2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP

Hillsborough MPO
Metropolitan Planning for Transportation

FORWARD PINELLAS

PASCO COUNTY MPO FLORIDA

MPO METROPOLITAN PLANNING ORGANIZATION HERNANDO/CITRUS
HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION

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Transportation • Innovation • Mobility for Everyone

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2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP

The preparation of this report has been financed in part through grants from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the Metropolitan Planning Program, Section 104(f) of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

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Tampa, FL 33602
(813) 272-5940
www.planhillsborough.org

Contents

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Methodology

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Purpose of the Meeting

The Hillsborough, Pinellas, Pasco, and Hernando/Citrus MPOs held a regional workshop to discuss with Federal, State, and Tribal wildlife, land management and regulatory agencies potential environmental mitigation strategies to include as a part of the Long-Range Transportation Plan updates. For transportation projects, the Long-Range Transportation Plan (LRTP) is required to consider potential environmental mitigation activities, ways in which environmental impact from transportation projects can be avoided, minimized, or mitigated. {23 CFR 450.324(f)(10)}

Invited Organizations

A list of the invited organizations is provided below.

Citrus, Hernando, Hillsborough, Pasco, and Pinellas County
Courtney Campbell Causeway Scenic Highway Corridor
Engineering Services Administration
Environmental Protection Commission
FDOT
FL Department of Agriculture and Consumer Services
FL Department of Economic Opportunity
FL Department of Environmental Protection
FL Fish and Wildlife Conservation Commission
FL Fish and Wildlife Conservation Commission
Florida Department of Transportation
Local Mitigation Strategy Working Group for Pinellas County
Local Mitigation Strategy Working Group for Hillsborough County
MacDill Air Force Base
Pinellas Suncoast Transit Authority (PSTA)
Seminole Tribe of Florida
Southwest Florida Water Management District
Tampa Bay Estuary Program
Tampa Bay Regional Planning Council
Tampa Bay Science Advisory Panel
Tampa Bay Regional Planning Council
Teco Energy
Tindale-Oliver & Association
University of South Florida
Urban Land Institute
US Environmental Protection Agency
US Fish and Wildlife Service

Background and Questions

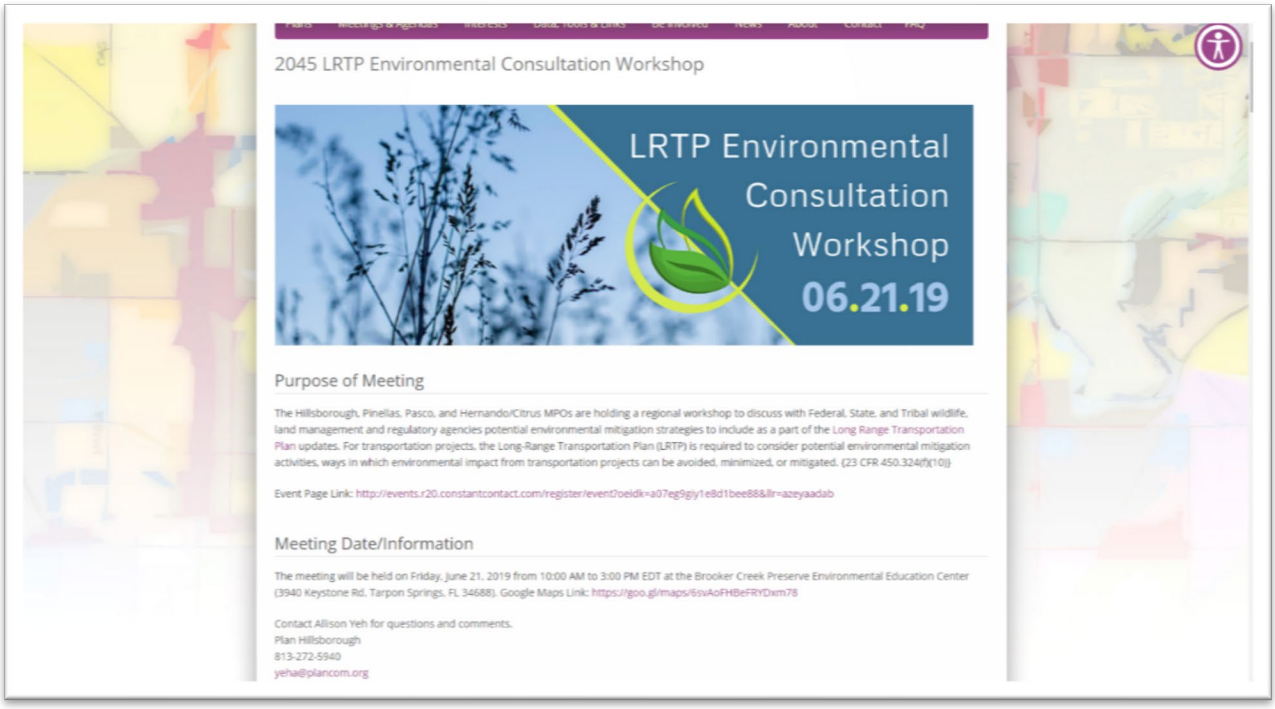
For highway projects, the LRTP must include a discussion on the types of potential environmental mitigation activities and potential areas to carry out these activities. The environmental mitigation discussion in the LRTP must be developed in consultation with Federal, State and Tribal wildlife, land management and regulatory agencies. The LRTP discussion can be at a system-wide level to identify areas where mitigation may be undertaken (perhaps illustrated on a map) and what kinds of mitigation strategies, policies and/or programs may be used when these environmental areas are affected by projects in the LRTP. This discussion in the LRTP would identify broader environmental mitigation needs and opportunities that individual transportation projects might take advantage of later.

At the workshop, the following questions were posed to workshop participants:

- What policies/programs/activities does your agency currently undertake to mitigate development impacts to the environment?
- What limitations are there for each of these areas?
    - Is there no capacity remaining in mitigation banks?
    - Is there no consideration for new mitigation banks in the future?
    - Is there limited success with certain activities?
- How should critical habitat considerations be addressed to protect wildlife?
- Are you aware of any untapped opportunities to enhance environmental mitigation activities?

Record Agency Feedback

Prior to the date of the workshop, a website was developed for the meeting information. Map drafts were uploaded to gain comments prior to the event. Maps were presented again at the workshop. During the meeting, feedback was collected via discussion facilitated by staff after an introductory presentation. Group discussion was held on regional-wide environmental issues related to transportation planning. Afternoon breakout sessions by county were held and recorded. All feedback was captured via discussion by staff posted comments on maps and flip charts and written on the technical memorandum. The website was kept open for two weeks for additional comments.



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Maps Reviewed

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West Central Florida Regional Maps

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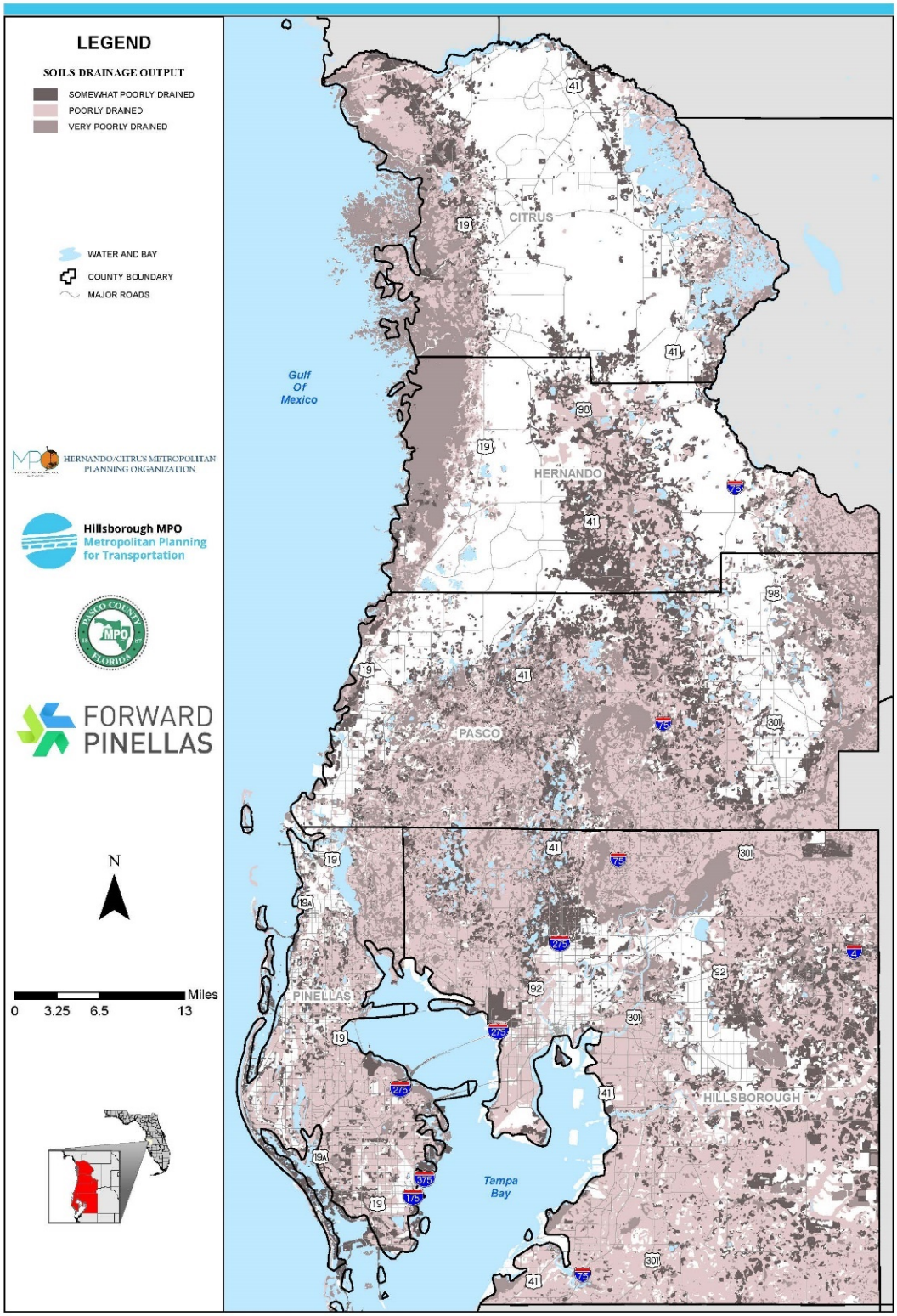
WCF REGIONAL SOILS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



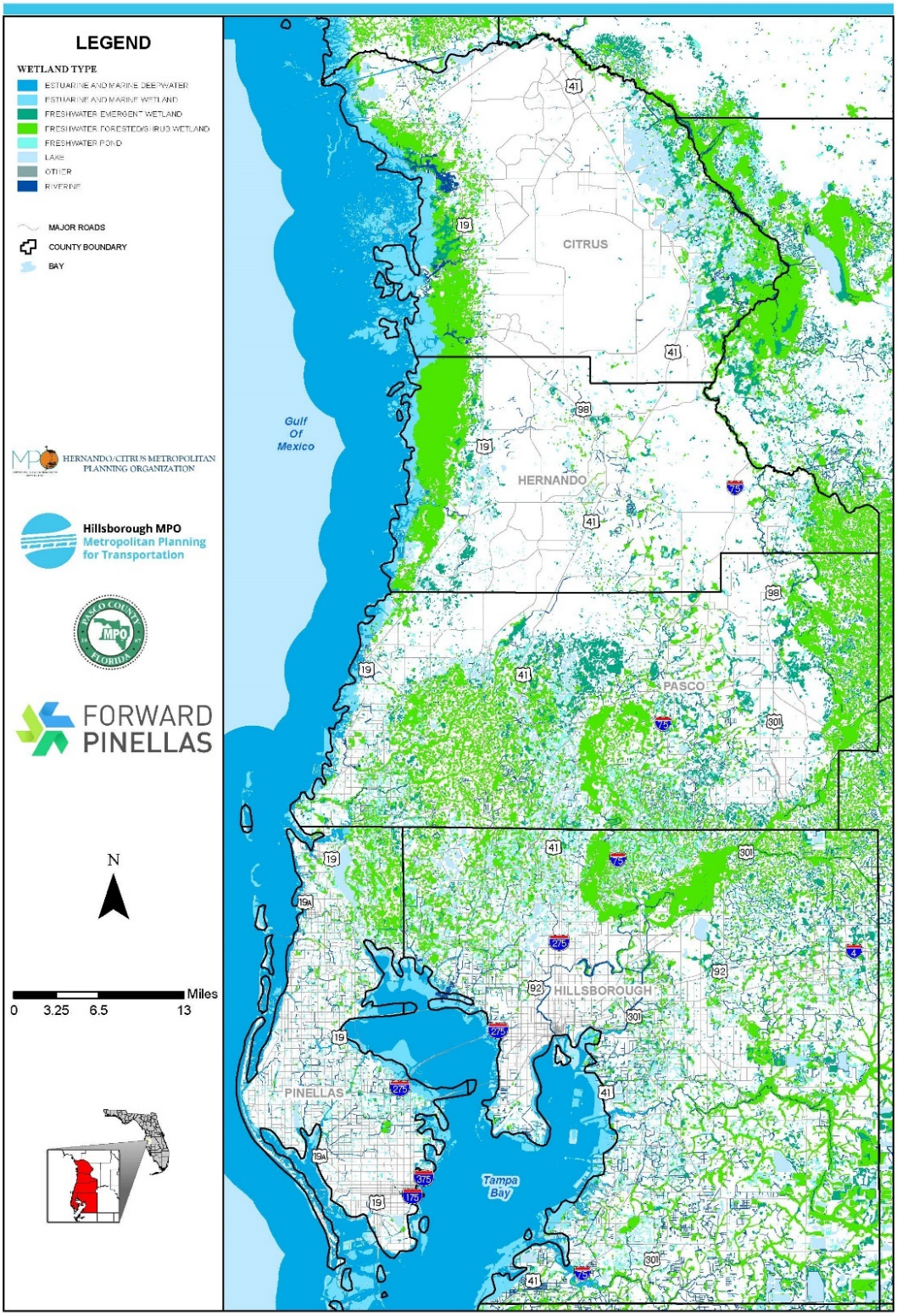
Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Soils - NRCS = National Resources Conservation Service, Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

G:\gisroot\Projects\Roger\2045_LRTP\Environmental Workshop\WCF_Regional_Soils_Classification_11x17.mxd
Author: Roger Mathie Updated: June 6, 2019

WCF REGIONAL WETLANDS

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



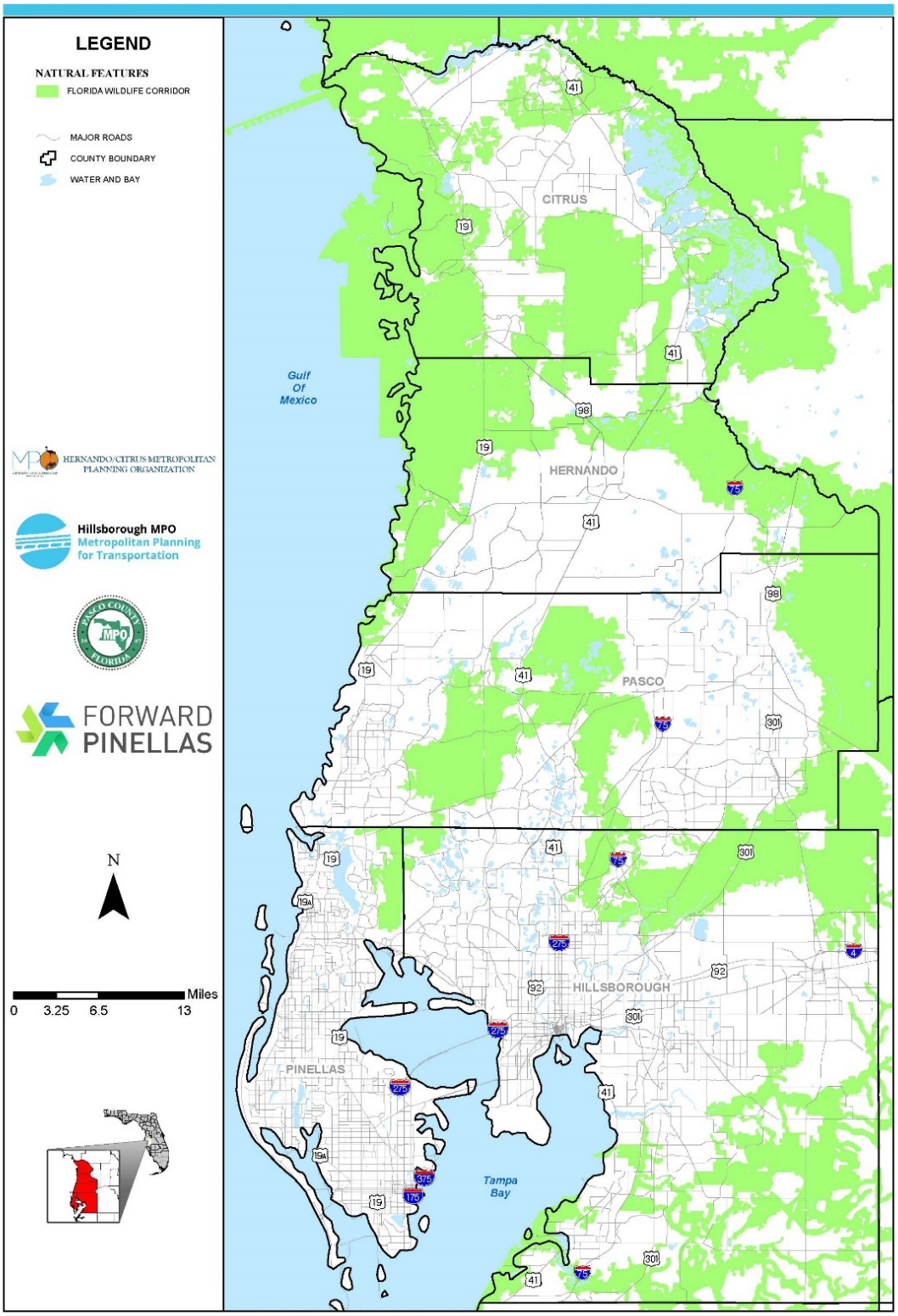
Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Wetlands - National Wetlands Inventory. Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

G:\gisroot\Projects\Cathy\Arcmap\NEW_MXD\Areawide\MPO_Forward_Pinellas_REGIONAL_WETLANDS_11x17.mxd
Author: Cathy Welsh Updated: June 5, 2019

WCF REGIONAL FLORIDA WILDLIFE CORRIDOR

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Florida Wildlife Corridors - floridawildlifecorridor.org. Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

G:\gisroot\Projects\Cathy\Arcmap\NEW_MXD\Areawide\MPO_Forward_Pinellas_REGIONAL_WILDLIFE_CORRIDOR_11x17.mxd
Author: Cathy Welsh Updated: June 5, 2019

Comments:

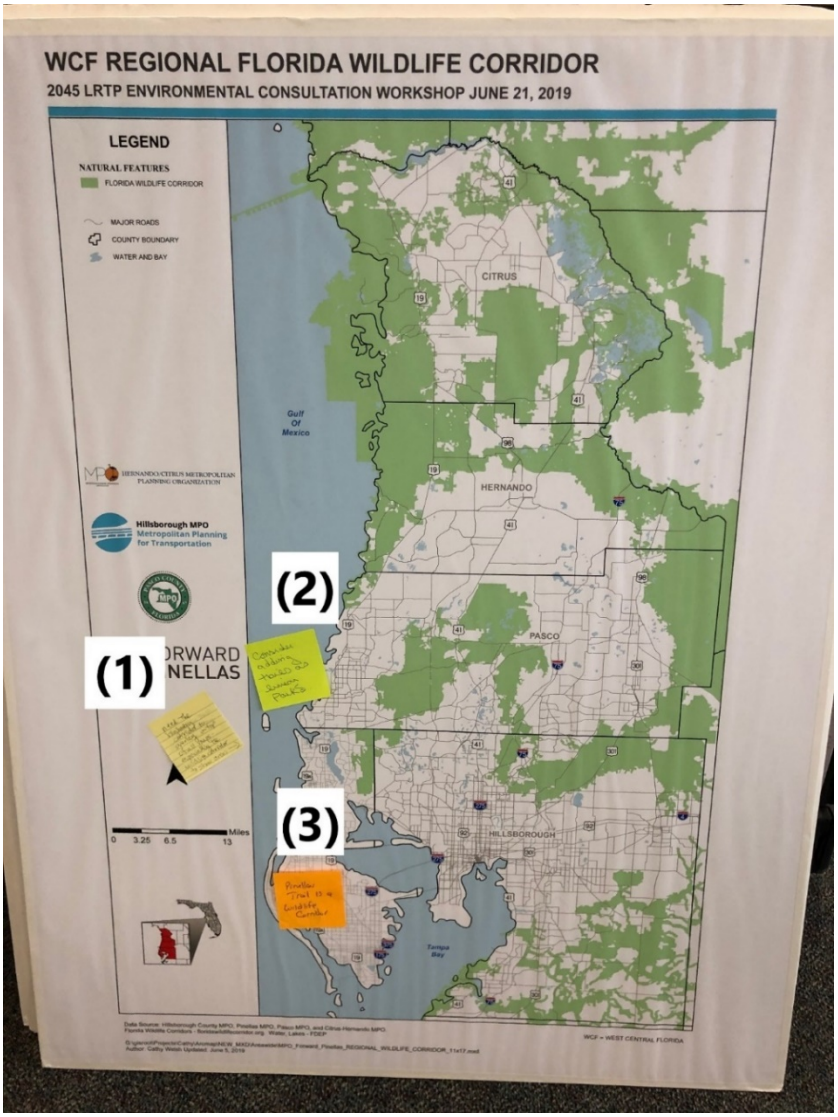
Wildlife Corridors:

All Counties - Need the highway corridor to overlay on top of all maps - especially the wildlife corridor to show areas; Consider adding trails as linear parks; I-4: wildlife crossings considered in permitting (SWFWMD); Prescribed burns needed, but public also needs to be informed/educated on the topic

Hillsborough - Crossings cannot be considered locally - education needed at decision-making stage; HC possesses wildlife crossings; provide them in the initial transportation plans/maps.

Pasco - 1 cent tax in Pasco: environmental lands - adopted ecological corridors.

Pinellas - Pinellas Trail is a wildlife corridor.

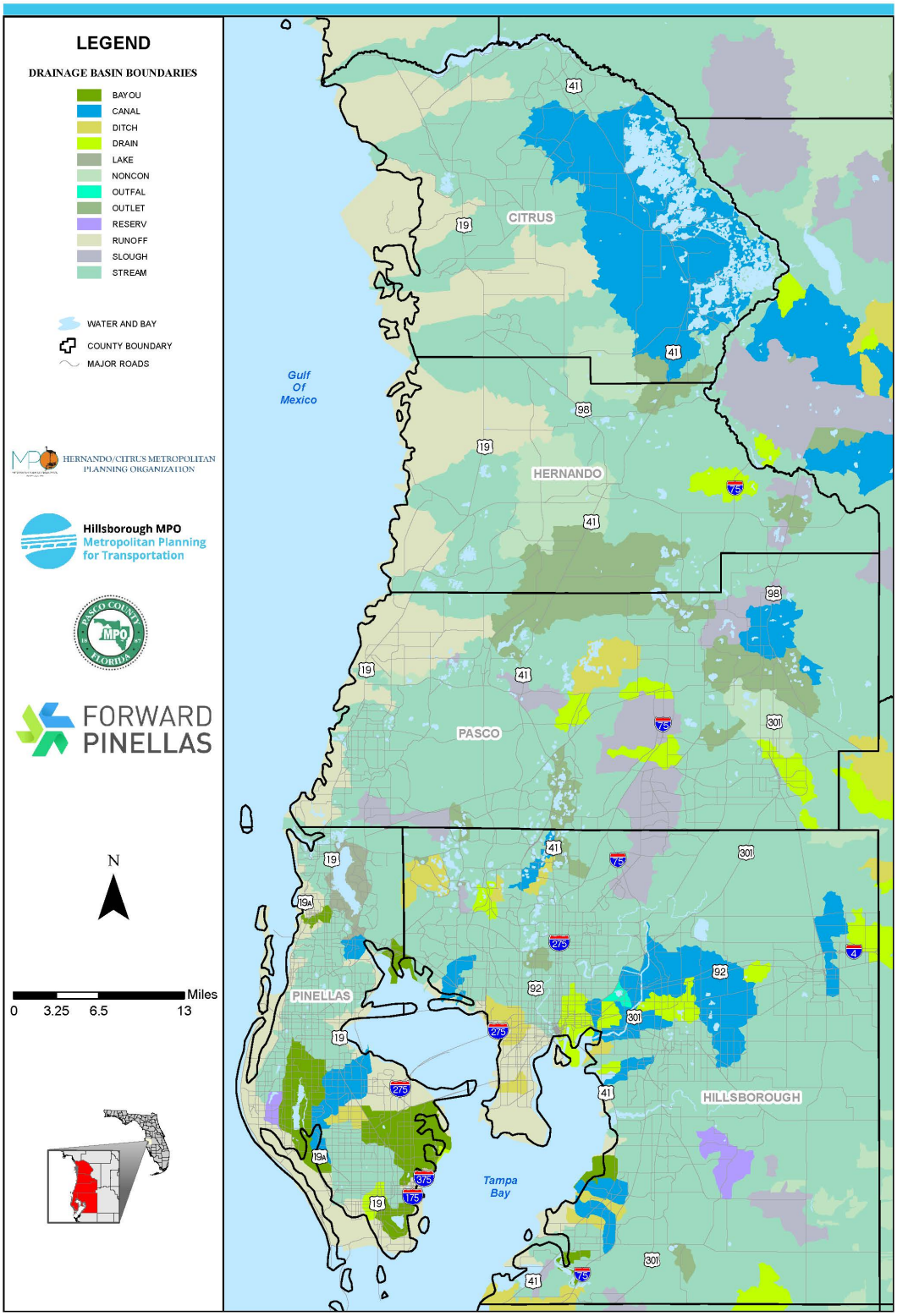


Wildlife Corridors:

(1) Need the highway corridor to overlay on top of all maps - especially the wildlife corridor to show areas.
(2) Consider adding trails as linear parks.
(3) Pinellas Trail is a wildlife corridor.

