



Stormwater Infrastructure





Introduction

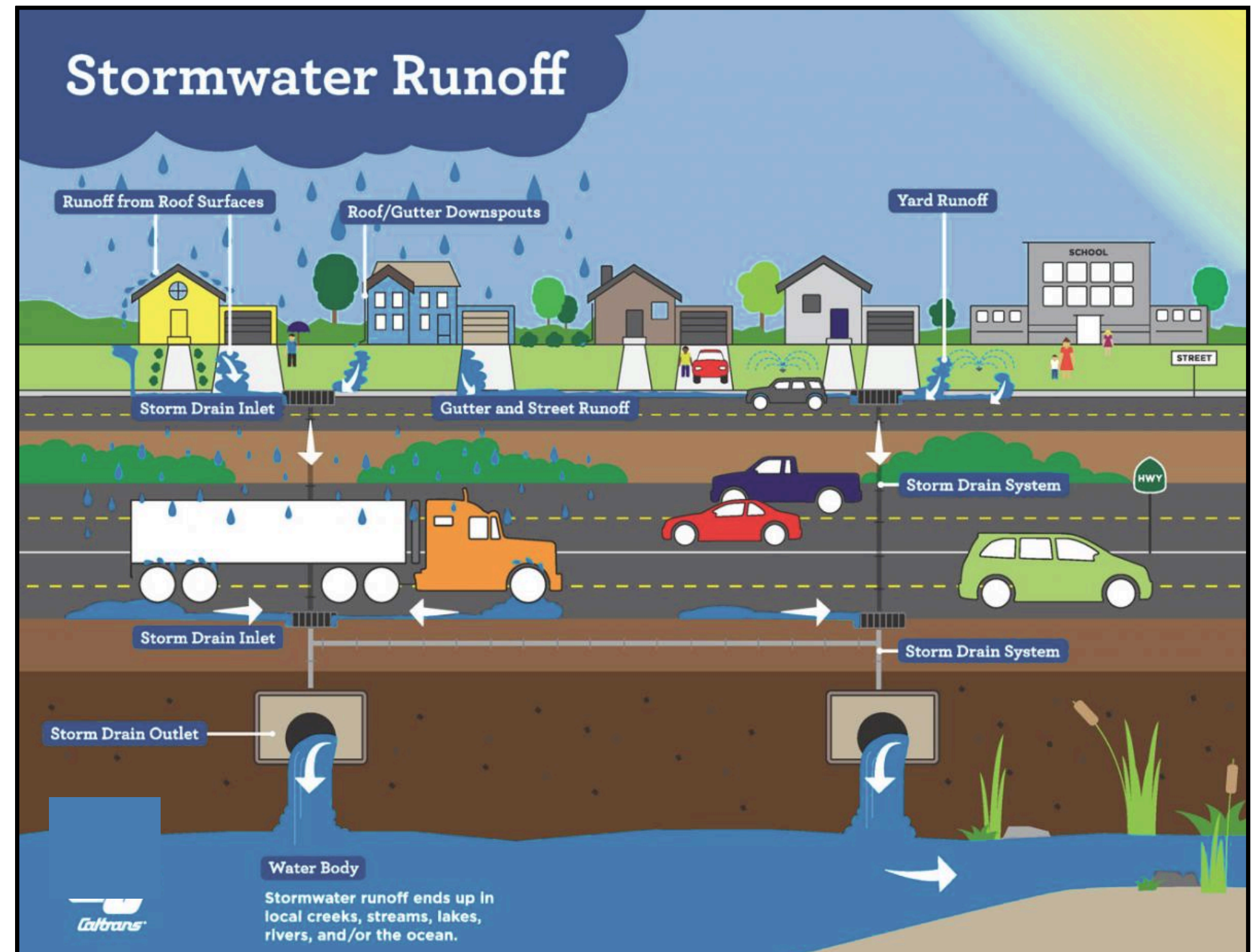
This presentation provides a comprehensive overview of Belleair's stormwater infrastructure, with the goal of informing the community about the system's role, current status, and future readiness. Specifically, we will:

- Define what a stormwater system is
- Outline the structure and function of Belleair's stormwater system
- Review data from the 2024 Hurricane Season
- Describe ongoing maintenance efforts
- Discuss preparations for the 2025 Hurricane Season

