



IMMOKALEE
WATER & SEWER
DISTRICT

PUBLIC FACILITIES REPORT
Immokalee Water and Sewer District

2023

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Abbreviations	
CDP	Census Designated Place
IWSD	Immokalee Water and Sewer District
kW	Kilowatt
MG	Million Gallons
MGD	Million Gallons Per Day
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

IMMOKALEE WATER & SEWER DISTRICT 2023 PUBLIC FACILITIES REPORT

1. INTRODUCTION

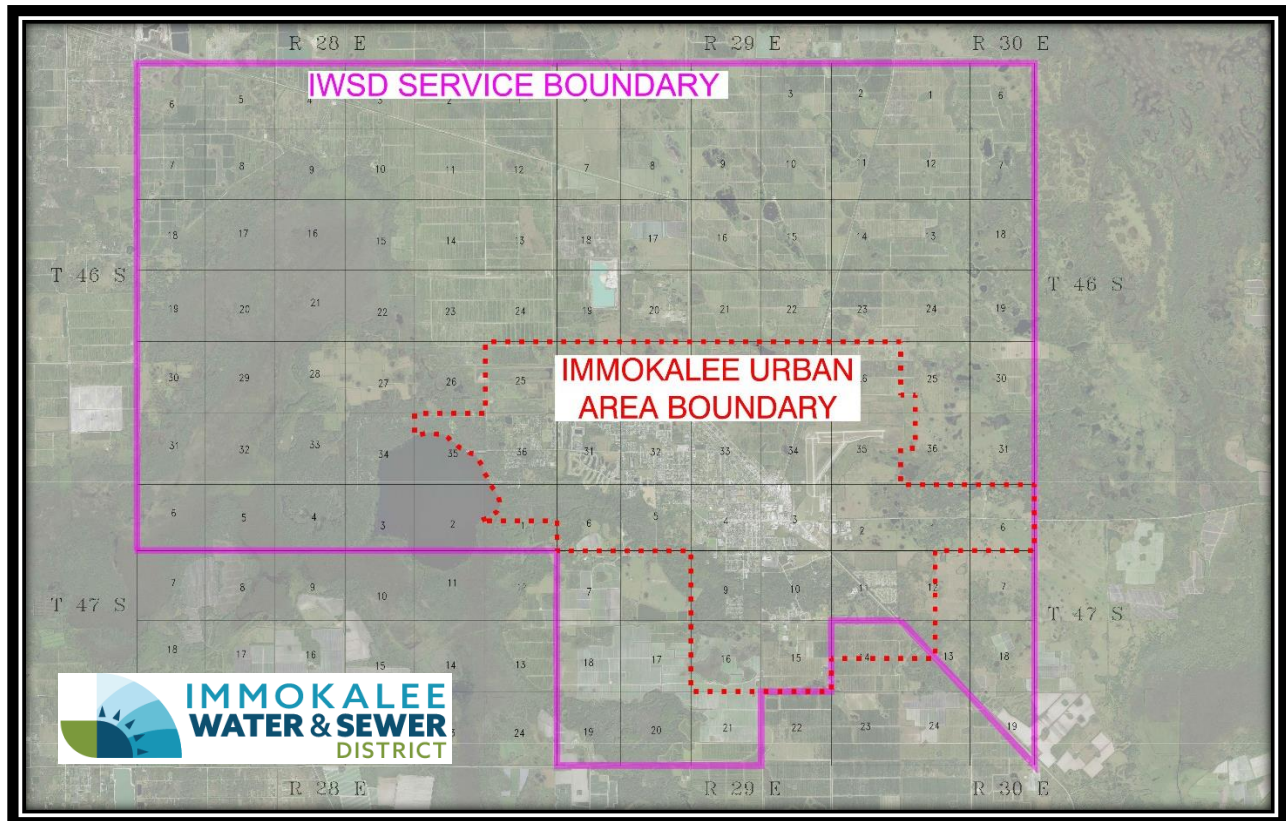
One of the purposes of the Uniform Special District Accountability Act (Section 189.08, Florida Statutes), is to improve local government comprehensive planning. Special Districts must ensure that the construction, expansion, and alterations of public facilities are consistent with the applicable local government comprehensive plan. Annually, independent Special Districts must submit a notice of change or updated report to each county and/or municipality in which it is located. This notice describes changes or updates, if any, that may need to be made to the Public Facilities Initial Report.

