

Estimation of Potential Nonpoint-Source Loads of TN, TP and BOD

Initial draft
GIS analyses and maps
April 2006



Environmental Protection Commission
of Hillsborough County

Data Sources

- SWFWMD land use/land cover GIS layer (1999)
- SWFWMD soil coverage GIS layer
- FLUCCS and CLUCs land use categories (from TBEP)
- Land use-specific pollutant concentrations (from TBEP and others)
- Runoff coefficients for each land use/soil type combination (from TBEP and others)

Methods

- Land use/land cover layer intersected with soil and WBID boundary layers, and clipped to the appropriate basin management area;
- Pollutant concentrations assigned to each land use category
- Dry season and wet season runoff coefficients assigned to each land use/hydrologic soil type combination
- Potential NPS load per unit runoff calculated by multiplying the appropriate runoff coefficients by the previously assigned pollutant concentrations for each area-aggregated, WBID/land use/soil type combination

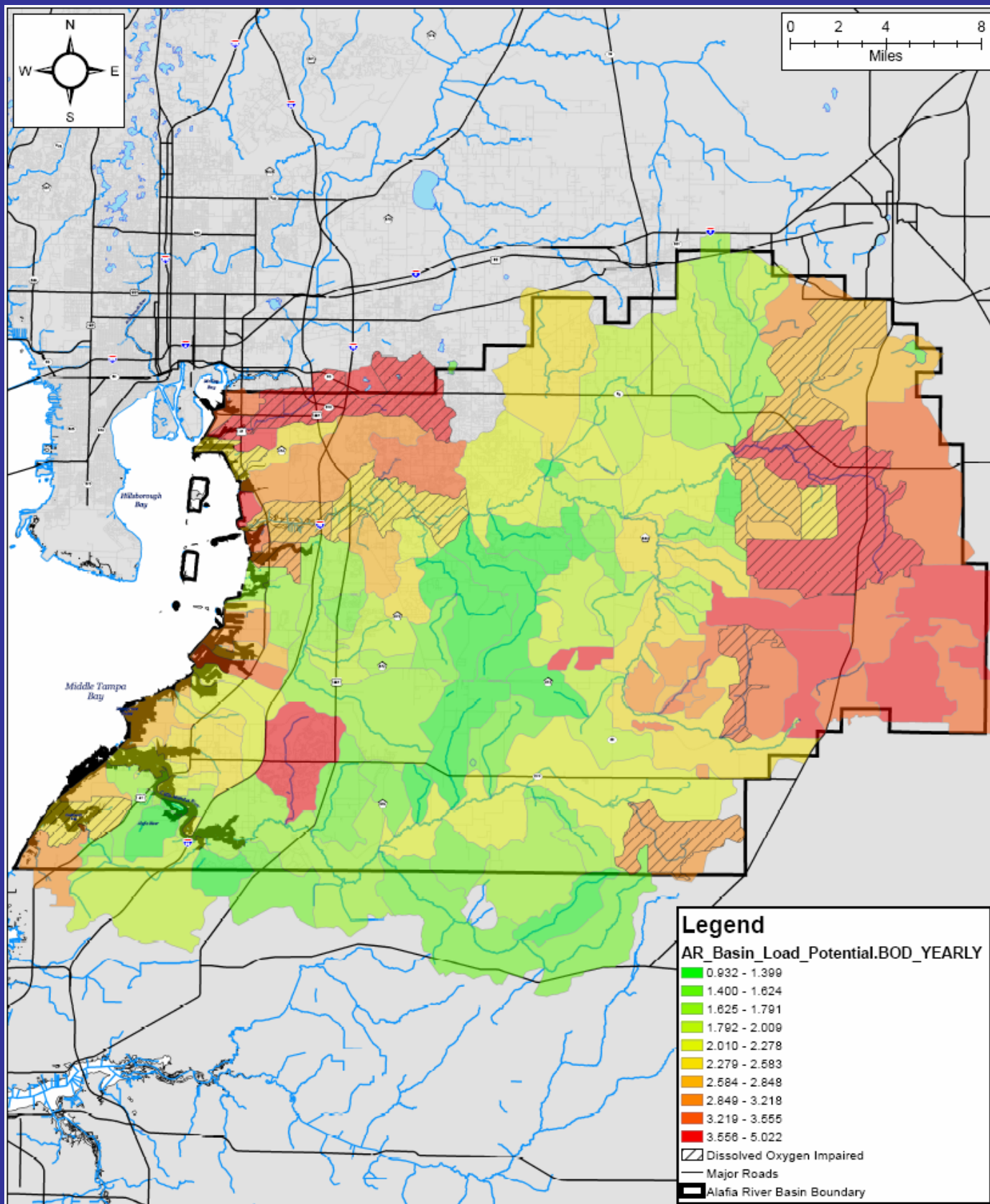
Maps

- Two sets of maps were produced for each basin management area
- The first set shows annual, area-weighted potential NPS loads (per unit runoff) for each WBID for both terrestrial and wetland/aquatic land uses. This approach may be helpful when evaluating areas for larger (e.g., regional) NPS load reduction projects
- The second set shows estimated loads (per unit runoff) for terrestrial land uses only. This approach may be helpful for siting smaller (e.g., parcel-scale) projects.

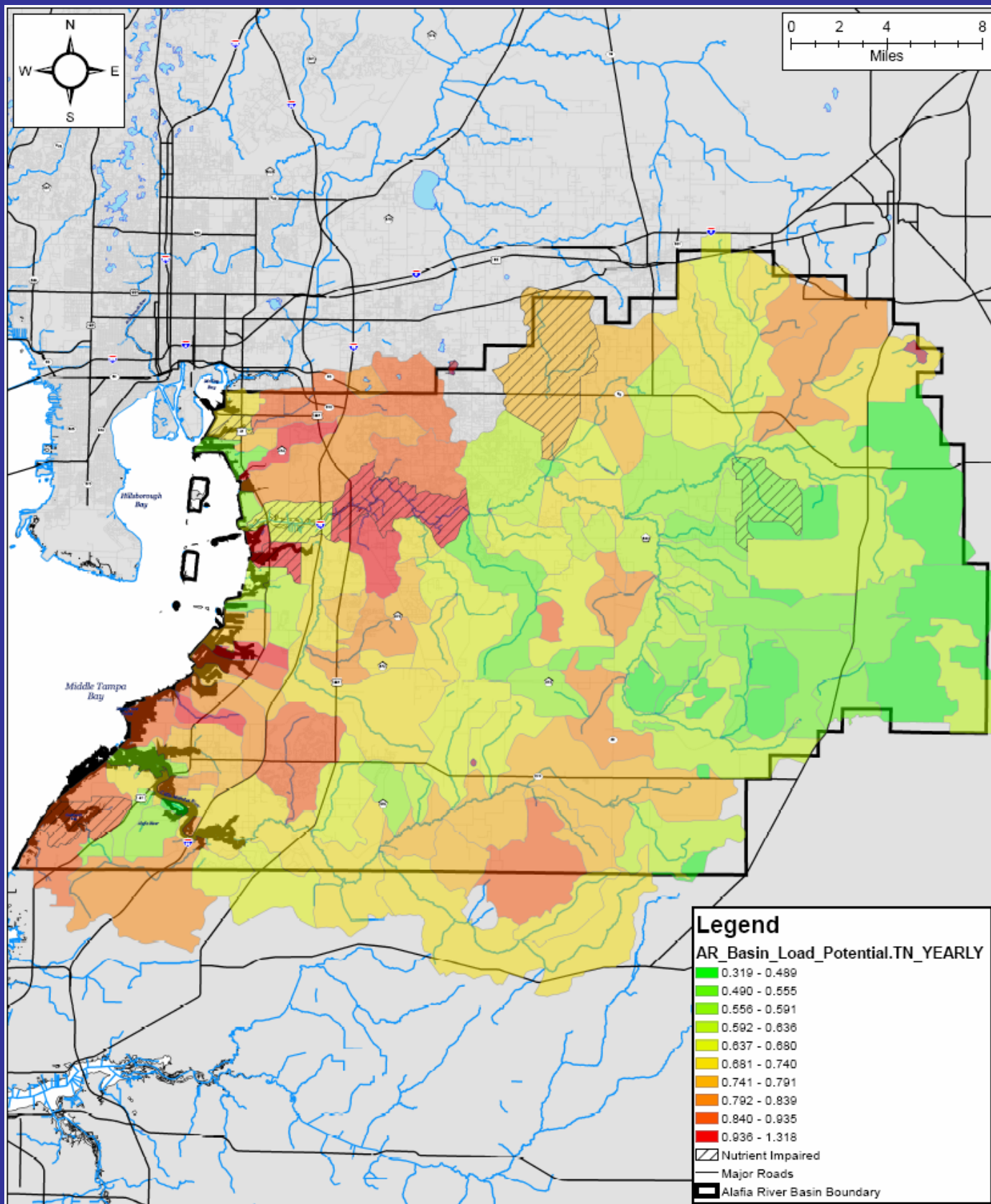
Map Set 1

Estimated potential NPS loads per unit runoff (area-weighted WBID means) for TN, TP and BOD, from terrestrial and aquatic (wetland and open water) land use categories

