Bird Drive Basin Update

Background and Current Status

December 14, 2011

Ernie Barnett, Director
Everglades Policy and Coordination

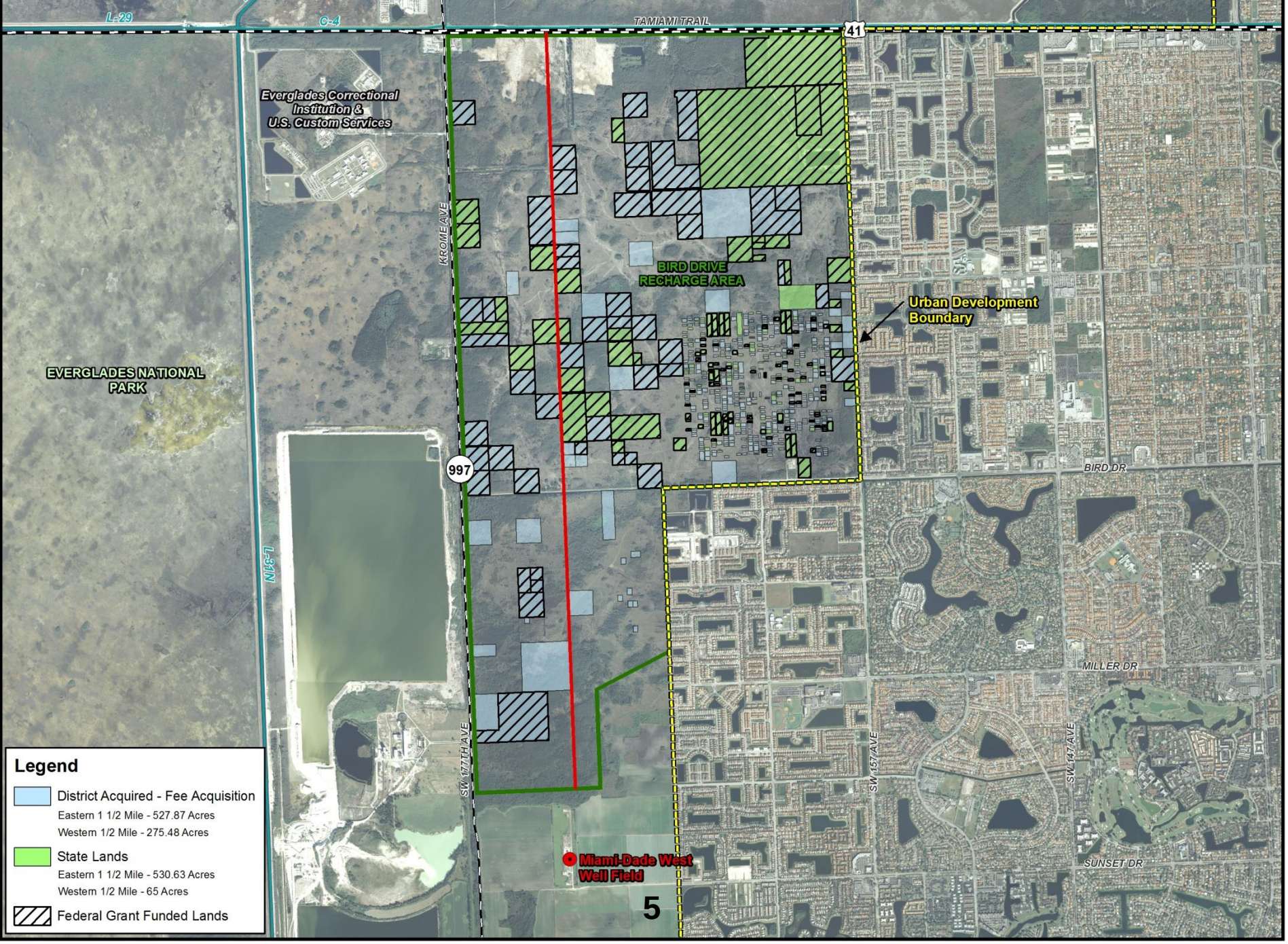
Today's Discussion

- Ownership Interests in Bird Drive Basin
- Bird Drive Component of Comprehensive Everglades Restoration Plan (CERP)
  - Project alternative
- Public Input
  - December 8th Stakeholder Workshop
- Recommendations for Next Steps

