

SOUTH MIAMI-DADE COUNTY WATERSHED STUDY COVER SHEET

Sub-task 4.2

Subject: *Draft Preferred Scenario*

Final Work Product: Identify Preferred Land Use Scenario and Alternative Actions

Submission Date to SFRPC Project Manager:

Final Work Product – November 2006

Deliverables:

- 1. Report with associated maps (5 electronic copies and 5 hard copies)*

List of Preparers

Participating Professional and Title	Professional Role	Qualifications	Years of Experience	Area of Specialty
Fernando Leiva, AICP Director of Planning	Land Use Analysis and Project Management	M.A. – Urban Design & Planning B.S. - Architecture	20	Land/Site Planning and Urban Design
Rosil Saldaña Land Planner	Land Use Analysis and Geographic Information System	M.S. - Urban and Regional Planning	2	Land Planning/ Geographic Information Systems
John Abbott, P.G. Director of Environmental and Water Resources	Data Analysis and Technical Writer	M.S. - Geology B.S. - Geology	10	Environmental Science

List of Reviewers

Reviewer and Professional Title	Qualifications	Years of Experience	Area of Specialty
Michael Davis Vice President for Environmental and Planning	M.S. - Biology B.S. - Biology and Environmental Science	25	Water Resources Policy
Eric Silva, AICP	M.A. - Marine Affairs B.A. - Political Science/Marine Affairs	10	Land Planning

TABLE OF CONTENTS

Page

OVERVIEW OF THE SOUTH MIAMI-DADE WATERSHED STUDY AND PLAN.....	1
1.0 INTRODUCTION	2
2.0 FORMULATION OF THE DRAFT PREFERRED SCENARIO	4

LIST OF FIGURES

Figure 1: South Miami-Dade Water Study and Plan Building Blocks.....	3
Figure 2: Charrette Area Plans	5
Figure 3: Draft Preferred Scenario Design Guide Map.....	11
Figure 4: Draft Preferred Scenario Land Use Assessment Map 2025.....	12
Figure 5: Draft Preferred Scenario Land Use Assessment Map 2050.....	13

LIST OF TABLES

Table 1: Development of the Draft Preferred Scenario - WSAC Opportunities for Review and Comment.....	7
Table 2: Residential Unit Allocations 2025	8
Table 3: Non-Residential Unit Allocations 2025.....	9
Table 4: Residential Unit Allocations 2050.....	9
Table 5: Non-Residential Unit Allocations 2050.....	9

LIST OF ACRONYMS

CDMP	Miami-Dade County Comprehensive Development Master Plan
du	Dwelling Units
SMDWSP	South Miami-Dade Watershed Study and Plan
TRC	Technical Review Committee
UDB	Urban Development Boundary
WSAC	Watershed Study Advisory Committee

OVERVIEW OF THE SOUTH MIAMI-DADE WATERSHED STUDY AND PLAN

The South Miami-Dade Watershed, an approximately 370 square mile area located in the southeastern portion of Miami-Dade County, is increasingly recognized as one of the most critical watersheds in Florida. The Watershed plays a vital role in the health of Biscayne Bay as well as providing for the urban and agriculture needs of the County.

The South Miami-Dade Watershed Study and Plan (SMDWSP) is a long-term land planning and water resources study required by the Miami-Dade County Comprehensive Development Master Plan (CDMP). Divided into five major task areas, the study includes a wide-ranging look at South Miami-Dade County's population growth; infrastructure; land ownership, including agriculture, industrial and urban land uses; pollution; water resources; wildlife; and natural areas. The SMDWSP is based on standard accepted practices for the formulation of large-scale water and land use plans.

The SMDWSP is being developed consistent with the objectives of CDMP Land Use Policy 3E, which was adopted by the Board of County Commissioners on October 10, 1996. The objectives of this policy are:

1. To identify and protect lands, including their uses and functions, that are essential for preserving the environmental, economic and community values of Biscayne National Park;
2. To identify and establish mechanisms for protecting constitutional private property rights;
3. To support a viable, balanced economy including agriculture, recreation, tourism, and urban development in the Plan area; and
4. To assure compatible land uses and zoning decisions in the Watershed Study Area consistent with long term objectives for a sustainable South Miami-Dade.

To help ensure that Land Use Policy 3E was met, the Watershed Study Advisory Committee (WSAC) formulated seven goals for the SMDWSP. While not specifically articulated in Land Use Policy 3E, the WSAC goals clearly reflect the importance of environmental and economic sustainability and community character. The purpose of the SMDWSP is to formulate a preferred land use scenario that meets these major planning goals.