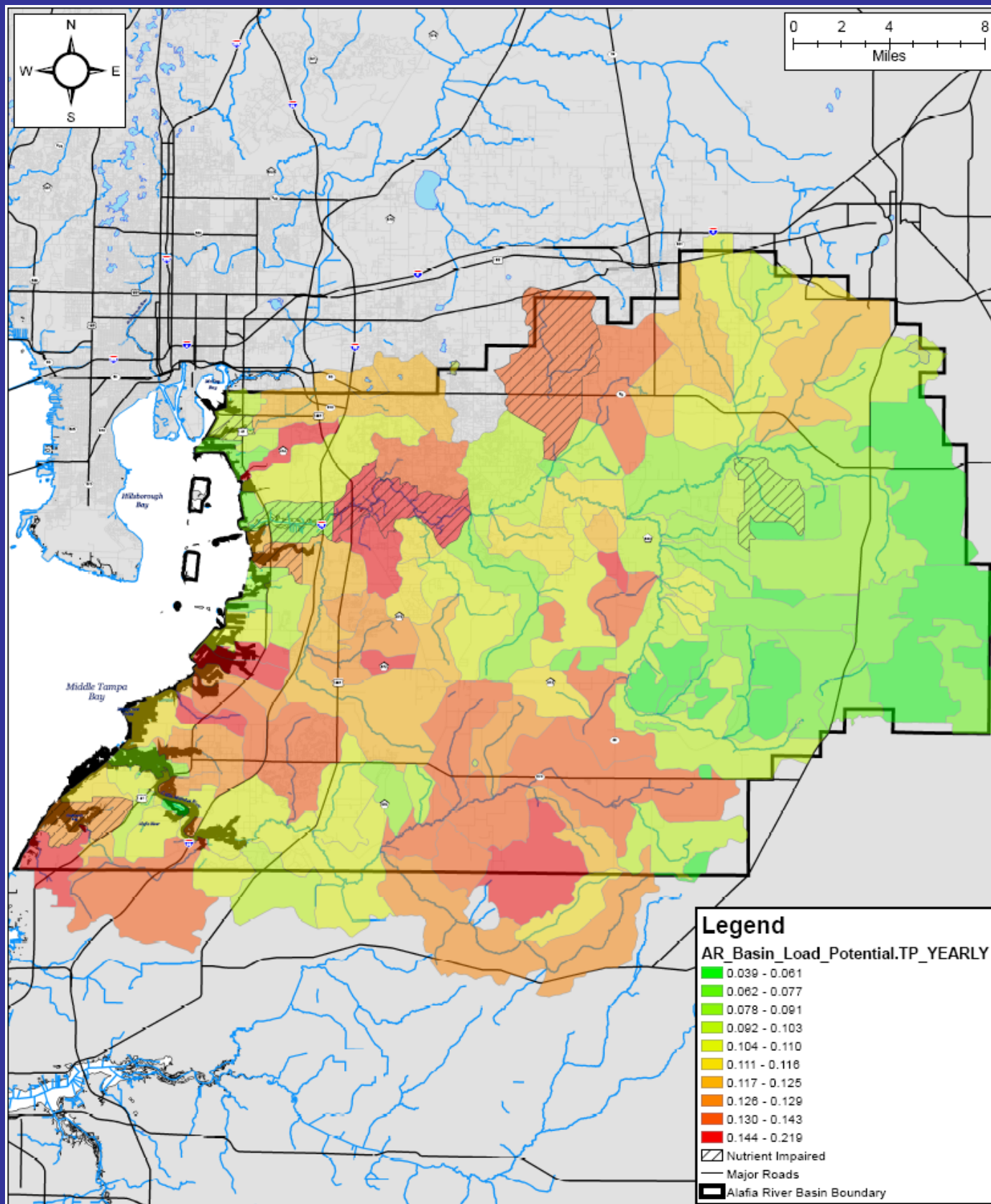
Alafia/Little Manatee
BMAP area



**Potential Non-Point Source BOD Load from
Terrestrial and Wetland Land Uses, per Unit Runoff**
Annual, area-weighted WBID average (mg/L)



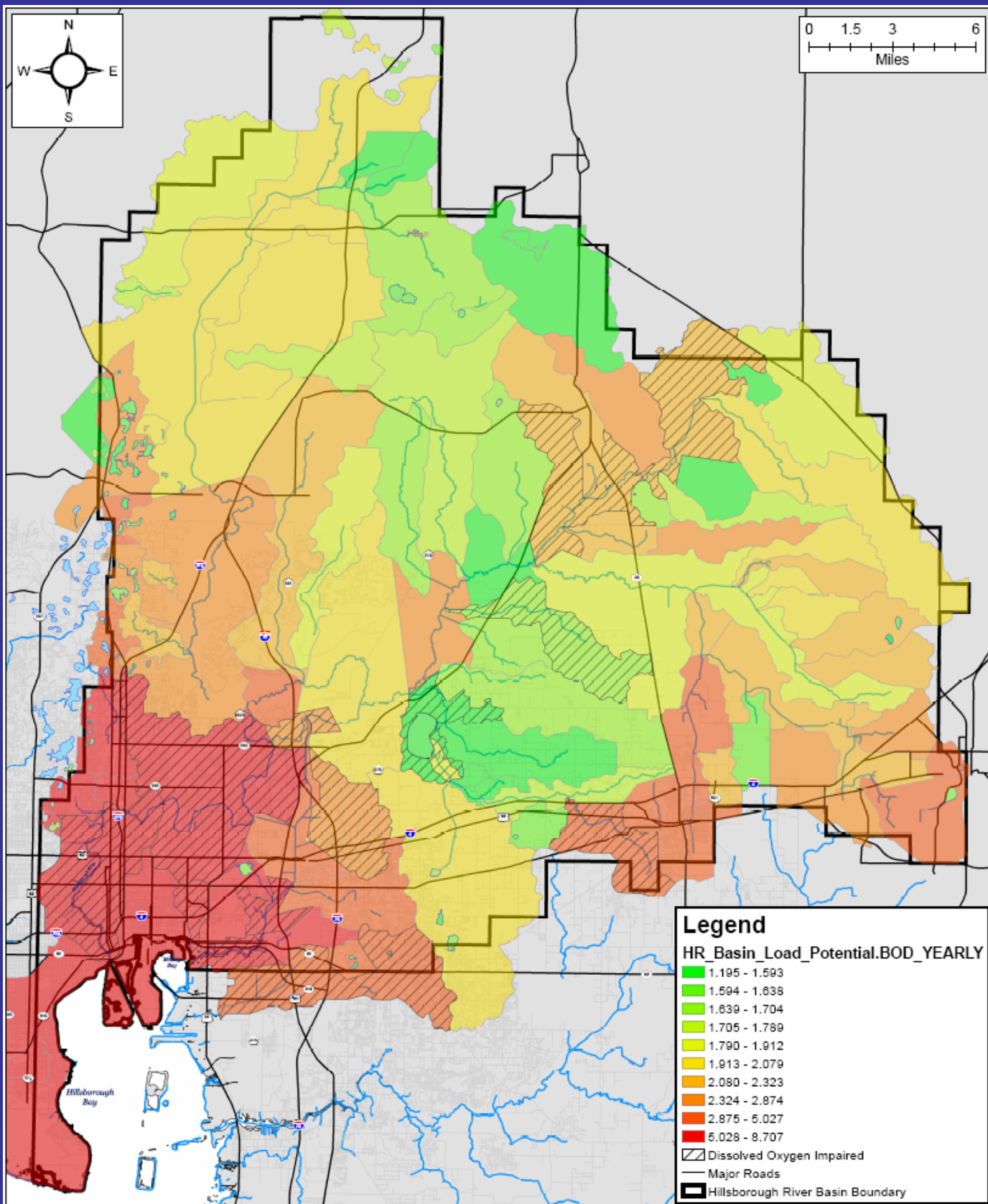
Potential Non-Point Source Total Nitrogen Load from Terrestrial and Wetland Land Uses, per Unit Runoff
 Annual, area-weighted WBID average (mg/L)