The Immokalee Water and Sewer District (the "District") was created by an Act of the Florida Legislature on July 5, 1978, for the purpose of providing water and sewer services to Immokalee, Florida, an unincorporated area of Collier County, Florida. The District operates and maintains the water and sewer facilities and systems as a Special District of the State of Florida. The District is governed by a seven-member Board of Commissioners appointed by the Governor of the State of Florida. The Board of Commissioners administers the District, independent from any other local governing body. The District currently has approximately 42 employees.

2. BOUNDARIES

Sections 1 through 36 of Township 46 South, Range 28 East; together with Sections 1 through 6 of Township 47 South, Range 28 East; together with Sections 1 through 36 of Township 46 South, Range 29 East; together with Sections 1 through 12, Sections 15 through 21 and that part of Section 13 lying Northeasterly of a diagonal line from the Northwest Corner to the Southeast Corner of said Section 13, Township 47 South, Range 29 East; together with Sections 6, 7, 18, 19, 30 and 31 of Township 46 South, Range 30

East; together with Sections 6, 7, 18, and that part of Section 19 lying Northeasterly of a diagonal line from the Northwest corner to the Southeast corner of said Section 19, Township 47 South, Range 30 East. All the lands described being in Collier County, Florida. These boundaries were expanded during the 2005 Legislative Session, [senhist.pdf \(state.fl.us\)](http://senhist.pdf(state.fl.us)).



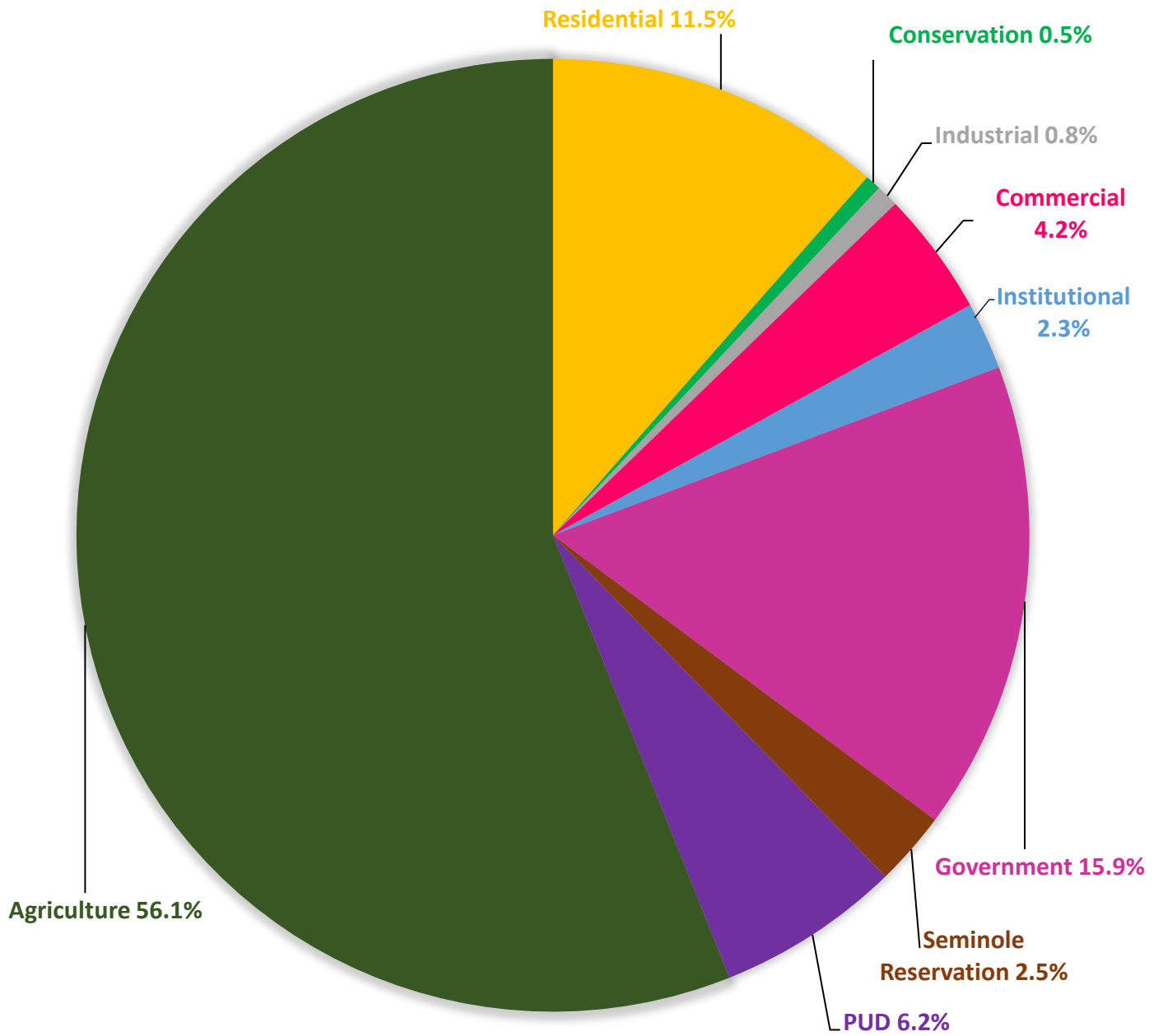
IWSD Service Area Boundary and Immokalee Urban Area Boundary