The results of this collaborative study process will be the development of a Plan designed to reconcile and balance the various competing interests in South Miami-Dade – providing the framework for a sustainable economy and environment through the year 2050. The Plan will contain the policies, strategies and procedures necessary for implementing the preferred scenario.

1.0 INTRODUCTION

Project Approach - Building a Plan

The Study is divided into five tasks, each of which contains multiple sub-tasks. Each task is part of a logical progression that creates a comprehensive 50-year land use and water management plan for South Miami-Dade County. The main “building blocks” of each task are illustrated in **Figure 1**.

The Study process follows the nationally-accepted approach to planning for water resources projects. First, you establish existing conditions and tools for measurement (Task 1). Next,



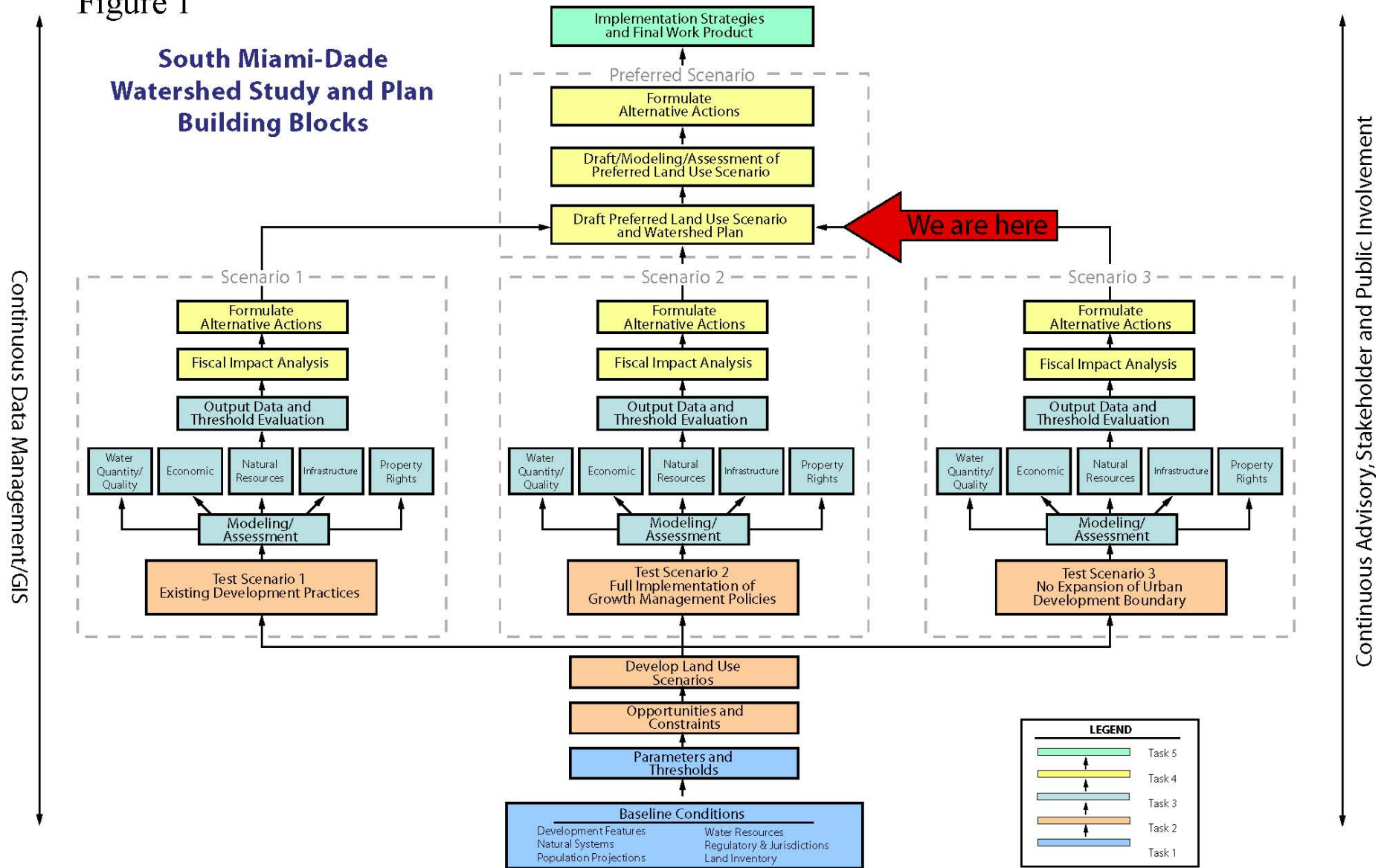
opportunities and constraints to development and potential alternatives (test scenarios) are developed (Task 2). The third step (Task 3) is to evaluate the test scenarios against the tools for measurement (parameters and thresholds) and baseline information developed in Task 1. In the penultimate step (Task 4), a draft preferred scenario is formulated and evaluated. The last step (Task 5) is to develop the necessary administrative infrastructure (e.g., strategies and polices) to implement the preferred scenario or alternative.

