SMALL AREA STUDY: MIMS AREA BREVARD COUNTY, FLORIDA



Analysis and Options by Brevard County Planning and Zoning Office

MARCH 20, 2007 - FINAL DRAFT

For presentation to the Board of County Commissioners: April 10, 2007

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EXECUTIVE SUMMARY

Development pressures in northern Brevard County's Mims community have been steadily growing. The Board of County Commissioners requested this Small Area Study (SAS) in October 2006, in order to assess the area's growth capabilities, assess the Mims community's wishes, and recommend strategies and tactics for managing growth.

Three community-wide meetings were held in early 2007 to determine how stakeholders wanted their community to grow and to identify their particular concerns about area growth. Numerous other sources for community input were also consulted.

Except for potable water supply, infrastructure in Mims seems adequate for current and near-future growth potential. Potable water supply is adequate for now, but continued growth would likely exceed the County's ability to supply potable water, due to aquifer limitations. The same aquifer supplies water to private well-users in Mims. Conserving this resource will require close attention to growth management.

Analysis of data and community input shows that reducing Future Land Use Map (FLUM) densities in parts of Mims will further the desire to address water resource concerns. Current FLU densities are generally in excess of both current zoning and existing development patterns. To this end, residential densities in northern and western Mims, and in sparsely populated and/or high-density areas of southern Mims, are recommended for adjusting downward. Doing so would reduce potential buildout numbers by about 30 percent.

Other recommendations include the following:

- County waterlines in Mims east of I-95 should not be extended north of Lionel Road, nor beyond currently served territory west of I-95;
- The Lagoon shoreline should be kept in as natural a state as possible, through a mix of public protection and environmentally sensitive private development efforts;
- Housing and related efforts in the historic East Mims community should be guided by the 2004 Neighborhood Action Plan, and its update now underway;
- Commercial development should take place primarily in southern Mims near the U.S. 1 corridor, and at the S.R. 46 / I-95 interchange;
- Commercial development near the S.R. 46 interchange should be guided by an Activity Center Design Overlay District;
- Recreational activities are important to Mims; of particular interest are better access to the Lagoon and to trails for walkers, bicyclists and horses;
- Agriculture, both working farmland and the agricultural landscape, should be preserved;
- Above all, "Mims should remain Mims" a special place, rural and small-town in nature, with a history and future all its own.

Implementation of the SAS would involve FLU Map and other Comprehensive Plan amendments and various other proactive measures by the County, with specific measures undertaken beginning in April 2007.

INTRODUCTION

Purpose of the Study:

This Small Area Study (SAS) is intended as a planning and growth management study for the Mims area of northern Brevard County. The purpose of this SAS is threefold: (1) to identify issues and areas of concern regarding the area's growth and development; (2) to place the issues in context of a community vision, articulated by the people of Mims themselves; and (3) to suggest strategies and tactics for managing growth in this area. The SAS is specifically intended to guide the Board of Commissioners of Brevard County, as well as other decision-makers, in addressing the matters discussed herein.



The Small Area Study addresses the future of northern Brevard County, specifically the Mims community and vicinity, in order that the proper information and tools can be available to manage growth in a way that balances economic livelihood with preserving the quality of life that its citizens value.

Origin of the Mims Small Area Study: In August 2006, the Brevard County Board of Commissioners directed County staff to conduct

a Community Assessment for a portion of the Mims community. The assessment was of interest in light of an increased number of rezoning requests coming before County officials. The Commissioners' direction was to conduct an analysis and develop a set of recommendations related to the carrying capacity of the area's infrastructure. The assessment's timing was especially important because the Commission needed to address six different rezoning requests, all in a localized geographic area of Mims. This Assessment was to assess the cumulative impacts of these multiple development requests, as opposed to considering each request independently from the others. The Community Assessment was completed and provided to the Board for its November 2, 2006 meeting.

The Community Assessment was focused on a specific part of Mims; however, for some time the Board and other decision-makers saw the need for an expanded study. Although infrastructure is a key element in growth management, it was recognized that other factors were important, and that they needed to be studied in a larger geographical context than the Community Assessment. Consequently, the Board directed staff to undertake the present Small Area Study. Map 1 shows the Mims setting and its relationship to the rest of Brevard County.

Community Background:

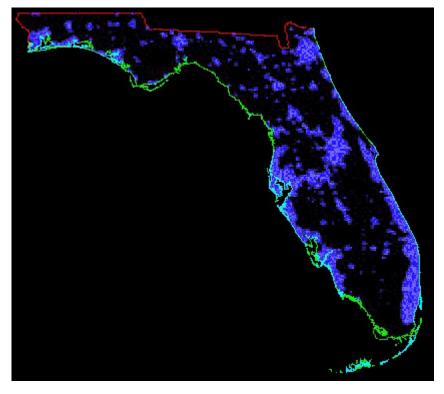
Brevard County as a whole has experienced massive population growth over the past 100 years or so. As an interesting point of measurement, consider that the estimated population for all of Florida in the year 1900 (528,542) is smaller than the population of Brevard County in 2005 (531,970). In fact, Brevard County is home to more people than the state of Wyoming (508,798 in 2005). During this 100-year period, some areas of the

County have grown more than others; the City of Palm Bay, for example, did not exist before 1960 but was in 2004 the largest in Brevard County (est. 88,572).¹

Northernmost Brevard County has grown, but historically growth has been slower here than in other areas, such as the Melbourne-Palm Bay corridor or the beachside communities.

There is concern among residents and others that the days of less-rapid growth in Mims have ended, however. Some are concerned that without proper management, the pace of population growth may overwhelm the area, as already seems to be the case in a number of places south and west of Brevard County.

It is always helpful to understand local issues in the context of a global perspective. A useful way to do so – and particularly appropriate for the Space Coast – is to look at Mims and northern Brevard as seen from a satellite at night.



In the photo at left, the blue areas represent significant concentrations of population. Although large areas of peninsular Florida's interior are shown as "empty", the east coast appears at this scale to be a single urbanized strip. Only a few breaks are apparent: two small stretches north and south of St. Augustine, and the area near Cape Canaveral where northern Brevard County adjoins southern Volusia County.

Federally protected landholdings at or near

the Cape account for much of this property, but not all of it: Mims and the Brevard-Volusia border area are a relatively empty region surrounded on three sides by clusters of population. The image is a visible indicator of how and why population growth and development pressure may be accelerating in Mims.

¹ Source: All population data from University of Florida Bureau of Economic and Business Research: "Historical Census Counts for Florida and Its Counties 1830 through 2000"

(http://www.bebr.ufl.edu/Publications/EstimatesPop2004.pdf)

⁽http://www.bebr.ufl.edu/Publications/Hist_Census_Counties.pdf), and "Estimates of Population by County and Municipality in Florida, April 1, 2004"

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Historic Aspects:

Although much of northern Brevard is rural, the area is also home to some of the oldest settlements in this part of Florida. Before European colonists arrived, the area was home to several Native American groups, including the Ai, Timucuan, and Seminole tribes. There is nearby evidence of even older civilizations as well: the Windover site in Titusville is one of the earliest-known settlements in North America, estimated at 7,000 to 8,000 years old. The arrival of settlers from across the Atlantic eventually resulted in removal of Native civilizations and government under the Spanish, British, Spanish (again), and American flags.

The community of Mims has existed since at least 1876, when Caspar Neil Mims settled in the area and later opened a dry goods and grocery store. At this time Mims, and all of northern Brevard County, were part of Volusia County. Titusville was founded in the same time frame, and there are some indications that the settlement history in Mims is older than in Titusville.²

The African-American community centered in East Mims is also deeply rooted. Many Black residents came to the Mims area in connection with agricultural operations in citrus and turpentine – not just as workers, but also as owner-operators. Prominent street names in East Mims today – Cuyler, Warren, and others -- remind residents and visitors of these families' contributions to the community's cultural history.³



The importance and legacy of the Moores – Harry T. Moore, his wife, Harriette V. Moore, and their children – cannot be overlooked. Harry T. Moore came to Mims in 1925 to teach school and remained to become a community leader. Mr. Moore was an early voice of courage in the American Civil Rights movement and worked ceaselessly to promote the rights and well-being of African-American citizens (and therefore all citizens) in Mims, in Florida, and nationwide. Mr. and Mrs. Moore died in 1951 at the hands of assassins. They are remembered today by Mims as its best-known residents, past or present.⁴

Aside from Mims and several smaller settlements, such as Scottsmoor and Aurantia, most of Brevard County north and west of Titusville has been and still is, rural. The area still contains open-land vistas and active agriculture, including in particular citrus groves and cattle operations. Both citrus and cattle have declined in northern Brevard in recent years (as they have in most of Florida), for reasons ranging from economic

Florida Cultural Heritage Alliance's "East Mims Oral History Project": http://sfdm.ucf.edu/heritagealliance/mims/

⁴ *Ibid.*; see also Brotemarkle, pp. 109-118.

² Historical and archeological information primarily from: Shofner, Jerrell: *History of Brevard County, Vol. 1* (1995: Brevard County Historical Commission) (pp. 80-91 *et seq.*); and Brotmarkle, Benjamin D.:

Images of America: Titusville and Mims (2004: Arcadia [Tempus] Publishing, Inc.) (pp. 19-46 *et seq.*) ³ An ongoing effort to catalog and preserve East Mims' history is sponsored by the University of Central

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factors to adverse weather; however, it is important to recall and acknowledge that the area's farming heritage is a significant aspect of community character today.

STUDY AREA AND BOUNDARIES

The SAS study area boundaries were defined as follows (see Map 2): North: Flounder Creek Road, and westward extension South: Parrish Road (east of I-95), Dairy Road and westward extension (west of I-95) East: Indian River Lagoon shoreline West: Brevard County-Volusia County boundary.

The above boundaries were chosen in order to include the Mims area proper and a "penumbra" of properties that could impact, or be impacted by, growth in Mims. Although the boundaries go well beyond what has historically been labeled "Mims", especially in the west, they are intended to capture the long-range development patterns and trends in the region.

The area includes all of East Mims, generally the most densely settled part of the study area. East Mims is a community with its own identity and deep historic roots, as noted in the Background section above. It is important to the community that new growth and development not cause East Mims to lose its special character. That concern is generally shared by Mims as a whole.

Some parts of the study area are undeveloped and for all practical purposes will remain that way, due to regulatory and/or environmental constraints. Broadly, these include most land west of I-95, except for some areas near the Interstate and along State Road 46 that are already developed to some degree. Thus, while the entire area is part of this study, most attention is given to the area east of I-95 and within a mile or two to the west.

The area's commercial nodes and corridors are also singled out in this SAS. Most of Mims and vicinity is residential, agricultural, or undeveloped, but two commercial areas are recognized: (a) the U.S. 1 corridor north and south of the Main Street (SR 46) intersection; and (b) SR 46 immediately east and west of the I-95 interchange (Exit 223). The U.S. 1 commercial area would also include non-residential activities along Main Street east to Harry T. Moore Boulevard.

Although the Indian River Lagoon is the eastern boundary, it should be stressed that Mims residents see their waterfront, and therefore the water itself, as an important part of the community. It might be more appropriate to think of the Lagoon shoreline as a "zone", rather than a sharp edge or line.



Map 3 is based on an aerial photo taken in 2006; this map provides an excellent view of the various areas within the SAS as described. A close-up aerial photo of East Mims and the adjacent U.S. 1 corridor shows better detail in this settled area (Map 4).

DATA BASICS

Land Area:

The study area (including inland water surface area) comprises an approximate total 53.9 square miles, or 34,517 acres. Of the total area, roughly 1/3 is east of I-95.

Population:

The 2000 Census identifies a location and boundaries for the Mims CDP (Census Designated Place). The Mims CDP has different boundaries that the Mims SAS; according to the Census, "Mims" consists only of land east of I-95 and south of Aurantia Road, down to the City of Titusville boundary (as of April 2000). Within this boundary, the Census counted 9,147 people and 4,171 housing units. Mims has an average 2.52 persons per household.⁵

INFRASTRUCTURE AND SERVICE DEMAND ANALYSIS

"Infrastructure" may be defined as "the fundamental facilities and systems serving a country, city, or area." The principal infrastructure elements in any planning capacity assessment typically include transportation (roads), water service, and wastewater (sewer) service. From time to time, new development will require adjustments to other infrastructure or public services, such as electric power, parks and recreation, fire, law enforcement, or schools.

An examination of County and other data pertaining to Mims and vicinity indicates that, for the most part, infrastructure elements are not limiting factors to future growth and development. The major exception, as will be seen, is potable water supply.

Transportation:

The transportation network within and immediately surrounding the study area does not appear to present any significant near-term constraints to development, according to data compiled by the Brevard Metropolitan Planning Organization (MPO) on the area's collector and arterial roads. Traffic volumes in Mims are not surveyed, as the roadway network is local in character. U.S. 1 and SR 46 are the only roads for which traffic counts have been systematically compiled by the MPO.

The basic measure of traffic capacity on a road or in a road network is Level of Service (LOS). LOS is determined through a traffic-engineering study that measures several variables, such as average speed, queuing time at traffic-control devices, and/or mean

⁵ The Census Bureau created the CDP concept to collect data for communities that aren't incorporated or have fixed legal boundaries, but are otherwise similar to cities or towns in size or density. Data for the Mims CDP may be found at:

http://factfinder.census.gov/servlet/SAFFFacts? event=Search&geo_id=&_geoContext=&_street=&_coun ty=mims&_cityTown=mims&_state=04000US12&_zip=&_lang=en&_sse=on&pctxt=fph&pgsl=010&show_ 2003_tab=&redirect=Y. The Mims reference map is found at:

http://factfinder.census.gov/servlet/MapItDrawServlet?geo_id=16000US1245775& bucket_id=50&tree_id =420&context=saff&_lang=en&_sse=on.

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distance between vehicles. LOS is graded on a scale from "A" (free flow) to "F" (forced or breakdown flow).

By Brevard County standards, no Level of Service (LOS) failures are identified in the area. U.S. 1 itself operates at LOS B, according to the 2005 traffic counts. Map 5 shows the Brevard Metropolitan Planning Organization's 2025 Long Range Plan for the County. No projects are identified or programmed for the study area. There would seem to be sufficient road capacity to accommodate a reasonable level of future development.

Under State and County concurrency regulations, impacts of new development on the road network cannot result in LOS failure anywhere in the road network. If development is shown to cause LOS failure on one or more segments or intersections, concurrency regulations require the developer to commit to attaining an acceptable LOS before the project can proceed to the occupancy stage. Regular data collection and analysis should take place to ensure that potential LOS issues be identified before the concurrency-mitigation stage is reached. Brevard County's land-development regulations are designed to provide LOS information as needed.

Although no LOS failures are identified in the Mims area, future development always has the potential to reduce LOS. The County, MPO, and FDOT (Florida Dept. of Transportation) should and will continue to monitor LOS in Mims and elsewhere in Brevard County.

Schools:

Schools have emerged as a significant infrastructural concern in all of Florida, including Brevard County. The Mims community has expressed concern about school capacity in the area, and stakeholders are interested in solutions.



Although schools are a legitimate infrastructural concern, and are indeed important in determining an area's well-being and quality of life, the fact remains that under Florida law, County government has limited authority as regards potential problems and solutions. The Brevard County School District covers the same geographical territory as the County, but is an autonomous entity with its own

taxing and revenue authority, budget, and governing body (the Brevard County School Board).

Beginning in 2008, changes in State law will bring County planning and School Board planning functions into greater synchronization, by requiring concurrency in school capacity as well as roads, sewers, and other infrastructure. At this time, however, addressing school-capacity issues is beyond the scope of the SAS. The County and School Board are both working diligently toward implementation of the new law and look forward to addressing this important community issue together.

Public Water Service:

(*Note:* On September 7, 2006, the Utility Services Director provided the Board of County Commissioners with a memorandum [dated August 22, 2006] analyzing present

and anticipated future service demand and supply for water and sewer in the County Utility Department's Northern Brevard service area. Although written at the time mainly to address several specific rezoning requests, this memo is very useful in analyzing needs and capabilities within the study area. The Utilities memo is attached as Appendix A.)

General: The County operates a public-water distribution system whose service area

includes most of Mims south of Lionel Road and east of I-95, with service to specific areas west of the Interstate as well (see Maps 6 and 7). The County draws its water from underground – specifically, the Surficial Aquifer, which is the shallower (i.e., closer to surface) of the two aquifers underlying northern Brevard. Water in northern Brevard's Surficial Aquifer is also better-quality as a rule than the deeper aquifer, the Floridan.



Current and Projected Service Demand: The table titled "North Brevard (Mims) Service Area" in the Utility Director's memo (Appendix A, p. A-3) summarizes the situation with regard to water service in the utility-service area. The table lists approximate number of units currently served, and expected number of units already programmed for service but not yet built.

