

MODIFIED WATER DELIVERIES | Everglades National Park & Tamiami Trail

COMPREHENSIVE EVERGLADES RESTORATION PLAN



JULY 2013

Restoring water flows and the ecological viability of Everglades National Park is a complex endeavor that will require many projects to work in concert. Scores of agencies including Federal, State and local; stakeholders and interest groups have worked for years on these projects.

The U.S. Congress has played an important role in saving this American treasure. Legislation approved by Congress in 1989 provided the authority for the Modified Water Deliveries to Everglades National Park project. Addressing the barrier to flow caused by Tamiami Trail is one of three major components of “Mod Waters.”

MAJOR COMPONENT LOCATIONS OF MODIFIED WATERS



MAJOR COMPONENTS OF THE MODIFIED WATER DELIVERIES PROJECT

- 1 TAMAMIAMI TRAIL MODIFICATIONS**
will allow for increased flow into Everglades National Park.
- 2 8.5 SQUARE MILE AREA** is substantially complete and will mitigate the effects of increased water flows into the Park on privately-owned land east of the Park.
- 3 CONVEYANCE AND SEEPAGE CONTROL FEATURES (CSCF)** will reconnect freshwater flows and control seepage from west to east and out of the Park. The following features of CSCF are complete: S-355A and B gated structures in the L-29 Levee; S-333 modifications; four of the nine miles of L-67 Extension Levee degraded; S-356 pump station; and Tigertail Camp elevation raised.



A BARRIER TO NATURAL FLOW

Tamiami Trail was built in the 1920s. The road extends from Tampa to Miami (thus the name “Tamiami”) and was the only major route for east-west travel for decades. Today, Interstate 75, or Alligator Alley, located in Broward County, supports far more east-west traffic than does Tamiami Trail, but the Trail remains an important travel route; it is a major hurricane evacuation route.

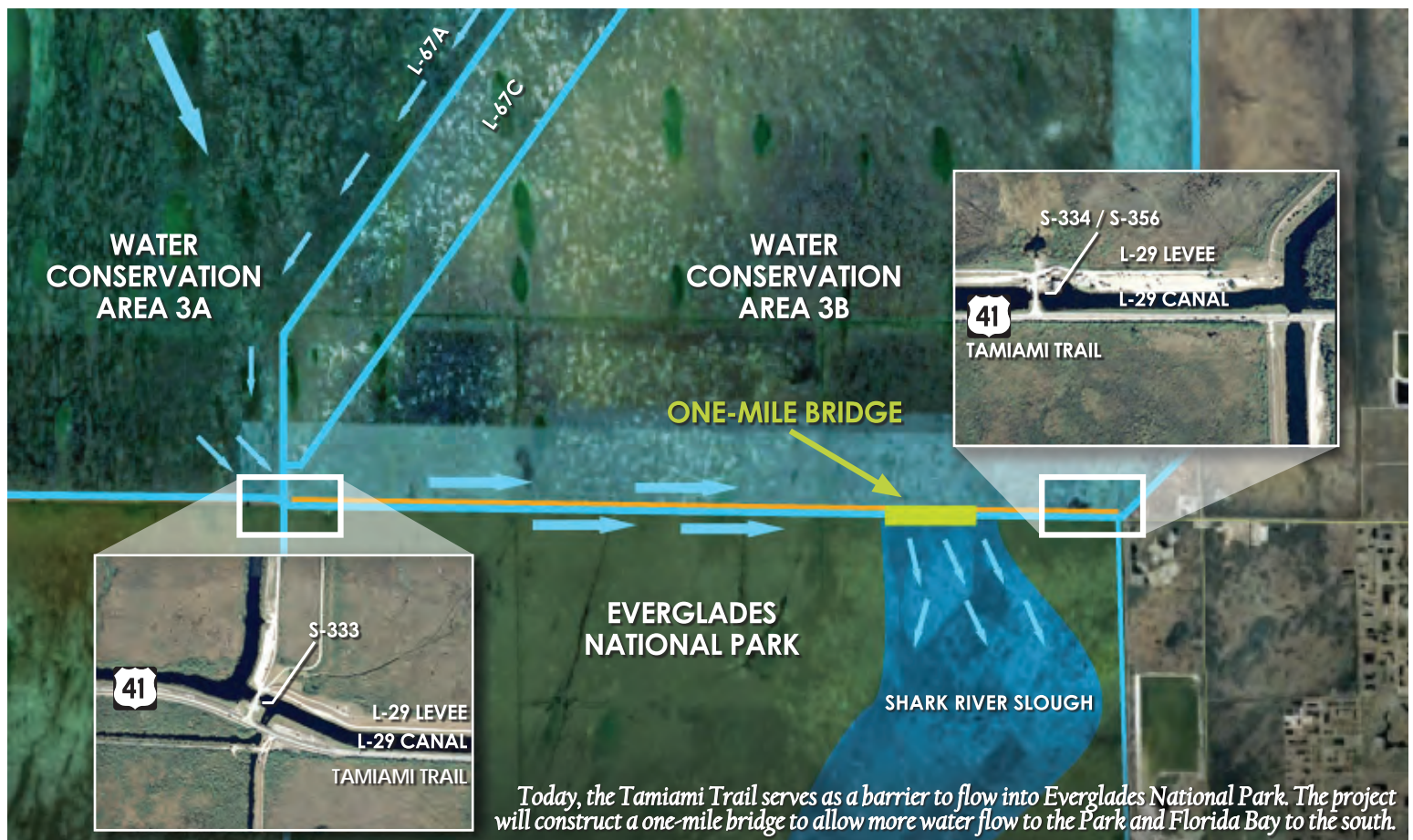
Tamiami Trail creates an enormous barrier to water flow into Everglades National Park. Not only does it physically block water flow from the north, but because the roadbed and road will be damaged if inundated on a regular basis, water levels in the natural areas north and south of the Trail must be kept significantly lower than the crown of the road.