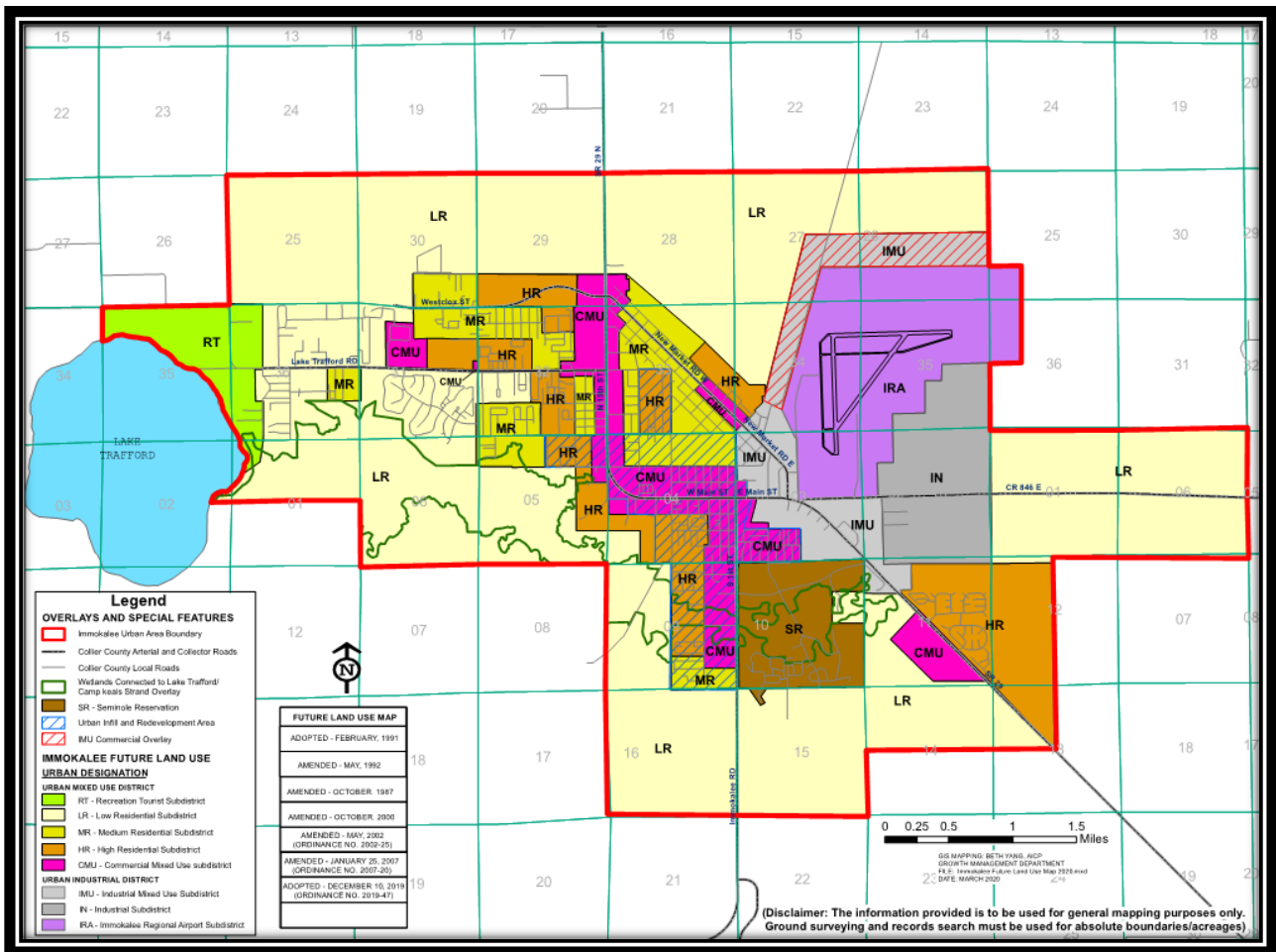
3. CURRENT POPULATION

According to the Census Reporter, that references the U.S. Census Bureau, the 5-year American Community Survey (ACS) reported that the population in Immokalee is 27,753 people as of 2022.

4. PREDOMINANT TYPES OF LAND USE

The Immokalee CDP approximate types of land usage are shown below.





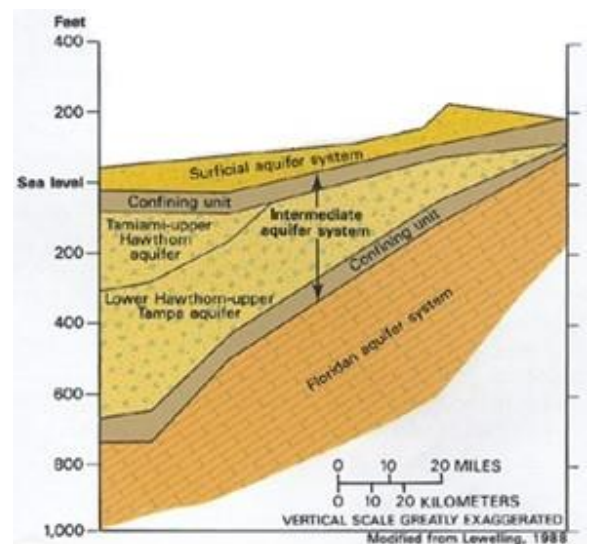
Immokalee Future Land Use Map 2019 Update

5. WATER PLANTS

IWSD Department 10
 Supervisor James Jean-Louis
 SFWMD CUP # 11-00013
 PWS ID # 5110142

Water Treatment Plant Facilities

The South Florida Water Management District Consumptive Use Permit allows the Immokalee Water and Sewer District to withdraw up to 1,515 MG of groundwater a year, with a specific limit of 1,261 MG per year from the Lower Tamiami aquifer.



