



# The Past, Present and Future of Florida's Water

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**What was the water  
demand in Florida? (2020)**

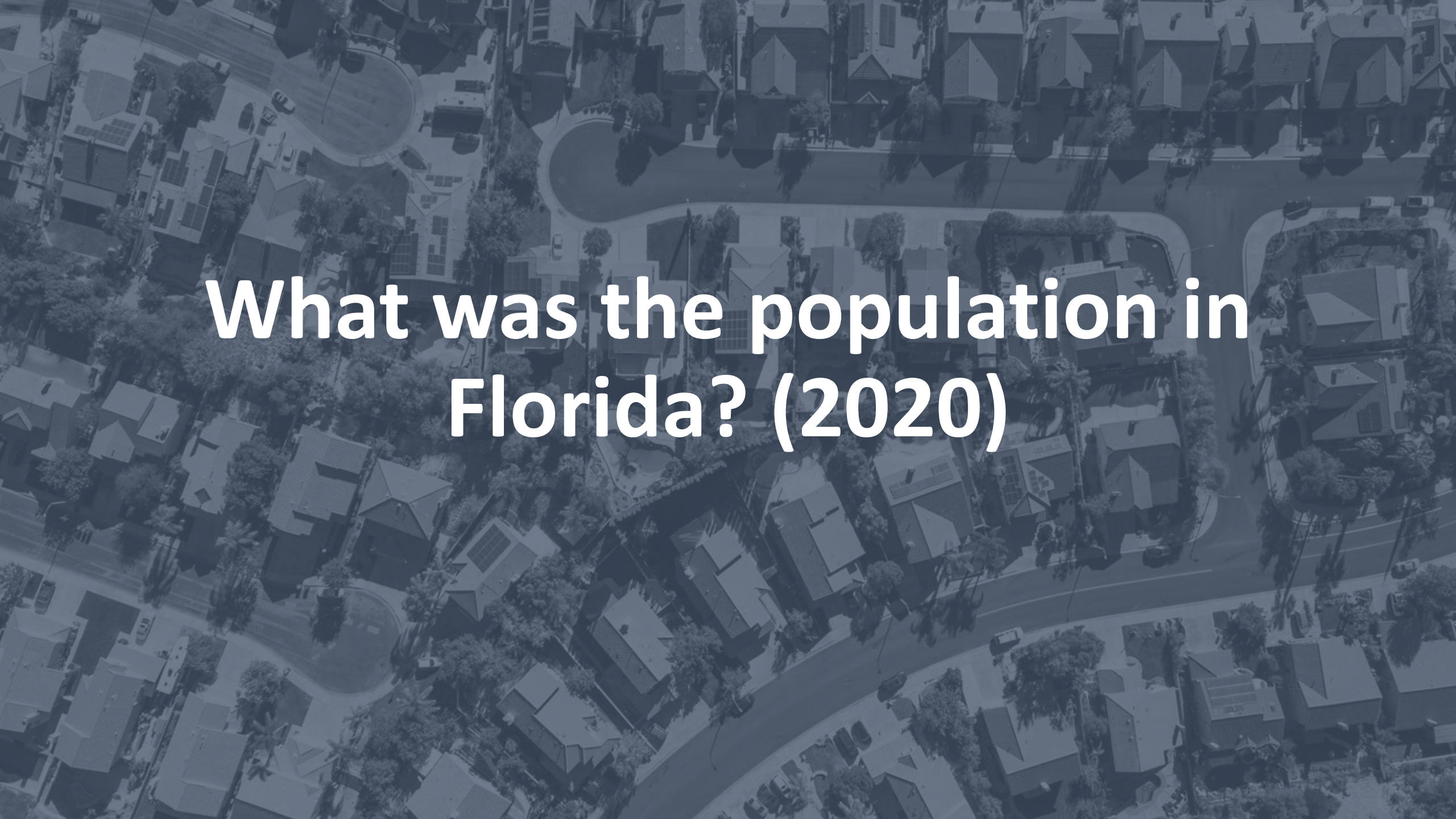


A close-up photograph of a green garden hose with a spray nozzle. The nozzle is pressed against green grass, and a wide, fan-shaped spray of water is being emitted, creating many small droplets in the air. The background is a soft-focus green lawn.

