South Miami-Dade
WATERSHED STUDY AND PLAN
Planning for a sustainable, healthy environment and economy

"Where We've Been and Where We're Going"
March 23, 2006

Michael Davis, Vice President
Keith and Schnars, P.A.

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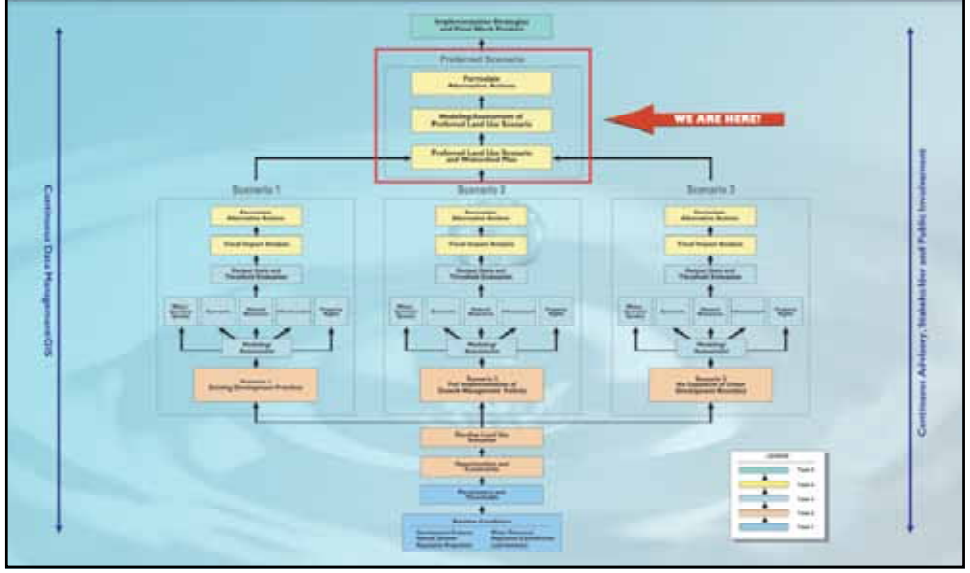
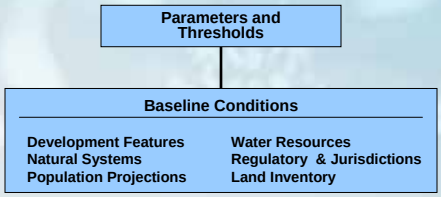


Task 1 – Data Inventory, Establishing a Baseline and Tools for Measurement



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Task 1 Reports Completed and Accepted by the Watershed Study Advisory Committee

- Subtask 1.1: Analysis of Relevant Studies
- Subtask 1.2: Population Growth
- Subtask 1.3: Development Features
- Subtask 1.4: Natural Communities Inventory
- Subtask 1.5: Water Resources Set up and Methodology
- Subtask 1.6: Regulatory and Planning Jurisdictions
- Subtask 1.7: Land Inventory
- Subtask 1.8: Parameters and Thresholds

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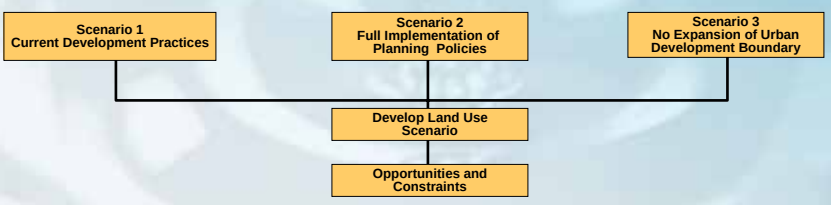
Parameters

Stormwater Discharge Quality	Groundwater Supply
Surface Water Flows/Distribution	Flood Protection
Tidal Wetlands	Freshwater Wetlands
Remnant Natural Forests	Air Quality
Development Densities	Rural Land
Housing to Transit and Employment	Parks
Economic Base	Sustainable Agriculture
Cost of Housing	Mix of Wages
Transportation	Schools
Potable Water	Wastewater

Task 2 – Formulate Potential Land Use Scenarios



Test Scenarios
Based on 2025 and 2050 Population

- **Test Scenarios 1A and 1B:** ***CURRENT DEVELOPMENT PRACTICES***
- **Test Scenarios 2A and 2B:** ***FULL IMPLEMENTATION OF EXISTING PLANNING POLICIES***
- **Test Scenarios 3A and 3B:** ***NO URBAN DEVELOPMENT BOUNDARY EXPANSION***

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Inputs for Creating Test Scenarios

