

**New Port  
Richey**

# Vulnerability Assessment

**Agreement #22PLN88**

for



**THE CITY OF  
NEW PORT  
RICHEY  
FLORIDA**

Prepared for the

**City of  
New Port Richey  
5919 Main Street  
New Port Richey, FL 34652**

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**September 2024**



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## 1.0 Introduction

The City of New Port Richey (City) obtained an award from the Florida Department of Environmental Protection's (FDEP) Resiliency Grant to assess and prepare a Vulnerability Assessment, Sensitivity Analysis, and Adaptation Plan. The grant award number is 22PLN88.

The City lies near the Gulf of Mexico (~1.5 miles), in the heart of the Pithlachascotee ("Cotee") River floodplain. See **Figure 1**. The Cotee River dissects the City close to its center. The City, in general, lies between sea level to 25 feet above sea level. A good majority of the City along the Cotee River is vulnerable to localized flooding, storm surge, tidal events, and sea level rise.

There are several USGS tide gauges near or within New Port Richey: Gulf of Mexico (#02310600), Main Street Bridge (#02310204) and Rowan Road (#02310307). All were used to assess the current tidal fluctuations, flooding events, and surge elevations produced by past tropical storms and hurricanes. This data was then combined with the most recent LiDAR, available survey data, and various NOAA models (i.e., SLOSH) to assess the NOAA 2040 and 2070 planning horizons.

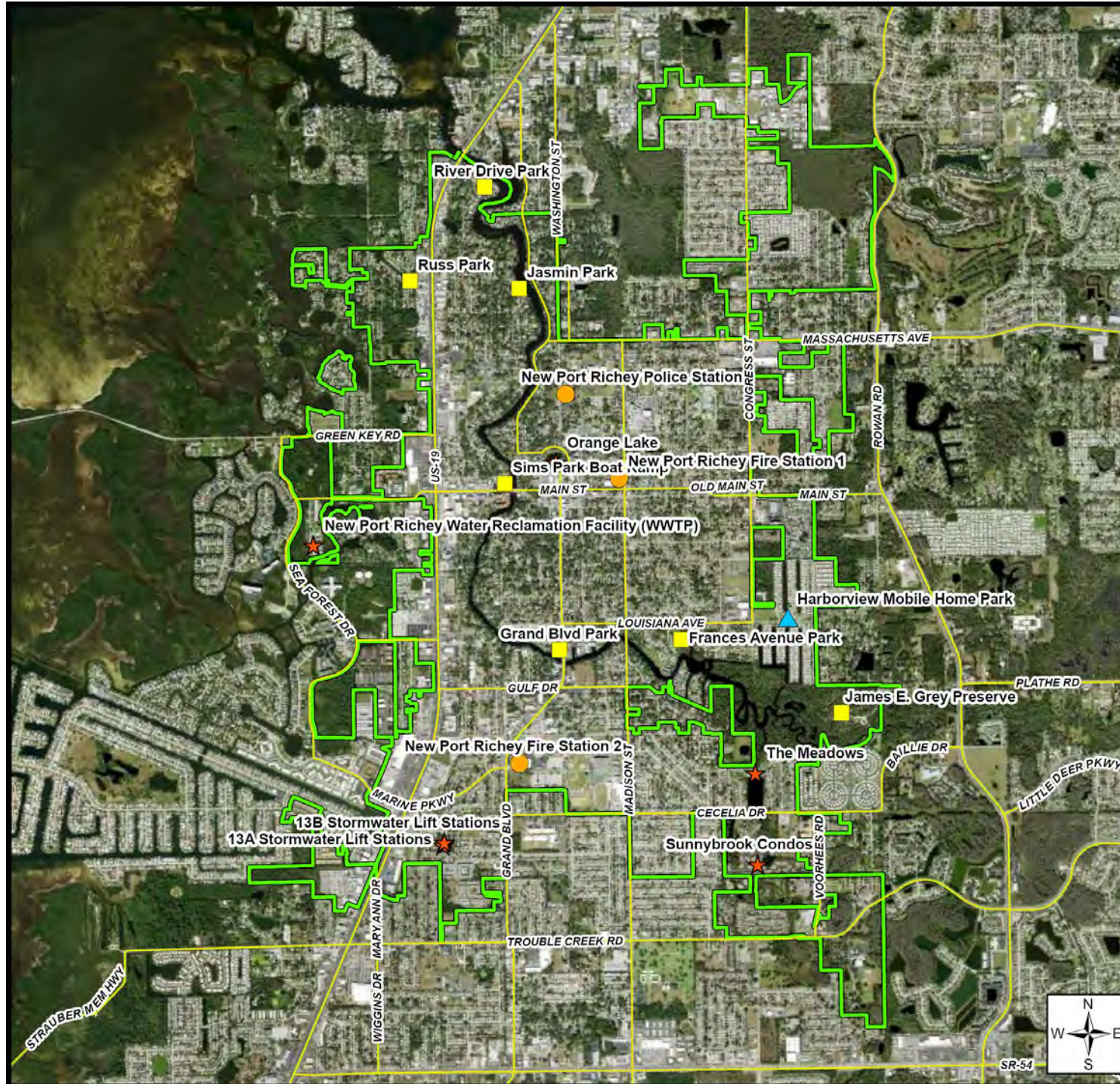
A total of nine (9) different scenarios were developed to assess sea level rise and flooding potential resulting in the highest water level rise of 10.76 ft above sea level. These scenarios were then modeled using GIS to determine at what levels flooding and impacts were to occur. The City's assets were reviewed based on predicted flood levels.

All scenarios were reviewed for flood potential and impacts. Each scenario was divided by the four quadrants of the City (Northwest, Northeast, Southeast, and Southwest) and a magnified zoom aspect of the downtown area. All assets were assessed for flood potential, depth of flood impacts, and category or priority of the asset.

Critical assets, such as the police station, fire stations, City Hall, the Public Works Operations Center, etc., are located in higher elevation areas or have less than 1 ft of predicted flooding in the worst case, Scenario 9.

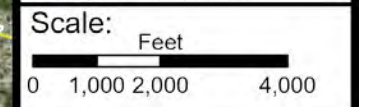
The assets impacted by sea level rise were ranked by priority and depth of water as part of the sensitivity analysis. The highest priority asset with severe flood impacts is the New Port Richey Reclamation Facility (WWTP) located in Cross Bayou. Less prioritized assets with severe impacts are the 13A and 13B Stormwater Lift Stations, located at Azalea Drive Pond.

**Figure 1. New Port Richey with Cotee River & Major Assets.**



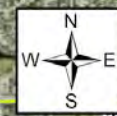
- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Major Roads
  - ▭ NPR Boundary

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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## 2.0 Methodology

### 2.1 Critical Asset Inventory

All facilities and infrastructure within and adjacent to the city limits were reviewed. All assets were organized based on the below categories. See **Table 1**.

**Table 1. Critical Asset Categories.**

1: Transportation & Evacuation
2: Emergency Facilities
3: Critical Infrastructure
4: Historical Resources
5: Neighborhoods

A total of 171 facilities/assets were initially identified among the five categories. Two meetings were held to review all facilities/assets included on the list, to add facilities or assets that had not been included, and to begin to identify whether the facility should be included with the City’s Vulnerability Assessment or excluded. Any assets excluded were determined to be outside of the city limits or not to be owned or operated by the City.

A follow up meeting with City staff reviewed the Critical Asset Inventory and prioritized or ranked each asset by function or preservation value. **Table 2** summarizes the number of assets identified within each category and the number of facilities that were determined to be excluded from the exposure and sensitivity analysis due to its location outside of the city limits or not owned/operated by the City. A full list of assets is included in **Appendix A**.

**Table 2. Critical Asset Summary.**

Asset Categories	# of Assets
1: Evacuation Routes	3
2: Critical Infrastructure	10
3: Emergency Facilities/Services	24
4: Historical Resources	33
5: Neighborhoods	2
<b>Total Evaluated</b>	<b>72</b>
<i>Identified but excluded</i>	99

### 2.2 Data Selection

A review of various public data sources was completed. Tidal data was available from a NOAA gauge located in Clearwater, Florida on the Gulf of Mexico (GOM). This was the closest tidal station for the GOM near the City of New Port Richey. Tidal and streamflow data along the Cotee River was available from several United States Geological Survey (USGS) stations.

#### 2.2.1 NOAA Clearwater Beach, FL - Station ID: 8726724

The NOAA Clearwater Beach Station #872624 is located directly on Pier 60 in Clearwater Beach, Florida. This station is approximately 22 miles south from the mouth of the Cotee River. The station was established in 1973. Tidal data was analyzed from 1996 to 2023.



The minimum, average, medium, and maximum tide elevations were calculated. See **Table 3**. Minimum and maximum levels are highlighted in bold text.

**Table 3. 1996 to 2023 Tidal Data Statistics from NOAA Station ID: 8726724.**

	<b>Min</b>	<b>Avg</b>	<b>Med</b>	<b>Max</b>
2023	-3.14	-0.01	0.06	2.66
2022	-3.68	<b>0.25</b>	<b>0.33</b>	2.82
2021	-3.04	0.17	0.275	3.08
2020	-3.34	0.19	0.28	3.53
2019	-2.84	0.24	0.32	2.83
2018	-3.95	0.04	0.09	3.71
2017	-3.97	0.07	0.13	3.3
2016	-2.73	0.15	0.2	3.95
2015	-3.25	0.13	0.16	2.85
2014	-3.32	0.02	0.08	2.75
2013	-2.75	-0.04	0	3.03
2012	-3.19	0.04	0.07	3.64
2011	-2.98	-0.17	-0.12	2.78
2010	-3.41	-0.15	-0.08	2.51
2009	-3.47	-0.10	-0.04	2.62
2008	-4.1	-0.21	-0.14	3.16
2007	-3.22	-0.26	-0.19	2.84
2006	-3.62	-0.27	-0.22	2.58
2005	-3.45	-0.19	-0.13	3.21
2004	-4.12	-0.24	-0.16	3.07
2003	-3.16	-0.21	-0.15	2.32
2002	-3.54	-0.28	-0.22	2.62
2001	-4.05	-0.39	-0.32	2.9
2000	-3.43	-0.31	-0.25	3.17
1999	-3.68	-0.20	-0.16	3.4
1998	<b>-4.18</b>	-0.28	-0.24	2.69
1997	-3.49	-0.35	-0.3	2.61
1996	-3.91	-0.42	-0.37	<b>4.14</b>

2.2.2 USGS Stream Gauges

There are four stream gauges along the Cotee River (#2310308, #2310300, #2310288, and #2310280). The order listed is moving from the Gulf of Mexico inland towards the headwater of the Cotee River.

USGS #2310308: Pithlachascotee River at Main Street

USGS #2310300: Pithlachascotee River Near River Ridge

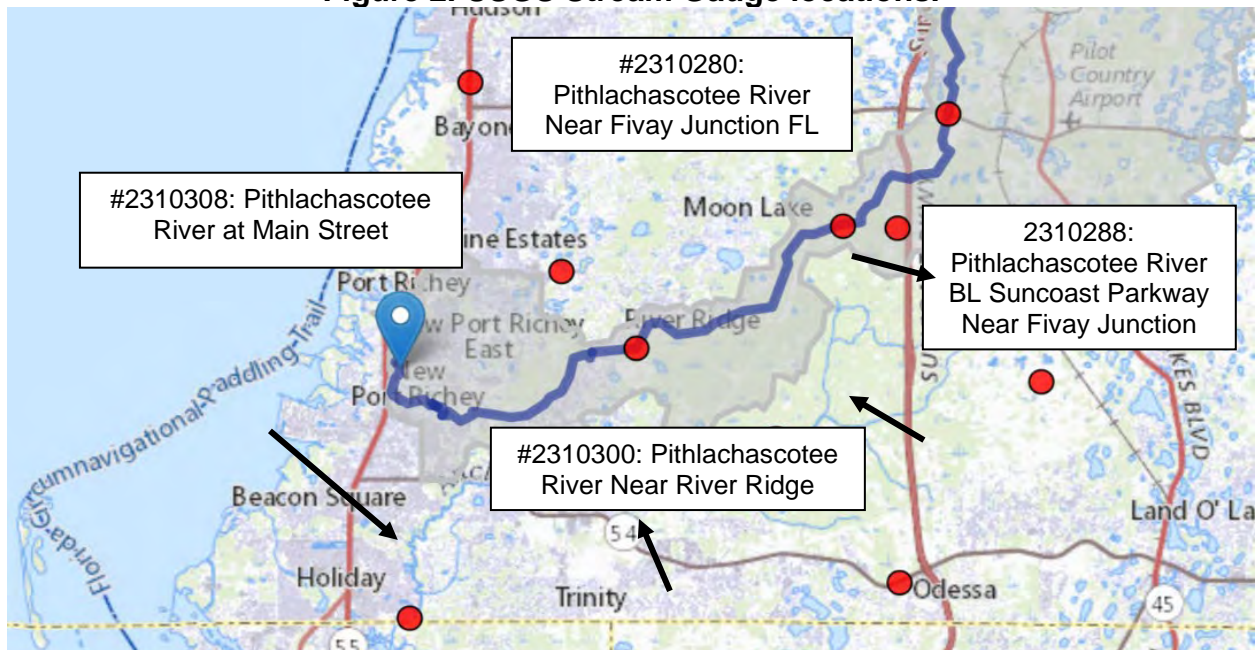
USGS #2310288: Pithlachascotee River BL Suncoast Parkway Near Fivay Junction

USGS #2310280: Pithlachascotee River Near Fivay Junction FL

Data from all four stations (**Figure 2**) were computed and reviewed for potential use in modeling. The USGS #2310308 is located on the Main Street Bridge in downtown New Port Richey and 1.5 miles from the Gulf of Mexico. USGS #2310300 is located near River

Ridge and is approximately 6.5 miles from the Gulf of Mexico. USGS #2310288 and #2310280 are over 10 miles from the Gulf of Mexico.

**Figure 2. USGS Stream Gauge locations.**



The review of all gauge locations concluded that three stations (#2310300, #2310288, and #2310280) were located too far away to statistically be representative or influence river height within the city limits specific to sea level rise.

The data from USGS #2310308, which is located within the city limits, was used for the computation of potential flood impacts within the City of New Port Richey. The river dissects the city, and the river height was used to evaluate flood potential for the eastern portion of the city limits. **Table 4** summarizes the minimum, average, medium, and maximum gauge heights (ft NAVD) and streamflow (cfs) measurements. Minimum and maximum levels are highlighted in bold text.

**Table 4. 2016 to 2022 Stream Gauge Data Statistics from USGS #2310308.**

Gauge Height (ft NAVD)							
Year	2016	2017	2018	2019	2020	2021	2022
Min	-2.64	<b>-3.63</b>	-3.03	-2.4	-2.68	-2.98	-3.04
Max	<b>4.37</b>	2.72	3.91	2.95	3.01	2.72	3.14
Average	0.14	0.05	0.09	<b>0.26</b>	0.22	0.21	0.247
Streamflow (cfs)							
Year	2016	2017	2018	2019	2020	2021	2022
Min*	-736	-896	-813	-771	-788	<b>-1150</b>	-1030
Max	<b>2470</b>	1270	1070	1120	983	1120	1240
Average	84.35	<b>105.45</b>	103.69	27.42	15.77	84.10	97.48

\* Negative values represent the tide flowing out to the Gulf of Mexico.





### 2.3 USACE Sea Level Change Curve Calculator (2022.72)

In order to assess potential flood impacts, the United States Army Corps of Engineers (USACE) Sea Level Change Curve Calculator, Version 2022.72, was utilized to provide predicted sea level changes for the 2040 and 2070 predicted sea level change. The USACE utilized the Clearwater Beach NOAA Station ID: 8726724 to establish the rise per year based on historical sea level changes measured and recorded. NOAA's 2006 Published Rate for the Clearwater Beach NOAA Station ID: 8726724 is 0.00797 feet/year.

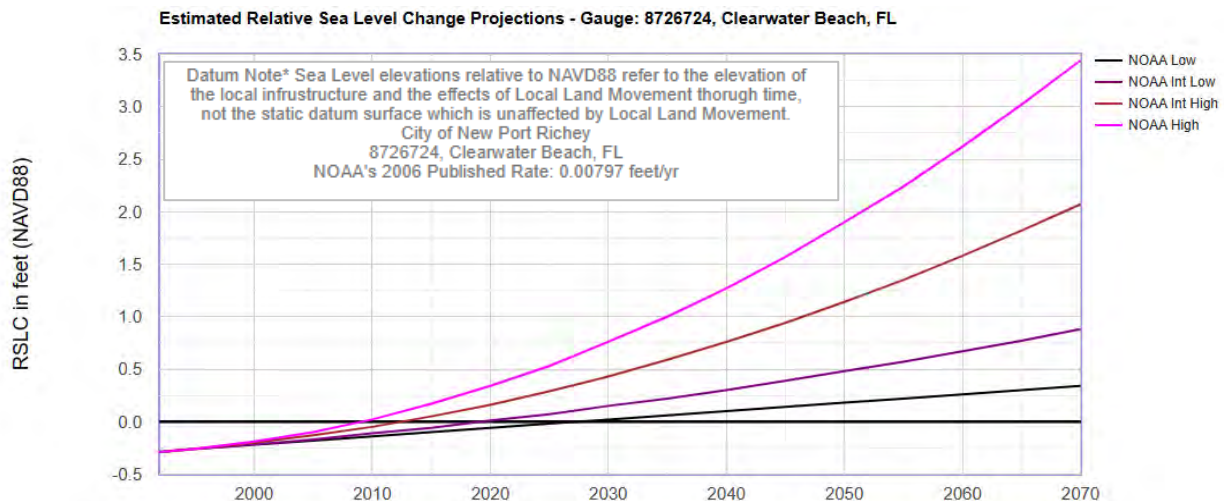
The projected 2040 and 2070 Relative Sea Level Change Projections for the Clearwater Beach Station are summarized in **Table 5**. Projections for 2040 and 2070 are highlighted in bold text.

**Table 5. Relative Sea Level Change Projections for the NOAA Station ID: 8726724.**

Year	Low	Int Low	Int High	High	Year	Low	Int Low	Int High	High
1995	-0.26	-0.26	-0.26	-0.26	2035	0.06	0.22	0.59	1
2000	-0.22	-0.22	-0.2	-0.19	<b>2040</b>	<b>0.1</b>	<b>0.3</b>	<b>0.76</b>	<b>1.27</b>
2005	-0.18	-0.17	-0.13	-0.1	2045	0.14	0.39	0.94	1.57
2010	-0.14	-0.11	-0.05	0.02	2050	0.18	0.48	1.14	1.9
2015	-0.1	-0.06	0.05	0.17	2055	0.22	0.57	1.35	2.24
2020	-0.06	0.01	0.16	0.34	2060	0.26	0.67	1.58	2.62
2025	-0.02	0.07	0.29	0.53	2065	0.3	0.77	1.82	3.02
2030	0.02	0.15	0.43	0.76	<b>2070</b>	<b>0.34</b>	<b>0.88</b>	<b>2.07</b>	<b>3.4</b>

**Figure 3** was copied from the USACE Sea Level Change Curve Calculator, Version 2022.72, website ([Sea-Level-Change Curve Calculator \(army.mil\)](http://Sea-Level-Change-Curve-Calculator-army.mil)). The projected sea level change for 2040 and 2070 provides a high of 1.27 ft NAVD88 and 3.4 ft NAVD88, respectively.

**Figure 3: Estimated Relative Sea Level Change Projections for NOAA Station ID: 8726724.**



## 2.4 GIS Modeling

To create a baseline to perform analysis against, LiDAR-derived SWFWMD elevation data was interpolated from lines to a continuous raster/two-dimensional surface. The raster was then converted to point data to allow for the values to be updated for the various scenarios that are listed below in **Table 6**. **Table 6** details the various scenarios that were examined to produce maps of potential inundation areas, starting with a baseline of the LiDAR with sea level equated to the average tide from the Clearwater Beach NOAA Station ID: 8726724 (0.33ft above MSL) calculated for everything offshore and 0.17 for the points within the river channel. This was the baseline that Scenarios 2 & 3 were calculated.

After the initial baseline was complete, the point data was interpolated to a raster surface that could then have contours generated to complete the baseline representation of no sea level change (current conditions). The impetus for taking the LiDAR data to points is to be able to separate the impacts of land which should not be changing elevation, from the water bodies (ocean, river) which will be changing with the change in sea level. In this way, the model deviates from the standard bathtub model that is not usually connected to the ocean hydrologically. Being able to alter the data on specific points, as land or water, allowed the model to be more detailed and specific to the river channel (viz. extra points were added in inlets and side streams were deemed necessary to represent the flooding conditions most accurately and demonstrate the hydrologic conditions more precisely).

For each subsequent scenario, the point data generated in Scenario 1 was used with the addition of the SLR values for the appropriate year added to the areas designated in the table below that were not on land (all marine or riverine points below the gauge were considered the Western area and all marine or riverine points east of the Main St Gauge were the Eastern area). The new values were calculated, and points were interpolated to a raster then the contours were generated. This process was repeated using Max Tide conditions as the baseline for Scenarios 4-6 and using Max tide + Hurricane Hermine as the baseline for Scenarios 7-9.



**Table 6. Scenarios of Sea Level Rise Modelling.**

Scenario	Ft Above Mean Sea Level						
	Tide	River	Hurricane Hermine	2040 SLR	2070 SLR	Western Area	Eastern Area
1. Avg Tide Clearwater Gauge to Main St Bridge	0.33	0.17				0.33	0.17
2. Scenario 1 + 2040 SLR	0.33	0.17		1.27		1.60	1.44
3. Scenario 1 + 2070 SLR	0.33	0.17			3.40	3.73	3.57
4. Max Tide at Clearwater & Max River Gauge	4.14	4.37				4.14	4.37
5. Scenario 4 + 2040 SLR	4.14	4.37		1.27		5.41	5.64
6. Scenario 4 + 2070 SLR	4.14	4.37			3.40	7.54	7.77
7. Max Tide + Hurricane Hermine	4.14	4.37	2.99			7.13	7.36
8. Scenario 7 + 2040 SLR	4.14	4.37	2.99	1.27		8.40	8.63
9. Scenario 7 + 2070 SLR	4.14	4.37	2.99		3.40	10.53	10.76

**\*This method does not take into consideration the impact of waves, poor drainage systems or wind.**

### 3.0 Exposure Analysis

Based on the various scenarios outlined in the previous section, the exposure analysis examined where flooding would occur at the modeled water level elevation. This section provides a brief written summary of the areas identified for flood potential and general land use associated with flood impacts.

To geographically show potential areas that may flood and approximate flood levels, a series of exhibits are included for each of the nine scenarios. **Appendices B-J** contains a series of figures for each scenario with an overview of the entire city limits, magnified maps of the four quadrants (Northwest, Northeast, Southwest, and Southeast), and the downtown area at a closer zoom level with flooding impacts or areas of interest as identified by the City. Each area is in a color scale based on depth of water where the projected water elevation is above the land. Each series includes the following areas.