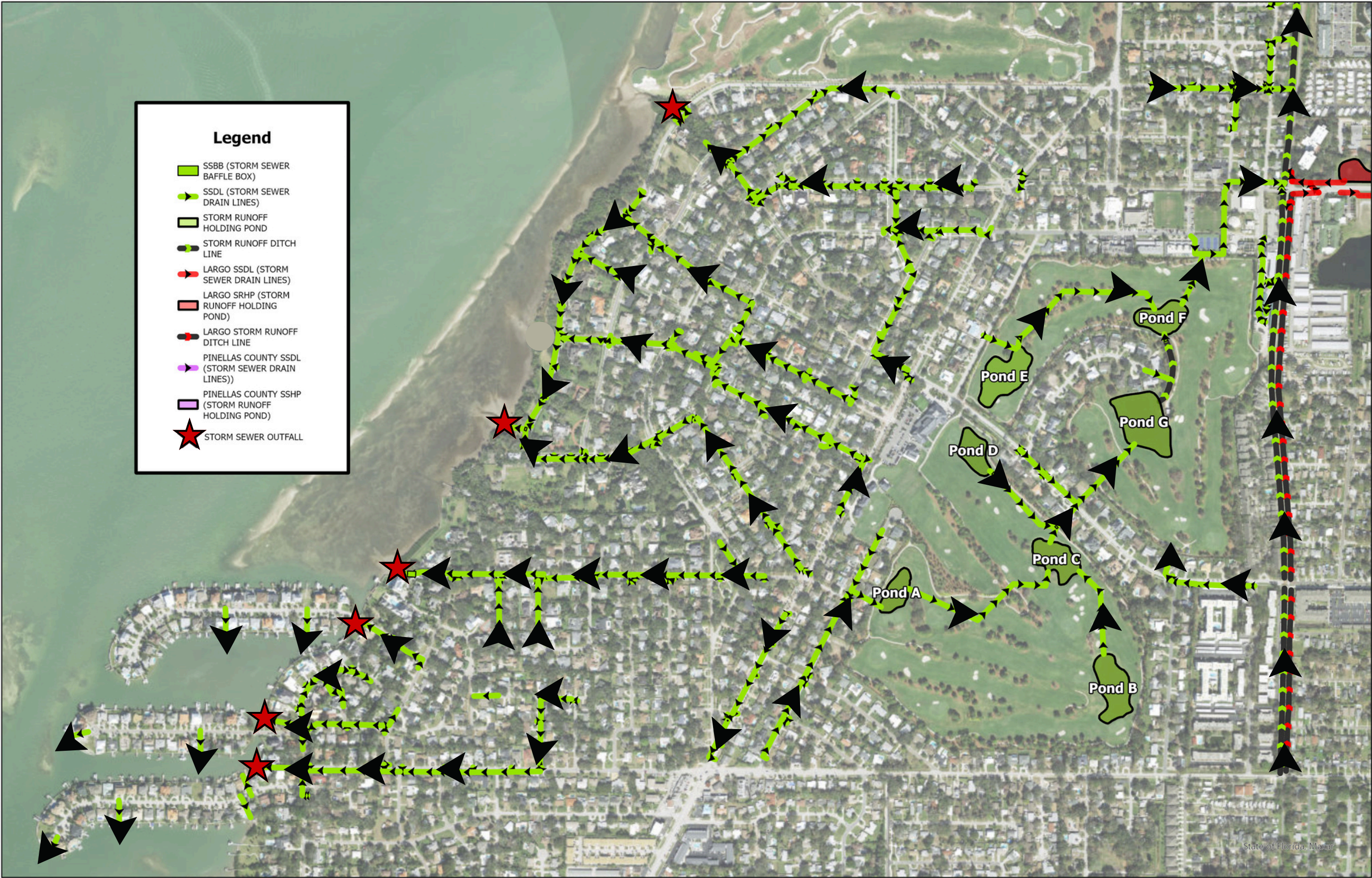
What is a Stormwater System?

Stormwater System:

