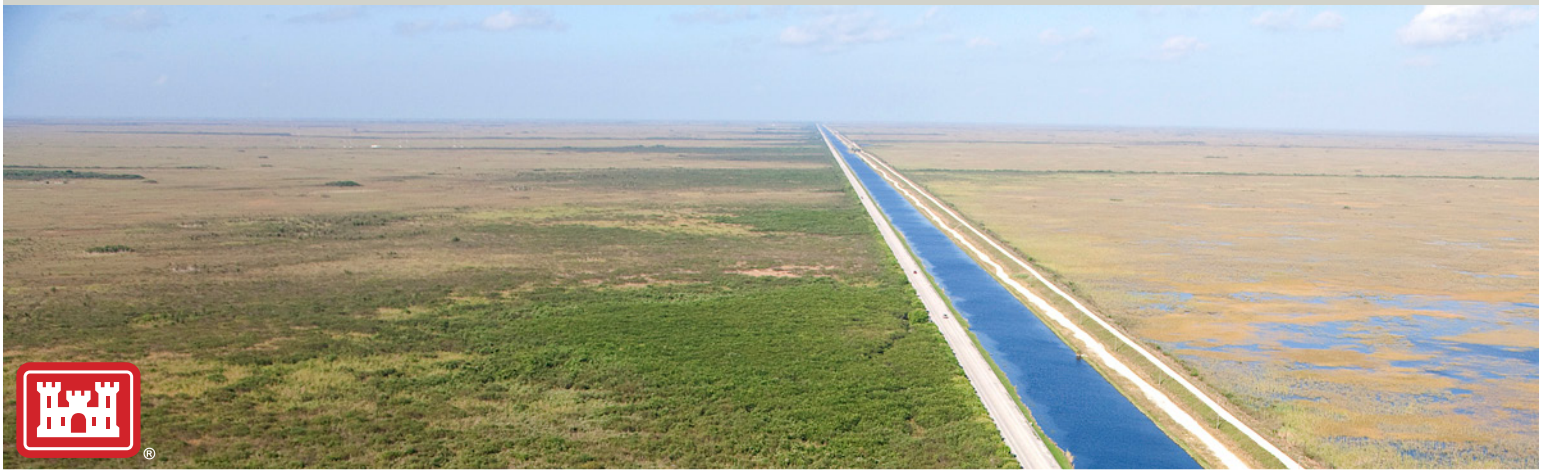
MODIFIED WATER DELIVERIES TO EVERGLADES NATIONAL PARK



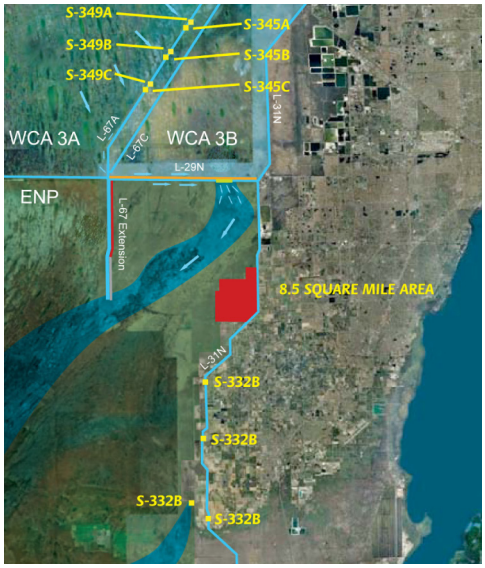
DECEMBER 2013

PROJECT PURPOSE

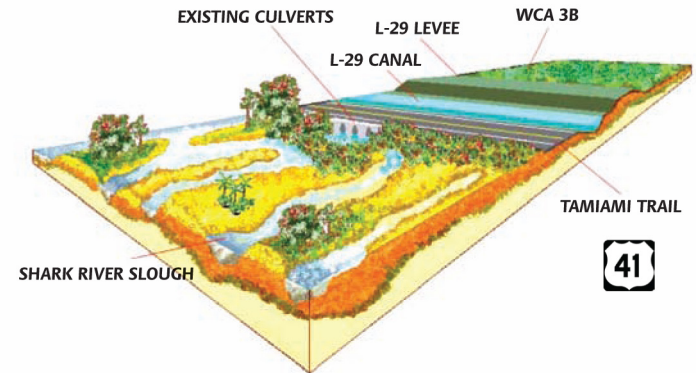
The purpose of this project is to make modifications to the existing Central and Southern Florida (C&SF) project to improve the natural water flows to Shark River Slough, the lifeline of Everglades National Park. The project will enable restoration of more natural hydrologic conditions using three dimensions: timing, location and volume of water. The project consists of four major components: 1) 8.5 Square Mile Area (SMA) Flood Mitigation Plan; 2) Conveyance and Seepage Control Features; 3) Tamiami Trail Modifications; and 4) Project Implementation Support.