The first step in the planning process was to establish and document the baseline conditions. For the SMDWSP, this was completed in Sub-tasks 1.1 through 1.7 in June 2004. The second part of Task 1 (Sub-task 1.8) was to establish the parameters and thresholds for measuring the performance of various alternatives or test scenarios. The second task was the actual formulation of test scenarios based on projected population levels in 2025 and 2050. Three policy options were evaluated for the two different population levels (year 2025 and 2050) - resulting in six test scenarios. In Task 3, each of the six test scenarios was evaluated using the parameters and thresholds developed in Sub-task 1.8. The evaluation included an assessment of the impact of each test scenario on water resources, natural resources, community character, employment, economy and infrastructure. In Task 4, a Draft Preferred Scenario is formulated based on the performance of the six test scenarios. Next, also in Task 4, the Draft Preferred Scenario is assessed using the same parameters and threshold from Sub-task 1.8. The performance of the Draft Preferred Scenario relative to the test scenarios guides the development of implementation strategies in Task 5.

Purpose of the Sub-task 4.2 Report

The purpose of the Sub-task 4.2 report is to describe how the Draft Preferred Scenario was developed. It is important to note that the term “Draft Preferred Scenario” is a commonly-used planning term and does not reflect a final scenario or an endorsement by Miami-Dade County or the WSAC.