1. Overview: shows the entire city limits. It also includes the Gulf of Mexico and Gulf Harbors, Rowan Road to the east, Pine Hill Road to the north, and State Road 54 to the south.
2. Northwest: includes the area from Miller's Bayou, which is the mouth of the Cotee River, stretching south to Massachusetts Avenue and east to Washington Street. Residential land use dominates the coastal area. A mixture of commercial and industrial land use borders US Highway 19 with dense residential east of the highway.
3. Northeast: includes the area from Pine Hill Road, where the City's Utilities offices are located, stretching south to Main Street, and from Washington Street east to Rowan Road. Residential land use dominates this section and includes mobile home parks, schools, and the BayCare North Bay Hospital.
4. Southeast: includes the area from Main Street, including the downtown area, stretching to the southern city limit boundary, and from Grand Boulevard east to Rowan Road. Residential land use dominates this section and includes neighborhoods (specifically The Meadows neighborhood and Sunnybrook Condos), mobile home parks (specifically Harbor View Mobile Home Park and Colony Cove Mobile Home Park), schools (specifically Gulf Middle School and Gulf High School), and several City owned and operated parks including the James E. Grey Preserve, Grand Boulevard Park, Fraces Avenue Park, and Lake Chasco.
5. Southwest: includes the area from Main Street, west of US Highway 19, stretching south to Trouble Creek Road, and from the Gulf of Mexico and Gulf Harbors east to Grand Boulevard. Residential land use dominates the coastal areas west of US Highway 19 with heavy commercial following the highway's corridor. The New Port Richey Water Reclamation Facility is located in the northern center of this section.
6. Downtown: includes the Gateway to downtown along US Highway 19 east to Madison Avenue. This section includes the Sims Park Boat Ramp, Sims Park, the Hacienda Hotel, Orange Lake, City Hall, the police station, Richey Elementary School, and the BayCare North Bay Hospital.

### **3.1 Scenario 1: Avg Tide Clearwater Gauge to Main St Bridge**

Scenario 1 was developed to be the baseline tidal and river stage elevations. The average tide in the Gulf of Mexico, as applied to the western portion of the City, is 0.33 ft NAVD. The average river stage elevation, as applied to the eastern portion of the City, is 0.17 ft NAVD. This would be considered a tidal event; rainfall is not considered for potential flooding impacts. One map is included for this scenario as flooding is not observed. See **Figure 4** for an overview of potential flood risk.

### **3.2 Scenario 2: Scenario 1 + 2040 SLR**

Scenario 2 includes the projected 2040 sea level rise (SLR) to the baseline tidal and river stage elevations. The NOAA projection for SLR in 2040 increases water elevation by 1.27 ft NAVD. Adding 1.27 ft NAVD to the average tide in the Gulf of Mexico, as applied to the western portion of the City, is 1.60 ft NAVD. Adding 1.27 ft NAVD to the average river stage elevation, as applied to the eastern portion of the City, is 1.44 ft NAVD. This would be considered strictly a tidal event, where rainfall is not considered for potential flooding impacts. See **Figure 5** for an overview of potential flood risk.

Minor flooding is observed predominately in the coastal area to the west of the city limits. Minor flooding occurs along the banks of the Cotee River throughout the city limits. The residential area around River Drive Park is a low area just east of the bridge at US Highway 19. In this Scenario, minor flooding potential increases with predicted SLR. The natural areas within and adjacent to the James E. Grey Preserve have minor flooding, which flows up the canals of the Harbor View Mobile Home Park, north of the Preserve.

### **3.3 Scenario 3: Scenario 1 + 2070 SLR**

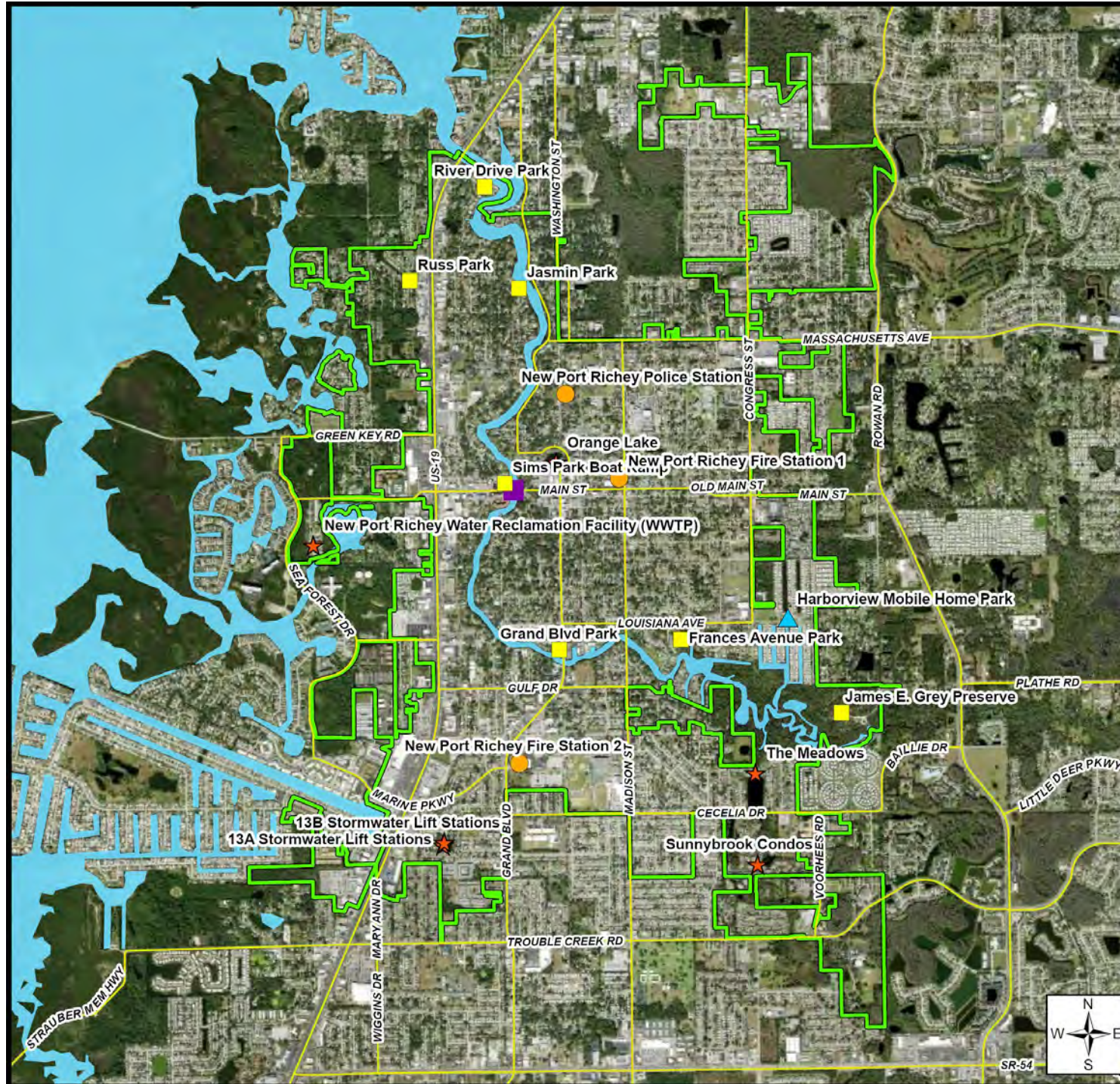
Scenario 3 adds the proposed 2070 sea level rise (SLR) to the baseline tidal and river stage elevations. The NOAA projection for SLR in 2070 increases water elevation by 3.40 ft NAVD. Adding 3.40 ft NAVD to the average tide in the Gulf of Mexico, as applied to the western portion of the City, is 3.73 ft NAVD. Adding 3.40 ft NAVD to the average river stage elevation, as applied to the eastern portion of the City, is 3.57 ft NAVD. This would be considered a tidal event; rainfall is not considered for potential flooding impacts. See **Figure 6** for an overview of potential flood risk.

Flooding is observed in the coastal area to the west of the city limits. Flooding potential increases in low lying areas within residential area along the Cotee River throughout the city limits. The residential areas near River Drive Park, Jasmin Park, north and south of the Main Street Bridge, Grand Boulevard Bridge, and Frances Avenue Park experience potential flooding of 1 to 3 ft. The entrance to the WWTP begins to experience flooding potential of up to 1 ft.

### **3.4 Scenario 4: Max Tide at Clearwater & Max River Gauge**

Scenario 4 models the maximum tidal and river stage elevations without any SLR projections. The maximum tide in the Gulf of Mexico, as applied to the western portion of the City, is 4.14 ft NAVD. The maximum river stage elevation, as applied to the eastern portion of the City, is 4.37 ft NAVD. The remaining scenarios incorporate rainfall input as modeled by the maximum river stage. See **Figure 7** for an overview of potential flood risk.

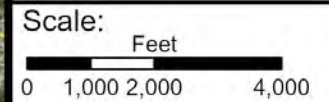
**Figure 4.  
Scenario 1:  
Average Tide  
(Baseline).**



**Overview**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - ▭ NPR Boundary
  - ▭ River 3.65ft (Avg)
  - ▭ Ocean
- 1: Avg Tide **BASELINE** (ft)  
No Flooding

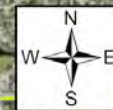
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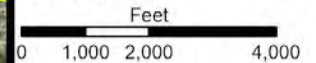
**Figure 5.  
Scenario 2:  
Average Tide  
Plus 2040  
SLR.**

**Overview**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- ▭ NPR Boundary
- Ocean
- 2: Scenario 1 BASELINE plus 2040SLR (ft)
- No Flooding
- 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.

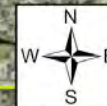
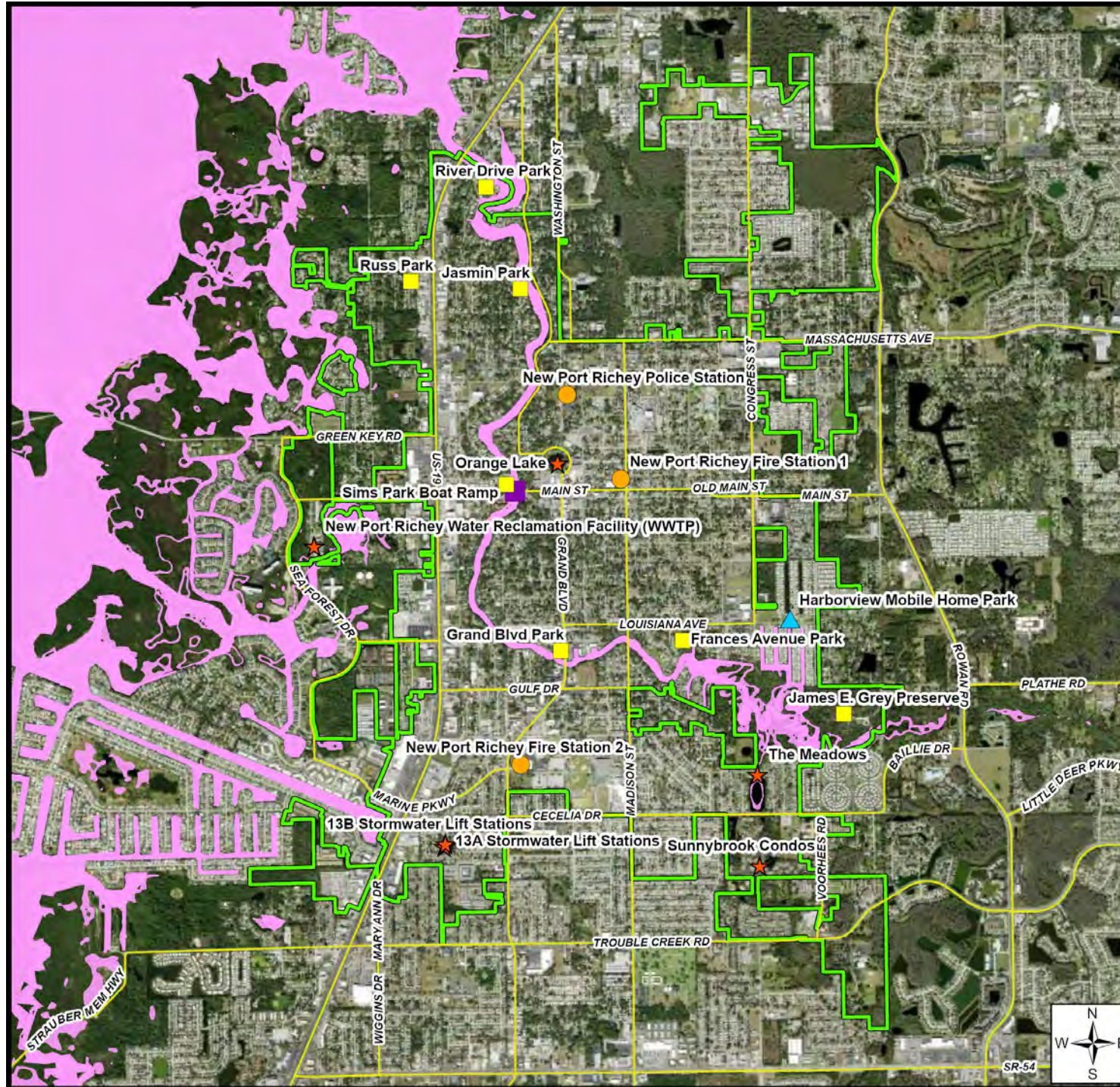
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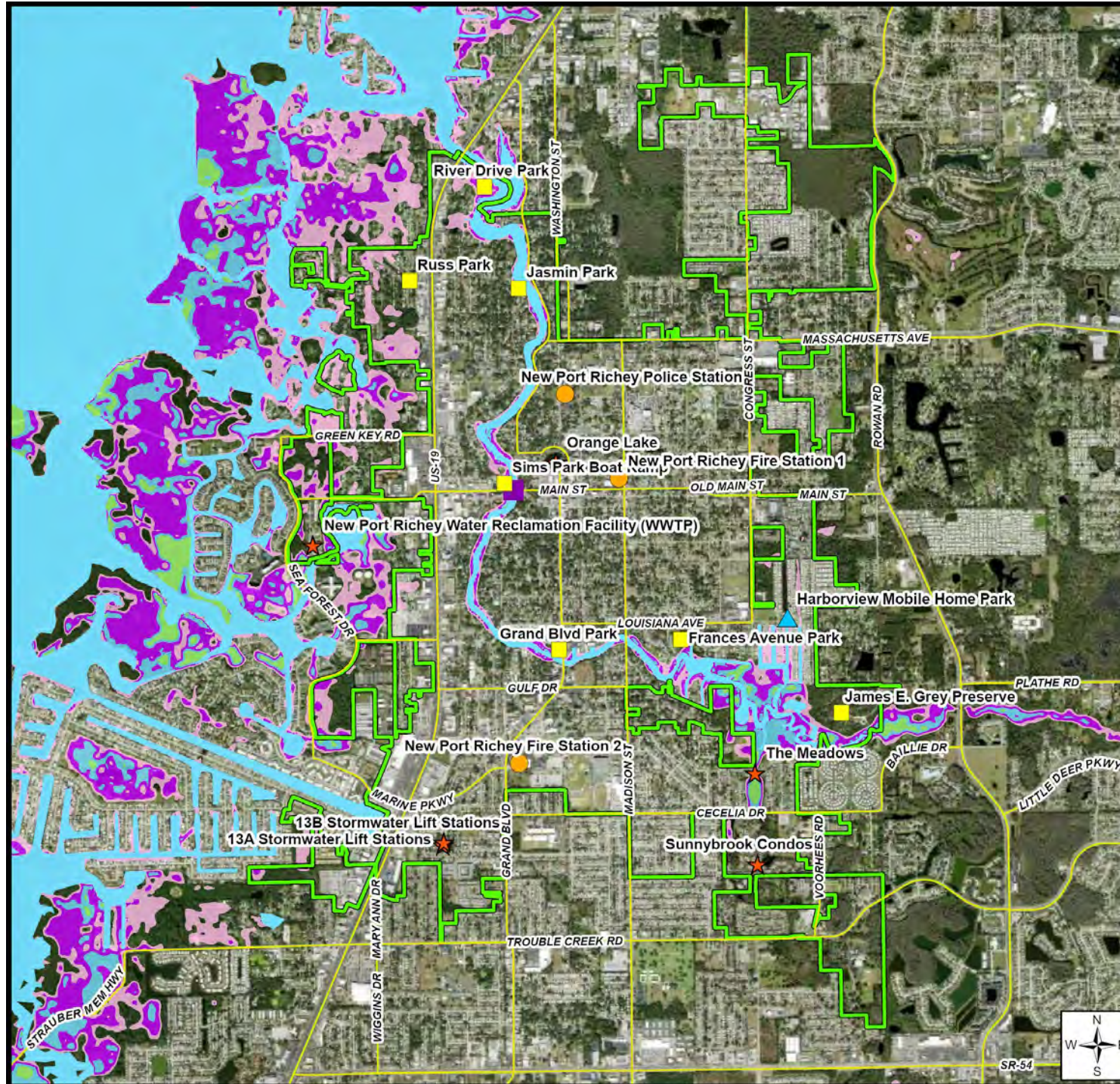
Date: 8/4/2024



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**Figure 6.  
Scenario 3:  
Average Tide  
Plus 2070  
SLR.**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - ▭ NPR Boundary
  - Ocean
- 3: 1 Baseline + 2070SLR (ft)**
- 4 ft Water
  - 3 ft Water
  - 2 ft Water
  - 1 ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.

Scale: Feet  
 0 1,000 2,000 4,000

Date: 8/4/2024



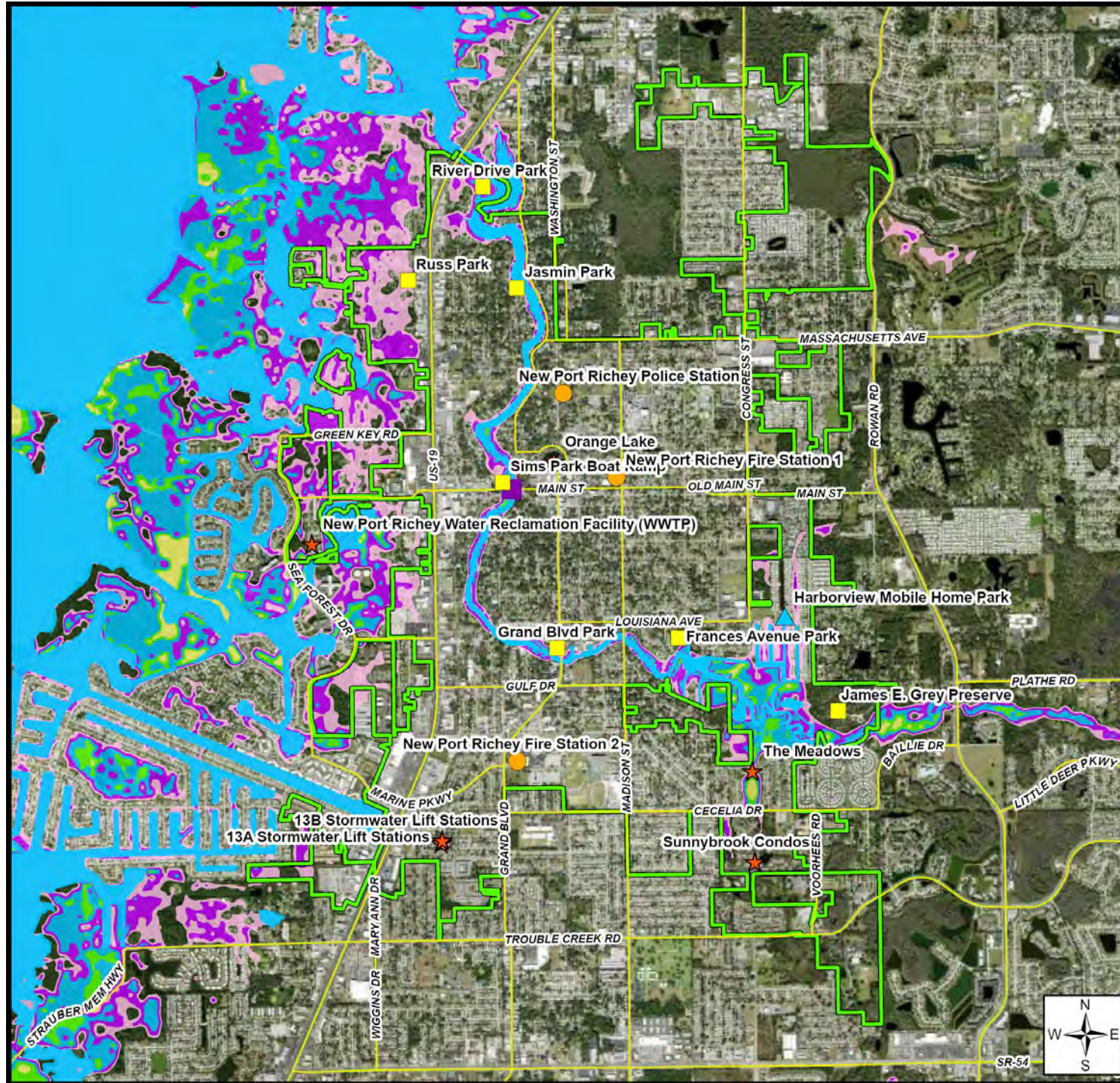
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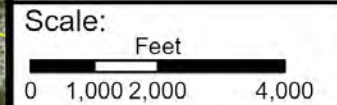
# Figure 7. Scenario 4: Maximum Tide.

## Overview



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- NPR Boundary
- Ocean
- Ocean
- 4: MAX Tide BASELINE (ft)
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
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Flooding potential up to 4 ft is observed across the coastal area to the west of the city limits. The residential areas west of US Highway 19 near River Drive Park and west of Russ Park are almost completely inundated with flooding potential between 1 to 4 ft. The residential areas near Jasmin Park, north and south of the Main Street Bridge, Grand Boulevard Bridge, and Frances Avenue Park experience flooding between 1 to 4 ft as flooding potential extends further inland. The entrance to the WWTP will experience minor flooding potential of up to 2 ft.

The canals south of the Cotee River at the eastern terminus end of Warren Avenue and the canals and ponds within Harbor View Mobile Home Park to the north become inundated with flood potentials between 1 to 3 ft. The pond at The Meadows neighborhood becomes inundated and flood waters begin to move southerly into Sunnybrook Condo's stormwater system.

### **3.5 Scenario 5: Scenario 4 + 2040 SLR**

Scenario 5 adds the proposed 2040 SLR projections to the maximum tidal and river stage elevations. The NOAA projection for SLR in 2040 increases water elevation by 1.27 ft NAVD. Adding 1.27 ft NAVD to the maximum tide in the Gulf of Mexico (4.14 ft NAVD), as applied to the western portion of the City, is 5.41 ft NAVD. Adding 1.27 ft NAVD to the maximum river stage elevation (4.37 ft NAVD), as applied to the eastern portion of the City, is 5.64 ft NAVD. This scenario considers tidal surge at maximum tide and rainfall input as modeled by the maximum river stage plus SLR at the 2040 SLR projection. See **Figure 8** for an overview of potential flood risk.