This table also provides figures for number of units and corresponding water usage that could be anticipated if most of the remaining vacant properties in the service area were developed to their maximum density under currently adopted zoning and/or Future Land Use (FLU) designations. Note that these figures are very approximate for several reasons, including the following: (a) They assume maximum density buildout for all properties (i.e., a property designated for 4 units/acre will be built at exactly that density); (b) they assume that all future development projects will utilize Brevard County potable water, rather than individual wells, for their water needs; and (c) they assume that all future projects will consume potable water at the same per-household rate as past projects.

The total water maximum daily usage for existing units in the water-service area is 1.338 million gallons per day (MGD). This represents approximately 3,300 existing household units, each of which uses an estimated maximum 405 gallons per day (GPD). (Note that these are maximums, not averages - peak flows locally are always associated with irrigation demand, usually in April and May, when temperatures rise to summertime levels and there is very little rainfall.)

The County Utilities Department also maintains a list of programmed projects - i.e., projects not yet built but for which a service need has already been identified, pending zoning approval as requested by the applicant. The list currently consists of eleven projects, with an estimated total of approximately 3,245 units. Two of the 11 projects (Walkabout and Hamlin Grove) will use County water only for drinking, cooking, and other consumptive uses; irrigation water will be provided via reclaimed water or other non-potable sources such as private wells. Utilities estimates potable usage for Walkabout and Hamlin Grove at 225 GPD. The other nine projects have no specific plans for wellwater irrigation, so a conservative approach is to assume they would use

County drinking water for irrigation; these are estimated at the standard 405 GPD. Overall usage for the 11-project total is estimated at 1.001 MGD.

Adding existing and programmed maximum water usage gives an estimated 2.339 MGD total. County Utilities Services staff cautions that in a time of significant drought, when water usage increases, this figure may go even higher.

Current and Projected Service Supply: The current capacity of the northern Brevard water treatment plant is 2.40 MGD.

Comparison of this figure with the above-noted current and near-future demand indicates that, without increased capacity, demand for the utility's water would be close to its current maximum supply limit upon completion of the programmed projects. Given all of the qualifying factors above (drought, firefighting needs, etc.), it is conceivable that the system may well be at or over capacity when the programmed projects are included.

The Utilities Department has recognized this potential service issue, and as a result has asked for an expansion of the water treatment plant in the County's Five-Year Capital Improvements Plan budget. The CIP project would also encompass completion of approximately 11 new wells on the Walkabout property. If these expanded facilities are approved and constructed, supply capacity would increase to approximately 3.78 MGD, which corresponds to the maximum allowable yield under the County's Consumptive Use Permit (CUP) issued by the St. Johns River Water Management District (SJRWMD).



If the five-year plant and wellfield expansions are factored in, the Year 2011 capacity would be enough to serve all existing and programmed development in the water-service area, with surplus capacity to spare (3.78 MGD available supply vs. 2.339 usage demand).

Effects of Developing Additional Property: Additional service demand arises, however, if significant future development potential is considered. The Utilities Department estimates indicate that developing all or most of the vacant or under-utilized properties in the Utilities Service area to their maximum intensity would exceed the water system's capacity -- even after expansion. The estimated demand under this scenario is 4.264 MGD, which exceeds planned capacity by about 12.8 percent ((4.264 - 3.78) / 3.78 x 100). (Note that these figures assume that irrigation water will be drawn from County waterlines - i.e., the high-end 405 GPD average.)

Water Demand and Supply Outside the Utility Service Area: Most of the Mims study area is beyond County Utility water-service boundaries (Map 6). There is no other public utility serving the area. Therefore, private wells are the sole source of potable water. Private individual wells are not required to obtain Consumptive Use Permits from the St. John's River Water Management District, so data on number of wells, source,

and consumption are not obtainable as they are for Utilities water. The only reasonable assumption is that denser population would mean increased consumptive water use.

As to supply, most groundwater for private wells in the Mims area comes from the Surficial Aquifer, as does all County potable water. The Floridan Aquifer in northern Brevard County is more expensive to tap and provides lower-quality water, as a general rule. (This incidentally is not the case everywhere; in Volusia County, for example, many public utilities use Floridan water.)

Determining the ultimate capacity of any aquifer is at best a hugely difficult and expensive undertaking. Groundwater is dependent on underground hydrogeology, which can vary enormously over short distances. The essence is that there is no practical way to determine the overall ultimate capacity of the aquifer.

Potential Alternative Sources: A cliché holds that "there is no shortage of water – only a shortage of cheap water". Indeed, Brevard and every other county in Florida could obtain all the water they could conceivably ever need from the Atlantic Ocean. Desalinization technology is well-established, and in some populous areas of the world (e.g., the Middle East) it is being used for virtually all water needs. Cost is the primary barrier in the U.S., followed by regulatory and environmental concerns.

Surface water in theory is also available. The State's largest river, the St. John's, flows through much of Brevard County, and is just a few miles outside the study-area boundary. There has been discussion over the years about building reservoirs on the St. John's or one of its tributaries. In fact, one such impoundment is already in place:



Taylor Creek Reservoir, located just east of the county boundary near S.R. 520, and owned and operated by the City of Cocoa. A major expansion of Taylor Creek Reservoir is now in the planning and engineering design phase. When and if it is completed in 2012 (estimated), the expanded reservoir is expected to supply potable water to, among other entities, the Cities of Titusville and Orlando, in addition to Cocoa. Projected cost is in the

\$200 million range. Although Brevard County (and eight other local governments) have expressed interest, at this time the Taylor Creek project does not include them, in large part because the supply even after expansion is limited.⁶ No other reservoir for the upper St. John's basin is on the horizon, to staff's knowledge, and building a new reservoir from scratch would be vastly more expensive today than it was when Taylor Creek was constructed in the 1990s.

Yet another alternative is tapping the saline Floridan aquifer and employing "reverse osmosis" (RO) engineering methods to remove the salts content. At this time, applying RO to Floridan water should be considered very speculative. There are two questions that need to be researched and answered. First: Can saline Floridan water be withdrawn without impacting wetlands and the overlying freshwater resource? Second:

⁶ Source: St. John's River Water Management District:

http://sjr.state.fl.us/programs/outreach/pubs/order/pdfs/fs_taylorcreek.pdf Mims Small Area Study – FINAL DRAFT - March 20, 2007– p. 10

If RO is pursued, where will the brine concentrate go? Injection wells are being used in most places, but it is unknown whether the geology needed for injection wells exists in the northern Brevard area.

For most if not all alternative water-supply possibilities, including desalinization, surface water availability, and reverse osmosis, cost is a major impediment to their use. Environmental permitting of these options is also likely to be difficult, and perhaps impossible. It is highly likely that most of Brevard County's potable-water needs will continue to be met by Surficial-aquifer groundwater withdrawals.

If potable water limitations are to be addressed, as they should be, then the County will need to take certain steps to limit impact on the system. A specific recommendation in this SAS – recommended by both the Planning and Zoning Office and the Utility Services Department – is that waterlines extend no farther than they currently exist, or are already programmed, in the study area. Specifically, this would mean waterlines would not be extended north of the Lionel Road corridor east of I-95. West of I-95, service would be provided only within the already-established waterline network (Map 7). Although Utilities Department has regulatory authority to extend waterlines as far north as Aurantia Road (Map 6), this SAS specifically recommends that the area from Lionel Road to Aurantia Road and beyond *not* be served by County Utilities water.

Water service to developments along the Lagoon shoreline should also be approached cautiously. As discussed in later sections, community wishes environmental quality, and recreational needs all indicate the desirability of limiting development in the unique shoreline and near-shoreline region. Service extensions are already programmed at certain points, as shown on Map 8. While these are already "in the pipeline", so to speak, new developments may request



additional extensions. For reasons discussed below, it is wise to limit development along the shoreline to environmentally-friendly, conservation-oriented projects. One such example is the T&L Management PUD proposal that the Board of County Commissioners reviewed and approved in November 2006. This project features clustering of single-family and moderate-rise multi-family dwelling units on the west end (inland) of the tract, while the shoreline and near-shoreline is kept green. Cluster and similarly dense developments usually require water (and often sewer) service. It is recommended that such service be provided only if a development proposal exhibits preservation-oriented elements that recognize and protect the Lagoon and its landwater edge zone.

(Note: The above recommendation is not intended to limit service in emergency or crisis circumstances. If public health and safety were to require service extensions, that would of course take precedence.)

Public Wastewater (Sewer) Service:

The Utilities Director's memo discusses sewer service to the area in some depth (Appendix A). As with County potable water, the County provides public wastewater service in specific portions of the study area. The area served by existing and planned sewer lines is considerably smaller than the area served by water lines (Map 7).

Unlike County potable water service, sewer service availability and capacity do not seem to be limiting factors. This is principally because many developments are able to use individual sewage disposal systems (septic tanks). Soils, lot sizes, and placement of houses on lots in northern Brevard County as a rule do not present difficulties with individual septic tanks, and that is expected to be the case for the foreseeable future.

Another factor is that sewer installation and operation is considerably more expensive per household than water, which makes sewer cost-prohibitive for all but the most densely developed residential projects. A rule of thumb for the County Utilities Department is that public sewer becomes viable only at densities of greater than four (4) units per acre.

Current public-system wastewater usage in northern Brevard County is approximately 0.289 MGD. The wastewater treatment plant can accommodate about one million GPD, so current use is less than one-third the capacity. In addition, expansion of the wastewater treatment plant, while costly, does not have the resource limitations that water supply does.

Unless area development patterns change significantly, public sewer capacity and availability are not expected to become limiting factors.

Parks and Recreation:

Recreation aspects are a key element in the Mims area's infrastructure, both physical (facilities) and in terms of services, and recreation is seen by the community as a significant quality of life component.



Public parks and recreation facilities services are provided under the auspices of the Brevard County Parks and Recreation Department. The Parks & Rec Department serves Mims through its North Area Parks Operations center in Titusville. In Mims, a number of Brevard County Parks are in place already, and more are being developed. Currently operating are Cuyler Park on Harry T. Moore Boulevard in East Mims, and Holder Park off of Parrish Road west of U.S. 1. Both Cuyler and Holder

have multiple active-recreation areas and programmed activities including basketball, soccer, and baseball for the community's youth.

Other facilities are in place or under development, including the Harry T. & Harriette V. Moore Memorial Park and Cultural Center in East Mims, and the Chain of Lakes Park

east of U.S. 1 to the south. Although it is outside the study area, the Chain of Lakes is important for Mims, as it provides the only County-managed public waterfront access for the area.

Additional parks facilities are underway in Mims as well, funded in part by voterapproved bonds in 2000 and 2006. Two noteworthy future parks and recreation features are the Mims-Scottsmoor Community Center, for which a suitable location is now under discussion, and the East Central Florida Rails-to-Trails initiative. The latter project involves the old Florida East Coast Railroad line property that runs northwest out of Titusville through Mims and into Volusia County. The Rails-to-Trails project would include acquiring the railbed and redeveloping it for multi-modal use for bicyclists, pedestrians, and equestrians. The Rails-to-Trails is a multijurisdictional effort, including Brevard County, Volusia County, and Federal and State transportation funding. The City of Titusville would participate as the home to the trail's southern terminus. The Rails-to-Trails project could be of major significance to Mims and Brevard County, particularly if it is linked in the future to an entire trail network throughout east-central Florida, as many are hoping.

Aside from these and similar formal Parks and Recreation aspects, Mims as a community enjoys other recreation opportunities close to hand. For example, much acreage west of I-95, which shows as "empty" land on the aerial photo, is host to hunting clubs and individual hunting and shooting activities at various times of the year. Horses are a significant part of life in the less-densely populated areas; it is rare to drive down a side road in northern Mims for any distance without seeing horses at pasture, and not uncommonly motorists find themselves sharing the road with equestrian riders.

The adjacent Indian River Lagoon is viewed as part of Mims, and offers many potential recreation opportunities, such as fishing, boating, and wildlife-watching. A problem in this regard is access to the Lagoon from Mims. Except for one privately owned facility at the east end of Jones Avenue, there is no place in the study area where one can launch a boat; and in fact even getting to the waterfront is difficult in most areas. The private boat launch owners have been accommodating to the general public, but it is



a small facility. The community is interested in expanding opportunities for water access along the Lagoon.

Other Infrastructure:

Reclaimed Water: In addition to potable water and wastewater, County Utilities also operates a small reclaimed water distribution system in the Mims area. Reclaimed water is essentially reprocessed wastewater, supplemented as needed by other sources (e.g., ponds). Usage would typically be for irrigation of large areas, such as golf courses. The number of consumers is small, and the practical difficulties of

maintaining an adequate, steady supply of reclaimed water make significantly expanded use unlikely. Appendix A contains further discussion about reclaimed water use in Mims. This infrastructural element is unlikely to be a major factor in either supporting or constraining Mims's future development.

Public Safety: Fire, rescue, and police services are provided to the Mims area by the County, with participation by other public-safety units as needed or appropriate. For purposes of this study, assessment of adequacy consisted of informal, verbal discussions with the relevant service departments or entities. It would appear that significant deficiencies do not exist concerning public safety or emergency medical services in Mims.

Brevard County Fire Rescue (BCFR) provides fire-safety and rescue service in the area. Since 1984, when districts were consolidated, all of unincorporated Brevard County (as well as several small municipalities) have been served by BCFR. In Mims firefighting is performed by volunteers, reservists, and full-time professionals, with assistance available from neighboring jurisdictions (e.g., City of Titusville) when necessary through mutual-aid agreements. Rescue services are operated by BCFR in similar fashion, with paramedical assistance onsite and transport to hospitals or care facilities according to County and regulatory protocols.

Police services are provided via the Brevard County Sheriff's office, with other entities providing specialized services as appropriate (e.g., Florida Highway Patrol for traffic



and related enforcement on Federal and State highways). Mims is part of the Sheriff's North Precinct, with its main station in Titusville and a substation in Mims near U.S. 1 and Main Street. Patrol in Mims includes the Community Policing concept, in which deputies stay in frequent person-to-person contact with the community. The Sheriff's office also serves Mims and other Brevard County areas with specialized services, such as criminal investigations, as necessary.

Libraries: The Mims community can access any of Brevard County's 17 libraries; however, for most the Mims-Scottsmoor Library on Lionel Road near U.S. 1 is the easiest to visit. The current library is adequate to its purpose, but for some time the County has known it would need to be replaced by a larger facility. At present a variety of different sites are being considered and evaluated. Libraries, like schools and cultural centers, are key to maintaining a sense of community identity and heritage, and the County is committed to providing high-quality library facilities and programs to the Mims community.

Infrastructure - General Conclusion:

The County's existing and planned infrastructure in the Mims study area is generally well-suited to serving the needs of the current population, and should adequately serve future needs generated by a reasonable rate of growth and development. The one exception to this rule is potable water.

Since all of Mims's water for the foreseeable future, whether public or private, is likely to come from the Surficial Aquifer, and since that resource is limited, it is important that

growth in the area be carefully managed in order to conserve the resource. Water is the most important infrastructural constraint on growth in Mims and northern Brevard County.

LAND-USE FACTORS

General Pattern of Land Use:

The existing residential development pattern in the study area follows a general pattern. Land use is more intense east of I-95 and south of Grantline Road. A brief description of land-use patterns in Mims would be as follows:

East Mims just east of U.S. 1 is the core area of residential properties' greatest density, along the Main Street and Harry T. Moore Boulevard area. Densities taper off with increasing distance to the east, north and south (see aerial-photo Map 4).

West of U.S. 1 and east of I-95, the densest residential development tends to be along the southern edge, closest to the Titusville boundary. North of S.R. 46, residential use drops off sharply.

The same pattern is even more pronounced west of I-95. With a few exceptions (e.g., Fawn Lake, Sherwood Village, Tomato Farm Road, Hog Valley, etc.), not many people or houses exist west of the Interstate. Map 3, the aerial photo of the whole study area, shows a clear picture of these patterns.



Commercial use in the Mims study area is much more concentrated, with nearly all businesses located along U.S. 1 and around the S.R. 46 interchange. The peak business area is around the U.S. 1 intersection with Main Street (S.R. 46). Businesses along U.S. 1 continue south into Titusville with minor interruptions, but drop off quickly north of Lionel Road, and very few are found north of Grantline. In the northern study area, a commercial node of sorts can be discerned at the intersection of U.S. 1 with Aurantia Road. If a commercial node is to exist

north of Grantline, the Aurantia Road intersection is the logical place; Aurantia is a welltraveled road, and indeed is one of the only roads in northern Brevard County to cross the Interstate.