Figure 1

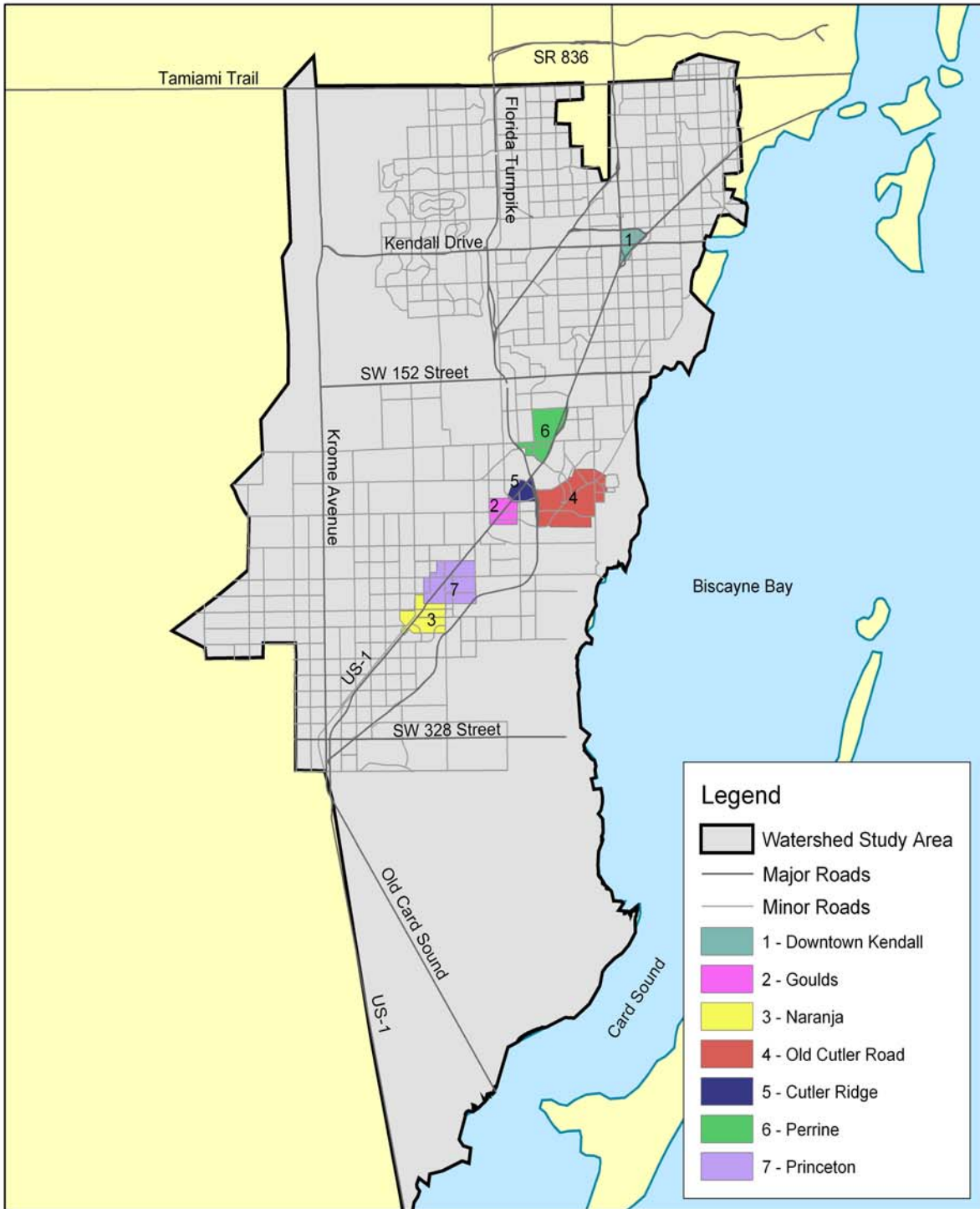


2.0 FORMULATION OF THE DRAFT PREFERRED SCENARIO

The Draft Preferred Scenario was based on the results of the analyses completed as part of previous sub-tasks and input from the WSAC, Technical Review Committee (TRC), and the public. Specifically, the Draft Preferred Scenario was informed by the results of the assessments of the six test scenarios (Sub-task 3.6). After evaluating the performance of the test scenarios it was determined that, on balance, Test Scenarios 2 and 3 performed the best and should be the starting point for the Draft Preferred Scenario. Both of these test scenarios were based on more compact designs, using some Smart Growth approaches. For detailed information on the test scenarios and their assessments see the final reports for Sub-tasks 2.2 and 3.6.

Like the test scenarios, the Draft Preferred Scenario is based on the population projections developed as part of Sub-task 1.2. The relationship between population growth and changes in land use is described in Sub-task 2.2. That report describes the amount of residential and non-residential land uses required to support the projected population. Concepts and ideas for distributing land uses in the Draft Preferred Scenario were first discussed with the WSAC at a series of open house meetings in August 2005. These meetings provided members an opportunity to describe their vision for the Draft Preferred Scenario. Based on these meeting and the emerging results for the test scenario assessments, the Keith and Schnars Team developed general concepts for allocating land uses in the Draft Preferred Scenario. A key component of the WSAC input was a desire to focus new development around existing and future transit service and corridors. To provide a better sense of the level of public support for this approach, the Keith and Schnars Team consulted with the Miami-Dade County Department of Planning and Zoning Urban Design Center which has been conducting design charrettes since 1998. Using the extensive input from residents and business owners, the charrettes resulted in master plans for development.

Within the Watershed Study Area, seven charrettes were successfully completed by the County. Located generally along US 1, these charrettes include: Downtown Kendall, Goulds, Naranja, Old Cutler Road, Cutler Ridge, Perrine, and Princeton. These charrette locations are shown in **Figure 2**. The reports resulting from the charrette sessions described opportunities to improve the area (see Sub-task 2.1 - Development Opportunity #4) and detailed plans for development.



		<p>Figure 2 Charrette Area Plans (conducted since 1998)</p> <p>South Miami-Dade Watershed Study and Plan</p>	<p>Source: Miami-Dade County Planning and Zoning 2004</p> <p>0 5 Miles</p>	
--	--	--	--	--

Z:\Projects\17161 South Miami-Dade Watershed\GIS Data\GIS Projects\Task 2\SubTask 2.1 GIS\GIS Projects\Opportunities\CRA.mxd

The implementation mechanism for these charrette plans is the Miami-Dade County Land Development Code. Amendments to the code have been processed for several of these areas. Standard zoning districts were replaced with a development plan that contained a description of approved uses and how such uses should be implemented. Developers that comply with these requirements do not have to go to public hearings and can have their projects approved administratively. In most cases the new zoning rules allow for more intense development than the previous zoning. The average residential density recommended in the charrette plans is 21 dwelling units per acre. Developers have taken advantage of the streamlined approval process in several charrette areas, including Downtown Kendall and Naranja.

Using the data obtained from the test scenario assessments (see Sub-task 3.6 report) and information contained in the charrette plans and implementing ordinances, a Draft Preferred Scenario design guide map (Figure 3) was developed by applying Smart Growth principles, such as:

- More compact building design;
- Mixing of land uses;
- Provide a variety of transportation choices with efficient transit;
- Strengthen and direct development towards existing communities;
- Preserve open space, farmland, natural beauty and critical environmental areas such as Biscayne Bay;
- Make development decisions predictable, fair and cost effective;
- Create walkable neighborhoods;
- Create range of housing opportunities and choices;
- Foster distinctive, attractive communities with a strong sense of place; and
- Encourage community and stakeholder collaboration.

