Withlacoochee River Watershed Initiative
Scenario Locations

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Scenario Descriptions

1. **Green Swamp** – Railroad berms and drainage ditches in the Green Swamp, built decades ago to support logging and other industries, may have significantly altered the direction and amount of water flow through the Green Swamp. The model will simulate their removal.

2. **Green Swamp** – Bridge pilings from old railroad trams have created log jams across the main channel of the Withlacoochee River in the Green Swamp. The model will simulate their removal and compare river flows and water levels with and without these log jams.

3. **Green Swamp** – The construction of SR 471 through the middle of the Green Swamp may have substantially altered flows downstream. The model will assess the impact of SR 471 and effectiveness of current bridge and culvert crossings under the road.

4. **Green Swamp** – The construction of the US 98 bridge between Dade City and Lakeland may have constricted natural flows to the Hillsborough River from the Green Swamp. The model will compare levels and flow from the Green Swamp with and without this constriction.

5. **Trilby/Lacoochee** – The SR 575, US 301 and US 98 bridge crossings as well as the railroad crossings near Trilby and Lacoochee may have constricted natural flow downstream. The model will remove the footprint of these bridge crossings to assess what effect they have on river flooding.

6. **Lake Oriole** – The natural connection between Lake Oriole and the Withlacoochee River may have been altered contributing to chronically low lake levels. The model will assess the availability of water from the Withlacoochee River with increased channel connections.

7. **Wysong** – Chronically low water levels in the Tsala Apopka Lake System have suggested that the Wysong-Coogler Water Conservation Structure should be raised higher. The model will assess the regional impacts of raising the structure.

8. **SR 200** – Capturing excess water near SR 200 may help alleviate flooding during high water events and provide available water for public supply. The model will simulate a storage reservoir near SR 200 and assess regional water level differences.

9. **Entire River** – Water levels throughout the watershed are critical for comparing scenario results with current conditions. The model will simulate statistical storm events with higher starting water levels for additional comparisons to specific model scenarios.

10. **Tsala Apopka** – Existing berms in the Flying Eagle Preserve may affect water levels in the Tsala Apopka Lake System. The model will simulate the interaction between Tsala Apopka and the Withlacoochee to better understand the berm's significance.

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11 **Tsala Apopka** – The construction of canals, berms, structures and roads throughout the Tsala Apopka Lake System have highly altered its natural interaction with the Withlacoochee River. The model will remove these alterations to simulate pre-settlement conditions.

12 **Tsala Apopka** – Dredging the Orange State Canal and lowering the Floral City structure may benefit water levels in the Tsala Apopka Lake System. The model will simulate the impacts of lowering the canal on water levels and flows throughout the watershed.

13 **Tsala Apopka** – Water conservation structures in the Tsala Apopka Lake System may be undersized compared to the conveyance potential of their canals. The model will simulate larger structure openings to determine whether the structure or canals are limiting flows.

14 **Tsala Apopka** – Filling Tsala Apopka starting with the most downstream pool first may optimize inflows into the lakes. The model will simulate different structure operation strategies and provide suggestions for system management.

15 **Tsala Apopka** – Water flow from Tsala Apopka may impact flood levels in Arrowhead Estates during high water events. The model will simulate flood events with and without flows exiting Tsala Apopka to isolate flooding sources and evaluate management options.

16 **Green Swamp** – Several natural rock formations within the Green Swamp may have been historically removed. The model will simulate the addition of rocks to the main channel of the Withlacoochee River at key locations to determine impacts on water levels and flow.

17 **Jumper Creek** – The Withlacoochee River may have been channelized downstream of Jumper Creek. The model will simulate the addition of rocks to the main channel of the Withlacoochee River at this location to determine impacts of water levels and flow.

18 **Lake Rousseau/Lower Withlacoochee** – The construction of the Inglis Dam, Barge Canal, and Bypass Channel downstream of Lake Rousseau have limited high flows to the Lower Withlacoochee River. The model will simulate increased conveyance through the Bypass Channel.

19 **Lake Rousseau/Lower Withlacoochee** – The construction of the Inglis Dam, Barge Canal, and Bypass Channel downstream of Lake Rousseau have limited high flows to the Lower Withlacoochee River. The model will simulate the use of the Barge Canal as a means to increase flows downstream.

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