WCF REGIONAL DRAINAGE BASIN CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Drainage Basins - SWFWMD, Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

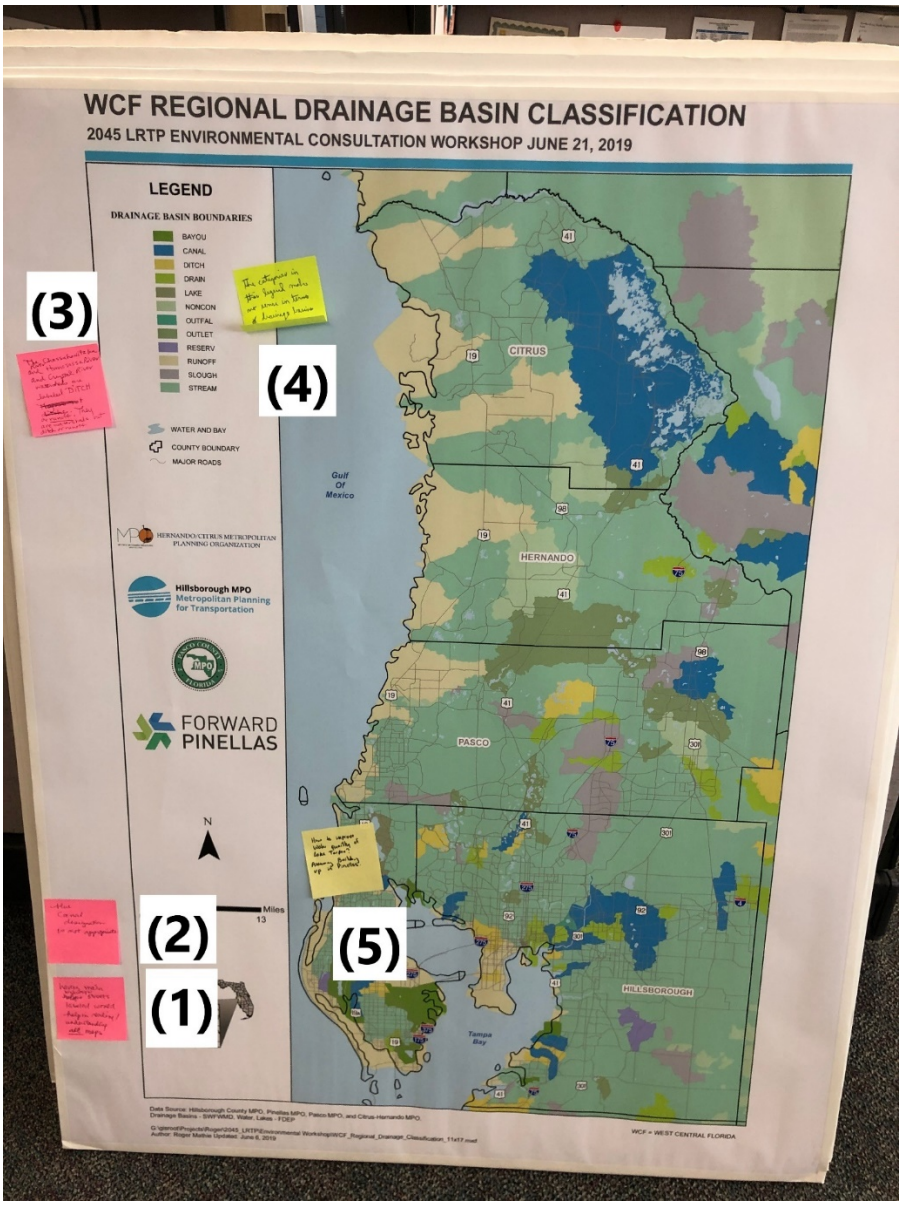
G:\gisroot\Projects\Roger\2045_LRTP\Environmental Workshop\WCF_Regional_Drainage_Classification_11x17.mxd
Author: Roger Mathie Updated: June 6, 2019

<u>Comments</u>:

Drainage Basin Classification:

All Counties - The categories in this legend make no sense in terms of drainage basin delineated; The Chassahowitzka River and Homosassa River and Crystal River watersheds as labeled DITCH or RUNOFF. They are watersheds not ditch or runoff; The canal designation is not appropriate; Having main highways and streets labeled would help in reading/understanding ALL maps.

Pinellas - How to improve water quality of Lake Tarpon? Assuming building up in Pinellas.



Drainage Basin Classification:

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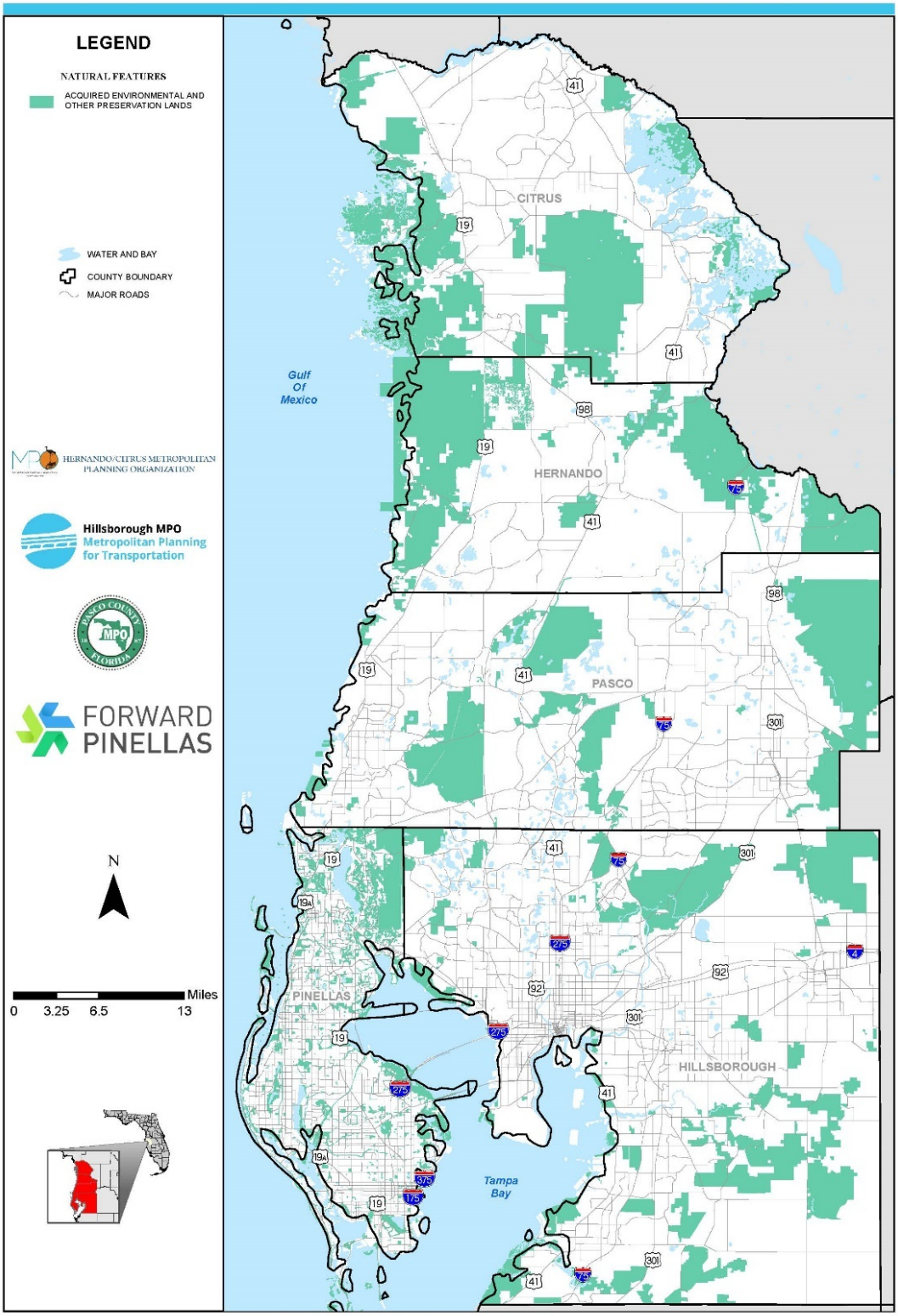
(2) The canal designation is not appropriate.
(3) The Chassahowitzka River and Homosassa River and Crystal River watersheds as labeled DITCH or RUNOFF. They are watersheds not ditch or runoff.
(4) The categories in this legend make no sense in terms of drainage basin delineated.
(5) How to improve water quality of Lake Tarpon? Assuming building up in Pinellas?

WCF REGIONAL NATURAL CONSERVATION LANDS

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Soils - NRCS = National Resources Conservation Service, Water, Lakes - FDEP

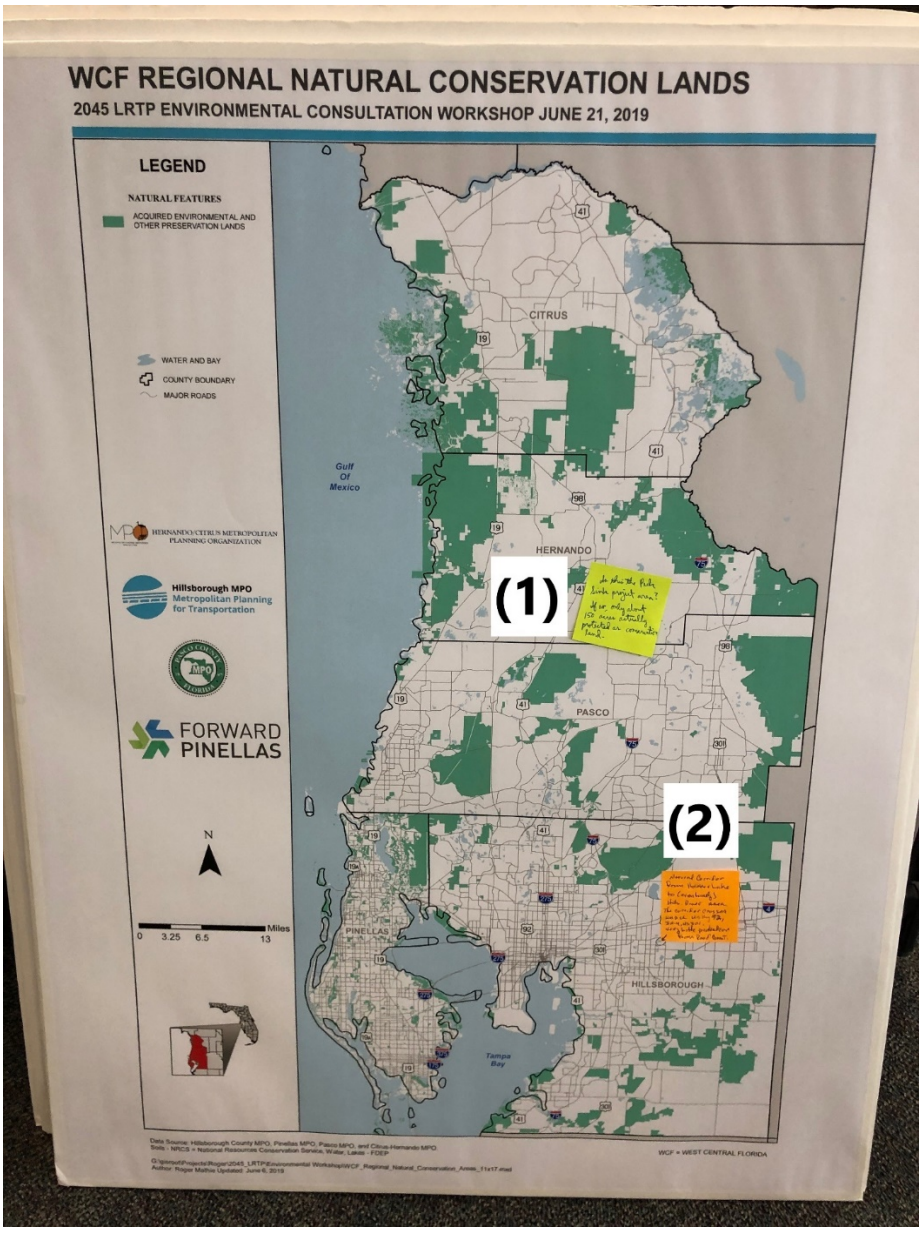
WCF = WEST CENTRAL FLORIDA

G:\gisroot\Projects\Roger\2045_LRTP\Environmental Workshop\WCF_Regional_Natural_Conservation_Areas_11x17.mxd
Author: Roger Mathie Updated: June 6, 2019

<u>Comments</u>:

Natural Conservation Lands:

Hernando - Is this the Peck Sink Project Area? If not, only 150 acres are actually protected as conservation land.

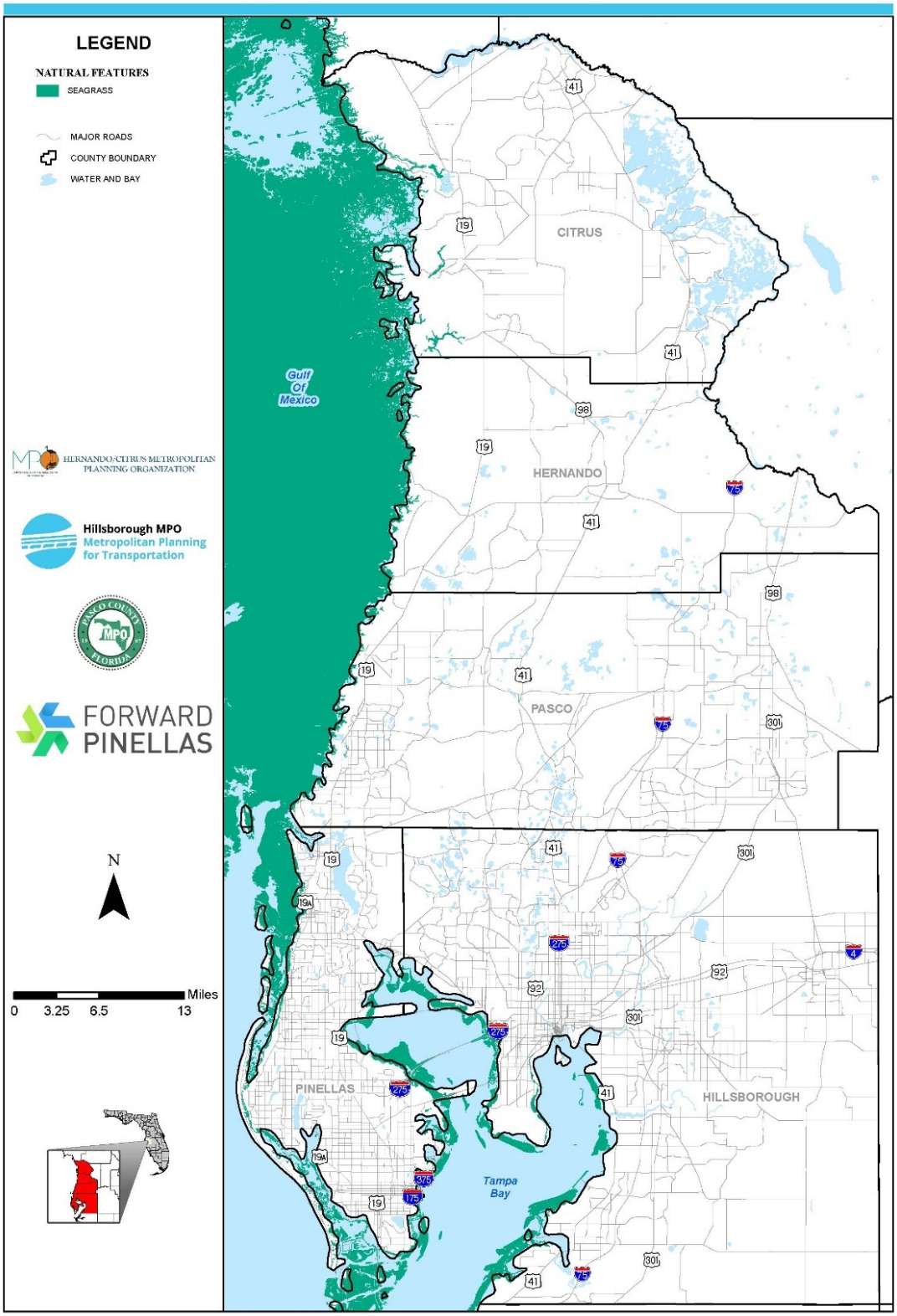


Natural Conservation Lands:

(1) Is this the Peck Sink Project Area? If not, only 150 acres are actually protected as conservation land.
(2) Natural Corridor from Hooker Lake to (eventually) Hillsborough River area. The corridor crosses under US Hwy 92, very little protection from road construction.

WCF REGIONAL SEAGRASS

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Seagrass - MyFlorida.com. Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

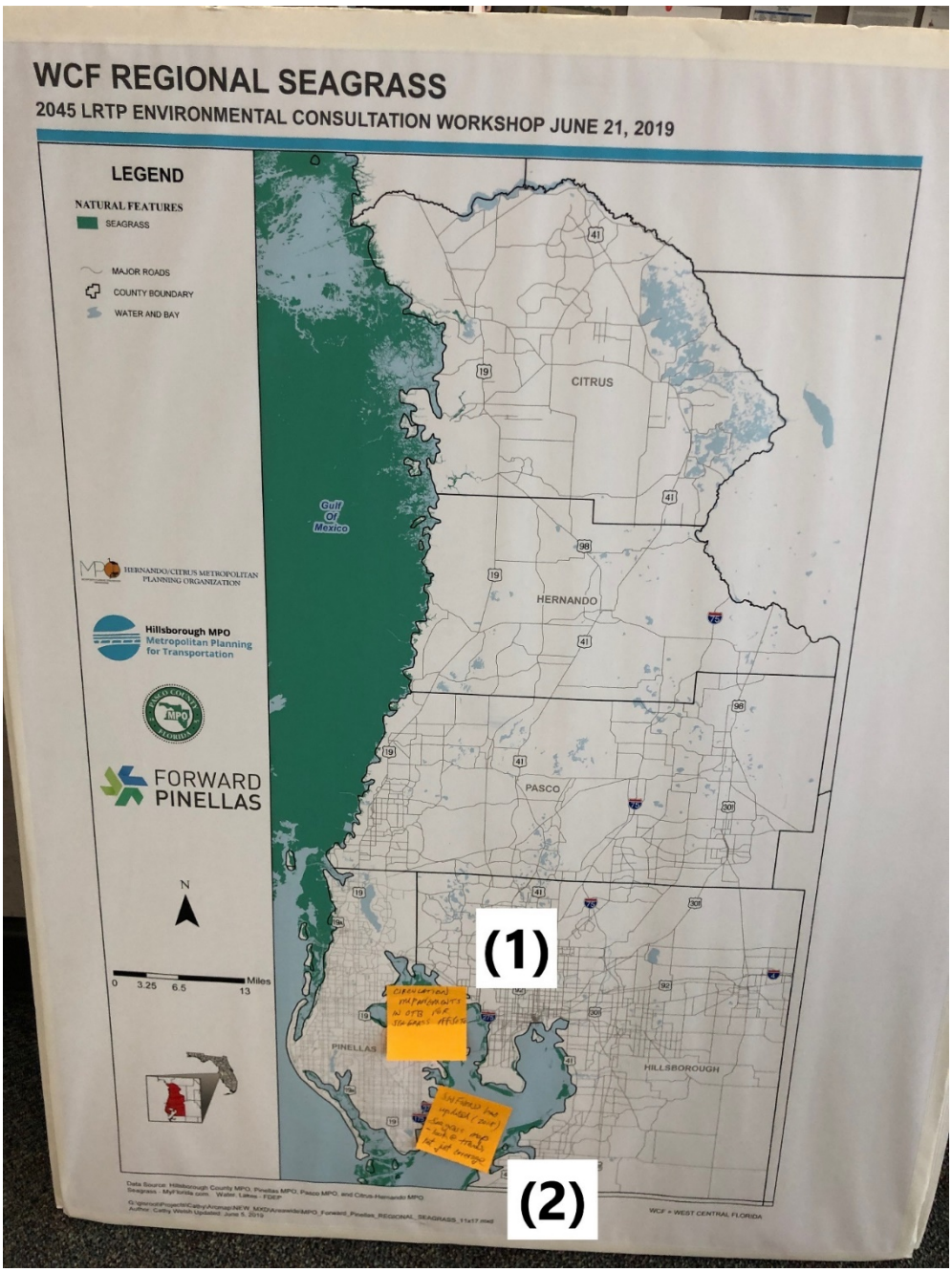
G:\gisroot\Projects\Cathy\Arcmap\NEW_MXD\Areawide\MPO_Forward_Pinellas_REGIONAL_SEAGRASS_11x17.mxd
Author: Cathy Welsh Updated: June 5, 2019

<u>Comments</u>:

Seagrass:

Hillsborough - Circulation improvements in OTB for seagrass offsets; Hooker Lake to Hillsborough River area. There is a connection under US 92, I4, US301 - little consideration given to wildlife crossings.

Pinellas - Circulation improvements in OTB for seagrass offsets.

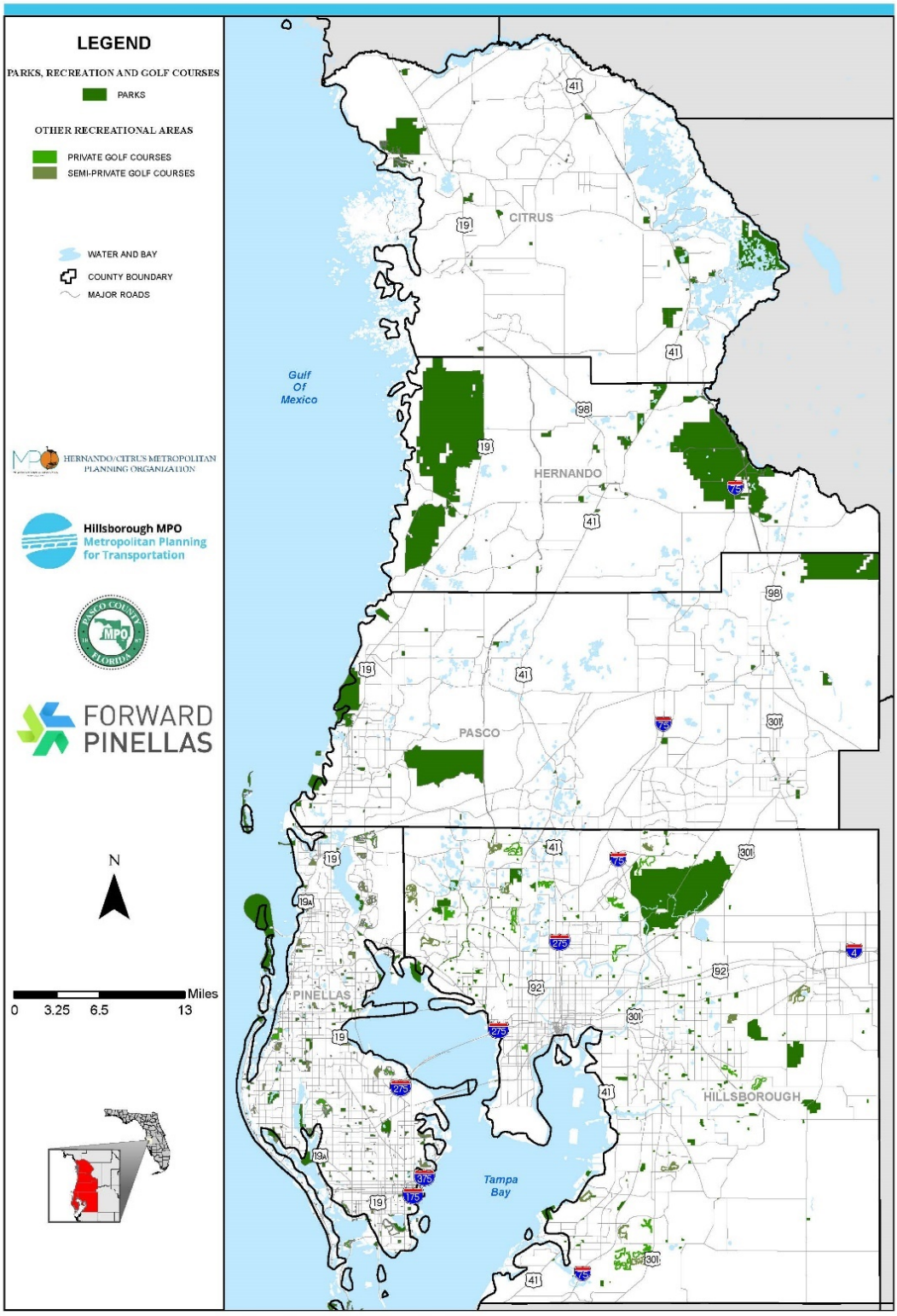


Seagrass:

(1) Circulation improvements in OTB for seagrass offsets.
(2) SWFWMD has updated (2018) seagrass map – look at trends, not just coverage.