Land Use	2003 Total "Baseline"	2025 Total 2003 - 2025	2050 Total 2003 - 2050
Residential (Dwelling Units)	280,728	382,431 (+ 101,703)	485,005 (+204,277)
Commercial (Acres)	4,806	7,063 (+2,257)	9,860 (+5,054)
Industrial (Acres)	1,232	1,423 (+191)	1,582 (+350)

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Task 2 Reports Completed and Accepted by the Watershed Study Advisory Committee

- **Subtask 2.1: Development Opportunities and Constraints**
- **Subtask 2.2: Test Land Use Scenarios**

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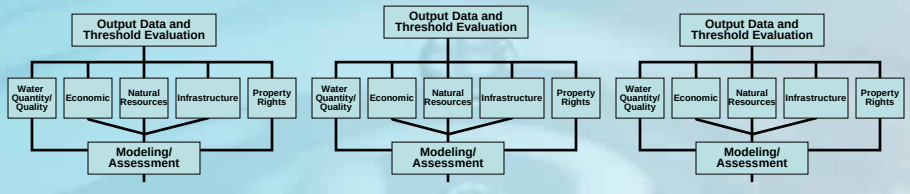
Task 3 – Modeling and Impact Assessment

"Using the Best Science"

(Scenario 1) **(Scenario 2)** **(Scenario 3)**



(20 Parameters and Thresholds)

Tools:

- XPSWMM
- GIS
- FSUTMS
- Mobile 6
- Legal Analysis

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Land Use/Community Character

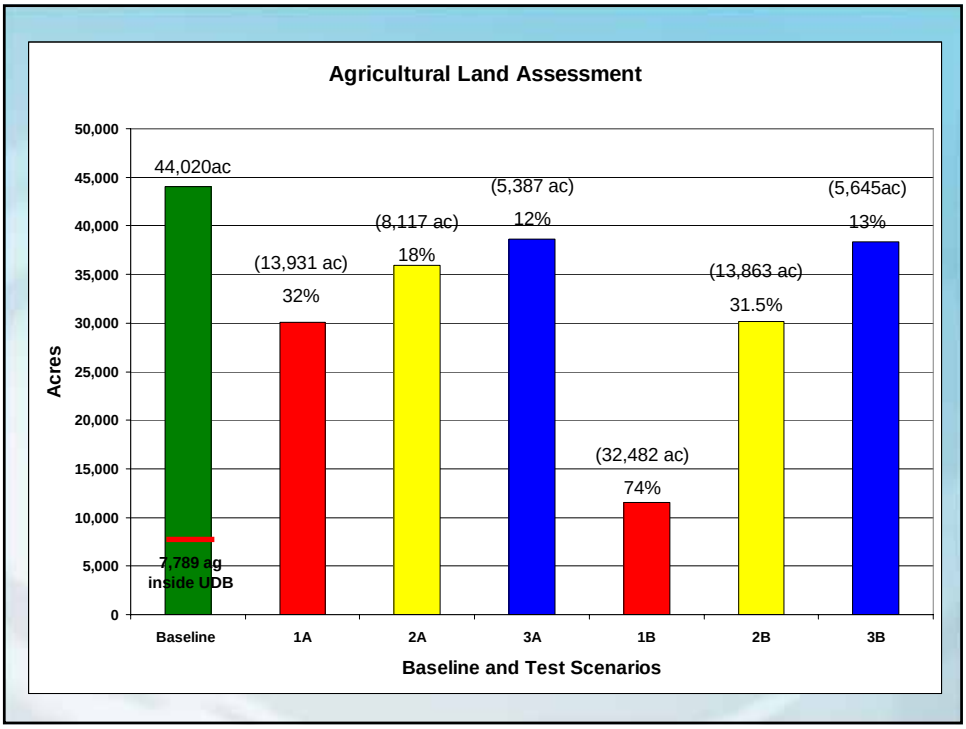
Agricultural and Rural Land

Evaluation Method:

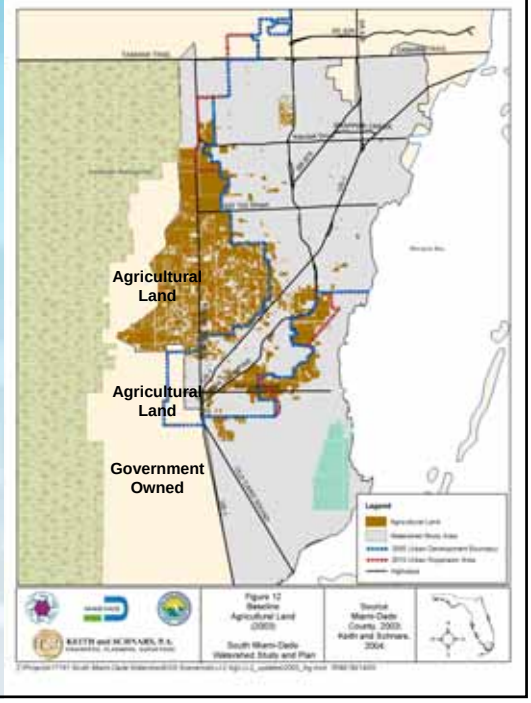
1. Calculate rural land outside the existing UDB;
2. Calculate the total acreage of rural land designated for conversion in each scenario;
3. Compare scenarios to baseline; and
4. Present findings and potential impacts to community character.

Type of Evaluation:

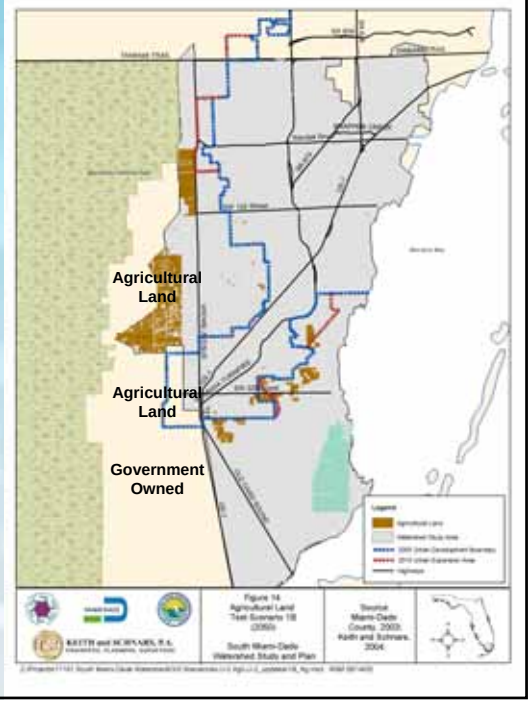
Comparative



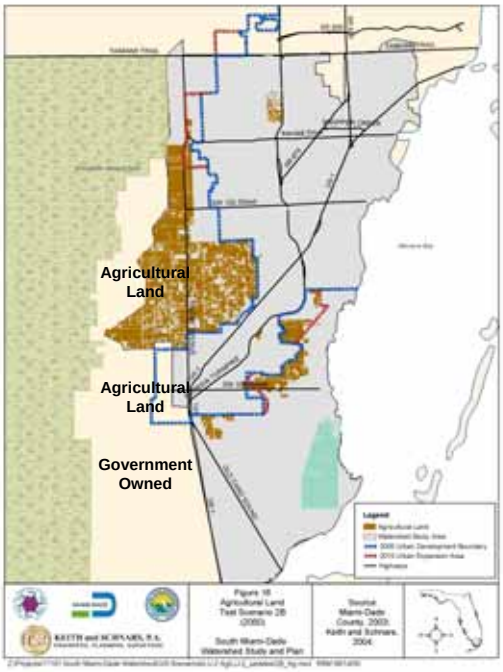
Existing Agricultural Land Baseline 2003



