

**Florida Floodplain Managers Association
2019 Annual Conferences
Abstracts**

Title: Automated Flood Forecasting for the Imperial River at Bonita Springs

Length: 30 minutes

Subject: Floodplain Mapping

Target Audience: Floodplain managers, engineers

Presenter Name: Peter Singhofen, PE
President
Streamline Technologies, Inc.

Biography: Mr. Singhofen is the president, founder and owner of Streamline Technologies, Inc., an engineering software development firm located in Winter Springs, Florida. He has been a water resources professional for more than 35 years specializing in distributive physically-based integrated modeling of large-scale surface and groundwater systems.

Co-Presenter: None

Biography:

Abstract: Extensive and prolonged flooding occurred along the Imperial River at Bonita Springs over a 4- to 5-week period beginning the last week in August 2017 and lasting until late September. Two major back-to-back rain events occurred within about 2 weeks of each other, dropping almost 2 feet of rain in the Bonita Springs area. Rainfall from the second event occurred during Hurricane Irma and heavy rains were expected. However, the first event was somewhat unexpected catching most people off guard. The purpose of this presentation is to describe a flood forecasting system in ICPR4. Near real time, short range forecast (18 hours) and medium range forecast (3-day and 10-day) rainfall data are automatically detected and downloaded from the National Water Model and from the NWS Southeast River Forecast Center. The rainfall data is then used to automatically drive a continuously running near real time model and to spawn forecast models. The Imperial River at Bonita Springs is used as a case study.