Flooding potential up to 5.5 ft is observed across the coastal area to the west of the city limits. The residential areas west of US Highway 19 near River Drive Park and west of Russ Park are almost completely inundated with flood levels between 2 to 5 ft. Flooding potential (up to 1 ft) is almost to US Highway 19 on the western side and in various areas near the bridge to Miller's Bayou.

The residential areas near Jasmin Park, north and south of the Main Street Bridge, Grand Boulevard Bridge, and Frances Avenue Park experience potential flooding up to 5 ft as flooding extends further inland. The entrance to the WWTP to experience flooding potential of up to 3 ft.

The canals south of the Cotee River at the eastern terminus end of Warren Avenue and the canals and ponds within Harbor View Mobile Home Park to the north become inundated with flooding potentials up to 4 ft. Lower flood potential starts encroaching on The Wilds neighborhood to Main Street.

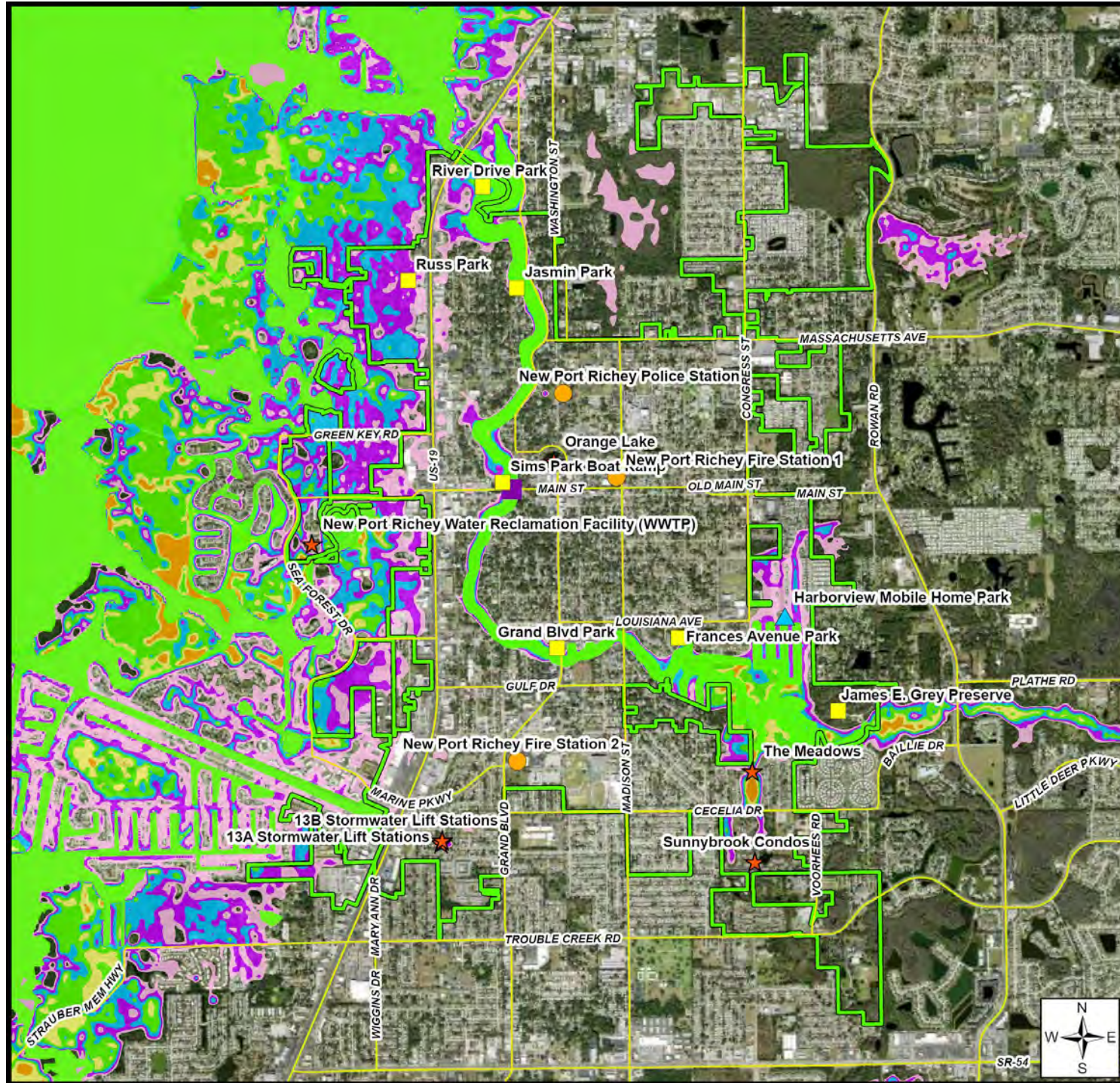
Homes within The Meadows neighborhood begin to experience flood potential between 1 to 2 ft, and the storm system at Sunnybrook Condos reaches capacity with up to 4 ft of flooding.

### **3.6 Scenario 6: Scenario 4 + 2070 SLR**

Scenario 6 adds the proposed 2070 SLR projections to the maximum tidal and river stage elevations. The NOAA projection for SLR in 2070 increases water elevation by 3.40 ft NAVD. Adding 3.40 ft NAVD to the maximum tide in the Gulf of Mexico (4.14 ft NAVD), as applied to the western portion of the City, is 7.54 ft NAVD. Adding 3.40 ft NAVD to the maximum river stage elevation (4.37 ft NAVD), as applied to the eastern portion of the

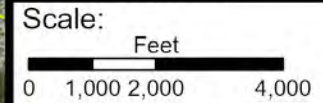
# Figure 8. Scenario 5: Max Tide Plus 2040 SLR.

## Overview



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- ▲ Main St Gauge
- Major Roads
- NPR Boundary
- Ocean
- River 5.52ft (Avg)
- 5: MAX Tide BASELINE plus SLR2040 (ft)**
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

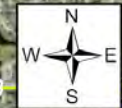
NOTES:  
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-Magnolia Valley and Orange Grove Park are outside of the city limits.



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City, is 7.77 ft NAVD. This scenario considers tidal surge at maximum tide and rainfall input as modeled by the maximum river stage plus SLR at the 2070 SLR projection. See **Figure 9** for an overview of potential flood risk.

Significant flooding is observed across the entire coastal area west of US Highway 19 and west of the city limits. A minimum of 2 ft flood potential is observed on both the west and east sides of US Highway 19 bridge in this scenario. Residential areas outside of the city limits have on average a 3 ft flood potential, and low-lying areas reach a maximum flood potential of 6.5 ft.

The immediate area on both sides of the Cotee River near the River Drive Park become inundated with up to 5 or 6 ft of flooding in some areas. The residential area west of Russ Park is also completely inundated with up to 4 ft of flooding in most residential areas and a few sections of up to 5 ft of flooding. Residential areas along the Cotee River north and south of the Sims Park Boat Ramp will be inundated with up to 5 or 6 ft of flooding immediately along the river. Main Street is flooding with 2 to 3 ft of water west of the Cotee River to US Highway 19.

The majority of the WWTP is flooded with up to 1 to 2 ft of flooding except for where various tanks are located, which LiDAR registers the top of the tanks as elevation. Access to the plant is restricted with flood potential between 4 to 5 ft of water. Flooding extends into the low-lying areas to the south and east of the WWTP covering US Highway 19 in many places.

Larger sections of the residential areas near Grand Boulevard Park and Frances Avenue Park begin to have higher inundation levels of 6 ft of flooding. The canals and roads south of the Cotee River at the eastern terminus end of Warren Avenue flood waters of 3 to 4 ft across the residential area further away from the river and up to 6 ft adjacent to the river.

Flooding potential from 3 to 6 ft extends across Harbor View Mobile Home Park and from 2 to 4 ft in The Wilds neighborhood.

The pond at The Meadows neighborhood is inundated with 6 ft of water. Potential impacts between 2 to 4 ft of flood impacts are predicted for the homes directly surrounding the pond and between 1 to 2 ft of flood impacts on homes one street away from the pond. The stormwater system at Sunnybrook Condos has the potential to flood up to 5 ft with potential impacts up to 3 ft in some residential areas.

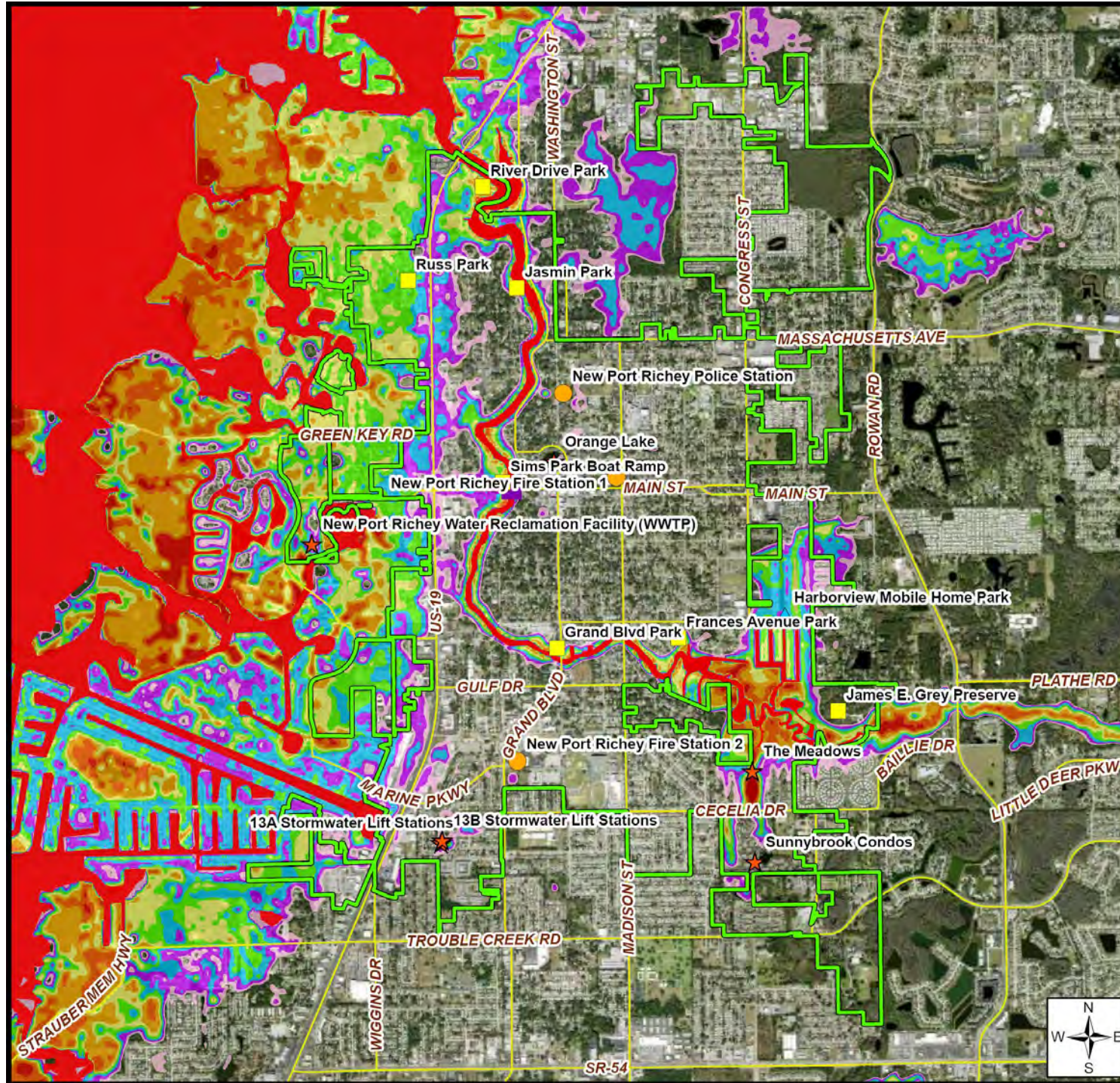
### **3.7 Scenario 7: Max Tide + Hurricane Hermine**

Scenario 7 adds the storm surge from Hurricane Hermine to the maximum tidal and river stage elevations. The observed storm surge for Hurricane Hermine increased the water elevation by 2.99 ft NAVD. Adding 2.99 ft NAVD to the maximum tide in the Gulf of Mexico (4.14 ft NAVD), as applied to the western portion of the City, is 7.13 ft NAVD. Adding 2.99 ft NAVD to the maximum river stage elevation (4.37 ft NAVD), as applied to the eastern portion of the City, is 7.36 ft NAVD. This scenario considers storm surge at maximum tide in addition to rainfall input as modeled by the maximum river stage. See **Figure 10** for an overview of potential flood risk.

This scenario is similar to Scenario 6. Please review Scenario 6 for flood potential details.

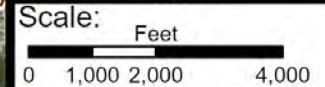
**Figure 9.  
Scenario 6:  
Max Tide  
Plus 2070  
SLR.**

**Overview**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- New Port Richey City Boundary
- Major Roads
- Ocean
- River 7.66ft (Avg)
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

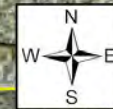
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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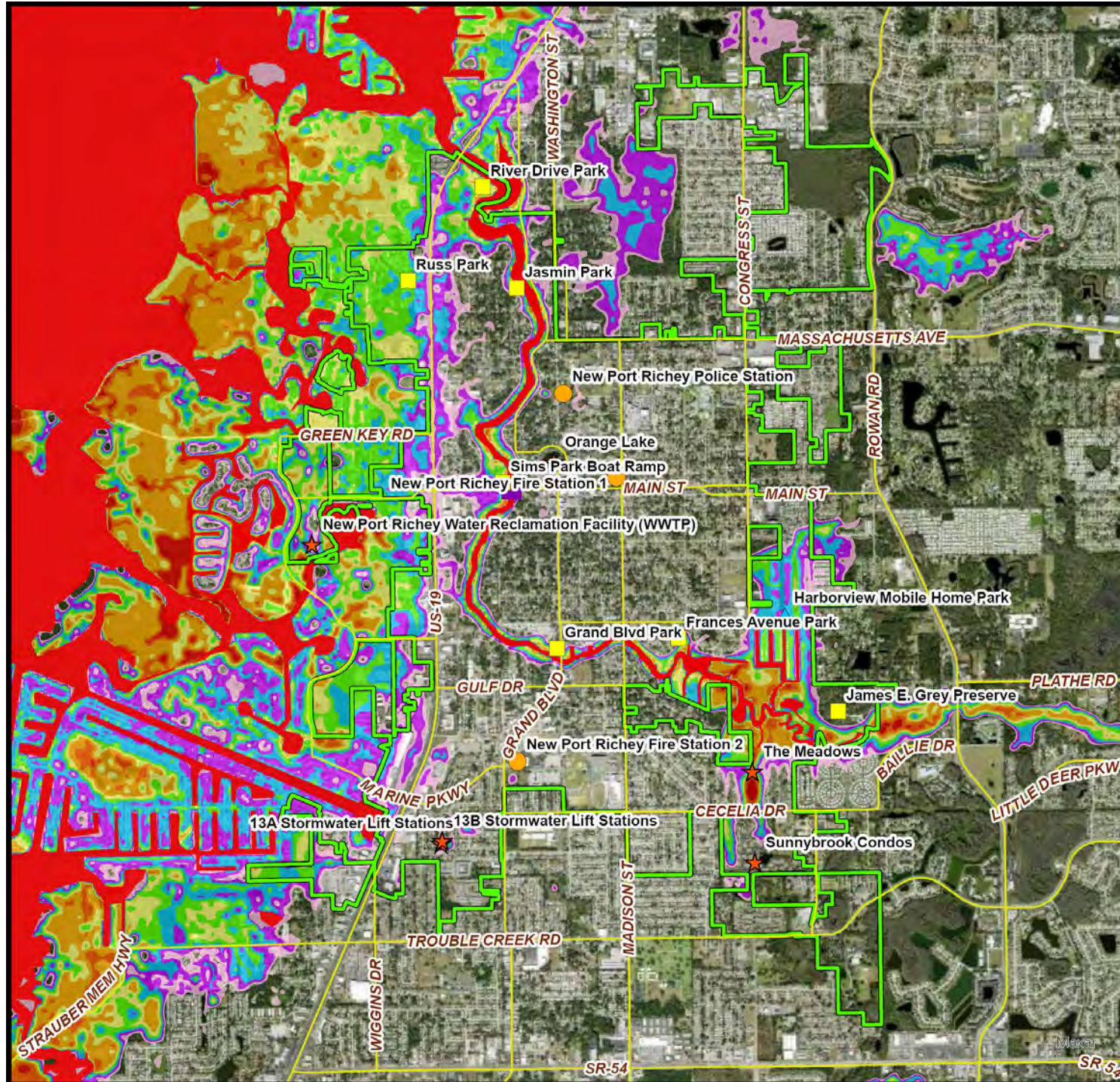


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**Figure 10.  
Scenario 7: Max  
Tide Hurricane  
Hermine.**

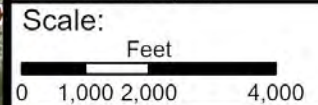
**Overview**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - ▲ Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - Ocean
- 7: Max Tide & River During Hermine (ft)**
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water



NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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### **3.8 Scenario 8: Scenario 7 + 2040 SLR**

Scenario 8 adds the proposed 2040 SLR projections to the maximum tidal and river stage elevations plus the storm surge of Hurricane Hermine. The NOAA projection for SLR in 2040 increases water elevation by 1.27 ft NAVD. Adding 1.27 ft NAVD to the maximum tide in the Gulf of Mexico (4.14 ft NAVD + 2.99 ft of storm surge), as applied to the western portion of the City, is 8.40 ft NAVD. Adding 1.27 ft NAVD to the maximum river stage elevation (4.37 ft NAVD+ 2.99 ft of storm surge), as applied to the eastern portion of the City, is 8.63 ft NAVD. This scenario considers tidal surge at maximum tide and rainfall input as modeled by the maximum river stage. Additionally, storm surge from Hurricane Hermine to coincide with SLR at the 2040 SLR projection. See **Figure 11** for an overview of potential flood risk.

Severe flooding is observed across the entire coastal area west of US Highway 19 and to the west of the city limits with many homes showing impacts up to 6 ft of flooding or even higher in low-lying areas. In many areas along US Highway 19, a maximum of 3 ft flood potential is observed on both the west and east sides. Russ Park is completely inundated with up to 4 to 6 ft of flooding in most residential areas with pockets of flooding up to 8 ft.

Many areas within the adjacent residential area to the east of US Highway 19 have flood potential up to 4 ft. Neighborhoods surrounding River Drive Park and Jasmin Park have impacts of 6 ft or greater. Residential areas to the north and south of the Sims Park Boat Ramp have inundation with up to 4 or 5 ft of flooding immediately along the river. Main Street, west of the Main Street Bridge, has flooding potential up to 3 ft to US Highway 19.

The majority of the WWTP is flooded with up to 2 to 3 ft of flooding with 1 to 2 feet of flooding over the roadways within the site. Access to the plant is completely restricted with flood potential between 5 to 6 ft of water. Flooding extends well into the low-lying areas to the south and east of the WWTP covering US Highway 19 in many places.

Increase in affected residential areas near Grand Boulevard Park and Frances Avenue Park begin to have higher inundation levels of 6 ft of flooding. The canals and roads south of the Cotee River at the eastern terminus end of Warren Avenue flood waters of 3 to 4 ft across the residential area further away from the river and up to 6 ft adjacent to the river.

Flooding potential from 4 to 7 ft extends across Harbor View Mobile Home Park-and from 3 to 6 ft in The Wilds neighborhood.

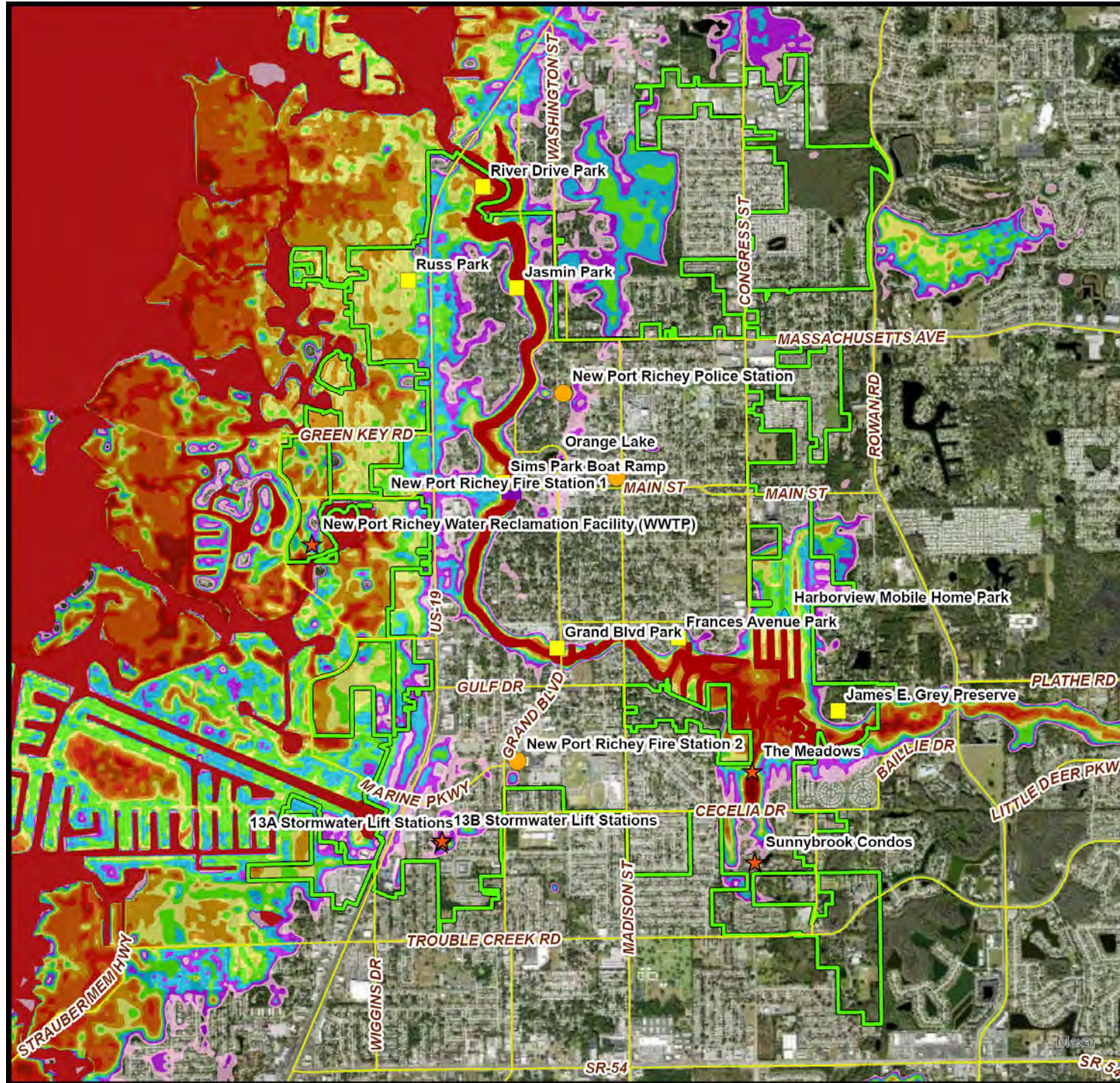
The pond at The Meadows neighborhood is inundated with 6 ft of water. Potential impacts between 3 to 5 ft of flood impacts are predicted for the homes directly surrounding the pond and between 1 to 3 ft of flood impacts on homes approximately 350 ft away from the pond. The stormwater system at Sunnybrook Condos experiences predicted flooding up to 5 ft with impacts up to 3 ft in some residential areas.