WCF REGIONAL PARKS AND RECREATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Soils - NRCS = National Resources Conservation Service, Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

G:\gisroot\Projects\Roger\2045_LRTP\Environmental Workshop\WCF_Regional_Parks_Recreation_11x17.mxd
Author: Roger Mathie Updated: June 6, 2019

<u>Comments</u>:

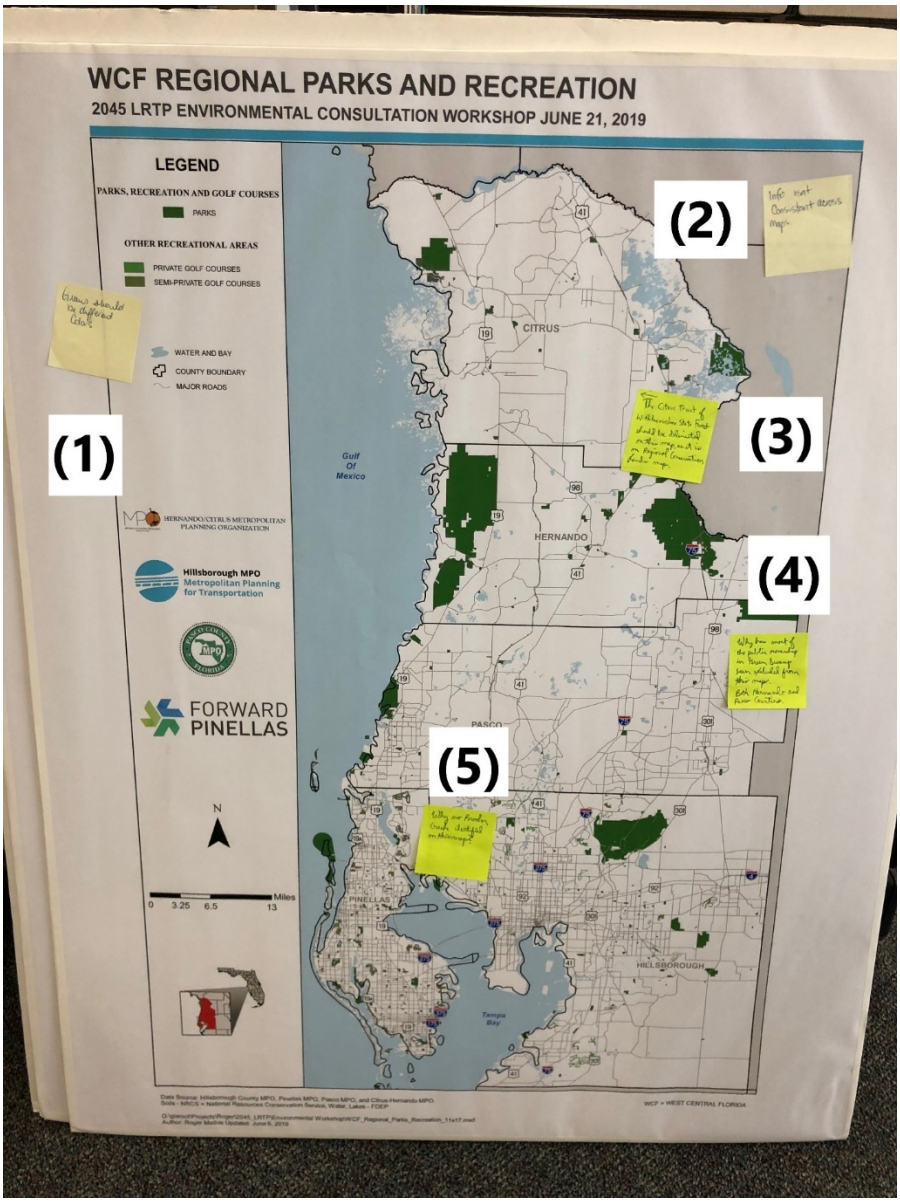
Parks and Recreation:

All Counties - Information isn't consistent across maps; Greens should be in different colors.

Citrus - The Citrus tract of Withlacoochee State Forest should be delineated on this map, as it is on Regional Conservation Land Map.

Hillsborough - Why no Brooker Creek identified on this map?

Pasco - Why has most of the public ownership in Green Swamp been excluded from this map? Both Hernando and Pasco counties.



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(4) Why has most of the public ownership in Green Swamp been excluded from this map? Both Hernando and Pasco counties.
(5) Why no Brooker Creek identified on this map?

WCF REGIONAL 2045 HIGHWAY NEEDS PLAN

DRAFT

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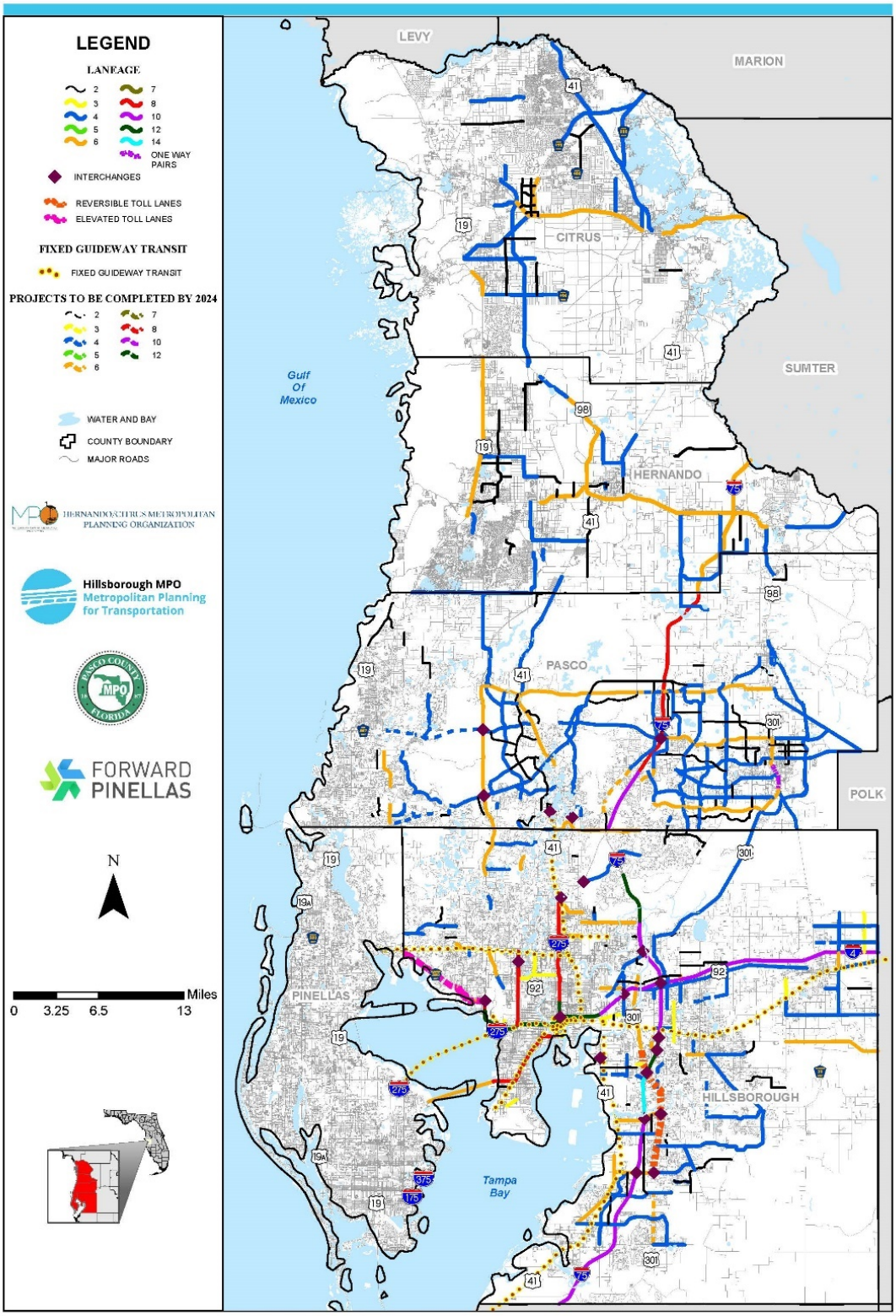


Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
2045 Highway Needs Projects - See each Counties roadway plan for details.

WCF = WEST CENTRAL FLORIDA

G:\gisroot\Projects\Roger\2045_LRTP\Environmental Workshop\WCF_Regional_2045_Needs_Plan_11x17.mxd
Author: Roger Mathie Updated: June 18, 2019

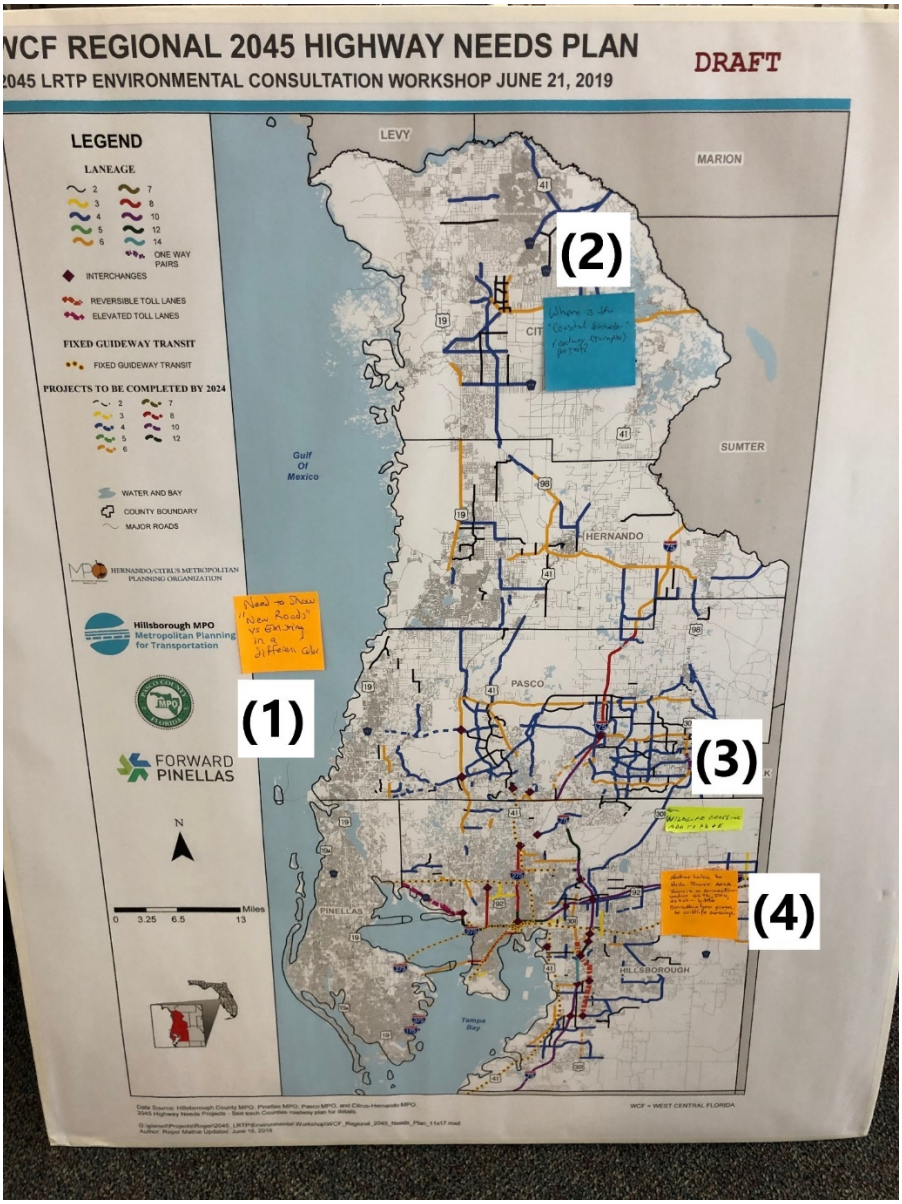
<u>Comments</u>:

2045 Highway Needs Plan:

All Counties - Need to show "New Roads" vs Existing in a different color.

Citrus - Where is the "coastal connector" roadway (turnpike) project?

Hillsborough - Wildlife crossing, add to PD + E. Hooker Lake to Hillsborough River area; There is a connection under US 92, I4, US301 - little consideration given to wildlife crossings.



2045 Highway Needs Plan:

(1) Need to show "New Roads" vs Existing in a different color.
(2) Where is the "coastal connector" roadway (turnpike) project?
(3) Wildlife crossing, add to PD + E.
(4) Hooker Lake to Hillsborough River area: There is a connection under US 92, I4, US301 - little consideration given to wildlife crossings.

Hernando/Citrus County

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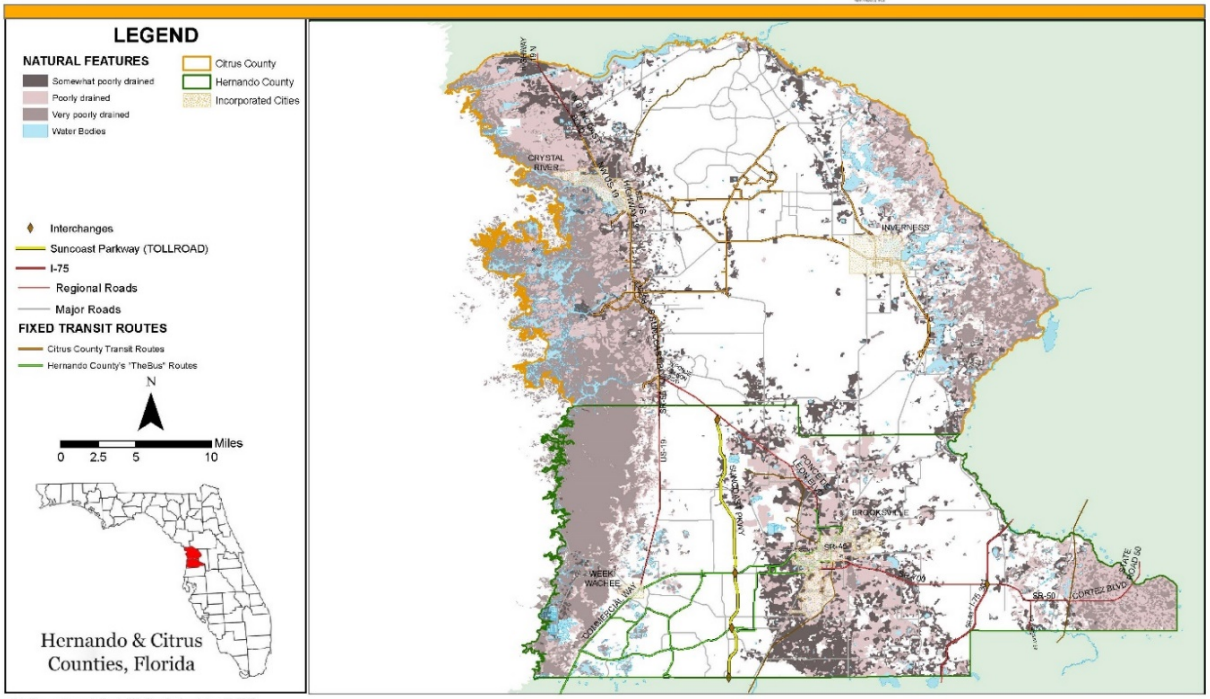
HERNANDO/CITRUS SOILS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION



Data Source: Hernando County GIS. Map Produced: June 16, 2019.
S:\Share\Planning\MPO LRTP 2045\GIS Layers 6 3 2019\6 11 2019 Map_NR_Soils.mxd

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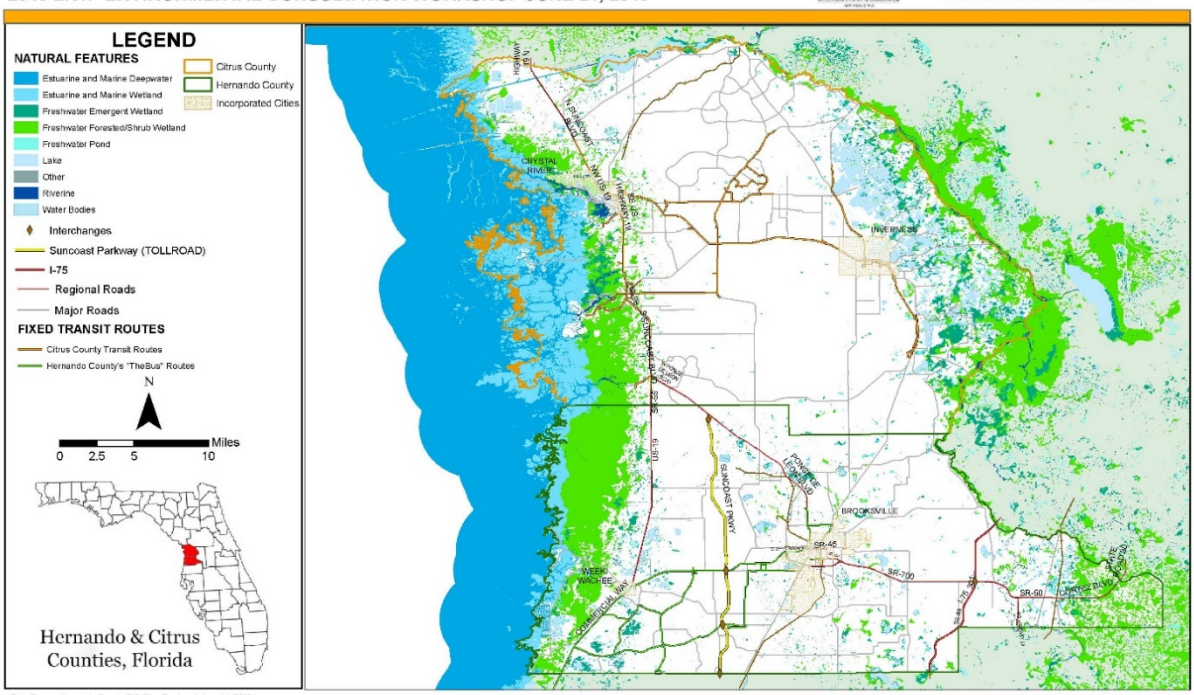
HERNANDO/CITRUS WETLANDS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION



Data Source: Hernando County GIS. Map Produced: June 11, 2019.
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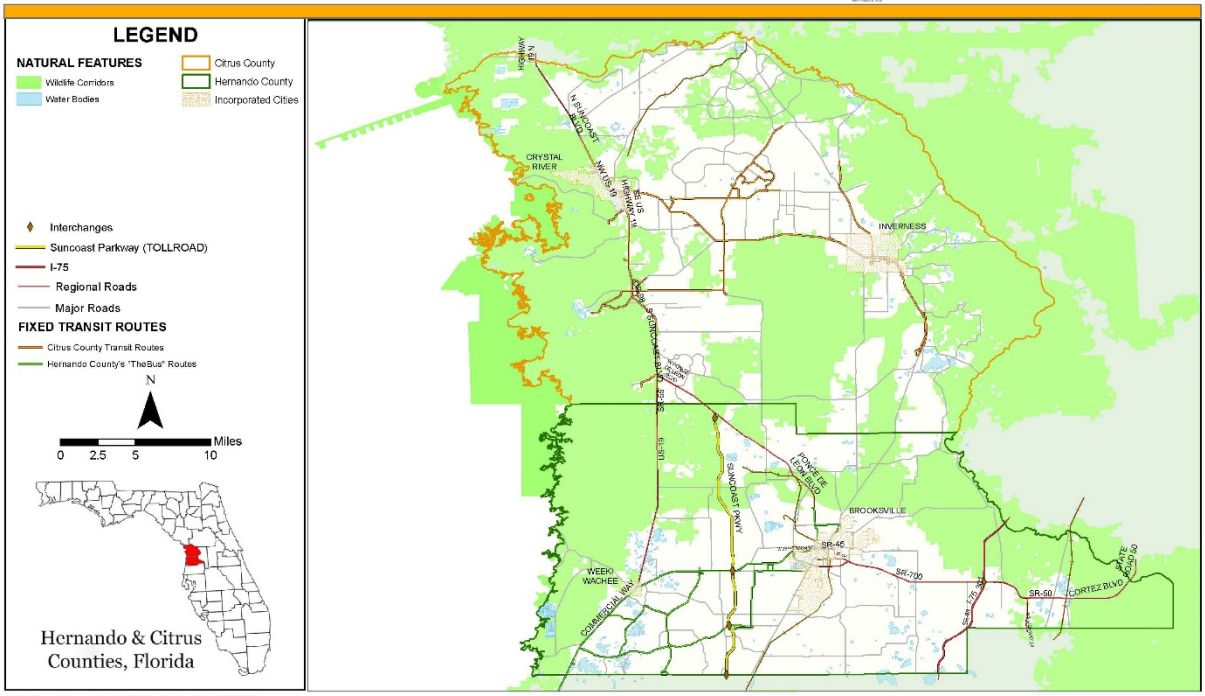
HERNANDO/CITRUS WILDLIFE CORRIDORS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION



Data Source: Hernando County GIS. Map Produced: June 18, 2019.
S:\Share\Planning\MPO LRTP 2045\GIS Layers 6 3 2019\6 11 2019 Map_NR_Wildlife_Corridors.mxd

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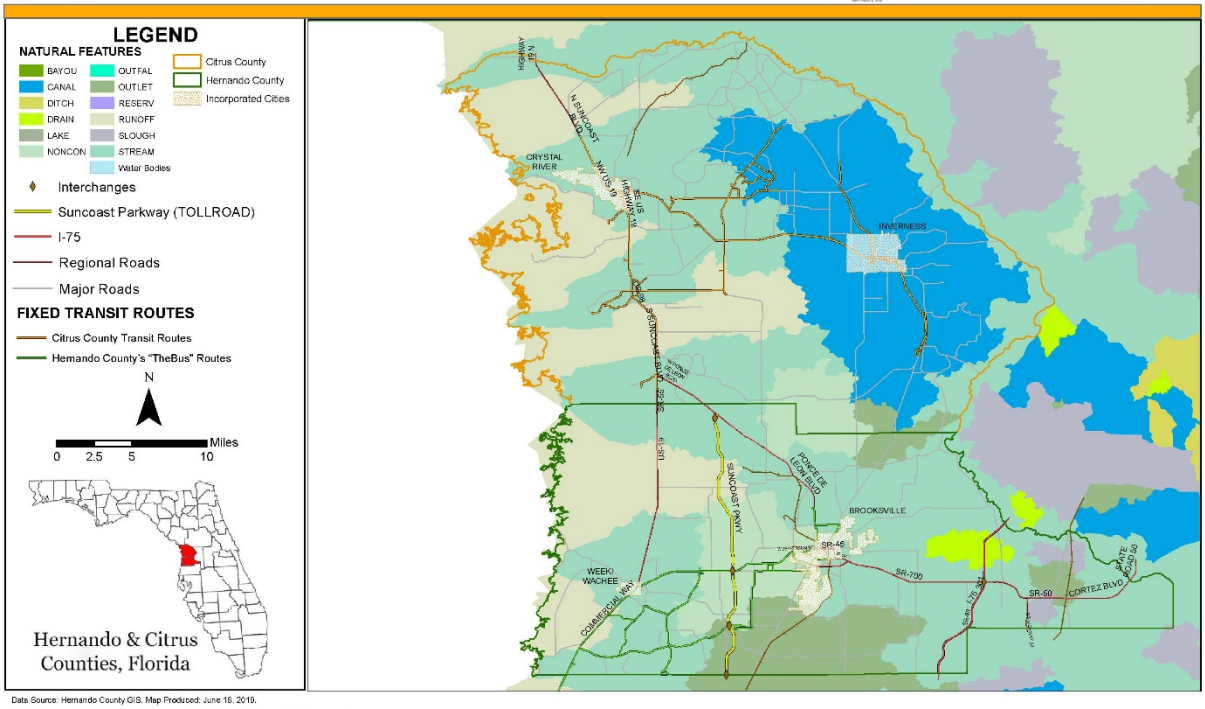
HERNANDO/CITRUS DRAINAGE BASIN CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION



Data Source: Hernando County GIS. Map Produced: June 18, 2019.
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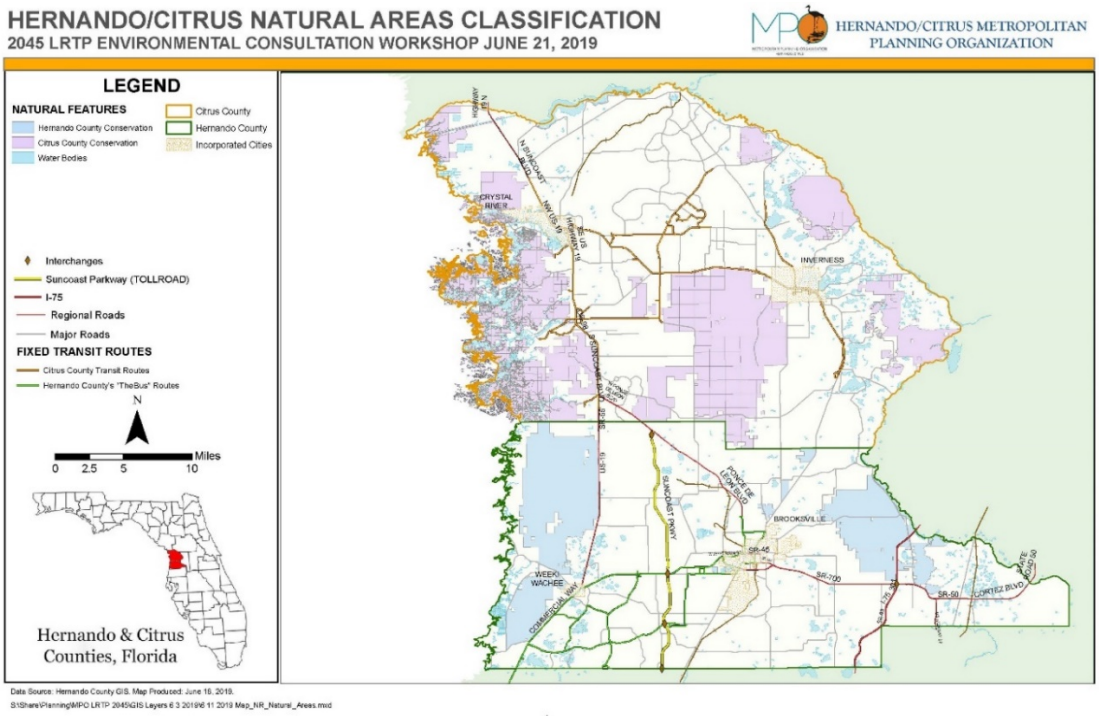
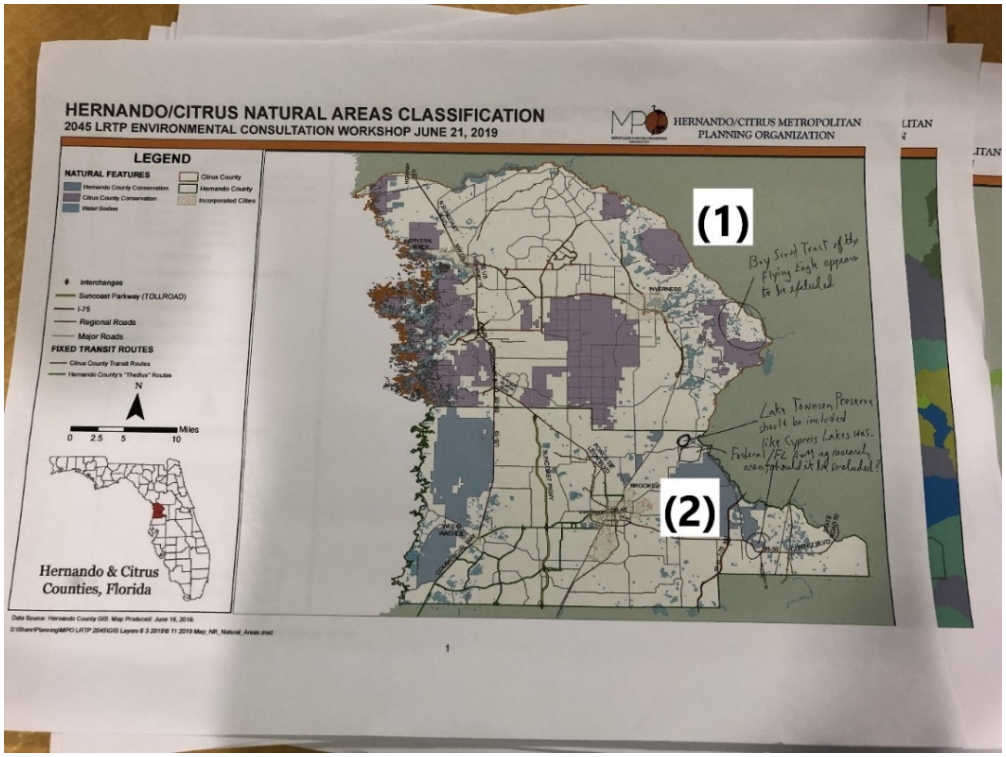




Participant Comments on Natural Areas Classification:

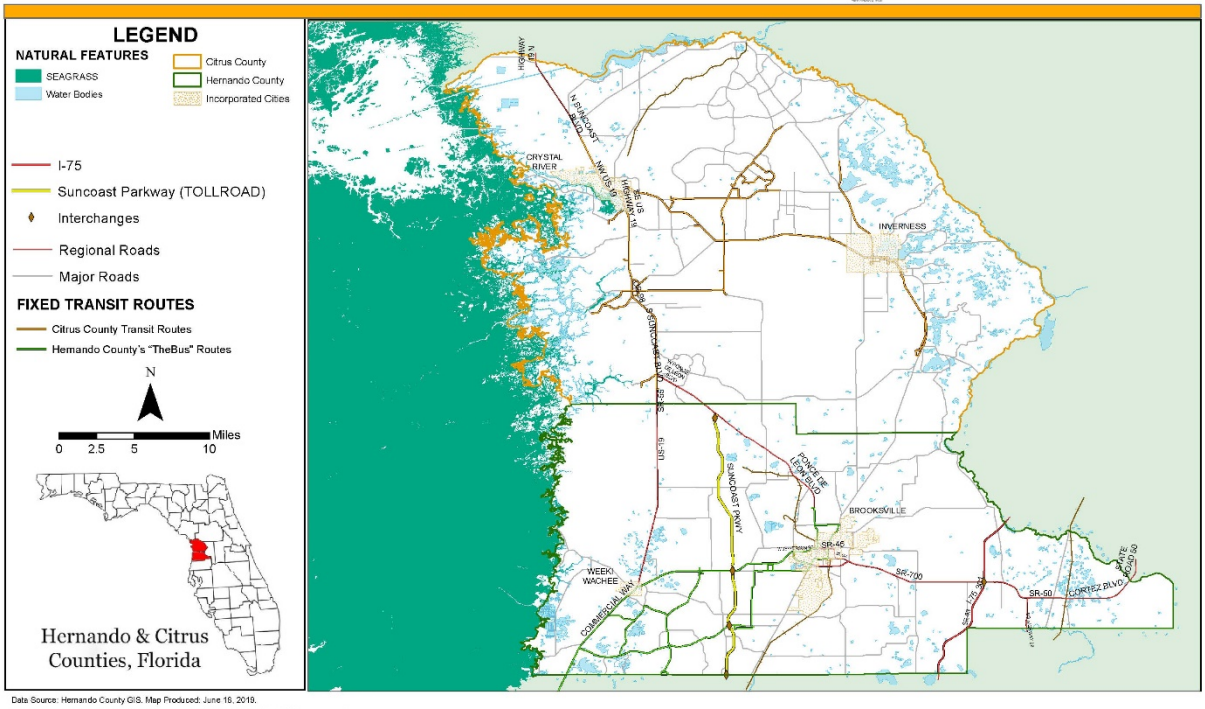
(1): Boy Scout Tract of the Flying Eagle Appears to be excluded.

(2): Lake Townsen Preserve should be included like Cypress Lakes was. Federal/FL A+M agricultural research area; should it be included?

HERNANDO/CITRUS SEAGRASS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION



Data Source: Hernando County GIS. Map Produced: June 18, 2019.
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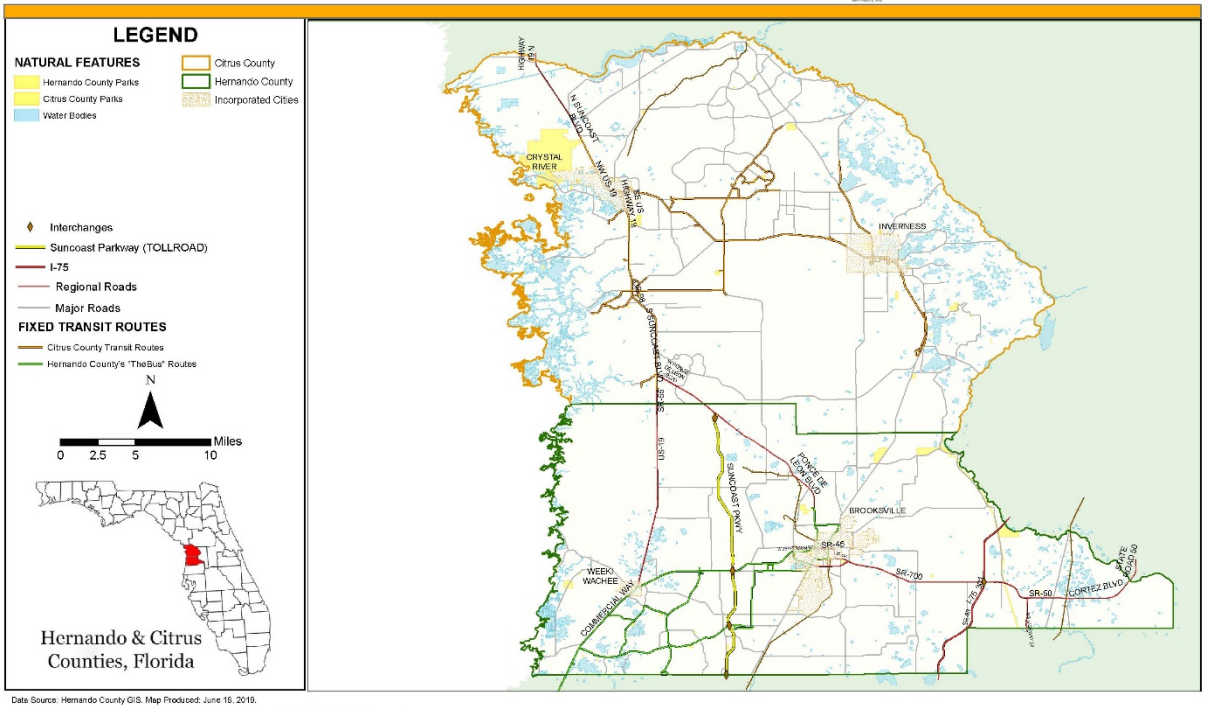
HERNANDO/CITRUS OTHER RECREATIONAL AREAS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

HERNANDO/CITRUS METROPOLITAN PLANNING ORGANIZATION



Data Source: Hernando County GIS. Map Produced: June 18, 2019.
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Hillsborough County

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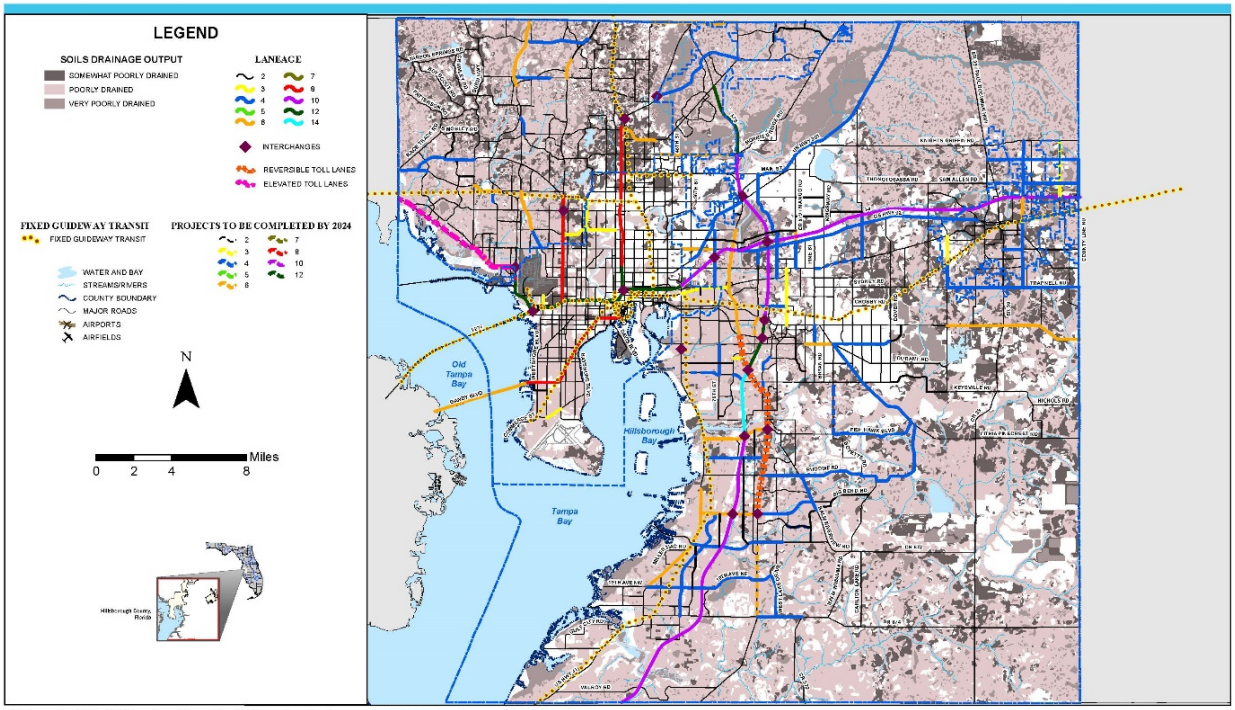
HILLSBOROUGH COUNTY SOILS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

Hillsborough MPO
Metropolitan Planning for Transportation



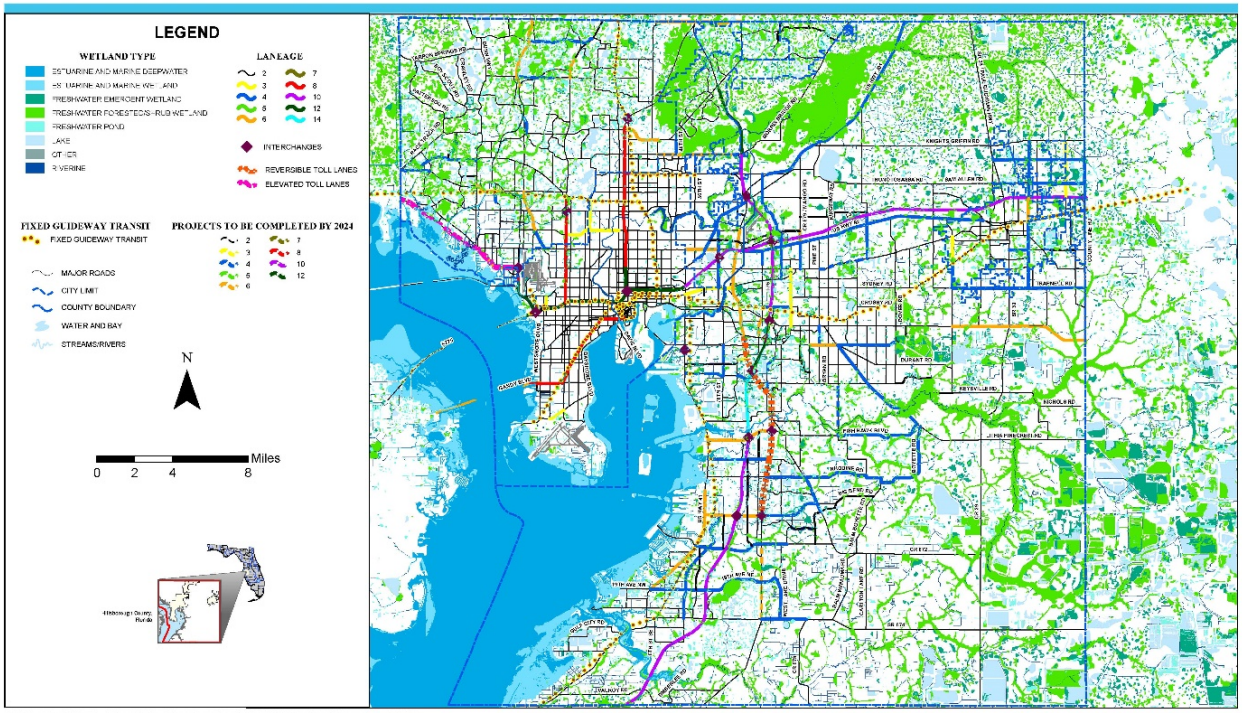
Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Hillsborough County City-County Planning Commission. Soils Classification - USDA, National Resources Conservation Service, Soil Data Viewer.

G:\gisroot\Projects\Roger\2045_LRTP\Environmental Workshop\Hillsborough_Soils_Classification_11x17.mxd
Author: Roger Mathie Updated: June 3, 2019

HILLSBOROUGH COUNTY WETLANDS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

Hillsborough MPO
Metropolitan Planning for Transportation



Data Source: Wetlands - National Wetlands Inventory. See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Hillsborough County City-County Planning Commission.

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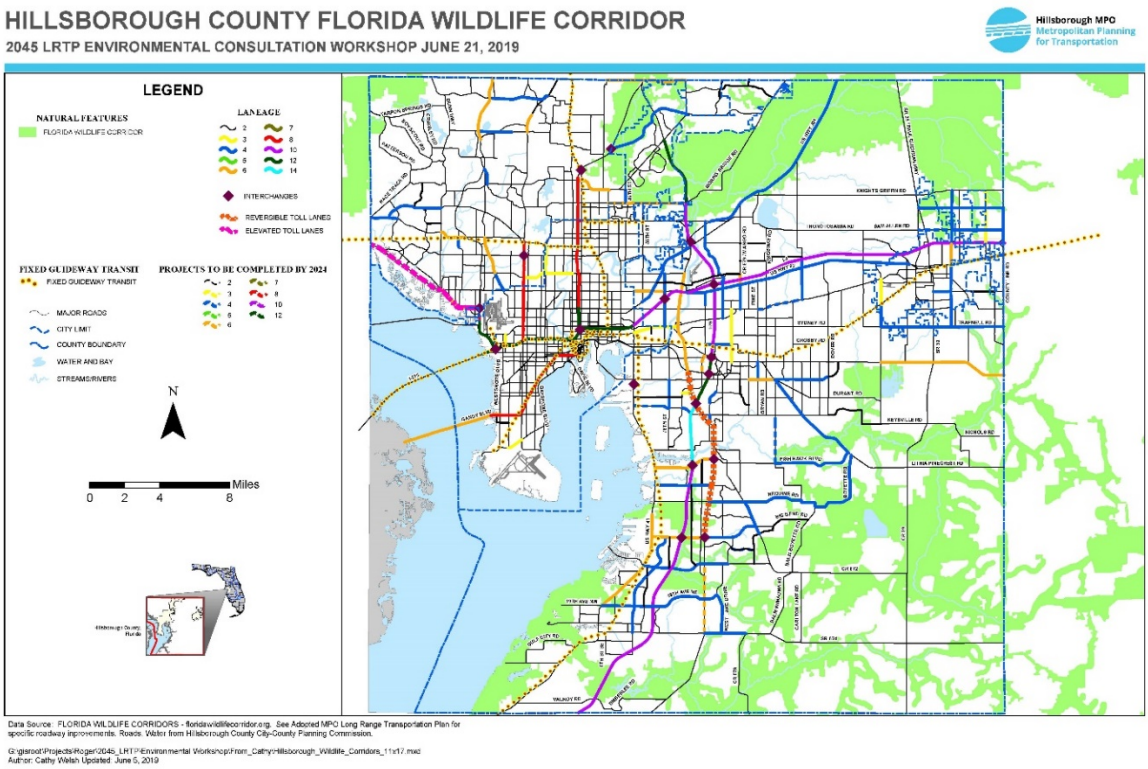
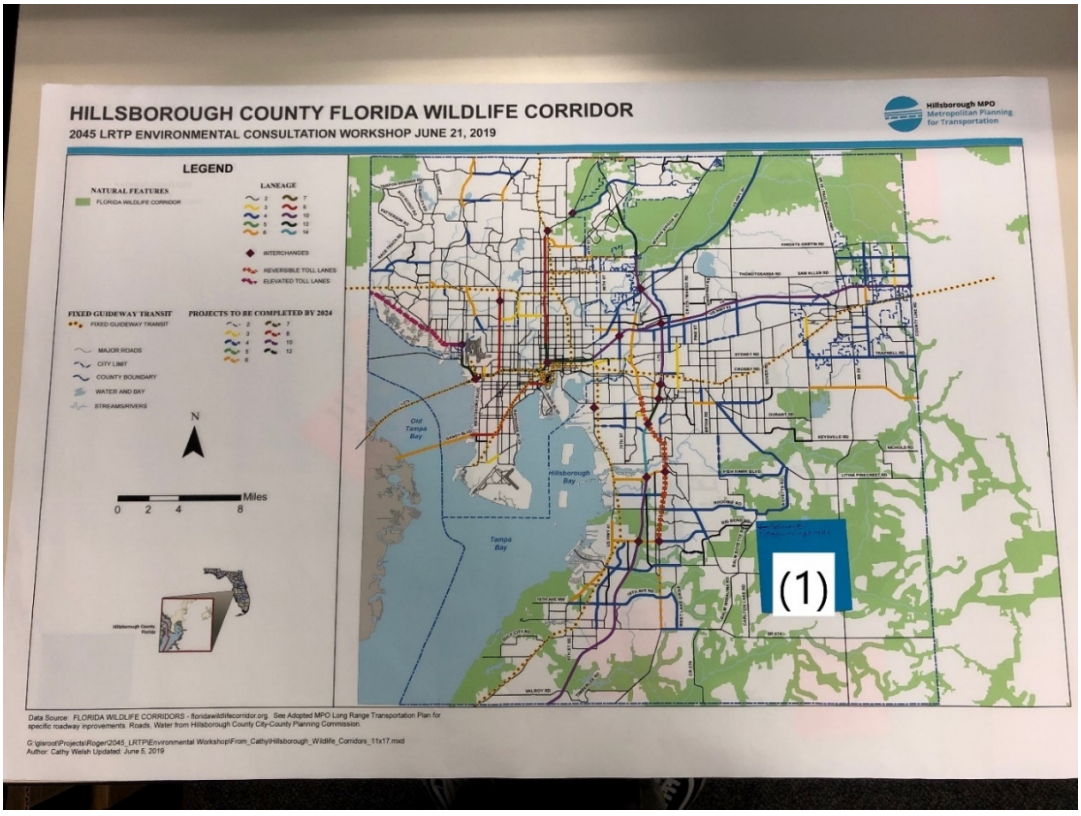
Author: Cathy Welsh Updated: June 5, 2019