# What was the water demand in Florida? (2020)

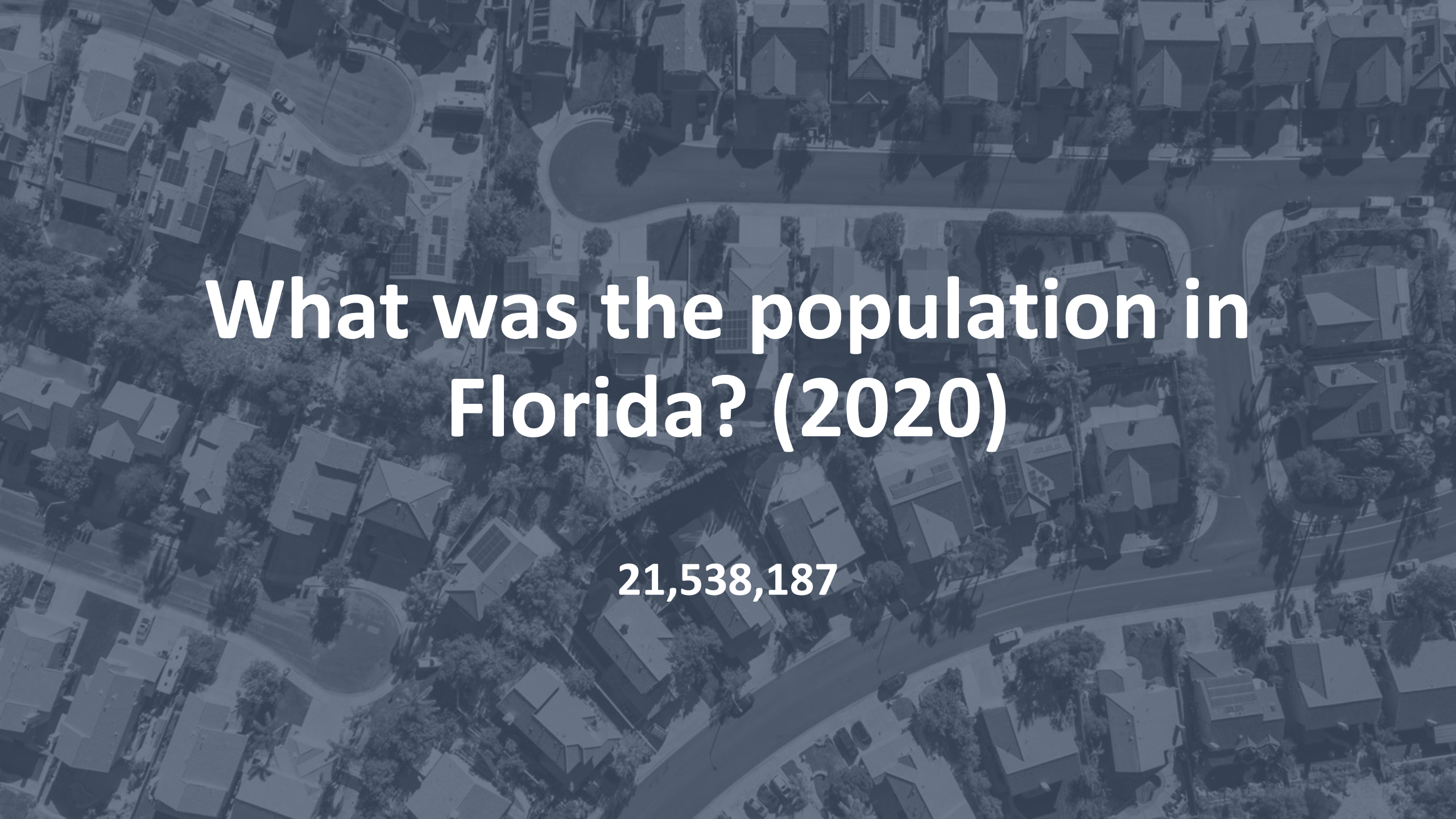
6.5 billion gallons per day



An aerial photograph of a suburban neighborhood, showing a grid of streets, numerous houses with varying rooflines, and scattered trees. The image is overlaid with a semi-transparent dark blue filter. Centered on the image is the text "What was the population in Florida? (2020)" in a white, bold, sans-serif font.

**What was the population in  
Florida? (2020)**




An aerial photograph of a suburban neighborhood, showing a dense arrangement of houses with dark roofs, interspersed with green trees. A winding road or path cuts through the middle of the area. The entire image is overlaid with a semi-transparent dark blue filter.

# What was the population in Florida? (2020)

21,538,187





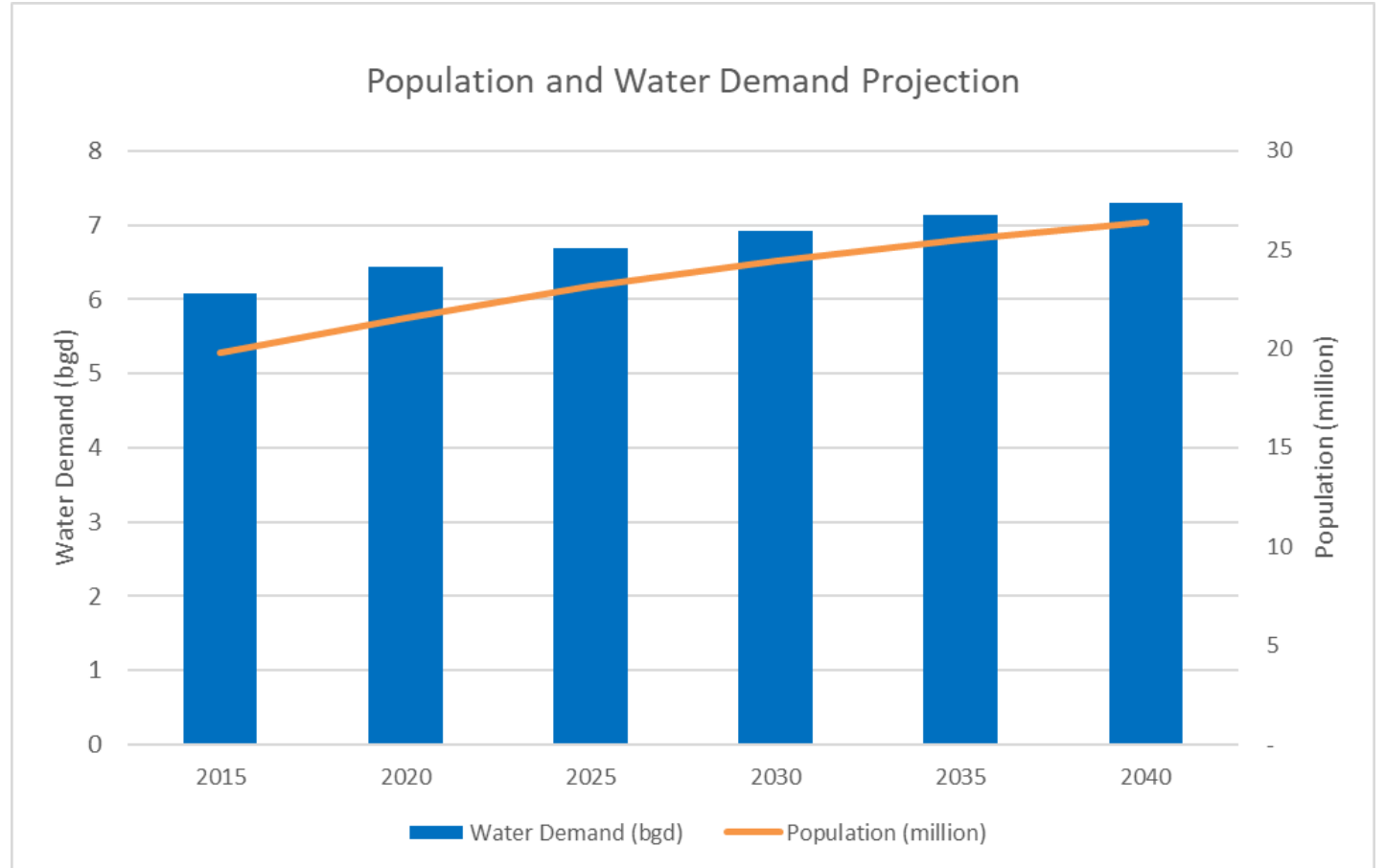
**How many people move to  
Florida every day?**

1083 people every day (net migration)  
1745 people moved into Florida every day

**Table 2. Components of Population Change for Counties in Florida, 2020 to 2023**

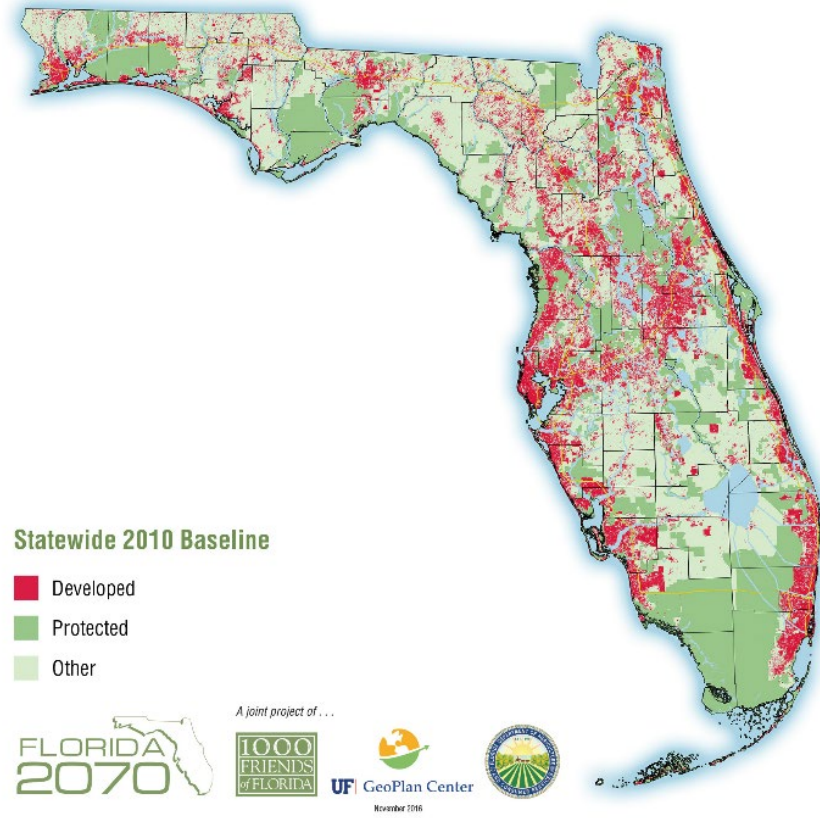
State and County	Total Change 2020–2023	Births	Deaths	Components of Change		Percent of Change Due to	
				Natural Change	Net Migration	Natural Change	Net Migration
<b>FLORIDA</b>	1,096,680	650,237	739,580	-89,343	1,186,023	0.0	100.0