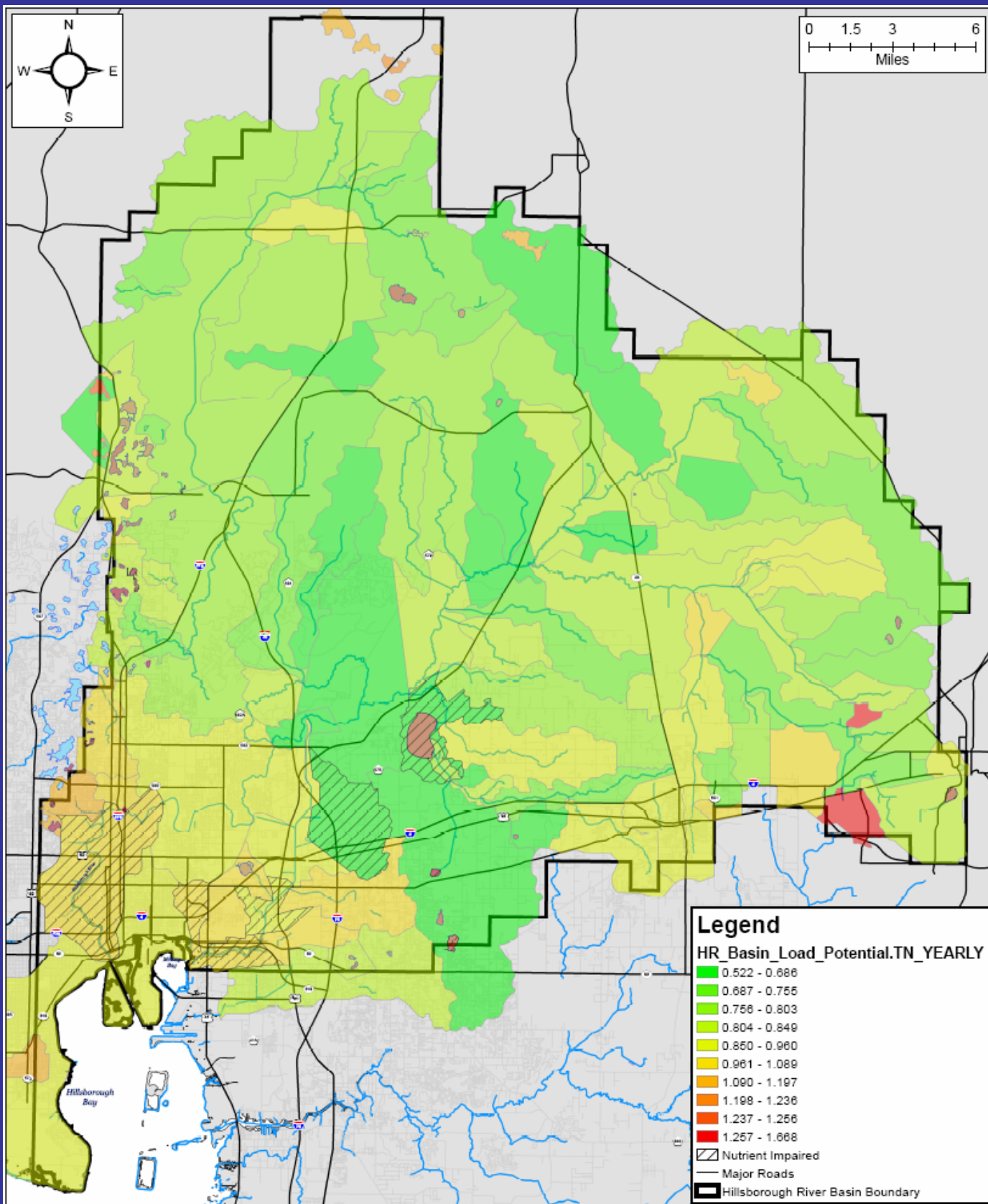
Potential Non-Point Source Total Phosphorus Load from Terrestrial and Wetland Land Uses, per Unit Runoff
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Hillsborough River BMAP area