A. Jerry V. Warden Water Treatment Facility

Facility Information

Address	1020 Sanitation Road, Immokalee, FL 34142
Initial Construction	1967
Capacity Increase	1996 and 2005
Permitted Capacity	2.25 MGD

Facility Description

The facility's treatment process utilizes aeration, chloramination for disinfection, polyphosphate for iron control and adds fluoride to support public health from the raw water drawn from eight wells connected to the Hawthorne, Upper Sandstone, and the Lower Tamiami Aquifer. The facility has 1.50 million gallons of storage capacity for finished water. Backup power is provided by a 300 kW Model 3406 Caterpillar diesel powered generator.

Jerry V. Warden Water Treatment Facility

Finished Water Demand 2023 - Average Daily Flow

Month	MGD	Month	MGD
January	0.80	July	0.84
February	0.93	August	0.89
March	1.02	September	0.90
April	1.61	October	0.89
May	1.02	November	1.15
June	0.91	December	1.06

B. Airport Water Treatment Facility

Facility Information

Address	1107 Airport Access Road, Immokalee FL 34142
Initial Construction	1985
Capacity Increase	1992, 1996, and 2005
Permitted Capacity	1.39 MGD

Facility Description

The facility's treatment process utilizes aeration, chloramination for disinfection, polyphosphate for iron control and adds fluoride to support public health from the raw water drawn from three wells connected to the Lower Tamiami Aquifer. The facility has 0.75 million gallons of storage capacity for finished water. Backup power is provided by a 200 kW Model DSHAC Cummins diesel powered generator.

Airport Water Treatment Facility

Finished Water Demand 2023 - Average Daily Flow

Month	MGD	Month	MGD
January	0.51	July	0.47
February	0.48	August	0.46
March	0.54	September	0.52
April	0.63	October	0.55
May	0.46	November	0.51
June	0.43	December	0.49

C. Carson Road Water Treatment Facility

Facility Information

Address 1201 Carson Road, Immokalee FL 34142
Initial Construction 1975
Capacity Increase 1992, 1996, 2006, and 2008
Permitted Capacity 2.0 MGD

Facility Description

The facility's treatment process utilizes aeration, chloramination for disinfection, polyphosphate for iron control and adds fluoride to support public health from the raw water drawn from five wells connected to the Lower Tamiami Aquifer. The facility has 1.5 million gallons of storage capacity for finished water. Backup power is provided by a 400 kW Model DFEH Cummins diesel powered generator.

Permitted Capacity 4.0 MGD

Facility Description

The facility utilizes the extended aeration treatment process using four oxidation ditches. Effluent is disposed of using a 4.867 MGD deep injection well with a backup system in place consisting of a 260-acre spray field and three percolation ponds. The facility’s biosolids are converted into a Class AA fertilizer product by utilizing the Schwing Bioset Process. Backup power is provided by an 800 kw Model 800DS4 Spectrum Detroit Diesel generator and a 500 kw Model DS00550D6S Detroit Diesel/MTU Onsite Energy Corp. generator.

IWSD Wastewater Treatment Plant

Average Daily Flow 2023

Month	MGD	Month	MGD
January	1.98	July	1.72
February	1.87	August	1.68
March	1.53	September	1.93
April	1.75	October	1.99
May	1.60	November	2.10
June	1.66	December	1.99

8. WASTEWATER COLLECTION

IWSD Department 30
Supervisor Hector Ramos
Permit Number FLA014132
Main Office 140 White Way, Immokalee, FL 34142

Facility Information

The system consists of several master lift stations with installed onsite backup generators, approximately forty-one (41) lift stations with generator receptacle connections for portable generators, and more than ninety (90) miles of wastewater collection system piping.

9. CUSTOMER SERVICE & ADMINISTRATION

IWSD Department 40
Supervisor Jeff Carpenter / Sarah Catala
Address 1020 Sanitation Road, Immokalee, FL 34142

Department Information

The District maintains the utility systems and serves numerous residents and businesses in Immokalee. The customer service and administration department uphold the relationship between the community and the IWSD operations for both the water system and the wastewater system.