Population  
and Water  
Demand  
Expect to  
Increase

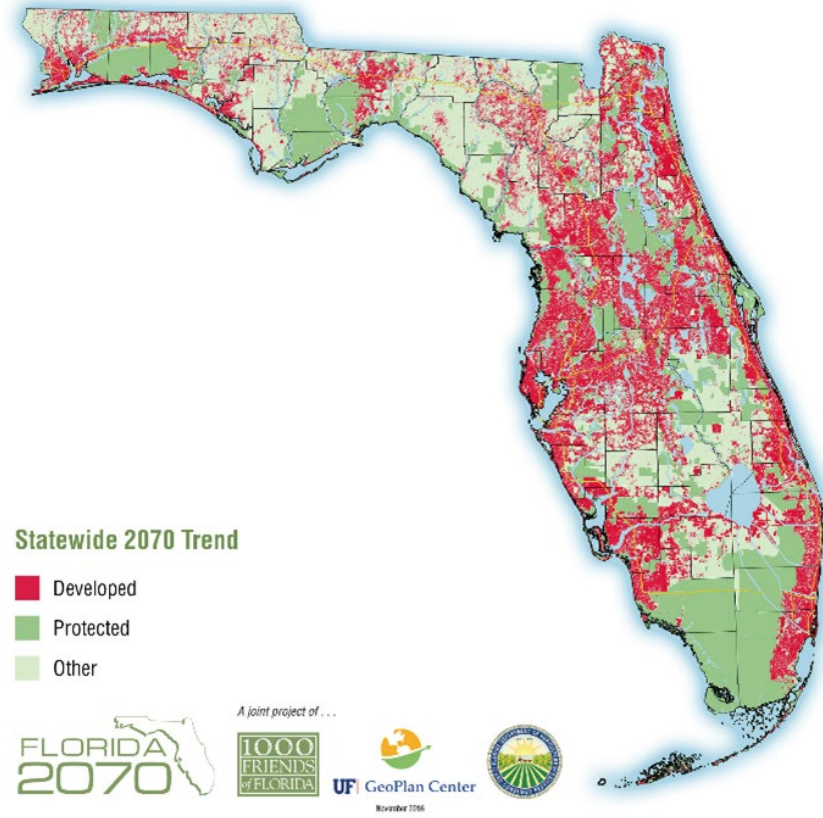




# Florida's Population Future



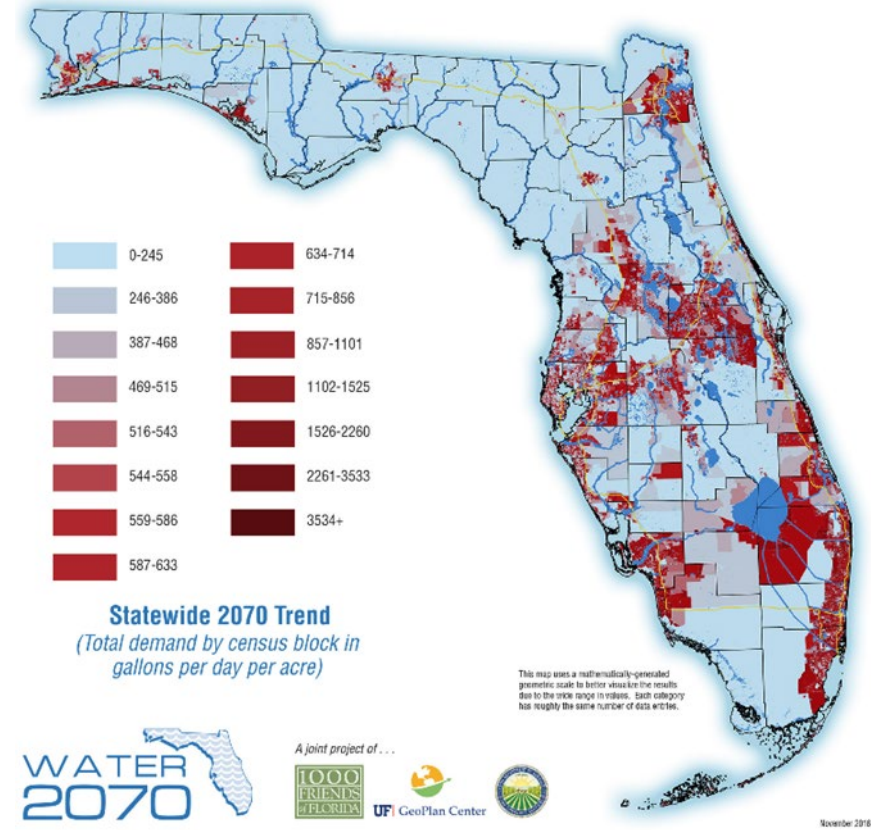
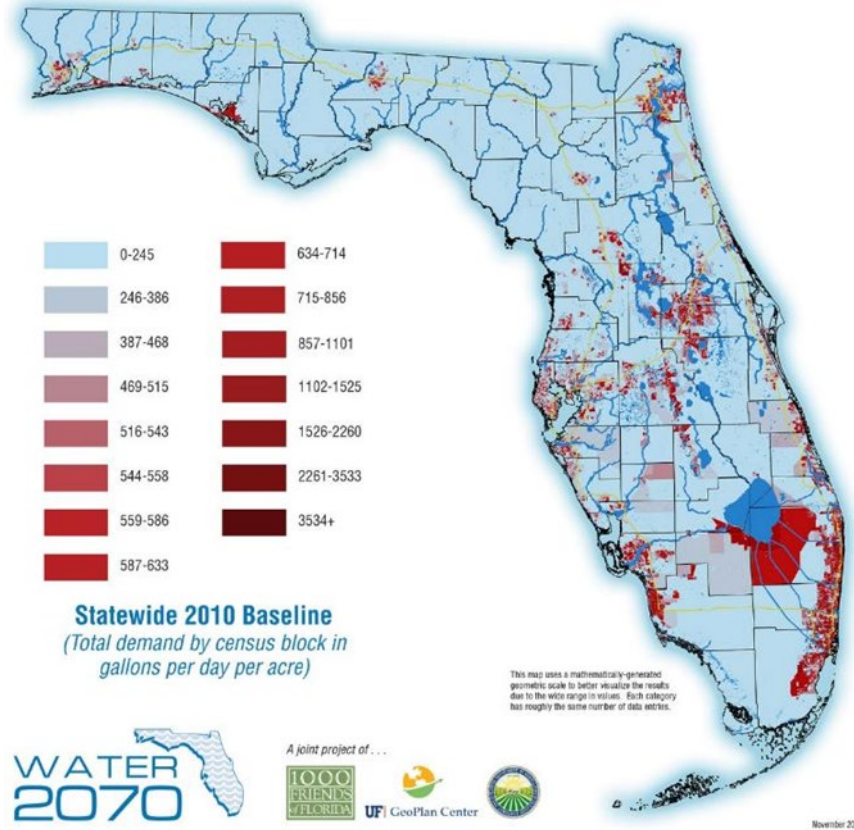
**18 Million**