Bird Drive Ownership Interests

Ownership Interests and Issues

- Checkerboard of ownership
  - District/State-owned lands
  - Lands acquired with federal funds
  - Tribal/private interests
  - Inverse condemnation
- Consolidation/Surplus Opportunities:
  - Consolidation of interests for viable and implementable project
    - Analyzed restoration project concept utilizing western half-mile
  - FIU Proposal
  - Potential for transferring federal interests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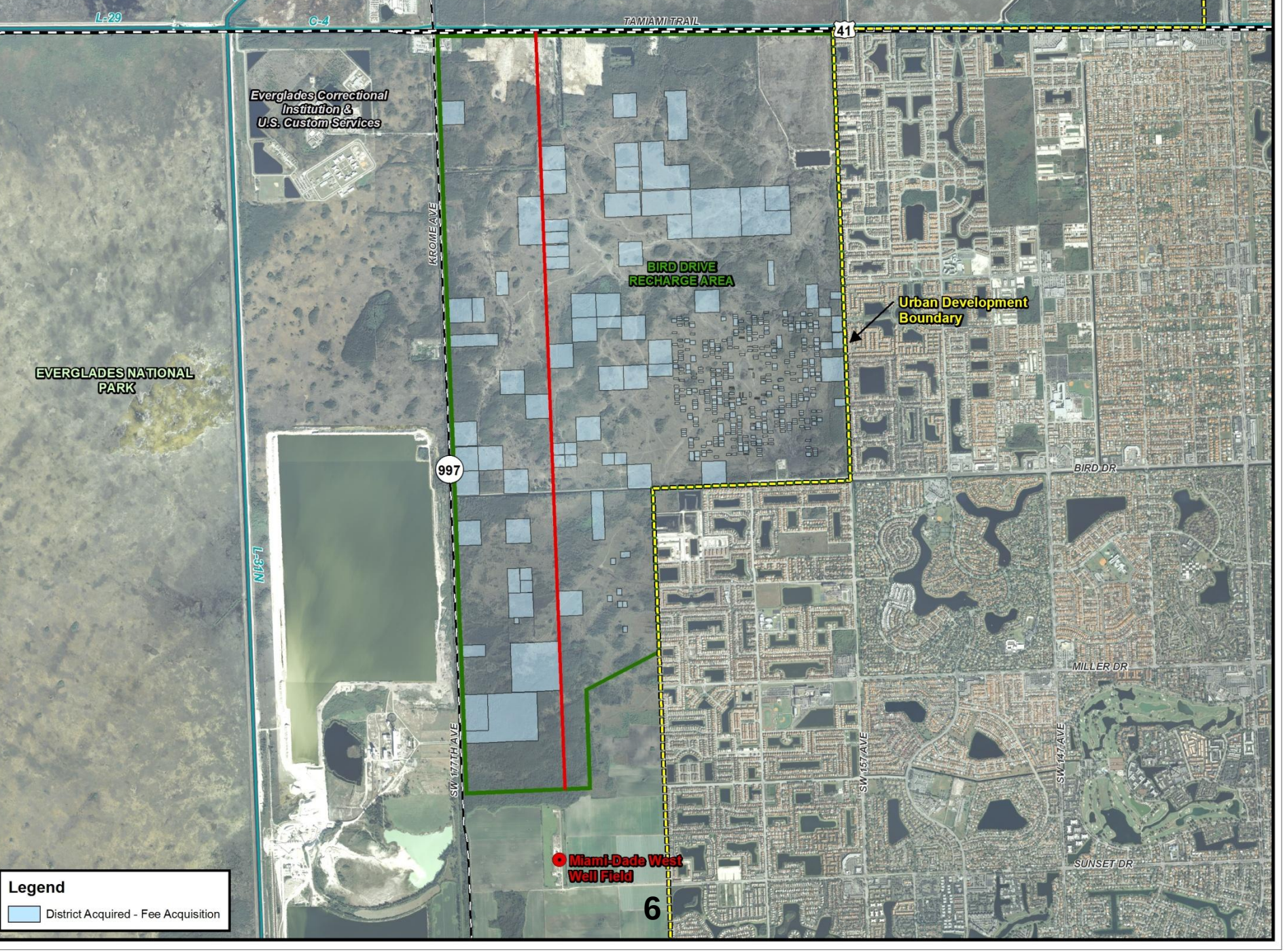
C-4
TAMIAMI TRAIL
41
Everglades Correctional Institution & U.S. Custom Services
KROME AVE
BIRD DRIVE RECHARGE AREA
Urban Development Boundary