10. MAINTENANCE

IWSD Department 50
Supervisor Hector Ramos
Address 140 White Way, Immokalee, FL 34142

Department Information

The maintenance department covers the water treatment plant, the wastewater treatment plant, the wastewater collection system, and the water distribution system. This includes repairs on damaged or failing piping as well as any other immediate or miscellaneous maintenance that is required to keep the systems in operation.

11. UPCOMING PROJECTS

Reclaimed Water Project

This project is in the planning stages and is intended to be implemented in several phases over the foreseeable future. The project involves adding upgrades to the wastewater treatment facility to achieve a treatment level of high-level disinfection. Additional transmission infrastructure will need to be either rehabilitated or constructed to transmit the reclaimed water to future customers. The District has obtained state appropriations funding for the advanced wastewater treatment plant improvements phase of the project.

Water Treatment Upgrades and Expansion

Hard water is a common problem in Florida which can reduce working efficiency of some appliances, as well as reduce water flow over time, and leave stains and spots in dishes and clothes. The District has been exploring different technologies for the three water treatment plants to reduce the levels of hardness and provide a better water quality. Treatment processes are also being enhanced to remove emerging contaminants. The District has obtained state appropriations funding for the advanced water treatment plant improvements phase of the project.

AMI For Water Distribution System

This project involves the implementation of Advance Metering Infrastructure (AMI) in the water distribution system to eliminate the need for manual meter reads. This will improve the efficiency of utility operations, water conservation, and leak detection, enhancing security and resilience. The District has obtained state appropriations funding for the advanced water distribution system improvements phase of the project.

AMI For Wastewater Collection System

This project involves the implementation of Advance Metering Infrastructure (AMI) in the wastewater collection system to assist in the identification of sources of inflow and infiltration, optimize operations, administration, and infrastructure as well as enhance security and resilience. The District has obtained state appropriations funding for the advanced wastewater collection system improvements phase of the project.

Rehabilitation of Clay Piping in the Collection System

The sanitary sewer collection system that the District operates and maintains had four remaining sections that were constructed of clay pipe. The District is looking to rehabilitate those sections by either replacing the clay piping with a material that is more resilient or lining the existing pipe to both seal and strengthen it. Two of the four sections have been recently completed.

Utility Relocations for Upcoming FDOT/Collier County Projects

Currently and within the next few years, Collier County and FDOT are expected to begin construction of several transportation and drainage related projects. Stormwater infrastructure upgrades are causing a significant expenditure of resources by the District. Due to potential conflicts, utility relocations of portions of the District's facilities can be anticipated. The most practical and economical techniques would be employed to relocate utilities. This may include jack and bore, horizontal directional drilling, traditional open-cut, or other installation methods depending on the specific conditions.

Wastewater Collection System Upgrades

There are proposed plans to enhance portions of the existing wastewater collection system to maintain collections of the current flows as well as prepare for the increasing infrastructure. This includes replacing outdated sewer force mains and gravity mains as well as installing new mains where necessary. Certain lift stations will also be upgraded to handle the growing demands for the coming years.

Wastewater Treatment Facility Operations Building

The existing administration building will be replaced with a new administration building. The new building will be fortified against storm events, adhering to the latest hurricane standards, ensuring a resilient structure. In addition, it will be fully ADA compliant, include dedicated space for a new laboratory, and provide additional room for the operators.

New Customer Payment Center and Administration Building

The new building will be in a new location allowing for better customer service, enhanced security, optimize space utilization, be fully ADA compliant, and be constructed to the current hurricane codes. The move will also allow the water treatment facility, currently adjacent to the administration building, to be secured.

12. SOURCES

Boundaries - State of Florida, Laws of Florida, Chapter 2005-298, (House Bill 733).

Current Population & Seasonal Population – Census Reporter, U.S. Census Bureau
<https://www.census.gov/quickfacts/immokaleecdflorida>
<https://censusreporter.org/profiles/16000US1233250-immokalee-fl/>

Existing and Future Land Use – Collier County IMMOKALEE AREA MASTER PLAN DATA
& ANALYSIS – December 2019



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