Applying the Latest Climate Science & Policy: A Federal Everglades Restoration Perspective

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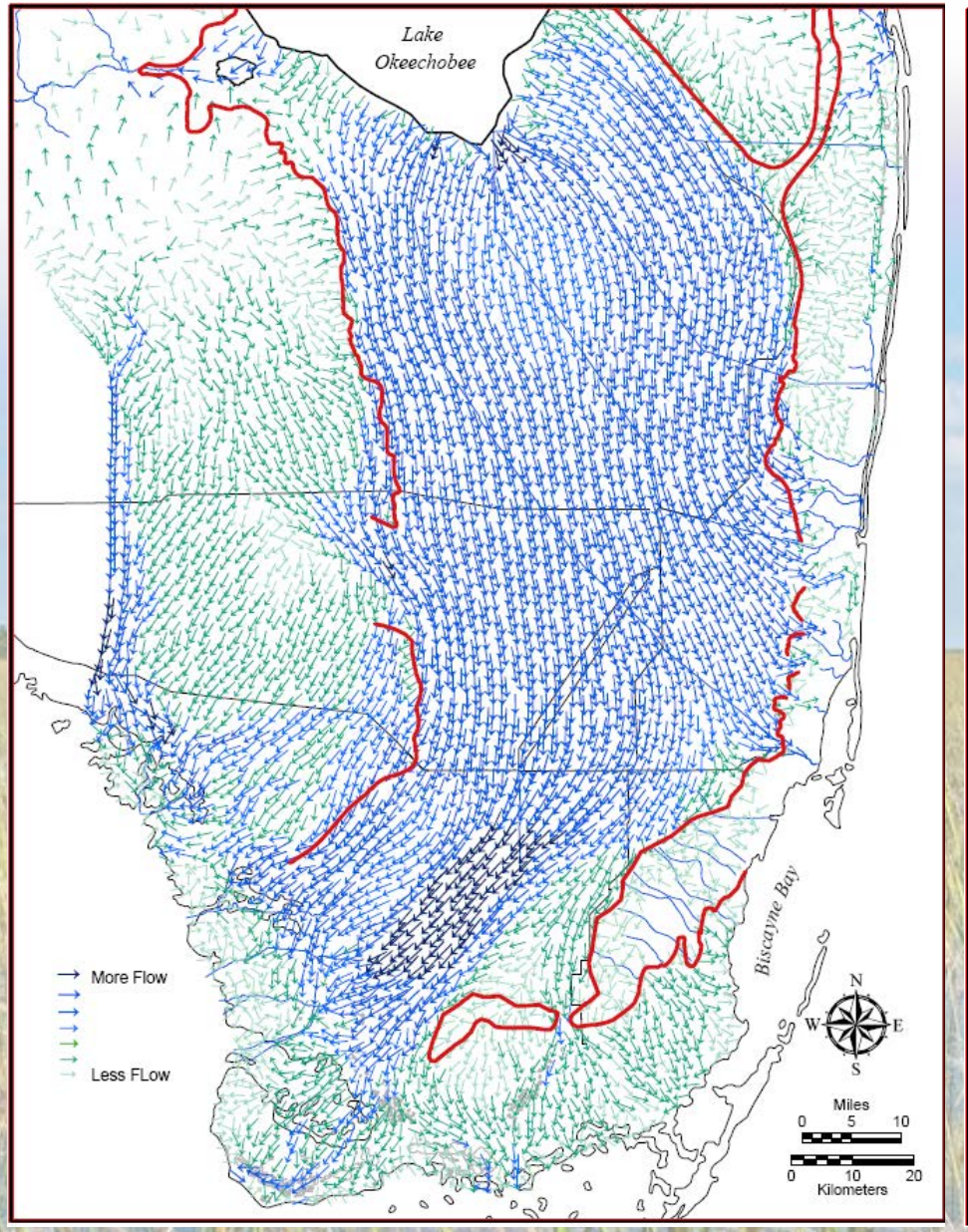
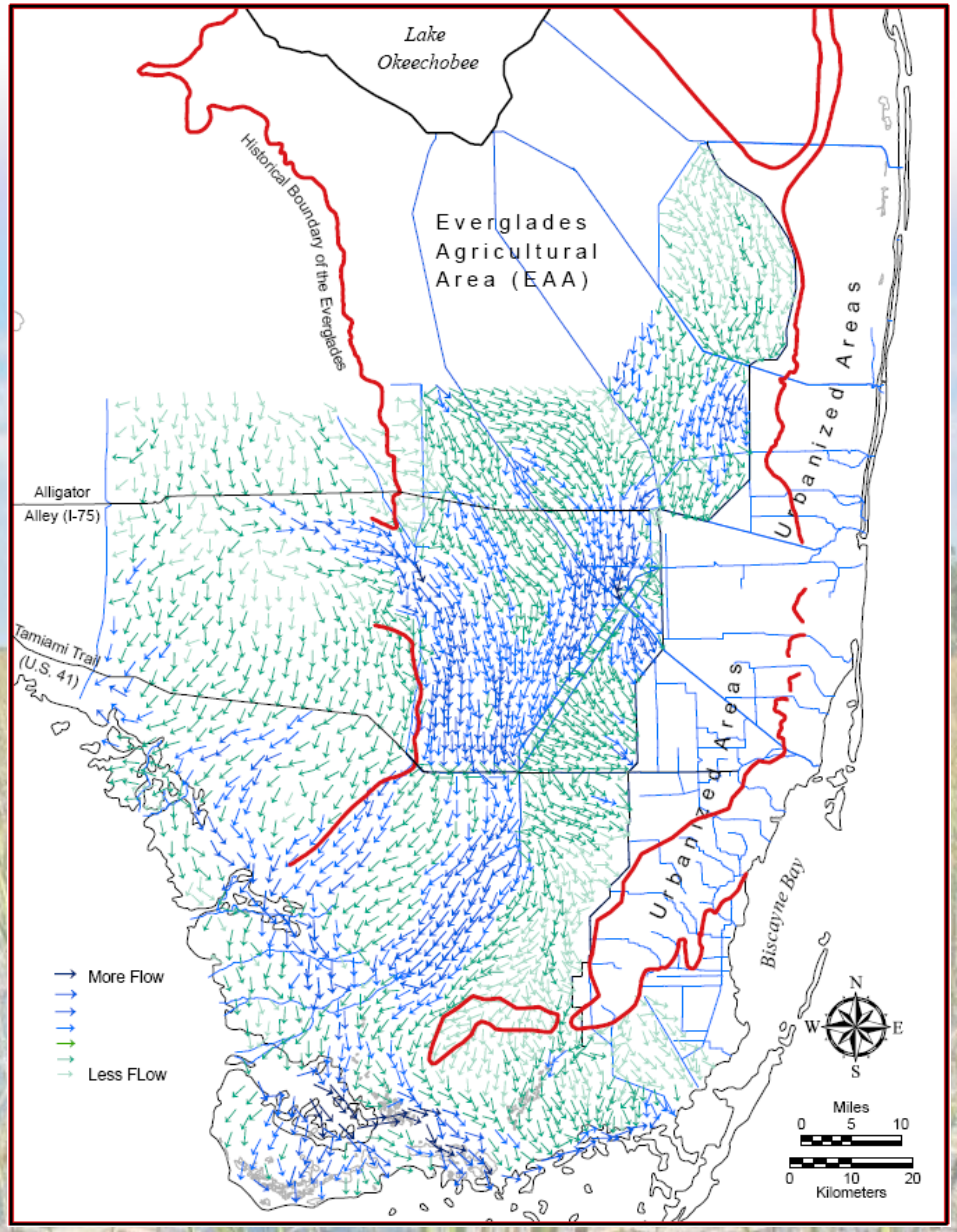
EVERGLADES RESTORATION and..