### **3.9 Scenario 9: Scenario 7 + 2070 SLR**

Scenario 9 adds the proposed 2070 SLR projections to the maximum tidal and river stage elevations plus the storm surge of Hurricane Hermine. The NOAA projection for SLR in 2070 increases water elevation by 3.40 ft NAVD. Adding 3.40 ft NAVD to the maximum tide in the Gulf of Mexico (4.14 ft NAVD + 2.99 ft of storm surge), as applied to the western

**Figure 11.  
Scenario 8: Max  
Tide Hurricane  
Hermine Plus 2040  
SLR.**

**Overview**



Most Vulnerable Critical Assets

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- ▲ Main St Gage
- Major Roads
- ▭ New Port Richey City Boundary
- Ocean

**8: Max Tide & River During Hermine 2040SLR (ft)**

- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:

- Anclote Key Preserve and Warner Boyce Salt Springs will be under water.
- Magnolia Valley and Orange Grove Park are outside of the city limits.



Scale:

Feet

0 1,000 2,000 4,000

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portion of the City, is 10.53 ft NAVD. Adding 3.40 ft NAVD to the maximum river stage elevation (4.37 ft NAVD+ 2.99 ft of storm surge), as applied to the eastern portion of the City, is 10.76 ft NAVD. This scenario considers tidal surge at maximum tide plus rainfall input as modeled by the maximum river stage in addition to storm surge from Hurricane Hermine with the 2070 SLR projection. See **Figure 12** for an overview of potential flood risk.

Severe flooding is observed across the entire coastal area west of US Highway 19 with many homes being impacted by 6 ft of flooding or even higher in low-lying areas. Russ Park is inundated with up to 6 to 8 ft of flooding in most residential areas and a few sections of up to 9 ft of flooding in the low-lying areas. On both the west and east sides along US Highway 19, 4 to 5 ft flood potential is observed.

Many sections within the adjacent residential area to the east of US Highway 19 have flood potential up to 5 ft. Neighborhoods surrounding River Drive Park and Jasmin Park have impacts of 7 to 8 ft or greater directly along the river.

Residential areas to the north and south of the Sims Park Boat Ramp and along the Cotee River between Sims Park will also be inundated with up to 5 or 6 ft of flooding immediately along the river. Main Street, west of the Main Street Bridge, has flooding potential up to 4 ft to US Highway 19.

The majority of the WWTP is flooded with up to 3 or 4 ft of flooding with 2 to 3 feet of flooding over the roadways within the site. Access to the plant is restricted with flood potential between 6 or 7 ft of water. Flooding extends into the low-lying areas to the south and east of the New Port Richey Water Reclamation Facility, covering US Highway 19 in many places.

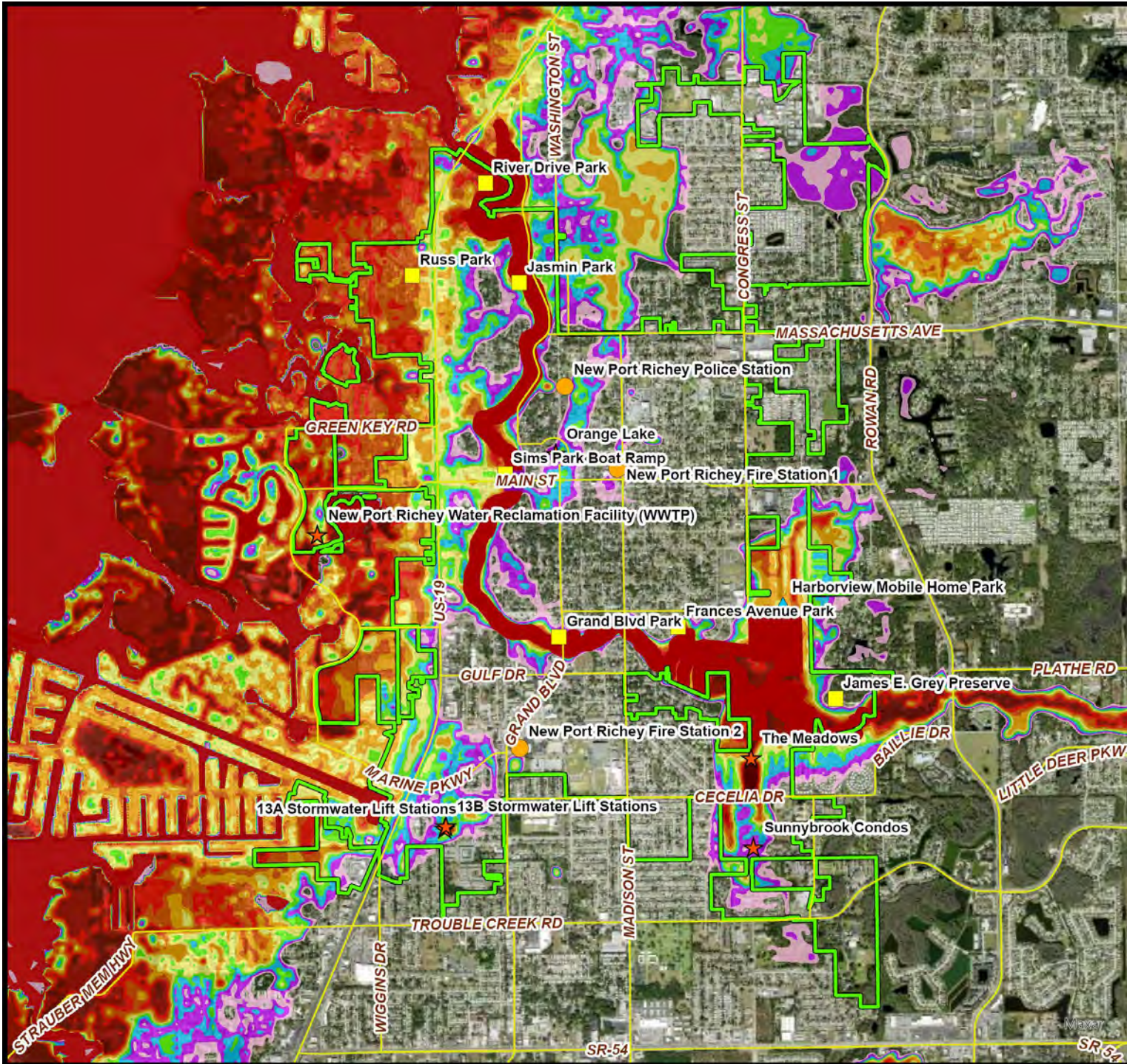
Larger sections of the residential areas near Grand Boulevard Park and Frances Avenue Park begin to have higher inundation levels of 6 ft of flooding. The canals and roads south of the Cotee River at the eastern terminus end of Warren Avenue flood waters of 3 to 4 ft across the residential area further away from the river and up to 6 ft adjacent to the river.

Flooding potential from 5 to 8 ft extends across Harbor View Mobile Home Park and from 4 to 7 ft in The Wilds neighborhood.

The pond at The Meadows neighborhood is inundated with 8 ft of water. Potential impacts between 3 to 5 ft of flood impacts are predicted for the homes directly surrounding the pond and between 1 to 3 ft of flood impacts on homes in the rest of the community. The stormwater system at Sunnybrook Condos experiences predicted flooding up to 8 ft with impacts up to 3 ft in across the community. The residential areas to the south start to exhibit 1 to 2 of flood potential.

**Figure 12.  
Scenario 9: Max  
Tide Hurricane  
Hermine Plus 2070  
SLR.**

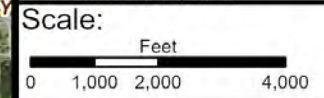
**Overview**



- Most Vulnerable Critical Assets**
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
- 11ft Water
  - 10ft Water
  - 9ft Water
  - 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water



**NOTES:**  
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## 4.0 Sensitivity Analysis

In summary, a total of 171 assets were identified as part of the Critical Asset assessment. Of the 171, a total of 99 were excluded from the exposure and sensitivity analysis due to their location outside of the city limits or not owned/operated by the City. The remaining 72 were evaluated for exposure or potential flood impacts.

Each facility was ranked by function, category, or use of the site, which is listed as Function Ranking. Facilities, such as hospitals, fire stations, police stations, water treatment facilities, etc., were ranked high for function and given a ranking of 3. Facilities, such as lift stations, stormwater treatment facilities and pump stations, boat ramps, or neighborhoods, were ranked medium for function and given a ranking of 2. All other facilities are considered low and were given a ranking of 1 for function.

Flood Potential was then added to provide a Final Ranking. The flood potential for each site is simply the feet of water that is predicted for each scenario rounded to the nearest whole number. The Final Score is the sum of the Function Ranking and the Flood Potential. The lowest possible score is 1, and the highest possible score is 13.

The Final Score was separated into three levels: high, medium, and low. Facilities with a Final Ranking of 8 or greater are considered HIGH risk because of flooding over 8 ft or flooding over 5 ft along with a high or important function. Facilities with a Final Score between 5 to 7 are considered MEDIUM risk because of flooding up to 5 ft above land surface and a medium ranked function. Facilities with a Final Score of 4 or less are considered LOW risk because of low function and low flood potential. See **Table 7**.

**Table 7. Final Score Summary.**

Level	Ranking	Flood Potential	Final Score
High	3	5 ft to 10+ ft	8 to 13
Medium	2	3 ft to 5 ft	5 to 7
Low	1	0 ft to 3 ft	0 to 4

A total of 15 assets were identified to have HIGH flood impacts, and a total of 8 are identified to have MEDIUM flood impacts. These are listed in **Table 8** and are listed based on the depth of flood impacts. FDEP categorizations (i.e. critical infrastructure, emergency facilities, historical resources, neighborhoods) are listed for reference. Evacuation routes were excluded from this assessment.

Fortunately, many of the critical infrastructure and emergency facilities are located at higher elevations, and the buildings do not have flood potential. However, the streets around the facility buildings may experience flooding and access to or from the facility may be restricted. This was included in the sensitivity analysis.

The most critical asset within the city limits of New Port Richey is the WWTP located west of US Highway 19 on Main Street because of the predicted flood potential. The ground elevation at the facility ranges from 2 to 6 ft NAVD. In the worst-case scenario (Scenario 9), the flood potential at the facility is 10+ ft above sea level at the estuary of Cross Bayou.

The FEMA Flood Map 12101C0189G shows the City's WWTP is in Zone AE with a flood elevation of 10.0 ft. Based upon a review of available record drawings of previous plant



Table 8. High and Medium Ranked Facilities.

High Ranked Risks										
Category	Facility Name	Predicted Ft Water over Land								
		Baseline (0.17)	Baseline + 2040 SLR (1.44)	Baseline + 2070 SLR (3.57)	Max Tide (4.37)	Max Tide + 2040 SLR (5.64)	Max Tide + 2070 SLR (7.77)	Max + Hermine (7.36)	Max + Hermine + 2040 SLR (8.60)	Max + Hermine + 2070 SLR (10.76)
2	New Port Richey Water Reclamation Facility (WWTP)			1.57	2.37	3.64	5.77	5.36	6.6	8.76
2	13A Stormwater Lift Stations						0.77	0.36	1.6	3.76
2	13B Stormwater Lift Stations						0.77	0.36	1.6	3.76
2/5	The Meadows					0.64	2.77	2.36	3.6	5.76
2/5	Sunnybrook					0.64	2.77	2.36	3.6	5.76
4	James E. Grey Preserve			0.57	1.37	2.64	4.77	4.36	5.6	7.76
4	Meadows Park						1.77	1.36	2.6	4.76
4	Orange Lake						1.77	1.36	2.6	4.76
4	Frances Avenue Park				0.37	1.64	3.77	3.36	4.6	6.76
4	Grand Blvd Park				0.37	1.64	3.77	3.36	4.6	6.76
4	Jasmin Park				0.37	1.64	3.77	3.36	4.6	6.76
4	River Drive Park			1.57	2.37	3.64	5.77	5.36	6.6	8.76
4	Russ Park			1.57	2.37	3.64	5.77	5.36	6.6	8.76
4	Sims Park Boat Ramp			1.57	2.37	3.64	5.77	5.36	6.6	8.76
4	Pithlachascotee River		0.44	2.57	3.37	4.64	6.77	6.36	7.6	9.76
Medium Ranked Risks										
Category	Facility Name	Predicted Ft Water over Land								
		Baseline (0.17)	Baseline + 2040 SLR (1.44)	Baseline + 2070 SLR (3.57)	Max Tide (4.37)	Max Tide + 2040 SLR (5.64)	Max Tide + 2070 SLR (7.77)	Max + Hermine (7.36)	Max + Hermine + 2040 SLR (8.60)	Max + Hermine + 2070 SLR (10.76)
3	New Port Richey Fire Station 1									
3	New Port Richey Police Station									
3	Gloria Swanson Parking Lot									0.76
3	Thomas Meighan Parking Lot located on Nebraska Ave									1.76
4	Cotee River Park			0.57	1.37	2.64	4.77	4.36	5.6	7.76
4	Lake Chasco					0.64	2.77	2.36	3.6	5.76
4	First State Bank (Casson Building)								0.6	2.76
Evacuation Routes										
Category	Facility Name	Predicted Ft Water over Land								
		Baseline (0.17)	Baseline + 2040 SLR (1.44)	Baseline + 2070 SLR (3.57)	Max Tide (4.37)	Max Tide + 2040 SLR (5.64)	Max Tide + 2070 SLR (7.77)	Max + Hermine (7.36)	Max + Hermine + 2040 SLR (8.60)	Max + Hermine + 2070 SLR (10.76)
3	US Highway 19									
3	State Road 54									
3	Trouble Creek Road									10.76
3	CR 77 / Rowan Road									10.76



expansions, it appears that the City's WWTP has been built to be above the potential FEMA flood elevation. The facility's treatment basins and structures have top of wall elevations ranging from 13 ft to 26 ft. The Operations Building, which houses all administrative offices, SCADA monitoring equipment, and laboratory, has a floor elevation of 12.5 ft. The Motor Control Center buildings, which house the electrical panels and drives for the various process mechanical and pumping equipment, are installed above the flood elevation. Electrical control panels located at the treatment basins are above the top of wall elevations. While there are some buildings with floor elevations below the flood elevation of 10 ft (e.g. Sludge Pump Building, Chemical Building, Sludge Press Building), the pumps, controls, and electrical equipment contained within are located above the flood elevation.

With review of the various hardening efforts, access to the facility is considered the most impacted issue in respect to the City's WWTP due to high flood waters across Main Street, which is the only way into the facility. The ground elevation of Main Street based on LiDAR contours is between 2 to 4 ft NAVD, which quickly becomes inundated as early as Scenario 3. ***WWTP will remain operational as staff will remain at the facility during an emergency.***

Two other assets that have potential for flooding are the Stormwater Lift Stations 13A&B. In the worst-case scenario, there is 3 to 4 ft of flood potential. This is for stormwater, which moves accumulated runoff from various surface water features for drainage.

The rest of the facilities are parks or stormwater systems associated within neighborhoods. Various facilities were surveyed to show potential flooding. Please see **Appendix K** for potential flood levels at the WWTP, City Hall, police station, fire station, and the intersection of Grand Blvd with Main St.

## 5.0 Comprehensive Plan Review & Proposed Amendments

One of the requirements of the FDEP Grant award for the Vulnerability Assessment is to prepare Comprehensive Plan Amendments to implement the issues identified in the Vulnerability Assessment. The purpose of this summary is to identify the current activities and programs in which the City is currently engaged that further the resiliency goals and to identify additional programs and activities that the City can consider expanding its success in this area.

A complete review of the City's current *Comprehensive Plan* has been done to evaluate the City's current policies regarding resiliency and to identify potential improvements in the City's approach. The Analysis revealed that there are several amendments to the *Coastal Management Element* of the *Comprehensive Plan* as well as one amendment to the *Future Land Use Element* that would improve the City's approach to resiliency and sustainability. A summary of the proposed Plan Amendments is described below and in the Summary Table included as **Appendix L**. The proposed Plan Amendments propose revisions to existing policies as well as new policies to support resiliency and sustainability.

The specific proposed Plan Amendments for the *Coastal Management Element* and the *Future Land Use Element* are included in **Appendices M and N**, respectively, in a strike-through/ underline format for ease of review.

### 5.1 Existing Program: National Flood Insurance Program

The City has participated in the National Flood Insurance Program since 1981 and currently has a rating of 7, which results in a 15% discount in flood insurance premiums to its citizens.

To improve and expand the existing plan policy or program, the City can evaluate the methods necessary to increase the City's rating which will result in increased discounts offered to its citizens; and implement those methods determined to be attainable, as appropriate, over a multi-year timeframe. The City is currently evaluating methods to improve the City's rating. Reference: New Policy CME 3.4.5.

### 5.2 Existing Program: Flood Damage Prevention Regulations

The City adopted Flood Damage Prevention regulations in Ordinance 2014-2035 on August 19, 2014 that created comprehensive regulations for development on property in the flood zones. This Ordinance establishes requirements that development in the coastal areas be consistent with and in some cases more restrictive than the Florida Building Code.

To improve and expand the existing plan policy or program, the City can evaluate increasing the required elevation above Base Flood Elevation to address impacts of sea level rise over a period of time. The City's current requirement is 1 ft above Base Flood Elevation. Reference: New Policy 3.4.7.

The City can evaluate if there are any septic tanks in the flood hazard areas, and if so, develop methods and financial incentives to abandon them and connect users to public wastewater service. Currently, the City doesn't allow new septic tanks in flood hazard areas. Reference: New Policy CME 3.4.9.

### **5.3 Existing Program: Public Expenditures in the CHHA**

The *Conservation Management Element* limits public expenditure within the Coastal High Hazard Area (CHHA), including roads, utility line extensions or expansions, wastewater treatment plant facilities (Objective CME 2.1 and Policies CME 2.1.2, 2.1.3, 2.1.4).

The City can evaluate impacts of Sea Level Rise on City Buildings and Facilities and develop appropriate responses Reference: New Policy CME 2.1.6. This is completed with the Vulnerability Assessment.

### **5.4 Existing Program: Density in the CHHA**

The *Conservation Management Element* prohibits increases in density for sites within the CHHA (Objective CME 2.2 and Policy CME 2.2.1). The City should retain this policy and there are no changes proposed to this existing policy.

### **5.5 Existing Program: Coastal Transfer of Development Rights**

The *Future Land Use Element* establishes the framework for the Transfer of Development Rights from City-owned land in the CHHA to receiving areas (Objective FLU 3.2 and Policies 3.2.1 through 3.2.22).

The City can evaluate expansion of the Transfer of Development Rights Program to allow transfers between private property owners. Any new Expansion would not allow Transfers into vulnerable areas in the CHHA. Reference: New Policy FLU 3.2.23.

### **5.6 New Policy: Designation of Adaptation Action Area (AAAs)**

Consistent with Florida Statutes, FS Chapter 163.3164(1), the City can designate Adaptation Action Areas for areas that experience coastal flooding for the purpose of prioritizing funding and for the creation of adaptation policies unique to the area. Reference New Objective CME 4.4 and Policies 4.4.1 through 4.4.5.

### **5.7 New Policy: Public Outreach Program**

The City can implement a Public Outreach Program with technical assistance on FEMA assistance and funding options for residents with damage from multiple flood events. Reference New Policy CME 3.4.6.

### **5.8 New Policy: Permeable Surfaces**

The City can evaluate best available permeable surfaces and provide incentives for their use in new paved surfaces, renovations of existing paved surfaces, or roads. Increasing the amount of permeable surfaces (as compared to impermeable surfaces) within the City will assist in reducing the amount of stormwater runoff. Reference New Policy CME 3.4.10.

### **5.9 New Policy: Bicycle and Pedestrian Network**

The City should continue to evaluate its current Bicycle and Pedestrian Network and identify gaps, expansions, or repairs needed. Based on the evaluation, the City will continue to prioritize funding of these identified gaps, expansions, and repairs in the *Capital Improvement Plan*. Reference New Policy FLU 1.4.112.

### **5.10 New Policy: LEED Standards**

The City can evaluate designing new City facilities to LEED standards (Leadership in Energy and Environmental Design). The City can also evaluate encouraging appropriate City staff to pursue and achieve LEED certification. These actions will demonstrate the City's commitment to responding to climate change and encourage sustainability and resiliency. Reference New Policy CME 3.4.8.

### **5.11 New Policy: Evaluate Adaptation Solutions for Historic Structures**

The City can prepare a detailed evaluation of potential adaptation solutions for impact of flooding on historic resources that will maintain the historic integrity of the buildings and insure the preservation of these historic structures into the future. Based on the uniqueness of historic structures, the adaptation solutions for historic structures are expected to be different than the solutions for non-historic structures. Reference New Policy CME 1.2.2.

### **5.12 New Policy: Evaluate increasing Seawall Height**

The City can evaluate the feasibility and effectiveness of increasing the minimum height of seawalls to address the impacts of flooding and future sea level rise. The purpose of raising the seawall height is to minimize the amount of flooding that occurs on waterfront properties. The evaluation should include a study of the specific height or heights (depending on differing flooding levels) that are needed to achieve the goal. The evaluation should also review the best methods of implementing the height requirement in a phased approach. Reference New Policy CME 3.4.11.



## 6.0 Adaptation Plan

The City has thoroughly implemented current regulations across the various aspects of development, building codes, land use, and coastal management. A new aspect proposed from the comprehensive plan review evaluates Adaptive Action Areas (AAAs). Areas that have high flood risk or areas that have moderate flooding risks but have high priority facilities are outlined in **Figure 13** as AAAs to be adopted in the Coastal Management Plan.

Formal review of evacuation routes and bridges are not included in this Vulnerability Assessment. However, all major evacuation routes and major streets are included for purposes of implementation funding. Street and drainage improvements along with stormwater retention expansion prove most valuable for adaptive planning. Other mitigation strategies include seawall improvements and dredging in the river and canals.

Potential projects specifically marked will be included in the Master Stormwater Plan.