The design guide map reflects the land use framework necessary to minimize and mitigate for impacts from the projected population increases in 2025 and 2050. As discussed in the Sub-task 2.2 report, the single most important factor in determining impacts from population growth is residential housing. While the number of units required is a constant, where and how the units are placed will have a substantial impact on the overall health of the Watershed, including water quality and transportation.

The Smart Growth planning principles used to create the Draft Preferred Scenario design guide map were reviewed on several occasions by the WSAC. **Table 1** describes the meeting dates and topics of discussion.

Table 1
Development of the Draft Preferred Scenario -
WSAC Opportunities for Review and Comment

Date	Discussion
August 17, 2005	WSAC Open House. Planning principles, charrette plans and strategies for using the test scenario results to inform the draft preferred scenario.
August 24, 2005	WSAC Open House. Planning principles, charrette plans and strategies for using the test scenario results to inform the draft preferred scenario.
December 8, 2005	WSAC Meeting 37. Planning principles.
December 22, 2005	WSAC Meeting 38. Planning principles. WSAC members made 39 suggestions on how to develop the draft preferred scenario.
January 12, 2006	WSAC Meeting 39. Presentation of the guidelines used to develop the draft preferred scenario, presentation of the preliminary draft preferred scenario map. Questions posed to breakout groups, and development of alternatives by breakout groups.
January 26, 2006	WSAC Meeting 40. Revision of the preliminary draft preferred scenario map. Presentation of a revised scenario based on January 12, 2006 WSAC comments.
February 9, 2006	WSAC Meeting 41. Review of the revised draft preferred scenario and initial consensus discussion. Presentation of a revised draft preferred scenario map based on January 26, 2006 WSAC comments.
February 23, 2006	WSAC Meeting 42. Continuation of the review of the revised draft preferred scenario map and submission of written comments and concerns. Presentation of a revised draft preferred scenario map based on previous WSAC comments.

As noted on the Draft Preferred Scenario design guide map and associated tables, a key attribute is the concentration of land uses along existing and future transit corridors. To create a framework to guide future development, two zones were established as follows:

- *Zone A:* Located ¼ mile on each side of US 1. Minimum density of 15 dwelling units per acre and average density of 21 units per acre;
- *Zone B:* Generally located ½ mile on each side of US 1 and along other major corridors such as Kendall Drive and 137th Avenue. Density range is 6 to 20 dwelling units per acre with an average of 10 units per acre.

Charrettes and urban centers were connected in Zone A to create a high-density corridor. The southernmost portion of Zone A was expanded to include the redevelopment plans of the City of Homestead and Florida City. Higher densities in this corridor are required to support premium mass transit. Zone B was established as a transition zone to allow for multi-family and single family development, where appropriate.

After creating the Draft Preferred Scenario design guide map with Zones A and B, land uses were then allocated to the Watershed based on the projected population at 2025 and 2050 (Tables 2, 3, 4 and 5). Specifically, land use allocations were made based on the following sequential approach:

Step 1 - Land uses were allocated to vacant and agricultural areas at the densities described in **Tables 2 and 4**.

Step 2 - Redevelopment was then allocated to charrette areas and community redevelopment areas in accordance with adopted plans. The Draft Preferred Scenario considered fully the high level of consensus among WSAC members for increased densities along U.S. 1 and other transit corridors. As such, it was assumed that approximately 75 percent of the densities anticipated in each charrette area would be achieved by 2050. This conservative assumption resulted in the allocation of 22 percent of the total units required in 2050 to the charrette areas. It is possible that additional units could be allocated in the charrettes because the implementing ordinances already allow it. Developers do not have to request rezoning or land use plan amendments to construct units at higher densities.

Step 3 – The remaining required units were allocated based on the assumption that 10 percent of the currently-developed land inside Zones A and B but outside the charrettes would be redeveloped at higher densities by 2050. This is a conservative assumption, as it is likely that more redevelopment in these zones will occur over the next 44 years.

Step 4 - After dwelling units were distributed as noted Steps 1 through 3 above, the remaining approximately 43,000 units required in 2050 were allocated outside the current UDB at five dwelling units per acre.