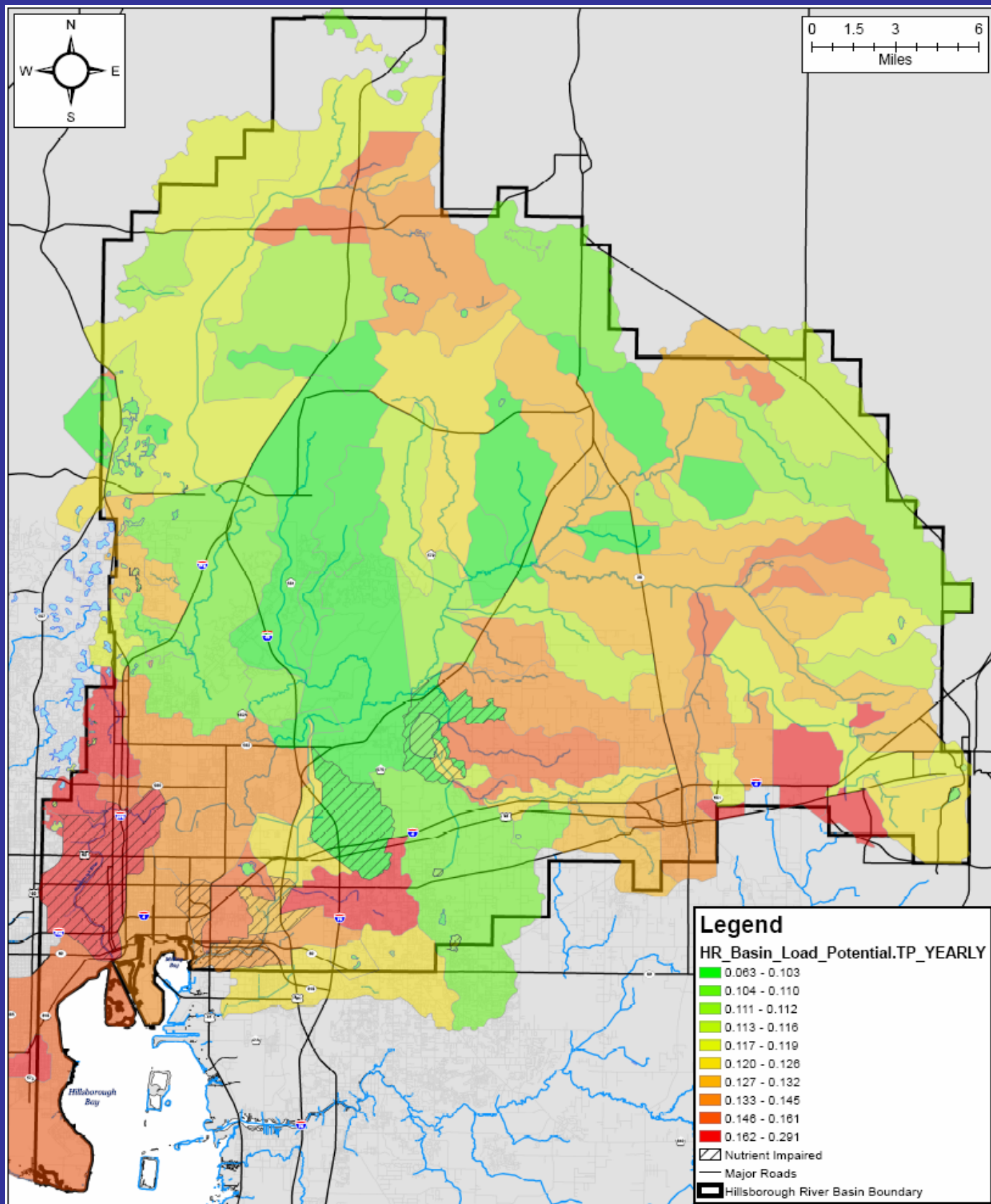


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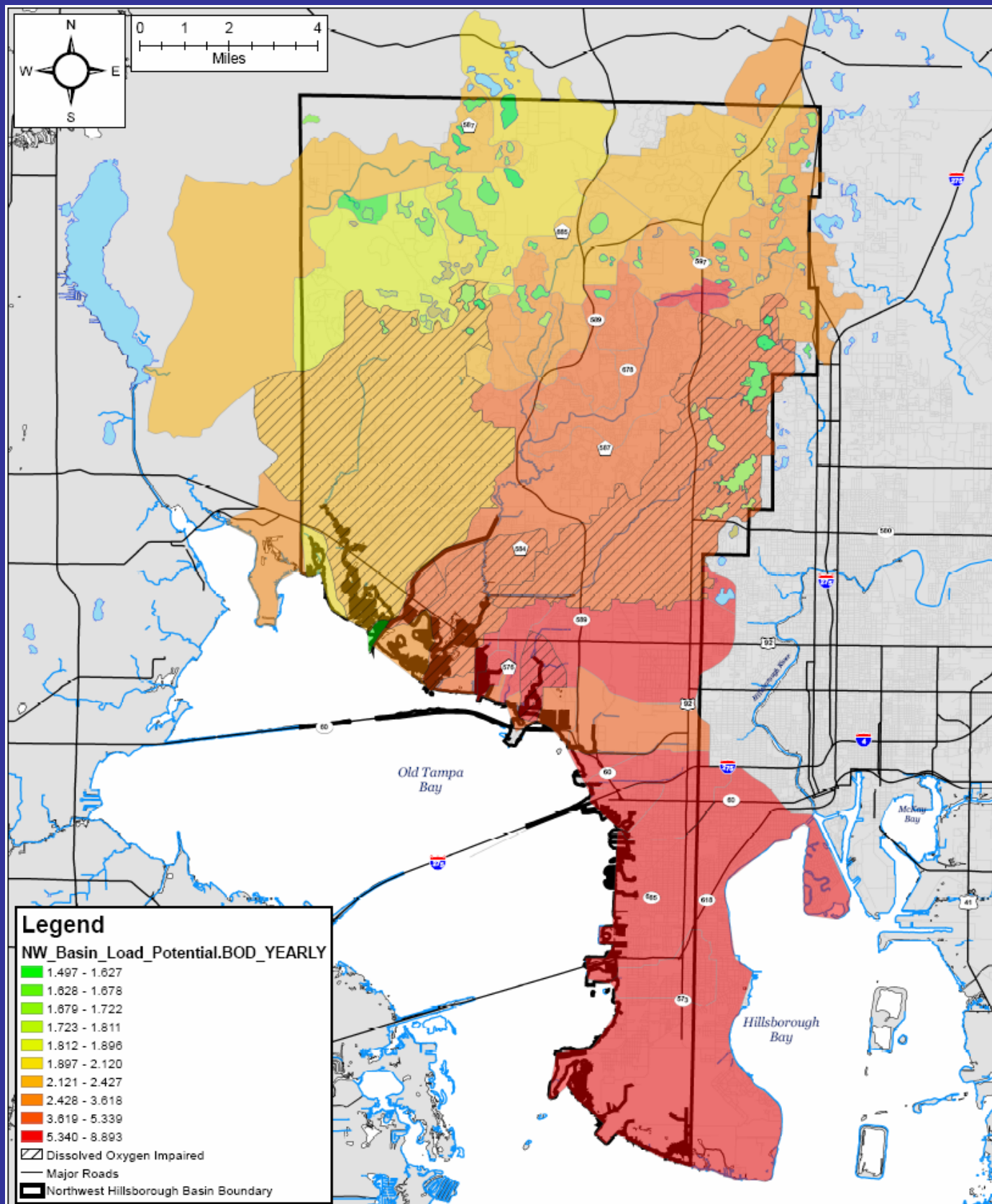
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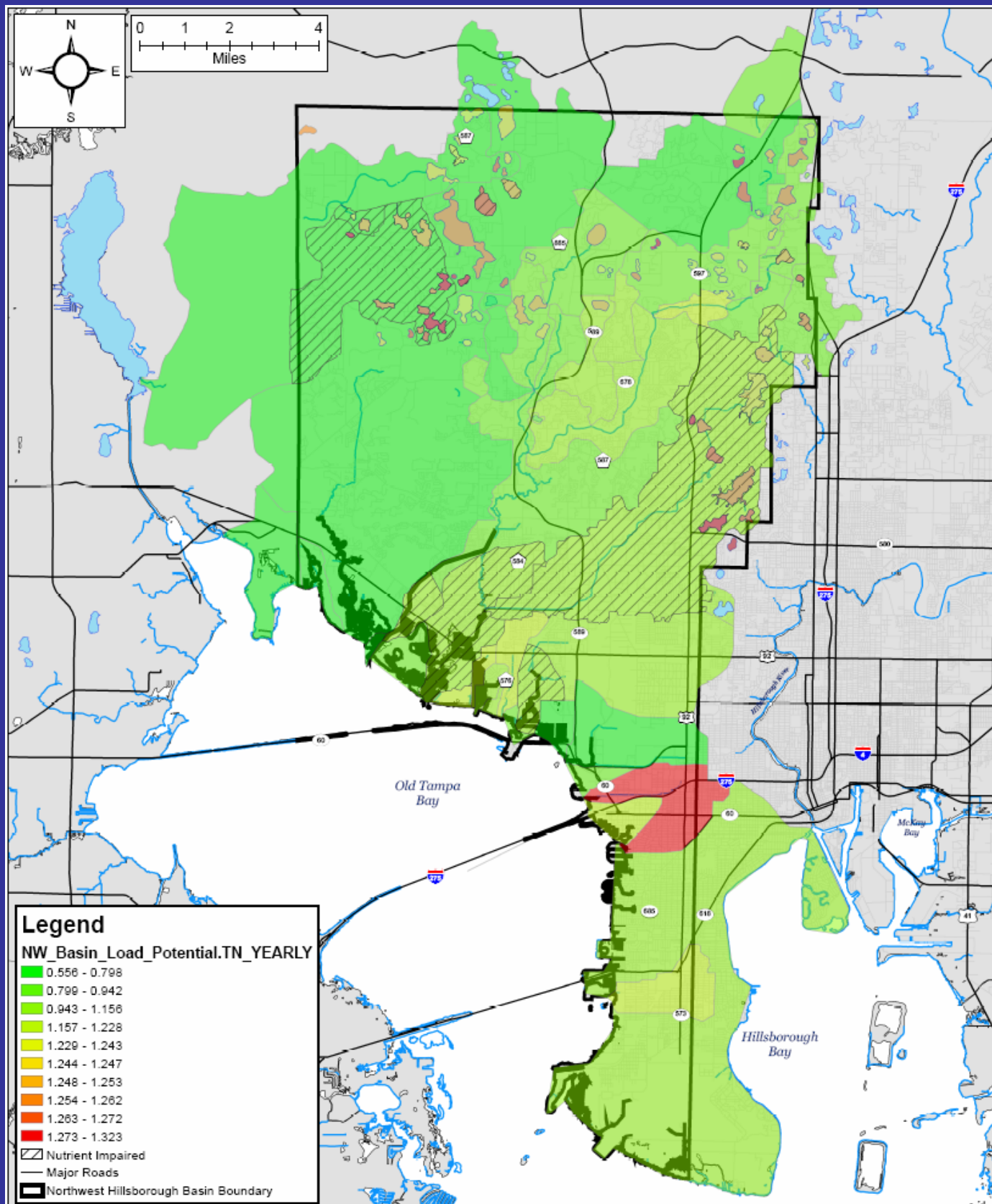
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Northwest Hillsborough BMAP area