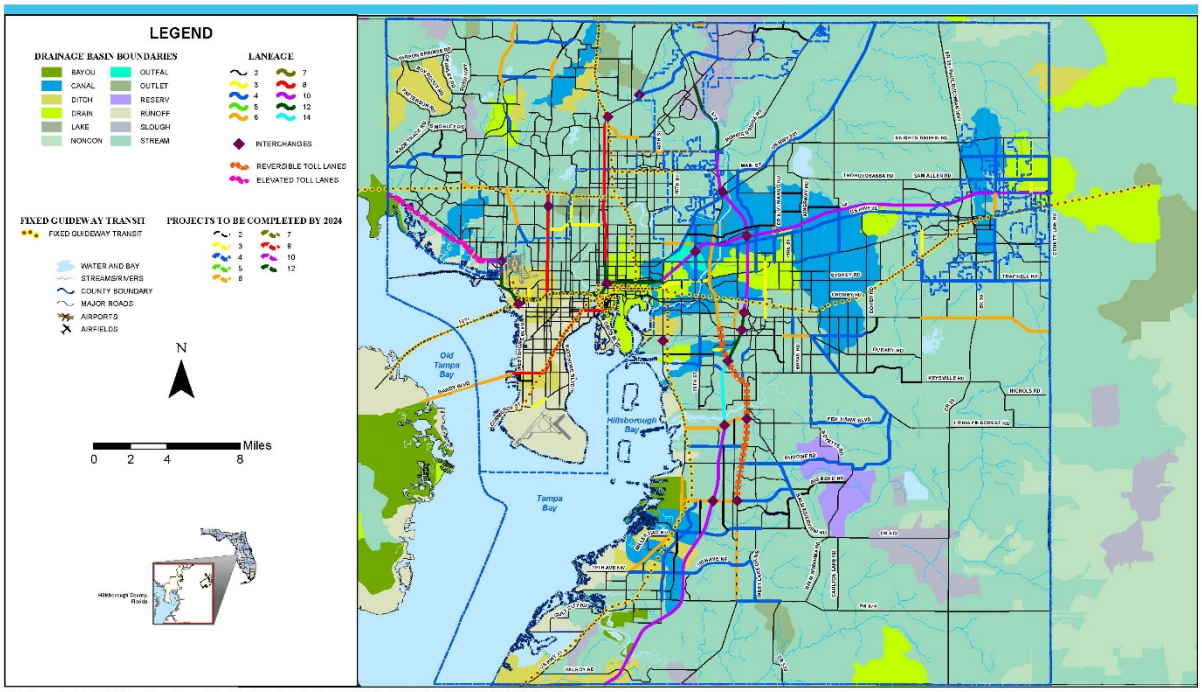
Participant Comments on Wildlife Corridors

(1) Remove – taken out by MPO

HILLSBOROUGH COUNTY DRAINAGE BASIN CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

Hillsborough MPO
Metropolitan Planning for Transportation



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Hillsborough County City-County Planning Commission. Drainage Basins - SWFWMD

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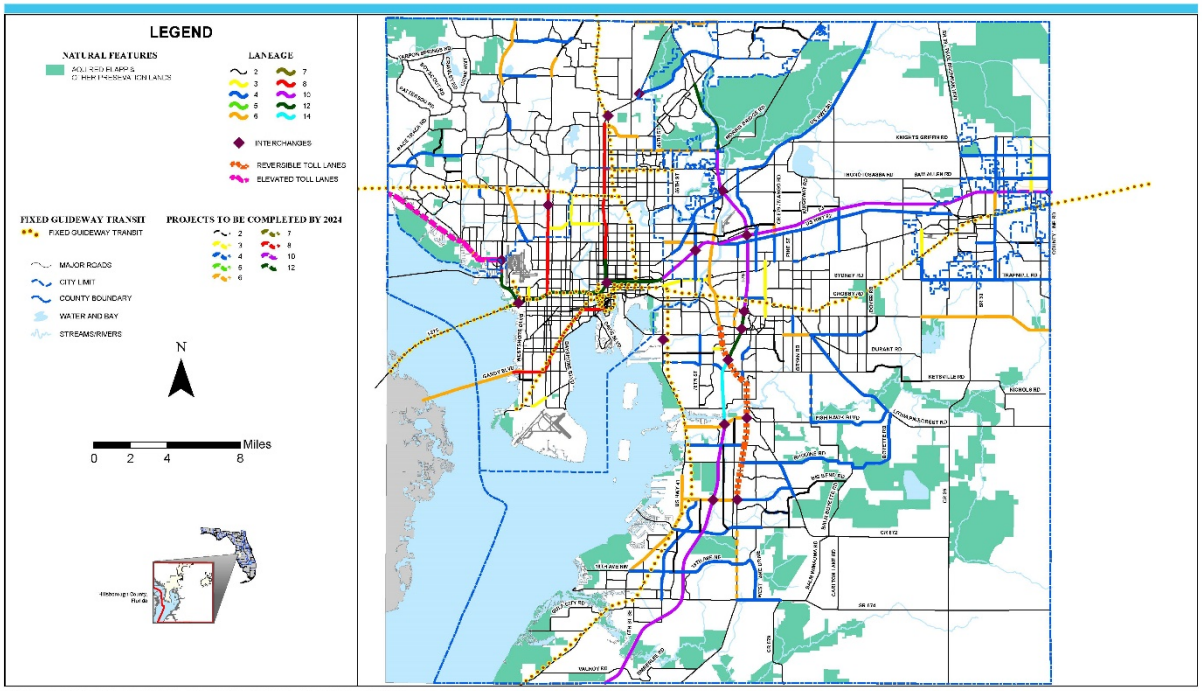
Author: Roger Mathie Updated: June 3, 2019

HILLSBOROUGH COUNTY ELAPP LANDS

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

Hillsborough MPO
Metropolitan Planning for Transportation



Data Source: ELAPP - Hillsborough County Geomatics. See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Hillsborough County City-County Planning Commission.

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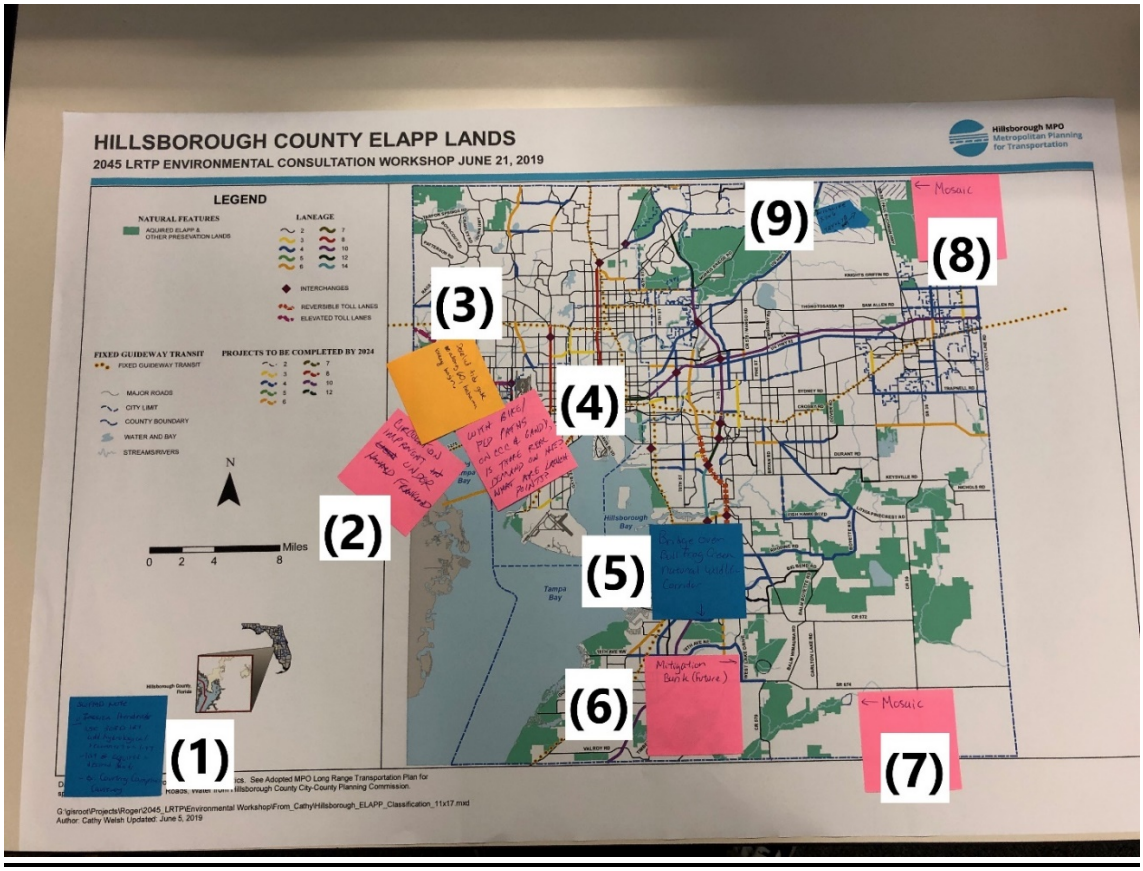
Author: Cathy Welsh Updated: June 5, 2019



Participant Comments on Wildlife Corridors

(1) SWFWMD Note:
- a. Jessica Hendricks: use 303D list, add hydrological reconnection list
- b. List of acquired/desired lands
  - i. Ex. Courtney Campbell Causeway

(2) Circulation improvement under Howard Franklin

(3) Derelict tide gate along 60, Bahama breeze basin

(4) With bike/ped paths on Courtney Campbell Causeway and Gandy, is there real demand on HE? What are launch points?

(5) Bridge over Bullfrog Creek, natural wildlife corridor

(6) Mitigation bank (future)

(7) Mosaic

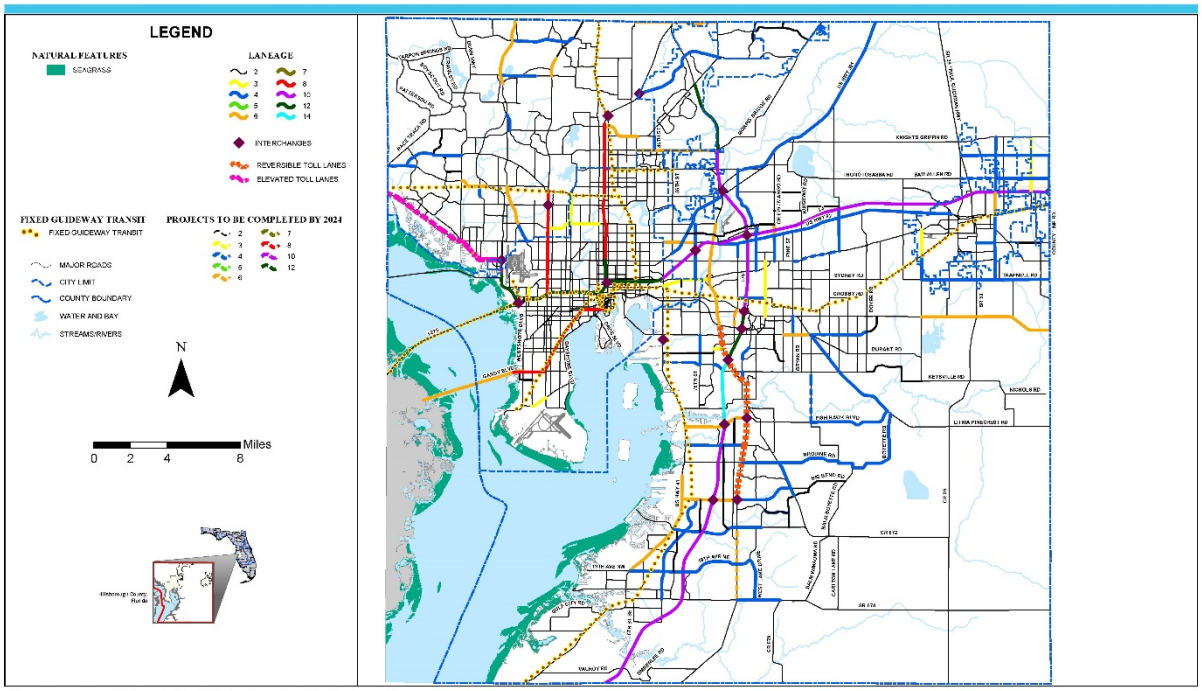
(8) Mosaic

(9) Wildlife crossing, trying to buy

HILLSBOROUGH COUNTY SEAGRASS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

Hillsborough MPO
Metropolitan Planning for Transportation



Data Source: Seagrass - MyFlorida.com. See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Hillsborough County City-County Planning Commission.

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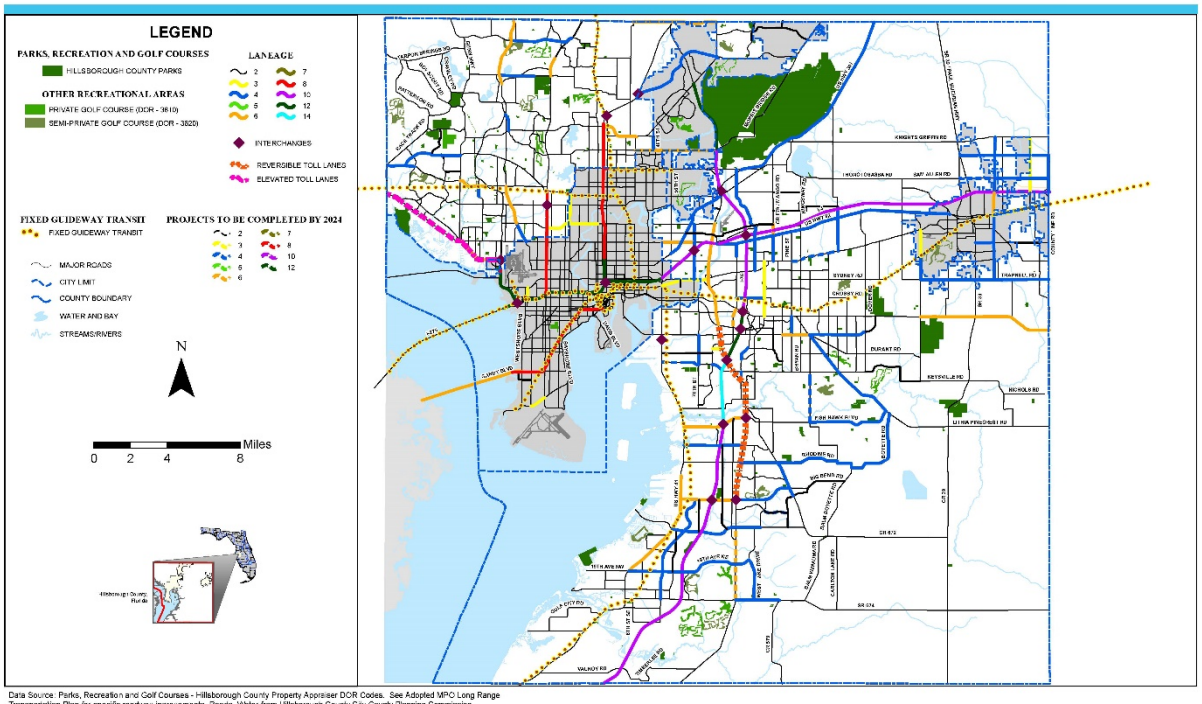
Author: Cathy Welsh Updated: June 5, 2019

HILLSBOROUGH COUNTY PARKS AND RECREATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019

Hillsborough MPO
Metropolitan Planning for Transportation



Data Source: Parks, Recreation and Golf Courses - Hillsborough County Property Appraiser DOR Codes. See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Hillsborough County City-County Planning Commission.

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Author: Jenki McAdoo Updated: June 5, 2019

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Pasco County

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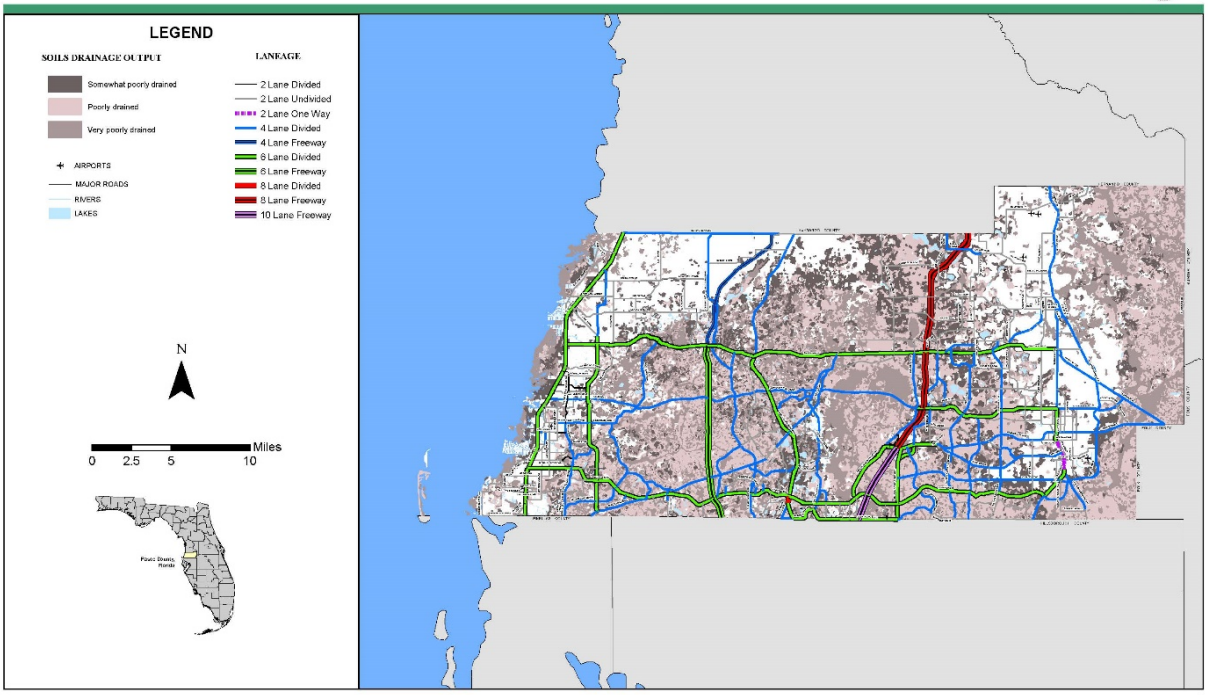
PASCO COUNTY SOILS CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway inprovements. Roads, Water from Pasco County GIS Department. Soils - SSURGO

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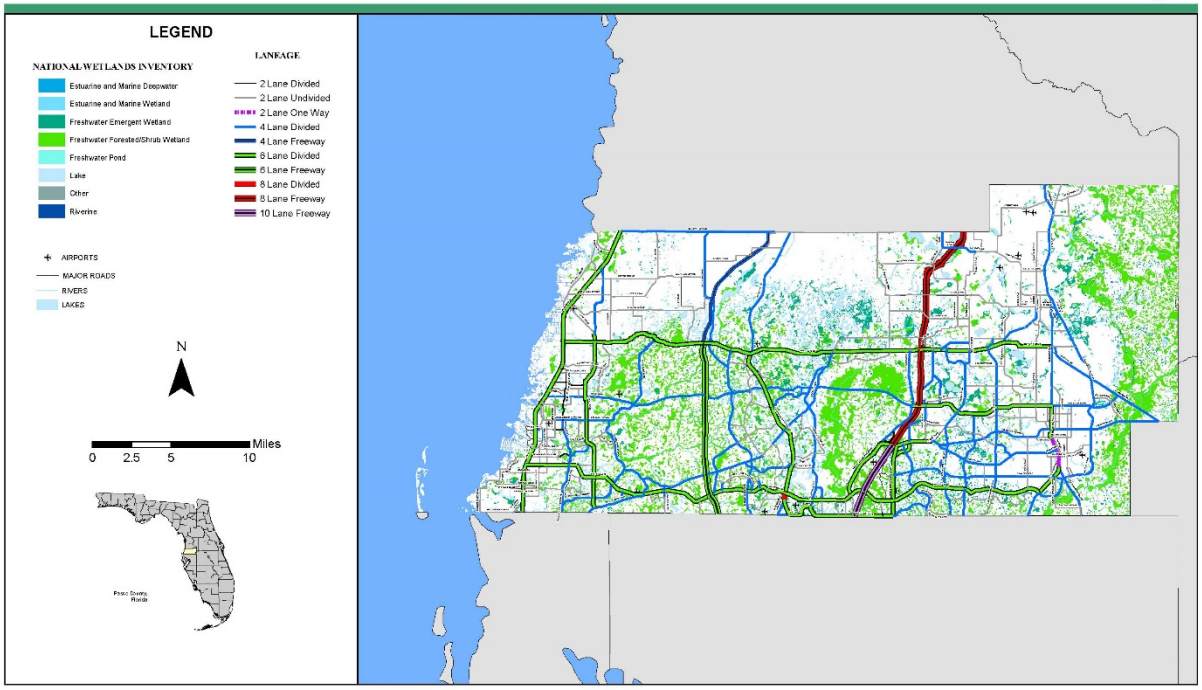
Author: Nathan Dellman Updated: June 4, 2019

6

PASCO COUNTY NATIONAL WETLANDS INVENTORY

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway inprovements. Roads, Water from Pasco County GIS Department. Wetlands - National Wetlands Inventory

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Author: Nathan Dellman Updated: June 4, 2019

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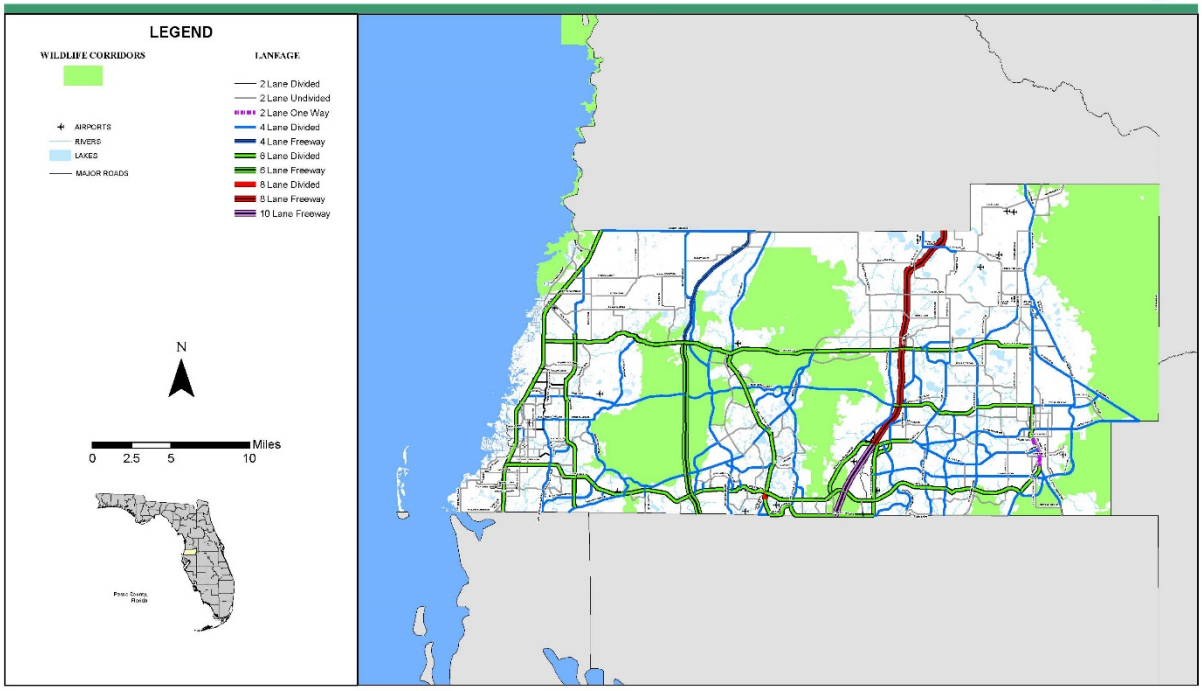
PASCO COUNTY WILDLIFE CORRIDOR

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Pasco County GIS Department. Wildlife Corridor - Florida Fish and Wildlife

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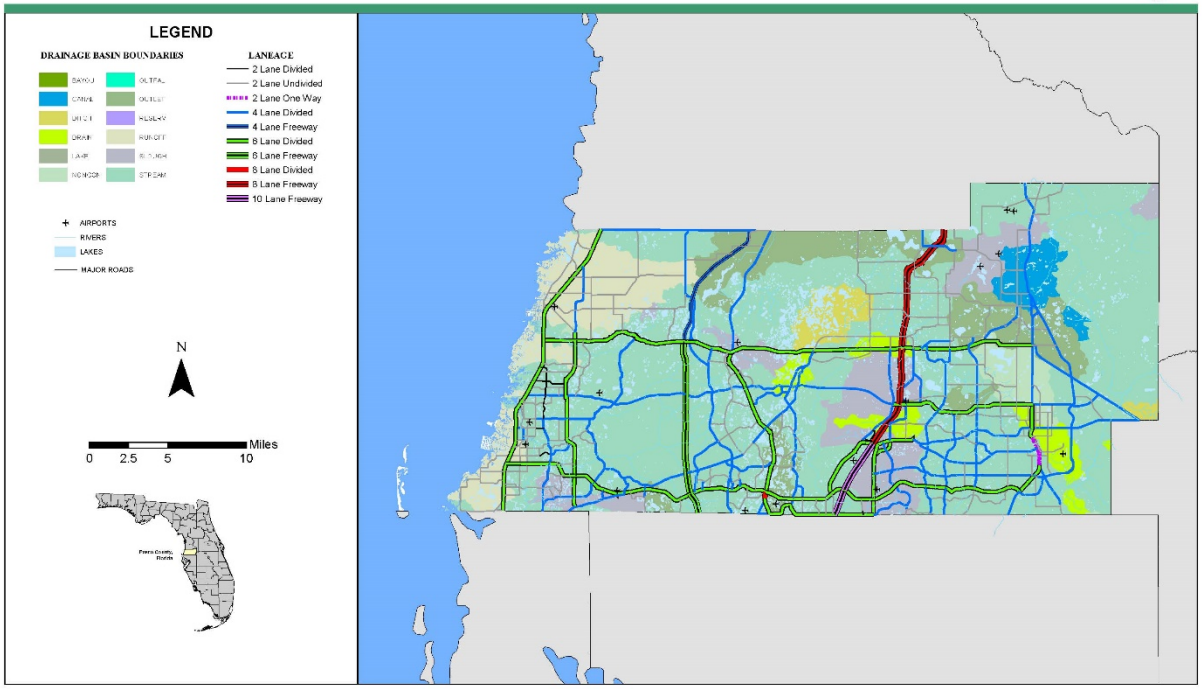
Author: Nathan Deliman Updated: June 4, 2019