PROJECT LOCATION

8.5 SQUARE MILE AREA



The purpose of the 8.5 SMA Flood Mitigation Plan is to provide **flood mitigation**. The 8.5 SMA residential area south of Tamiami Trail and east of Everglades National Park is going to experience increased water stages and durations when Tamiami Trail construction is complete and new operations are implemented. The 8.5 SMA Flood Mitigation Plan will provide mitigation for these improved conditions in Shark River Slough and Everglades National Park. The mitigation is to maintain conditions consistent with what existed in 1983 which was the baseline used for analyzing the pre-project conditions. The 8.5 SMA Flood Mitigation Plan includes acquisition of approximately 4,320 acres of land, construction of a levee, seepage canal, pump station, and detention area. The 8.5 SMA Flood Mitigation Plan is located in south Miami-Dade County, approximately 6.6 miles south of Tamiami Trail.



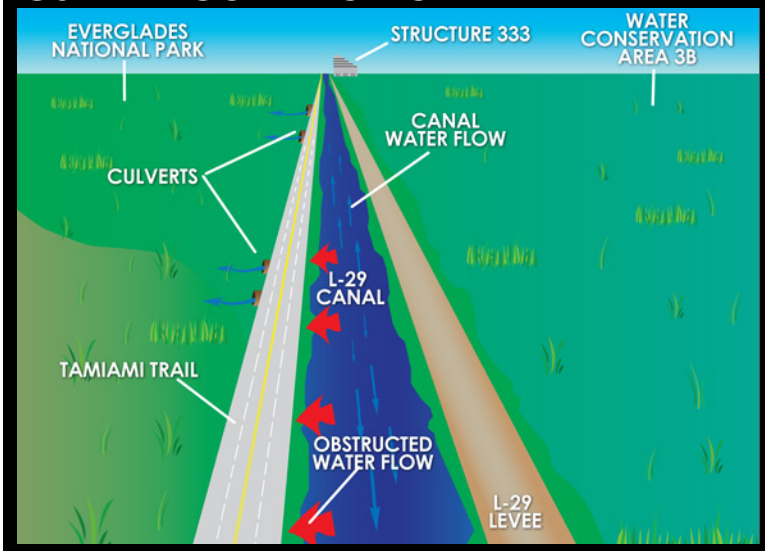
TAMIAMI TRAIL MODIFICATIONS

The purpose of the Tamiami Trail modifications is to allow for increased flow into Everglades National Park. 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. 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.

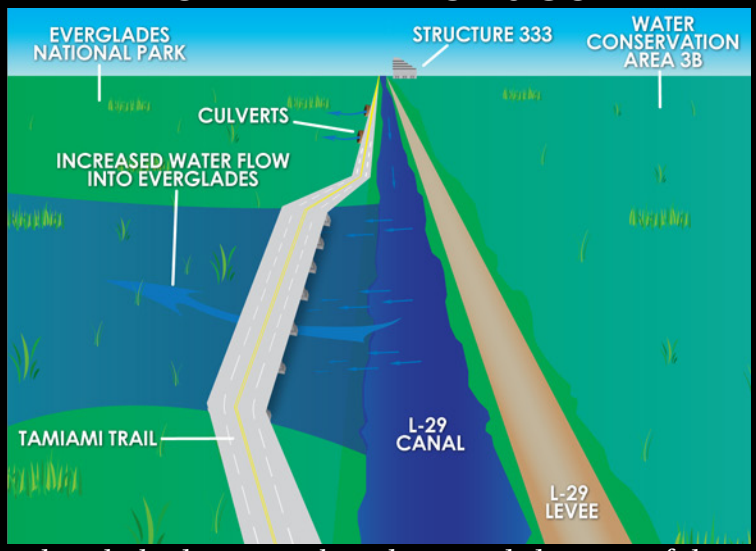
The Tamiami Trail modifications component involves constructing a one-mile eastern bridge, allowing L-29 Canal stage to reach 8.5 feet National Geodetic Vertical Datum (NGVD), and reinforcing the remaining roadway to mitigate for impacts from the 8.5-foot stage. The Tamiami Trail modifications will allow for water levels in the L-29 Canal to rise periodically to 8.5 feet NGVD and will open and increase flows that are now being constricted by existing culverts underneath the Tamiami Trail roadway.