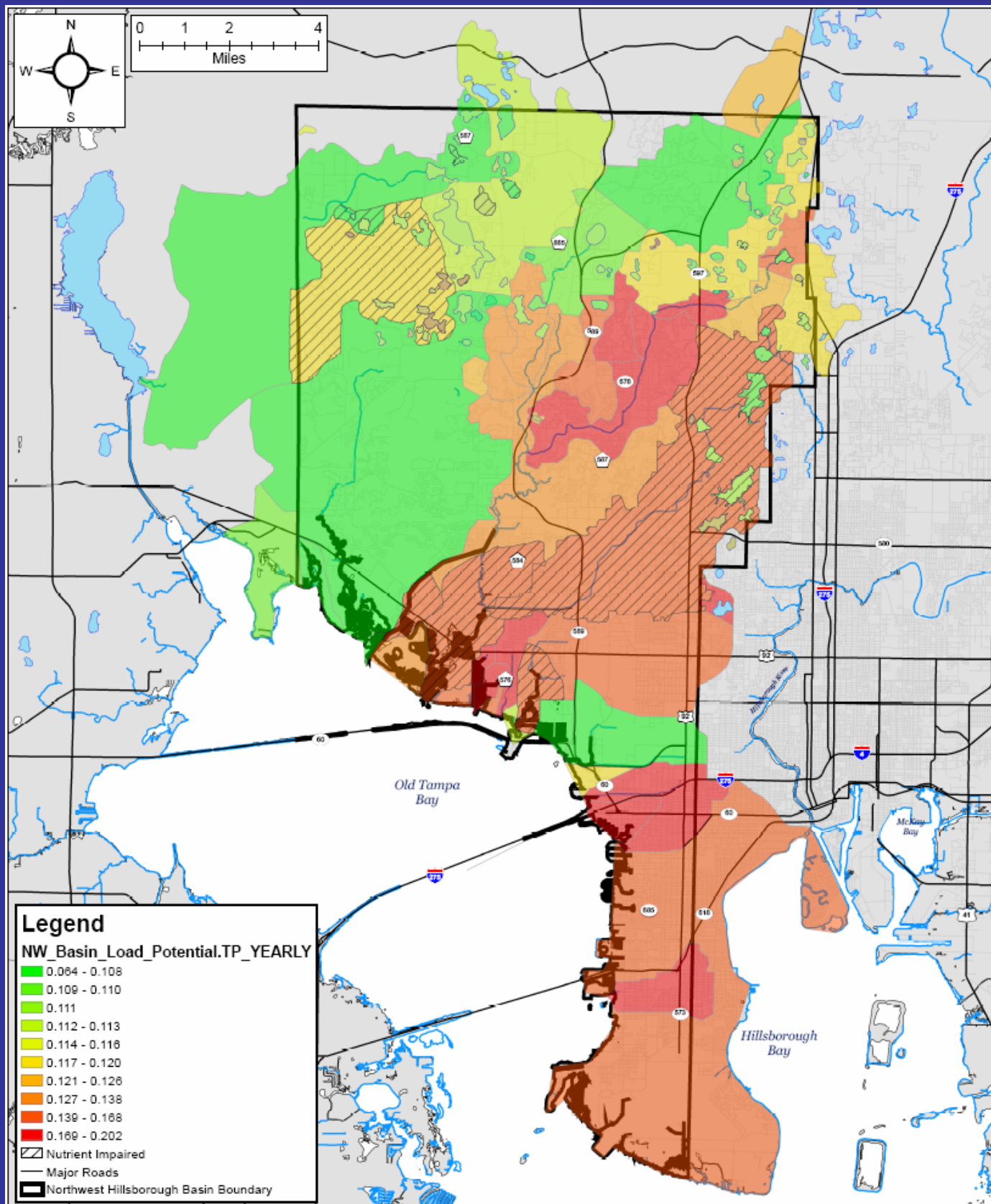
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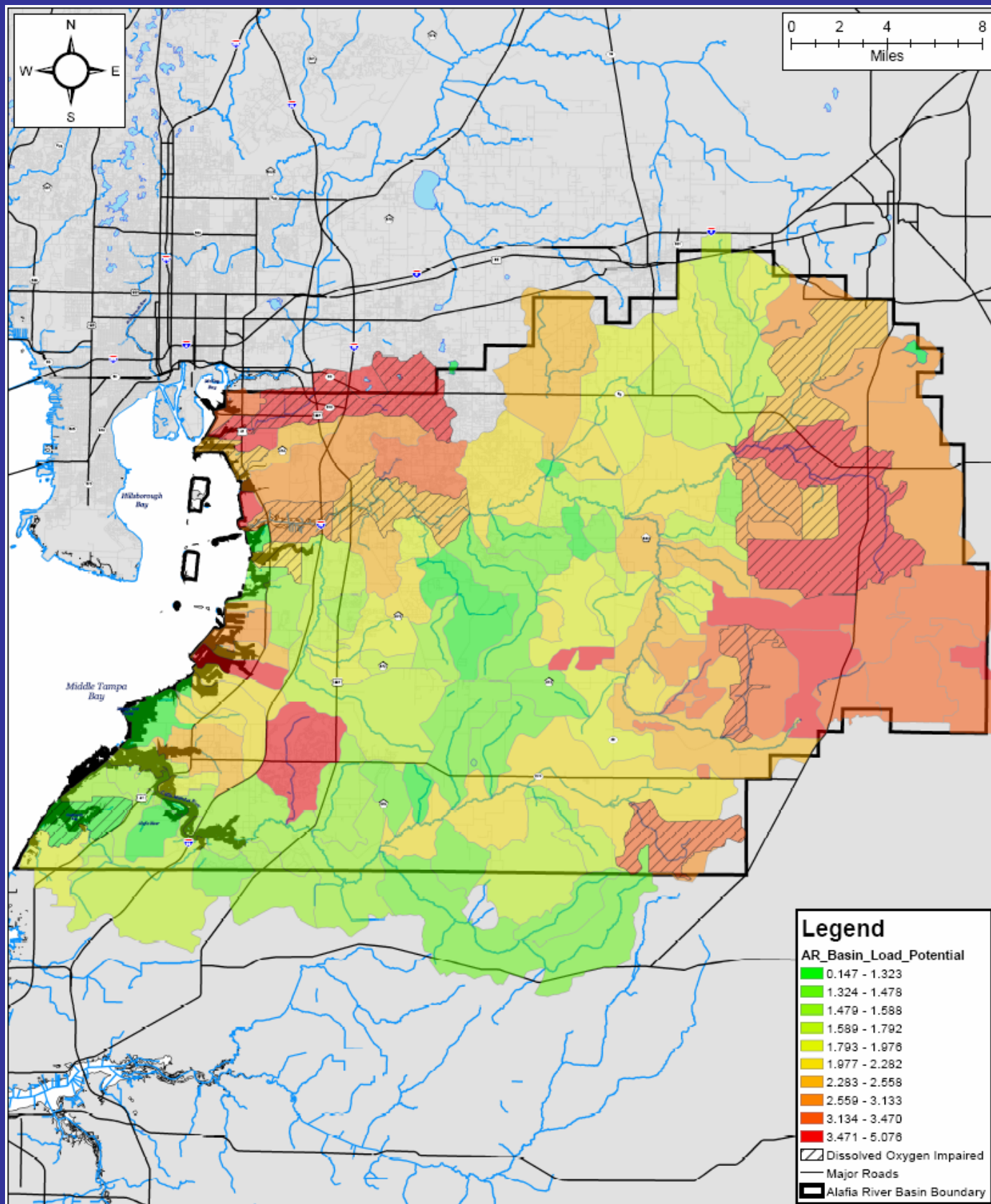
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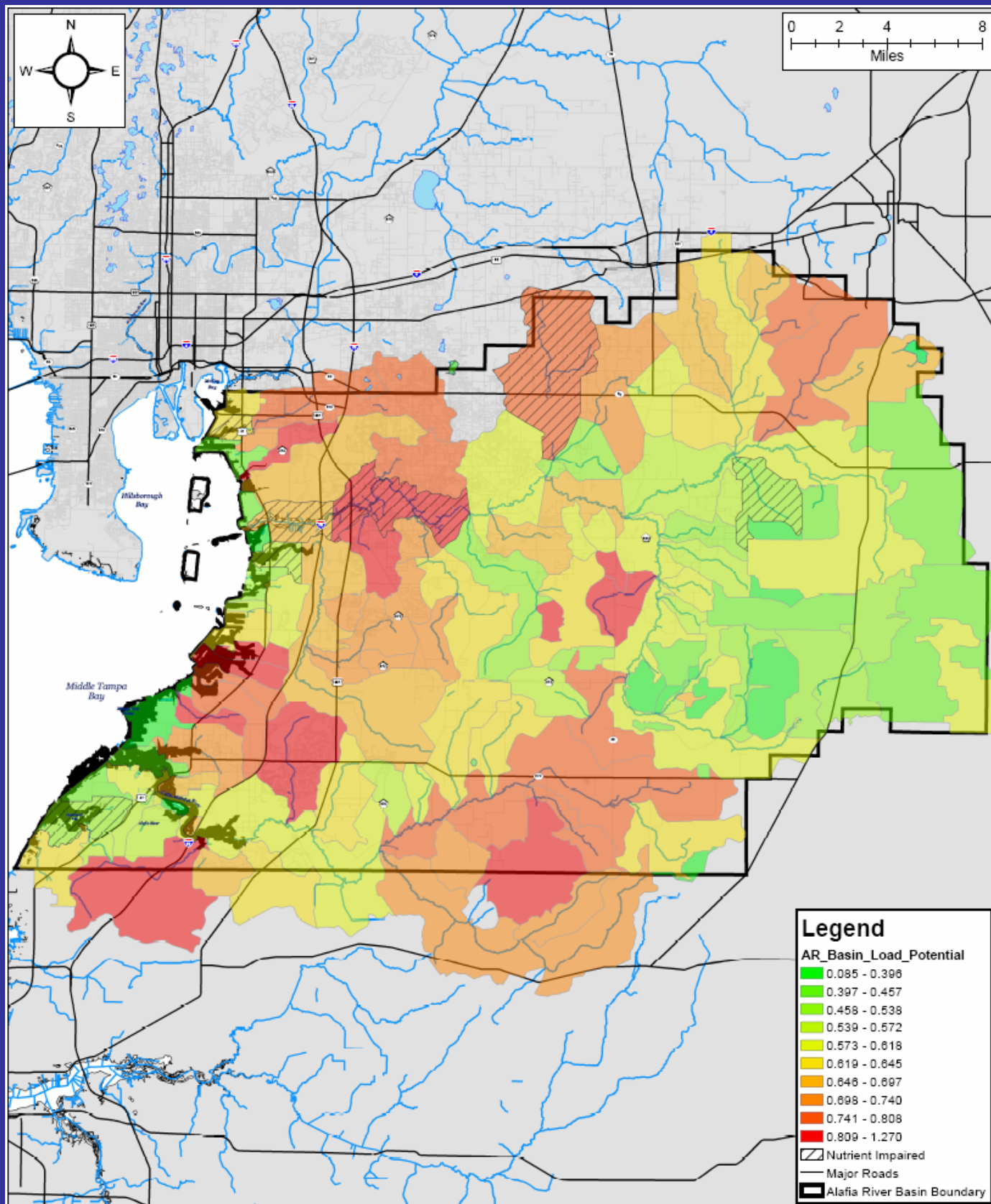
Map Set 2

Estimated potential NPS loads (area-weighted WBID means) for TN, TP and BOD, from terrestrial land cover categories only (i.e., omitting loads from wetland and open water areas)