- Changes in rainfall
- Changes in temperature
- Sea Level Rise


Lake
Okeechobee
More Flow
Less FLow
Biscayne Bay
N
W
E
S
Miles
0 5 10
0 10 20
Kilometers


Lake
Okeechobee
Historical Boundary of the Everglades
Everglades
Agricultural
Area (EAA)
Urbanized Areas
Alligator
Alley (I-75)
Tamiami Trail
(U.S. 41)
Urbanized Areas
Biscayne Bay
More Flow
Less FLow
N
W
E
S
Miles
0 5 10
0 10 20
Kilometers

Rainfall

- The Everglades is suffering from a highly managed annual rainfall and from a compressed interannual rainfall cycle.
- Generally speaking decreased average rainfall scenarios cause the most dramatic ecological impacts
- However, increased rainfall could cause serious ecological harm if infrastructure is not retrofitted in time.
- Uncertainty about rainfall projections is NOT a reason to second guess Everglades Restoration.

Temperature

- Increased temperatures can be expected to increase evapotranspiration in the system.
- Increased ET can help counterbalance the effects of increased rainfall
- Increased ET combined with reduced rainfall could have significant effects on the Everglades and the region.
  - Water availability
  - Fire
  - Soil loss

Sea Level Rise

- The future is now
- Collapse of coastal wetlands/marshes
- Increased storm/tidal surge are a threat to ecosystems
- Decreased rainfall and/or increased temperature scenarios exacerbate effects of sea level rise

Thank you