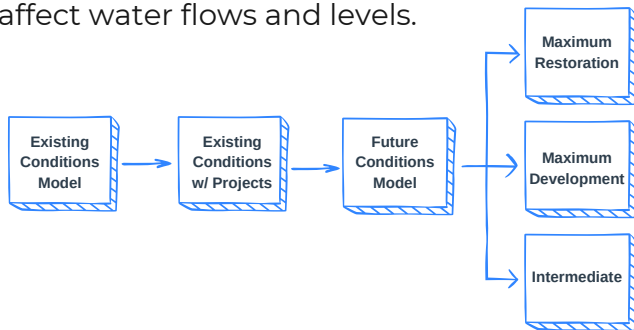


# The South Lee County Watershed Initiative

The South Lee County Watershed Initiative (SLCWI) was formed by different local, state and federal entities, working collectively to restore more natural flows and levels of water in wetlands and area waterways. The Initiative's objectives were to naturally cleanse water, provide better habitats for native species in the wetlands and downstream creeks and estuaries, as well as increase natural water storage on land - rehydrating wetlands and providing greater flood protection to residential communities.

## Planning for Restoration

Planning for restoration involves gathering data to construct a model that can simulate pre-development / natural conditions, existing conditions, and future conditions. This then identifies where and how flow needs to be adjusted to be more natural. The model can also be used to project how planned projects, climate change, and future land use scenarios (maximum restoration, maximum development, and intermediate restoration/development) will affect water flows and levels.



## More Information

To read the Full Report and appendices including:

- Existing Conditions
- Natural Systems Analysis
- Future Conditions/
- Climate Changes



Thank you to our project partners, including:



Lee County  
*Southwest Florida*



Village of  
ESTERO



CHNEP.org

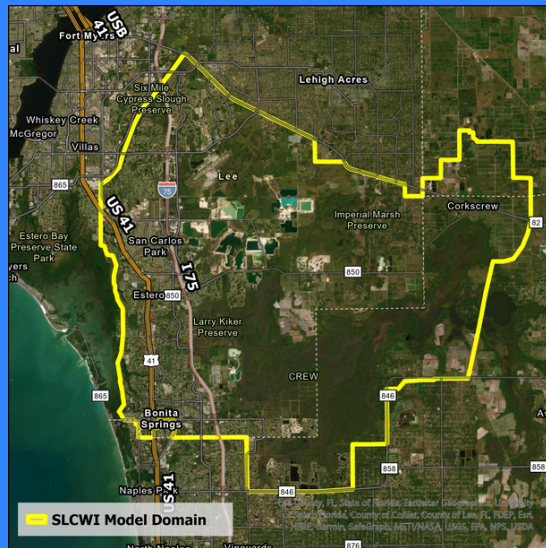


# South Lee County Watershed Initiative

HYDROLOGICAL RESTORATION  
PLANNING & PROJECTS

# The South Lee County Watershed

The South Lee County Watershed includes the Estero River, Spring Creek, and Imperial River watersheds, which flow into the Estero Bay Aquatic Preserve. These rivers and creeks are essential nursery areas for fisheries, providing food and habitat to several species of fish and shellfish.



Much wildlife habitat has been lost to agriculture, development, drainage canals, surface mining, and the installation of major roadways. These activities have also significantly altered the historic flow of water from Lehigh Acres south to the Corkscrew Sanctuary and southwest to Estero Bay. As a result, some of the waterways in this area receive too much flow during the wet season, and too little flow during the dry season.

# Getting the Water Right

Getting the water right means moving clean water in the right amounts so there is appropriate water flow and levels in different areas of a watershed area at the different times of year. This has to be done in a manner where both people and the natural environment are protected. To that end, this project was done in close coordination with other regional planning and flood mitigation efforts to ensure that community flood protection would be maintained (or even enhanced in some cases) from this hydrological restoration effort.

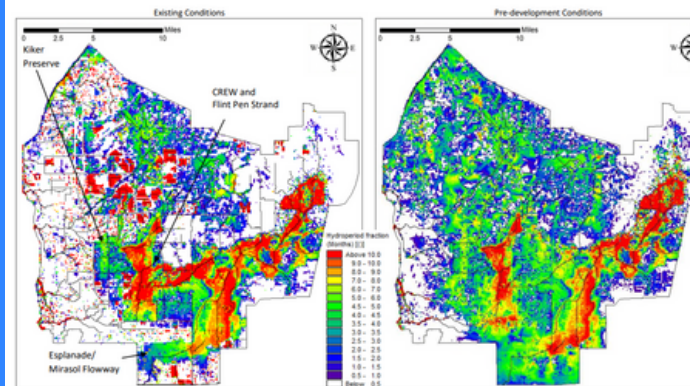


Figure 8. Existing and the pre-development hydroperiod at 375-ft resolution as predicted during the period 2010-2019

Above are examples of some of the maps generated in this project. The map on the left shows existing water depths versus the more natural water depths on the right that existed prior to development. The areas on the right that were green or blue that are now yellow or red on the left, are areas that are drier now as a result of drainage and redirection of flows. Areas on the left that are white areas now are drier as they have been developed, often with fill dirt filling in the previously low-lying wet areas.

# Recommendations



The final report provides project and policy recommendations.

## Recommended Project Types:



Green Infrastructure - Created berms & filter marshes could be added to enhance existing natural wetland hydroperiods and to minimize fire risk.



Grey Infrastructure - Additional Man-made Water Storage areas could be built in disturbed or developed areas.



Grey Infrastructure - Operational Water Control Structures could be added that can be remotely operated to hold water back in the dry season and open up during the wet season.



Grey Infrastructure - Additional culverting could be put in to allow for additional flow to strategic areas needing added flow, or to relieve areas that need more flood protection.

## Operational Water Control Structure Example: Corkscrew Mitigation Bank Outfall