### 6.1 Northwest AAAs

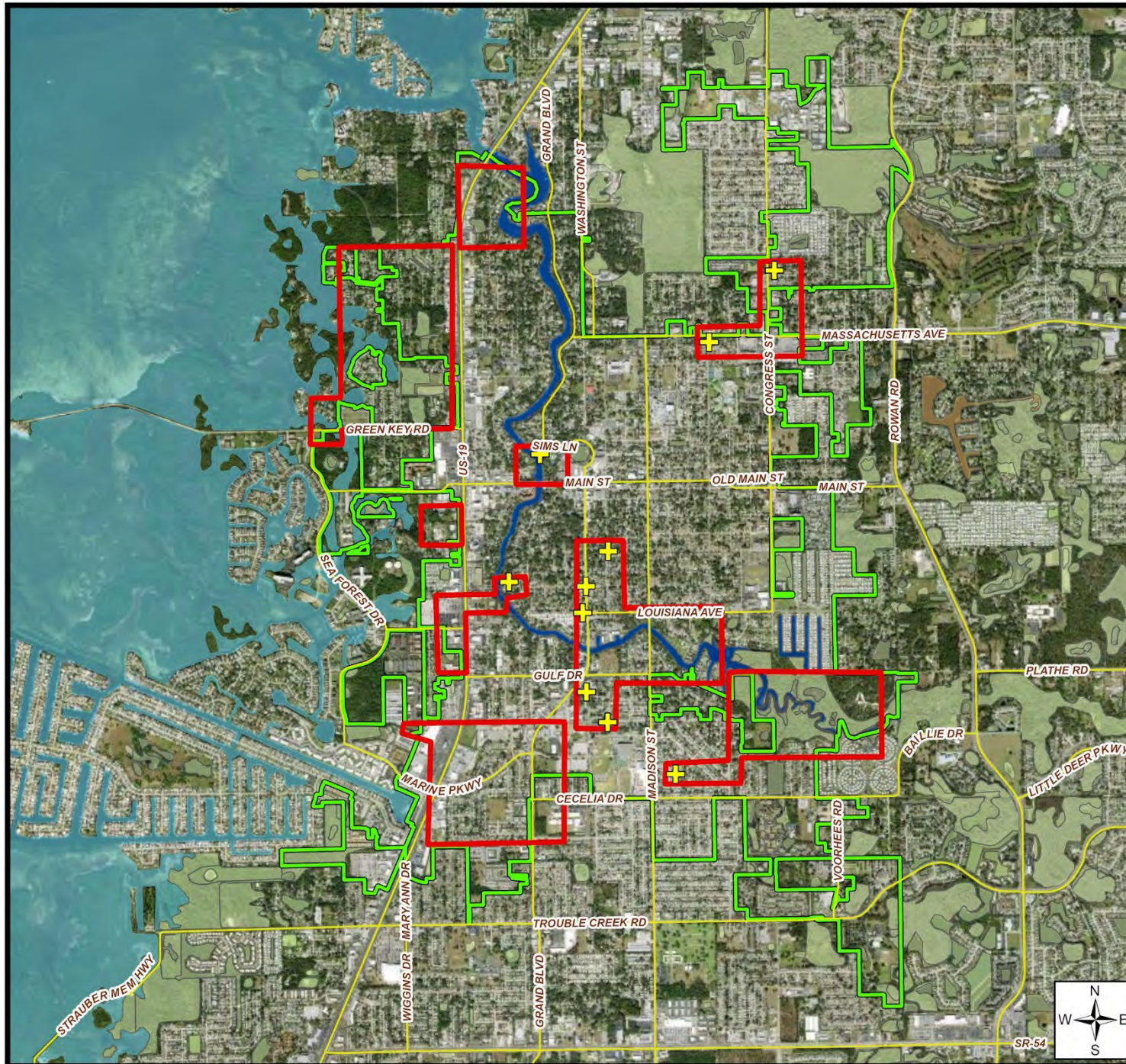
Major flooding is predicted to heavily impact the residential and commercial areas bordering the Gulf of Mexico west of US-19, the US-19 corridor, and along the Cotee River east of US-19. There are two AAAs proposed for the northwest quadrant of the City. See **Figure 14**.

The first proposed AAA includes the area east of US-19 from the bridge crossing the Cotee River south to Luna Vista Drive and east to the river. This area experiences between 5 ft to 9 ft of inundation and is mainly residential with commercial uses along the US-19 corridor. There are five options identified in that area that contain open space around or near River Drive Park. Stormwater ponds with proper Best Management Practices (BMPs) can be constructed on parcels that are open. Existing stormwater systems can be expanded. The outfall structures that discharge directly to a tidal estuary or the Cotee River can be modified to include baffle boxes and spinner units that remove trash, nutrients, and sediments. Another option is to add swing valves in the piping to mitigate brackish or river from flowing backwards into the stormwater system or pond.

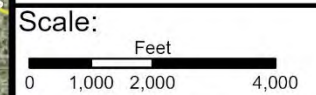
The second proposed AAA contains a larger area from the Gulf of Mexico east to US-19 and is bordered on the north by Sleighbell Lane and Green Key Rd to the south. This area is mainly residential with commercial uses along the US-19 corridor. There are four options in this AAA that are large, open parcels. Two of these options contain existing dry or wet retention ponds that can be modified or deepened for additional storage capacity. On parcels that are clear, stormwater retention ponds may be dug with proper BMPs and swing valves if possible.

A combined lift, if all potential options were completed, will not alleviate the stormwater surge and sea level rise predicted in the worst-case scenario for 2070. Other focuses for these areas are outlined in Section 5.0 and include the City providing education to residents and business owners on the predicted flood potential, providing information on available grants, low interest loans, and insurance programs that assist homeowners with pre- and post-mitigation strategies, and strictly enforcing existing and proposed comprehensive, coastal management, and future land use plans.

**Figure 13.  
Adaptation  
Action Areas**



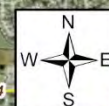
- AAAs NPR
- ✚ AAAs NPR
- AAAs
- AAAs
- Major Roads**
- Major Roads
- New Port Richey Boundary**
- New Port Richey Boundary
- National Wetlands Inventory**
- ESTUARINE
- LACUSTRINE
- PALUSTRINE
- RIVERINE



Date: 9/2/2024

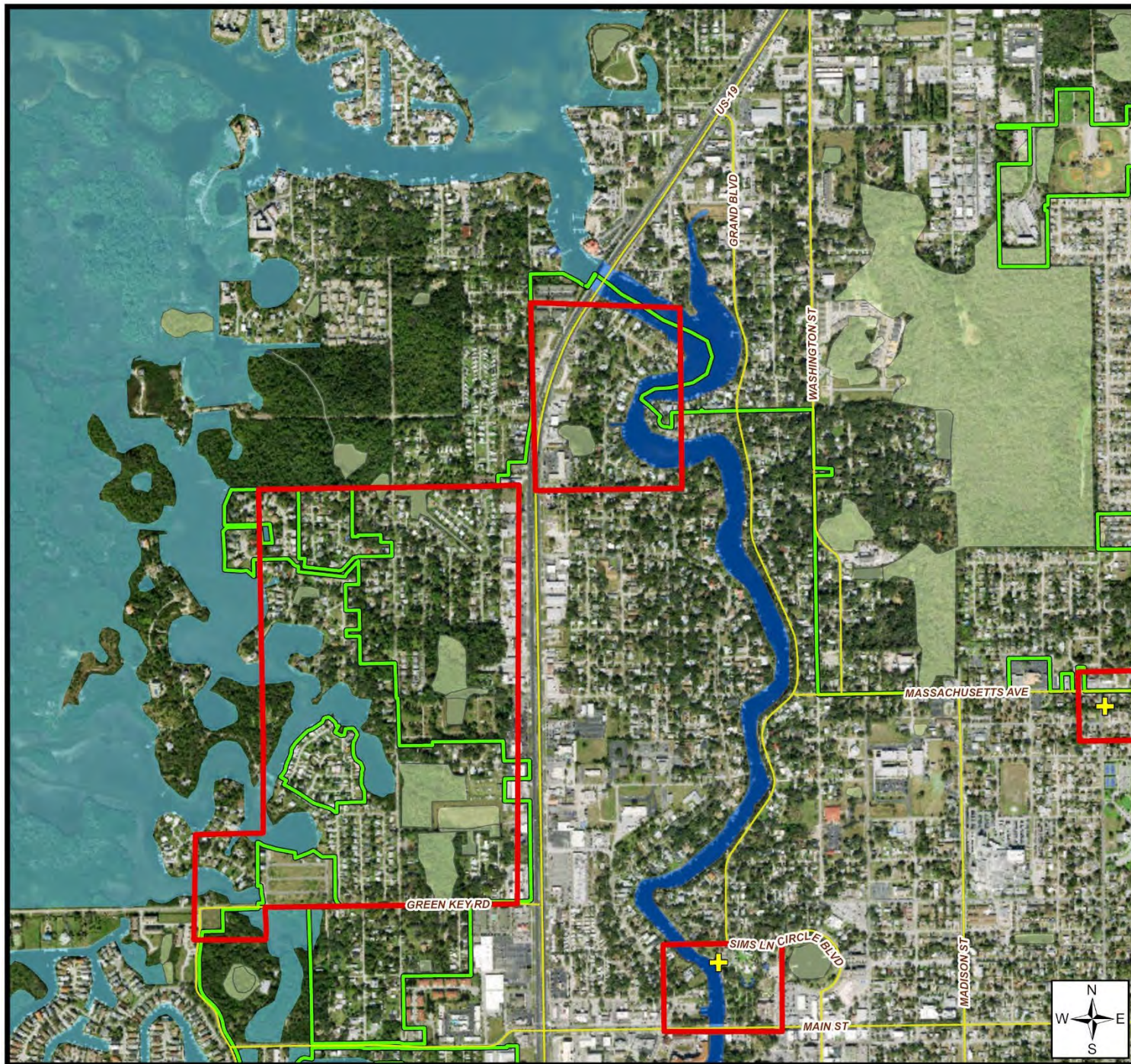


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SR-54

**Figure 14.  
Adaptation  
Action Areas:  
NW Quadrant.**



- AAAs NPR
- + AAAs NPR
- AAAs
- AAAs
- Major Roads
- Major Roads
- New Port Richey Boundary
- New Port Richey Boundary
- National Wetlands Inventory
- ESTUARINE
- PALUSTRINE
- RIVERINE

Scale:  

 Feet  
 0 500 1,000 2,000

Date: 9/2/2024

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## 6.2 Northeast AAAs

There is one AAA proposed for the northeast quadrant of the City. See **Figure 15**. There are several known local drainage problems in the northeast quadrant that cause localized flooding. These areas are marked for specific projects to mitigate localized flooding.

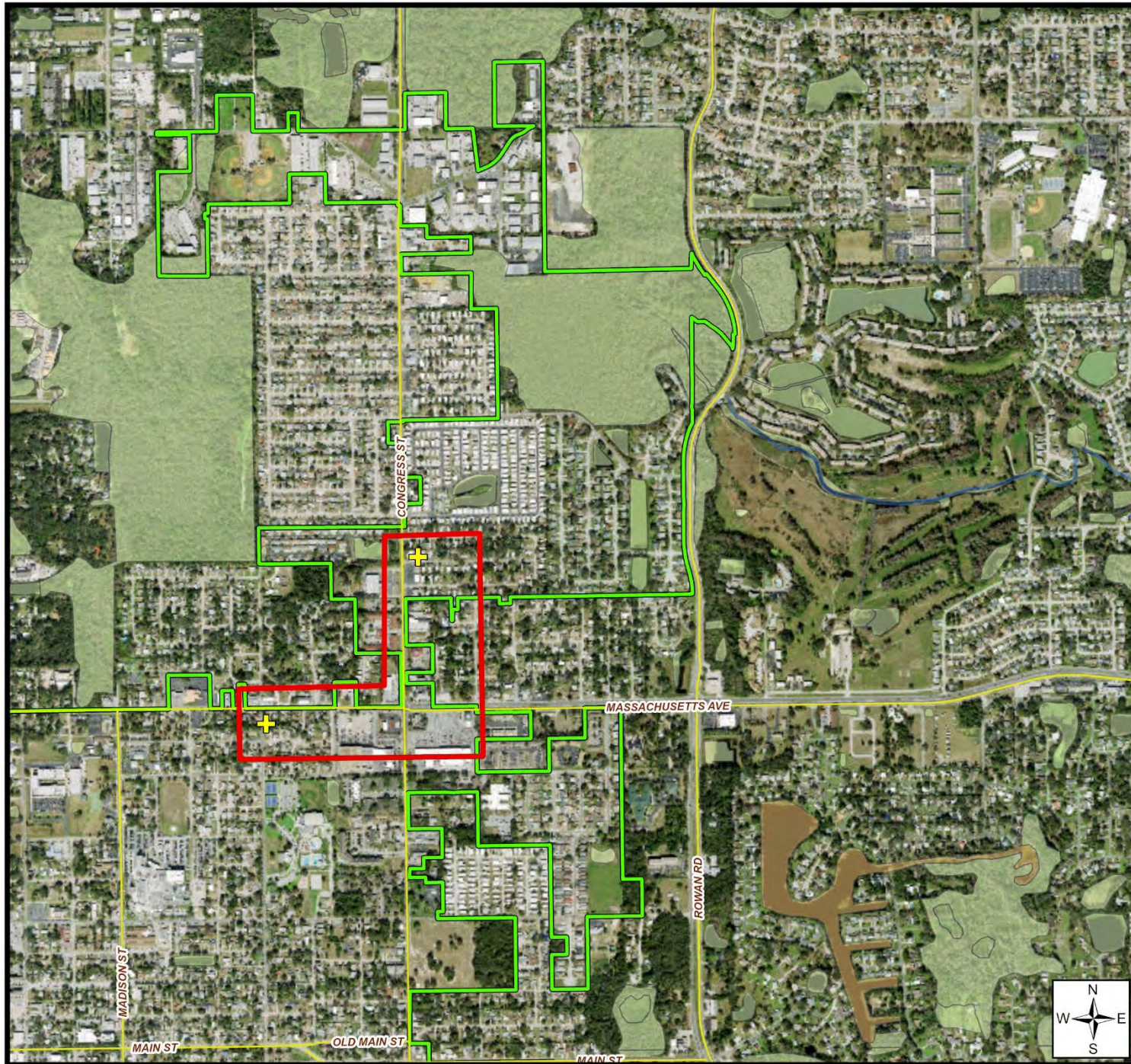
## 6.3 Southeast AAAs

There are multiple AAAs proposed for the southeast quadrant of the City that span across the quadrant and combine with identified AAAs in the Southwest quadrant. These areas were selected based on flooding risk and accessibility for construction related projects. The AAA identified for the SE quadrant have a direct connection to the Cotee River. See **Figure 16** for proposed AAAs in the Southeast quadrant. Several projects to be outlined in the Master Stormwater Plan have been identified that include upgrading inlets and outfall pipes and constructing new outfalls to the rivers. The BMPs as previously described can be included in this quadrant also.

## 6.4 Southwest AAAs

There are multiple AAAs proposed for the southwest quadrant of the City that span across the quadrant and combine with identified AAAs in the Southeast quadrant. These areas were selected based on flooding risk and accessibility for construction related projects. Most of the AAAs border the US-19 corridor. Various proposed projects to be outlined in the Master Stormwater Plan fall within several of the AAAs. These proposed projects include grading of land for better drainage, upgrading inlets and outfall pipes, constructing new outfalls to the river, or enlarging existing outfalls. AAAs without proposed projects are located to the west of US-19, which have or are close to existing outfalls or estuarian creek systems. Several AAAs have open, city-owned land that could be converted into a stormwater system or upgraded drainage plan. See **Figure 17** for proposed AAAs the Southwest quadrant. The BMPs as previously described can be included in this quadrant also.

**Figure 15.  
Adaptation  
Action Areas:  
NE Quadrant.**



- AAAs NPR
- + AAAs NPR
- AAAs
- AAAs
- Major Roads**
- Major Roads
- New Port Richey Boundary**
- New Port Richey Boundary
- National Wetlands Inventory
- LACUSTRINE
- PALUSTRINE
- RIVERINE

Scale:  

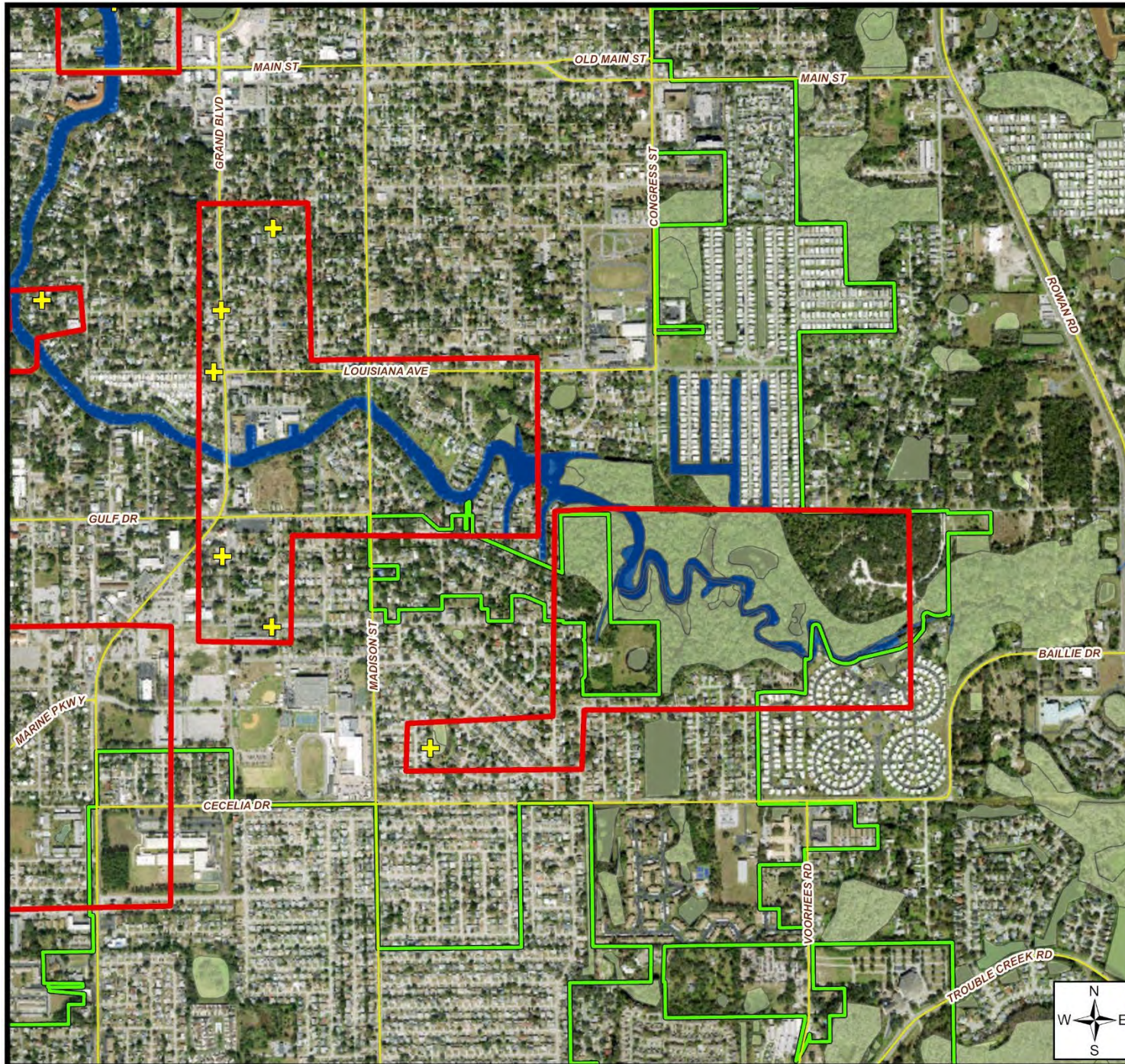
 Feet

Date: 9/2/2024

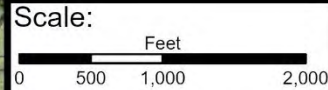
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**Figure 16.  
Adaptation  
Action Areas:  
SE Quadrant.**



- AAAs NPR
- + AAAs NPR
- AAAs
- AAAs
- Major Roads**
- Major Roads
- New Port Richey Boundary**
- New Port Richey Boundary
- National Wetlands Inventory
- LACUSTRINE
- PALUSTRINE
- RIVERINE

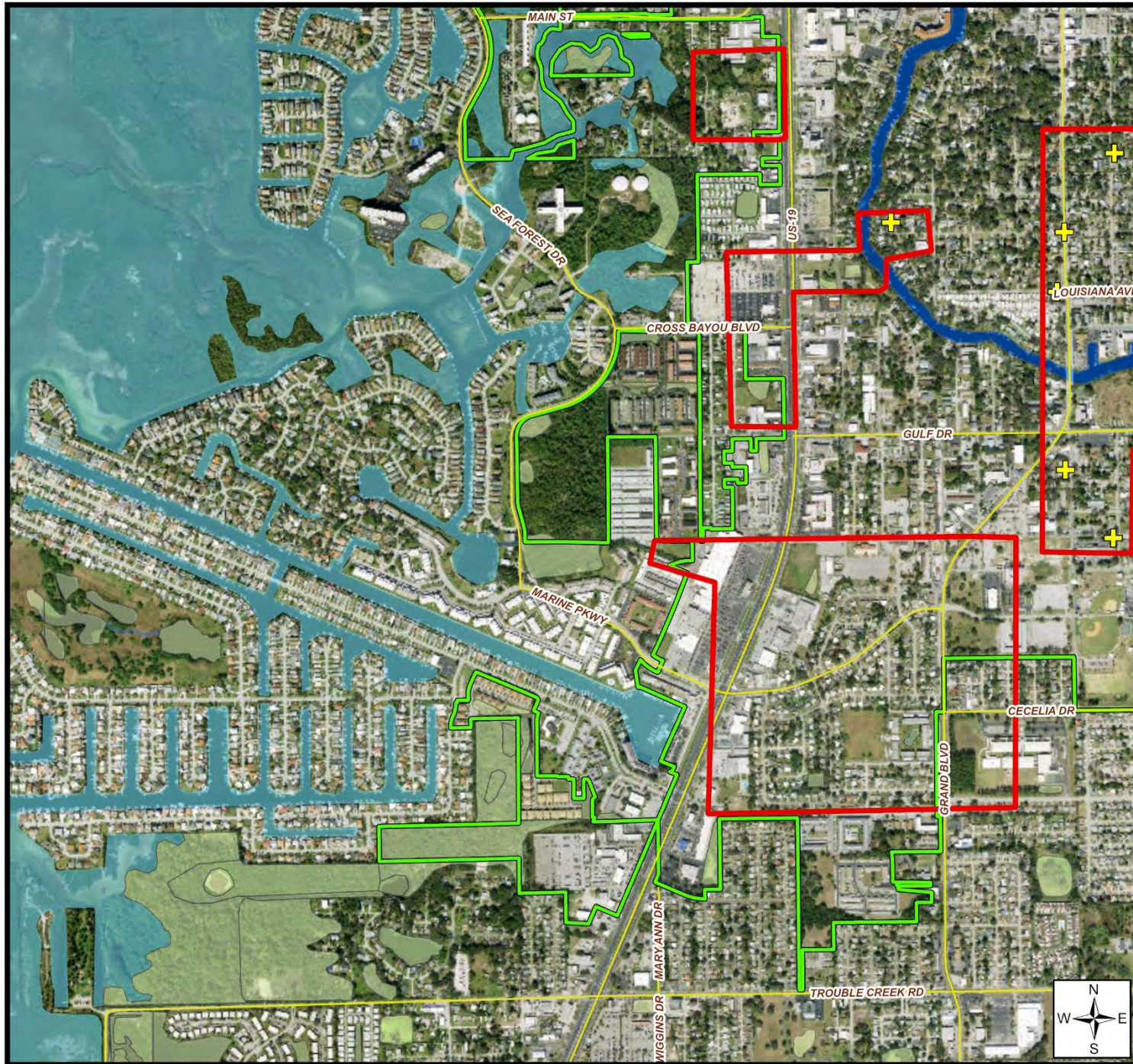


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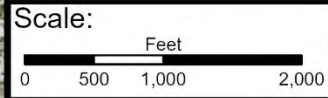