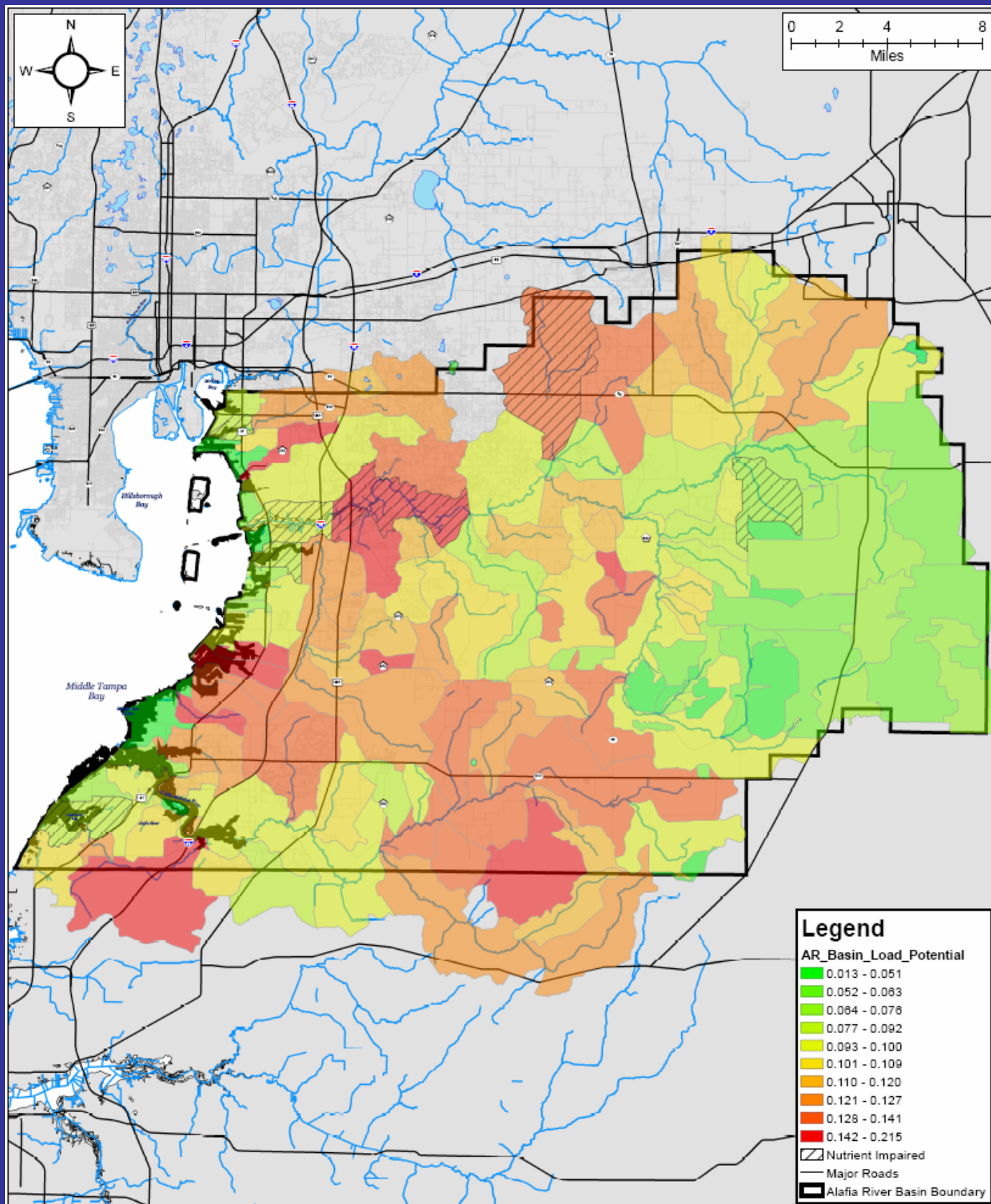
Alafia/Little Manatee BMAP area



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Annual, area-weighted WBID average (mg/L)**