Active agriculture still exists in Mims, but there is no large-scale pattern. Cattle and citrus are the major activities, along with silviculture (forestry). The number of living citrus groves appears to grow smaller each year, according to residents' observations. Probably the majority of the remaining commercial citrus crop comes from the large area between the shoreline and U.S. 1. Cattle operations are found mostly east of I-95 and north of S.R. 46 in scattered locations. Timbering appears to be a low-key but regular activity in the privately owned wooded area west of Hog Valley Road.

Finally, the riverfront area along the Indian River shoreline is mostly undeveloped, with scattered pockets of development. The Florida East Coast rail line along the shoreline is still active (it is Brevard County's only remaining trunk railroad); probably for this reason, most of Mims's few industrial facilities are at or near the shoreline.



The aerial photos (Maps 3 and 4) are good tools to show general patterns of existing land use in the area. Although the maps do not directly differentiate among residential densities, the map provides visible evidence that lot sizes become larger as one leaves the East Mims and southern boundary area. They also show that I-95 is a major dividing line, with densities and intensities dropping off sharply with distance westward. Interstates are often seen as artificially splitting communities, but

they can sometimes serve positive effects as well. In Mims, the lack of east-west access across I-95 seems to have helped insulate the western area from the development pressures recently seen to the east.

The generalized pattern described above can provide useful context for considering growth trends and possibilities in the study area. For example, existing waterlines are concentrated in areas of existing dense development. A growth-management consideration is whether and how water service could be limited beyond the core area.

Future Land Use and Zoning:

Florida law provides for local governments to adopt several related, but different, mechanisms to guide land use. Two of the most important are: the Comprehensive Plan (which includes the Future Land Use Map and text), and land-development ordinance(s), which include zoning regulations. Although other tools exist, these two are usually the most central to governing a community's growth and development. A summary of how these tools operate will not be attempted here; instead we will focus on their geographical application in Mims.

The adopted *Zoning Map* for Mims (Map 9) is not unlike the generalized existing land use pattern described above. Commercially zoned land is concentrated near major State highways, and residential densities and types decrease outward from East Mims. The "empty" lands in the study area's west and northwest are zoned for agriculture or similar low-intensity use. Two additional points of note are: Mobile-home zoning is scattered, with greater frequencies near East Mims but found in the northern reaches as well; and multi-family residential zoning is concentrated in the southern end of Mims, on both side of U.S. 1.

The adopted *Future Land Use Map*, or *FLUM* (Map 10), is roughly similar, as would be expected. Important differences are visible between the two regulatory maps, however. One difference is that some of Brevard County's *FLUM* categories are broadly permissive, allowing more uses than the label might imply under some circumstances. For example, the *Commercial* FLU designation also allows residential use, if specific criteria are met, and *Agricultural* also allows residential use at a density up to one house per five acres.

Probably the most critical difference between the two regulatory maps in Mims, is that the *FLUM* in many cases allows consideration of higher residential densities than the Zoning Map. A good example is Sherwood Village, where the zoning map is divided into different residential densities with intricate boundaries, whereas the *FLUM* sets a uniformly high-density 15 units per acre. (The zoning map governs actual density allowance in such cases.)

Although exceptions exist, this pattern is repeated over much of Mims. In nearly all cases, the Zoning Map comes closer to current development than the *FLUM*, and it is nearly always the *FLUM* that shows the higher numbers. Although a detailed analysis has not been completed, staff's preliminary parcel-by-parcel comparisons indicate that only several hundred properties in Mims, out of nearly 10,000 total, have higher zoning than *FLUM* densities. If the community wishes to manage growth at a more measured pace, and if that wish is supported by data analysis such as infrastructure capacity, a key element will be changes to the *FLUM*, to bring it into closer alignment with desired densities.

COMMUNITY INPUT AND DISCUSSION

Background:

Public discussions about Mims's growth and future direction have been taking place for at least three or four years, if not longer. At Board of County Commissioners meetings and meetings of other Brevard County decision-making bodies, Mims citizens have been present to speak their concerns about specific rezonings and land-development proposals. Meeting minutes show that development proposals in Mims have especially generated large citizen turnouts and long public-comment periods. While not uniform, the minutes indicate that most speakers were opposed in one form or another to rapid suburban-style growth in Mims.

Concerns about rate and type of development have been expressed in other venues as well. For example, due in part to demonstrated community need, the Brevard County

Department of Housing and Human Services in 2004 prepared, and the Board of County Commissioners adopted, a Neighborhood Action Plan for the East Mims Neighborhood Strategy Area. The Action Plan contains numerous goals and objectives toward improving quality of life in East Mims. Although most relate to potential funding with Community Development Block Grant (CDBG) funds, the Action Plan is a reasonably comprehensive look at the community's development needs. In East Mims, particularly the core neighborhood area around



Main Street and Harry T. Moore Boulevard, the need is less focused on new growth and greenfield development and more focused on redevelopment and expansion of opportunity in existing neighborhoods. (An update of the 2004 Action Plan is currently underway.)

Quality of life, as well as growth per se, has been on the minds of Mims residents. Discussions in various forums show that environmental, schools, recreational, and water-supply issues are mentioned numerous times.

Community Assessment Methods for this Small Area Study

In order to assess current community sentiment, and to allow Mims citizens the lead role in fashioning their community's plan, three Community meetings were held: January 10, February 28, and March 14, 2007. (In addition, a community meeting for the earlier Mims Community Assessment, held October 30, 2006, also generated input for this SAS). The meetings were publicized through the media, posting of flyers, and announcements and discussion in community groups and organizations.

At each meeting, County Planning and Zoning staff, aided by other County departments, were present to listen to attendees' comments and questions, take note of them, and provide answers as available. The three meetings were structured as follows:

- Wed., Jan. 10, 2007: "Tell us what you think": Brief presentations by County staff on Mims programs, followed by worksheet-based discussion of how attendees wished to see "the Mims of the future";
- Wed., Feb. 28, 2007: "Here is what we found": Staff presented summary of community's wishes from previous session and other sources, plus results of data and statistical analysis (e.g., infrastructure capacity);
- Wed., Mar. 14, 2007:"Did we get it right": Staff presented draft Small Area Study with summary, and sought feedback on validity and comprehensiveness of the report.

At the Jan. 10 and Feb. 28 meetings, worksheets were distributed to help staff assess issues and solutions. Results of these worksheets are summarized in Appendix B.

Other sources of information on citizens' wishes were also consulted. Minutes of previous County Commission meetings were reviewed, going back to 1996; Planning & Zoning Board and Local Planning Agency minutes were also considered; and upon request the Planning staff met numerous times with interested stakeholders, received phone calls, and corresponded through email.

Results of Community Input - General:

The January 10 meeting resulted in identification of concerns that paralleled and reinforced information from pre-SAS discussions among Mims citizens. Full data is provided in Appendix B. A brief summary is as follows:

• The primary community wish is the desire to keep Mims "Rural" and/or "Small Town". The word "rural" in particular came up repeatedly in worksheets and discussions. No other term or concept was mentioned nearly as often.

• The primary community concern is that significant, uncontrolled development will compromise or erase this quality. Fear was expressed that the present type and rate of development will lead to this end.

Other community values include:

- Safety -- Residents want to ensure that Mims remains a low-crime, low-traffic, "neighborhood-friendly" place;
- Agricultural land use (working cattle & citrus acreage) -- Community members value their agricultural heritage, and want to preserve both actual working farmland and the agricultural appearance or landscape;
- Open Space (forest land, horizon views) -- Similar, but not identical to agriculture is the desire for open spaces, both to look at and to be within;
- Recreation (trails, youth activities, waterfront access) --Partly related to open space is the desire to pursue activities without feeling crowded out. A somewhat different wish, especially noted by the East Mims community, is the need for organized recreation for young people;



- Conservation, Environmental Quality Concern was noted for preserving unique areas, such as the Lagoon shoreline zone, maintaining proper habitat for wildlife, and protection of aquifer-recharge areas;
- *Ease of travel (low road congestion)* In addition to safety, this value stresses freedom of movement and a hassle-free lifestyle.

Results of Community Input - Land Use:

Staff also surveyed residents about land use. Jan. 10 meeting attendees were given copies of the study area's Zoning Map and *FLUM*, and asked to indicate which categories were "too much", "about right", or "needs more". Results are summarized as follows:

- The community views *higher-density single-family housing* (1/3-acre lots & smaller) as the most uniformly negative ("Too Much") trend, with medium-density single-family housing (1/2 to 1-acre lots) in second place;
- *More conservation land* is the most commonly-identified "Need More" land use, with agricultural and commercial land almost tied in second place.

Results of Community Input - Other Factors:

Visual Appearance: This aspect of Mims is of concern to residents. Most significant in the surveys are the following:

- Working farmland (cattle & citrus) These landscapes are a key element in the "look" of Mims;
- Open-land views (forest, wetlands, etc.) is a close second.

Both factors have been discussed previously. The point of this element is to emphasize that quality of life can depend on how the community looks, to itself and others.

Heritage and Historic Roots: As noted in the Introduction, the community values its heritage and historic roots, including:

- The neighborhood aspects (residential, small-scale commercial, churches) of the East Mims Community;
- The agricultural/openspace landscapes to the north and west; and



• The *natural* and *environmental* qualities of the riverfront (Lagoon) area and the undeveloped lands west of I-95.

These results also reinforce findings discussed above. It is worth stressing that Mims residents feel as they do about rural character and neighborhood spirit because many of them recall days when these characteristics were more pronounced, and they view current trends as threatening to erase them.

Schools: The community values high-quality schools and is concerned about rapid development or other trends that can compromise this quality. As noted, addressing school issues is outside the province of this study; however, they are clearly looming as a serious concern for Mims, and measures to address them will be important.

Public Institutions are significant in sustaining community culture. Examples in Mims include the Harry T. Moore and Harriette V. Moore Cultural Center and the Brevard County Library. Support for these institutions is seen as a worthwhile goal.

Last but not least: There is no other place like Mims, Florida.

Although no single respondent phrased it in exactly this way, the underlying theme ran throughout nearly every attendee's comments. No other community has Mims's unique



character, heritage, and quality of life. Many places – sadly, including many in Florida, some of them nearby – have been turned into "Anyplace" – which often means "No Place." *Mims is still "Some Place".* The community wishes to keep it that way.

SCENARIO(S) FOR MANAGING GROWTH

FLUM Reductions:

At this point in the study, three elements (recent history, community wishes, and infrastructure analysis) converge, and all seem to point in the same general direction. It would seem that growth management in Mims will mean, first and foremost, reducing the rate of growth. The key method for doing so is adjusting the residential density levels presently allowed by the *FLUM* so that they are more in line with zoning and with existing land use. The process of reducing these disparities is sometimes called "right-sizing" the map. The Mims FLU map is in need of right-sizing.

Right-sizing FLU densities in appropriate areas is an important goal toward:

- a) Conserving the water supply;
- b) Retaining the character of the community; and
- c) Balancing growth and economic vitality with quality of life.

A fourth element (d), which can be termed "best planning practice", also supports this adjusted-*FLUM* scenario. Good urban and rural planning principles and practices emphasize such concepts as graduated transitions among different residential land-use densities, and adequate buffering of environmentally sensitive lands. The present *FLUM* can be improved in this regard. For example, in some areas (e.g., west of Turpentine Road), one finds 2-units-per-acre single-family FLU designations adjoining land dedicated to conservation. Reducing density in this interface is a preferred way to maintain the integrity of the set-aside lands.

Another good planning practice is to avoid situations in which the zoning and FLU are mismatched over sizeable areas. At best, this can lead to a multitude of individual rezoning and/or FLU amendment requests; and worst, it can lead to major miscalculations about the land's potential by those responsible for its future, such as landowners and County decision-makers. This is a major reason why *FLUM* right-sizing is a necessary process.

Finally, it is wise planning to periodically conduct an in-depth review of the *FLUM*, to determine whether it is still coherent with the overall Comprehensive Plan (and therefore County) vision. The *FLUM* in Mims has not undergone this large-scale analysis since it was first adopted in 1988. Policies regarding land-use and growth issues in Brevard County have changed since that time, and *FLUM* revisions are an appropriate response.

Buildout Analysis:

A buildout analysis is an often-used planner's tool for gauging possible impacts of growth. "Buildout" is an estimate of how many housing units, square feet of commercial floor area, or similar measure of density/intensity would result, if development were to reach the maximum possible limits for a given set of zoning and/or FLU categories.

Buildout analyses should be approached with great caution. No zoning district or FLU category ever comes close to its buildout capacity, for many reasons. To name one example, the method doesn't include land needed for streets, parking, drainage, wetland protection, and other infrastructure.

In staff's experience, buildout analysis is more useful as a *relative* measure of growth capacity, as opposed to absolute. That is, one would use a residential buildout analysis to compare two land-use scenarios, such as "existing" and "proposed", and consider the percentage decrease or increase that results, rather than looking at the actual number of housing units. Even relative figures should be viewed as rough estimates.

Guidelines for Buildout Scenario Changes: With these caveats in mind, the staff has analyzed the Mims study area's *FLUM* buildout potential and compared the current value with several scenarios for reduction. As a beginning point, staff kept the following criteria in mind:

- The need and desirability, for reasons previously stated, to reduce overall FLU densities and intensities on the *FLUM*;
- The need to "right-size" significant discrepancies among the *FLUM*, the Zoning Map, and existing development, and the fact that of these three, the *FLUM* is the one "out-of-step" with the rest;
- The fact that residential use is by far the most prevalent land use in Mims (excluding the large publicly owned conservation areas), and that changing other commercial or other uses' intensities would not change buildout totals by much;
- The already-developed character of the East Mims community, and the development/redevelopment needs and wishes of that community;
- The parallel, albeit on a smaller scale, situation with respect to established neighborhoods, such as Fawn Lake; and
- The special difficulties involved in adjusting *FLUM* in areas with PUD (Planned Unit Development) zoning.

The last point needs explanation. Detailed discussion of PUD zoning need not be given here, but it should be pointed out that properties zoned PUD in unincorporated Brevard

County are able to internally shift densities in ways that differ from the *FLUM* designation, as long as that shifting is allowed in that particular PUD's approval ordinance and as long as overall densities are not exceeded. Walkabout is the Mims area's only sizeable PUD, and its FLU designations were not changed in the buildout analysis for this reason. (Incidentally, Walkabout's PUD-controlled densities are below the maximum overall, although some individual pods are rather closely settled.)



A final guiding principle was staff's wish to approach *FLUM* changes in general as "conservatively" as possible. In theory one could consider making dramatic reductions, such as *Residential 15* to *Agriculture* (from 15 units/acre to 0.2 units/acre, or a 98.7 percent reduction in buildout density); however, reductions of this magnitude ought to Mims Small Area Study – FINAL DRAFT - March 20, 2007– p. 22

be supported by evidence that no lesser change will do the job. There are also practical aspects to this type of change: for example, they may disrupt other future planning processes and conclusions already in place (e.g., highway-widening, estimates of revenue, etc.) A key principle in planning is that one tries to achieve stability and predictability.

Buildout Target: As noted in the potable-water discussion above, development of all properties in the Utilities Service Area could result in a 12.8 percent shortfall in available County potable water, according to staff's best estimate. This number is of course approximate; moreover, much of the study area is outside the Utilities Service Area and thus does not figure into the percentage. Notwithstanding these factors, the most reasonable approach to matching the overall *FLUM* reduction needed to available capacity, is to use the 12.8 percent value. There are a large number of variables that could affect the "true" value (i.e., the value that would result if a hydrologic-modeling study could be performed), but the 12.8 percent is a necessary target, simply because it is the closest we will ever get.

Buildout Scenario: Staff considered all of the above factors in considering a Mims Buildout Scenario as follows:

- a) Reducing densities in most of the sparsely populated areas by "one notch" (i.e., 2 units/acre down to 1 unit/acre), or at most "two notches";
- b) Leaving most settled areas, such as East Mims and around S.R. 46 as they are currently; and
- c) Reducing high-density (15 units per acre) areas near the map's southern border (Sherwood Village, the areas south of Holder Park) to 4 units per acre.

Buildout Results:

When the buildout numbers were calculated and compared to current FLU values, the Scenario resulted in a theoretical <u>reduction in housing units of about 30 percent</u>. The Scenario met the 12.8-percent reduction target, and thus may be considered successful in reaching stated goals of the Plan.

Appendix C is a spreadsheet with values and calculations for this Buildout Scenario; the resulting map, labeled "Prospective Future Land Use Map" is show on Map 11.