**34 Million**

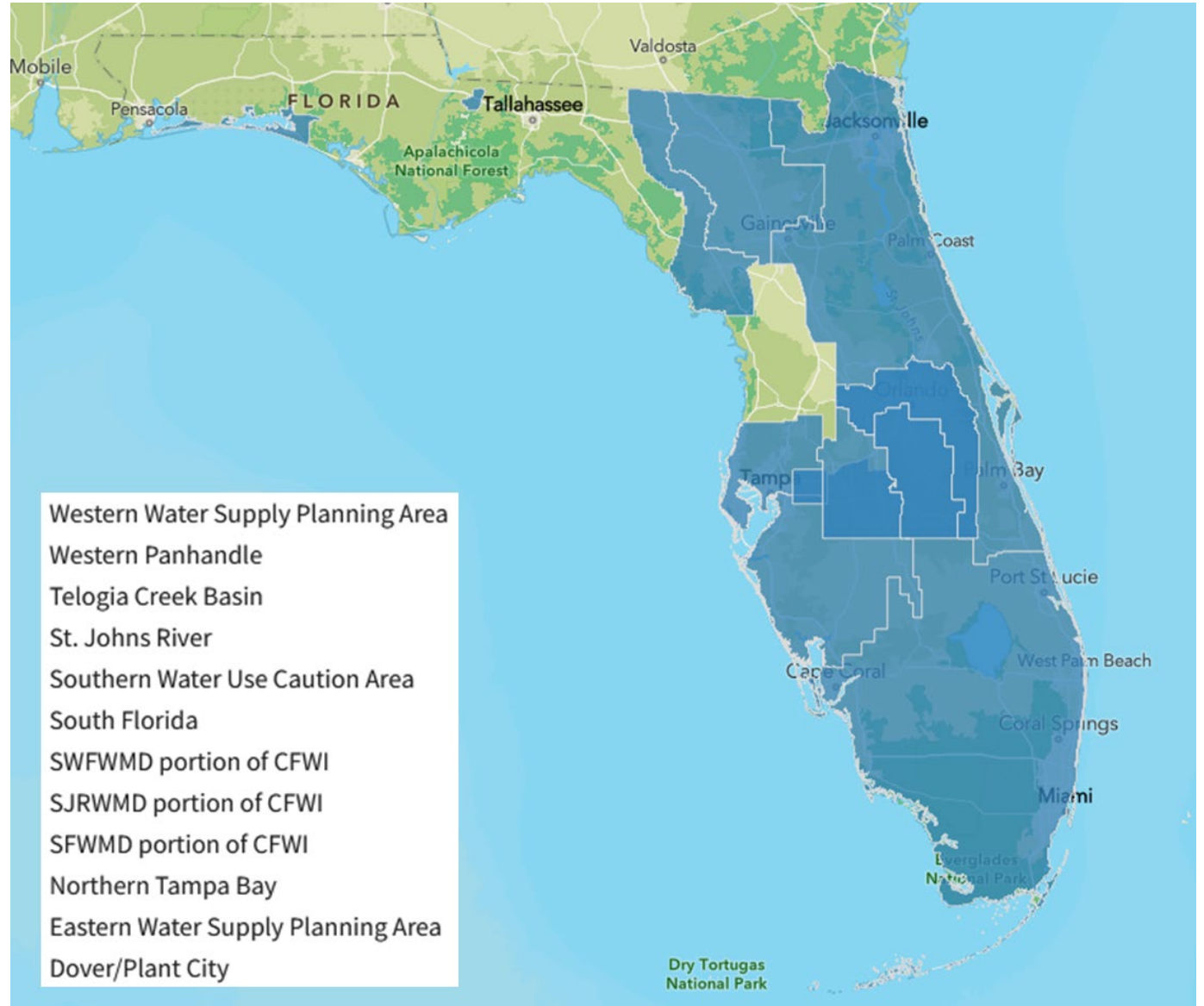


# Florida's Water Future





# Water Resource Caution Areas (WRCAs)






A close-up photograph of water with numerous raindrops creating concentric ripples. The water is dark and reflective, with some light reflecting off the surface. The text is centered over the image.

**Changing landscape,  
Changing waterscape**



# Population Change → Land Change

Over 14 years of the late 20<sup>th</sup> century (1989–2003) ...



**Natural/seminatural lands**  
Lost 232,00 acres *per year*

Tiger Creek Preserve  
Photo © Tonya Clayton



**Agricultural lands**  
Lost 63,000 acres *per year*

Manatee County  
Photo © Tonya Clayton




Naples  
Photo by Tonya Clayton

Slide adopted from Water Stewards



# Population Change → Land Change

Over 14 years of the late 20<sup>th</sup> century (1989–2003) ...

A photograph of a natural landscape featuring a large, gnarled tree in the foreground, a body of water, and a dense line of trees in the background under a cloudy sky.

**Natural/seminal lands**  
Lost 232,00 acres *per year*

Tiger Creek Preserve  
Photo © Tonya Clayton


→ **50/50 urban and ag**

A photograph of a vast agricultural field with tall, dry grass. In the background, a long, low structure, possibly a greenhouse or irrigation system, stretches across the horizon under a clear blue sky.

