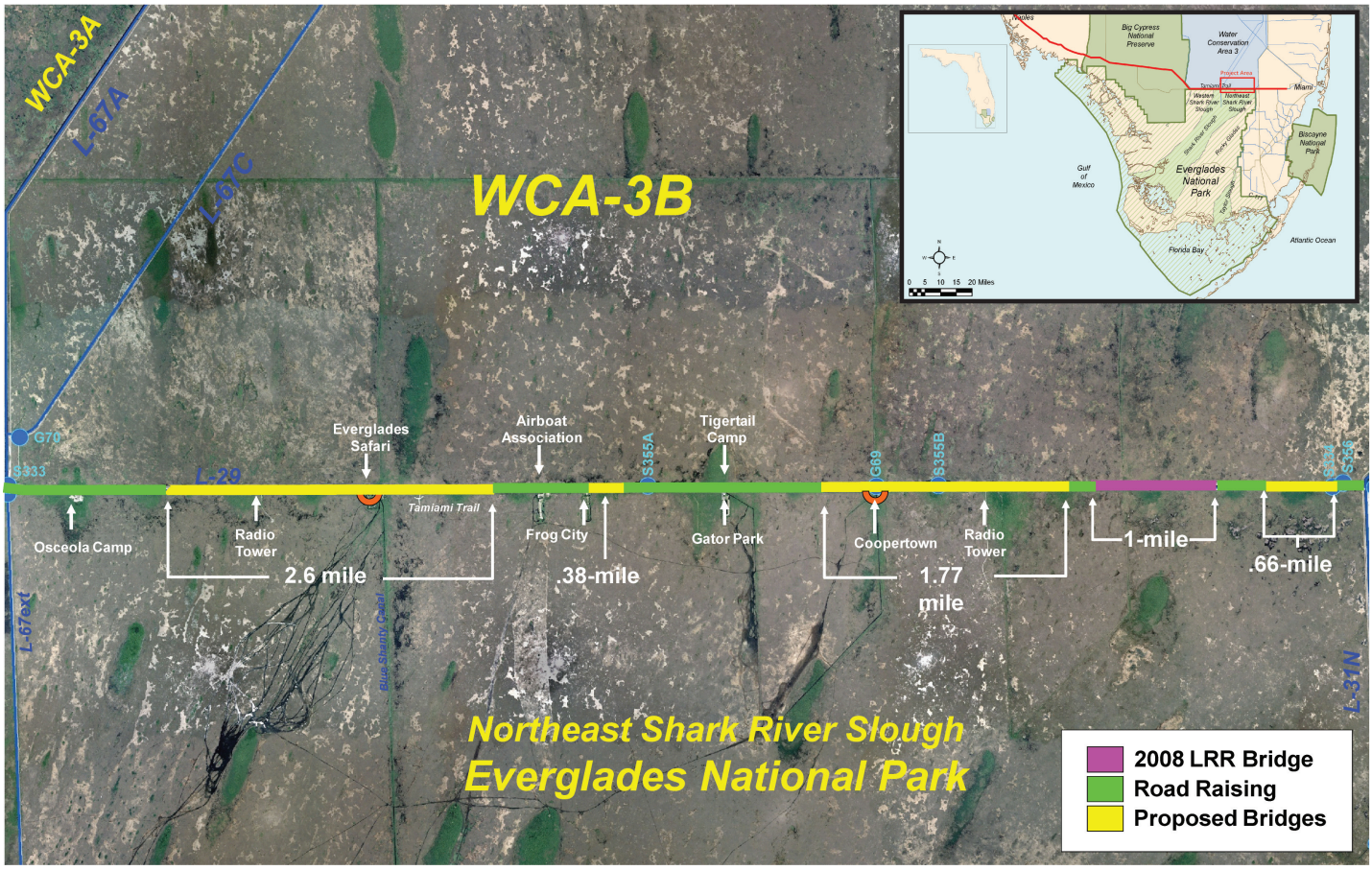
The total cost for implementation of Alternative 6E is $330 million. The itemized cost breakdown is as follows:

Construction:	$260 million
Land Acquisition:	$24 million
Compensable Business Costs:	$30 million
Demolition:	$16 million

If the additional bridging and raising of the Tamiami Trail is authorized by the Congress, construction would be located predominantly within Everglades National Park, south of the alignment of the existing Tamiami Trail corridor, and would require 48.1 acres of lands currently within the park. The National Park Service would utilize current law to provide a highway easement deed to allow the use of these lands to construct the necessary bridging, and would ultimately seek authorization to exchange these lands with the State of Florida for an equal amount of state lands adjacent to the current park boundary. This approach is the same as was utilized for the implementation of the 1-mile bridge for the Tamiami Trail as part of the Modified Water Deliveries Project.

National Park Service Preferred Alternative

Alternative 6E: 5.5 miles of bridges and remaining roadway elevated



Alternative 6E had the highest importance score, consists of a 5.5 miles of bridging, and would also maintain access to the commercial airboat facilities and the Native American Indian camps.