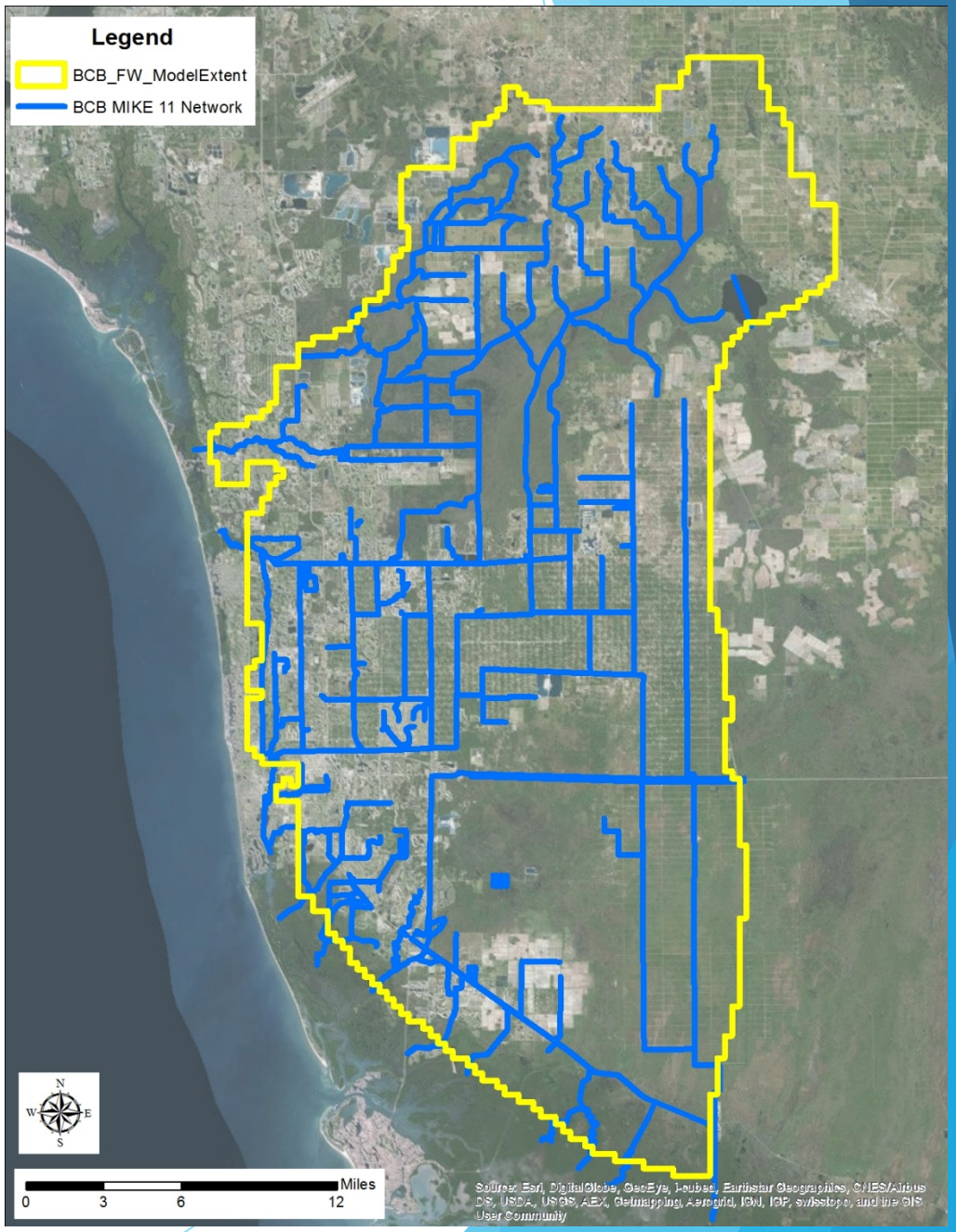
Collier County Comprehensive Watershed Management Plan