Tamiami Trail greatly reduces water flow into Northeast Shark River Slough, which is located in the far northeastern corner of the Park. Historically, 60 percent of water flowing south across the northern boundary of the Park entered Northeast Shark River Slough. The combined effects of the Trail and current water management practices have redistributed those flows so that only 20 percent of the flow entering the Park feeds the slough.

The reduction in flows to Northeast Shark Slough has caused changes in the area’s substrate and flora and fauna. In addition, reduced water levels have deprived Taylor Slough, located farther to the south, of water needed to feed eastern Florida Bay.



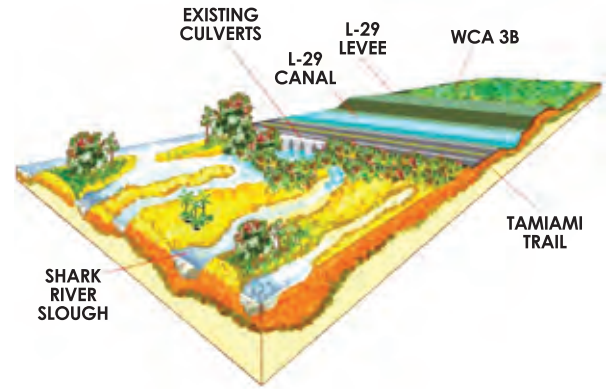
THE BRIDGE PROJECT



RESTORING FLOWS THROUGH TAMIAMI TRAIL

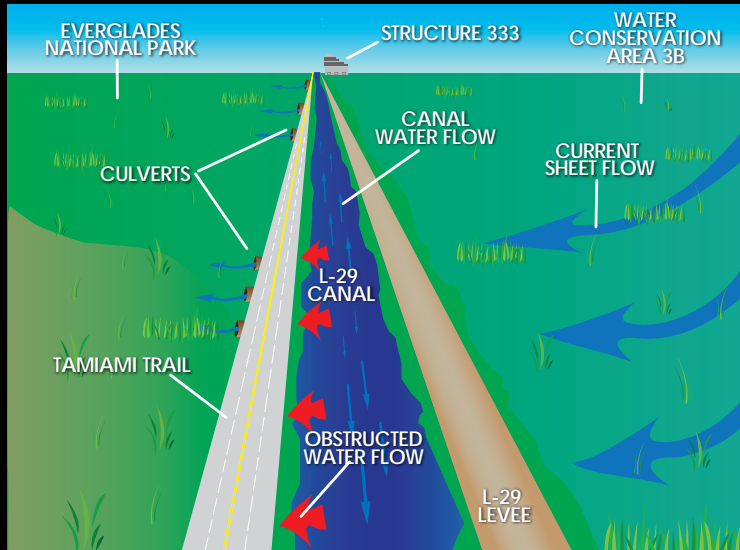
Water from the L-29 canal, just north of the Trail, now flows into the Park through 19 sets of culverts. Both the culvert size and the level of water in the L-29 greatly affect the amount of water that flows under the Trail. In general, the higher the water is in the canal, the greater the “head,” or difference between water levels in the canal and the Park. A higher head creates more pressure and moves more water through the culverts. Under present conditions, if water in the canal is raised above elevation 7.5 feet NGVD, the road bed may be degraded, thus limiting the allowable differential between water levels in the canal and in the Park. The Tamiami Trail Bridge and other modifications will allow for water levels in the L-29 canal to rise periodically to 8.5 feet NGVD, and will open and increase flow that is now constricted by culverts.

The Tamiami Trail Project area begins at water control structure S-334, which is just over one mile west of the intersection of Krome Avenue and Tamiami Trail. The project area extends 10.7 miles to the west. Besides the one-mile bridge, 9.7 miles of the road will be reinforced to allow water levels in the L-29 canal to be raised to 8.5 feet NGVD.



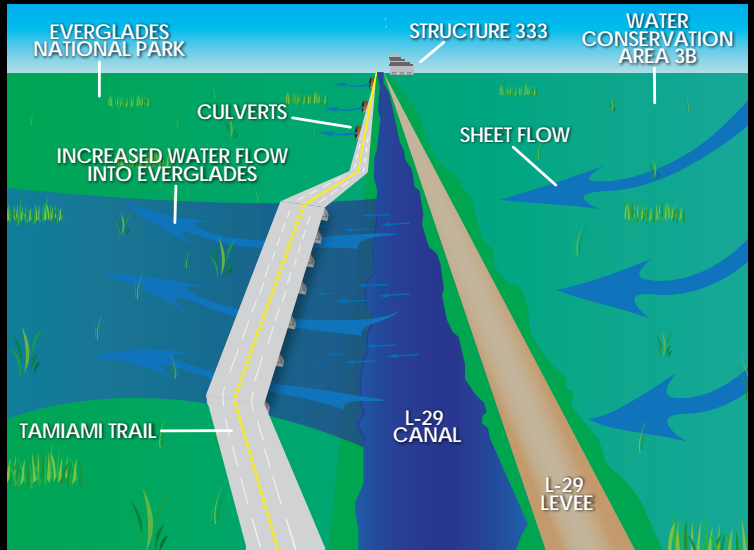
Restoring the naturally-occurring ridge and slough land formation, vegetation, and water flow and depth patterns is one of the main objectives of the Tamiami Trail Project. The sloughs are the lower elevation areas where water is deeper and aquatic plants and animals live. The ridges are the higher elevation areas and support marshland plants and animals. Together, the ridge and slough system supports a diverse set of plant and animal species.

CURRENT CONDITION OF TAMIAMI TRAIL



The pattern of water flow is very important to Everglades restoration. Sheet flow is more desirable than water that flows from discrete points. For this reason, the bridge will be constructed to replace two culverts.