EVERGLADES NATIONAL PARK
997
BIRD DR
L-31N
MILLER DR
SW 177TH AVE
SW 157 AVE
SW 147 AVE
SUNSET DR
Miami-Dade West Well Field
Legend
District Acquired - Fee Acquisition
Eastern 1 1/2 Mile - 527.87 Acres
Western 1/2 Mile - 275.48 Acres
State Lands
Eastern 1 1/2 Mile - 530.63 Acres
Western 1/2 Mile - 65 Acres
Federal Grant Funded Lands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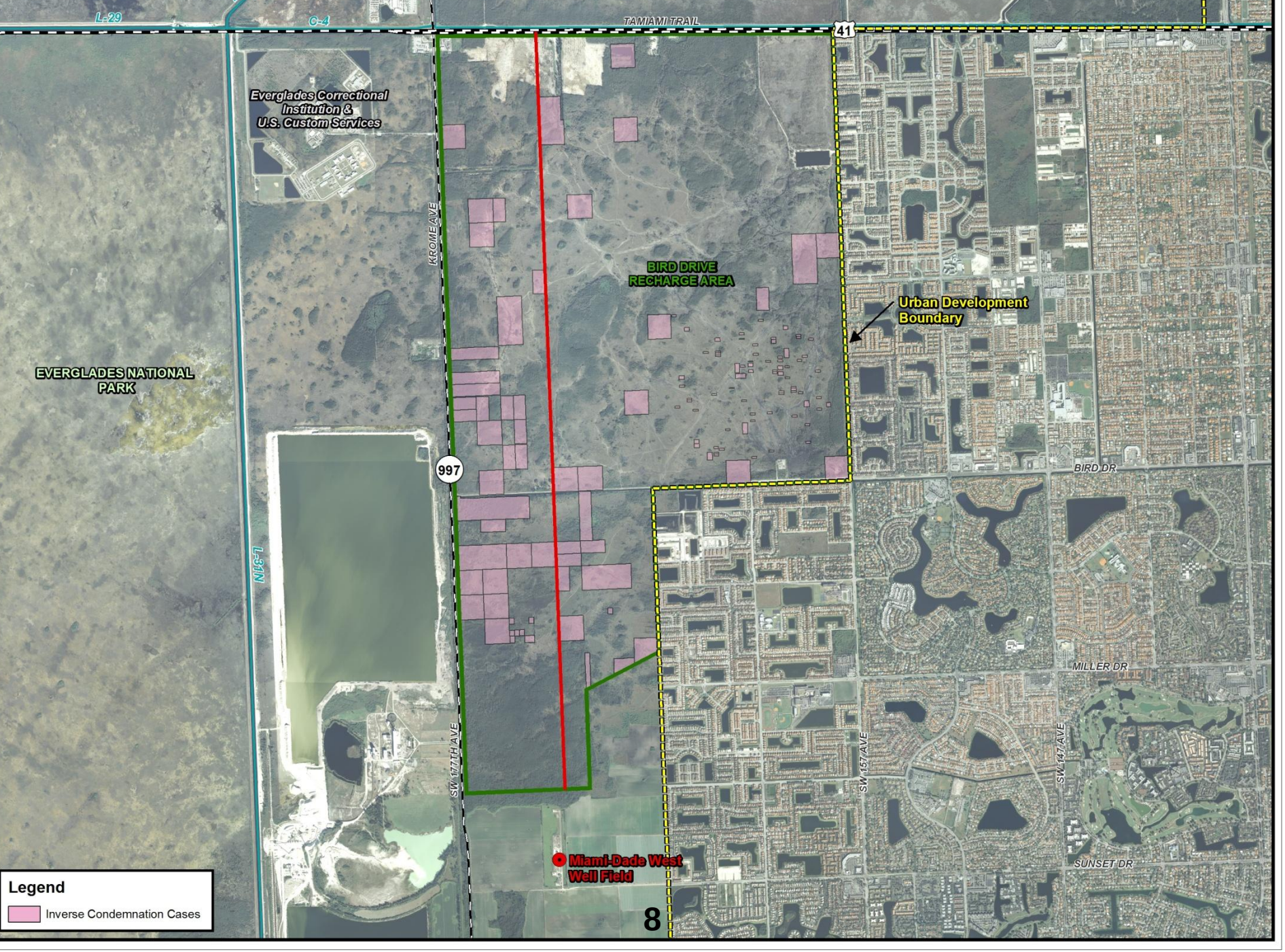
Miccosukee Tribe of Indians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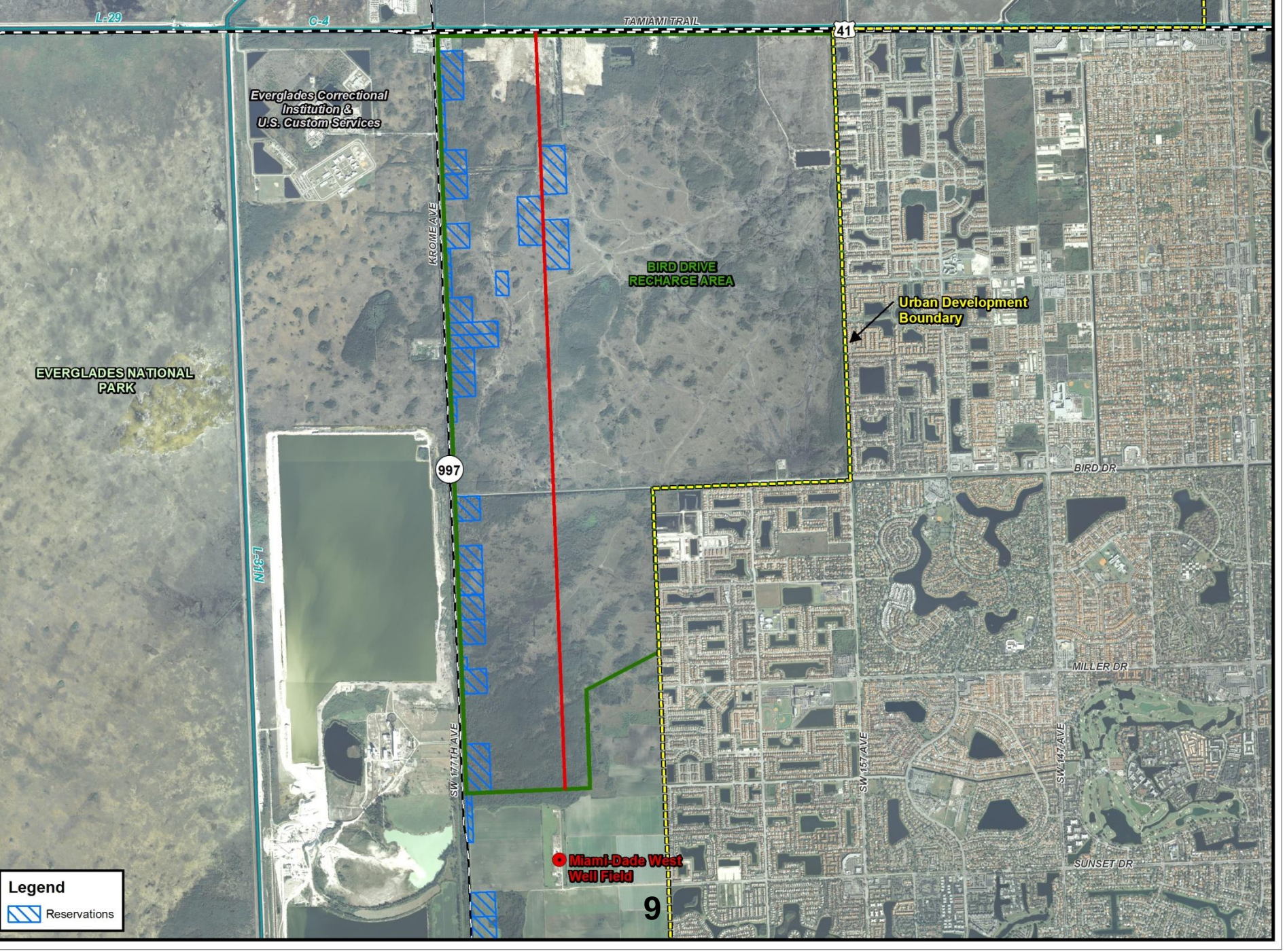
Inverse Condemnation Cases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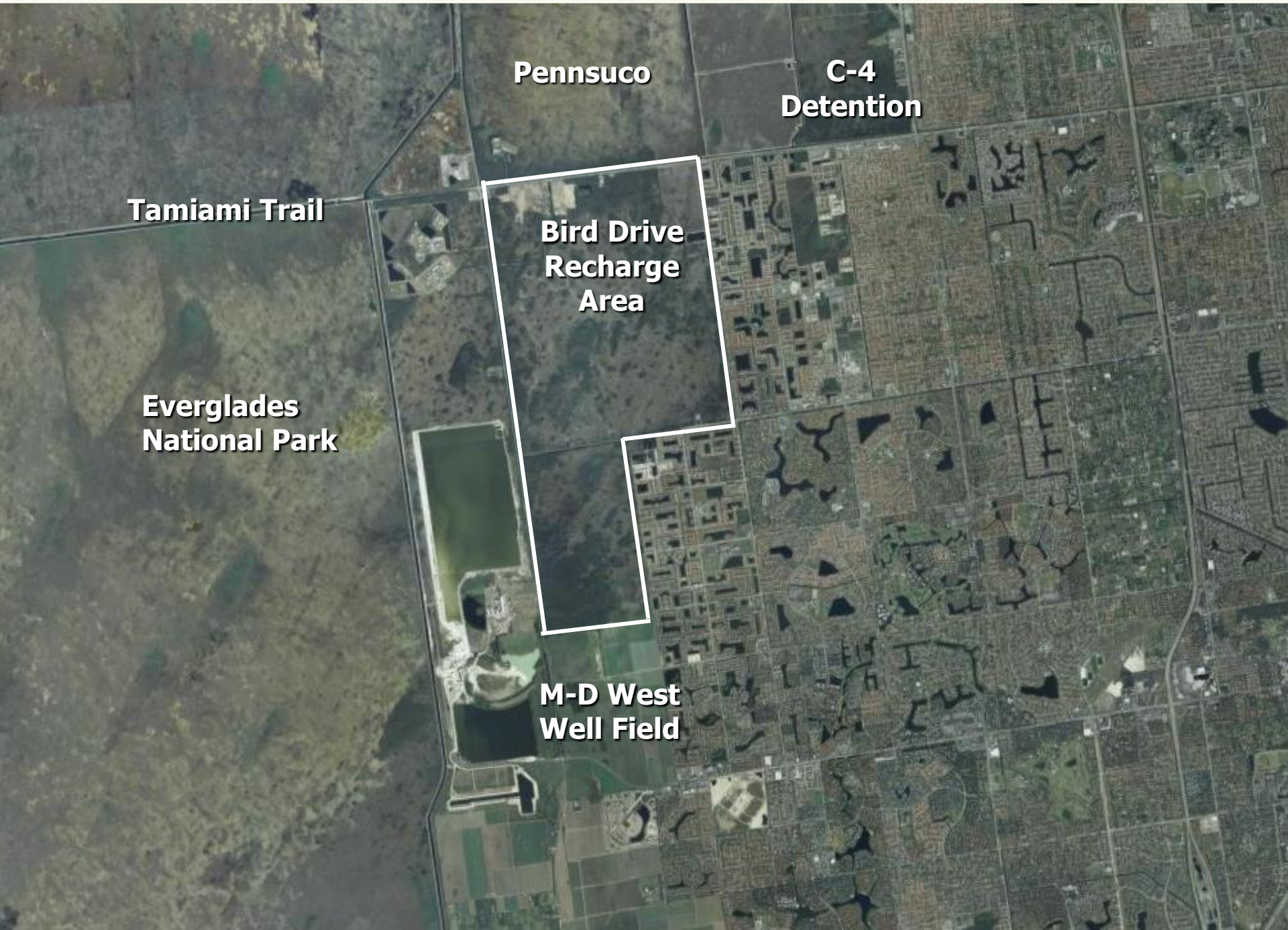
Legend
Reservations