**Agricultural lands**  
Lost 63,000 acres *per year*

Manatee County  
Photo © Tonya Clayton

→ **Mostly urban/developed**

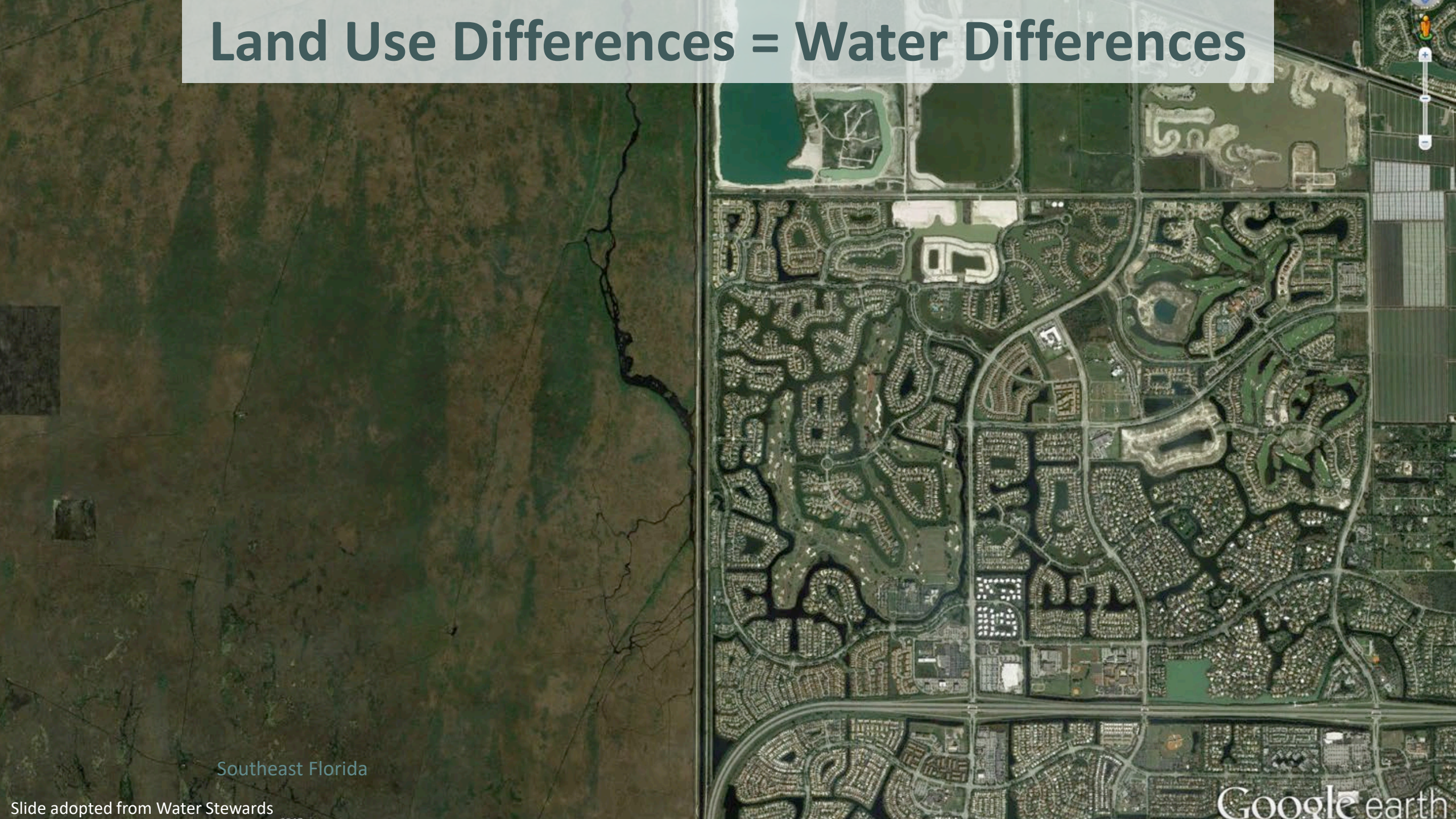
A photograph of a city skyline at dusk or dawn, featuring several tall, modern high-rise buildings and a dense residential area in the foreground.

Naples  
Photo by Tonya Clayton

Slide adopted from Water Stewards



# Land Use Differences = Water Differences

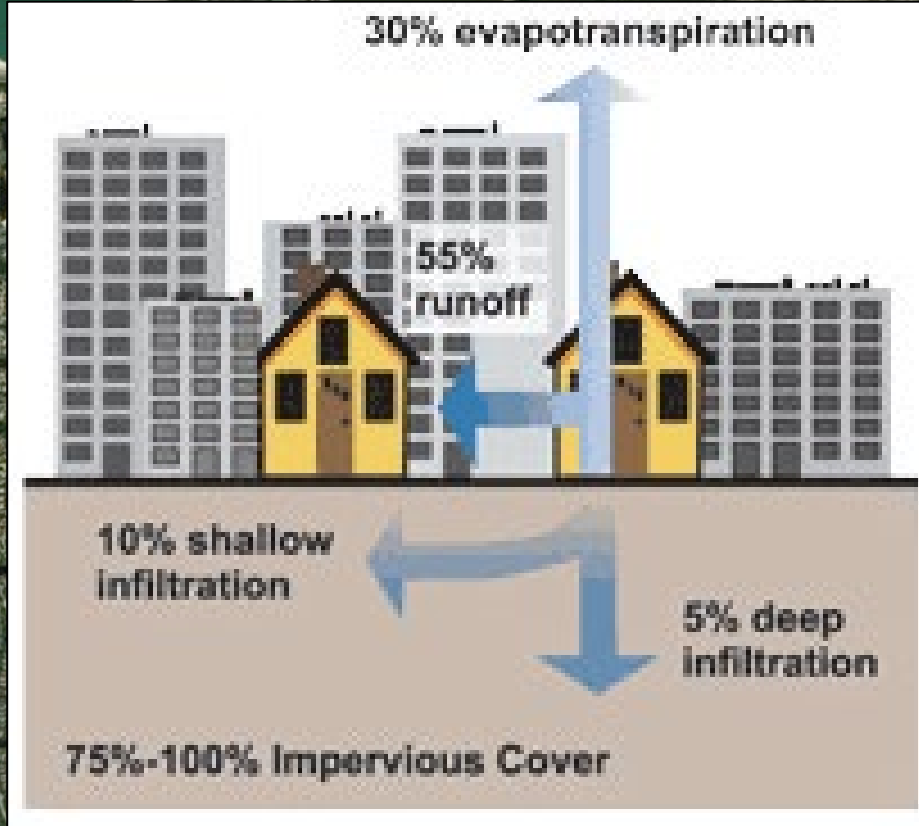
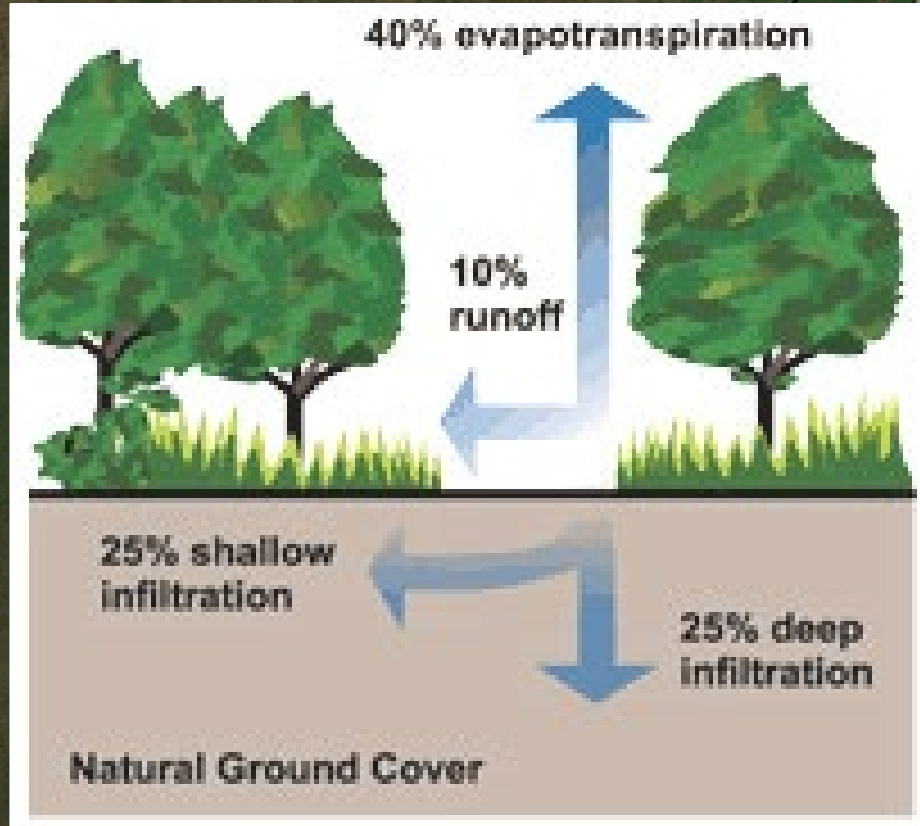


