FLORIDA'S GREAT WATER REUSE CHALLENGE:

Simulating the seasonal imbalance of alternative supplies and outdoor water demand



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THREATS TO FLORIDA'S WATER SUPPLY

College of Engineering

Aging infrastructure

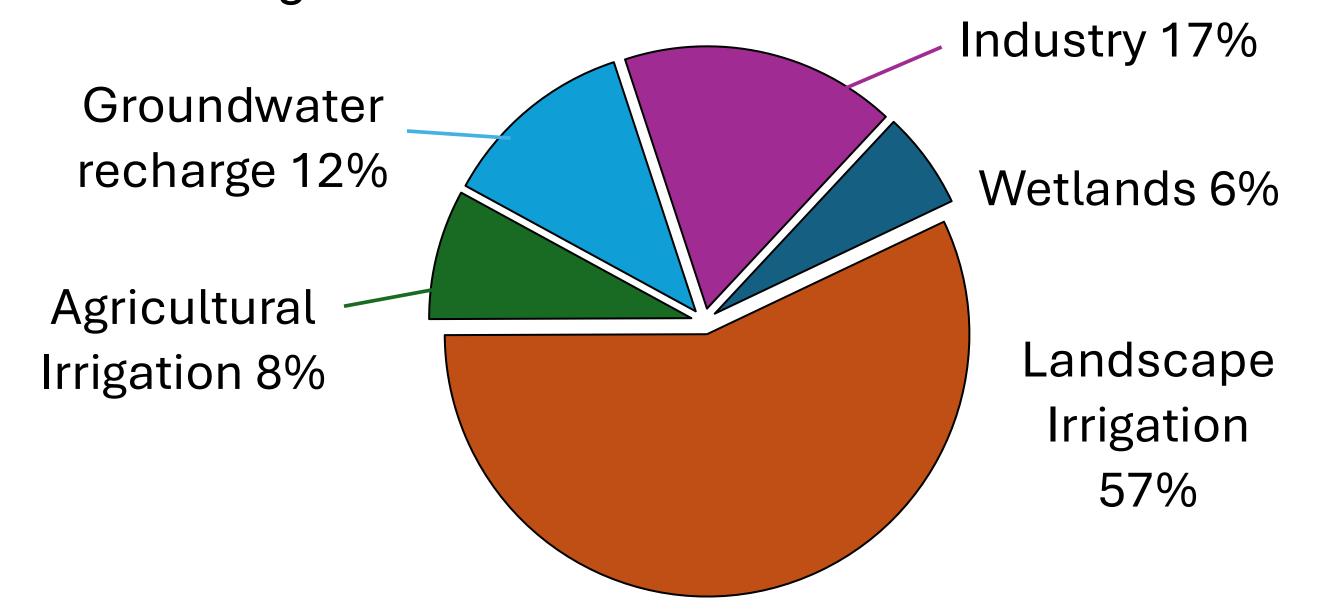