Bird Drive Component of Comprehensive Everglades Restoration Plan


Pennsuco
C-4
Detention
Tamiami Trail
Bird Drive
Recharge
Area
Everglades
National Park
M-D West
Well Field

Yellow Book Purpose for Bird Drive

- Reduce seepage from Everglades National Park
- Recharge groundwater east of Krome Avenue
- C-4 peak flood attenuation
- Water supply deliveries to South Dade Conveyance System (SDCS)
- Increase spatial extent of wetlands

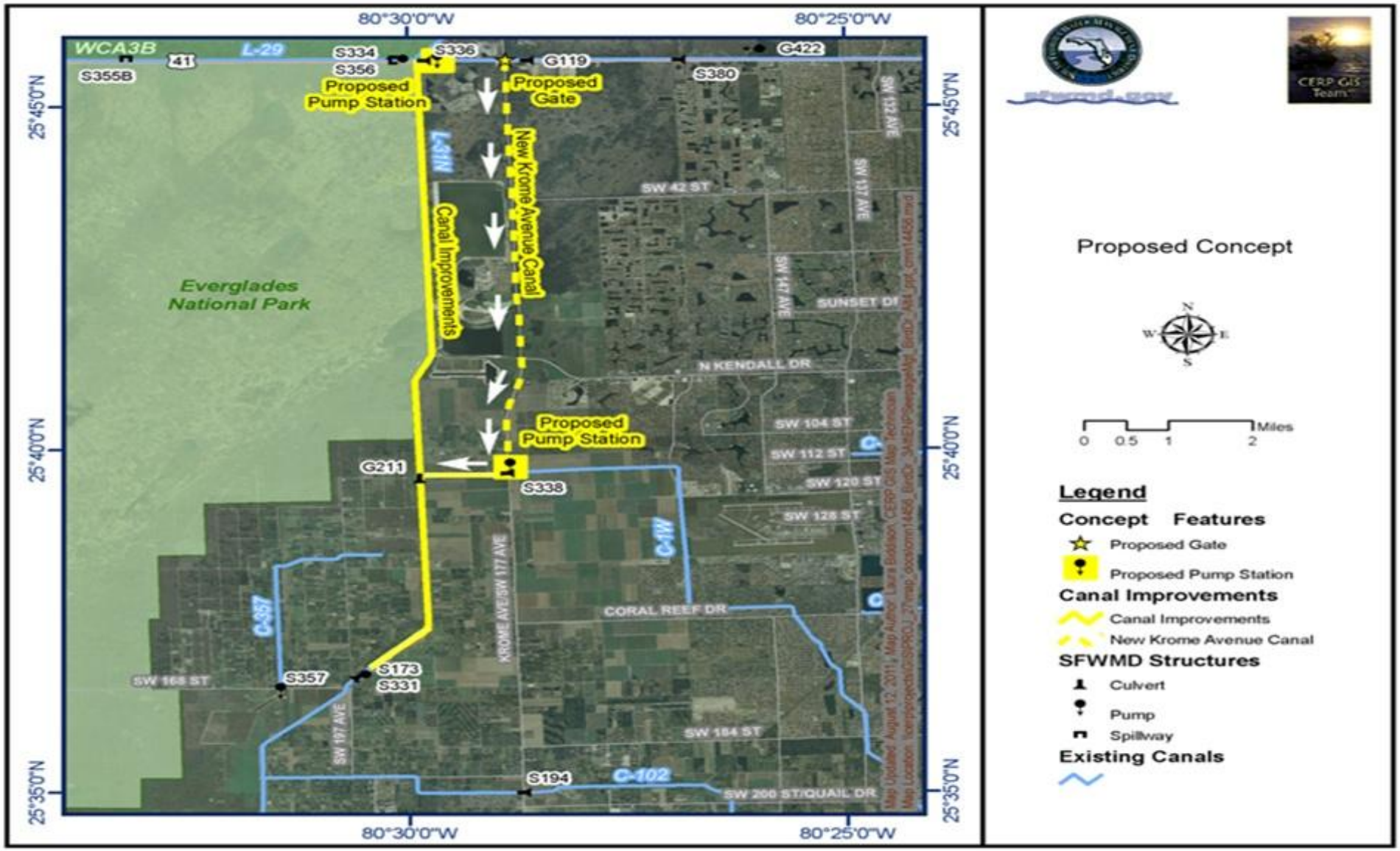
Plan Formulation

- Yellow Book - Project Concept Deficiencies
  - Highly transmissive project site
  - Unable to hold water on project site for delivery to SDCS
  - Likely to cause flooding impacts of urban areas east of project site
  - Design and operation “not feasible”
- Project Delivery Team prepared white paper (June 2008)
  - Concept as envisioned in Yellow book is “not implementable”
- Acquisition of the entire Bird Drive Recharge Area screened out due to high cost/low benefit ratio

Hydraulics Analysis

- Bird Drive Deliveries Assessment (Jun - Oct 2011)
  - Evaluated potential conveyance concepts
  - Basin inflow/outflow capacity ~1,800 cfs
  - Potential water delivery options
    - Everglades National Park
    - South Dade Conveyance System
    - Biscayne Bay Coastal Wetlands

Proposed Conveyance Concept



Hydraulics Analysis - Conclusions

- **Proposed Concept** - combination of elements capable of accomplishing original Yellow Book Purpose
- **Reduce seepage from ENP** - By using a pumped system along the L-31N northern reach, a higher stage can be maintained adjacent to ENP
- **Recharge groundwater east of Krome Avenue**– A pump/gate managed water level control along Krome Avenue allows seasonally controlled levels
- **C-4 Peak Flood Attenuation** – System can operate in conjunction with the C-4 Emergency Detention Area to help attenuate flood levels
- **Water supply to SDCS** – Multiple pump system allows for substantial flexibility to deliver water south

Public Input and Involvement

Bird Drive Basin Public Involvement

- Four public meetings held on surplus lands recommendations
- At Governing Board direction, three-hour workshop held on December 8, Ft. Lauderdale Field Station