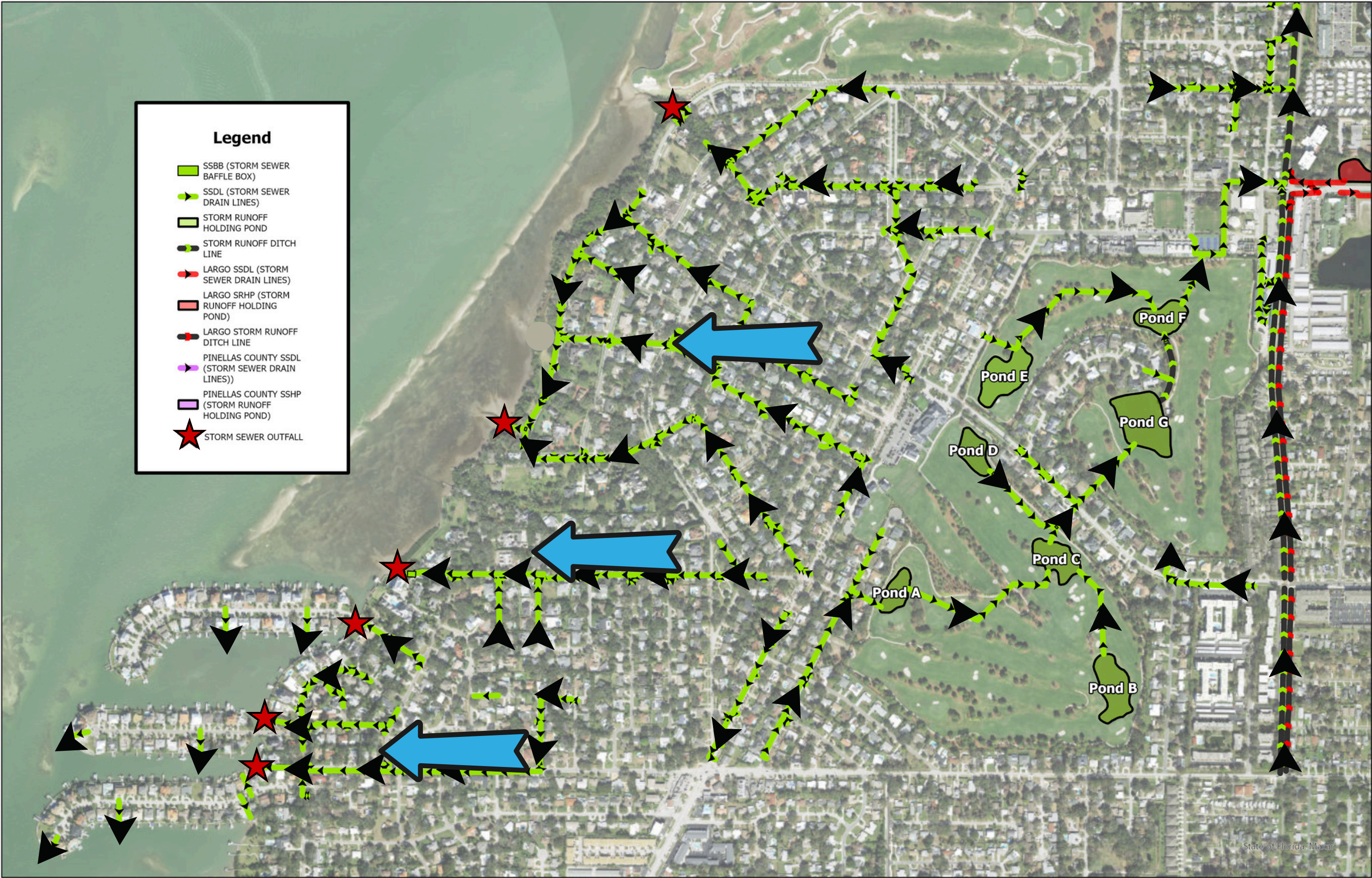
A network of drains, pipes, channels, curbs, and roadways, designed to collect, convey, and manage rainwater runoff from streets, buildings, and other surfaces to aid against flooding and protect water quality.