Drought and climate uncertainty

New regulations

Extreme weather

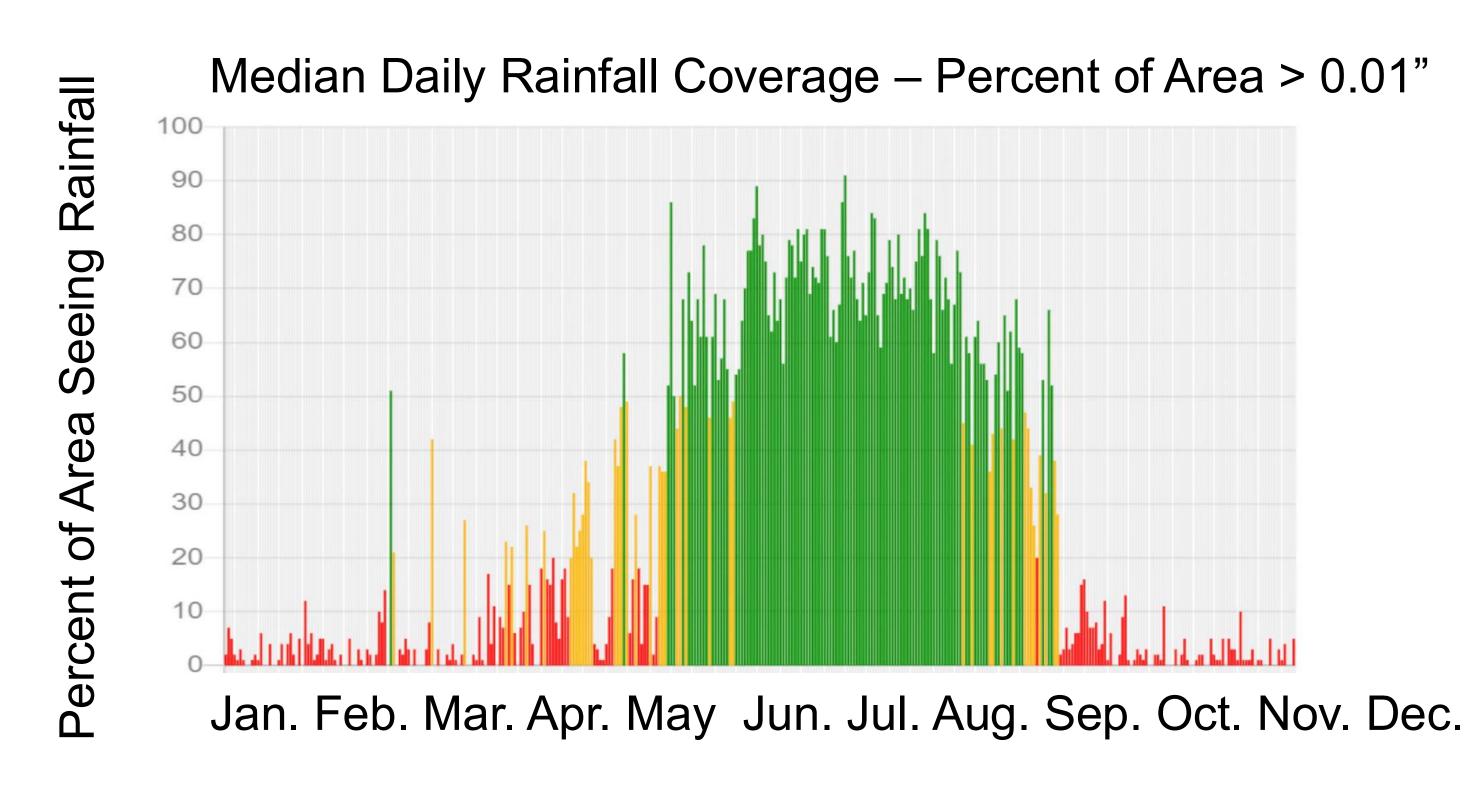
ALTERNATIVE SUPPLIES CAN HELP

On average, 908 million gallons of water is reclaimed every day in Florida¹. Almost two-thirds (65%) of this is used for irrigation².

