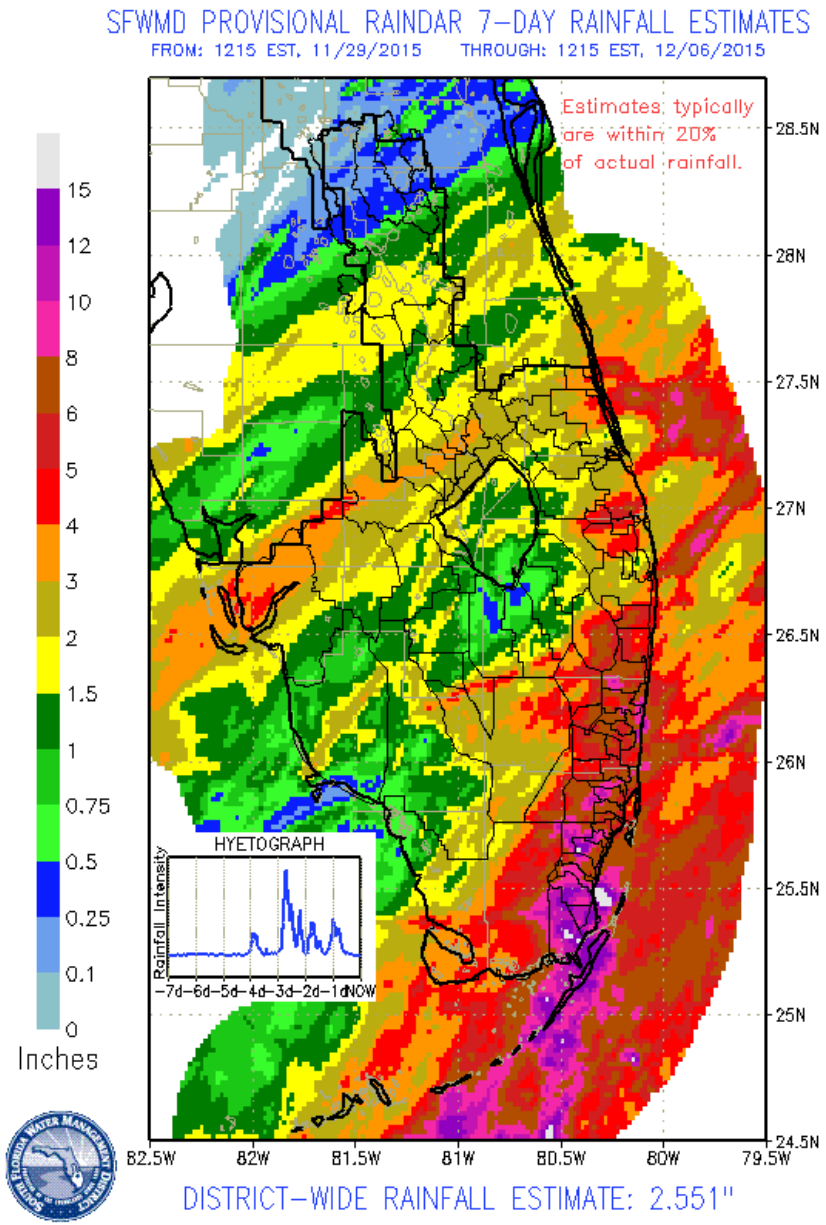
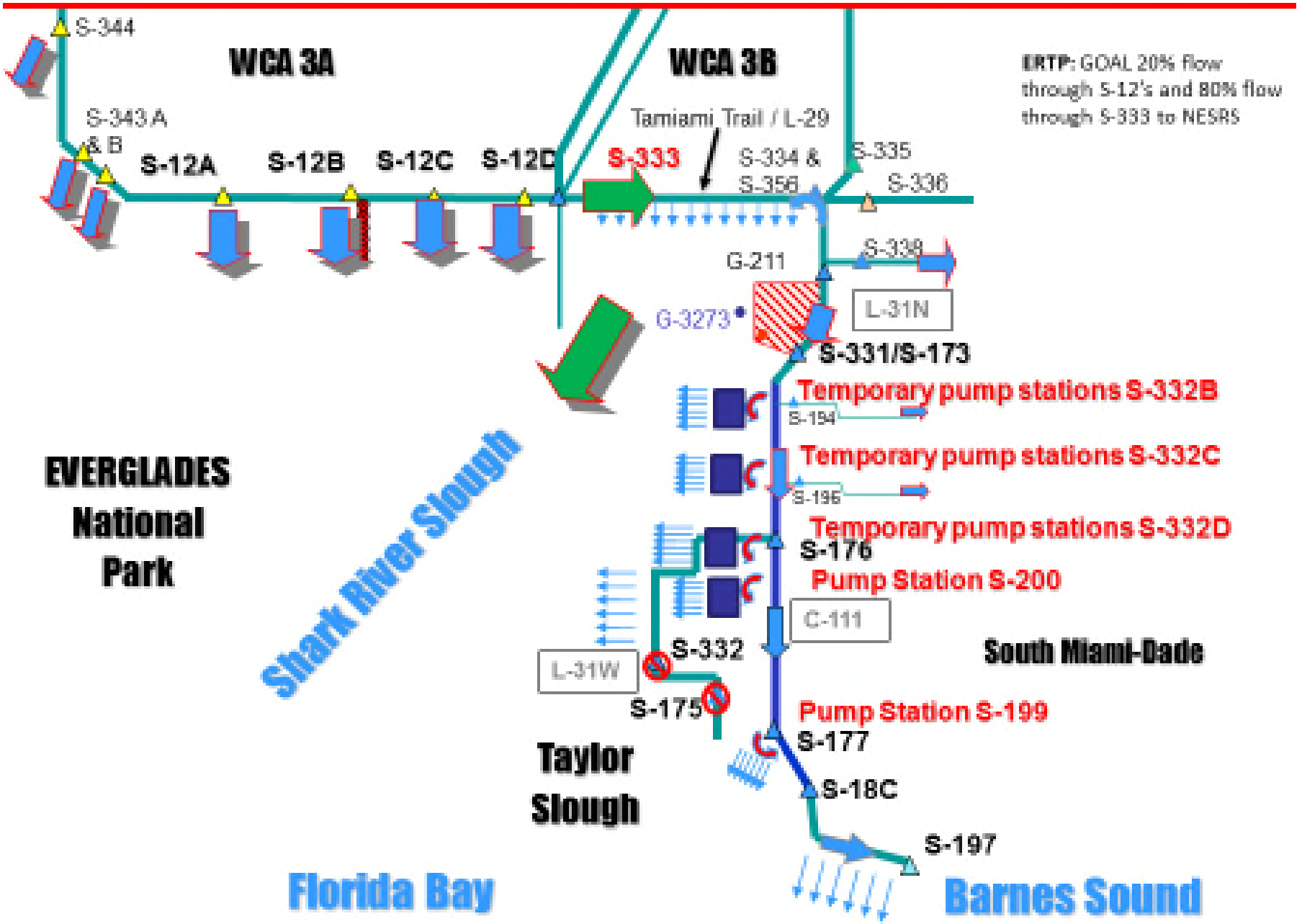
Operations in Response to Recent Heavy Rains