- ~30 attendees, including:
  - Miami-Dade County
  - Florida Departments of Environmental Protection, Transportation
  - Department of Interior, U.S. Fish and Wildlife Service, Everglades National Park, South Florida Ecosystem Restoration Task Force
  - Miccosukee Tribe
  - Environmental Interests: Audubon of Florida, Tropical Audubon, Sierra Club, National Parks Conservation Association, NRDC
  - Florida International University
  - Florida Power and Light
  - Adjacent Homeowners

Bird Drive Basin Public Input

Considerations Raised by Stakeholders:

- Project Concept
  - Ability of new proposal to achieve original CERP intent
  - Benefit of canal expansions
  - Synchronization with other CERP projects
  - Adaptive management considerations
  - Need greater understanding of science, engineering
  - Benefit of modified project footprint to FPL, FDOT projects
- Ecological Value
  - Value of existing lands in public ownership (including county lands) for recharge, wildlife habitat, water storage and for increasing spatial extent of wetlands
  - Value of short hydroperiod wetlands
    - Avian Habitat

Bird Drive Basin Public Input

Considerations Raised by Stakeholders (continued):

- Land-Holdings & Surplus Decision
  - Potential for urban development with land surplus
    - Impact of modifying buffer to Everglades National Park
  - Level of service for flood control associated with expanded development
  - Transparent process for surplus of lands
  - Role of DEP in approving surplus lands
  - Transfer of federal land interests to other CERP project components
  - Affect on other projects (road expansion, transmission line siting, FIU) and timelines for those proposals
  - Potential FIU land exchange
    - Benefits to FIU/Miami-Dade County
    - Consideration for adjacent homeowners

Recommendation for Next Steps

- Inclusive stakeholder process
- Analyze project footprint and reformulate to meet project objectives
  - Foster understanding of science, technical underpinnings
- Evaluate land surplus/consolidation opportunities based on reformulation
- Proceed with evaluating feasibility of FIU objectives

Discussion