**Table 2
Residential Unit Allocations 2025**

Location	Dwelling Units	Percentage of Units
Charrettes	30,680	30%
Zone A not in a Charrette	14,471 (21 du/acre)	14%
Zone B not in a Charrette	37,426 (10 du/acre)	37%
Remaining Vacant/Agricultural land inside UDB	19,126 (5 du/acre)	19%
TOTAL	101,703	100%

**Table 3
Non-Residential Unit Allocations 2025**

Land Use	Acres
Parks	889
Government/Education	196
Hospital	46
Religious	10
Industrial	189
Commercial	2,257
TOTAL	3,587

**Table 4
Residential Unit Allocations 2050**

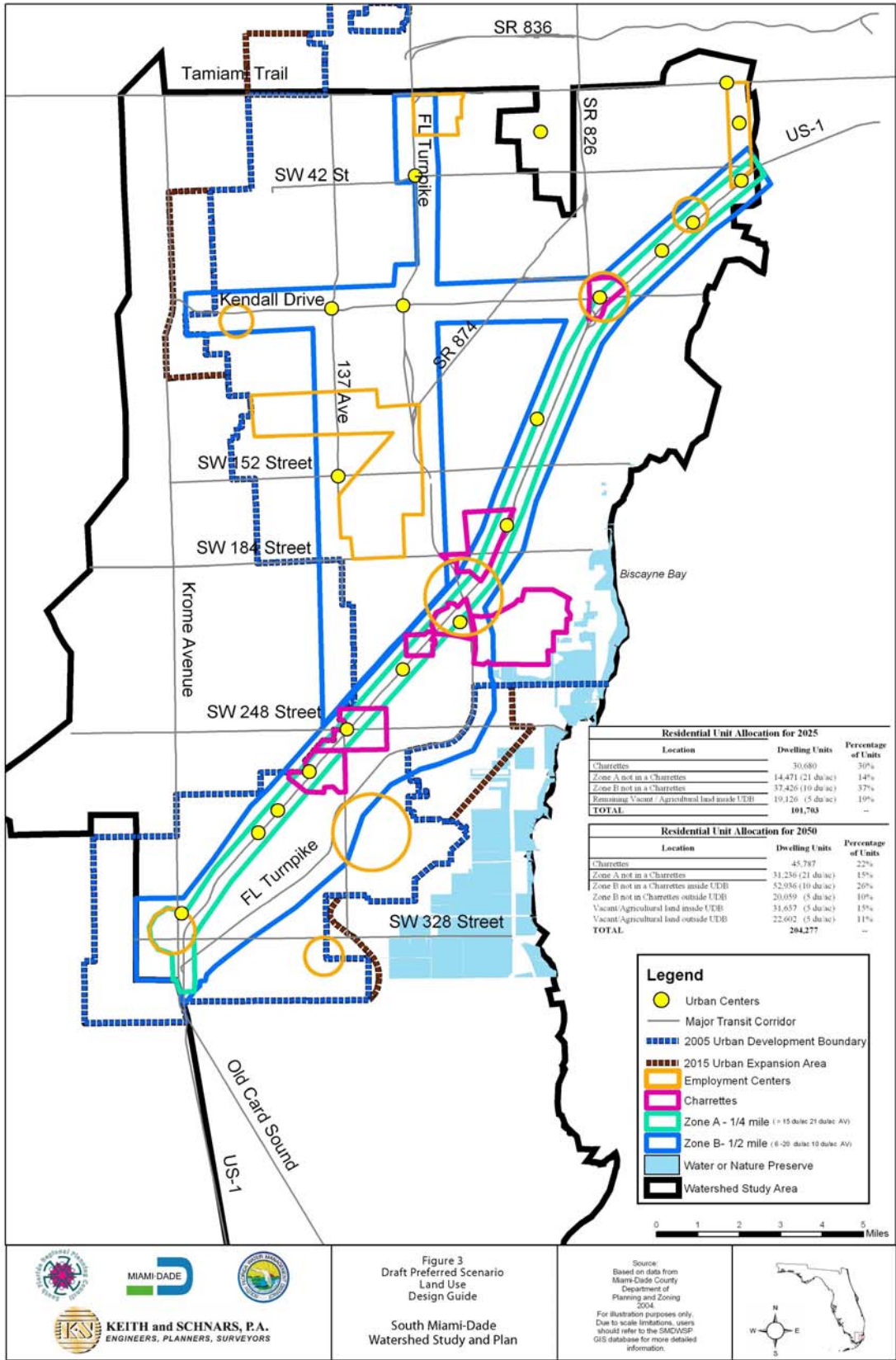
Location	Dwelling Units	Percentage of Units
Charrettes	45,787	22%
Zone A not in a Charrette	31,236 (21 du/acre)	15%
Zone B not in a Charrette inside UDB	52,936 (10 du/acre)	26%
Zone B not in a Charrette outside UDB	20,059 (10 du/acre)	10%
Vacant/Agricultural land inside UDB	31,657 (5 du/acre)	16%
Vacant/Agricultural land outside UDB	22,602 (5 du/acre)	11%
TOTAL	204,277	100%