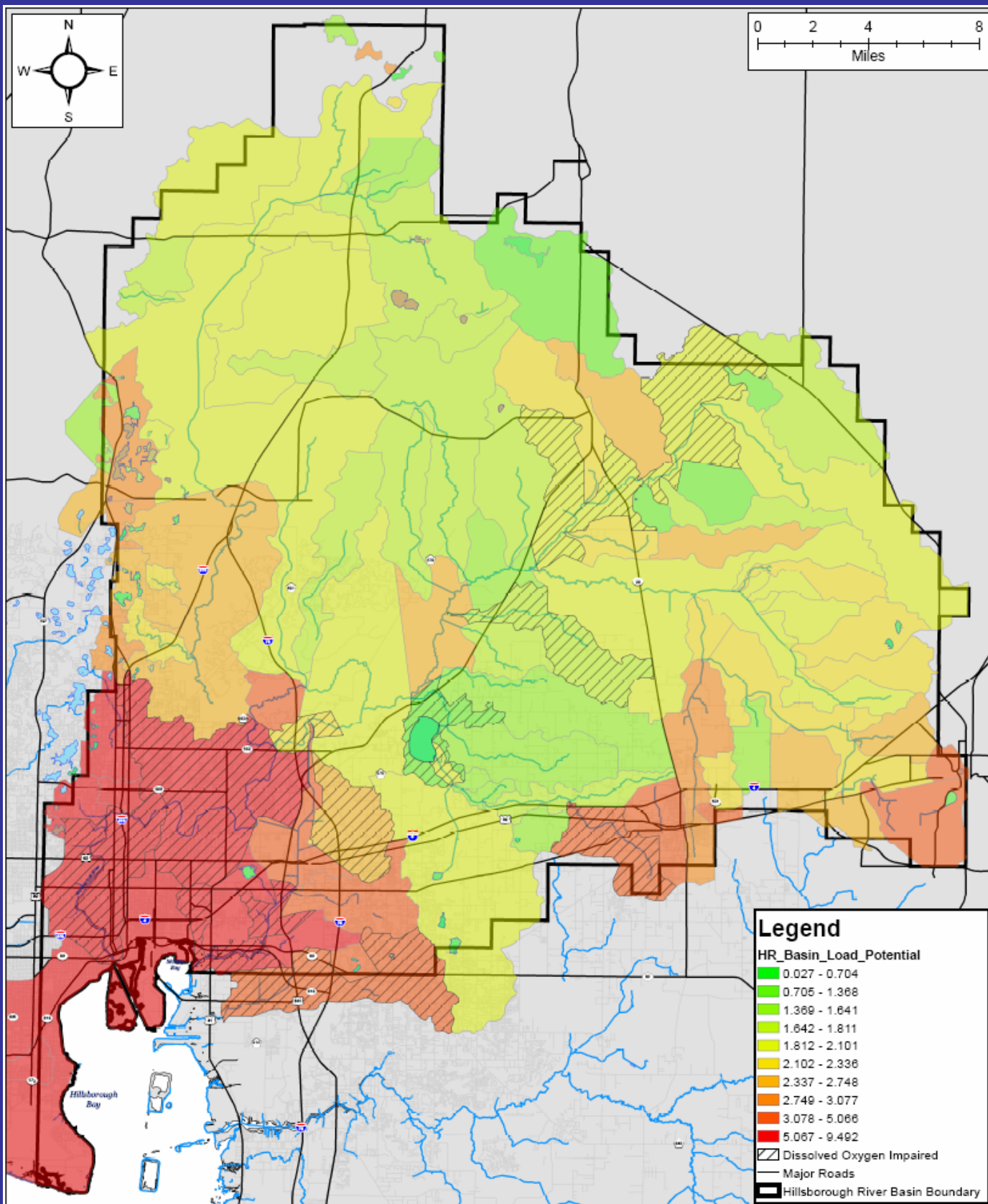
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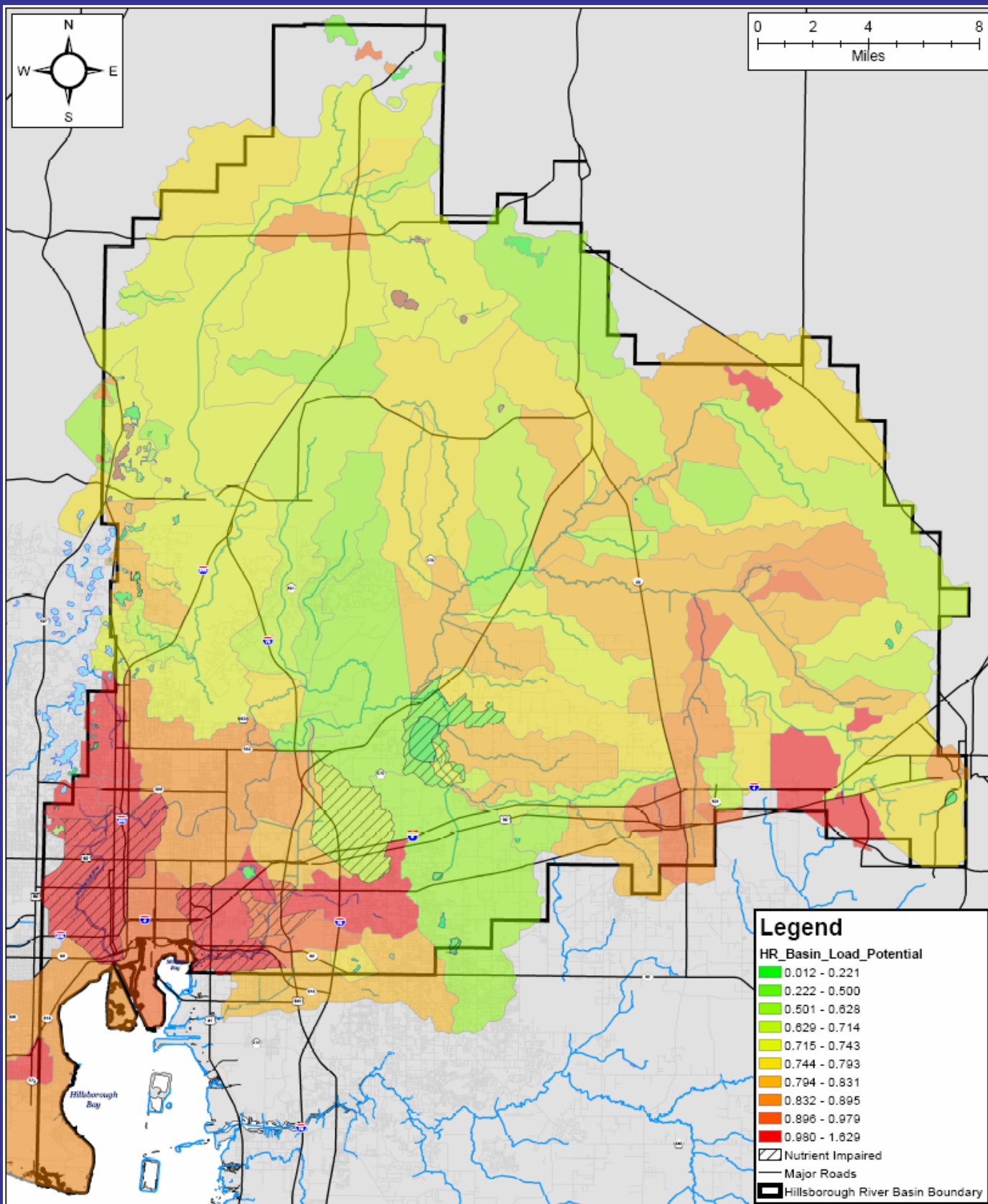
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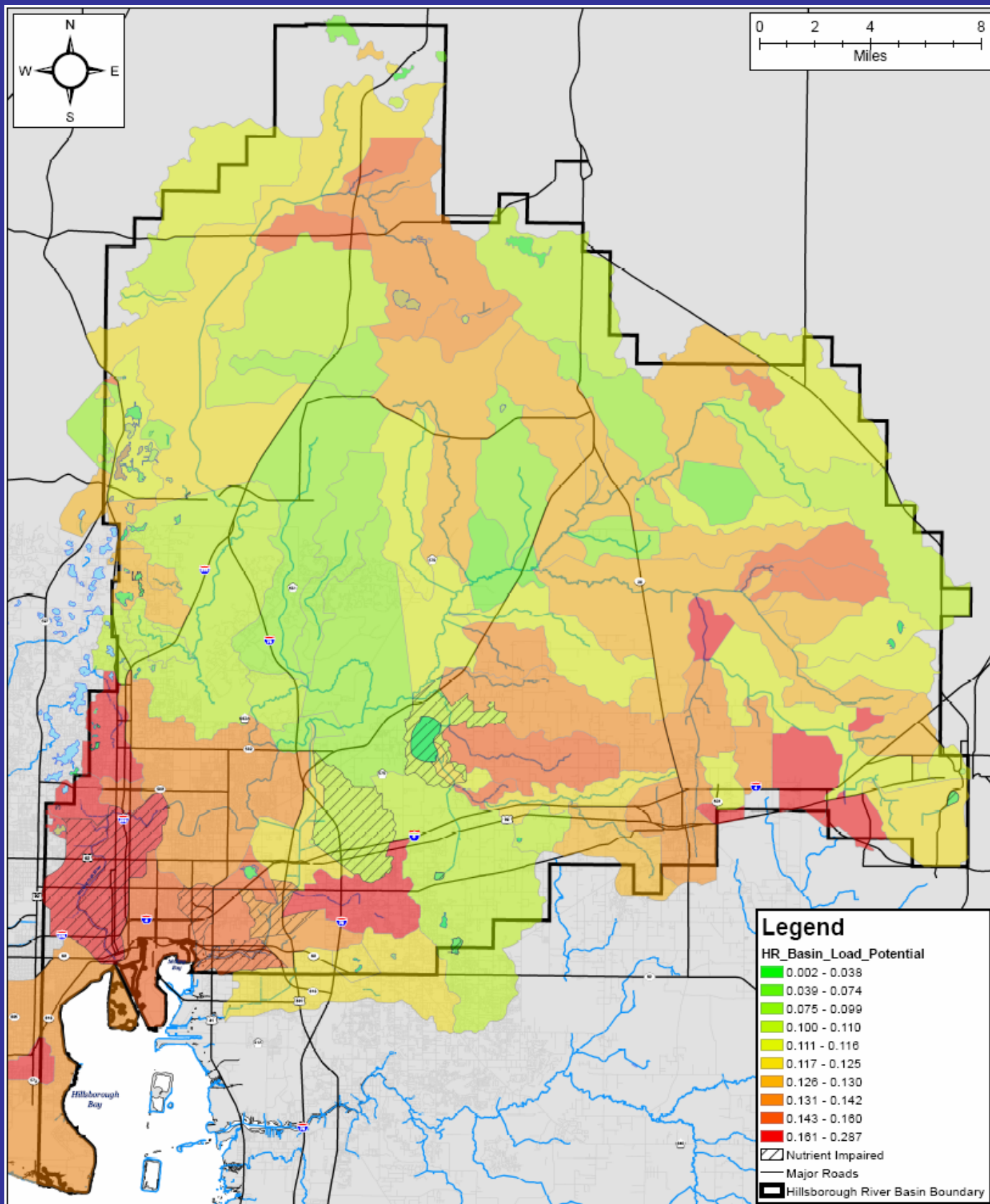
Hillsborough River BMAP area