7

PASCO COUNTY DRAINAGE BASIN CLASSIFICATION

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway improvements. Roads, Water from Pasco County GIS Department. Drainage Basins - SWFWMD

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Author: Nathan Deliman Updated: June 5, 2019

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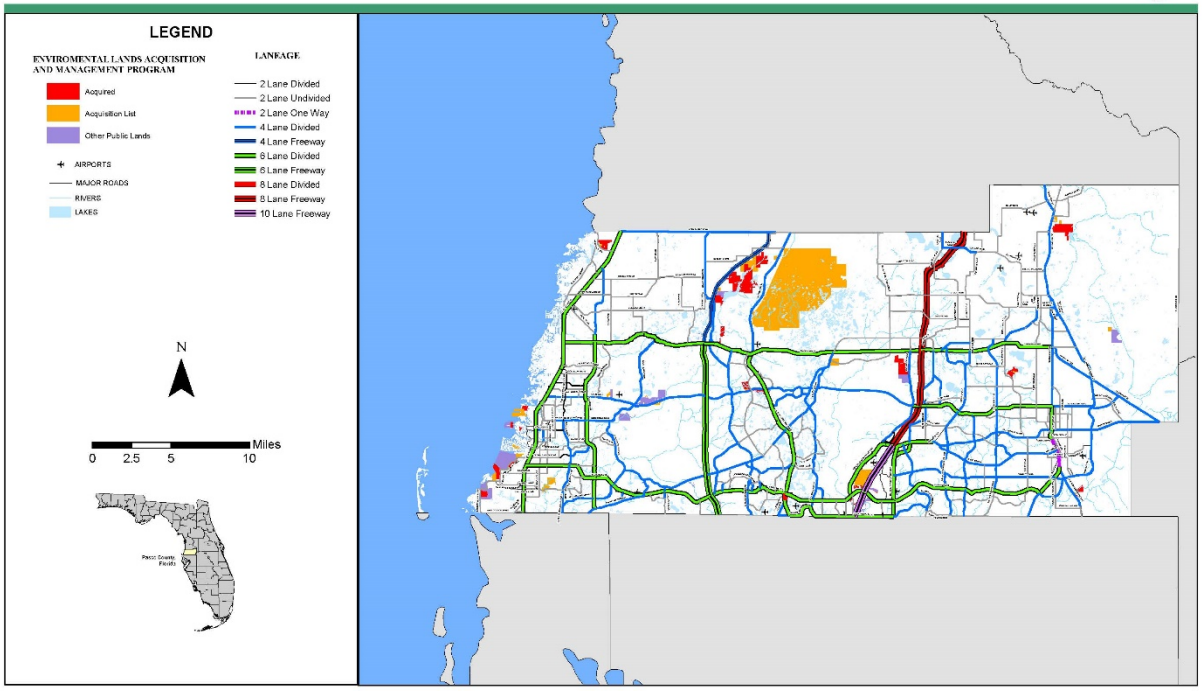
PASCO COUNTY ENVIROMENTAL LANDS AQUISITION AND MANAGAMENT PROGRAM

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway inprovements. Roads, Water from Pasco County GIS Department. Drainage Basins - SWFWMD

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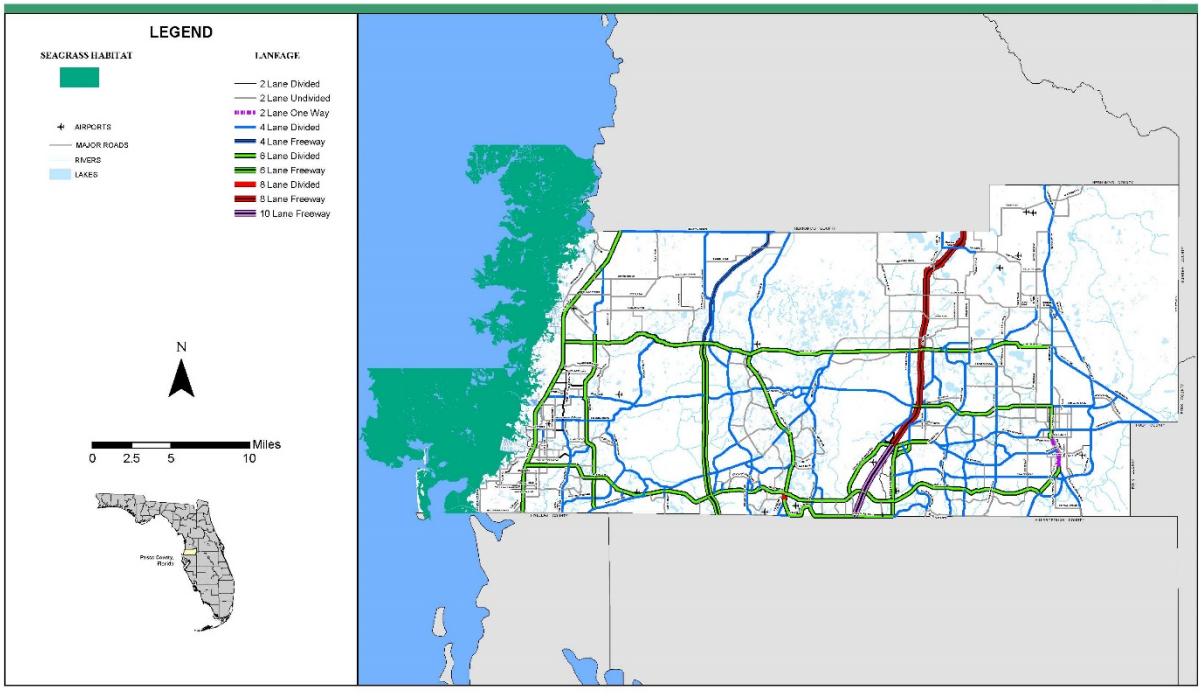
Author: Nathan Deliman Updated: June 4, 2019

2

PASCO COUNTY SEAGRASS HABITAT

2045 LRTP ENVIRONMENTAL CONSULTATION WORKSHOP JUNE 21, 2019



Data Source: See Adopted MPO Long Range Transportation Plan for specific roadway inprovements. Roads, Water from Pasco County GIS Department. Drainage Basins - Florida Fish and Wildlife

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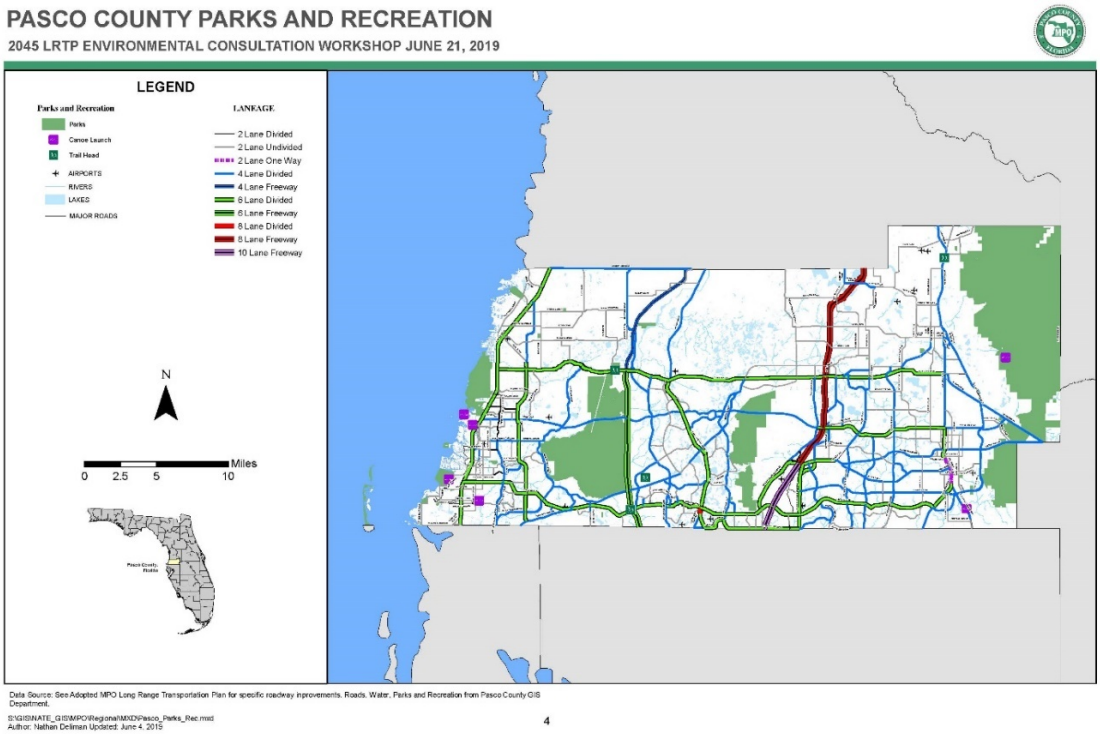
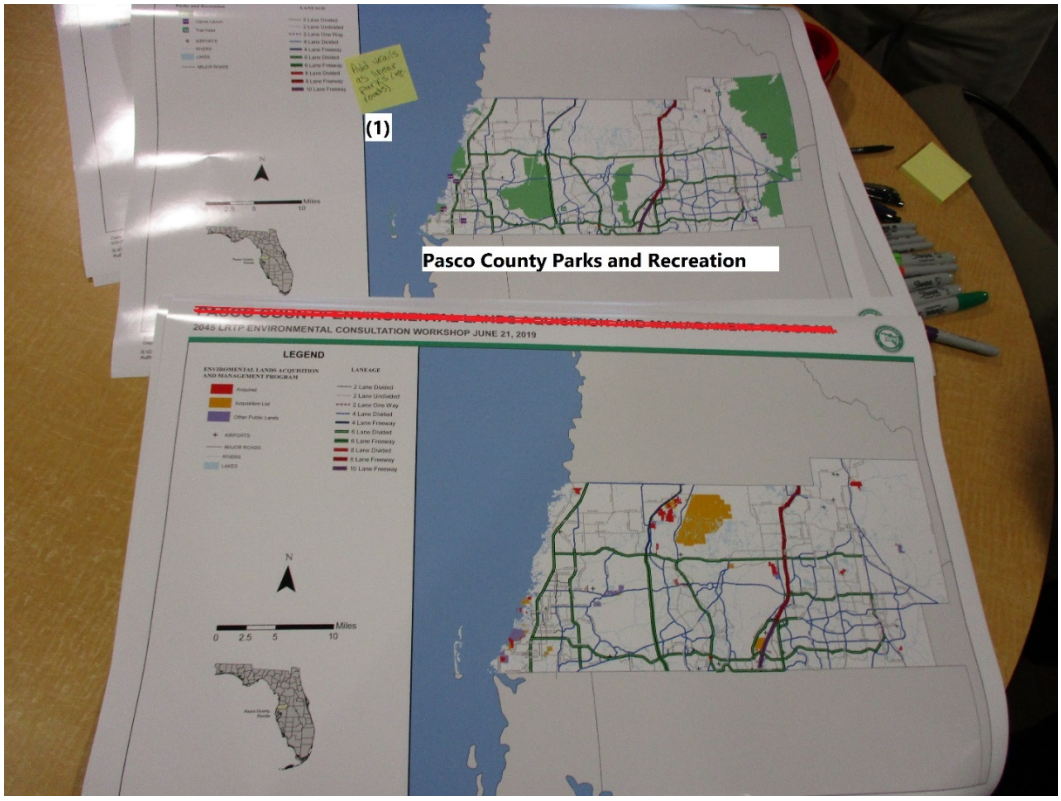
Author: Nathan Deliman Updated: June 4, 2019

5





Participant Comments on Parks and Recreation:

(1) Add trails as linear parks (opp-roads)

Pinellas County

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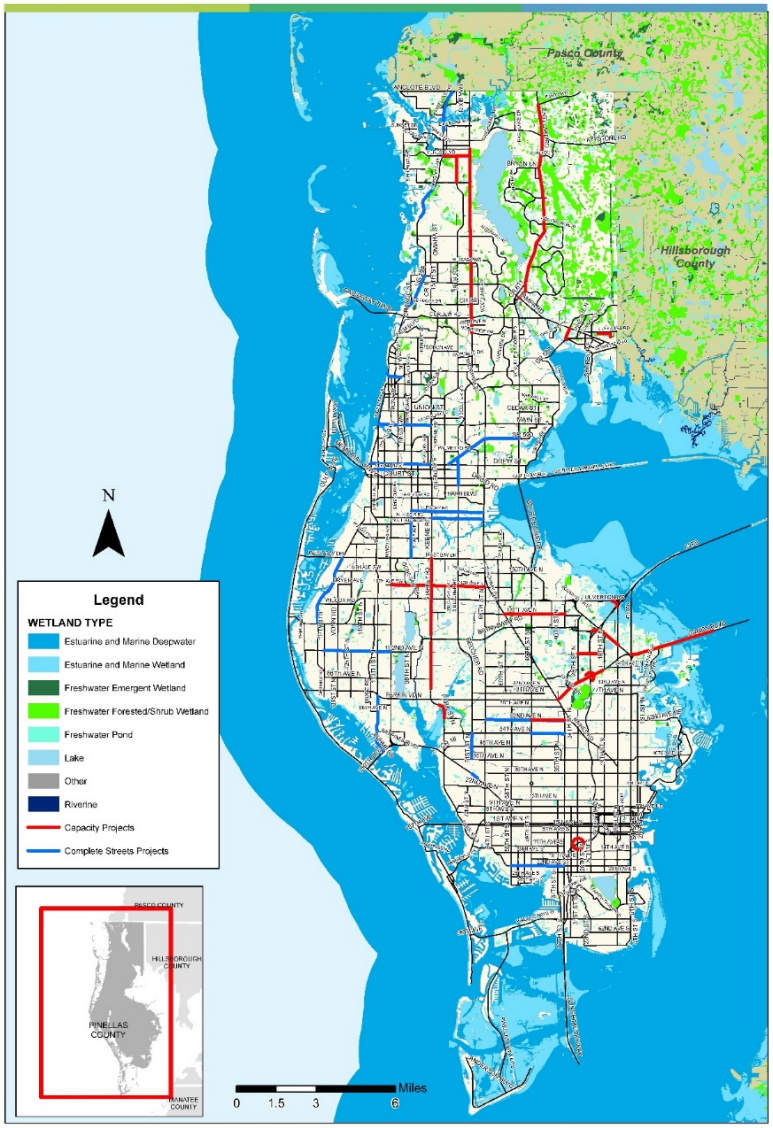
Pinellas Wetlands



Data Source: Forward Pinellas, 2016. Map Produced: May 30, 2019.
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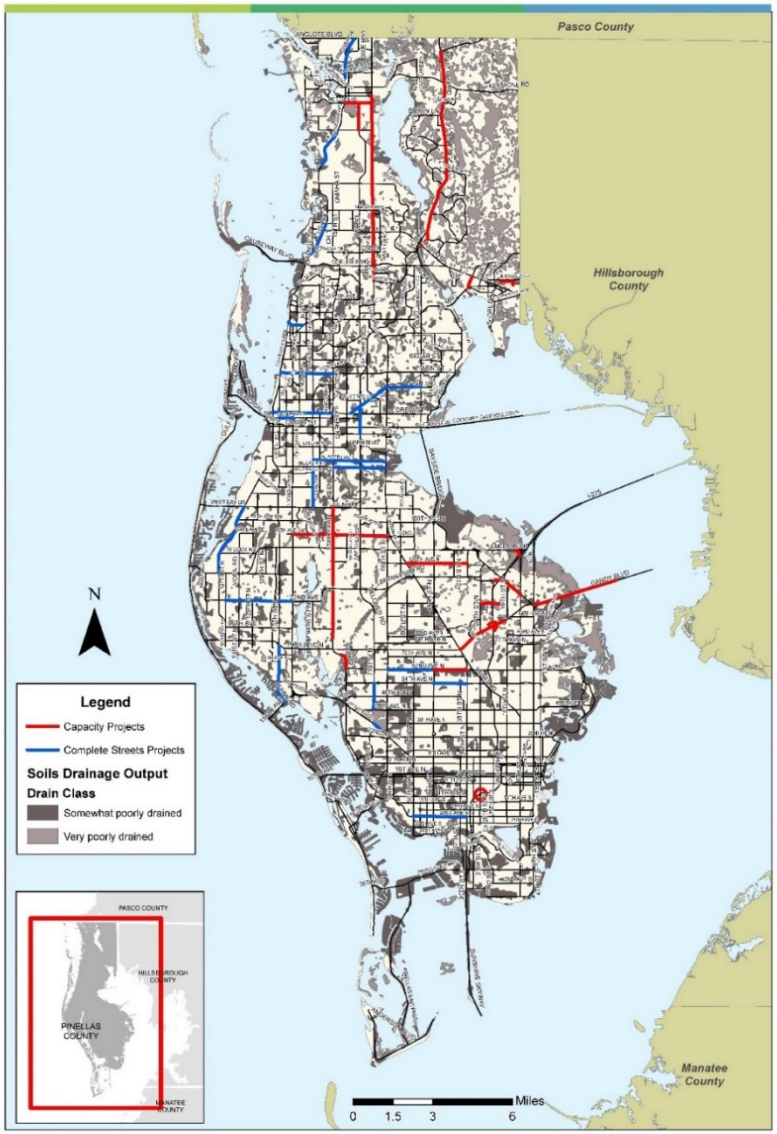
1

Pinellas Hydric Soils



Data Source: Forward Pinellas, 2016. Map Produced: June 4, 2019.
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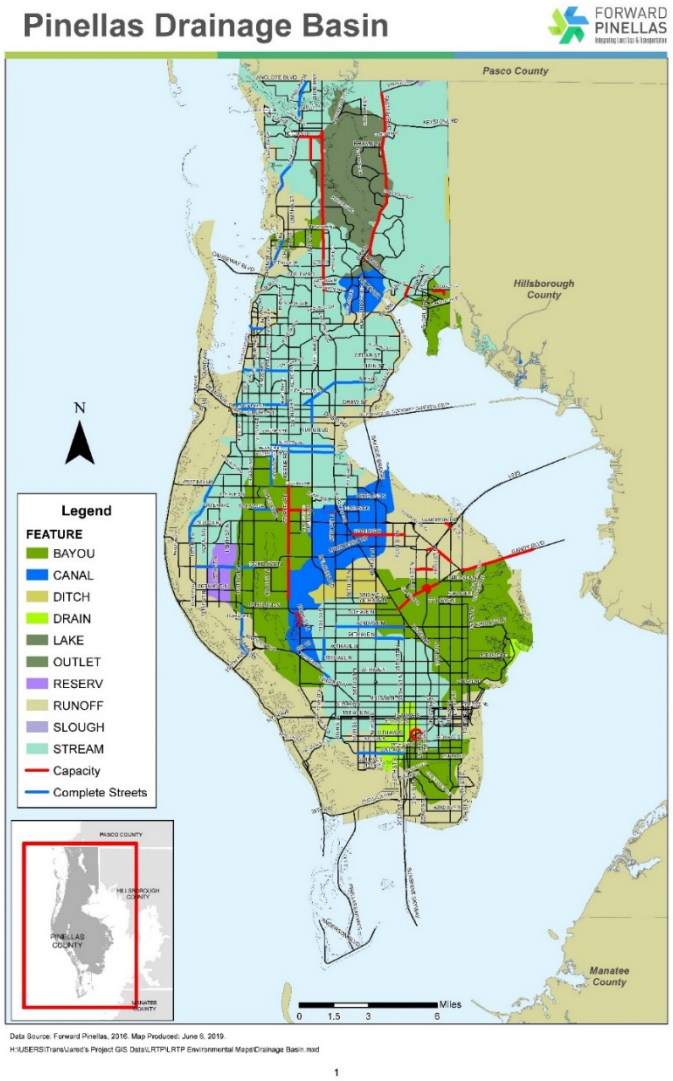
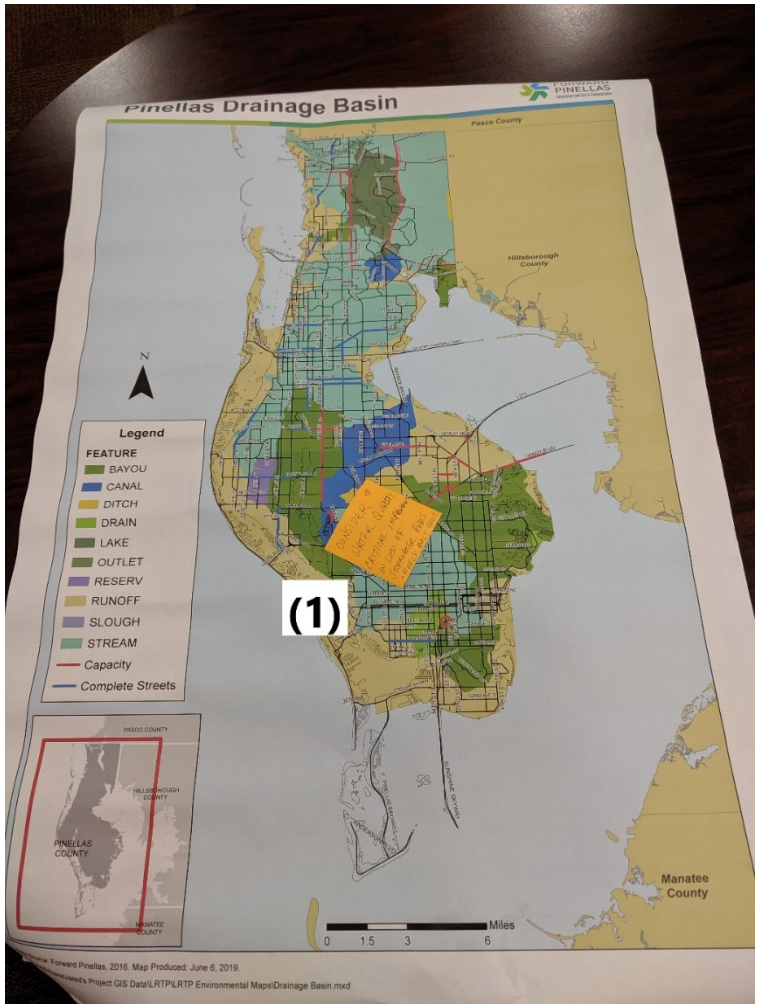
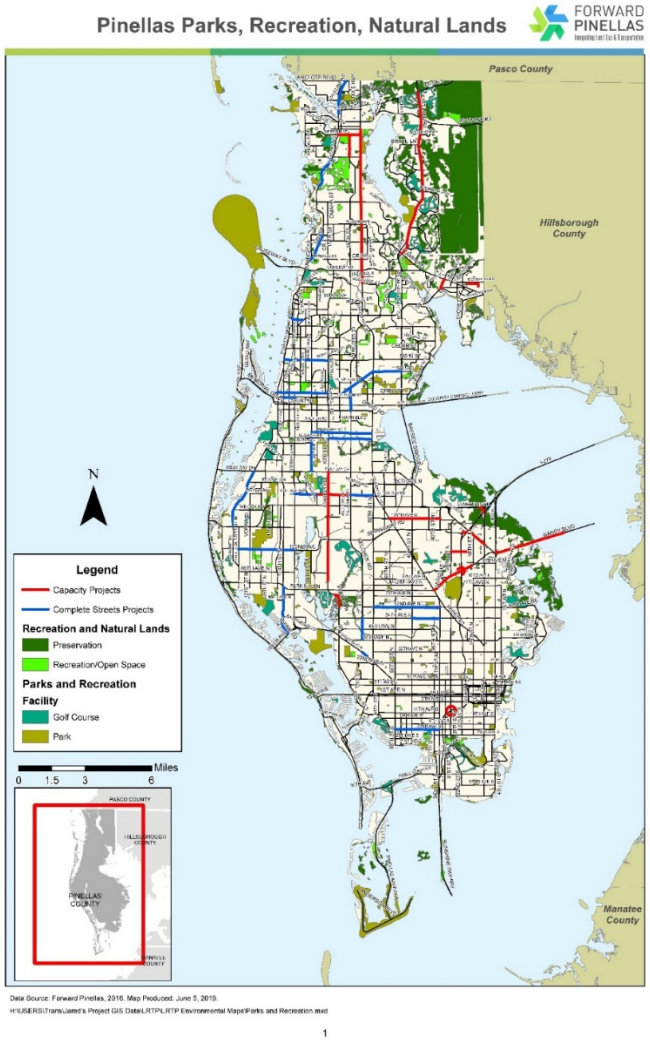
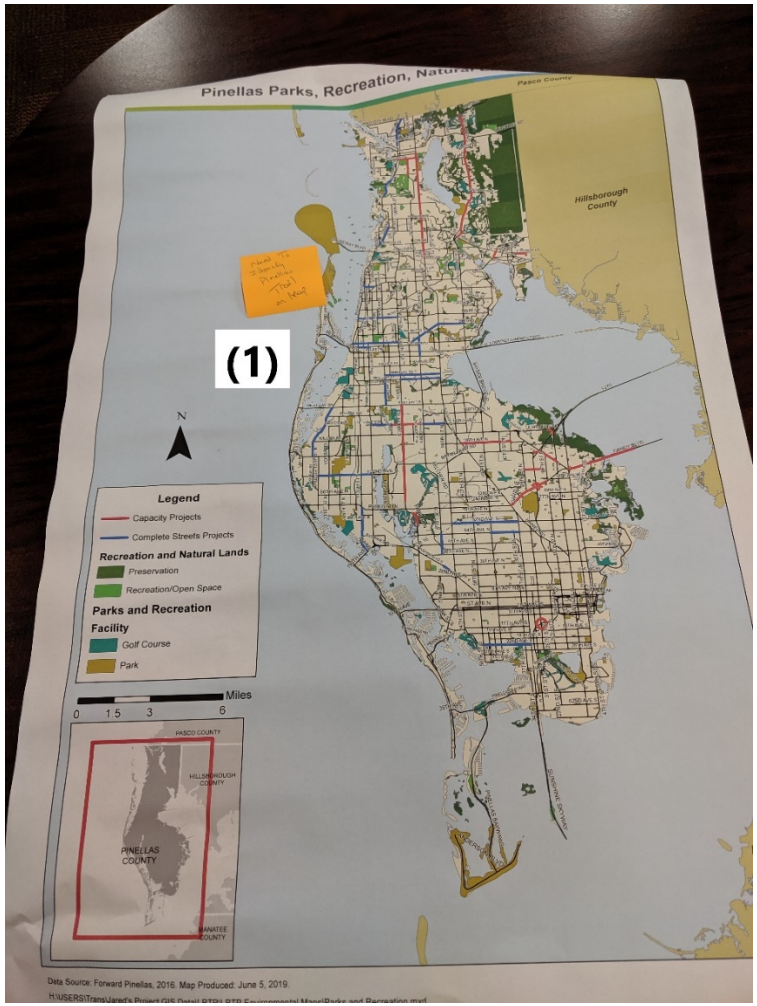