Staff considers the Scenario to be a conservative approach. This Scenario is seen as balancing the wishes of the community to reduce overall growth with the need to preserve planning continuity. Most reductions were accomplished north of Grantline and east of I-95, with lesser areas in the interior between U.S. 1 and the riverfront, between U.S. 1 and I-95, and in areas nearest to publicly-owned conservation land. Right-sizing Sherwood Village and the area near Holder Park to 4 units per acre also contributed a noticeable share of the percentage reduction.

Prospective Future Land Use Map:

The changes in the Scenario are shown on the exhibit labeled "Prospective Future Land Use Map" (Map 11). In addition to the general pattern of residential changes discussed above, the following changes from the present *FLUM* may be noted:

• The diagonally-striped "Shoreline Preservation" overlay zone along the Lagoon shoreline and near-shoreline area:

The shoreline-area "Shoreline Preservation" zone was identified as a result of several factors. One was the expressed wishes of the community to keep the Lagoon area in Mims from being developed as other shoreline areas have been, such as in cities to the north and south wherein high-rise buildings dominate the skyline. There is a lot of relatively undisturbed hammock land along the waterfront – a feature the community views as positive and wishes to preserve. Another factor is that this area approximately coincides with the State-defined Coastal High Hazard area. The Florida Department of Community Affairs has stressed that Comprehensive Plan amendments are expected to reduce development intensities in this at-risk zone.

This Small Area Study does not identify specific protection measures for the Shoreline Preservation area, because there is no single best-practice mechanism to increase protection therein. Some of the County's tools to do so are: Purchase of environmentally sensitive or valued properties, through the County's EELs program or similar programs at the regional, State or Federal level; preservation effects associated with other public land-use functions (e.g., County parkland, stormwater



drainage areas); protection by private landowners via conservation easements or transfer of development rights; and PUD zoning or conventional zoning with Binding Development Plans (BDPs), among other mechanisms.

Implementing the Shoreline Preservation recommendations will be one of the more complex tasks associated with this SAS. One necessary step, or series of steps, will be coordinating various County departments' activities to achieve the common preservation goals. Discussion among them, as well as with other public and quasipublic agencies, should be ongoing and frequent during the process. Of course, it is also crucial to involve the private landowners in the area in the planning and implementation process.

• The crosshatched elliptical overlay zone around the S.R. 46 interchange:

The S.R. 46 ellipse, like the Shoreline Preservation zone, is intended to have "fuzzy" boundaries, which may be refined in the post-SAS implementation stages. The concept for this overlay area is that the commercially valuable properties in this area ought to have design guidelines in place that recognize its highly visible nature and unique situation. The S.R. 46 interchange is one of Mims's "front doors", and for many, especially those from outside Brevard County, it will be their only exposure to the community. More over, this is one of only two relatively undeveloped, but developable, I-95 interchanges in Brevard County (along with C.R. 5A in Scottsmoor).

As noted, the Mims community is greatly concerned that development be visually harmonious with its heritage and character. For this reason, coupled with the highly visible character of the interchange, the community has expressed interest in design guidelines for the non-residential areas around the interchange and their development.

The overlay's boundaries are deliberately wide-ranging and cover more than just commercial-FLU properties. Parts of several single-family neighborhoods are included, such as Spruce Hills to the northeast and the Blue Jay Place neighborhood to the southwest. Their inclusion has caused some concern among residents. This report stresses that the overlay is not intended to affect any of these established single-family neighborhoods. Residents would not need to redesign their homes to meet design guidelines, nor is there any intent to suggest that their neighborhoods become commercial. The overlay ellipse is drawn to cover a wide area, because experience shows that interchange commercial areas tend to spread out over time and because there are several large vacant properties in this case that are probably ripe for development.



Design and interchange development have been discussed together for many years – perhaps since the 1930s, when the first limited-access, grade-separated highway (the Pennsylvania Turnpike) was opened. There are a great many examples of how *not* to develop at interchanges. Communities such as Mims that have come late to the table have the opportunity not to repeat earlier mistakes.

Creating a set of design guidelines for an interchange is not a simple matter, but the job

is less difficult if good examples can be drawn upon, preferably from nearby communities. To this end, staff would point toward one of the few remaining undeveloped I-95 interchanges in east-central Florida: the S.R. 44 interchange (Exit 249) in New Smyrna Beach.

The City of New Smyrna Beach has taken the same proactive approach that this study recommends for Mims, by implementing a design overlay for all four quadrants of the S.R. 44 exit. Specifically, a consultant (MSCW in Orlando) was retained, a unified set of design criteria and processes created, and the City's Comprehensive Plan amended to bring the guidelines into reality. The New Smyrna Beach Activity Center Design Guidebook is now being used in discussions with developers, according to staff's discussions with New Smyrna Beach staff, and within a few years the interchange is expected to develop along the lines envisioned by the Guidebook.

The Table of Contents and the first two pages of text and graphics from the Design Guidebook are included as Appendix D. Staff would not suggest that the Guidebook be adopted for Mims without further study. Among other matters, the Guidebook includes much detail specific to New Smyrna Beach (such as coordination with that City's downtown streetscape) that would probably need modification before applying to Mims.

Moreover, creation and application of an Activity Center would a multi-departmental effort for Brevard County, and should be evaluated in that light. These cautions notwithstanding, the Activity Center approach to interchange design is believed to be a good model for Mims.

The same general rule of thumb – attractive design – could also be applied to the U.S. 1 commercial corridor. Since much of the corridor is already developed, design guidelines would have to be more individualized, to incorporate types of features from well-designed buildings and lots (and to avoid types of features that the community would not wish to see repeated). As with the Activity Center, further review and coordination with various parties in County government, the Mims community, and beyond would be necessary to bring this idea to reality; nevertheless, the idea has merit and should be pursued.



The "Welcome to Mims" sign that greets travelers eastbound on S.R. 46 at the interchange is a feature well worth preserving. Entrance features like this one create a gateway effect that lets people know when they have arrived in a real place (as opposed to "no place"). They also inspire local residents to feel good about their community. Features like this one, preferably using the same themes of color, style and material, ought to be considered at other main entrances to Mims, such as both ends of the U.S. 1 corridor.

• Small "right-sizing" type modifications to areas on the map other than residential:

Most such changes are minor in number and areal extent. For example, public or quasipublic areas, such as the Jones Avenue boat-access property and the Florida Inland Navigation District (FIND) spoil facility near Flounder Creek, were indicated as *Recreation* and *Public* respectively. It may be desirable to make similar minor adjustments elsewhere on the map during the FLU-amendment stage, but none are believed to be significant.

Map 12 is a map of the publicly owned lands in the study area. Some properties, including most of the huge tracts west of I-95 belonging to St. John's River Water Management District, were only recently (2006) changed to *Public Conservation*. In a sense, the Prospective Future Land Use Map as it regards public properties is an extension of the 2006 *FLUM* revisions.

Although changes to the two *Commercial* FLU categories were considered, the recommendation is to leave them as they are on the map. This decision was for two reasons: (a) staff believes that the design guidelines for the interchange, and the development of similar design guidelines for the U.S. 1 corridor, are a better approach to shape the development or redevelopment in those areas; and (b) the zoning

regulations are generally a more effective tool than the *Commercial* FLU categories in determining how specific projects are planned and built.

Industrial properties in Mims are not numerous, and probably the majority so designated on the *FLUM* are functioning as such. Notwithstanding these facts, there does not seem to be a significant need for retaining all these properties as industrial into the indefinite future, much less create any new ones. By historical circumstance, most industrial property in Mims is located along the FEC rail line. (Land-use planning in an earlier "low-tech" age viewed rail access as a critical need for attracting industry). This is of course the same area that



has been identified in the Plan as needing the Shoreline Preservation label, since the railroad runs along the edge of the Lagoon. While there is no call for eliminating any of Mims's "good-neighbor", employment-generating industries, future industrial needs are probably better served in other parts of Brevard County, such as planned industrial parks.

The County's *Agriculture* FLU is a difficult category to match with Mims's identified future needs and wishes. In many jurisdictions, including Brevard County, agriculture was benignly viewed in earlier times as a good activity, but an activity that would inevitably give way to "progress" (e.g., residential development). Nowadays, agriculture is recognized as more than just a holding-category that lasts only until something else comes along. Agriculture is a vital, and disappearing, element in the land-use mix. The term "agricultural preservation" did not exist before World War II; now it dominates discussions.



It must be acknowledged that Brevard County (and many other Florida jurisdictions) have not adopted agricultural land-use plans and regulation changes in step with this latter-day view. The *Agriculture* FLU category allows up to one house per five acres in some circumstances. That might have been a viable recipe for preserving farmland at one time, but it is not today. The five-acre working farm is almost extinct (the average Florida farm size in 2002

was 236 acres)⁷, and in its place is the five-acre "ranchette" – one of the more extreme forms of suburban sprawl. It is beyond the scope of this SAS to begin suggesting specifics, but it is suggested here that this category could and should be re-examined. Pending such undertaking, the Mims SAS suggests no change in the *Agriculture* category at this time.

Finally, some elements of the SAS are not shown on the "Prospective Future Land Use Map" because the data have not yet been adequately mapped. For example, aquifer-recharge area protection was mentioned by citizens and is a County goal as well; however, current aquifer-recharge maps are essentially maps of the best soils for

⁷ U.S. Dept, of Agriculture: *Florida Fact Sheet* (http://www.ers.usda.gov/StateFacts/FL.htm) Mims Small Area Study – FINAL DRAFT - March 20, 2007– p. 27

recharge. In specific cases, there is more detailed information. For example, aquifer protection is a part of the County Utilities Department's strategy in locating new wells in the Walkabout project. Walkabout is a cluster development with large open-space areas close to the Atlantic Coastal Ridge, which tends to be the zone where aquifer-recharge soils are most often found. Not all such potential areas have been geotechnically investigated, though. Aquifer-recharge area protection is a worthwhile goal, but implementation will require additional study.

Follow-Up Stage: Amending the Future Land Use Map

An important follow-up to the SAS will be amending the *FLUM* per recommendations in the Scenario. A point made earlier bears repeating here: The Small Area Study is *not* an amendment to the Future Land Use Map, or to the County's Comprehensive Plan. The process of amending those documents is described by State statute and County ordinance, and involves additional months of analysis by staff, public hearings by various boards, and eventually, approval by the Florida Department of Community Affairs.

If approved, however, this Small Area Study *does* initiate the amendment process. We might say that it sets the stage, points the staff and County officials in a particular direction, and gives the process momentum.

The actual FLU amendments will likely result in a map with more detailed distinctions than the Prospective Future Land Use Map (Map 11). Following are two examples of this type of detailed review:

- As previously noted, Sherwood Village has more internal variety than shown on a single-color *FLUM*. Although most of the neighborhood is single-family, with few if any houses on lots smaller than a quarter-acre, there are a few denser multi-unit areas in Sherwood. The *Residential 4* classification is sensible for most of Sherwood Village, but it will be necessary to address the multi-unit exceptions at the follow-up *FLUM*-amendment stage.
- The northwest part of the study area is a special case. All or nearly all of the land in question is owned by a single entity, the Miami Corporation. Miami Corp's holdings go well beyond the study area to the north and west; in fact the company owns many thousands of contiguous acres, most of it in Volusia County. At present the land is used for timbering and is leased for hunting, but is otherwise undeveloped, and much of it is not even accessible by road. Miami Corp has had very preliminary, very general discussions with Brevard County and



Aerial view of Miami Corp. land in northwest Brevard County

Volusia County about the future of their holdings. Speculation out of these meetings is that Miami Corp is interested in the State's Rural Land Stewardship development concept, which in simple terms involves developing one part of a

large area while leaving most of it preserved. If these plans move forward, the current 0.2 units-per-acre potential for Miami Corp's property might be different – either high or lower, depending on exact plans. While the discussions may not bear fruit before *FLUM* amendments are prepared, the situations points out one way in which recommendations in the Small Area Study can be altered by subsequent events.

On the whole, the "Prospective Future Land Use Map" is a set of illustrated suggestions for reducing density, protecting the water supply, and fulfilling in practical terms the Mims community's wishes. A key recommendation of this SAS is that the next step – identification of specific FLU and other Comprehensive Plan amendments – proceed with all deliberate speed upon the SAS's adoption.

IMPLEMENTATION OF THE SMALL AREA STUDY AND ITS RECOMMENDATIONS

The Small Area Study's final section lists, in outline form, recommendations that would implement its findings. A suggested sequence is as follows:

April, 2007: Board of County Commissioners adopts the Mims Small Area Study.

May, 2007: Moratorium on processing development applications in the Mims study area set to expire; County staff would evaluate



new development proposals in Mims in light of the SAS's recommendations.

May-June, 2007: Staff to begin work on identifying specific areas and properties needing *FLUM* amendments as a result of the SAS's adoption; preparation of *FLUM* and other Comprehensive Plan amendments begins.

Fall, 2007: FLUM and other Comprehensive Plan amendments are processed as part of the County's 2007-B Comprehensive Plan Amendment cycle.

Spring, 2008: Effective date of 2007-B amendments, following State review.

RECOMMENDATIONS OF THE MIMS SMALL AREA STUDY

NOTE: The following are recommendations and proposals developed from the Mims Small Area Study. Any proposed policies cannot go into effect or in any way be applied to property in the Mims area unless and until the County Commission has adopted such policies in accordance with the procedures and requirements of state law.

- 1. **Infrastructure:** It is vitally important to recognize the County's water-supply constraints in Mims. The following policy recommendations are aimed at accomplishing this goal:
 - 1.1. <u>East of I-95</u>, County waterlines should not extend north of existing and programmed service at the latitude of Lionel Road.
 - 1.2. West of I-95, County waterlines should not extend beyond current and programmed service areas.
 - 1.3. <u>Indian River Lagoon</u>: New County Utilities Water service near the Mims Shoreline area should be made available only in the context of projects with strong environmentally sensitive design aspects, such as cluster developments that preserve green space for shoreline preservation, recreation, and similar purposes.
 - 1.4. Note: The above recommendations are not intended to restrict water service provisions deemed necessary for public health and safety.
 - 1.5. In the remaining <u>areas not served by current or projected County waterlines</u>, reduction in developmental densities/intensities are recommended, in order to help preserve the aquifer resource by minimizing private wellwater consumption and drawdown.
- 2. **Residential:** Future Land Use (FLU) residential densities should be reduced in much of the study area. This general recommendation is based on: Consideration of the physical and infrastructural character, especially limitations on potable water; consideration of good urban and rural planning principles and practices (e.g., graduated transitions among different residential land-use densities, adequate buffering of environmentally sensitive lands); and the expressed wishes of community residents and stakeholders, as articulated in general community meetings and other forums.
 - 2.1. Exceptions to FLU density reductions would include:
 - 2.1.1. The historic <u>East Mims community and vicinity</u> (east of U.S. 1, from Brockett to Cuyler), where redevelopment of the historic community to preserve its vitality and integrity is uppermost;
 - 2.1.2. <u>Established neighborhood</u> areas (such as Fawn Lake, Spruce Hills, etc.), where little if any new development is likely to occur, and where existing development is generally similar to current FLU designation(s);
 - 2.1.3. Areas governed by PUD (Planned Unit Development) zoning (Walkabout).
 - 2.2. Projects in the greater-density residential areas (two units per acre and higher) should be encouraged to <u>cluster development</u> and to leave portions of each site open, with particular attention to reducing environmental impacts, to maintaining recreation space, and to preserving the area's agricultural landscapes when possible.
 - 2.3. The recommendations in the <u>East Mims CDBG Neighborhood Action Plan</u> (2004), and in its update now underway, should be implemented as they pertain to land-use issues.