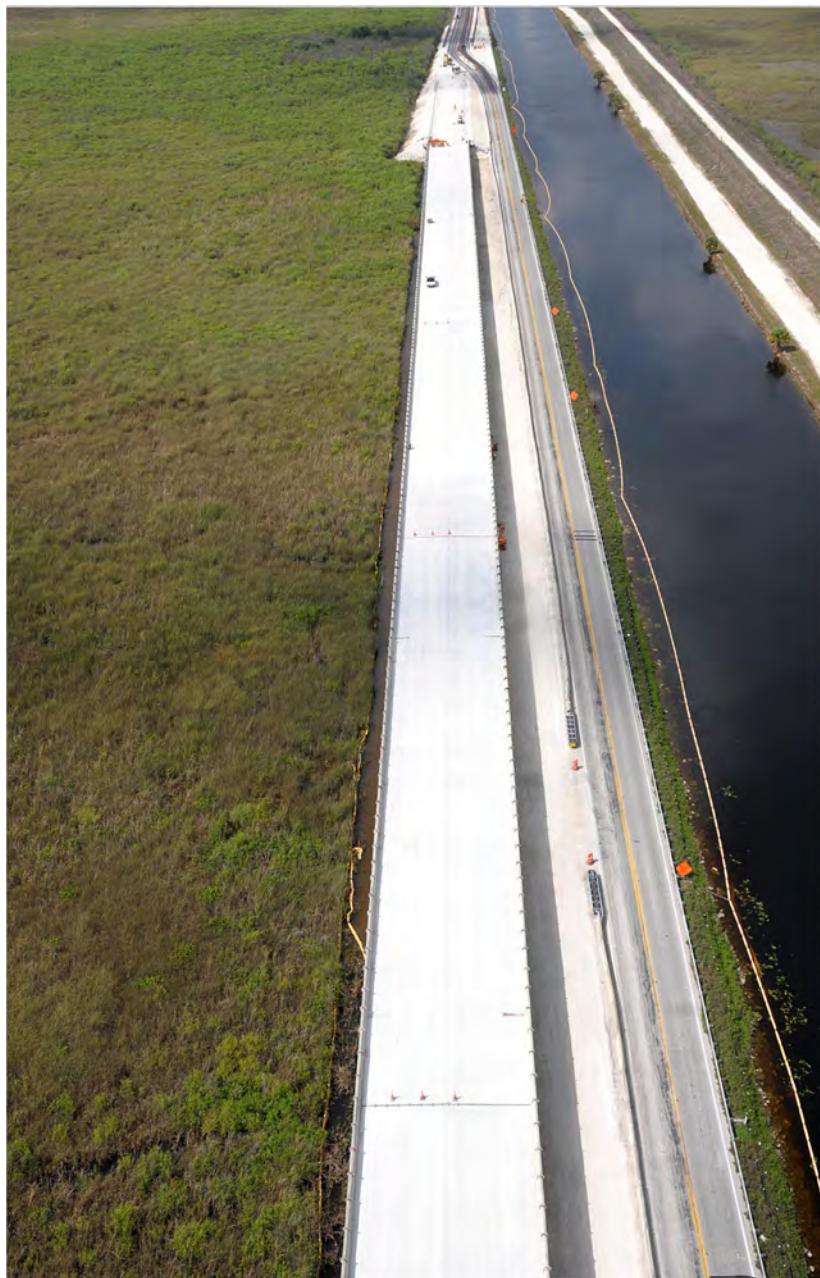
WATER FLOW WHEN BRIDGE IS COMPLETED



When the bridge is complete, the unneeded portion of the highway and its embankment will be removed. Because the Levee on the north side of the L-29 canal will remain, water will flow into the L-29 canal through the S-333 structure at the west end of the project. The water will flow east for approximately nine miles until it can flow south under the bridge and into the Park and Northeast Shark River Slough.



FACTS ABOUT THE TAMIAMI TRAIL ONE-MILE BRIDGE PROJECT



- The construction contract was awarded September 25, 2009 to Kiewit Construction Company.
- The amount of the contract award was \$81 million.
- The bridge will provide two 12-foot-wide travel lanes with ten-foot shoulders and outside barriers.
- The design of the Tamiami Trail bridge and road improvements is to standards set by Florida Department of Transportation.
- The bridge will be constructed immediately south of the existing roadway. This strategy should significantly reduce impacts on traffic flow.
- Work to reinforce the remaining 9.7 miles will require periodic, temporary reductions of traffic lanes from two to one.
- The duration of the construction project is expected to be 3.5 years.
- Construction of the one-mile bridge was completed in March 2013 and is open for traffic.

For additional information on the Tamiami Trail Modifications Project, visit:

<http://bit.ly/TamiamiTrail>

Construction photos available at:
http://bit.ly/TamiamiTrail_Photos

FOR MORE INFORMATION



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