Participant Comments on Drainage Basin:

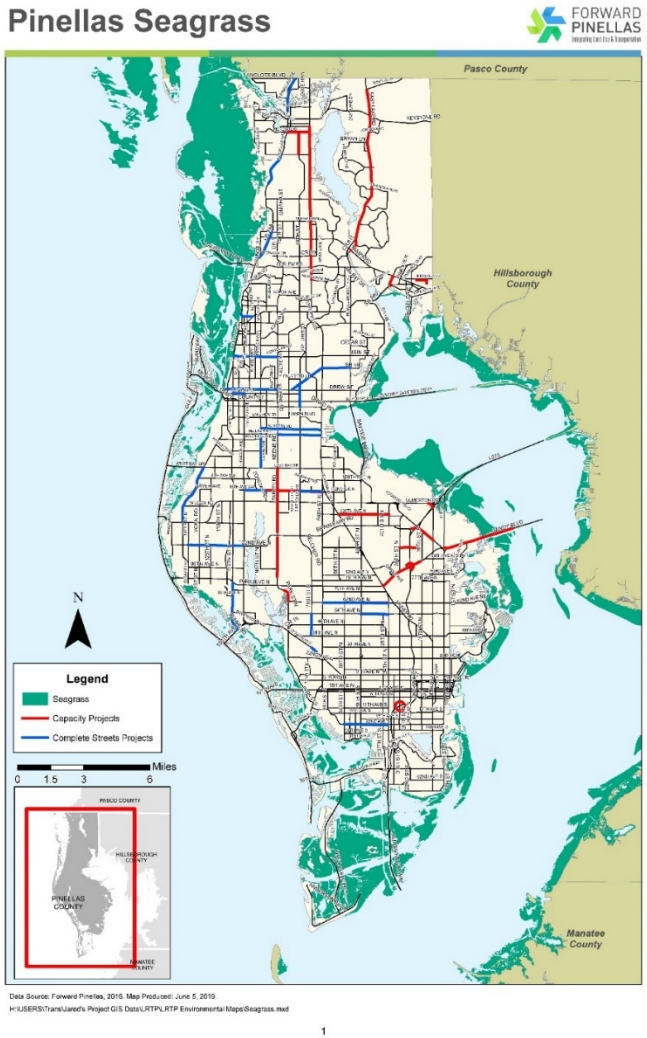
(1) Consider water quality critical improvement in lieu of stormwater ponds – highly built environment





Participant Comments on Parks, Recreation, Natural Lands:

(1) Need to identify Pinellas Trail on map



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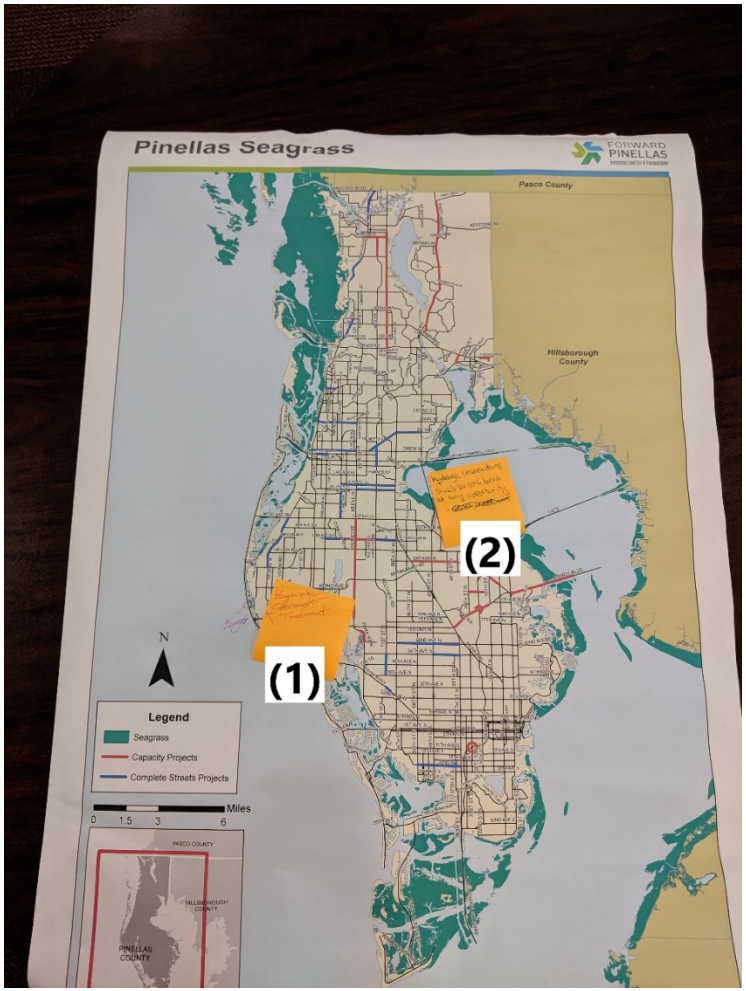

Participant Comments on Seagrass:

(1) Bay Pointe Stormwater Treatment

(2) Hydrologic reconnections should be considered at any opportunity

Comments

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Presentation

Agenda for Today

- 10 AM – 10:30 AM Introductions
- 10:30 AM – 12:30 PM Regional Discussion
  - Overview Presentation
  - Review of and comments of Regional Maps
    - Discussion and feedback with staff (Flip Chart and Post-It Notes)
- 12:30 PM - 1:30 PM Boxed Lunch (on site)
- 1:30 PM – 3:00 PM County Breakout Session
  - Review and comments of Regional Maps
    - Discussion and feedback with staff (Flip Chart and Post-It Notes)

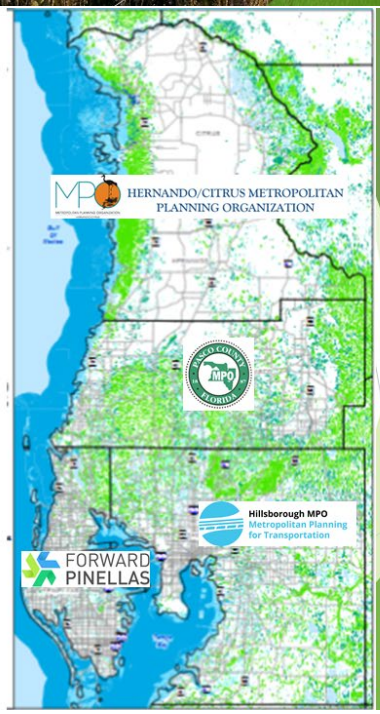
Purpose

- To enhance the consideration of environmental issues and impacts in the transportation planning process.
- To strengthen efforts to engage resource agencies earlier in the development of a project.
- To establish coordination efforts between transportation and resource agencies as projects advance.

FHWA Requirements

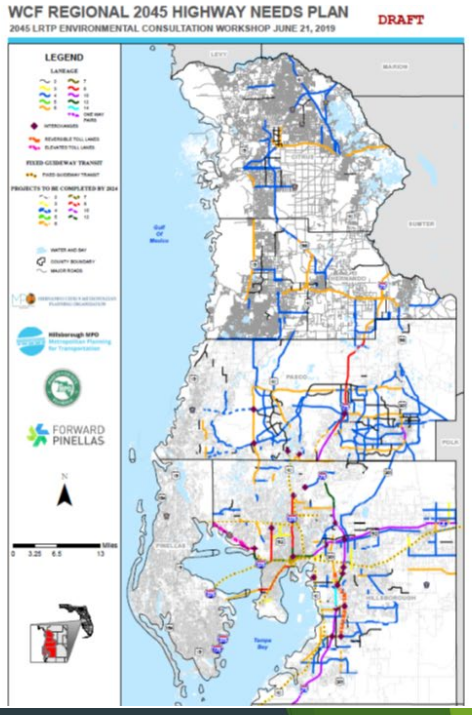
Long Range Plans must:

- Include a discussion on the types of environmental mitigation activities and the potential areas to carry them out.
- Be developed in consultation with federal, state and tribal agencies involved with wildlife, land management and regulation.
- Be performed at a systemwide level to identify where mitigation may be undertaken, and what types of mitigation activities may be undertaken in areas affected by LRTP projects.
- Focus on broader mitigation needs and opportunities that may be by future projects.
- Not be project specific.



LRTP Needs Plan

- Future projects needed for mobility in each county
- Projects will undergo a full environmental assessment as funding is identified and project is advanced for funding
- Review project locations on environmental land to identify potential red flags that can be funded for possible mitigation costs

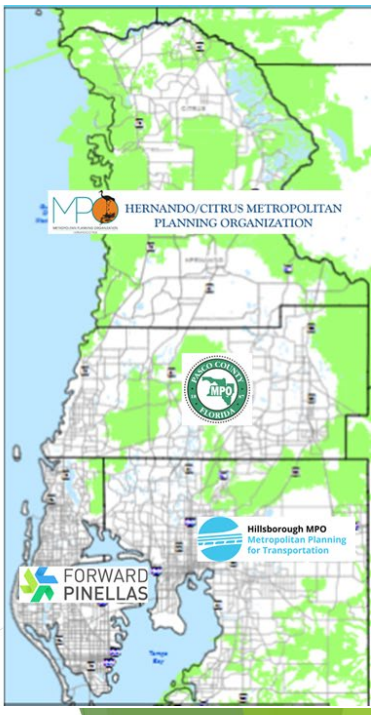


Current Strategies

- Wetland mitigation
  - Environmental Resource Permitting Program
  - Existing SWFWMD mitigation banks
- Seagrasses
  - Avoidance
  - Strategic reconfiguration of causeways to allow for better water flow to protect seagrasses

Questions for you

- What policies/programs/activities does your agency currently undertake to mitigate development impacts to the environment?
- What limitations are there for each of these areas?
  - Is there no capacity remaining in mitigation banks?
  - Is there no consideration for new mitigation banks in the future?
  - Is there limited success with certain activities?
- How should critical habitat considerations be addressed to protect wildlife?
- Are you aware of any untapped opportunities to enhance environmental mitigation activities?



Additional Comments

Contact Information

- All materials posted online

http://www.planhillsborough.org/2045-lrtp-environmental-consultation-workshop-draft/

- Additional comments can be submitted until July 5th :
  - Allison Yeh, Hillsborough MPO - yeha@plancom.org
  - Chelsea Favero, Forward Pinellas - cfavero@forwardpinellas.org
  - Cayce Dagenhart, Hernando/Citrus MPO - cdagenhart@co.hernando.fl.us
  - Tania Gorman, Pasco MPO - tgorman@pascocountyfl.net

Thank you!

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Regional Questions and Answers Summary

Audience Question

Group (Staff and another agency's response)

Could the development of transportation systems decrease the number of people using septic systems?

Yes. More people living near the transportation systems can be connected to the sewage pipeline and, if marketed correctly to consumers, can decrease the number of septic system users.

30% of nitrates are removed from sewage using the septic system, but the rest cannot be treated and must be disposed into the environment. Pasco county is in the process of acquiring private utilities to connect more people to the county's sewage system.

Resources mentioned:

2004 Environmental Lands Acquisition Program

2016 Florida Water Protection Act

Is there a rubric available to guide engineers towards sustainable development in roadway development?

Nothing yet.

How should critical habitats be addressed when they are impacted by transportation projects?

The FWC doesn't have regulatory authority to address these habitats. However, permits are available to transfer animals from the affected area to other critical habitats

How should wildlife corridors be implemented in transportation plans?

Hillsborough County already has wildlife corridors for some portions of its roadways. However, human development should not interfere with local water sources to ensure wildlife are healthy when migrating to areas of Hillsborough County.

Are studies available that show how the Tampa Region's highway projects affect local wildlife, and what are the best ways to mitigate further wildlife impacts?

Environmental and cultural consequences are analyzed for each transportation project. Further, permits are issued when highway projects demonstrate a reasonable degree of wildlife impact. However, elected officials determine whether these issues are a problem. Environmental strategies are not found in local legislation, so environmentally-informed elected officials are important for the implementation of environmental strategies. Transportation planners cannot implement new environmental strategies without the compliance with elected officials.

It is also important to note that secondary impacts can result from transportation projects. Roads are long walls. Because wildlife managers cannot control the movement of wildlife to wildlife corridors, it is unsure what portions of wildlife benefit from completing their migration routes. Prescribed fires nearby roadways are NIMBY for people using transportation close to the fire. People need to be notified of prescribed fires before they happen to lessen the perceived severity.

Are mitigation credits allowed to be implemented at the planning stage? And are MPO's allowed to create their own ROMA's?

During the planning stage, mitigation credits are not implemented. 10+ year projections are required for transportation projects to estimate ROMA's. MPO's should stop relying on private banks and create their own ROMA's.

Are MPO's working with the agricultural sectors of their counties?

MPO's do not work directly with agricultural sectors but have representatives that coordinate with agricultural people. It is suggested that there should be direct communication with the agricultural sector by the MPO's.

Are golf courses Senate Bill Mitigation approved?

MPO's do not have control over purchasing golf courses unless state governments such as the FDOT are involved in the situation.

Other notes:

- MPO's should fund/support environmental programs such as Florida Forever.
- Transportation projects should also account for sea level rise in the next several decades and have road elevations built based on these projections.

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Comments Matrix

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		All Counties	Hillsborough	Pinellas	Pasco	Hernando	Citrus
Topics	Agricultural Communication Coordination	Encourage direct communication with transportation agencies.					
	Engineer Rubric/Guidelines for Green Infrastructure Improvement	Not composed yet, but should be.					
	Septic Tanks	Consider connecting sewage lines with transportation projects to stop public reliance on septic tanks. Septic tanks - 70% sepage.					
	Mitigation Banks	See description in "Additional Comments" section.					

		All Counties	Hillsborough	Pinellas	Pasco	Hernando	Citrus
Topics	Parks and Recreation	**(1)** Greens should be in different colors. **(2)** Information isn't consistent across maps.	**(5)** Why no Brooker Creek identified on this map?	**(1)** (County Map) Need to identify Pinellas Trail on map.	**(4)** Why has most of the public ownership in Green Swamp been excluded from this map? Both Hernando and Pasco counties. **(1)** (County Map) Add trails as linear parks (opp-roads)		**(3)** The Citrus tract of Withlacoochee State Forest should be deliniated on this map, as it is on Regional Conservation Land Map.
	Wildlife Corridors	**(1)** Need the highway corridor to overlay on top of all maps - especially the wildlife corridor to show areas. **(2)** Consider adding trails as linear parks. I-4: wildlife crossings considered in permitting (SWFWMD) Perscribed burns needed, but public also needs to be informed/educated on the topic	Crossings cannot be considered locally - education needed at decision-making stage HC possesses wildlife crossings; provide them in the initial transportation plans/maps.	**(3)** Pinellas Trail is a wildlife corridor.	1 cent tax in Pasco: environmental lands - adopted ecological corridors Would me useful to identify private vs. public lands within the corridors. Connectivity is important, maybe private land could be acquired or access agreement made to protect wildlife. Info presented doesn't seem consistant between maps. Conservationa rea on one does not show up as a park/wildlife corridor.		In Citrus, the Duke Energy footprint looks too small, is there really that much conservation zoned land? Yellow area @ Crystal River, is that the State Park? There is no county park that big. Info presented doesn't seem consistant between maps. Conservationa rea on one does not show up as a park/wildlife corridor.

Note: Each parenthesis "**(X)**" refers to map comments in the previous section.

		All Counties	Hillsborough	Pinellas	Pasco	Hernando	Citrus
Topics	Natural Conservation Lands		**(2)** Natural Corridor from Hooker Lake to (eventually) Hillsborough River area. The corridor crosses under US Hwy 92, very little protection from road construction.		Name large tracts of parks/conservation (label). Include deliniated wildlife areas - the endangered/threatened species layers. Not acquired land should be highlighted for identification of opportunity to focus mitigation efforts. Ability to maintain conservation lands (namely through burning) often conflicts with plans to build roads. Burning and high-volume traffic don't mix. Policy creation: roads near conservation lands shouldn't be developed into high-volume traffic corridors because it greatly reduces the land manager's ability to maintain the property. (1): Boy Scout Tract of the Flying Eagle Appears to be excluded. (2): Lake Townsen Preserve should be included like Cypress Lakes was. Federal/FL A+M agricultural research area; should it be included?	**(1)** Is this the Peck Sink Project Area? If not, only 150 acres are actually protected as conservation land.	Name large tracts of parks/conservation (label). Include deliniated wildlife areas - the endangered/threatened species layers. Not acquired land should be highlighted for identification of opportunity to focus mitigation efforts. Ability to maintain conservation lands (namely through burning) often conflicts with plans to build roads. Burning and high-volume traffic don't mix. Policy creation: roads near conservation lands shouldn't be developed into high-volume traffic corridors because it greatly reduces the land manager's ability to maintain the property. (1): Boy Scout Tract of the Flying Eagle Appears to be excluded. (2): Lake Townsen Preserve should be included like Cypress Lakes was. Federal/FL A+M agricultural research area; should it be included?

Note: Each parenthesis "**(X)**" refers to map comments in the previous section.

		All Counties	Hillsborough	Pinellas	Pasco	Hernando	Citrus
Topics	2045 Highway Needs Plan	**(1)** Need to show "New Roads" vs Existing in a different color.	**(3)** Wildlife crossing, add to PD + E **(4)** Hooker Lake to Hillsborough River area. There is a connection under US 92, I4, US301 - little consideration given to wildlife crossings.		The Turnpike Project "Coastal Connector" needs to be included on the maps and in the discussion. Look at Springs SWIM plans for vetted projects to coordinate with. Needs layer should be able to be overlayed onto any of these projects - so it shows if it goes through a sensitive area or wildlife corridor. Change in attitude about how mode of transportation is more important than people.		**(2)** Where is the "coastal connector" roadway (turnpike) project? The Turnpike Project "Coastal Connector" needs to be included on the maps and in the discussion. Look at Springs SWIM plans for vetted projects to coordinate with. Needs layer should be able to be overlayed onto any of these projects - so it shows if it goes through a sensitive area or wildlife corridor. Change in attitude about how mode of transportation is more important than people.
	Seagrass		**(1)** Circulation improvements in OTB for seagrass offsets. **(2)** SWFWMD has updated (2018) seagrass map - look at trends, not just coverage.	Circulation improvements in OTB for seagrass offsets. **(1)** Bay Pointe Stormwater Treatment **(2)** Hydrologic reconnections should be considered at any opportunity			

Note: Each parenthesis "**(X)**" refers to map comments in the previous section.

		All Counties	Hillsborough	Pinellas	Pasco	Hernando	Citrus
Topics	Drainage Basin Classification	**(1)** Having main highways and streets labeled would help in reading/understanding ALL maps. **(2)** The canal designation is not appropriate. **(3)** The Chassahowitzka River and Homosassa River and Crystal River watersheds as labeled DITCH or RUNOFF. They are watersheds not ditch or runoff. **(4)** The categories in this legend make no sense in terms of drainage basin delineated.		**(5)** (Regional Map)How to improve water quality of Lake Tarpon? Assuming building up in Pinellas. **(1)** (County Map) Consider water quality critical improvement in lieu of stormwater ponds - highly built environment	Drainage Basin maps should show basin names and not what the symbology currently shows. Examine watershed BMAPS in the highway corridor and coordinate. Will impervious surfaces impact the BMAPS? (legal?)		Drainage Basin maps should show basin names and not what the symbology currently shows. Examine watershed BMAPS in the highway corridor and coordinate. Will impervious surfaces impact the BMAPS? (legal?)
	ROMA Areas		Planning stage: how many mitigation projects for 10+ years that won't be dependent on private banks?		Align strategies with land acquisition		
	Florida Forever	Program needs to be fully funded. No more silos for the issue.					

Note: Each parenthesis "**(X)**" refers to map comments in the previous section.

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Additional Comments

Mitigation Banks:

All counties - The FDOT designs, builds and maintains transportation systems. The installation of these systems may add impervious pavement and re-route the natural drainage pattern of an area. Both the transportation facility and the stormwater management system take up space and in some instances, expansions can encroach into an area that is currently not developed with commercial or residential attributes. When this occurs, environmental scientists must determine if this natural acreage supports wetlands or surface waters and if so, evaluate the level of impact the construction of the project will have. Scientists must also determine which listed species of animal, bird, reptile, plant, insect or fish may also live on the land (or in the water). The goal is to have 'no net loss' of function or value to wetlands, surface waters, listed species or their habitats, in the post construction condition to meet the state and federal environmental regulations.

In the United States, water quality is governed nationally by the Environmental Protection Agency (EPA) through the Clean Water Act. In the State of Florida, water is owned by the public and maintaining water quality is regulated through Chapter 373, Part IV of the Florida Statutes. The US Army Corp of Engineers (USACE) implements the federal regulatory program on behalf of the EPA in Florida and the Southwest Florida Water Management District (SWFWMD) implement's the State of Florida's program for District Seven. Environmental permits are intended to minimize adverse environmental, water quality, or water quantity impacts during construction and the subsequent operation. The agencies are required to evaluate the potential for impacts for each construction or maintenance project in which a dredge or fill action is proposed in wetlands or surface waters on listed threatened or endangered species, including species of special concern here in Florida, and their designated habitat. These evaluations often require concurrence from other state or federal agencies including the National Marine Fisheries Service, US Fish and Wildlife Service, and the Florida Fish and Wildlife Conservation Commission.

The Uniform Mitigation Assessment Method (UMAM), establishes a standardized procedure for evaluating the functions provided by wetlands and surface waters, the amount those functions are reduced by a proposed impact, and the amount of mitigation needed to offset that loss. The loss is offset or mitigated with replacing the lost function within the same drainage basin to achieve a 'no net loss' as previously mentioned. In general, mitigation is best accomplished through creation, restoration, or enhancement of ecological communities like those being impacted. Mitigation can be conducted on the project site, off-site, or through the purchase of credits from an established mitigation bank. A Mitigation Bank has obtained a permit from both SWFWMD and USACE to construct, operate, manage and maintain a property upon which creation, enhancement, and/or restoration of wetlands and surface waters is undertaken to provide for the withdrawal of mitigation credits for a cost.