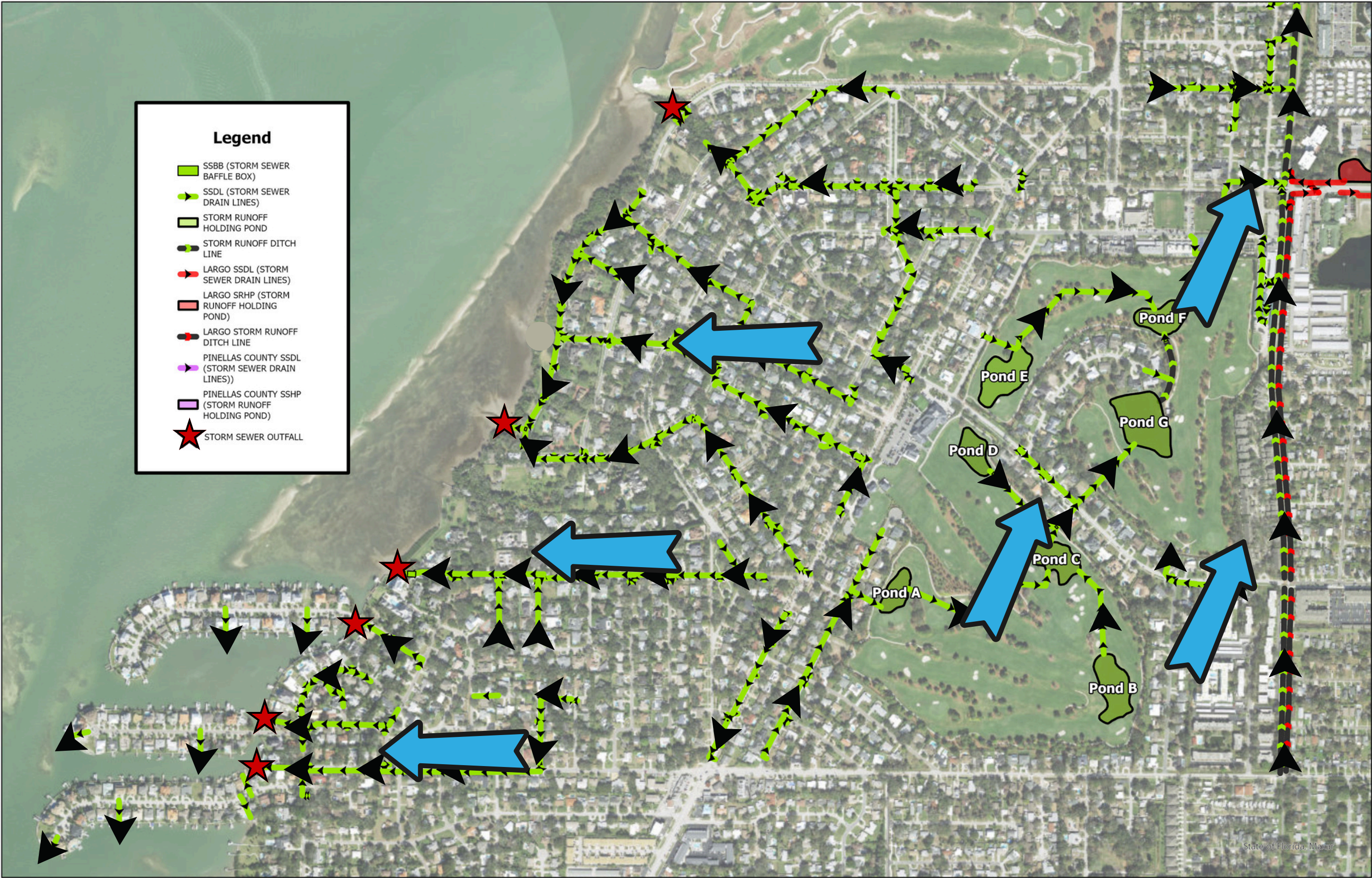
Stormwater Infrastructure in Belleair



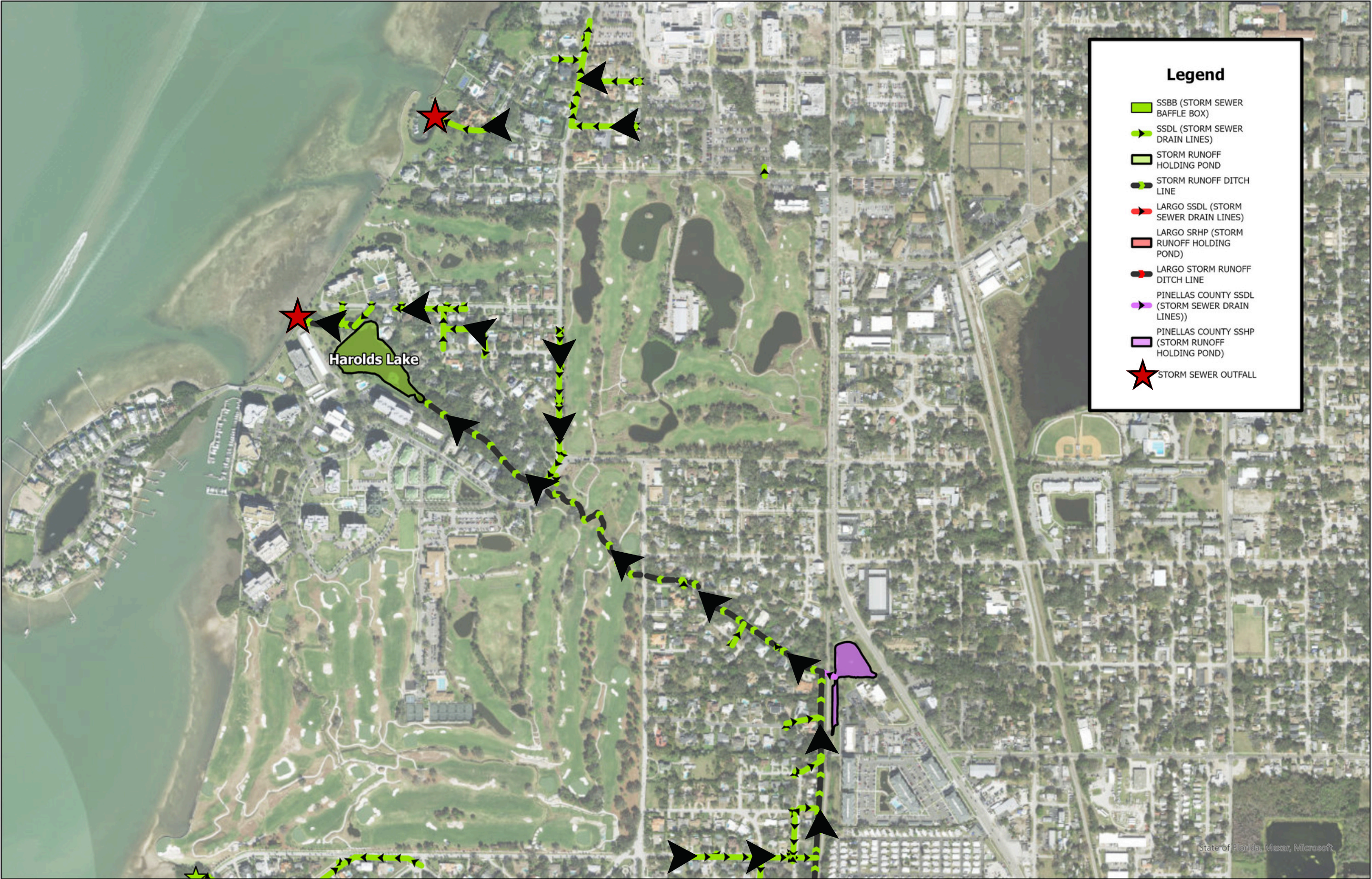
Stormwater Infrastructure in Belleair



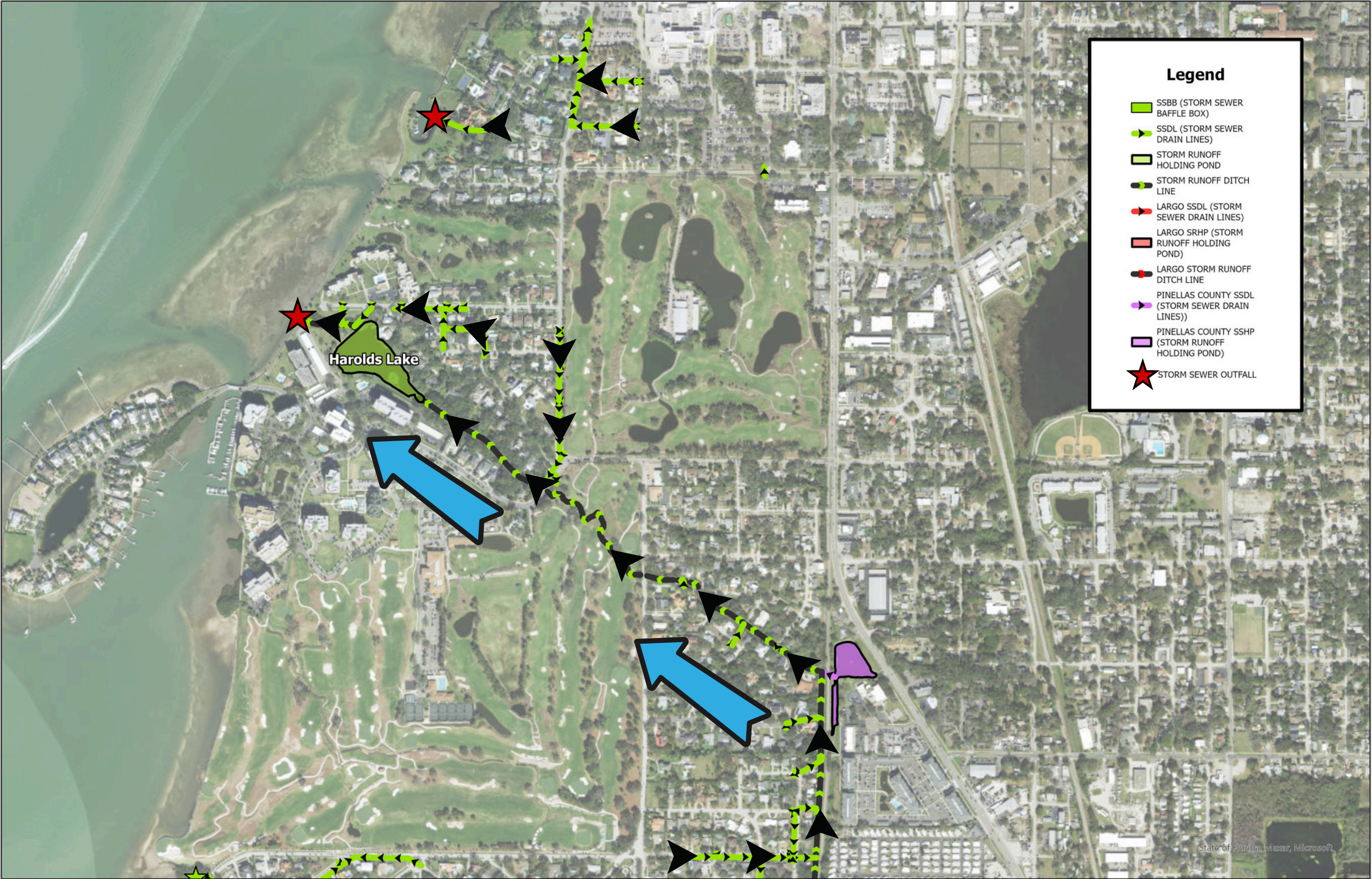
Stormwater Infrastructure in Belleair



Stormwater Infrastructure in Belleair



Stormwater Infrastructure in Belleair

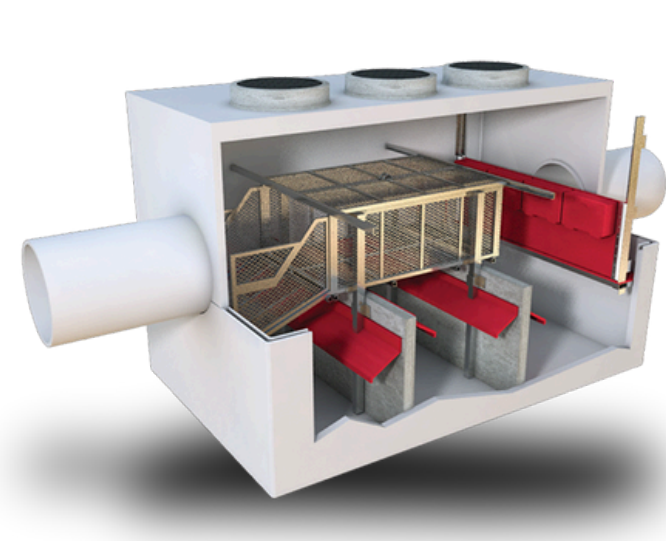


Stormwater Infrastructure in Belleair



BAFFLE BOX:

Stormwater management device used to remove sediment, debris, and pollutants from stormwater runoff before it enters a waterway. It works by slowing down the flow and allowing heavier particles to settle out in chambers, which are then periodically cleaned.



BOX CULVERT:

A rectangular structure that acts as a conduit to allow water to flow beneath roads or other structures, preventing flooding, erosion and other water-related issues.



Stormwater System Maintenance

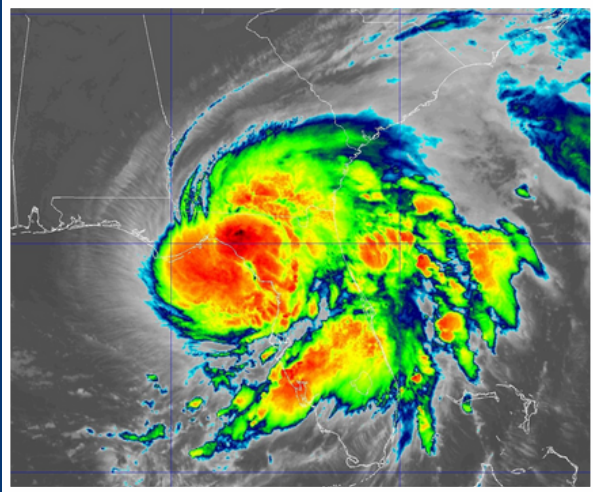
- Weekly inspections and cleaning of pipes and drains
- Street sweeping and debris removal
- Monitoring and maintaining rattlesnake creek
- Community education and storm prep initiatives



2024 Hurricane Season

DEBBY

August 4, 2024



RAINFALL

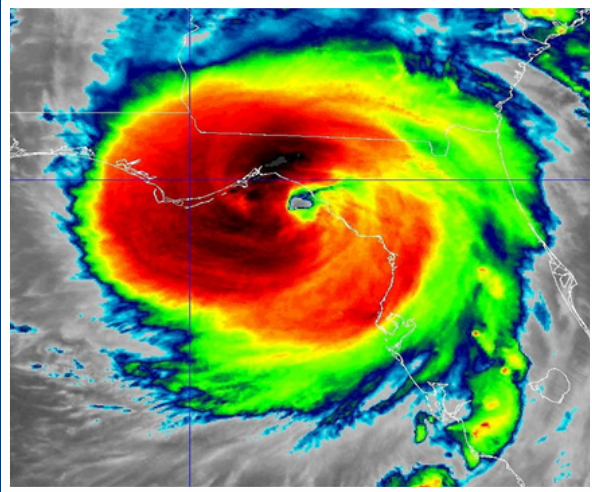
10 - 15 in.

STORM SURGE

4 - 5 ft.

HELENE

September 26, 2024



RAINFALL

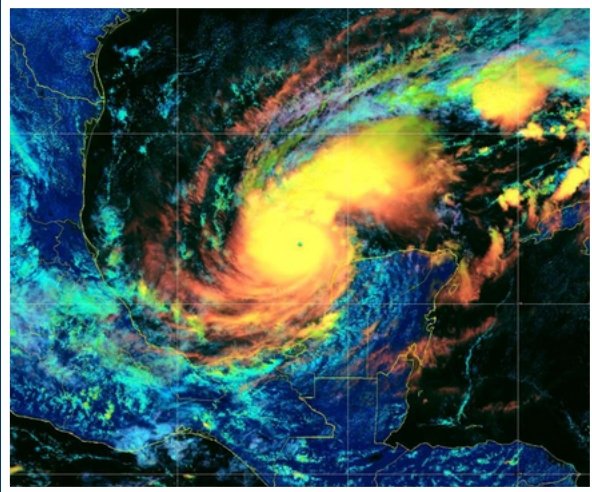
3 - 5 in.