Southeast Florida

Google earth



# Land Use Differences = Water Differences

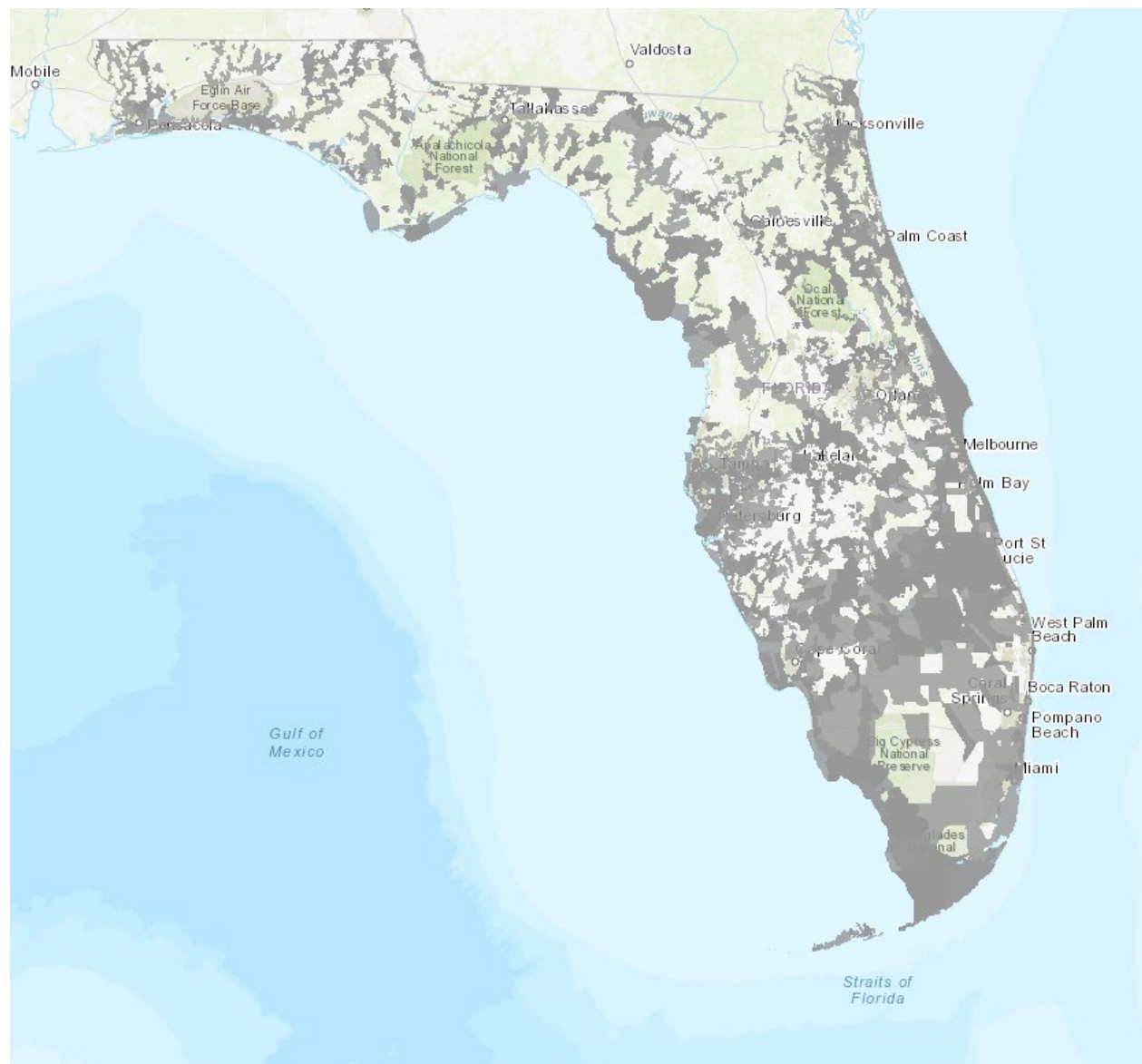


"As little as 10 percent impervious cover in a watershed can result in stream degradation."

-- U.S. EPA



# Waters Not Attaining Standards (WNAS)





**UF** | IFAS Extension  
UNIVERSITY of FLORIDA



**H<sub>2</sub>OSAV**  
**WATER SAVINGS,  
ANALYTICS & VERIFICATION**



# UF | IFAS

UNIVERSITY of FLORIDA







This pallet of water contains 1,296 bottles of water.

# 171 gallons

How much **POTABLE** water do  
Florida homes use for landscape irrigation?



# How much **POTABLE** water do Florida homes use for landscape irrigation?

- All Homes  
(931,132 homes)
- Indoor:  
126 gpd (57%)
- Outdoor:  
94 gpd (43%)





# How much **POTABLE** water do **NEW** Florida homes use for landscape irrigation?

- **New Homes**  
built since 2015  
(38,811 homes)
- **Indoor:**  
118 gpd (45%)
- **Outdoor:**  
133 gpd (55%)





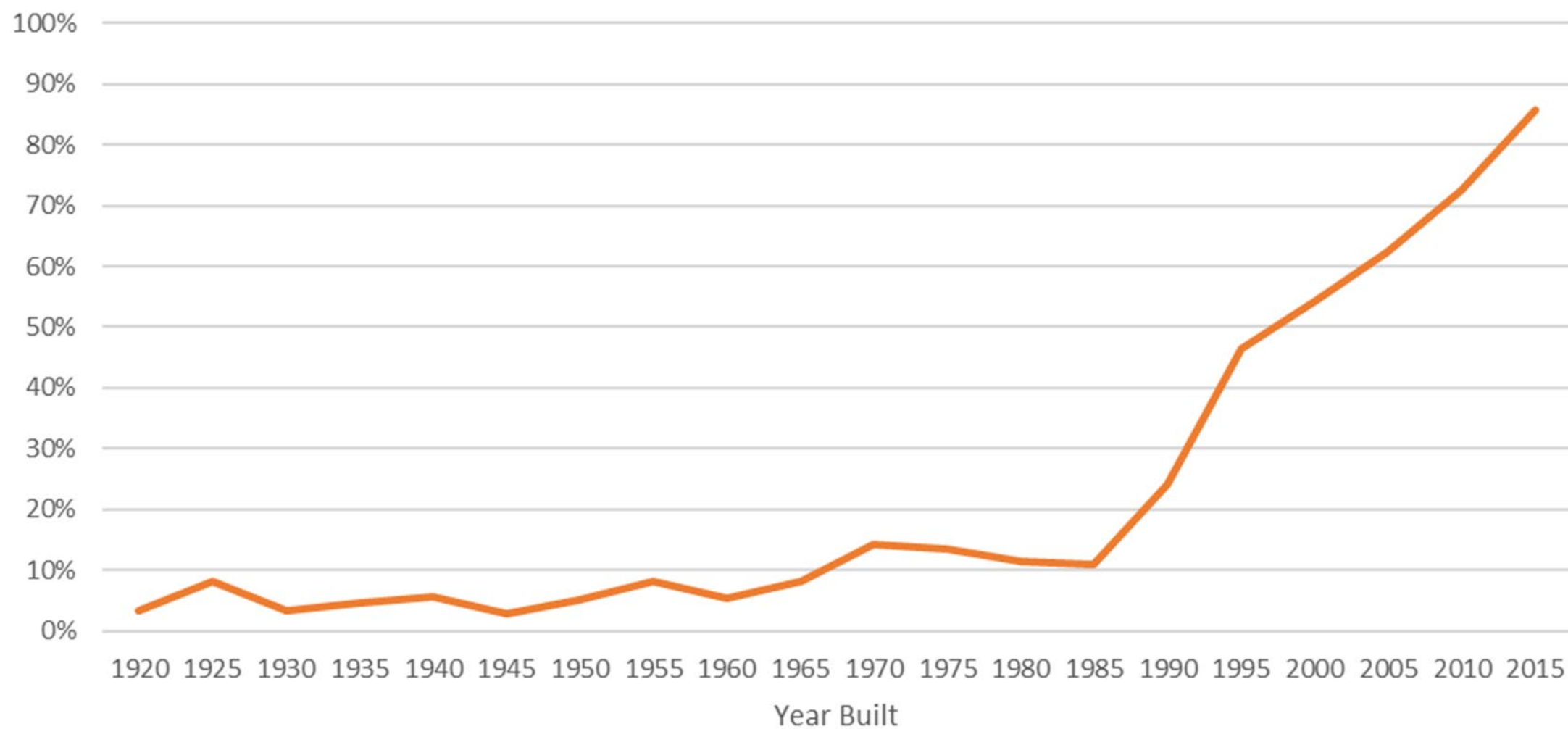
# How much **RECLAIMED** water do Florida homes use for landscape irrigation?