- 3. **Commercial** FLU designation areas are generally in line with existing conditions, and/or future community needs, provided proper design is observed.
 - 3.1. The primary commercial areas are, and should continue to be:
 - 3.1.1. The U.S. 1 corridor, particularly south of Grantline; and
 - 3.1.2. The S.R. 46 area, including the I-95 interchange (Exit 223).
 - 3.2. Commercial needs should generally be focused on providing goods and services to Mims residents, as opposed to larger regional markets.
 - 3.2.1. <u>Exception</u>: The SR 46 interchange with I-95. Because they are scarce, interchanges serve regional and transient (i.e., tourist) markets. Provided they are defined and designed properly, this is appropriate and reasonable.
 - 3.3. The commercial character in <u>Mims north of Lionel Road</u> should be minimal, in keeping with the area's current and future low-density rural character.
 - 3.3.1. North of Grantline Road, the intersection of <u>Aurantia Road and U.S. 1</u> may be considered a potential node for low-intensity commercial use, which would minimize the need for strip commercial development along U.S. 1 in northern Mims.
 - 3.3.2. Except for the Aurantia Road-U.S. 1 intersection and vicinity, conversion of non-commercial FLU to commercial FLU should be discouraged north of Lionel Road.
 - 3.4. <u>Commercial Design</u>: Development, especially commercial, should be encouraged to have design elements (architecture, signs, landscaping, etc.) that build community integrity. Two areas are especially important in this respect:
 - 3.4.1. The core U.S. 1 commercial area near Main Street; and
 - 3.4.2. The <u>I-95 interchange</u>. For preliminary planning purposes, an elliptical area about one mile long is shown along S.R. 46 east and west of the interchange; it is suggested that this area be included in an Interchange Commercial Design District overlay zone, similar to the City of New Smyrna Beach's Activity Center. The overlay guidelines would not apply to single-family residential properties in the ellipse.
- 4. **Industrial** FLU areas: Demand does not seem to justify the continuing existence of most industrially zoned property in Mims.
 - 4.1. Exceptions include: Areas where existing industries operate, such as Praxis Air.
- 5. **Agricultural** FLU area in Mims: Areas in this category do not, as a rule, match areas actually used for agriculture. The category itself, and its map designations in Mims, are not the best instrument for meeting the community's goal of maintaining the area's agricultural heritage. Two particular suggestions would be as follows:
 - 5.1. A dialog should be maintained with the owner(s) of the <u>large block of Agricultural</u> <u>FLU property</u> in the northwest part of the study area (west of Hog Valley to the county line), with a goal of preserving this area's minimal-development heritage.
 - 5.2. Although beyond the scope of the Mims SAS, it is suggested that the County consider revisions to the Agriculture FLU text, and/or creating an additional agriculturally-related FLU category, in order to link the Comprehensive Plan more directly to the community goal of preserving working farmland where feasible.

- 6. **Conservation** Lands in General: Efforts should be made to preserve undeveloped land in as natural a state as possible, including specifically waterfront land and environmentally important lands, such as identified aquiferrecharge areas.
 - 6.1. As in all of Brevard County and beyond, the health <u>of the Indian River Lagoon</u> ecosystem should be maintained and enhanced when possible.
 - 6.2. <u>"Shoreline Preservation" shaded area</u> along Indian River Lagoon: Preservation of existing natural areas along Mims' Lagoon shore and vicinity is strongly encouraged; a variety of methods, and flexible and cooperative approaches should be part of this effort.
 - 6.3. <u>Public Conservation Lands</u>: Continued protection of environmentally sensitive or unique areas would serve the public well. Efforts by appropriate entities (EELS, SJRWMD, etc.) to purchase appropriate, affordable properties that would further the community's conservation goals in Mims should be encouraged.
- 7. **Recreation**: The recreation potential in Mims and its surrounding area is viewed as one of the community's (and the region's) most important assets. Both quality-of-life and economic benefits are seen as significant in this regard.
 - 7.1. <u>Access</u> to, and ability to enjoy, the Mims Indian River Lagoon shoreline, and the Lagoon itself, should be encouraged. This could be accomplished by a variety of public and/or private initiatives, including:
 - 7.1.1. Maintenance and if possible and appropriate, expansion of the current <u>boat-launch facility</u> at the eastern end of Jones Avenue;
 - 7.1.2. Being alert to opportunities for <u>additional boat-launch</u> or other Lagoon access facilities;
 - 7.1.3. Working with the appropriate entities to facilitate additional access across the <u>Florida East Coast Rail line</u> along the shoreline;
 - 7.1.4. Support for the concept of a <u>multi-use recreational trail</u> along the shoreline from the Chain of Lakes Park through Mims to Volusia County.
 - 7.2. Support for the <u>Rails-to-Trails proposal</u> for the abandoned Florida East Coast Railroad line running southeast-to-northwest through Mims, from Titusville north into Volusia County, should be strongly encouraged. The old rail line could be adapted for non-motorized, multi-modal use, including pedestrian, bicycling, and equestrian activities.
- 8. **Development, General**: Every effort should be made to preserve the area's mature trees in the process of development or redevelopment.
 - 8.1. For residential developments located in <u>citrus</u> groves consider landscaping by preserving selected healthy citrus trees, and/or planting new citrus trees, as a reminder of the community's special heritage. (Note: This concept will depend on approval by the County's Natural Resources staff and other affected governmental entities, to ensure compatibility, safety, etc.)
- 9. **Community Appearance**: Many people wish to move to, or to remain in, Mims because it has many attractive qualities. These qualities should be understood and maintained. For example:
 - 9.1. Entrance Signs and Features: Travelers approaching "downtown Mims" on

eastbound S.R. 46 are greeted by a large, nicely landscaped "Welcome to Mims" sign. Placement of similar signs and landscaping at other major "gateways" would help foster awareness and community spirit.

10. **Community Identity, Character, and Integrity:** It is an overriding goal of the Mims community and its stakeholders that <u>Mims must remain Mims</u>. Preceding goals and policies should always be interpreted in the light of this community-held value.

Appendix A

INTER-OFFICE

MEMORANDUM



TO: RICK ENOS, ZONING MANAGER

FROM: RICHARD MARTENS, UTILITY SERVICES DIRECTOR

SUBJECT: WATER AND WASTEWATER FACILITIES IN THE MIMS AREA

DATE: AUGUST 22, 2006

This report is intended to estimate the impact of zoning changes and subdivision development on the public water and wastewater system in Mims.

The Utility Services Department operates a public water supply and wastewater utility in the Mims area. The water treatment facility is rated at 2.4 million gallons per day (MGD) and is supplied by a series of existing and proposed water wells drilled into the local surficial aquifer. The wastewater treatment facility is rated at 1.0 MGD and uses ground water recharge and reclaimed water irrigation for effluent disposal.

Water treatment plant capacity is rated based on maximum day usage. The water treatment plant currently serves about 3,300 residences and has had a maximum day demand of 1.338 MGD, or 405 gallons per day per residence. Therefore, estimated number of units that the 2.4 MGD water plant can serve is 5,926. The existing facility is sited on a large parcel of land and was designed to facilitate expansion. The water source is the surficial aquifer in the Holder Park and Walkabout areas. The well field currently has a Consumptive Use Permit (CUP) which authorizes the withdrawal of 2.288 MGD (annual average) and a maximum day of 3.78 MGD. Using the 405 gallons per day per unit estimate, the CUP should support approximately 9,300 units. The CUP does not identify the maximum safe yield of the well field. In order to estimate the extent that the well field, and therefore the plant, can be expanded, additional well field modeling is planned. Our informal capacity evaluation indicates the ultimate capacity may not exceed 4.0 MGD.

Wastewater treatment capacity is measured based on annual average daily flow. The wastewater facility serves about 1,300 units and the three year average flow is approximately 0.289 MGD. Modern, low flow plumbing fixtures and sewer systems

generate about 180 gallon per day per unit. Therefore it is reasonable to assume that the wastewater plant will be able to serve approximately 5,200 units. Expansion of the wastewater facility is not resource limited, as with the water plant.

There are eleven projects in the Mims area that are seeking service from the Department. Of these, four projects are seeking water service only. These projects include 3,245 new residential units, will require approximately 1.0 MGD of water supply and 0.483 MGD of wastewater capacity. The water treatment plant does not have the capacity to serve all of these units. To meet this projected need, a water plant expansion has been added to the Five-Year CIP.

In an effort to determine the level of future demand on the water and wastewater system, I reviewed current land uses in the general water service area east of Sixmile Creek, north of Parish Road and south of Lionel Road. Since most water and wastewater demand will be associated with new single family subdivisions or multifamily site plans, I identified vacant tracts generally larger than 40 acres.

It appears that there is an estimated 1,700 acres of "large tract", vacant property that could be readily available for subdivision development. These properties represent approximately 4,400 units under Future Land Use Density designations. However, considering current development patterns and zoning, a more realistic development potential for these properties may be approximately 2,500 units.

In addition to these large tract parcels, there is approximately 1,400 additional acres of "smaller tract", somewhat subdivided property in the area that could potentially request water and sewer service at some time in the future. These properties represent approximately 4,700 units under the Future Land Use Density designations or 2,200 units considering existing zoning and development patterns.

These 3,100 acres do not represent all vacant land, but is certainly includes most of the property that is available for development at this time.

The attached Table and Service Area map depict the location and demand projections of the eleven projects, the "large tract" areas and the "small tract" areas. Given these preliminary projections, water service demand could ultimately reach or exceed 5 MGD. However, because some water demand will accompany septic tank wastewater service, it is less likely that wastewater service demands will reach 2.0 MGD.

In general, the per lot cost of installing water and sewer infrastructure in new subdivisions increases with lot size and particularly with lot frontage. The cost to construct public water system infrastructure is much less than the cost to construct sewer service infrastructure. With the exception of "high end" subdivisions, applications for County sewer service have been limited to projects proposing lot sizes of (significantly) less than one half acre. A similar limit of approximately one acre seems to exist for subdivision applications requesting public water service only.

Alternatives to public water and sewer service.

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In the absence of central water and sewer service, individual wells and septic tanks must be used. Ground water quality varies significantly in the Mims area, both horizontally and vertically. The thickest layer of high quality water is located along the Atlantic Coastal Ridge. Water quality degrades with distance to the east, west and with depth. The primary contaminates are minerals, iron and sulfur. The only restrictions that apply to individual water supply wells are that the water is bacteria free and that the well must be separated from septic tanks by 75 feet.

Septic tanks are regulated by Chapter 381, Florida Statutes. For subdivisions platted after 1972, the minimum lot size for a residence with a drinking water well and a septic tank is one half of an acre, excluding any water bodies contained within the lot. In general, the minimum size for a lot served by a central water system and a septic tank is one quarter acre. However, since the Statute allows the inclusion of adjacent, uncompacted road right of way, easements, parks, greenways, wetlands, etc, in the calculation, it is possible is permit septic tanks on lots considerably smaller than one quarter acre.

		Water	Wastewater
		Gallons per	Gallons per
Project	Units	Day	Day
Existing Water Customers (Units)	3,300	1,338,000	
Existing Wastewater Customers (Units)	1,300		289,000
CURRENT PROJECTS SEEKING W	ATER AN	D SEWER S	SERVICE
Walkabout (reclaimed water irrigation)	1,375	309,375	247,500
Hamlin Grove (non potable irrigation)	367	82,575	66,060
Buck Run	23	9,325	0
Summerfield-Stonebridge	216	87,578	38,880
Meadow Lake	53	21,489	0
Sherwood Villas	29	11,758	5,220
Willow Lakes	429	173,940	0
Indian River Landings (South?)	450	182,455	81,000
The Groves @ Mims	120	48,655	21,600
Preserve @ Salt Lake	53	21,489	0
Indian River Landings (North?)	130	52,709	23,400
Sub Total Planned Units	3,245	1,001,348	483,660
Total Current and Planned	6,545	2,339,348	772,660
		DVICE DEM	
POTENTIAL FUTURE WATER AND			
Large Vacant Parcels, Probable Zoning	2,569	1,041,613	462,420
Smaller Parcels, Probable Zoning	2,179	883,485	392,220
Total Existing, Planned & Potential Service Demand	11,293	4,264,446	1,627,300
Estimated (Mar Dav) Canadity of Weter Direct	5 000	2 400 000	
Estimated (Max Day) Capacity of Water Plant	5,900 0,200	2,400,000	
Estimated (Max Day) Capacity of Well field	9,300 0.000	3,780,000	
Possible Well field Capacity Limit	9,900 5.042	4,000,000	1 000 000
Estimated Capacity of Wastewater Plant	5,042		1,000,000

NORTH BREVARD (MIMS) SERVICE AREA

Appendix B

SUMMARY OF RESULTS: WHAT IS YOUR VISION FOR THE FUTURE OF MIMS? Worksheet for Mims Small Area Study Community Meeting, plus followups by mail, fax, etc.

Workshop: Wednesday, January 10, 2007 Followups through Mar. 1, 2007

TABLE 1

Total surveys returned	28
Total who signed in Jan. 10	39
Total mailed, faxed, etc.	15

[*Note:* Attendees at the Jan. 10 meeting were asked to fill out one worksheet each, plus one summary worksheet for each table (i.e., a table of 6 would have resulted in 7 surveys); however, at some tables only the summary was filled out. This likely explains the discrepancy between returned worksheets and total attendees.]

What do you think are the *best* things about being part of the Mims Community? If you could *improve* anything about Mims, what would it be?

LIKE BEST:

- Rural place to live
- Small town, rural character
- Outdoor activities, land for hunting, water
- Friendly neighbors
- Small town atmosphere
- Open space
- Friendly people
- The safety of where I live
- Much of the area has been acquired for conservation with potential for more acquisitions
- Rural and agricultural atmosphere
- Small town atmosphere and sense of community
- Small town feel
- Natural land, rural
- Low crime
- Low volume traffic
- Rural
- Minimum commercial
- Not too crowded, quiet
- Nice small town feel, know everybody
- Good value, close to KSC
- Rural community
- Cost of utilities
- Openness
- Rural area
- Not crowded
- Low traffic
- Green space
- Sense of community
- Safe place
- Small town
- Not too many housing divisions with homeowner associations
- Friendly & relaxed atmosphere, wildlife, environment, horses, cattle
- Rural environment
- Control of low crime

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- Control of traffic
- The previously quiet lifestyle
- One of the safest subdivisions
- Knowing many of our neighbors
- Freedom to choose type of residential setting
- Diversity (racial, economic, religious, educational) of residents
- Heavily forested areas interspersed with residential
- Location, Location, Location
- Easy access to I-95
- Strong community spirit
- Down home feel
- Mims
- Sense of community
- Proximity to Orlando, Daytona, Cocoa
- Near larger towns
- Mims
- The area
- The NASA affiliation
- Mims
- Near Titusville
- Growth
- Closeness to beaches & shopping
- Community
- Lots near larger towns
- Rural... almost to a fault
- 45 min drive to a lot of recreation & entertainment

NEED IMPROVEMENT:

- More shopping opportunity
- More things to keep the youth involved, ex. rec center, skate park
- Boat ramp we can use
- Hurricane shelter for people and critters (pets & horses)
- Less crime, more police/sheriff presence
- Less government interference
- Roads
- Police protection
- Better recreational water boat ramps / areas
- Park/boat launch area on Indian River
- More sewer capacity to get people off septic systems
- Boat ramps and access to Indian River Lagoon
- Need to preserve wetlands & agricultural pursuits which are rapidly disappearing
- More boating access
- Drainage ditch maintenance
- Basic services cable & potable water
- Narrow streets
- Need more shopping
- Incorporate Mims
- REA type of utilities
- Get county and other governments out of the area
- Restrict building height
- Stop attempt to make housing on too small lots
- No condominium buildings
- Developed downtown area for public gatherings
- Representation and a declared border/district for Mims
- Taxation without representation
- County needs to enforce commercial property maintenance laws
- Keep it rural
- Repave or pave some roads

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- Control the number of houses per acre, esp. in northern part
- Stop planned development, continue at slower pace
- Need signal light at our intersection
- Good enough as is
- Initiatives to break down racial segregation
- Increased piped water to developed & developing areas
- Increase sewage collection systems in developed & developing areas
- No discernable difference between city & country
- Generally a lot of trailer houses
- No walking/biking trails
- More thought put into residential development focused residential w/ parks, walking trails, etc.
- Too many 1:2.5-acre lots with plant growth out of control
- Small stores with planned residential areas3
- Access to retail stores hardware, grocery, etc.
- Growth 2-5 acre properties cutting up the landscape need more conscientious plans
- Planned residential areas in country
- Need more small retail stores
- Clean up run down garbage dumped areas
- There has been little development when communities around us are growing
- Things seem to be randomly placed no real "shopping" area or "commercial" area
- Variety of small stores
- Need planned neighborhood
- Small residential areas with country
- No parks for kids to play
- No pattern to residential & rural areas all mixed together
- Small retail stores
- Growth with conscientious plan
- Quality of residential appearance rundown and overgrown
- Growth density focused not spread out growth points of higher density

On a scale of 1 to 5 (with 1 being very important and 5 not important), how important to you are the following aspects of Mims, now and in the future?

TABLE 2:	Average (excl.
TABLE 2.	missing)*
Safe place to live and work	1.42
Managed growth rate	1.53
Sense of community	1.89
Public water & sewer	1.94
Improved roads	2.00
Open space, public lands	2.06
Environmental protection	2.17
Water access (fishing, etc.)	2.17
Attractive appearance	2.31
Cultural facilities (library, etc.)	2.38
Trails (biking, horses)	2.58
Affordable housing	2.69
Active recreation	2.78
Shopping options	2.83
Local jobs, employment	2.88
Affordable housing Active recreation Shopping options	2.69 2.78 2.83 2.88

* Mean average of all scores, excluding blank or missing responses; averages are rank-ordered from most to least important.