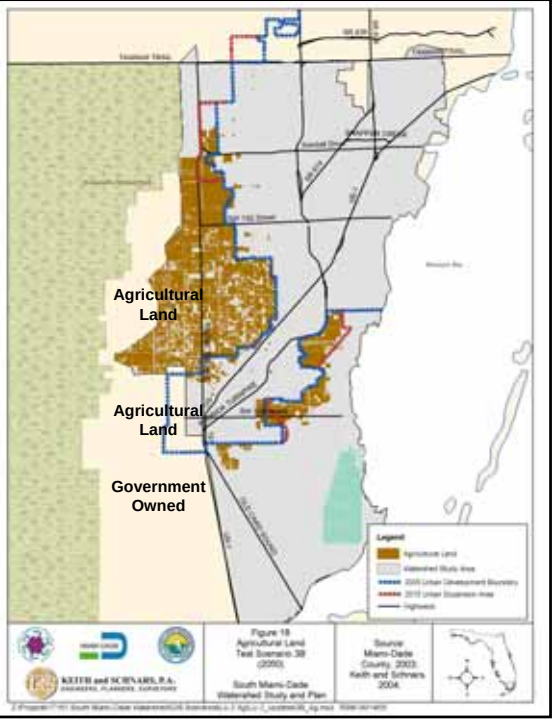
Agricultural Land Scenario 1B - 2050



Agricultural Land Scenario 2B – 2050



Agricultural Land Scenario 3B - 2050



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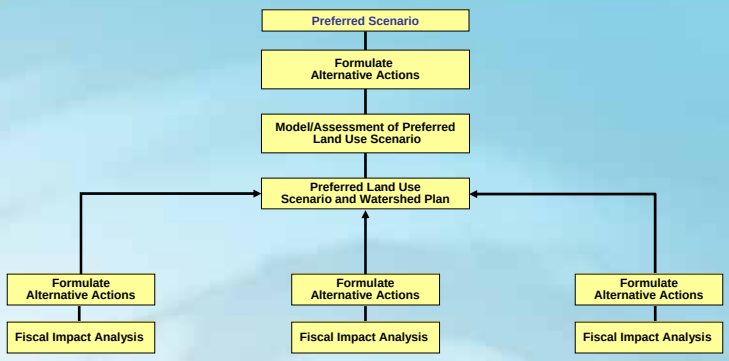
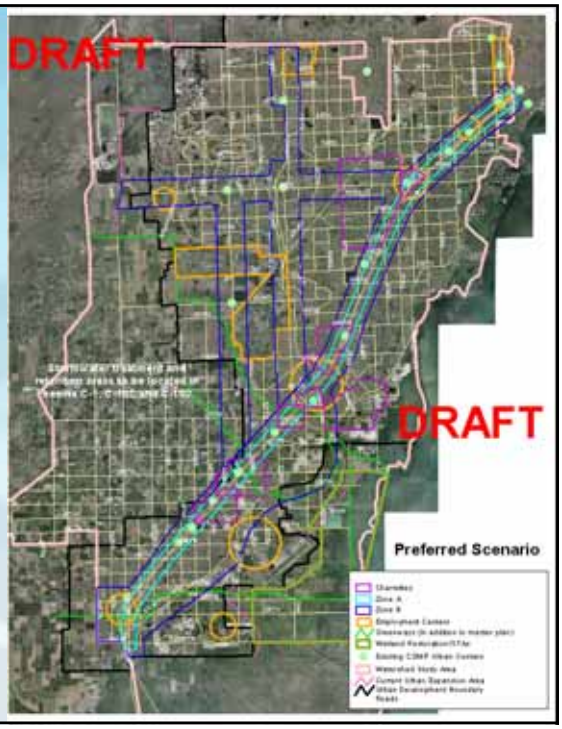
Task 3 Reports Completed and Accepted by the Watershed Study Advisory Committee

- **Sub task 3.1: Test Scenario Assessment of Economics and Land Use**
- **Sub task 3.2: Test Scenario Assessment of Infrastructure**
- **Sub task 3.3: Test Scenario Assessment of Natural Communities**
- **Sub task 3.4: Test Scenario Assessment of Water Resources**



Task 4 – Fiscal Impact Analysis and Preferred Land Use Scenario

Assessment Map



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Complete Parameter Assessments for Preferred Scenario

Stormwater Discharge Quality	**Groundwater Supply**
Surface Water Flows/Distribution	**Flood Protection**
Tidal Wetlands	**Freshwater Wetlands**
Remnant Natural Forests	**Air Quality**
Development Densities	**Rural Land**
Housing to Transit and Employment	**Parks**
Economic Base	**Sustainable Agriculture**
Cost of Housing	**Mix of Wages**
Transportation	**Schools**
Potable Water	**Wastewater**

Preferred Scenario Map

Implementation Strategies and Final Work Product

Task 5 – Implementation Strategies

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Task 5 – Implementation Strategies

Specific strategies for implementation will be incorporated into local comprehensive plans to make certain that the priorities of the Watershed Plan for 2025 and 2050 are met

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Water Supply

- **Use of Saline Water Sources**
- **Aquifer Storage and Recovery**
- **Reclaimed Water Use**

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Natural Resources

- Public awareness for protection of ecosystems and biodiversity
- Preservation of indigenous ecosystems
- Preservation of natural characters of natural environment
- Protection of natural heritage land

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Transportation and Land Use

- **Direct growth on urban centers, close to right rail stations, and transit corridors.**
- **Creation of transit oriented communities with connectivity to other neighborhoods – using car, bicycle, and foot**

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Future WSAC Meetings

- April – Draft Scenario Assessments and Implementation Strategies Discussion
- May – Final Scenario Assessments and Implementation Strategies Draft
- June – Final Land Use Scenario and Implementation Strategies