

# SOUTH LEE COUNTY WATERSHED INITIATIVE MEETING

January 10, 2018, 1 pm – 4 pm

1st Floor Conference Room of the SFMWD Office (2301 McGregor Blvd., Ft. Myers, FL)

Presentations available at <https://www.chnep.org/south-lee-co-watershed-initiative>

## Attendees

David Willems – Waldrop Engineering

Roger Copp – WSA

Roxanne Taylor – SFWMD

Elizabeth Fountain – JR Evans Engineering

Josh Evans – JR Evans Engineering

Sam Lee – Lee County

Nicole Johnson – Conservancy

Kelly McNab – Conservancy

Karen Cheney – SFWMD

Anura Karuna-Muni – Lee County

Don Eslick – ECCL

Mat Feeney – City of Bonita

Fred Forbes – City of Bonita

Brandon Dunn – Lee County

Stephanie Long – ADA Engineering

Phil Flood – SFWMD

Jim Beever – SWFRPC

Jennifer Hecker – CHNEP

Jesse Hevia – CHNEP

## Lee County Flood Mitigation Effort – Anura Karuna-Muni

- Phase 1: Clearing bodies of water to remove trees and other debris impeding flow ways
  - Completed mid-December
- Phase 2: Initial flooding assessment
  - Hired consultants to collect information and identify causes and contributing factors to flooding
  - Interactive GIS map available through Lee County website showing all collected data points with flooding observations from August 25-27 rain event and Irma  
<http://leegis.maps.arcgis.com/apps/opsdashboard/index.html#/668715f45e8b451ba73f73bdbe3c0b76>
- Phase 3: establish a plan for long-term flood reduction on regional scale incorporating data collected about observed flooding
- Jennifer Hecker added that it is also important to consider the effect of rising sea levels on flooding. The CHNEP is currently conducting a climate change vulnerability assessment, which will provide a planning tool for managers to address challenges associated with sea level rise and other climate change impacts.
- There will be a workshop and presentation on the vulnerability assessment at the upcoming Conservation Lands Workshop being held on March 2, 2018 for those interested in participating.
- The NOAA sea level rise viewer is a visualization tool for different sea level rise scenarios that can be used to see vulnerability to flooding and local scenarios
- Jim Beever said that the NOAA viewer doesn't include effects of surge events

## Village of Estero High Water Marks and Stormwater Master Plan update – Roger Copp

- Collected high water marks post-Irma and compared with model projections.
- The model slightly underreported levels compared to observed water levels during flooding event. The initial parameters entered into the model were not exactly the same conditions of

the storm events observed. (Data from model was generated from model calibrated to 2013 and 2014 as initial conditions and set to 100-year storm)

- The model is robust and is a valuable tool for stormwater management in the watershed.
- Roger noted that there was no structural flooding in Estero during Irma.
- One flood management challenge for the area is that sending more water west will cause flooding west of I-75 and more water storage is needed.
- Fred Forbes asked about the possibility of using drone images to gather information for calibration. The CHNEP has a drone that was previously used for a wading birds survey that is currently available for use on other projects. The drone must be operated by a licensed pilot.
- JR Evans Engineering is working on a calibration model using inflow data of tributaries and expects initial model to be done by end of January with the goal of a final report available around April 2018.

#### **City of Bonita Springs Flooding Reduction and Hydrologic Restoration Plan – Jim Beever SWFRPC**

- Project area includes Imperial River watershed, Spring Creek watershed, and the Coastal Island watershed within the City of Bonita Springs
- Project goal is to achieve flood reduction not elimination. It is not possible to eliminate flooding, especially with future conditions expected to worsen. It is important for the public to understand that flooding will continue to occur in streets and areas established before stormwater standards were in place.
- Climate change impacts affect flooding in a variety of ways, including increased threats to and costs of infrastructure and increased uncertainty for planning.
- Recent flooding events:
  - The August event rain event exceeded 25-year, 3-day rainfall
  - Hurricane Irma exceeded 100-year, 1-day rainfall
- Current projects with City of Bonita include Spring Creek Restoration Plan, NOAA grant for Spring Creek culvert improvements, Bloomberg Grant (Taking Back our Watersheds)
- Project update since October: met with various citizens about flooding in neighborhoods, reviewed selected projects with engineers from Atkins, initial report planned to be ready for review by end of January
- Draft expected to be to city by end of month
- Question about excess water in Lake Trafford – Jim said Trafford water flows into Kehl canal at east portion and once CREW project is complete, Trafford overflow will not be connected to Estero watershed.
- Question about the possibility of stormwater vaults (similar to Punta Gorda) for old 41 corridor, but vaulting in those areas would not necessarily reduce flooding. Valved outlets are being considered but not an open stormwater solution.

#### **Private/public collaboration to restore flow-ways from Imperial Marsh to Corkscrew Swamp – WSA**

- Existing conditions: highly disturbed, intensive row crop use, exotic vegetation, disrupted flow ways, severed wildlife habitat
- There is currently no direct connection to regional surface water systems. Project aims to restore historic flowway and provide connection to adjacent flowways.
- Future possible connectivity to flowways are uncertain, and there is a limit to how much water can be allowed to flow west.

**Next meeting:** Target date in April or May of 2018

Links:

Lee County Flood mitigation effort: <http://www.leegov.com/Irma/flood>

CHNEP Conservation Lands Workshop: <https://www.chnep.org/conservation-lands-workshop>

NOAA Sea Level Rise viewer: <https://coast.noaa.gov/slr/#>

NOAA Precipitation Frequency Data Server: <https://hdsc.nws.noaa.gov/hdsc/pfds/>