What are some of the ways Mims is a *special* community? In other words, can you think of ways that Mims is different or unique – in a good way -- from other places?

 Haves and have-nots mixed together, the amount of money you have does not make the measure of your character quality

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- Small friendly town
- It is a very safe place to live. The area is open and safe.
- Huge potential to become a real hub for all types of outdoor recreation hiking, biking, fishing, wildlife watching, environmental education
- A rich heritage of citrus, cattle, pioneer and civil-rights history also Native American history
- Village feel, Moore Center, access to salt water, space launches
- Rural little commercial or industrial
- Currently not too congested friendly
- Rural area, few people, undeveloped property
- Mims is a truly agricultural town (cattle, horses, nature). Control growth. Encourage equestrian activities.
- Because we are still somewhat rural, and to understand that feeling one only needs to look at the other built-up areas and the problems that come with it
- Retains openness & rural character, traditional Florida atmosphere. Contrasts w/ Merritt Is. & Melbourne.
- Life in Mims helps us shed stress from high-pressure jobs and from long drives to Space Center, elsewhere in Brevard, & Orlando
- Citrus among residential areas
- Agriculture history
- It seems like Mims has a slower pace of life compared to surrounding areas
- Citrus history
- Mims is in such a good location between Orlando, Daytona & Cocoa. It has the potential to be a much bigger player in the area.
- Citrus history
- History of agriculture

A lot of planning issues relate to community *appearance*. How does Mims look to you? Please place a check-mark or X next to each of the following that is important, in your opinion: – See Table 3 for stats – added comments as follows:

A boat launch area such as in Oak Hill

- [Regarding streetlights:] Differing opinions
- EPA wetlands
- Our own middle school & high school
- Stringent control of high-density residential
- Having distinct residential & rural areas instead of people having 5 acre chunks all over the place

 if there are no animals it doesn't get kept up very well

TABLE 3: Si	um*
Working farmland (cattle, citrus)	13
Open-land views (forest, wetlands, etc.)	12
Low-rise buildings	9
Open-water views (Lagoon, lakes)	9
Attractive storefronts	8
Landscaping for businesses & parking	8
Well-lit neighborhoods (streetlights)	5
* Number of our you on which item was marked	ronk

* Number of surveys on which item was marked, rank-ordered most to least.

Our county Zoning Map and Future Land Use Map have a number of broad land-use categories. Look at the maps, and consider how much land you see for each category. Then, try to pick the best answer for Mims as a whole, from your point of view:

	· · · · · · · · · · · ·
TABLE 4:	Average (excl.
TABLE 4.	missing)*
Conservation, Public land	1.53
Agricultural	1.60
Commercial	1.71

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Single family residential, lower density	1.80
Industrial	2.14
Multi-family residential	2.20
Single family residential, medium density	2.33
Single family residential, greater density	2.75

* Mean average of all scores, excluding blank or missing responses; averages are rank-ordered from greatest to least need. Scoring as follows: (1 = "Need more"); (2 = "About right"); (3 = "Too much")

Finally, please feel free to write anything concerning the future of Mims that you feel is important, but wasn't covered elsewhere:

- Get rid of EELs program, we can't afford them now. The more land they take the more they cost us
- Growth needs to be limited by services and utility capacity
- Need a boat ramp/park that is deep water
- Schools
- Boating/water access
- Need to restrict other communities (Titusville) from overrunning Mims
- The schools are starting to get too crowded
- A pedestrian overpass over U.S. 1 at Mims Elementary, like one at Fairglen Elementary
- Keep growth here under strong control
- If growth continues at current rate, Brevard Schools will become garbage
- Do not give in to the big buck developers who will ruin our community, take the money & leave us
 with the mess
- Multifamily residential development good to provide affordable housing & minimize environmental impact; but restrict to areas that are urbanized & have water/sewer services. This would include only eastern & western Mims, Sherwood Village, American Village.
- No currently wooded/forested area should be allowed to change from its current designation and no development allowed on those areas. The good of the community and environment is overriding.
- It would be nice to have some residential areas that have walking trails with public children's play areas
- It seems like there are a lot of areas that have a small amount of acreage with a few animals. It
 would be better if all of them could be in one location.

Appendix B (continued)

SUMMARY OF RESULTS: THE FUTURE OF MIMS – WHAT DO YOU THINK? Worksheet for Mims Small Area Study Community Meeting, plus followups by mail, fax, etc.

Workshop: Wednesday, February 28, 2007 Followups through Mar. 12, 2007

TABLE 1

Total surveys returned	12
Total who signed in Feb. 28	47
Total mailed, faxed, etc.	2

What do you think are the *best* things you heard in the ideas presented tonight? If you could *improve* anything that you heard tonight, what would it be?

LIKE BEST:

- Reducing density
- Proper planning
- Less density, some attempt to address potable water use
- Clarification of conservation area
- "One notch down" approach
- Improve access to river
- Density reduction
- No change in water lines
- The in-depth information provided
- Thorough
- Slows growth to a point where it can be controlled
- Low density = low crime rate
- Small town residents are friendly & happy, small town atmosphere is of a family attitude overall
- No big box stores, most commercial business is locally owned and operated
- Rural
- Minimum commercial, low density, low crime
- Not too crowded, quiet, friendly, small-town atmosphere
- Minimum commercial

NEED IMPROVEMENT:

- Address more water issues
- Further definition of "business district"
- Need more parks for recreation & kids, library needs to be resolved
- Activity Center concept @ S.R. 46
- No employment centers in 46 interchange
- Add a recommendation for a joint agreement with Titusville to prevent annexation
- Add recommendation to create separate P&Z Board for Mims (like P.S.J.)
- The mechanism of these meetings that gives us any power to make direction for Mims
- Explanation of water issues dealing with waterline
- Historic sites encouragement of residents to preserve historic sites and keep them in Mims
- Water solution
- Keep Titusville out
- Road improvements needed for all recent rezoning request approved
- More police/fire protection needed for all recent rezoning requests approved
- Potable water supply to continue into future
- River access via foot & via boat ramps
- FLUM at Parrish & Holder needs help!
- Water to drink

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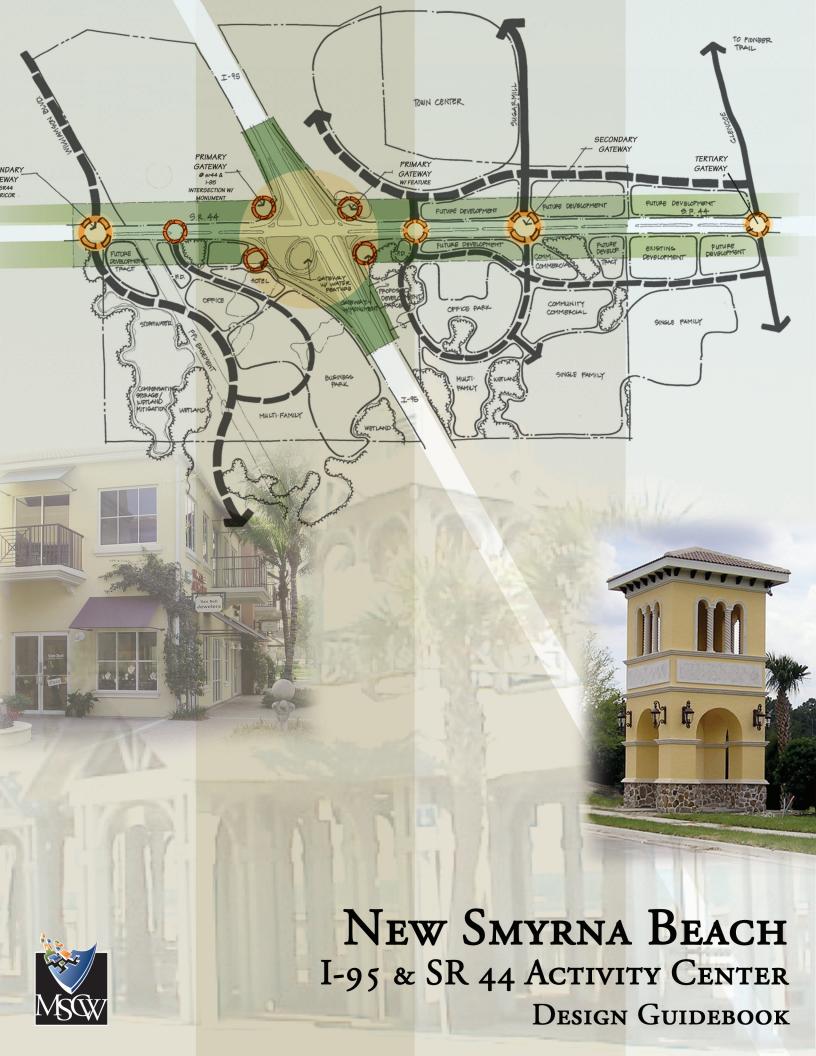
- Boat ramps need more
- Traffic control at 46 & U.S. 1, 46 & Pine
- Stronger effort to manage growth in relation to <u>available</u> water supply
- Storm shelters for people & animals

Finally, please feel free to write anything concerning the future of Mims that you feel is important, but wasn't covered elsewhere:

- Good job trying to please a lot of interests
- Need a place for more employment
- Does this restrict growth & development too much?
- Like Port St. John, Mims needs a special advisory committee for zoning and planning
- Special zoning committee for Mims
- Wish we had lower density at Holder & Parrish 15 per acre is too damn much
- Beautification of the main roads encourage visitors to the area

Appendix C: Buildout Spreadsheet

INTINO OROC	CURRENT	CURRENT	# resid.	Buildout	Buildout PROPOSED	PROPOSED	# resid.	Buildout	NET CH.	NET CH.	NET CH.
	Acreage	%	units/acre	(aprox.)	Acreage	%	units/acre	(aprox.)	Acreage:	:%	Units:
Agric	8,546.8	24.8%	0.2	1,709	8653.7	25.0%	0.2	1,731	106.9	1.3%	21
8	274.7	0.8%			253.4	0.7%			-21.3	-7.7%	
pul	28.3	0.1%			28.3	0.1%			0.0	-0.1%	
NC	366.8	1.1%			389.1	1.1%			22.3	6.1%	
PLNIP	102.7	0.3%			53.2	0.2%			-49.5	-48.2%	
PrivCons	9.4	%0.0	0.1	-	9.4	0.0%	0.1	-	0.0	-0.1%	0
Pub	106.5	0.3%			396.1	1.1%			289.6	271.9%	
PubCons	10,396.1	30.1%			10398.3	30.1%			2.2	0.0%	
Rec	66.7	0.2%			6.69	0.2%			3.2	4.7%	
Res 1	4,846.0	14.0%	-	4,846	1331.3	3.9%	-	1,331	-3,514.7	-72.5%	-3,515
Res 15	586.6	1.7%	15	8,799		0.0%	15	0	-586.6	-100.0%	-8,799
Res 1:2.5	885.4	2.6%	0.4	354	5426.2	15.7%	0.4	2,170	4,540.8	512.9%	1,816
Res 2	4,107.9	11.9%	2	8,216	3180.1	9.2%	2	6,360	-927.8	-22.6%	-1,856
Res 4	3,746.3	10.9%	4	14,985	3917.8	11.3%	4	15,671	171.5	4.6%	686
(Unclass.)	446.3	1.3%			452.3	1.3%			6.0	1.3%	
**TOTAL **	34,516.5	100.0%		38,910	34,559.2	100.0%		27,265			-11,646
Pop. Multiplier				2.6				2.6			
EST.POP.				101,167				70,889			-30,278
Reductions:											
Units:	-11,646	-29.9%									
Pop:	-30,278	-29.9%									
Total sq. mi.	53.93203125				53.99870797						



ACKNOWLEDGEMENTS

New Smyrna Beach I-95 & SR 44 Activity Center Design Standards

Prepared for: The City of New Smyrna Beach

Prepared by: Miller Sellen Conner & Walsh Community Planning, Design, Engineering, Economics & Environmental Services

April 1, 2004

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b. Signage			
 c. Front Buffer Zone Tr Private Landscap Private Hardscap 	e Zone		
d. Other Landscaping aDesignStorm water	nd Buffer Treatment		
e. Building and Entran • Mid Block Parce • Secondary Gateway • Primary Gateway	vay Parcels		
f. Parking Lots • Location	y raiters		
 Design g. Building Appearance Primary Facades Primary Gateway Exterior Materia Secondary Facad Accessory Struct 	y Facades ls es		

Roof Treatment

I. Introduction

The New Smyrna Beach Activity Center, located at the four (4) quadrants of the Interstate-95 and State Road-44 interchange, was established to serve as a mixed-use center and employment district for the West New Smyrna Neighborhood. The Activity Center is generally undeveloped but contains two (2) existing service stations.

The lack of development provides the City with an excellent opportunity to dramatically improve its front door image. This front door provides the first impression for how visitors think of New Smyrna Beach, which can be either positive or negative.

Cities such as New Smyrna Beach that have worked to improve their image, understand that a community that is perceived to be a quality community is more likely to attract high quality investment. Successful revitalization of older areas of New Smyrna Beach has begun to attract higher quality investment. Having a negative front door image may detract from the City's efforts. Having a positive front door image will help to create a solid basis to attract high quality economic investment in the City.



Existing Development

The City's desire to create a positive front door image was the basis of creating the Activity Center designation for lands around the interchange. The Activity Center was conceived to include a mix of uses such as:

- Tourist Commercial,
- Local Service Commercial,
- Office/Business Park and Light Industrial Park
- Residential uses.

Tourist Commercial

Based upon a investigation of several Central Florida interchanges it is expected that Tourist Commercial will be interchange related uses that are generally located closer to the off-ramps, and/or visible from I-95, and will be developed first. These tourist commercial uses include gas station, gas stations co-branded (with food), quick stop restaurants, full service restaurants and motels.

Local Service Commercial

The City allows the establishment of "Big Box" retail commercial uses within the Activity Center, but restricts these uses to the west quadrants of the Activity Center provided they are set back 660 feet off SR 44. The City allows local service commercial (retail, business services, and professional services) either as:

- Parcel Development: Free standing parcel development of retail (less than 25,000 sf), and convenience stores, or
- Attached Building Development: Shopping center configuration.
 - Conventional Design:
 - Community Shopping Center: 100,000 to 150,000 sf
 - Neighborhood Shopping Center: 30,000 to 100,000 sf
 - Convenience Commercial Center: 10,000 to 30,000 sf
 - Pedestrian Oriented Design:
 - Life Style Center: up to 150,000 sf
 - Village Center: over 150,000 sf

An investigation of Central Florida interchanges does not indicate that a great amount of local service commercial uses are being developed within the interchange influence areas, but it does occur where the surrounding community contains much residential development. An example is the Heathrow interchange areas in Seminole County (The Lake Mary Boulevard and I-4 Interchange area has conventional shopping center development and the 46 A and I-4 Interchange has a newly developing Life Style Center).

It is likely that large scale local service commercial uses such as shopping centers will not occur in the near term and will require substantial completion of the Venetian Bay project and other residential development in the areas surrounding the Activity Center.

Office/Business Park

Office uses are permitted in the Activity Center and could occur in the form of business park and light industrial park development including corporate offices or multi-tenant buildings. Development could be free standing buildings on separate parcels or campus settings with separate buildings sharing common parking and amenities, or parcels with attached buildings. As with local service commercial uses, office uses tend to occur where there is significant residential development existing in the surrounding community. Further, the presence of executive housing is a driving force in creating office demand. Therefore, the office demand in the Activity Center may tend to be longer term, but light industrial development may occur much sooner because of the good regional location.

Residential

Residential development could occur in the form of single family development or multi-family at a maximum density of 18 units per acre with expected projects to range in size from 220 to 250 units. Additionally residential units above first floor commercial uses are encouraged in certain center type projects. Residential demand within the Activity Center could be expected to be nearer term for people with occupations that require travel throughout East Central Florida.

Summary

Establishing the Activity Center and the mix of uses was the first step in recognizing its importance as the front door to the City. The next step is ensuring that quality development will occur that reflects upon the City as a whole. The most important thing to remember is that while it is rural today, it will become urban in the not-to- distant future.

The question is:

Will the Activity Center introduce New Smyrna Beach in a uniquely positive way, or will it be just another I-95 interchange?

For the range and mix of uses described above to work as an Activity Center, it is important to establish design standards and guidelines that encourage a mix of uses in compatible relationships and raise the bar in terms of quality of development. The Activity Center should have some urban characteristics such as an appealing street scene with a quality public realm, interesting buildings that are oriented to street frontages and some landmark features that people will remember.