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**Figure 17.  
Adaptation  
Action Areas:  
SW Quadrant.**



- AAAs NPR
- + AAAs NPR
- AAAs
- AAAs
- Major Roads
- Major Roads
- New Port Richey Boundary
- New Port Richey Boundary
- National Wetlands Inventory
- ESTUARINE
- PALUSTRINE
- RIVERINE



Date: 9/2/2024



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# **Appendix A: Full List of Critical Assets**





		<u>Facility</u>	<u>Address</u>	<u>Ranking</u>	<u>Flood Potential</u>	<u>Final Ranking</u>
<b>1. Transportation Assets and Evacuation Routes including:</b>						
Bridges	1	Madison St over Cotee River	5726 Madison St, New Port Richey, FL 34652	NA	NA	NA
	2	Grand Blvd over Cotee River	5618 Grand Blvd, New Port Richey, FL 34652	NA	NA	NA
	3	Main Street over Cotee River	5512 Main St, New Port Richey, FL 34652	NA	NA	NA
<b>2. Critical Infrastructure including:</b>						
Wastewater Treatment Facilities	4	New Port Richey Water Reclamation Facility (WWTP)	4730 Main St, New Port Richey, FL 34652	3	10	13
	5	13A Stormwater Lift Stations	5230 Bougenville Drive, New Port Richey, FL	2	8	10
	6	13B Stormwater Lift Stations	5242 Bougenville Drive, New Port Richey, FL	2	8	10
Stormwater Treatment Facilities and	7	Orange Lake	6391 Grand Blvd, New Port Richey, FL 34652	2	4	6
	8	The Meadows	6674 Meadowbrook Ln, New Port Richey, FL 34653	2	9	11
	9	Sunnybrook	4804 Sunntybrook Dr, New Port Richey FL	2	8	10
	10	Storm Water Utility Division	6132 Pine Hill Road, Port Richey, FL 34668	1	0	1
Drinking Water Facilities	11	William C. Maytum Water Treatment Plant	9748 Decubellis Rd, New Port Richey, FL 34654	3	0	3
Water Utility Conveyance Systems	12	Water Tower/Elevated Tank	5400 School Rd, New Port Richey, FL 34652	3	0	3
Disaster Debris Management Sites	13	Pine Hill Road Yard Transfer Site	6420 Pine Hill Road, New Port Richey, FL 34668	2	0	2
<b>3. Critical Community and Emergency Facilities including:</b>						
Schools	14	Gulf Middle School	6419 Louisiana Avenue, New Port Richey, FL 34653	1	0	1
	15	Richey Elementary School	6850 Madison Street, New Port Richey, FL	1	1	2
	16	Gulf High School	5355 School Road, New Port Richey, FL	1	0	1
Colleges	17	CCWC School of Ministry	6825 Trouble Creek Road, New Port Richey, FL	1	0	1
	18	Keiser University	6014 US Highway 19, Ste 250, New Port Richey, FL	1	2	3
Fire Stations	19	New Port Richey Fire Station 1	6333 Madison St, New Port Richey, FL 34652	3	3	6
	20	New Port Richey Fire Station 2	5220 Grand Boulevard, New Port Richey, FL 34652	3	0	3
Law Enforcement Facilities	21	New Port Richey Police Station	6739 Adams St., New Port Richey, FL 34652	3	4	7
	22	Pasco County Sunset Building (Pasco Sherriff Storage Facility)	5418 Sunset Road, New Port Richey, FL 34652	1	3	4
	23	New Port Richey Code Enforcement	6739 Adams St., New Port Richey, FL 34652	1	0	1
Health Care Facilities	24	Morton Plant North Bay MAB	6633 Forest Avenue, New Port Richey, FL	1	0	1
	25	Richey Medical Center	5341-5411 Grand Blvd, New Port Richey, FL	1	0	1
	26	Morton Plant North Bay - Emergency Center	6600 Madison Street, New Port Richey, FL	3	0	3
	27	TGH Imaging	5539 Marine Parkway, New Port Richey, FL	1	0	1
Local Government	28	City Hall	5919 Main Street, New Port Richey, FL	1	0	1
	29	New Port Richey Public Works (Operations Center)	6132 Pine Hill Rd, Port Richey, FL 34668	1	0	1
	30	Recreation & Aquatics Center	6630 Van Buren St., New Port Richey, FL 34653	1	0	1
	31	New Port Richey Fleet	6420 Pine Hill Rd., New Port Richey, FL	1	0	1
	32	New Port Richey Library	5939 Main St, New Port Richey, FL 34652	1	0	1
	33	New Port Richey Parking Garage	6218 US-19, New Port Richey, FL 34652	2	2	4
	34	Gloria Swanson Parking Lot	6358 Bank St, New Port Richey, FL 34652	2	3	5
	35	Thomas Meighan Parking Lot located on Nebraska Ave	5645 Missouri Avenue, New Port Richey, FL 34652	2	3	5
	36	Gerben Devries Parking Lot located on Nebraska Ave	Adams St. & Nebraska Ave., New Port Richey, FL	1	0	1
	37	Former Florida Department of Health - Pasco County	5640 Main Street, New Port Richey, FL 34652	2	2	4



		Facility	Address	Ranking	Flood Potential	Final Ranking
<b>4. Natural, Cultural, and Historical Resources including:</b>						
	Conservation Lands	38 James E. Grey Preserve	6938 Plathe Road, New Port Richey, FL 34653	1	10	11
	Parks	39 Sims Park	6341 Bank Street, New Port Richey, FL 34652	1	1	2
		40 Meadows Park	6674 Meadowbrook Lane, New Port Richey, FL 34653	1	7	8
		41 Orange Lake Park	6391 Grand Blvd, New Port Richey, FL 34652	1	8	9
		42 Cotee River Park	7004 Grand Blvd, New Port Richey, FL 33652	1	6	7
		43 Frances Avenue Park	5580 Frances Avenue, New Port Richey	1	9	10
		44 Grand Blvd Park	5601 Grand Blvd, New Port Richey, FL 34652	1	9	10
		45 Jasmin Park	7222 Jasmin Drive, New Port Richey, FL 34652	1	9	10
		46 Pine Hill Park	6220 Pine Hill Rd., New Port Richey 34668	1	0	1
		47 Orange Grove Park	Orange Grove Ave, New Port Richey 34668	1	2	3
		48 River Drive Park	Bellview Ave & Cotee River Dr., New Port Richey, FL	3	9	12
		49 Russ Park	Wedgewood Dr. & Avery Rd., New Port Richey, FL	3	8	11
		50 Sims Park Boat Ramp	Bridge Rd & River Rd., New Port Richey, FL	2	10	12
		51 New Port Richey Parks & Recreation	6630 Van Buren St., New Port Richey, FL 34653	1	0	1
		52 Pithlachascotee River	Often called the "Cootie" River, New Port Richey, FL 34653	1	10	11
	Shorelines / Surface Waters/Wetlands	53 Lake Chasco	6337 Louisisanna Ave, New Port Richey, FL 34653	1	4	5
	Historical and Cultural Assets	54 James E. Grey Preserve	6938 Plathe Rd, New Port Richey, FL	1	0	1
		55 Hacienda Hotel	5621 Main St, New Port Richey, FL	1	0	1
		56 Richey Suncoast Theater	6237 Grand Blvd, New Port Richey, FL	1	3	4
		57 Pasco building (Grand Blvd from Nebraska Ave to Missouri Ave)	6230-6236 Grand Blvd., New Port Richey, FL	1	3	4
		58 First State Bank	6321 Grand Blvd., New Port Richey, FL	1	4	5
		59 Arcade building (Adams St & Main St)	5805-5811 Main St., New Port Richey, FL	1	1	2
		60 Screened Porch House	5854 Main St., New Port Richey, FL	1	1	2
		61 Stucco House	5852 Main St., New Port Richey, FL	1	1	2
		62 Enclosed Porch House	5834 Nebraska Ave., New Port Richey, FL	1	0	1
		63 Oak Tree House	5830 Nebraska Ave., New Port Richey, FL	1	2	3
		64 Ivy Chimney House	5850 Nebraska Ave., New Port Richey, FL	1	1	2
		65 Flower Bed House	5940 Nebraska Ave., New Port Richey, FL	1	1	2
		66 Center Chimney House	5936 Nebraska Ave., New Port Richey, FL	1	1	2
		67 Metal Awning House	5926 Missouri Ave., New Port Richey, FL	1	1	2
		68 Our Lady Queen of Peace Church	5340 High Street, New Port Richey, FL 34652	1	0	1
		69 Harry Schwettman Education Center	5520 Grand Blvd, New Port Richey, FL	1	2	3
		70 West Pasco Historical Society	6431 Circle Blvd., New Port Richey, FL	1	0	1
<b>5. Neighborhoods including:</b>						
		71 The Meadows	6674 Meadowbrook Ln, New Port Richey, FL 34653	2	9	11
		72 Sunnybrook Condos	6516 Tina Drive, New Port Richey, FL 34653	2	9	11



Exclusions are listed for reference. The City does not own or operate any of the facilities listed below.

	<u>Facility</u>	<u>Address</u>	<u>Ranking</u>	<u>Flood Potential</u>	<u>Final Ranking</u>
<b>6. Exclusions including:</b>					
	73 Hidden Lake Airport	8901 Airway Blvd, New Port Richey, FL 34654			
	74 US 19 over Cotee River				
	75 Bus Station				
	76 Pasco Co Public Transportation	8620 Galen Wilson Blvd, Port Richey, FL 34668			
	77 Millers Bayou	Miller Bayou Dr			
	78 US 19				
	79 SR 54				
	80 Sunset Landing Marina	5115 Sunset Blvd, Port Richey, FL 34668			
	81 American Marina	4800 Ebbtide Lane, Port Richey, FL 34668			
	82 Pasco Co Emergency Communications Center	Government Drive, New Port Richey 34654			
	83 HCA Florida Trinity West Hospital	5637 Marine Parkway			
	84 Florida Hospital of North Pinellas Wound Healing	5140 Deer Park Dr, #105			
	85 Gulf Coast Medical Center	11528 US 19			
	86 KLM Medical Services	6719 Ridge Road			
	87 New Port Richey Family Health Center	2114 Seven Springs Blvd.			
	88 John Hopkins All Children Outpatient - Pasco	4443 Rowan Road			
	89 Gulf Coast Medical Center	9238 US 19 S			
	90 After Hours Pediatrics Urgent Care	5400 Little Road			
	91 BayCare Urgent Care	4821 U.S. 19			
	92 Family Medical Doctors	5234 Little Road			
	93 BayCare Behavioral Health	8002 King Helie Blvd			
	94 BayCare Laboratories	6633 Forest Ave #1A			
	95 Care One of Florida	10435 U.S. 19			
	96 BayCare Behavioral Health - Magnolia Plaza	7809 Massachusetts Ave			
	97 BayCare Home Care	8406 Massachusetts Ave			
	98 Trinity Medical Arts Building	2044 Trinity Oaks Blvd.			
	99 DaVita New Port Richey Kidney Center	7421 Ridge Road			
	100 Humana	9550 U.S. 19			
	101 CMS				
	102 Department of Corrections	7619 Little Road, New Port Richey, FL			
	103 Pasco County Emergency Management	8744 Government Dr			
	104 Port Richey Fire Department	7824 Grand Blvd.			
	105 River Ridge Middle School	11646 Town Center Road, New Port Richey, FL			
	106 Longleaf Elementary School	3253 Town Avenue, New Port Richey, FL			
	107 Trinity Elementary School	2209 Duck Slough Blvd, Trinity			
	108 Deer Park Elementary	8636 Trouble Creek Road , New Port Richey			



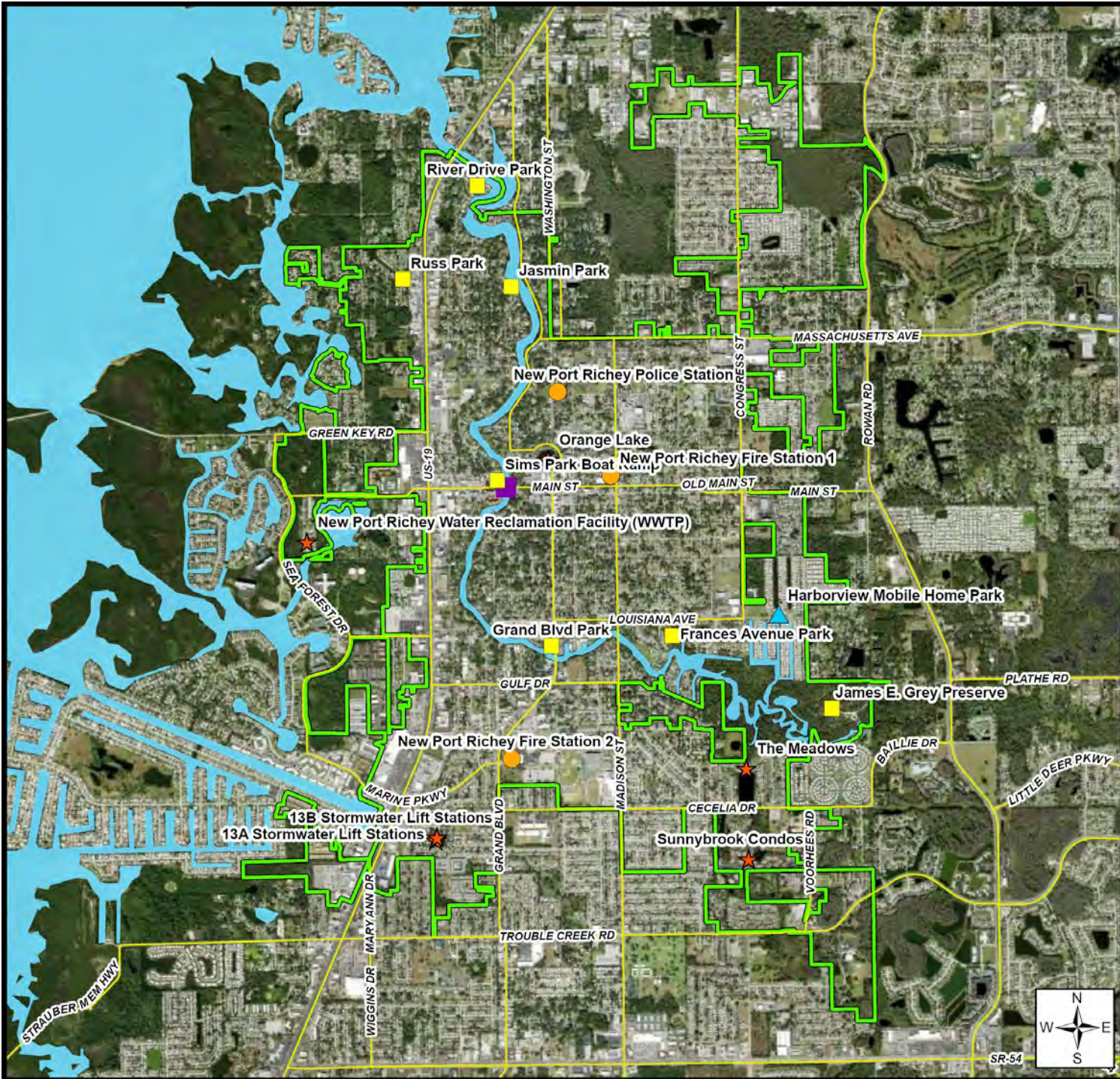
	<u>Facility</u>	<u>Address</u>	<u>Ranking</u>	<u>Flood Potential</u>	<u>Final Ranking</u>
<b>6. Exclusions including: (cont.)</b>					
	109 Seven Springs Middle School	2441 Little Road, New Port Richey, FL			
	110 Odessa Elementary	12810 Interlaken Road, New Port Richey, FL			
	111 Cypress Elementary School	10055 Sweet Bay Court, New Port Richey, FL			
	112 Schrader Elementary School	11041 Little Road, New Port Richey, FL			
	113 J.W. Mitchell High School	2323 Little Road, Trinity			
	114 Moon Lake Elementary	12019 Tree Breeze Drive, New Port Richey, FL			
	115 James M. Marlowe Elementary	5642 Cecelia Drive, New Port Richey, FL			
	116 Cotee River Elementary	7515 Plathe Road, New Port Richey, FL			
	117 Magnolia Valley	New Port Richey, FL			
	118 Pasco Palms Preserve	4466 Trouble Creek Rd			
	119 Robert K Rees Memorial Park	3503 Green Key Rd, New Port Richey, FL			
	120 Werner-Boyce Salt Springs State Park	8737 US 19., Port Richey, FL 34668			
	121 Robert K Rees Memorial Park	4835 Green Key Road, New Port Richey, FL 34652			
	122 Eagle Point Park	4499 Straub Memorial Highway, New Port Richey, FL 34652			
	123 Green Key Beach	4835 Green Key Rd New Port Richey, FL 34652			
	124 Anclote Key Preserve State Park	Tarpon Springs, FL 34689			
	125 Boy Scout Preserve	4230 Green Key Road, New Port Richey, FL 34652			
	126 Oelsner Indian Mound	4930 Sunset Blvd, New Port Richey, FL 34668			
	127 WH Jack Mitchell Jr. Park	4825 Little Road, New Port Richey, FL 34655			
	128 Jay B. Starkey Wilderness Park	10500 Wilderness Park Blvd, New Port Richey, FL 34655			
	129 Moon Lake Park	8985 Lake Dr, New Port Richey, FL 34654-4849			
	130 Oelsner Park	5218 Miller Bayou Dr, New Port Richey, FL 34668			
	131 Unveiled Leadership College	5320 Palmetto Road, New Port Richey, FL 34652			
	132 Indiana Ave Closed Landfill	6315 Indiana Avenue, New Port Richey, FL 34653			
	133 US Water Services Corporation Corp. Office	4939 Cross Bayou Blvd, New Port Richey, FL 34653			
	134 Place at Mittye P Locke Elementary	4439 Evans Avenue, New Port Richey, FL			
	135 Seven Springs Elementary School	8025 Mitchell Ranch Road, New Port Richey, FL			
	136 Pepin Academies of Pasco County	9804 Little Road, New Port Richey, FL			
	137 First Christian Academy	6800 Trouble Creek Road, New Port Richey, FL			
	138 Eifers Christian School	5630 Olympia Street, New Port Richey, FL			
	139 Wendell Krinn Technical High School	7650 Orchid Lake Road, New Port Richey, FL			
	140 Millennium Academy	10005 Ridge Road, New Port Richey, FL			
	141 Ridgewood High School	7650 Orchid Lake Road, New Port Richey, FL			
	142 Marchman Technical Education Center	7825 Campus Drive, New Port Richey, FL			
	143 Genesis Preparatory School	8100 Mitchell Road, New Port Richey, FL 33655			
	144 River Ridge High School	11646 Town Center Road, New Port Richey, FL			



	<u>Facility</u>	<u>Address</u>	<u>Ranking</u>	<u>Flood Potential</u>	<u>Final Ranking</u>
<b>6. Exclusions including: (cont.)</b>					
	145 Tanglewood Learning Center	8410 Sycamore Drive, New Port Richey, FL			
	146 High Street Park	Corson Ave, New Port Richey, FL			
	147 Northwestern Christian University	5135 US Highway 19, Ste 117, New Port Richey, FL			
	148 West Pasco Courthouse	Government Drive, New Port Richey, FL			
	149 Pasco Co Clerk of Circuit Court	7530 Little Road Ste 106, New Port Richey, FL 34654			
	150 BayCare Behavioral Health - Statewide (SIPP)	8132 King Helie Blvd, New Port Richey, FL			
	151 Florida Department of Health - Pasco County	10841 Little Road, New Port Richey, FL			
	152 Groundsmaking Storage Shed	NA			
	153 Well Houses	NA			
	154 Interconnect w/ Pasco & Port Richey	NA			
	155 Bus Terminals	NA			
	156 Ports	NA			
	157 Marinas	NA			
	158 Railway Facilities	NA			
	159 Evacuation Routes	NA			
	160 Radio Communication Services	6719 Arroyo Dr. New Port Richey, FL			
	161 Pasco County Utility	19420 Central Blvd, Land O' Lakes, FL 34637			
	162 Blake Electric	5743 Illinois Ave., New Port Richey, FL 34652			
	163 Embassy Wasterwater Treatment Facility	9518 Crabtree Ln, Port Richey, FL 34668			
	164 Pasco County Fleet Management	6911 Fox Hollow Dr, Port Richey, FL 34668			
	165 Pasco County Sheriff Office	8700 Citizens Dr, New Port Richey, FL 34654			
	166 Pasco County Human Services	820 Galen Wilson Blvd., New Port Richey, FL 34668			
	167 Destiny Christian College	3118 Seven Springs Blvd, New Port Richey, FL			
	168 Lighthouse Christian Homeschool Academy	5151 Rowan Rd., New Port Richey, FL 34653			
	169 Pace Center for Girls	7545 Little Rd, New Port Richey, FL 34654			
	170 Pasco-Hernando State & Community College	10230 Ridge Road, New Port Richey, FL			
	171 Advanced Research Institute Inc	7114 Congress St, New Port Richey, FL 34653			

# **Appendix B: Scenario 1 Models**

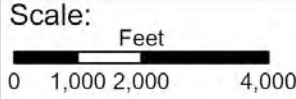
**Figure 1.  
Average Tide  
from Clearwater  
Gage to  
Main St Bridge**



**Overview**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - ▭ NPR Boundary
  - ▭ River 3.65ft (Avg)
  - ▭ Ocean
- 1: Avg Tide BASELINE (ft)  
No Flooding

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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# **Appendix C: Scenario 2 Models**

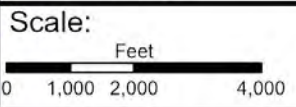


**Figure 2.**  
**Average Tide**  
**from Clearwater**  
**Gage to**  
**Main St Bridge**  
**Plus 2040 SLR**

*Overview*

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- ▭ NPR Boundary
- Ocean
- 2: Scenario 1 BASELINE plus 2040SLR (ft)
- No Flooding
- 1ft Water