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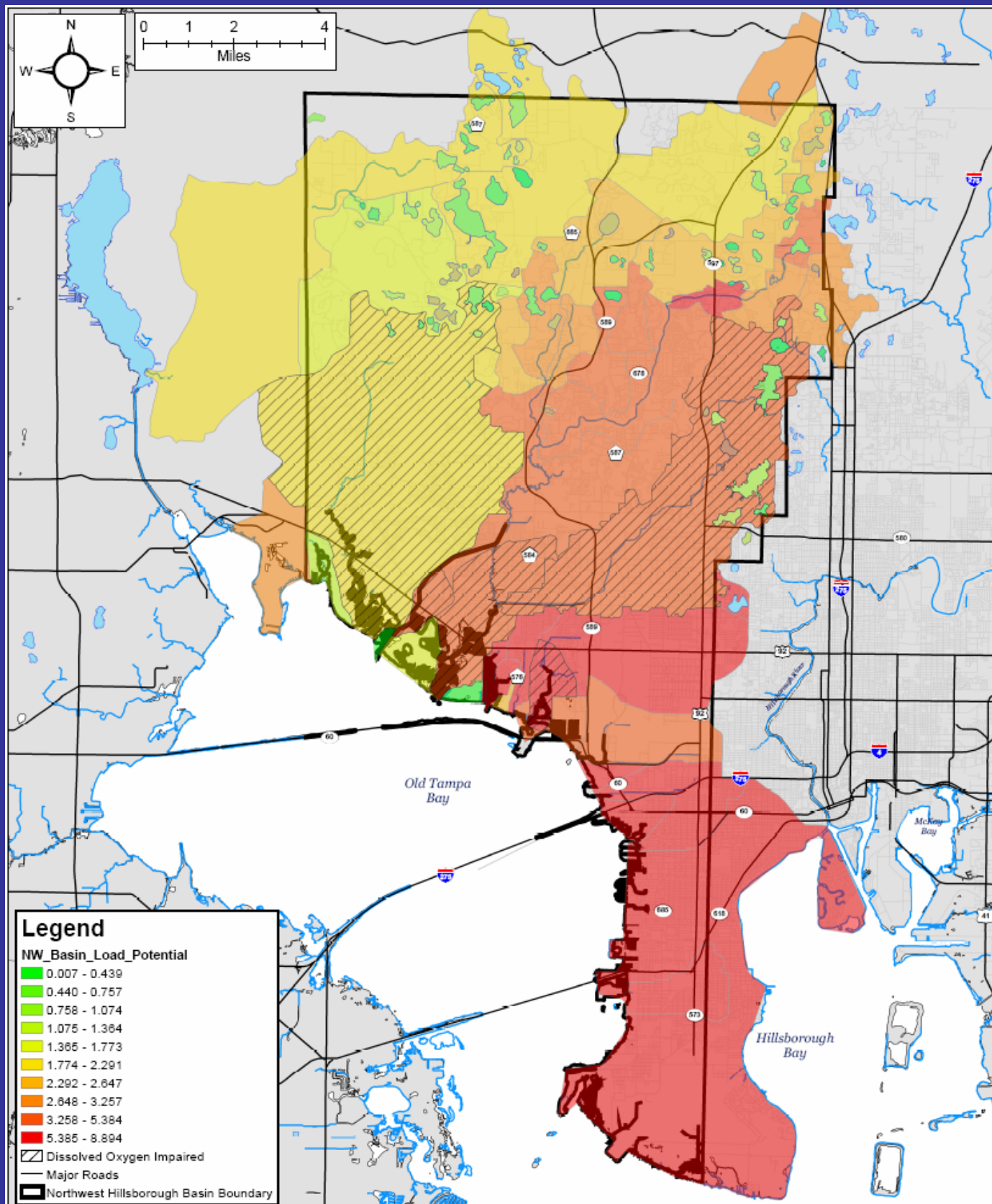
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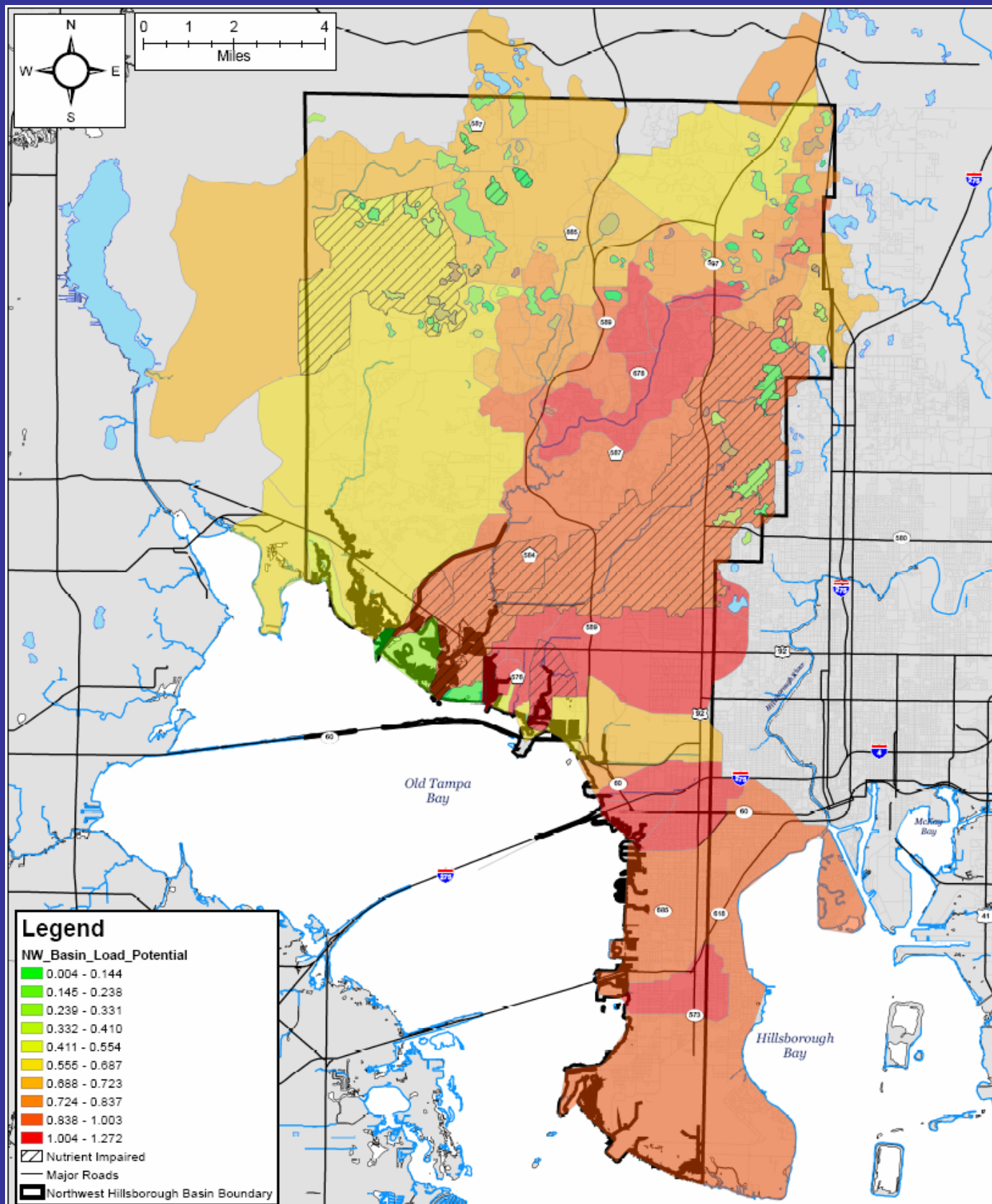
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Northwest Hillsborough BMAP area



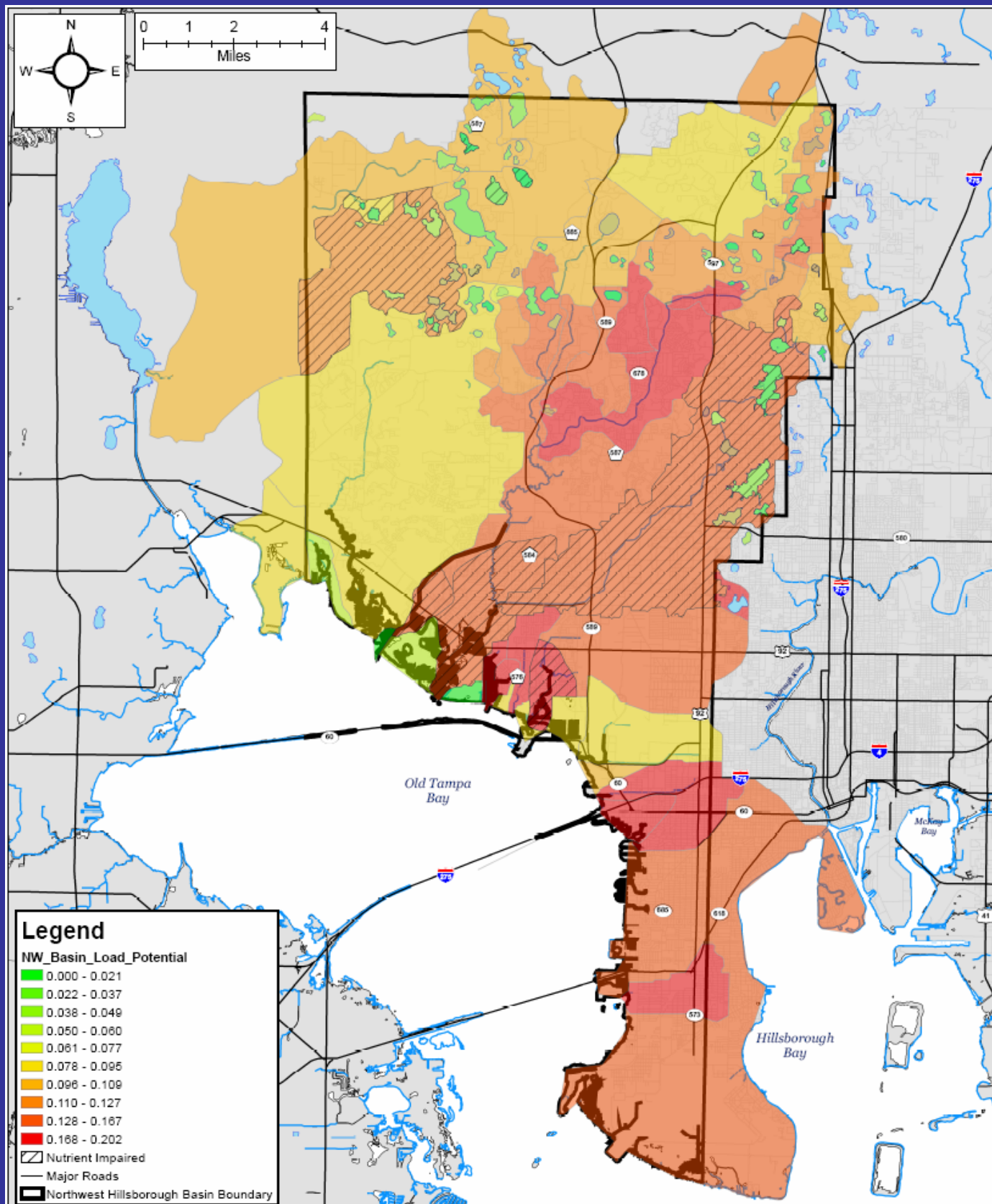
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