II. General Intent

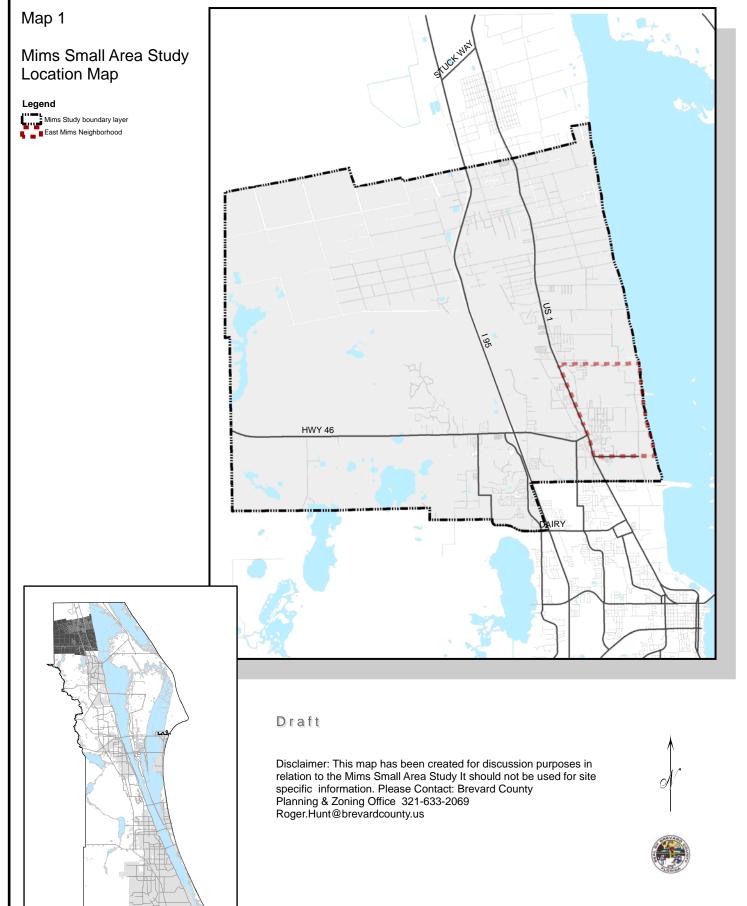
- To promote appearance and site design standards that establishes the Activity Center as an introductory gateway to the City.
- To promote compatibility and consistency between the mix of uses.
- To promote connectivity in a pedestrian friendly environment.
- To coordinate between public and private improvements.
- To create a place that is unique to New Smyrna Beach and not just another I-95 Interchange.

New Smyrna Beach Characteristics



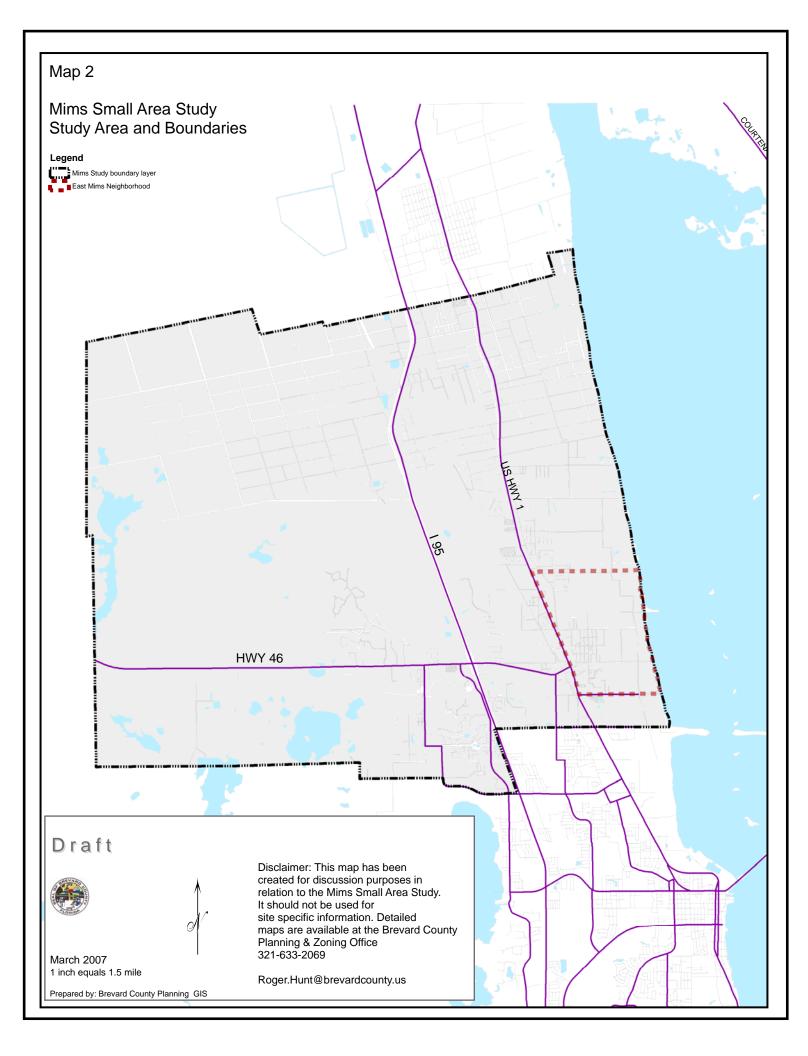
Historic Canal Street	City Hall
Corner Building feature	Varied Roof Lines
Signature Palm Tree	
Pedestrian Area and Street Furni- ture	Building & Entrance Face the Street
Integrated Awnings	Pitched Roof
Buildings Face the Street	Variations in Vertical Plane
Land Mark Building	Land Mark Building
Roof Cornice	Prominent Entrance
Solid Materials	Solid Materials
Corner Lot has two (2) Primary Facades	
Horizontal and Vertical Elements	
Entrance Faces the Larger Street	





March 2007 1 inch equals 2.0 mile

Prepared by: Brevard County Planning GIS



Map 3

Mims Small Area Study Aerial Photo of Mims

Legend Mims Area East Mims Neighborhood

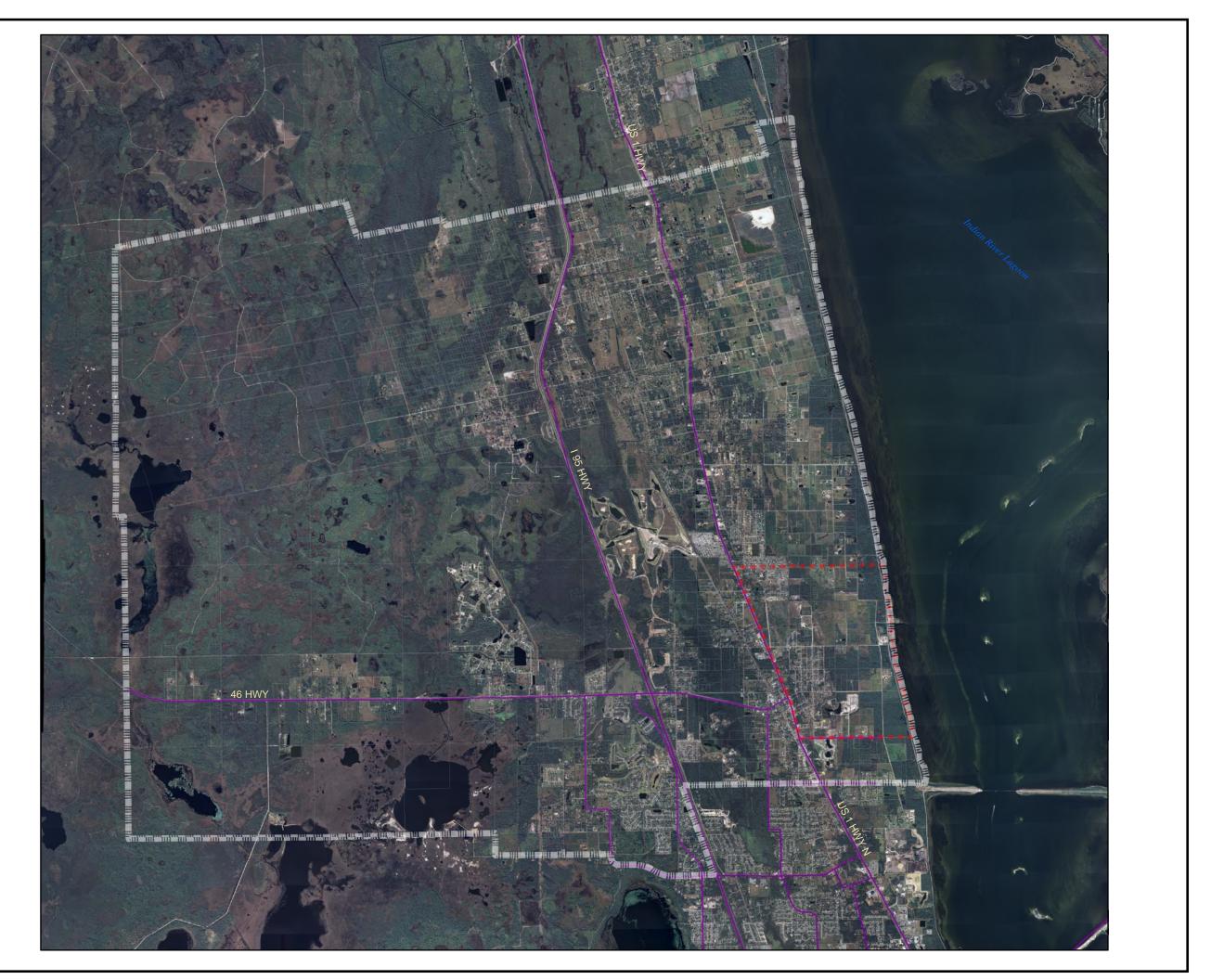
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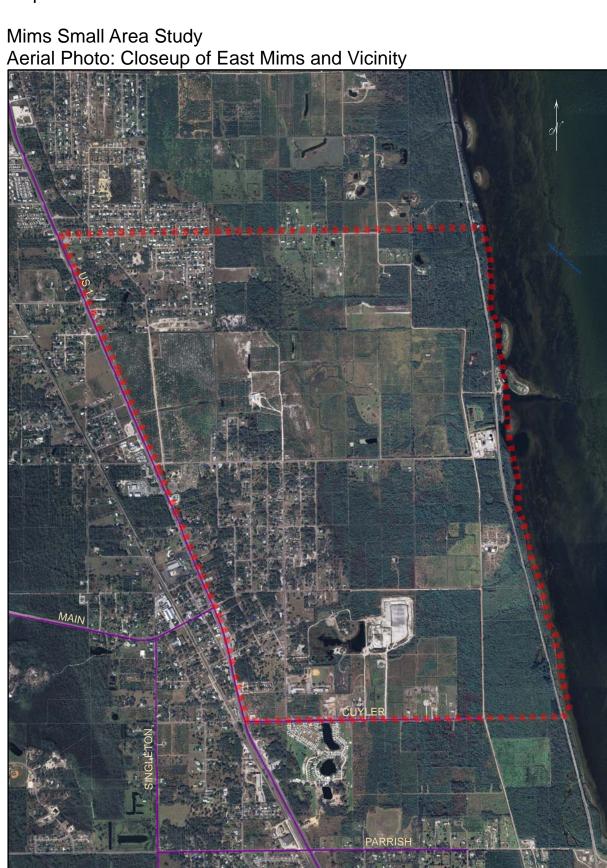
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March 2007 1 inch equals 1.0 miles







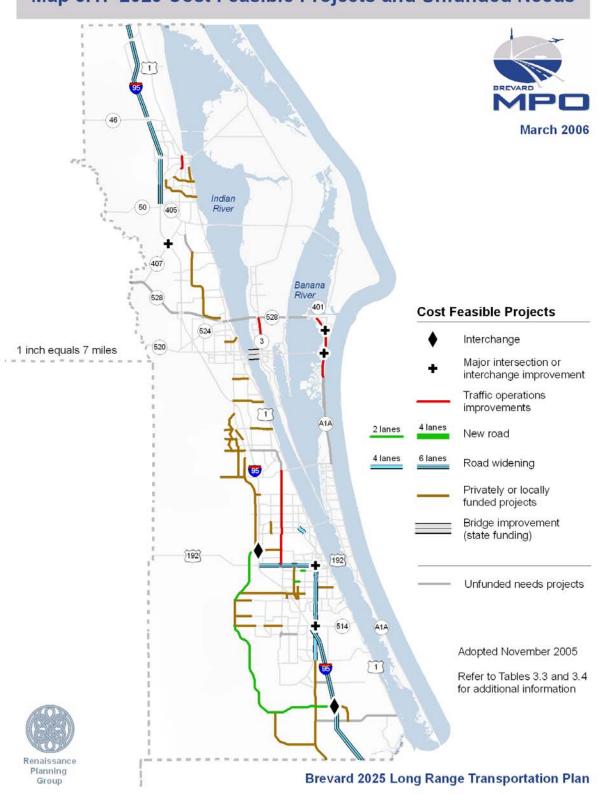


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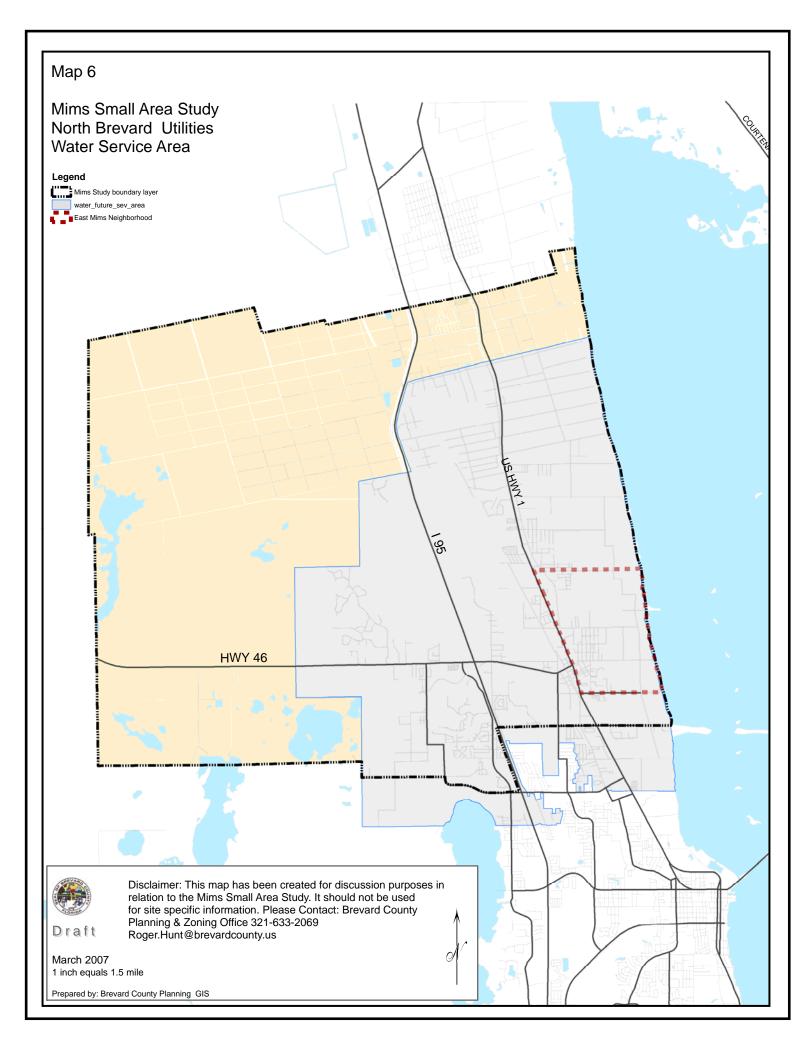
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March 2007 (Aerial 2005) 1 inch equals 1,969.7 feet Prepared by: Brevard County Planning GIS