Golden Gate Canal Flow Diversion and Historical Flowway Restoration Project

Collier County

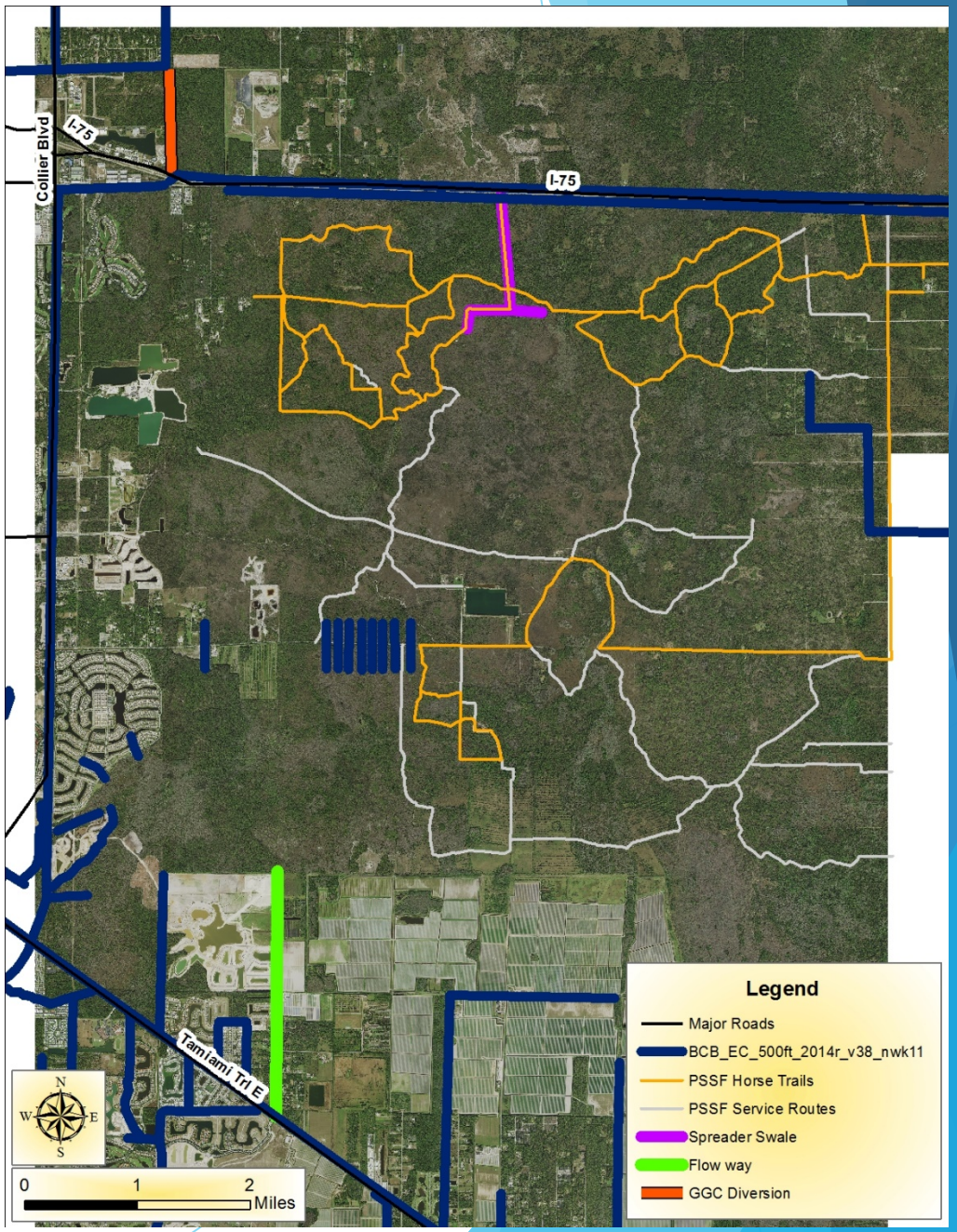
Scenario Analysis

- Using the recently updated MIKE SHE/MIKE 11 completed for the BCB (2015)
  - **500 – ft grid**
  - **Simulation period through 2008 – 2014**
- Best Available at this time
- Does not consider the presence of the PSRP