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 culvert sets.

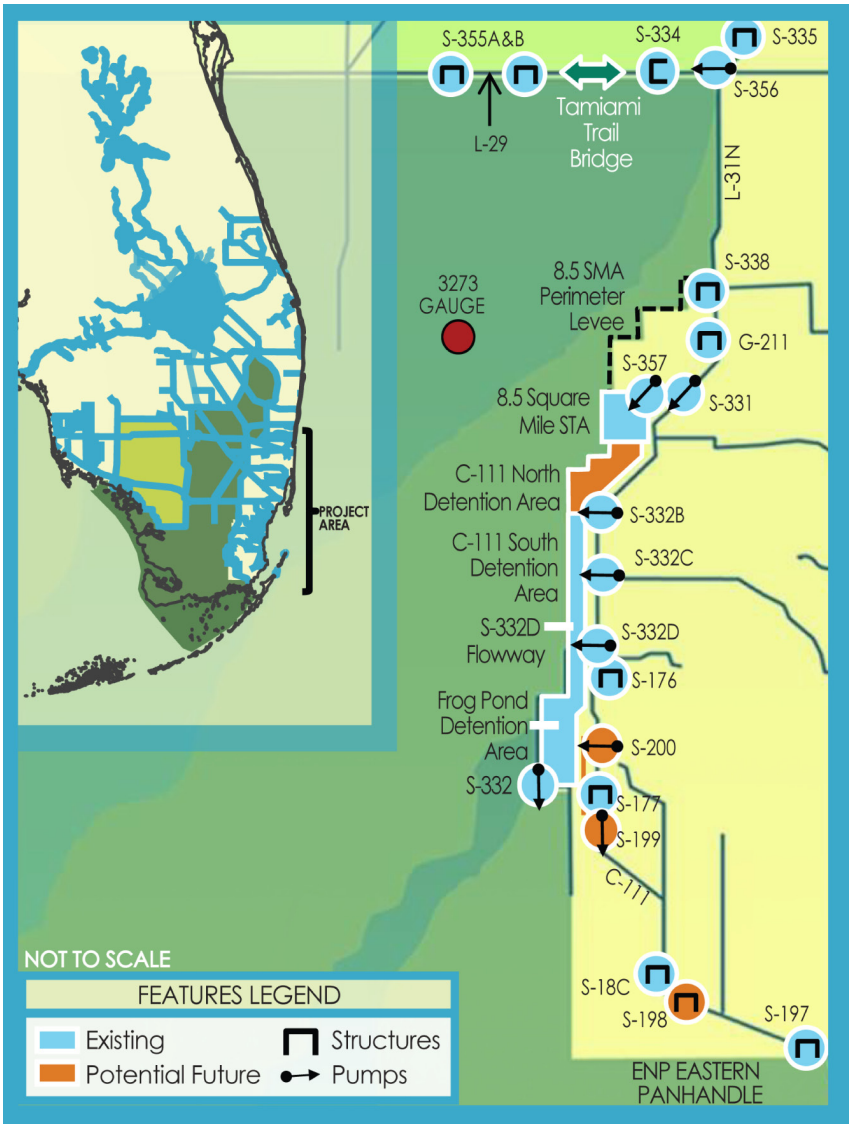
WATER FLOW WHEN BRIDGE IS COMPLETED



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.

CONVEYANCE AND SEEPAGE

The purpose of the Conveyance and Seepage Control Features (CSCF) is to reconnect freshwater flows and control seepage from west to east and out of Everglades National Park. The following features of CSCF have been constructed and are complete: Spillway structures S-355A and B in the L-29 Levee; S-333 modifications; removal of four of the nine miles of L-67 Extension Levee; Tigertail Camp raising; Pump Station S-356 between L-31N Canal and L-29 Canal; Osceola Camp elevation evaluation; and S-331 Command and Control. Currently, all funds are fully allocated to other components of the Modified Water Deliveries project. It is expected that no further modifications to levees and canals will be completed under the MWD project.



PROJECT IMPLEMENTATION SUPPORT

Project implementation support (PIS) includes hydrological stream gage monitoring, wildlife monitoring and efforts to develop a new operating plan for the entire C&SF Project. The final operating plan will be an integrated operational plan for WCA-3A, ENP and the South Dade Conveyance System that includes the completed modifications of the MWD and the Canal 111 South Dade Projects for the purpose of restoring the naturally-occurring ridge and slough land formation, vegetation, and water flow and depth patterns in the system. The restoration of these formations will require additional flows which will need to be mitigated.

THE 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

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