S-123 on C-100 Canal

Heavy Rains December 3 to 6, 2015

- Some locations in South Dade experienced up to 15 inches of rain between Wednesday and Sunday
- Initially a 2 to 5 year storm and escalated by Saturday to over a 10 year event



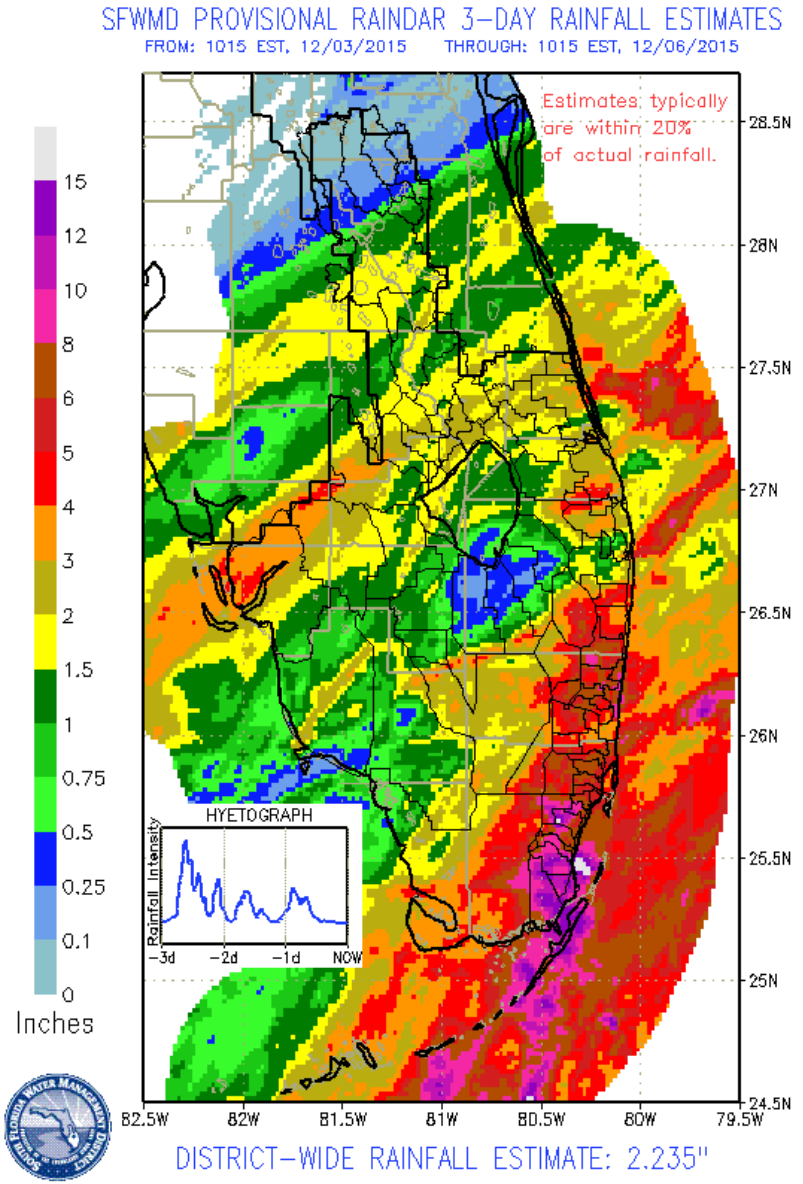

S-344
WCA 3A
WCA 3B
S-343 A & B
S-12A
S-12B
S-12C
S-12D
S-333
Tamiami Trail / L-29
S-334 & S-356
S-335
S-336
S-338
G-211
G-3273
L-31N
S-331/S-173
Temporary pump stations S-332B
S-194
Temporary pump stations S-332C
S-196
Temporary pump stations S-332D
S-176
Pump Station S-200
C-111
S-332
L-31W
S-175
Pump Station S-199
S-177
S-18C
S-197
EVERGLADES National Park
Shark River Slough
Taylor Slough
South Miami-Dade
Florida Bay
Barnes Sound
ERTP: GOAL 20% flow through S-12's and 80% flow through S-333 to NESRS

System Preparation

- Monday, Nov. 30: Forecast of substantial rainfall over the next week.
- Coordinated with USACE to secure approval to implement pre-storm drawdown operations
- Tuesday, Dec. 1: Started drawdown for South Dade canals
- Wednesday, Dec. 2: Fully opened several water control structures in South Miami-Dade, Tested C-4 Detention Area inflow pumps, Placed pump stations crews for 24/7 operations
- Thursday, Dec. 3: Removed vegetation from canals and banks at critical locations

Rainfall Event Characteristics

- Most intense rain fell between December 3-5.
- For Miami Dade
  - Wettest 3-day rainfall in the last 15 years (wet or dry season)
  - Wetter than Tropical Storm Gordon (Nov 1994) or Hurricane Katrina (Aug 2005)
- Highest rainfall intensities were experienced on Saturday
- While all basins along the east coast affected, heaviest rains in south Miami-Dade, C-111 and C-103 basins



South Miami-Dade Response

- Friday, Dec. 4:
  - S-177, S-18C fully opened
  - S-197 initially opened
- Saturday, Dec. 5: Based on expanding event, fully opened S-197.
- Structures in the L-31 N and C-111 canals continue operating at their maximum capacity; including S332 pumps, S177, S18C, and S197

Crop flooding adjacent to C-111 and S-177 & S-199

Flooding east of S-178 and north side of SR 9336

Farm field at SW 124th Ave and SR9336, plastic covered field is underwater

Street flooding, Villages of Homestead

Central Miami-Dade Response

- Friday, Dec. 4: Initiated forward pumping at S-25B and S-26
- Saturday, Dec. 5: Initiated pumping into the C-4 Detention basin.

C-4 Impoundment

S-26 Pumping Station

Coastal Miami-Dade Response

- Coastal gated spillways close automatically when high tide exceeds the canal water level
- Coastal gates open automatically when the high tide recedes.
- Water level rises in farm fields as the tail-water rises at tidal structures.

Current Operational Status

- System continues in flood control mode
- In coordination with USACE implementing a gradual transition to normal operations
- Minimizing need for alternating structure open/close cycles as the residual lagging flows exit the system
- Monitoring conditions in ENP to ensure flood control operations do not impact Park Water levels

Questions?