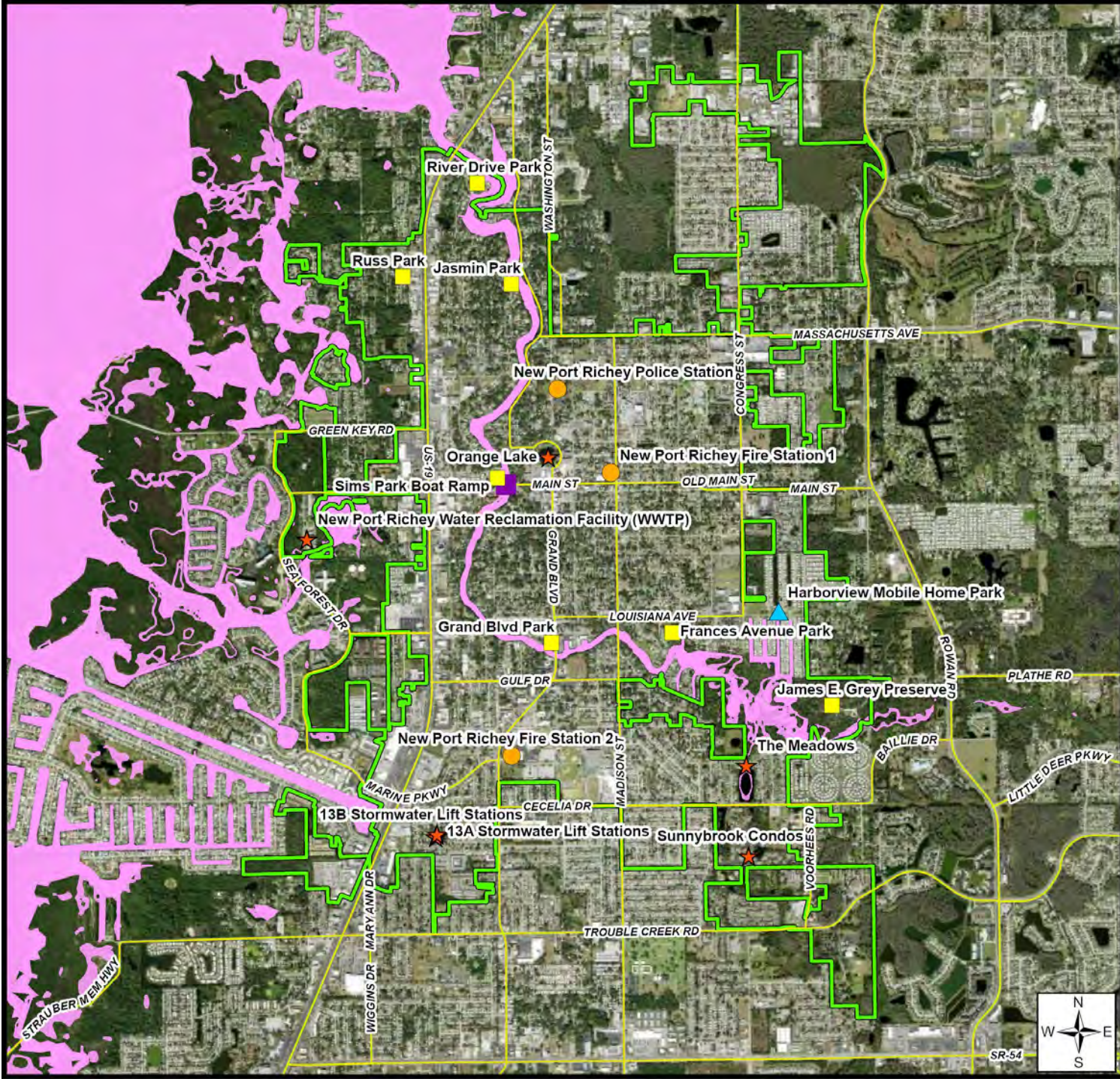
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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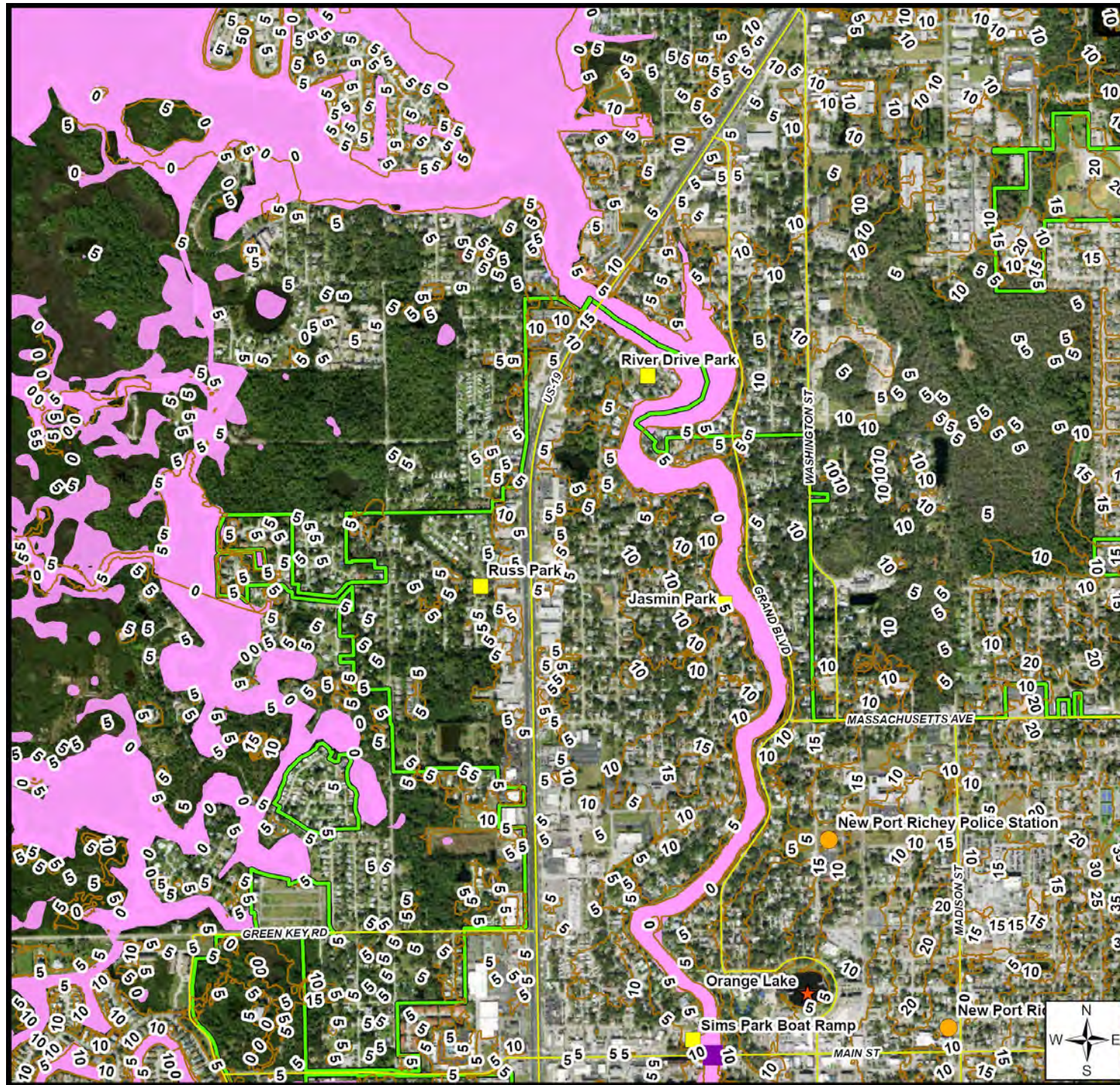


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**Figure 2.  
Average Tide  
from Clearwater  
Gage to  
Main St Bridge  
Plus 2040 SLR**

**Northwest**

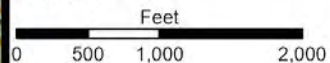


- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- LiDAR (5ft)
- NPR Boundary
- Ocean

**2: Scenario 1 BASELINE plus  
2040SLR (ft)**  
No Flooding  
1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.

Scale:



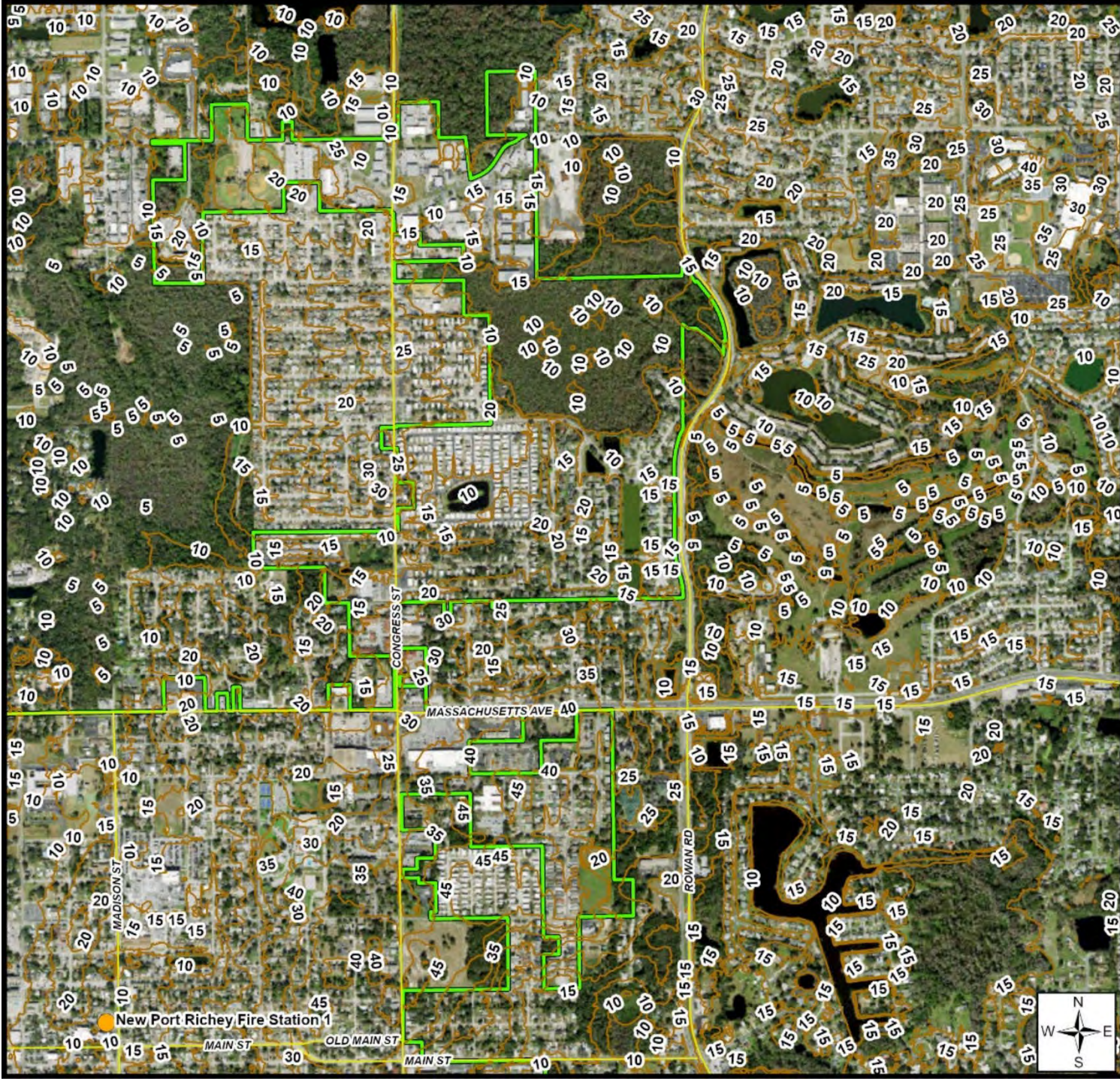
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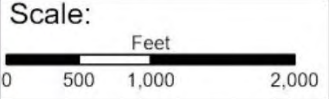
**Figure 2.**  
**Average Tide**  
**from Clearwater**  
**Gage to**  
**Main St Bridge**  
**Plus 2040 SLR**

*Northeast*



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- LIDAR (5ft)
- NPR Boundary
- Ocean
- 2: Scenario 1 BASELINE plus 2040SLR (ft)
- No Flooding
- 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



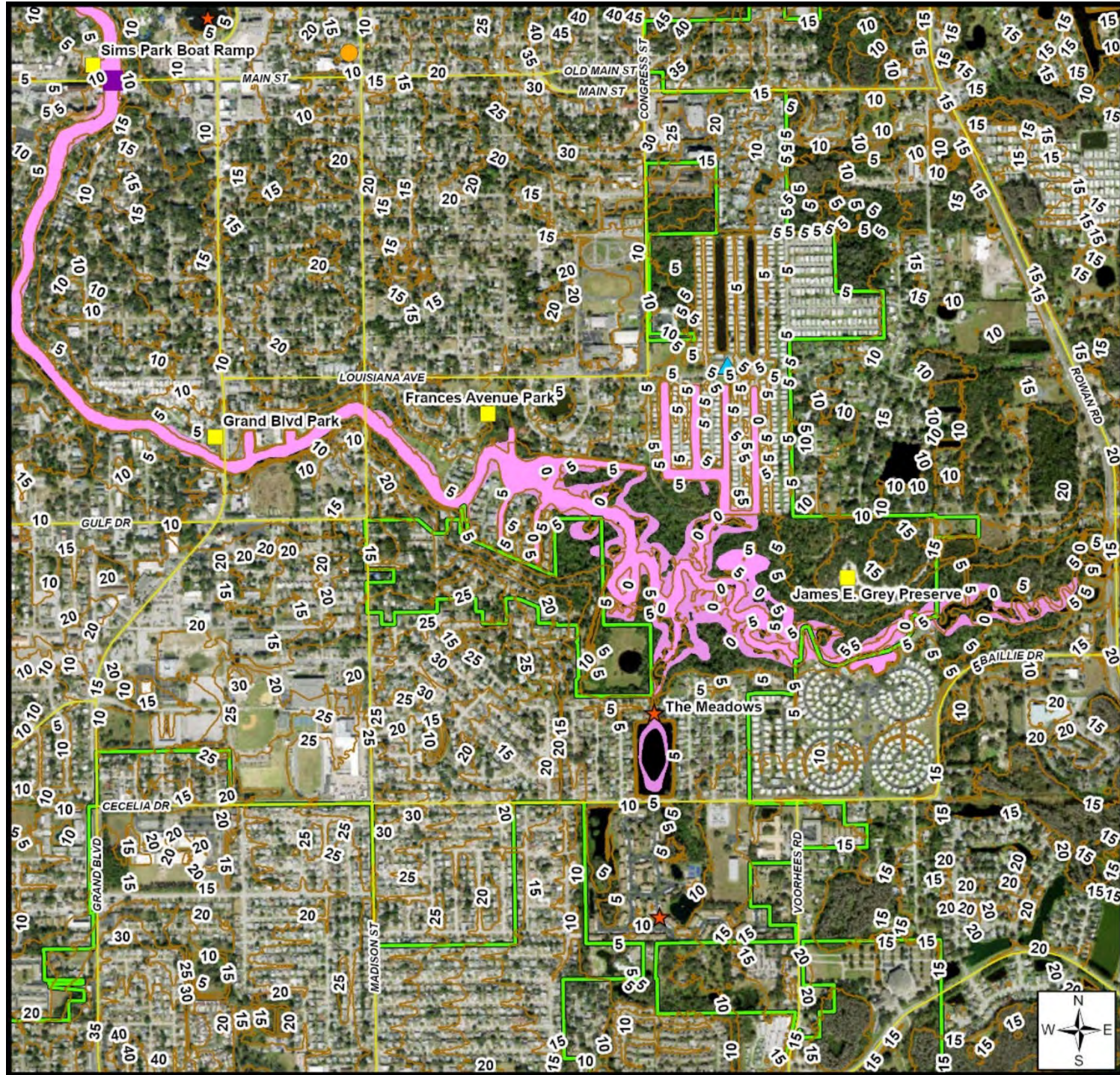
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**Figure 2.  
Average Tide  
from Clearwater  
Gage to  
Main St Bridge  
Plus 2040 SLR**

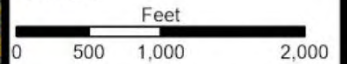
**Southeast**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5ft)
  - NPR Boundary
  - Ocean
- 2: Scenario 1 BASELINE plus 2040SLR (ft)
- No Flooding
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.

Scale:



Date: 8/3/2024

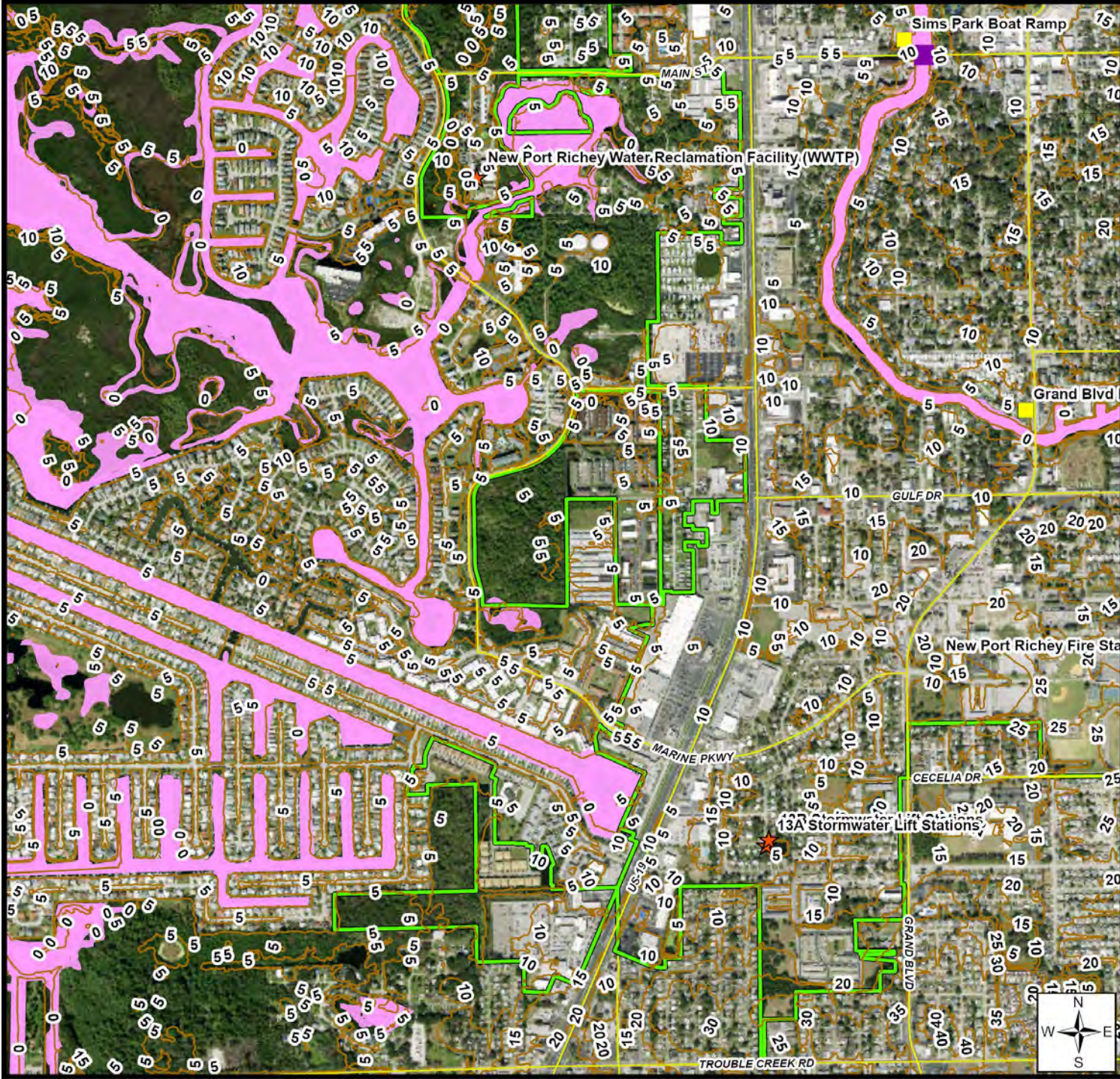


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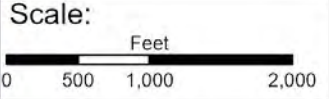
**Figure 2.**  
**Average Tide**  
**from Clearwater**  
**Gage to**  
**Main St Bridge**  
**Plus 2040 SLR**

**Southwest**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - NPR Boundary
  - Ocean
- 2: Scenario 1 BASELINE plus 2040SLR (ft)
- No Flooding
  - 1ft Water

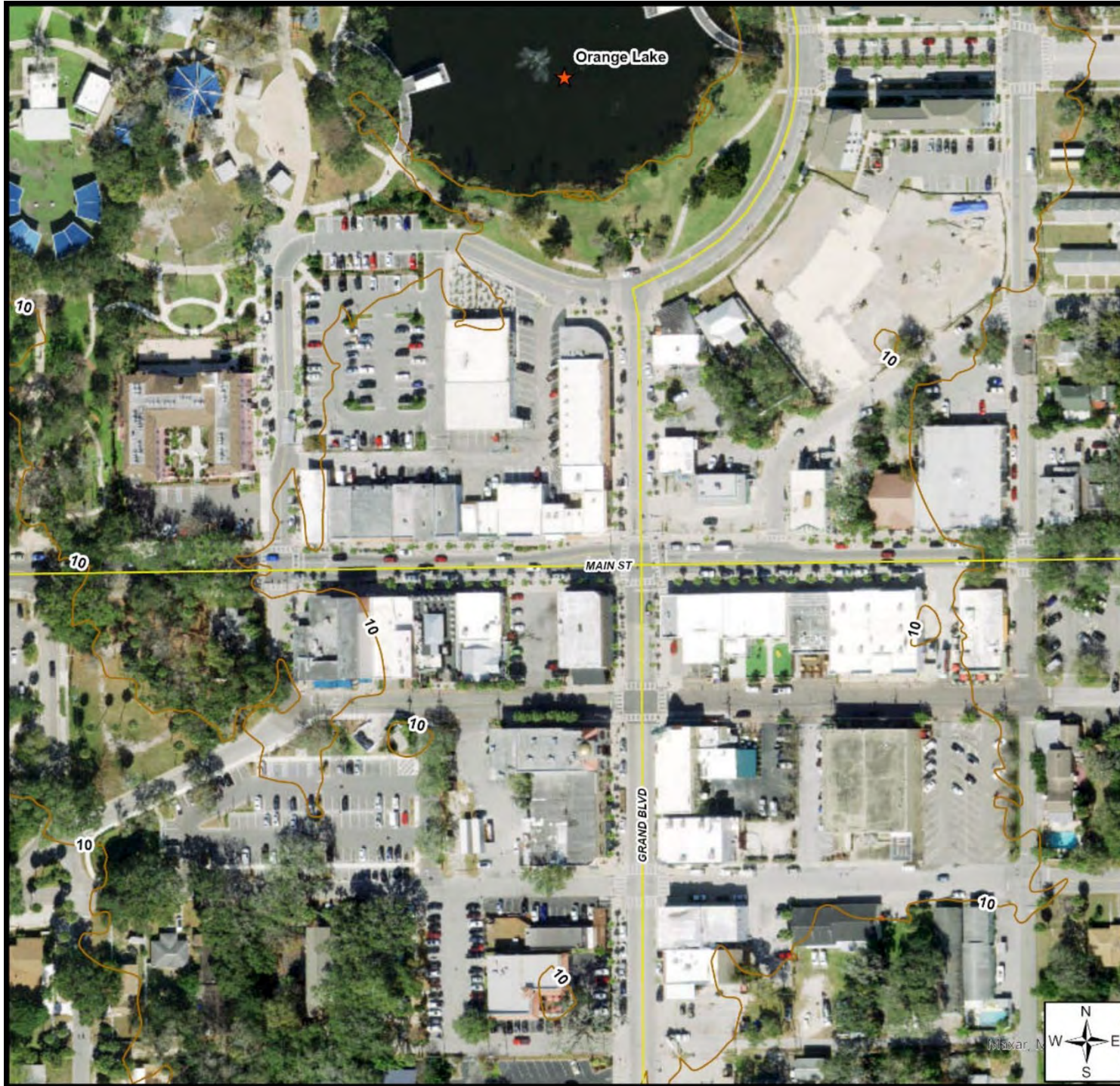
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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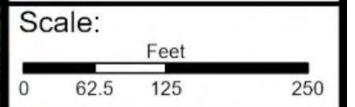