The FDOT and other transportation authorities (established pursuant to Chapters 348 or 349) must evaluate mitigation alternatives according to Chapter 373.4137 of the Florida Statutes. The Florida Legislature determined impacts from proposed transportation projects can be more effectively achieved by long range mitigation planning rather than on a project by project basis. The use of mitigation banks and any other alternative mitigation options that satisfy state and federal requirements in a manner that promotes efficiency, timeliness in project delivery, and cost-effectiveness can be used. One alternative program developed by the SWFWMD in this region of the State is the FDOT Mitigation Program (a.k.a. 'senate bill mitigation'). However, for each proposed project, all available alternatives are evaluated for efficiency, timeliness in project delivery, and cost-effectiveness prior to making a commitment to a mitigation source. Some of the evaluating factors include whether there are suitable and sufficient mitigation bank credits available in the appropriate drainage basin and whether the mitigation source satisfies state and federal regulatory requirements, including long term maintenance and liability. Off-site mitigation alternatives are commonly the preferred method of mitigation for transportation projects because of limited right-of way.

Current mitigation banks within District 7:

Updated: Jun-19 19-Mar

ERP Basins in District 7	igation Ba	Freshwater Forested (Palustrine Forested)		Freshwater Non-Forested (Palustrine Emergent+Open Water)		Mangrove (Estuarine Forested)		Salt Marsh (Estuarine Emergent)	
		Available[1]		Available[1]		Available[1]		Available[1]	
		State	Fed	State	Fed	State	Fed	State	Fed
Tampa Bay/ Coastal	Tampa Bay			12.88	19.089	0	0.168	14.65	19.542
	Bullfrog Creek[6]	0	0						
	Nature Coast[6]	n/a	n/a	n/a	n/a	6.35		1.06	
	Hernando Beach[6]					n/a	n/a	n/a	n/a
	Mangrove Point[6]					0	0	0	0
Upper Coastal	FL Gulf Coast (partial)[4]	er Mitigation Service Area does not includ						20.85	18.38
	Aripeka[6]	n/a	n/a	n/a	n/a			0	0
	Nature Coast[6]	n/a	n/a	n/a	n/a	6.35		1.06	
	Old Florida	110.09	10.823	46.108	14.091				
	Hernando Beach[6]					n/a	n/a	n/a	n/a
	Upper Coastal[5, 6]	12.065	0.685	n/a	n/a				
Hillsborough River	Hillsborough River	19.87	10.83	0.32	6.81				
	North Tampa	0	2.88						
	Two Rivers[6]	n/a	n/a	n/a	n/a				
	Wiggins Prairie[6]	n/a	n/a	n/a	n/a				
	Alafia River[6]	n/a	n/a	n/a	n/a				
	Fox Branch	40.71	0	0.51	0				
	Boarshead Ranch	0.15	0	1.02	0				
Withlacoochee	Green Swamp	19.4	0	0.43	0				
	Withlacoochee	63	0	0	0.07				
	FL Gulf Coast (partial)[4, 6]	Freshwater Mitigation Service Area does not include D						20.85	18.38
	Crooked River[6]	n/a	n/a	n/a	n/a				
	Hilochee	0	0	24.45	14.31				
	Boarshead Ranch	0.15	0	1.02	0				
Alafia	Alafia River[6]	5.08	0	0.02	0				
Little Manatee	Manatee	n/a	n/a	n/a	n/a				

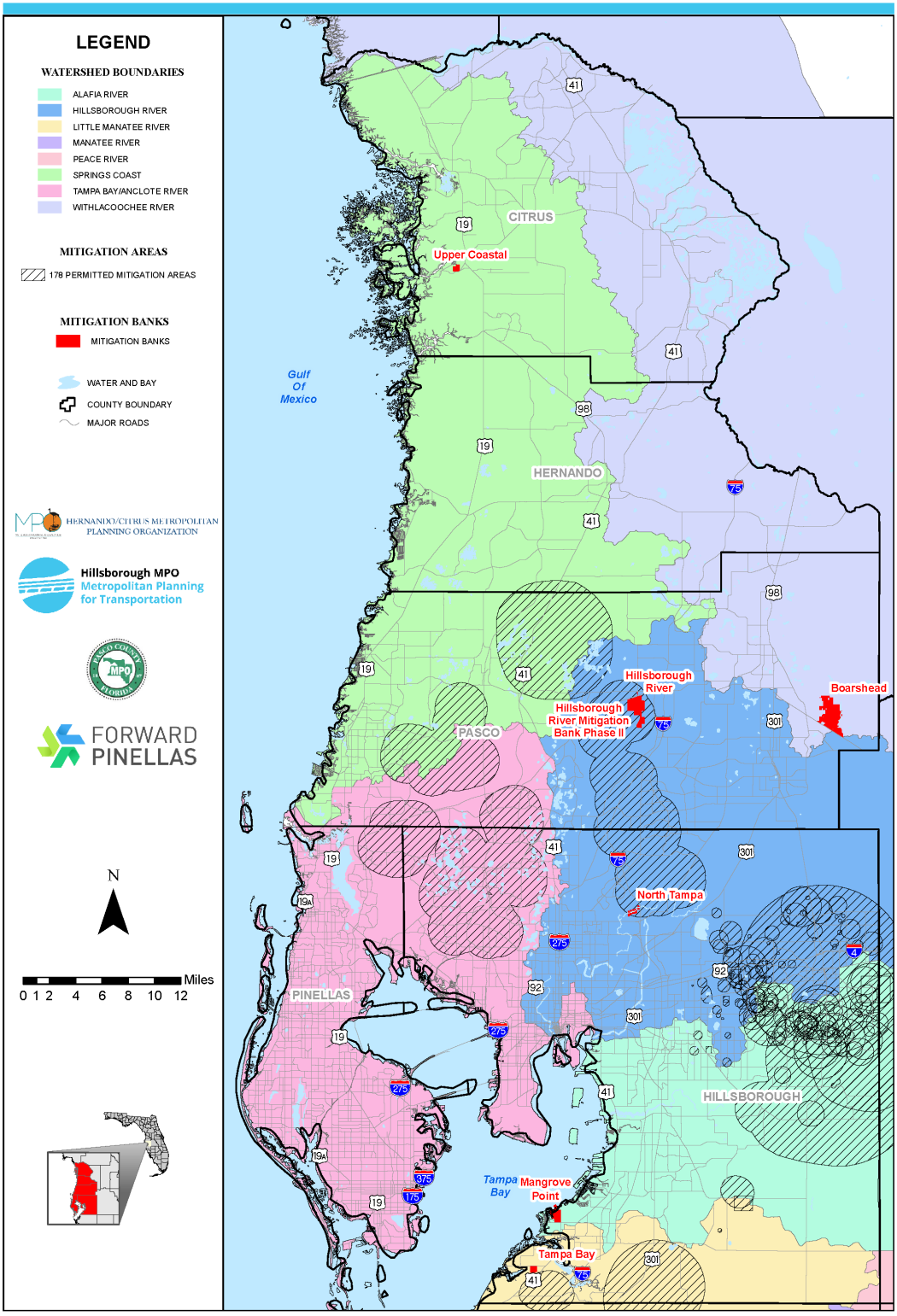
Current FDOT Mitigation Program sites within District 7:

ERP Basins in District 7	SWFWMD FDOT Mitigation Site	Freshwater Forested (Palustrine Forested)		Freshwater Non-Forested (Palustrine Emergent+Open Water)		Mangrove (Estuarine Forested)		Salt Marsh (Estuarine Emergent)		Seagrass	
		Credits	Acres	Credits	Acres	Credits	Acres	Credits	Acres	Credits	Acres
Tampa Bay/ Coastal	Brooker Creek	36.59	114.35	12.12	37.86						
	Alligator Lake	0.71	3.13	4.61	10.35						
	Bahia Beach	1.41	6.06	11.57	18.62	1.06	16.14	15.39	15.39		
	Ekker	0		0							
	Mobbly Bayou					--		--			
	Cockroach Bay										
	Ft DeSoto Park									2.91	12.38
	Gateway										
	Tappan Tract										
	Apollo Beach										
	Boyd Hill										
	Total	38.71		28.3		1.06		15.39		2.91	
Upper Coastal	Conner Preserve	50.34	502.27	31.89	325.84						
	Anclote Parcel										
Hillsborough River	Colt Creel	12.01	39.04	8.37	23.61						
	Conner Preserve	13.52	85.02	12.05	83.68						
	Fussell										
	Hills. River Corridor	n/a	n/a	n/a	n/a						
Withlacoochee	Colt Creek	287.82	1000.12	37.81	110.18						
	Baird Tract										
	Halpata Tastanaki	17.24	103.36								
Alafia	Balm Boyette										
Little Manatee	Little Manatee River										

Note: these charts were provided by FDOT 7 for illustrative purposes only. They have not been updated to reflect current credits of acreage.

WEST CENTRAL FLORIDA REGIONAL MITIGATION BOUNDARIES

2045 LRTP ENVIRONMENTAL CONSULTATION - TECHNICAL MEMORANDUM



Data Source: Hillsborough County MPO, Pinellas MPO, Pasco MPO, and Citrus-Hernando MPO.
Watersheds and Mitigation Areas & Banks - SWFWMD, Water, Lakes - FDEP

WCF = WEST CENTRAL FLORIDA

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Author: Roger Mathie Updated: August 19, 2019

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Next Steps

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Staff-Researched Mitigation Strategies

Mitigation Banks:

When land-based transportation projects in Florida are constructed on wetlands, mitigation banks are the main method of restoring lost natural habitat. Wetlands play a vital role for the Floridian ecosystem by filtering local water of pollutants and housing diverse arrays of wildlife exclusive to Florida (USDA). The Florida Fish and Wildlife Conservation Commission (FWC), the U.S Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS) require that measures be taken for projects to have the least amount of habitat impact on state and federally-protected species. Mitigation banks work to restore natural habitats by "[restoring, establishing, enhancing, or preserving]" aquatic areas in places nearby or outside of the impacted area (EPA, 2019). Wetland credits can be purchased from the mitigation bank. The number of credits purchased indicates the degree of ecological function that was provided by the impacted environment and be restored with this mitigation strategy (EPA, 2019). Four options are available for mitigation banks:

- *Tampa Bay Mitigation Bank:*

The Tampa Bay Mitigation Bank is currently the only bank with wetland credits available for purchase for projects in Hillsborough County. The 161-acre wetland creation site is located in southwestern Hillsborough County, along the headwaters of Andrews Creek, and provides wetland credits for roadway projects located in western coastal regions of Hillsborough County (within the Tampa Bay Basin). Estuarine and tidal forest credits are available for state and federal permitting requirements, and estuarine and freshwater credits are offered to satisfy County permitting criteria. Although this mitigation bank currently has credits for sale, its future availability of credits for transportation projects will depend on the extent of future development within the bank's service area.

- *North Tampa Mitigation Bank:*

The North Tampa Mitigation Bank is a 161-acre bank located in Temple Terrace, which will service projects located within the Hillsborough River Basin. This bank was permitted in November 2009 by the SWFWMD and is likely to have state wetland credits available for purchase soon; however, the availability of credits is expected to be limited. The USACE permit is currently pending, and it is unknown when federal wetland credits will be available for purchase at this mitigation bank.

- *Regional Offsite Mitigation Areas*:

Regional Offsite Mitigation Areas (ROMAs) are similar to private mitigation banks but are sponsored by government entities to provide credits for associated government-funded projects. The Hillsborough County Board of County Commissioners currently owns a 14,000-acre tract of land located in northeastern Hillsborough County (Cone Ranch), which is currently targeted for ELAPP acquisition. Although a ROMA does not currently exist at Cone Ranch, it could potentially prove to be a suitable site for establishment of a ROMA, due to the strong need for land restoration and management activities at the site.

- *Senate Bill Mitigation*:

"Senate Bill Mitigation" was established pursuant to Chapter 348 and 349 Florida Statutes (F.S.) and may be used for County roadway projects that are funded by FDOT. This form of mitigation consists of providing funding to the SWFWMD for "…acquisition for preservation, restoration or enhancement, and the control of invasive and exotic plants in wetlands and other surface waters, to the extent that such activities comply with the mitigation requirements adopted" under Chapter 373 FS (The Florida Senate, 2018). "Senate Bill Mitigation" is currently available for state-funded roadway projects throughout Hillsborough County and is expected to remain a viable option for future projects; however, it cannot be used to offset adverse impacts to seagrass resulting from transportation projects.

Mitigation Bank Alternatives:

When these mitigation opportunities are not available for transportation projects, mitigation in the form of wetland habitat creation, restoration, enhancement, and/or preservation can be utilized to offset adverse wetland impacts resulting from transportation improvements in Hillsborough County. This can be accomplished by designing a mitigation site(s) that provides the necessary wetland functions to replace the ecological value of the impacted wetland(s). This method of mitigation may consist of creating a new wetland within an upland area, restoring a degraded wetland to its historic condition (this may include removal of undesirable plant species from the wetland), enhancing a wetland to a more desirable condition (in order to provide a greater habitat value to wildlife), and preservation (establishment of a conservation easement over the wetland to prevent future development). Due to the need for restoration, enhancement, and preservation of existing wetlands throughout Hillsborough County, these mitigation opportunities are expected to continue to remain available for transportation projects.

Wildlife Corridors:

For transportation projects that cut through natural areas, wildlife corridors are constructed under roads to preserve the natural functions of the surrounding environment. Animals such as the Florida Panther and Florida Black Bear rely on various terrains throughout Florida for feeding, shelter and reproduction (Florida Wildlife Corridor). Wildlife corridors allow for the continuation of these migration routes. Additionally, corridors allow for the continuation of Florida's natural flow of freshwater and preserve the processes that allow us to have water resources (Florida Wildlife Corridor).

Critical Habitats:

For transportation projects to be further environmentally conscious, critical habitats must be preserved during the planning process to ensure the continuation of Florida's endemic wildlife. Critical habitats are areas within a region that possess "physical or biological features that are essential to the conservation of endangered and threatened species and that may need special management or protection" (FWC, 2017). Protecting organisms native to Florida serves to support the state's ecological processes; the vulnerable gopher tortoise creates burrow habitats that support over 350 different species of animals (FWS, 2019). Food webs are complex,

interconnected systems. Reducing the availability of land for our wildlife will reduce our supply of natural resources. The preservation of these areas ultimately preserves our own lifestyles.

Ecological Corridors

- *North Pasco (Starkey) to Crossbar Ecological Corridor*

This Ecological Corridor follows the Pithlachascotee River and begins at the northern County line along the Masaryktown Canal to the Crossbar Ranch wellfield. Crews Lake Park lies approximately midway between the north Pasco and Crossbar wellfields and is included in the Ecological Corridor. Large portions of this corridor are not currently in public ownership. The overall distance between the public lands to be interconnected requires a width of 2,200 feet to provide functionality for this Ecological Corridor. The Corridor contains flatwoods, mesic hammocks, and forested wetlands associated with the Pithlachascotee floodplain, including the extremely dynamic hydrologic basin associated with Crews Lake, but also will preserve portions of the historic Sandhill communities as it approaches the Crossbar Ranch. The essential features are the flatwoods, mesic hammocks, forested wetlands, the Pithlachascotee floodplain and xeric uplands on either side of the Masaryktown Canal.

Boundaries: Being one thousand one hundred (1,100) feet on each side of the centerline of Pithlachascotee River and its associated wetlands, flatwoods and uplands, extending from the Starkey Wilderness Park easterly boundary to the Cross Bar Ranch westerly boundary, conceptually indicated on Exhibit 804-1 of this Section.

- *Crossbar to Connerton Ecological Corridor*

The Conner Preserve, formerly known as the Connerton purchase, serves as the nexus for three of the seven Ecological Corridors. The Crossbar to Connerton connection is a 2,200-foot-wide corridor that will preserve a broad expanse of herbaceous marshes in the west central portion of the County. Much of the area encompassed by the Crossbar to Connerton Ecological Corridor is comprised of seasonally flooded sandhill and flatwoods marshes. The mosaic created by the presence of these marshes, flatwoods, and imbedded adjacent uplands provides for the preservation of seasonally flooded, mesic, and xeric habitats that will be used by a wide variety of wildlife. The essential features are the Sandhill, marsh and flatwood habitats which create a unique mix of diverse habitat types within the confines of this corridor.

Boundaries: Being one thousand one hundred (1,100) feet on each side of the centerline of the Category 1 wetlands, extending from the Conner Preserve northerly boundary to the Al Bar Portion of Crossbar Ranch southerly boundary, conceptually indicated on Exhibit 804-2 of this Section.

- *North Pasco (Starkey) to Connerton Ecological Corridor*

Throughout much of its approximately four-mile course, this Ecological Corridor incorporates the forested wetland systems associated with Five Mile Creek. There is an existing large, open span undercrossing at the juncture with the Suncoast Parkway. An additional large mammal undercrossing is designed for this Corridors' juncture with U.S. 41 providing connectivity with the Conner Preserve. Much of the western portion of this 2,200-foot-wide corridor is comprised of

forested wetlands and the floodplain associated with Five Mile Creek. This corridor includes areas of historic flatwoods habitat that have been modified to agricultural and silvicultural use. The flatwoods communities can be restored as part of the preservation of this Corridor, but several areas of relic Sandhill also exist within the confines of the recommended Corridor boundaries enhancing its diversity and value as habitat. The essential features within the confines of the Ecological Corridor are the forested wetlands and floodplain associated with Five Mile Creek and the small, imbedded upland habitats within the limits of the Ecological Corridor boundary.

Boundaries: Being one thousand one hundred (1,100) feet on each side of the centerline of the Five Mile Creek wetlands and associated uplands, extending from the Starkey Wilderness Park easterly boundary to the Conner Preserve and Connerton Conservation Easement westerly boundaries, conceptually indicated on Exhibit 804-3 of this Section.

- *Cypress Creek to Connerton Ecological Corridor*

The required 550-foot width of this Ecological Corridor is based on its relatively short distance between the Conner Preserve and the Cypress Creek Wellfield. The majority of this Corridor includes wetlands associated with Cypress Swamp that were historically associated with the mosaic of wetlands in the northeast corner of the Connerton Ranch. This Ecological Corridor crosses Ehren Cutoff (S.R. 583) and the planned design of an improved, realigned roadway in the future must incorporate a large mammal crossing to provide corridor continuity and connectivity from the Cypress Creek wellfield to the Conner Preserve. The essential features is establishing and preserving the connectivity between the Conner Preserve and the Cypress Creek Wellfield employing the wetlands and imbedded uplands at the nearest point between the two areas of public lands.

Boundaries: Being two hundred twenty-five (225) feet on each side of the centerline of the Category 1 wetlands, extending from the Conner Preserve easterly boundary to the Cypress Creek Wellfield northwesterly boundary, conceptually indicated on Exhibit 804-4 of this Section.

- *Starkey to South Pasco Ecological Corridor*

This Ecological Corridor extends south of the SWFWMD lands along South Branch, a tributary of the Anclote River, ultimately to the connection with Brooker Creek in Hillsborough County. Much of this Corridor has been impacted by development. Due to the urban nature of the connection south of the SWFWMD lands, and the relatively short distance of this Corridor, the required width is 1100 feet with a 550-foot-wide extension to the east for a necessary connection to the South Pasco wellfield. The essential features are the South Branch tributary, its associated floodplain and the wetlands, flatwoods and small upland areas within the confines of the Ecological Corridor.

Boundaries: Being five hundred fifty (550) feet on each side of the centerline of the South Branch and associated wetlands, flatwoods and uplands, including portions of the floodplain, extending from the Starkey Wilderness Park southerly boundary to the Pasco-Hillsborough County line northerly boundary and two hundred twenty five (225) feet on each side of the centerline of the

South Branch tributary to the South Pasco Wellfield westerly boundary, conceptually indicated on Exhibit 804-5 of this Section.

- *Cypress Creek to Cypress Bridge Ecological Corridor*

This relatively short Ecological Corridor is urban in nature but is essential to facilitate dispersal of wildlife through the surrounding altered landscape. This Corridor is vitally important to preserve habitat and connectivity through the urbanized "bottleneck" between the large conservation lands associated with Cabbage Swamp and Cypress Swamp and the conservation lands in Hillsborough County. The preservation and protection of this Corridor is very important because of the impacts associated with S.R. 54/Interstate 75 transportation corridor and associated development along its course. However, preservation of the remaining forested wetlands associated with Cypress Creek and its floodplain will provide a minimal sustainable area of valuable natural habitat. The essential features are the protection of the Cypress Creek channel and its associated floodplain as a designated Outstanding Florida Water; protection of the surface water resource; and preservation of the remaining forested wetlands within the defined Ecological Corridor boundaries.

Boundaries: Being two hundred seventy-five (275) feet on each side of the centerline of Cypress Creek and increasing to being five hundred fifty (550) feet on each side of the center line of Cypress Creek, extending from the Cypress Creek Wellfield southerly boundary to the Pasco-Hillsborough County boundary, conceptually indicated on Exhibit 804-6 of this Section.

- *Hillsborough River to Green Swamp Ecological Corridor*

Extensive purchases by the SWFWMD have already taken place along the proposed Hillsborough River Ecological Corridor. Although C.R. 39 currently crosses the Hillsborough River, the protection of the river and its floodplain in this portion of the County has been prioritized by the SWFWMD. For the most part, this portion of the river is surrounded by agricultural uses but continues to support a sufficiently wide forested floodplain throughout the Ecological Corridor. Because of the importance of the Hillsborough River surface water resource and the habitat value of, the remaining forested floodplain, the Ecological Corridor is established at a width of 2,200 feet. The essential features are the forested areas associated with the Hillsborough River floodplain, the 100-year floodplain and continuity with the existing SWFMD lands.

Boundaries: Being one thousand one hundred (1,100) feet on each side of the centerline of the wetlands and floodplains associated with the Hillsborough River, extending from the Pasco-Hillsborough County line northerly boundary to the Green Swamp westerly boundary, conceptually indicated on Exhibit 804-7 of this Section.

Appendix

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Sign-In Sheet of Participants

2045 LRTP Environmental Consultation Workshop
June 21, 2019
10:00 AM – 3:00 PM

Brooker Creek Preserve Environmental Education Center
3940 Keystone Rd, Tarpon Springs, FL 34688

Name (Please Print. Thanks.)	Organization/Address	Email Address
Zachary McKinley	Pasco MPO	zmckinley@pascocountyfl.net
DAVID BRIAN BROWN	Pinellas Co - Env. Mgmt	dbbrown@pinellascounty.org
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Hosted by the Hillsborough MPO, Forward Pinellas, Pasco MPO, and Hernando/Citrus MPO

2045 LRTP Environmental Consultation Workshop

June 21, 2019
10:00 AM – 3:00 PM

Brooker Creek Preserve Environmental Education Center
3940 Keystone Rd, Tarpon Springs, FL 34688

Name (Please Print. Thanks.)	Organization/Address	Email Address
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Mike Thompson	EPC Hills Co.	thompsonm@epchc.org
MARC ISPASS	KIMLEY HORN / HERN. CIT. MPO	MARC.ISPASS@KIMLEY-HORN.com
Whit Blanton	Forward Pinellas	wblanton@forwardpinellas.org

Hosted by the Hillsborough MPO, Forward Pinellas, Pasco MPO, and Hernando/Citrus MPO

2045 LRTP Environmental Consultation Workshop

June 21, 2019
10:00 AM – 3:00 PM

Brooker Creek Preserve Environmental Education Center
3940 Keystone Rd, Tarpon Springs, FL 34688

Name (Please Print. Thanks.)	Organization/Address	Email Address
BRIAN BARNETT	Fla Fish & Wildlife Con. Comm	brian.barnett@MyFWC.com
Brian Cook	USF - Florida Center	BRIANRAYCOOK@USF.EDU
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Ginger Creighton	FDOT	Virginia.creighton@dot.state.fl.us.
Eugene Heavy	HC Pcws Hm	Heavye@hillsb...

Hosted by the Hillsborough MPO, Forward Pinellas, Pasco MPO, and Hernando/Citrus MPO

2045 LRTP Environmental Consultation Workshop

June 21, 2019
10:00 AM – 3:00 PM

Brooker Creek Preserve Environmental Education Center
3940 Keystone Rd, Tarpon Springs, FL 34688

Name (Please Print. Thanks.)	Organization/Address	Email Address
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Rich Clarendon	Hills. MPO	clarendonrp@plancom.org

Hosted by the Hillsborough MPO, Forward Pinellas, Pasco MPO, and Hernando/Citrus MPO

Reference Links

https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/fl/newsroom/features/?cid=stelprdb1252222

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