- Reclaimed Use  
built since 2015  
(27,788 homes)
- Indoor:  
119 gpd (30%)
- Outdoor:  
274 gpd (70%)



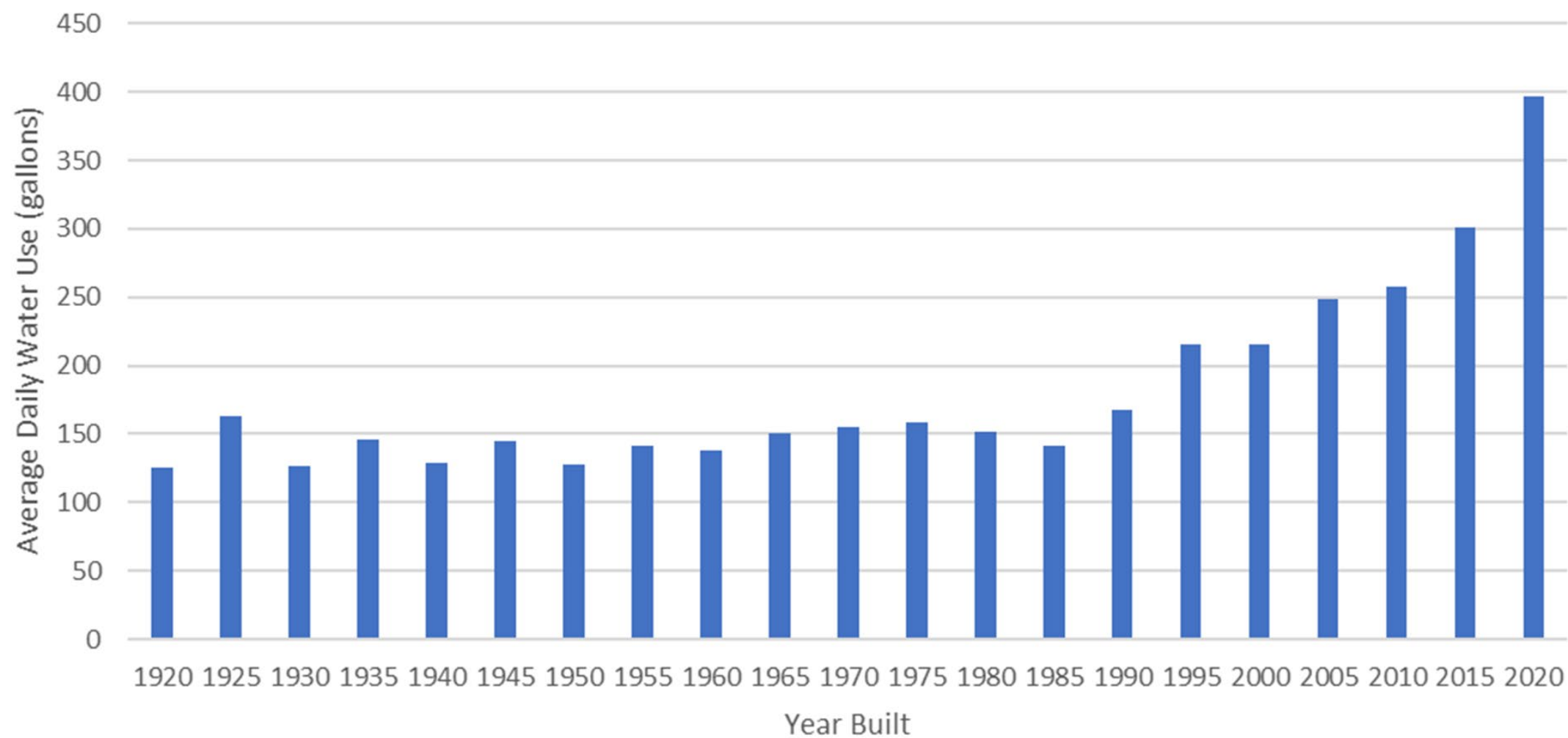


## Percentage of Single-Family, Detached Homes with In-Ground Irrigation Systems in Gainesville, Florida



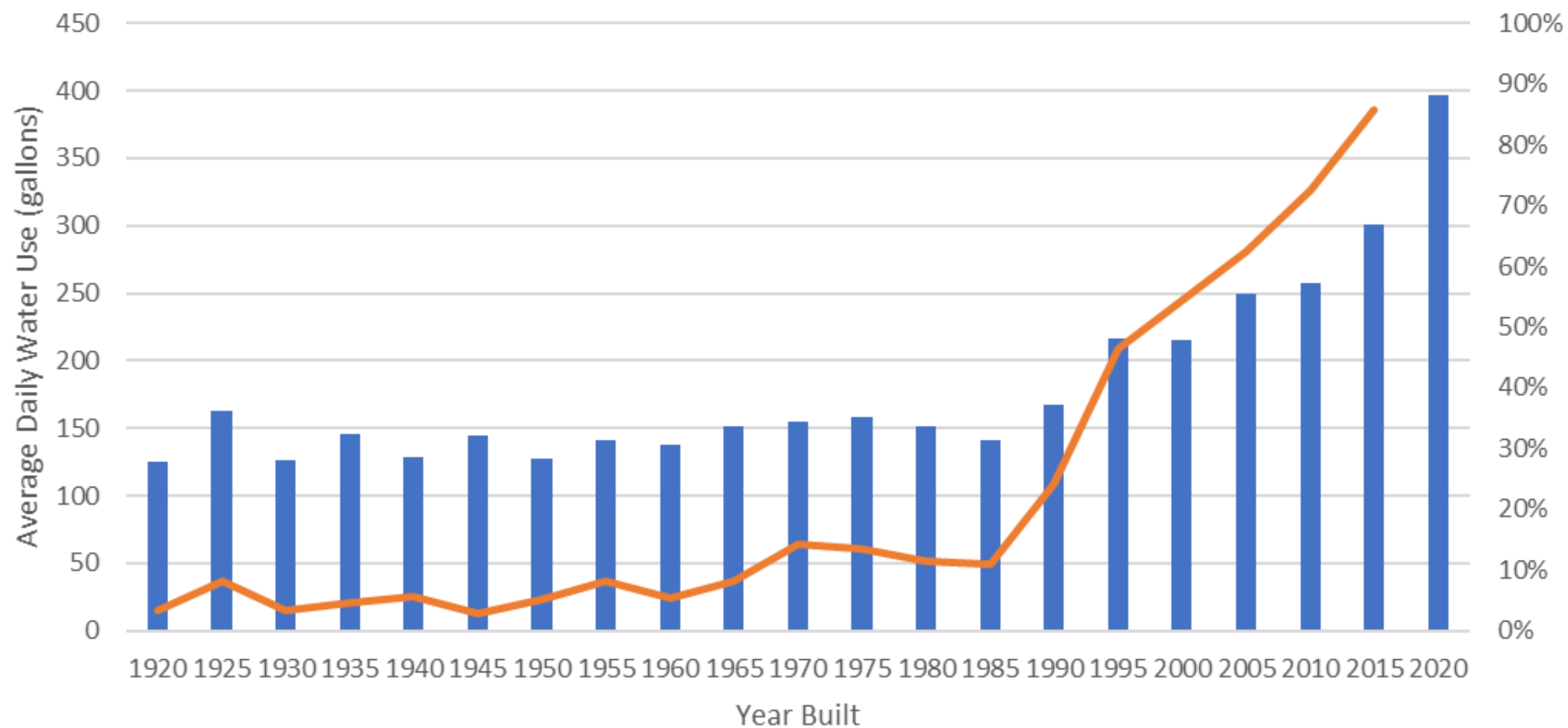


## Average Daily Water Use by Year Built for Single-Family, Detached Homes in Gainesville, Florida





## Average Daily Water Use by Year Built for Single-Family, Detached Homes in Gainesville, Florida





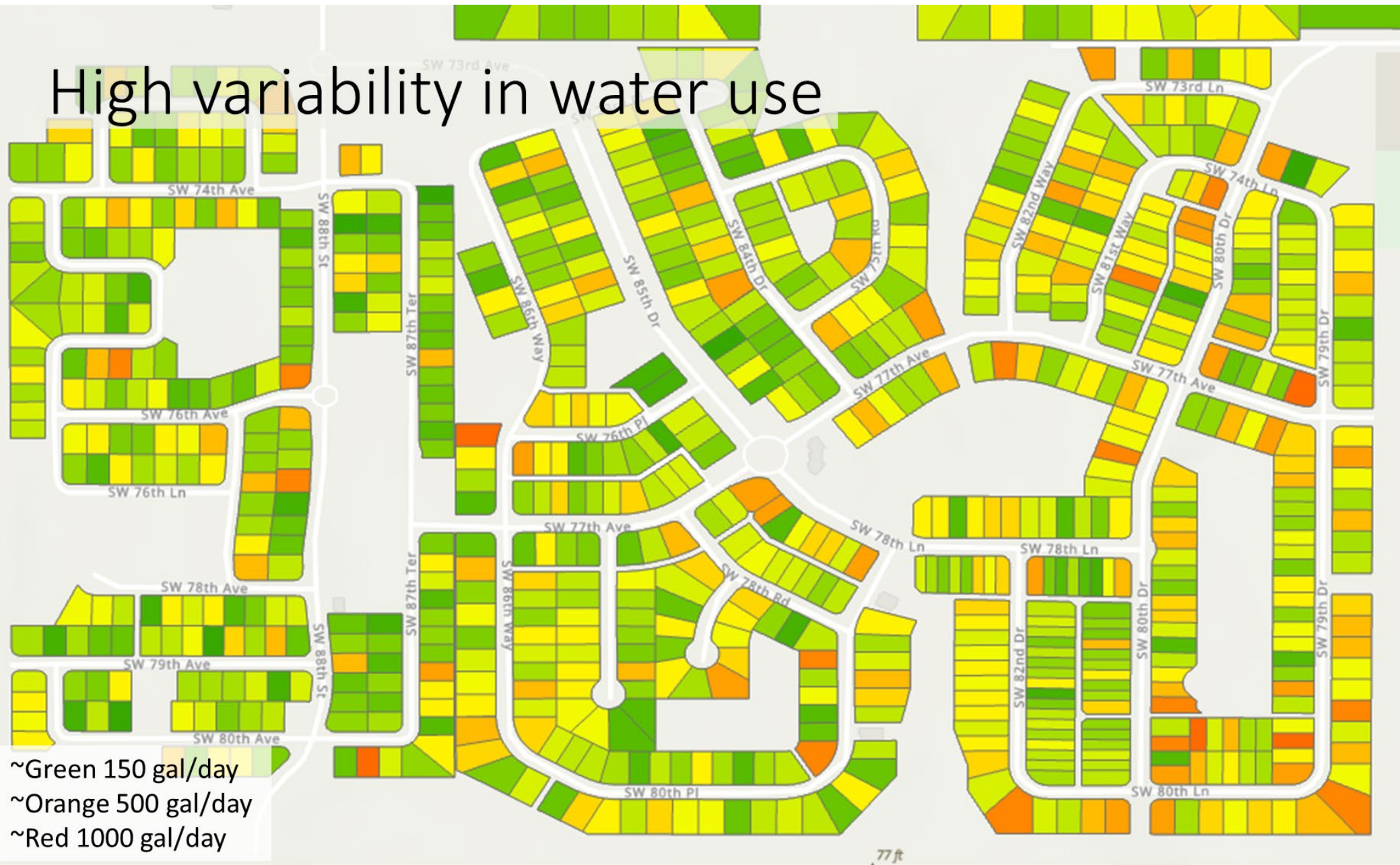
623 gallons per 1000 sqft – inch  
3,179 square feet landscape  
991 gallons per ½” irrigation cycle

8.25 hours in the shower

<https://edis.ifas.ufl.edu/publication/AE585>



## CUM D1 et C1



- ~Green 150 gal/day
- ~Orange 500 gal/day
- ~Red 1000 gal/day



# Variation in Water Use

These are three homes in a row, on the same side of the street, in the same neighborhood.



44 gal/day  
~0 gal/day outdoor



Gainesville, Florida



Street View - Jun 2022

257 gal/day  
207 gal/day outdoor

Google



805 gal/day  
576 gal/day outdoor



# Variation in Water Use

Three ***more*** homes in a row, on the same side of the street, in the same neighborhood.





47 gal/day  
~0 gal/day outdoor



Gainesville, Florida

Google

Street View - Jun 2022



704 gal/day  
626 gal/day outdoor

Google



Gainesville, Florida



Google



Street View - Jun 2022

1137 gal/day  
934 gal/day outdoor

Google



An aerial photograph of a tropical coastline, featuring a large, irregularly shaped bay or lagoon. The water is a deep blue, while the surrounding land is a mix of green and brown, indicating dense vegetation and some cleared areas. The coastline is jagged with many small inlets and peninsulas. The overall scene is captured from a high altitude, looking down on the landscape.

# Thank You!

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