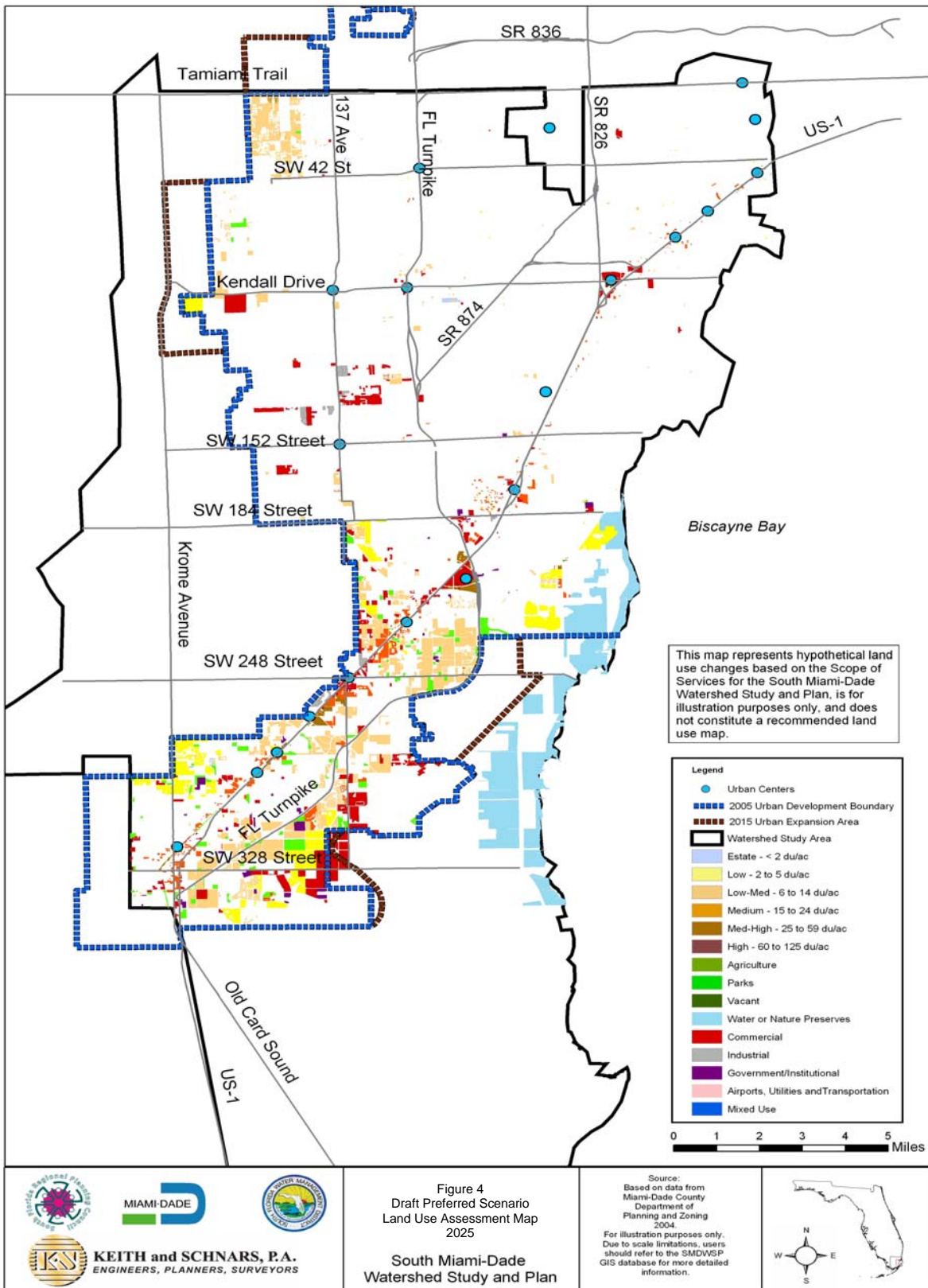
**Table 5
Non-Residential Unit Allocations 2050**

Land Use	Acres
Parks	1,759
Government/Education	383
Hospital	88
Religious	20
Industrial	350
Commercial	5,055
TOTAL	7,655

Based on the Draft Preferred Scenario design guide map (**Figure 3**) and the land use allocations described above, Draft Preferred Scenario land use assessment maps for 2025 and 2050 (**Figures 4 and 5**) were developed to reflect potential development patterns. **It is important to note that these maps were developed for assessment purposes only and may not represent actual development patterns or land uses on a particular parcel.** The final Watershed Plan design guide map and the implementation strategies developed in Task 5 will provide the actual framework for future development patterns.

