REVISING THE IRL TMDL
Existing TMDL Critique

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BACKGROUND
ISSUES

Loads

- No separation of baseflow and runoff
- Simplified calculation of antecedent moisture
- Loads normalized by watershed area
- Atmospheric deposition variation not included

Statistical Model

- Only had 3-years of data
- Regression is highly sensitive
- Seagrass segments don’t follow basin model construct in NIRL
- Single metric used for seagrass
- Doesn’t address intersegment transport
Antecedent Moisture

Precipitation

Runoff

Infiltration

Baseflow

Precipitation

Runoff

Infiltration

Baseflow
Normalizing Load

LOAD

LOAD

RECEIVING WATER

RECEIVING WATER
ATMOSPHERIC DEPOSITION

- Atmospheric Deposition
- Runoff
- Baseflow
- Point Sources

North IRL TN

Point Sources

Atmospheric Deposition

North IRL TP

Point Sources

Baseflow

Runoff

Baseflow

Runoff
ATMOSPHERIC DEPOSITION

- Atmospheric Deposition
- Runoff
- Baseflow
- Point Sources

Banana River TN
Banana River TP
ATMOSPHERIC DEPOSITION

Runoff

Point Sources

Baseflow

Atmospheric Deposition

Central IRL TN

Central IRL TP

Point Sources
North Indian River Lagoon

Not Statistically Significant
Banana River Lagoon

Not Statistically Significant
Banana River Lagoon

Statistically Significant
Central Indian River Lagoon

Not Statistically Significant
Central Indian River Lagoon

Statistically Significant
NIRL
Segment Specific Regression Lines

L10_TN

DL

seg  IR1-3  IR4  IR5  IR6-7  IR8  IR911
Intersegment Transport
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