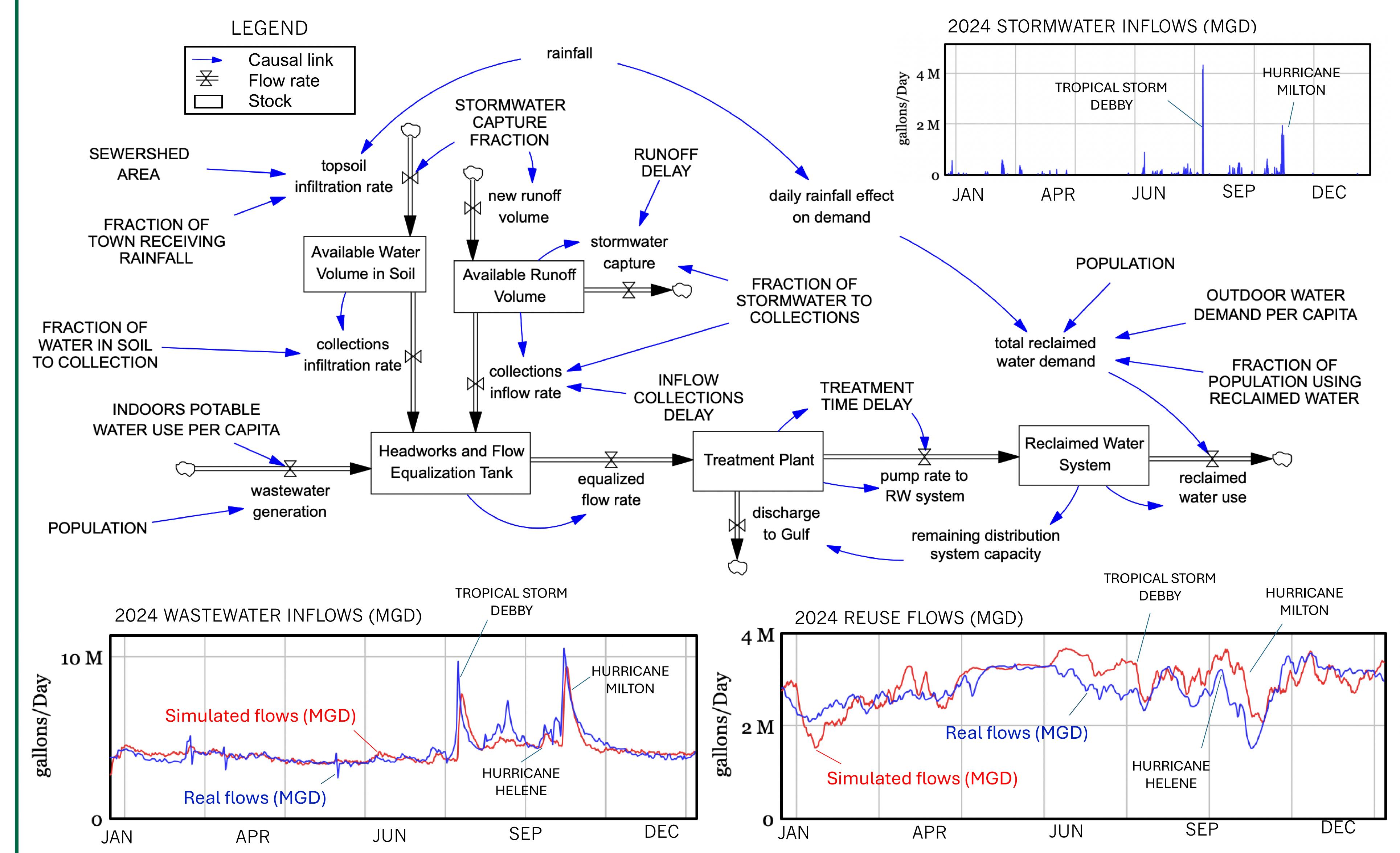


PROBLEM: SEASONALITY OF OUTDOOR WATER DEMAND

There is a seasonal imbalance of demand for irrigation water. In Florida, rainfall is seasonal, mostly occurring between May and October⁴. Irrigation demand is dampened by rainfall.



SYSTEM DYNAMICS MODEL: A TAMPA BAY WASTEWATER SYSTEM FED BY INFILTRATION, INFLOW, AND WASTEWATER



¹ Reclaimed Water Utilization by Flow. (n.d.). Florida DEP. Available at https://floridadep.gov/water/water/media/reclaimed-water-utilization-flow-0.

² South Florida Water Management District 2022 Annual Reclaimed Water Status Report. (June, 2024). South Florida Water Management District. https://www.sfwmd.gov/sites/default/files/documents/Reclaimed_Water_in_the_SFWMD_2022.pdf 3 Florida Thunderstorm Season. (n.d.). National Weather Service. https://www.weather.gov/tbw/rainyseason. Accessed on 12/6/2024. Chart reproduced (public domain).

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