The next step in the Study process is to assess the performance of the Draft Preferred Scenario land use maps for 2025 and 2050 using the parameters and thresholds established in Sub-task 1.8. This assessment (Sub-task 4.3) will then be compared to the results of the test scenario assessments summarized in Sub-task 3.6. Based on this information a final Draft Preferred Scenario and implementation strategies will be developed in Task 5 of the Study.





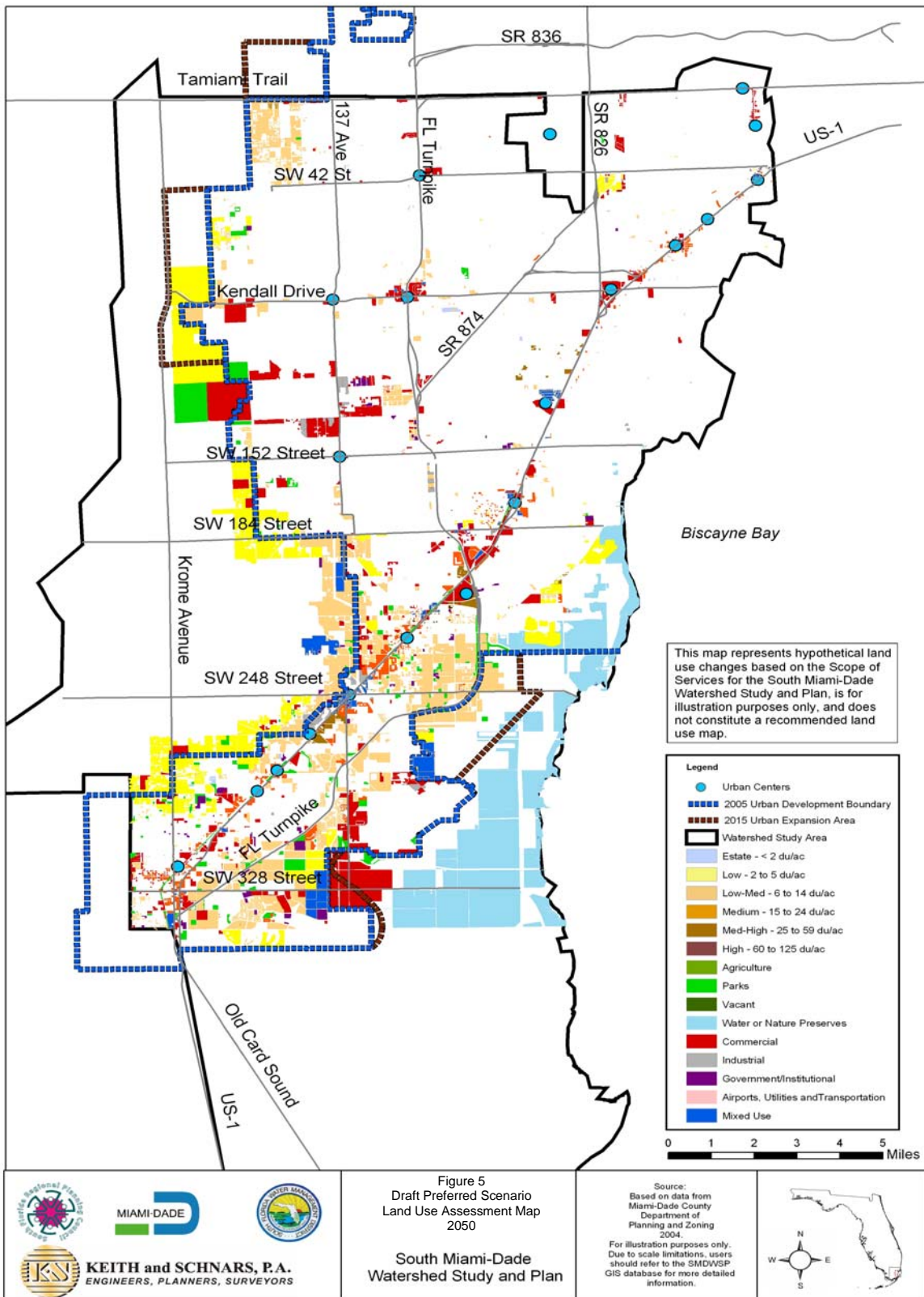


Figure 5
Draft Preferred Scenario
Land Use Assessment Map
2050

South Miami-Dade
Watershed Study and Plan