Map 3.1: 2025 Cost Feasible Projects and Unfunded Needs



Map 7

Mims Small Area Study Locations of Brevard County Public Utilities Facilities

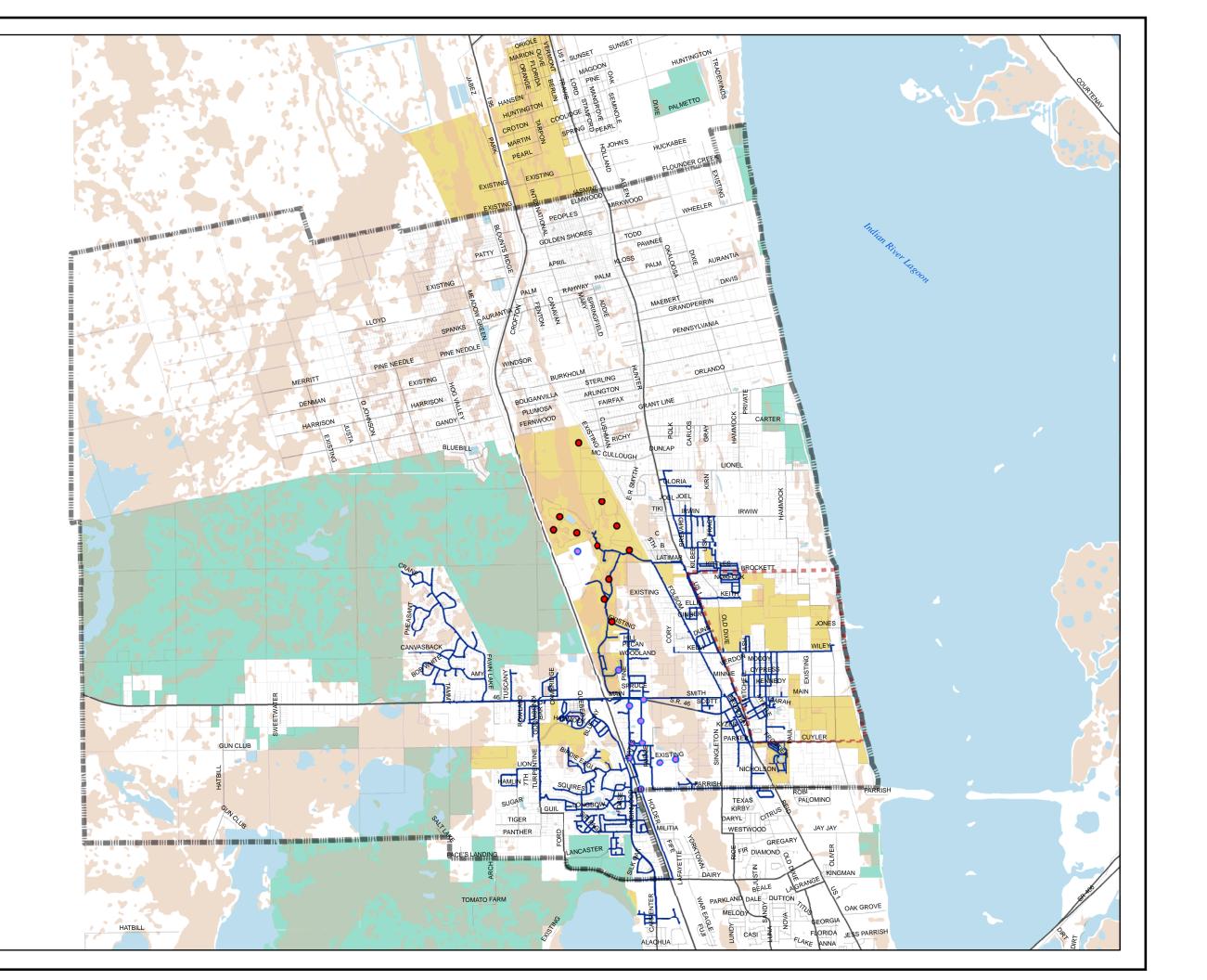
Legend Mims Area East Mims Neighborhood Proposed_wells Existing_wells Wetlands Wetlands Wetlands Publicly Owned Preservation Land Lakes/Lagoon Existing Projects

Draft

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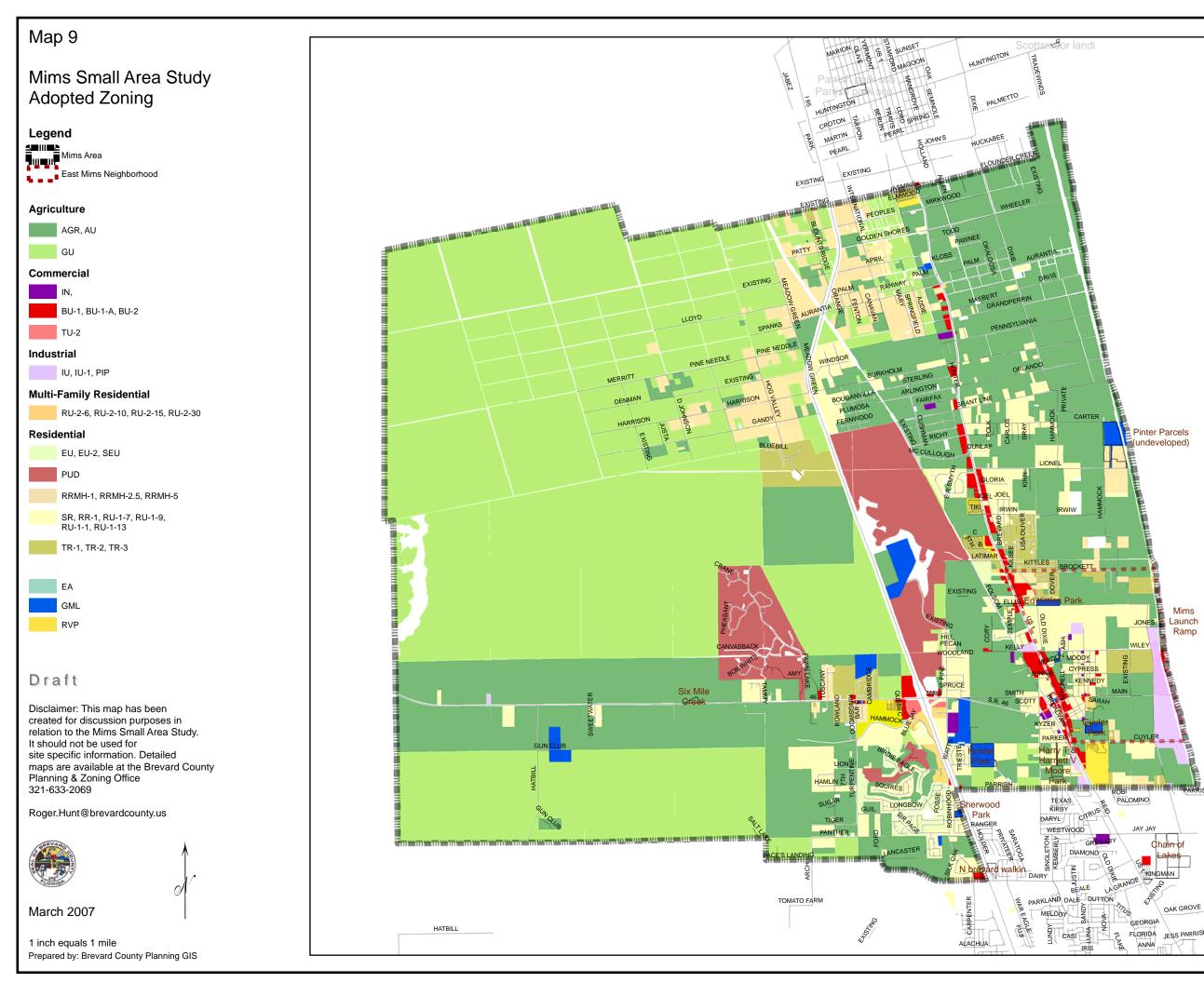
March 2007 1 inch equals 1.0 mile Prepared by: Brevard County Planning GIS

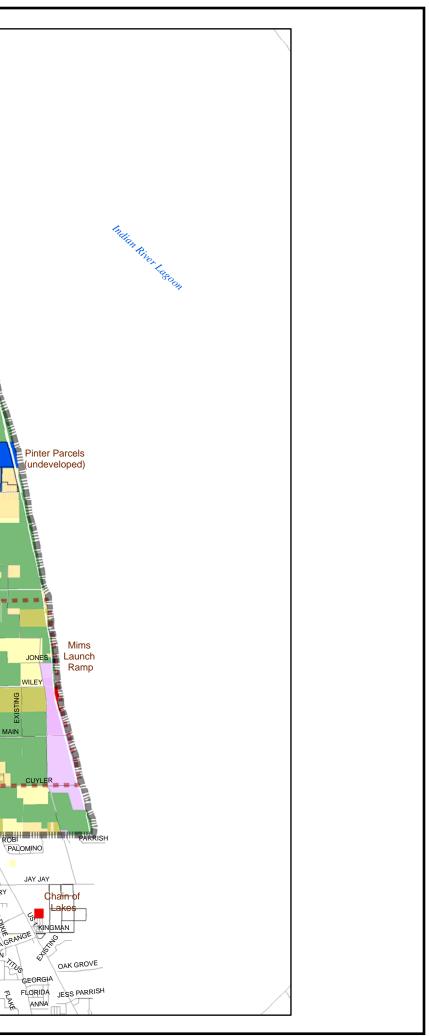


Map 8

Mims Small Area Study Hammock Road Water Line







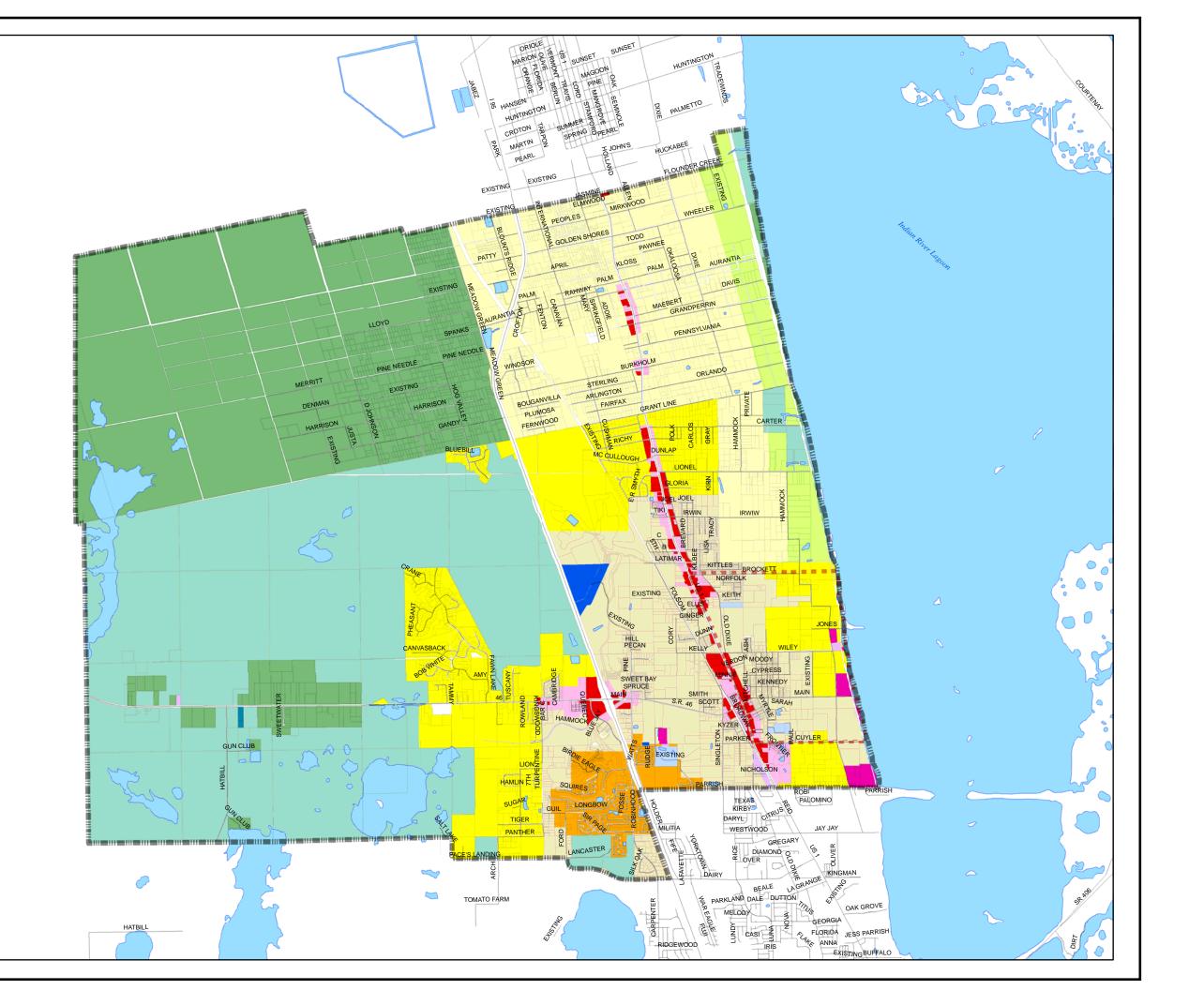


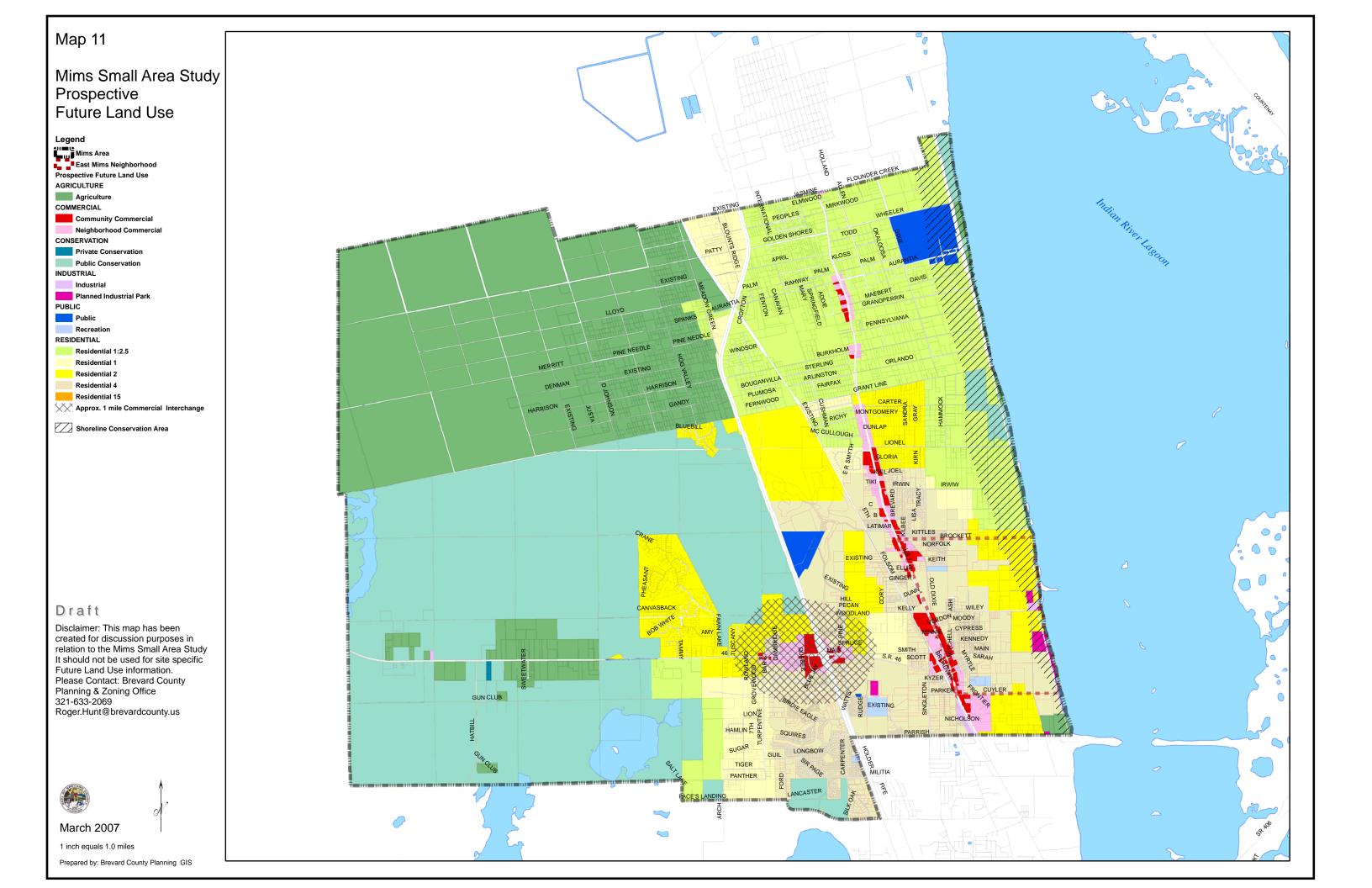
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March 2007 1 inch equals 1.0 mile Prepared by: Brevard County Planning GIS





Map 12

Mims Small Area Study Land in Public Ownership

LEGEND

East_Mims Mims_Public_Ownership

- BREVARD COUNTY
- FLORIDA INLAND NAVIGATION
- FLORIDA, STATE OF (DOT)
- FLORIDA, STATE OF IITF
- ST JOHNS RIVER WATER MANAGEMENT

Draft

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