STORM SURGE

7 - 9 ft.

MILTON

October 9, 2024



RAINFALL

20 - 22 in.

STORM SURGE

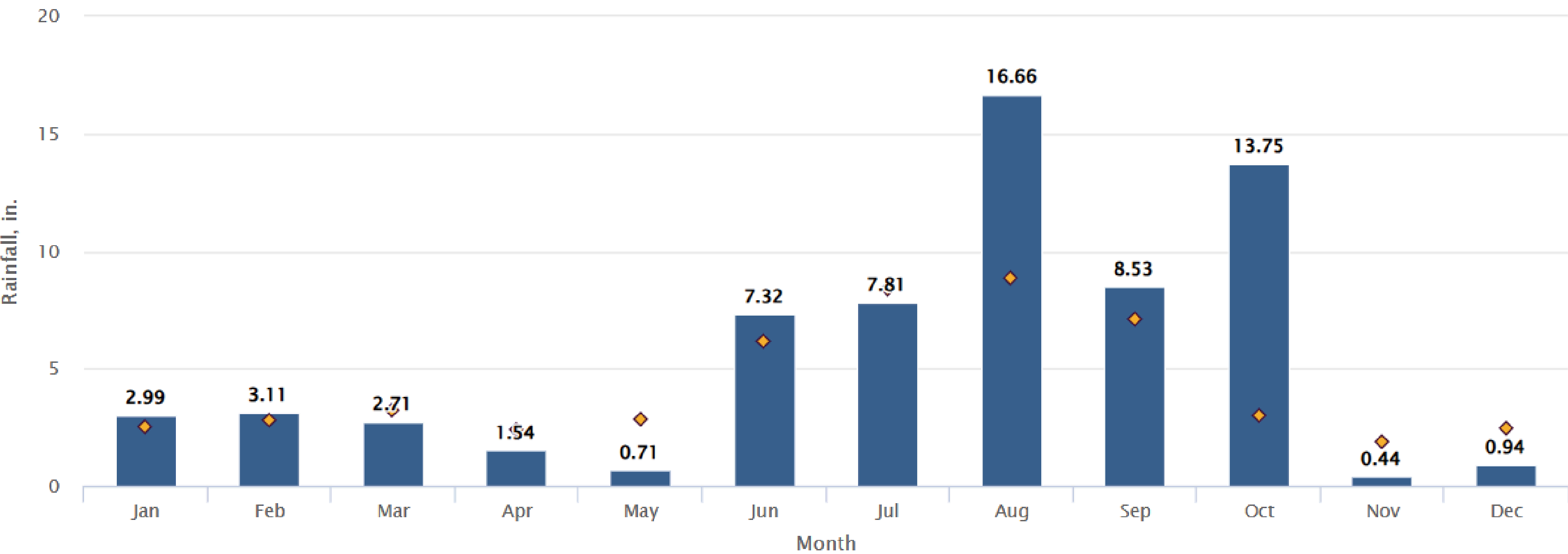
Tide was
pushed
out to sea

Storm History

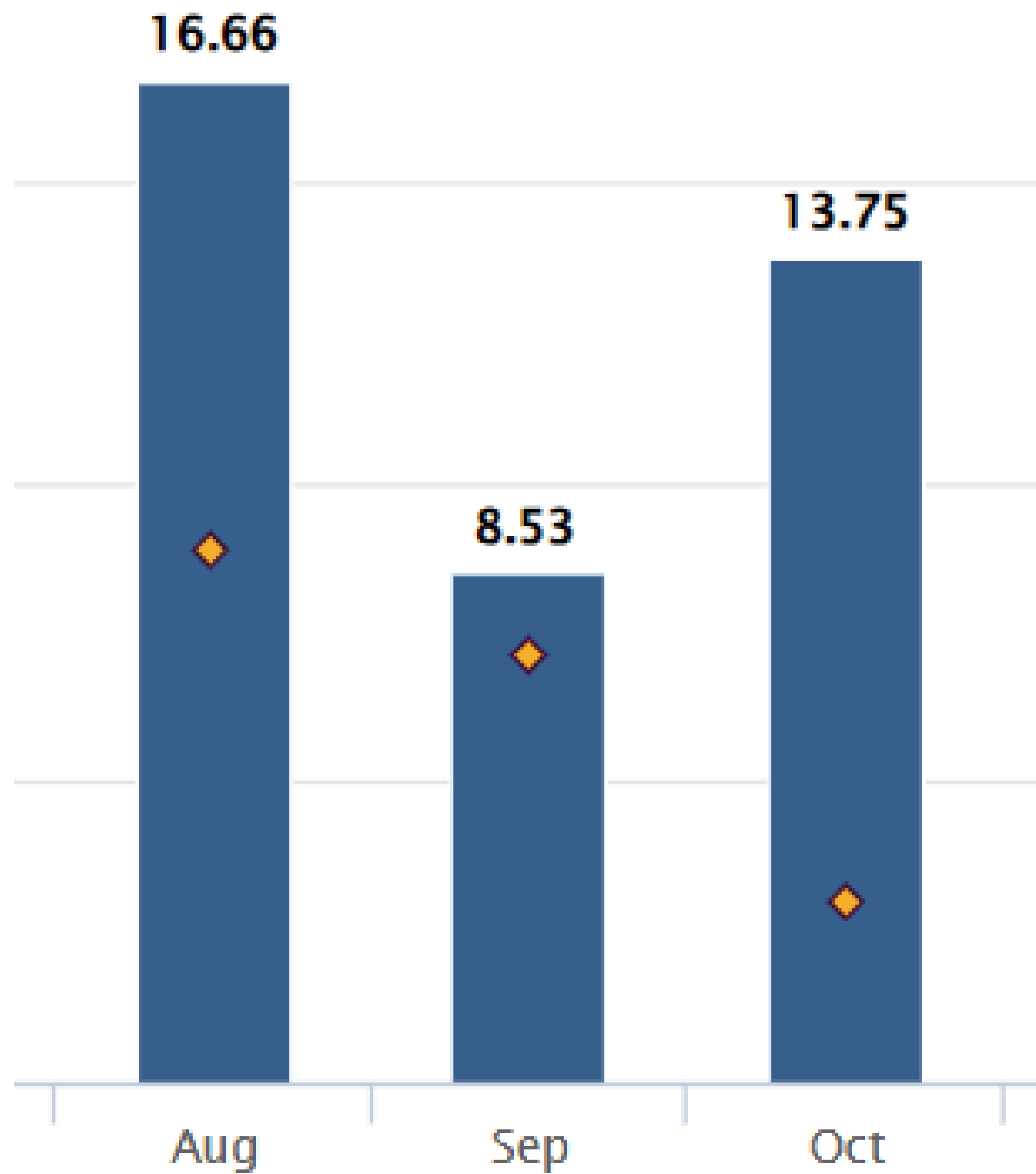
Storm	Date	Rainfall	Storm Surge
Tampa Bay Hurricane	10/20/1921	11.7"	10 - 12 feet
No Name Storm	3/12/1993	4.58"	6 - 7 feet
Tropical Storm Debby	6/24/2012	11"	3 - 4 feet
Hurricane Hermine	8/30/2016	10 - 15"	3 - 5 feet
Hurricane Irma	9/10/2017	4.68"	3 - 4 feet
Hurricane Ian	9/28/2022	10"	4 feet
Hurricane Idalia	8/30/2023	2 - 4"	3 - 6 feet
Tropical Storm Debby	8/4/2024	10 - 15"	4 - 5 feet
Hurricane Helene	9/26/2024	3 - 5"	7 - 9 feet
Hurricane Milton	10/9/2024	20 - 22"	Tide was pushed out to sea

Data from NOAA, National Weather Service, Pinellas County

2024 Pinellas County Rainfall



Data from Pinellas County



Preparing for the 2025 Hurricane Season

- ☒ Take a look at areas that flooded in 2024 and ensure all drainage systems are functioning
- ☒ Partner with City of Largo to use their storm drain camera
- ☒ Extensive pipe and infrastructure cleaning wherever necessary

Immediately Before an Oncoming Storm:

- Ensure all drains are clear, creek is clear of debris
- Offer sandbags to residents
- Coordinate with Pinellas County and other agencies
- Review emergency response plan and be ready to respond quickly and efficiently



How Residents Can Help



- **Clear Debris:** Regularly remove leaves, twigs, and other debris from around storm drains and from gutters.
- **Proper Waste Disposal:** Ensure trash, yard waste, and other debris are properly disposed of in designated areas, not swept or blown into drains.
- **Proper Chemical Disposal:** Store and dispose of chemicals and other hazardous materials responsibly, avoiding spills or leaks that could enter storm drains.
- **Report Problems:** Report any clogged drains or other issues to the Town via SeeClickFix or by contacting Public Works.
- **Educate Others:** Encourage neighbors and workplaces to adopt these practices.



Key Takeaways

- Stormwater systems are essential but have limits
- Belleair's stormwater system is well-maintained and functions as intended
- 2024 was an extreme/rare hurricane season - localized flooding was unavoidable
- Belleair is proactive in maintenance and preparation
- Community awareness is key

QUESTIONS?