Scenario Analysis

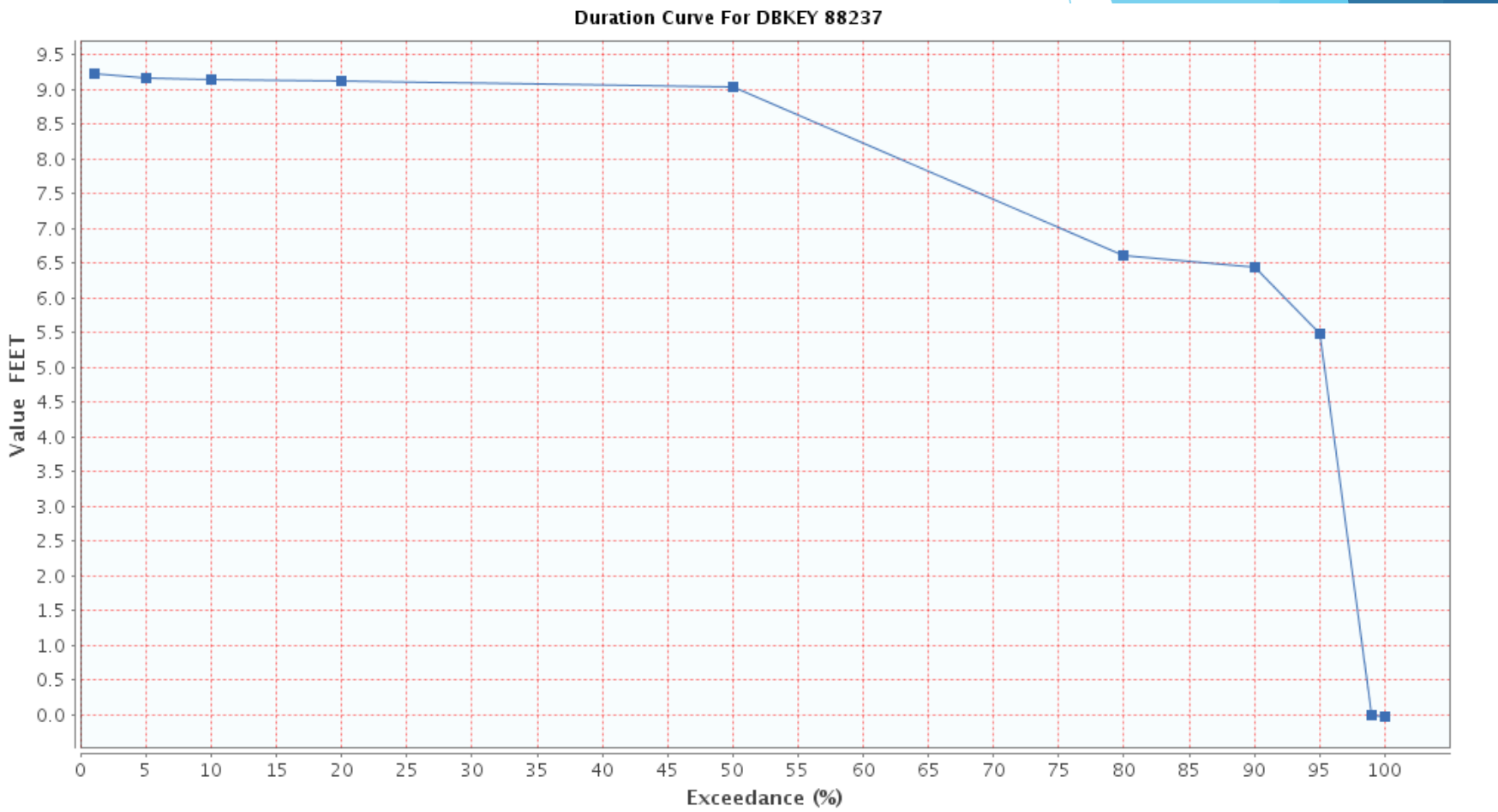
- Added branches to represent:
  - **Diversion from GGC**
  - **Spreader into PSSF**
  - **Flowway along Greenway Rd**
- Maximum pumping analysis from GGC



Potential Days for Pumping

Based on reported Gate Levels at new GG-3 and GG-2 structures

Wet Season Only:
May 15 – October 15



Potential Days for Pumping

During Evaluation Period

- Average of ~40 days per year
- May 15 – October 15

Year	Days
2009	27
2010	36
2011	19
2012	22
2013	90
2014	46
	40

Habitat, Hydroperiod, & Pumping

- Pumping considerations
  - Numbers shown thus far are maximum pumping values
  - Pumping days are not necessarily consecutive
- Project will revolve around and optimized pumping operations plan and schedule
- Optimize hydroperiod and wet season high water within the constraints of forestry management goals

Future Modeling Efforts

- As the project is funded:
  - Model Calibrated for hydroperiod in PSSF
  - Includes PSRP project features
  - Develop operating schedules
  - Adaptive Management approaches
    - Components of Forest Management Plan
    - Piezometers and/or other means of monitoring water levels to optimize pumping