**Figure 2.  
Average Tide  
from Clearwater  
Gage to  
Main St Bridge  
Plus 2040 SLR**

***Downtown***

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5ft)
  - ▭ NPR Boundary
  - ▭ Ocean
- 2: Scenario 1 BASELINE plus 2040SLR (ft)
- No Flooding
  - 1ft Water
- NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



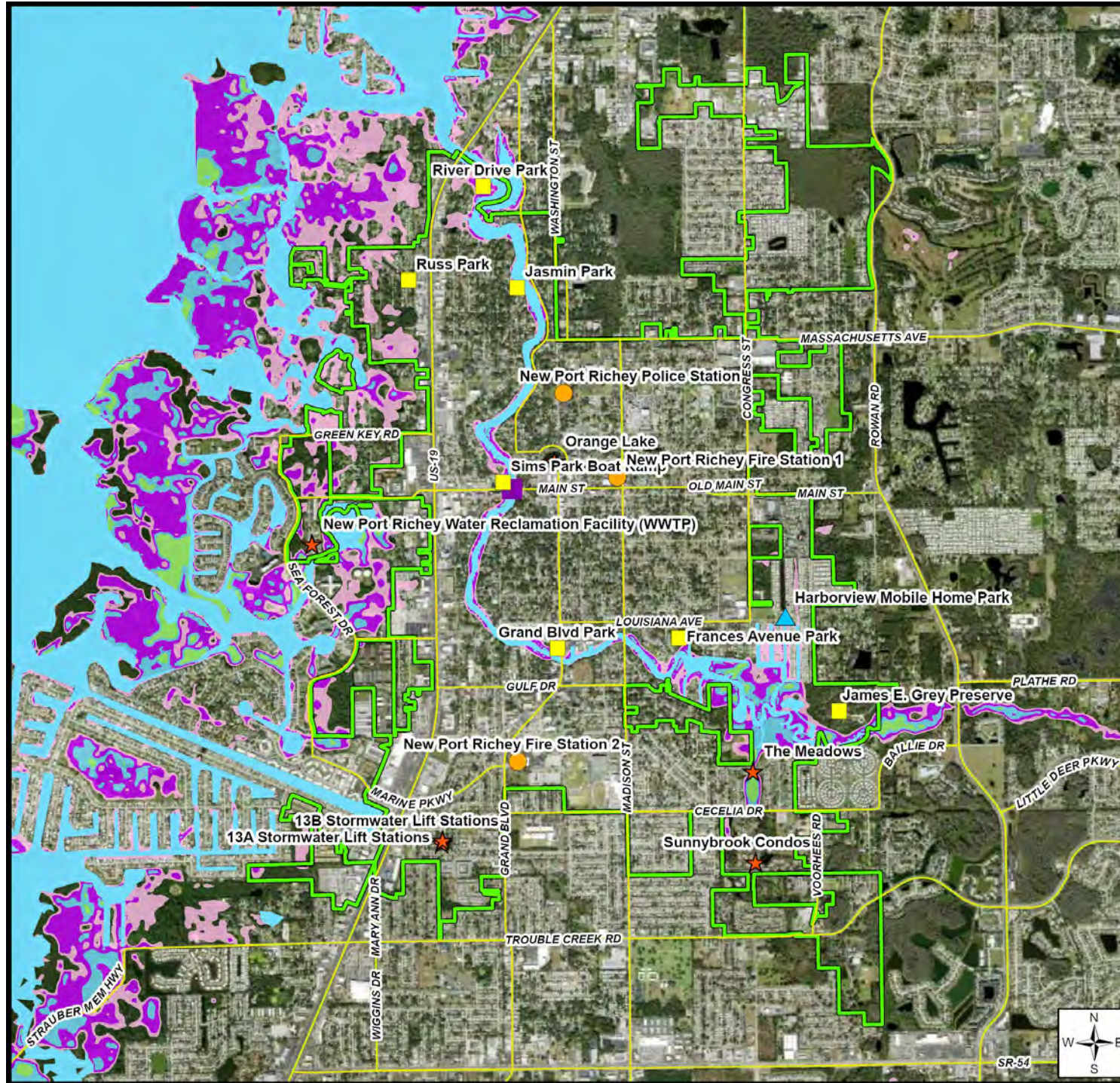
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# **Appendix D: Scenario 3 Models.**

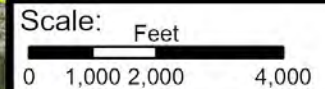
**Figure 3.  
Scenario 1  
Baseline +  
2070 SLR**

**Overview**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- ▭ NPR Boundary
- Ocean
- 3: 1 Baseline + 2070SLR (ft)**
- 4 ft Water
- 3 ft Water
- 2 ft Water
- 1 ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/4/2024



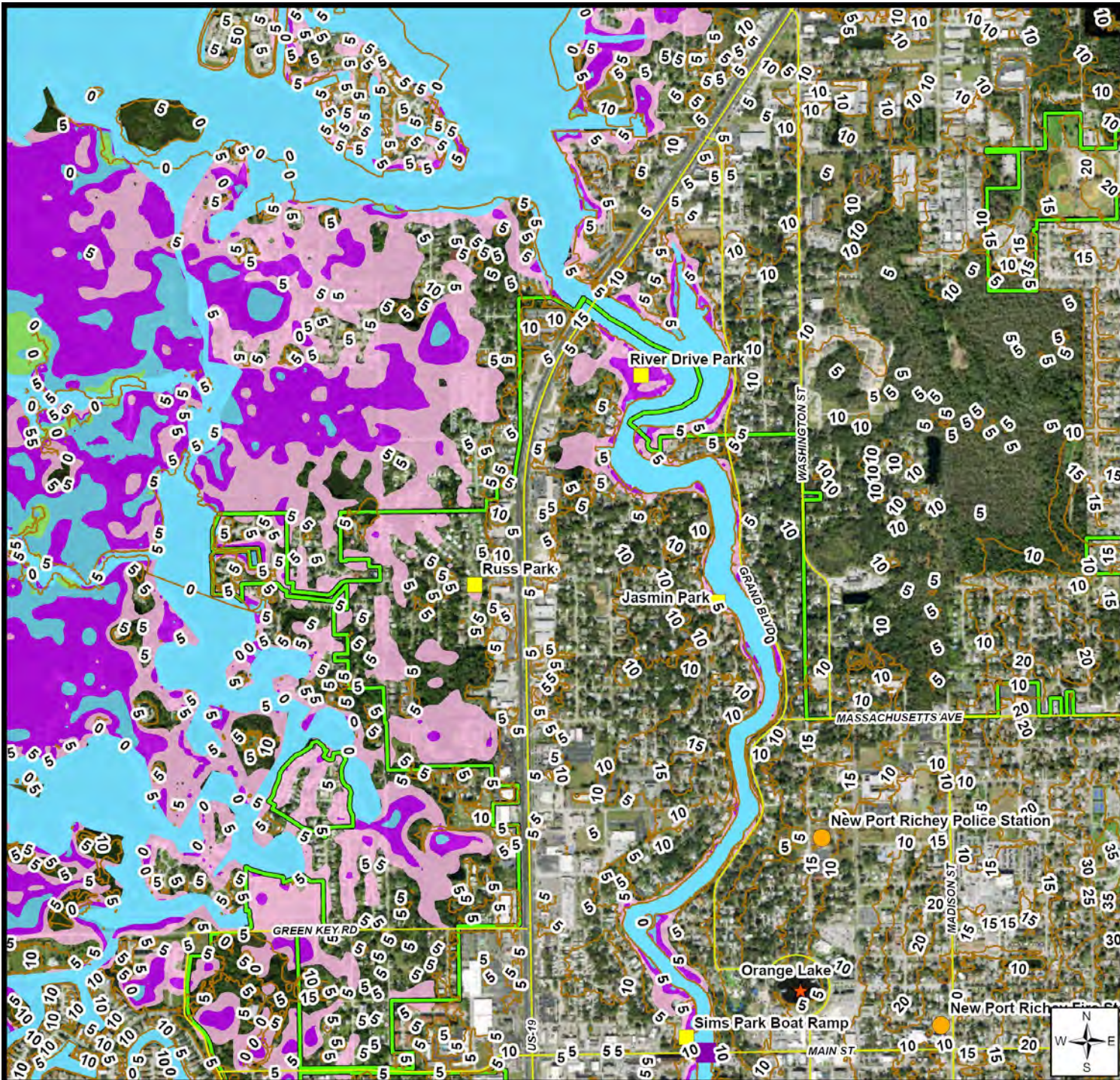
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**Figure 3.  
Scenario 1  
Baseline +  
2070 SLR**

**Northwest**



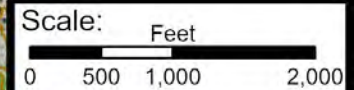
Most Vulnerable Critical Assets

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- LIDAR (5ft)
- ▭ NPR Boundary
- Ocean

**3: 1 Baseline + 2070SLR (ft)**

- 4 ft Water
- 3 ft Water
- 2 ft Water
- 1 ft Water

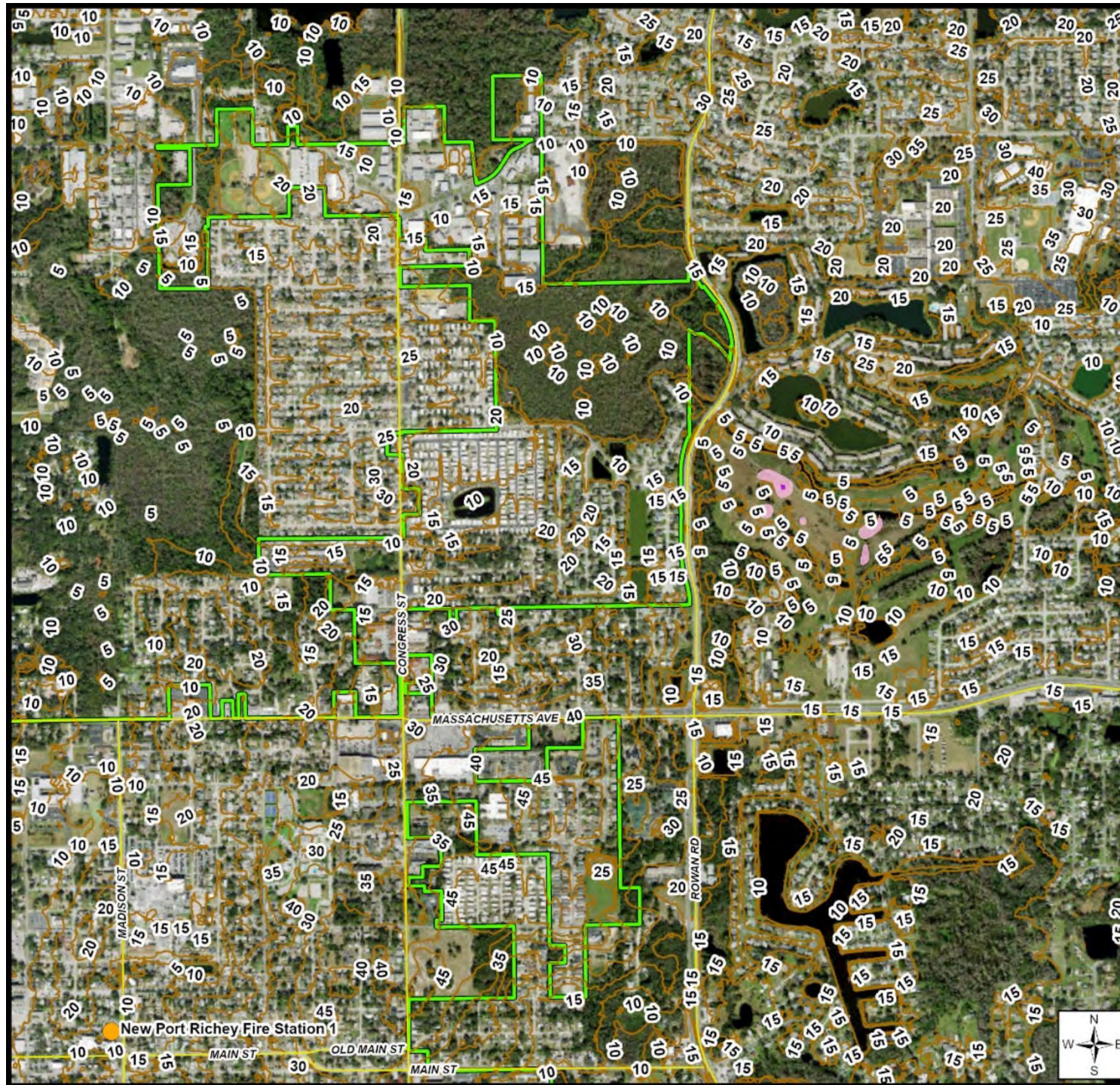
NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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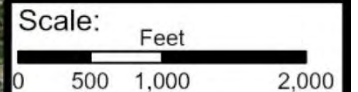


**Figure 3.  
Scenario 1  
Baseline +  
2070 SLR**

**Northeast**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - ▭ NPR Boundary
  - Ocean
- 3: 1 Baseline + 2070SLR (ft)**
- 4 ft Water
  - 3 ft Water
  - 2 ft Water
  - 1 ft Water

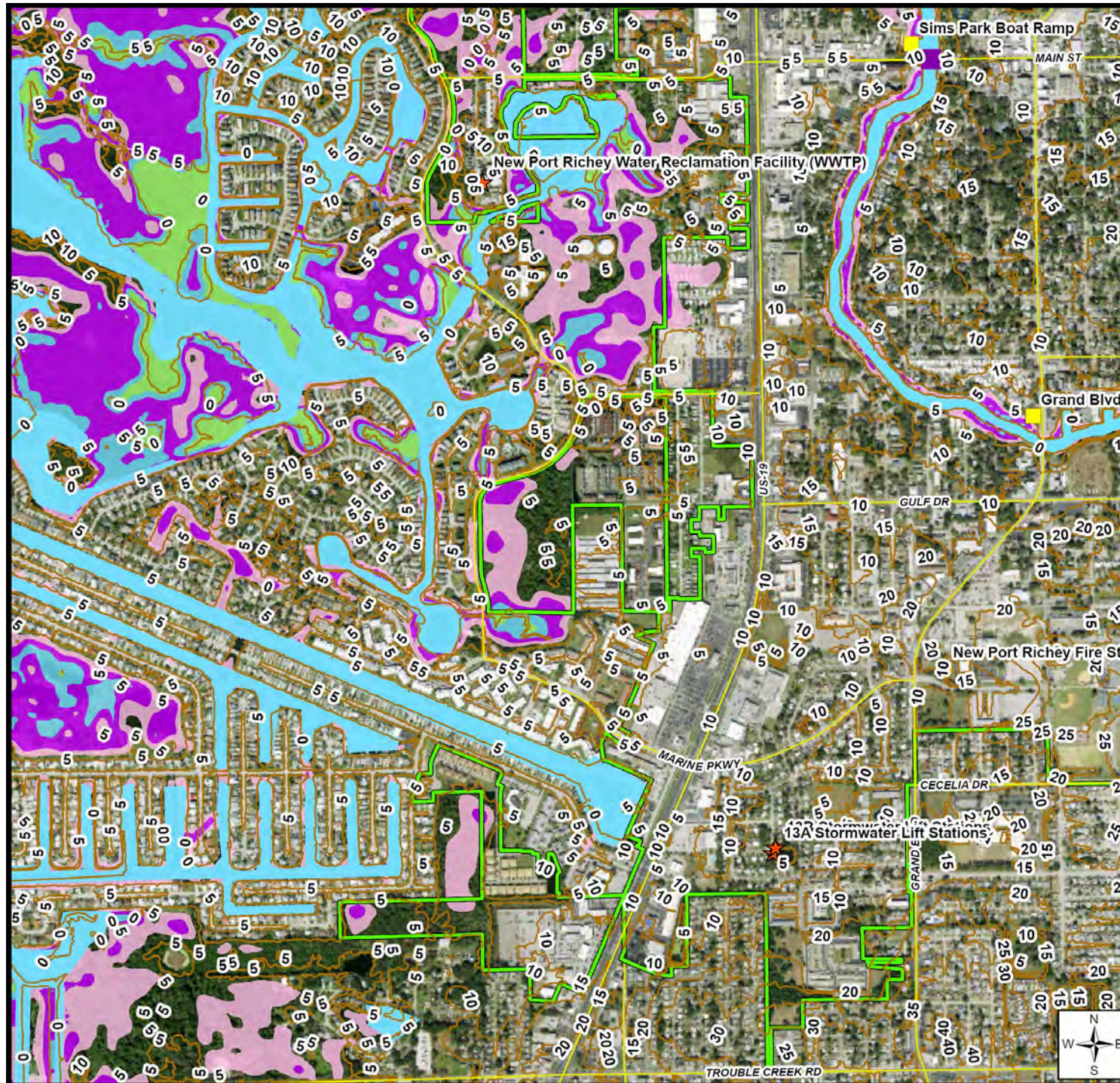
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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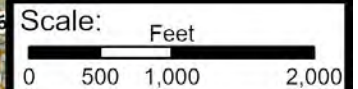


**Figure 3.  
Scenario 1  
Baseline +  
2070 SLR**

**Southwest**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - ▭ NPR Boundary
  - Ocean
- 3: 1 Baseline + 2070SLR (ft)
- 4 ft Water
  - 3 ft Water
  - 2 ft Water
  - 1 ft Water

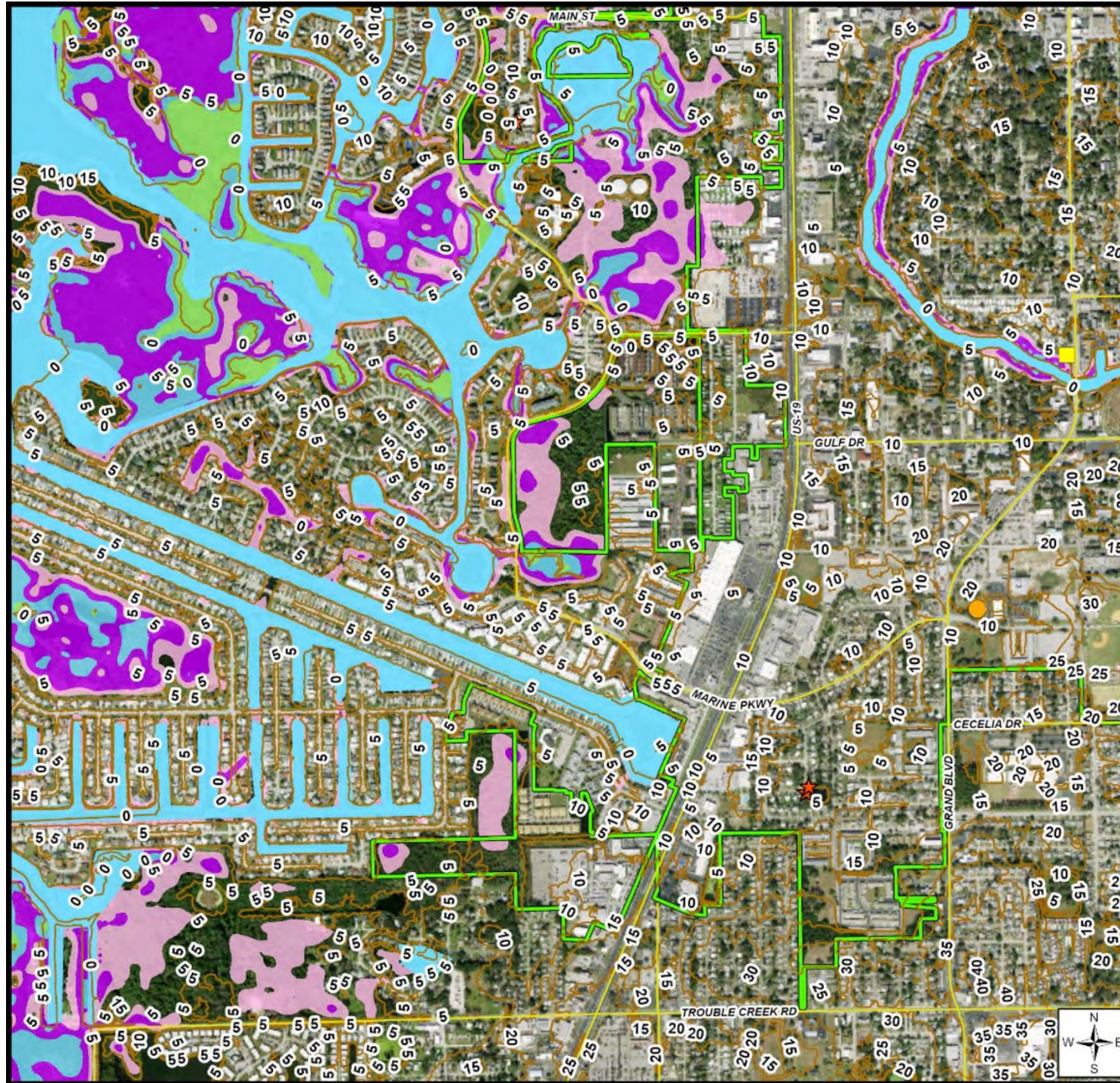
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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**Figure 3.  
Scenario 1  
Baseline +  
2070 SLR**

**Southwest**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - ▭ NPR Boundary
  - Ocean
- 3: 1 Baseline + 2070SLR (ft)**
- 4 ft Water
  - 3 ft Water
  - 2 ft Water
  - 1 ft Water

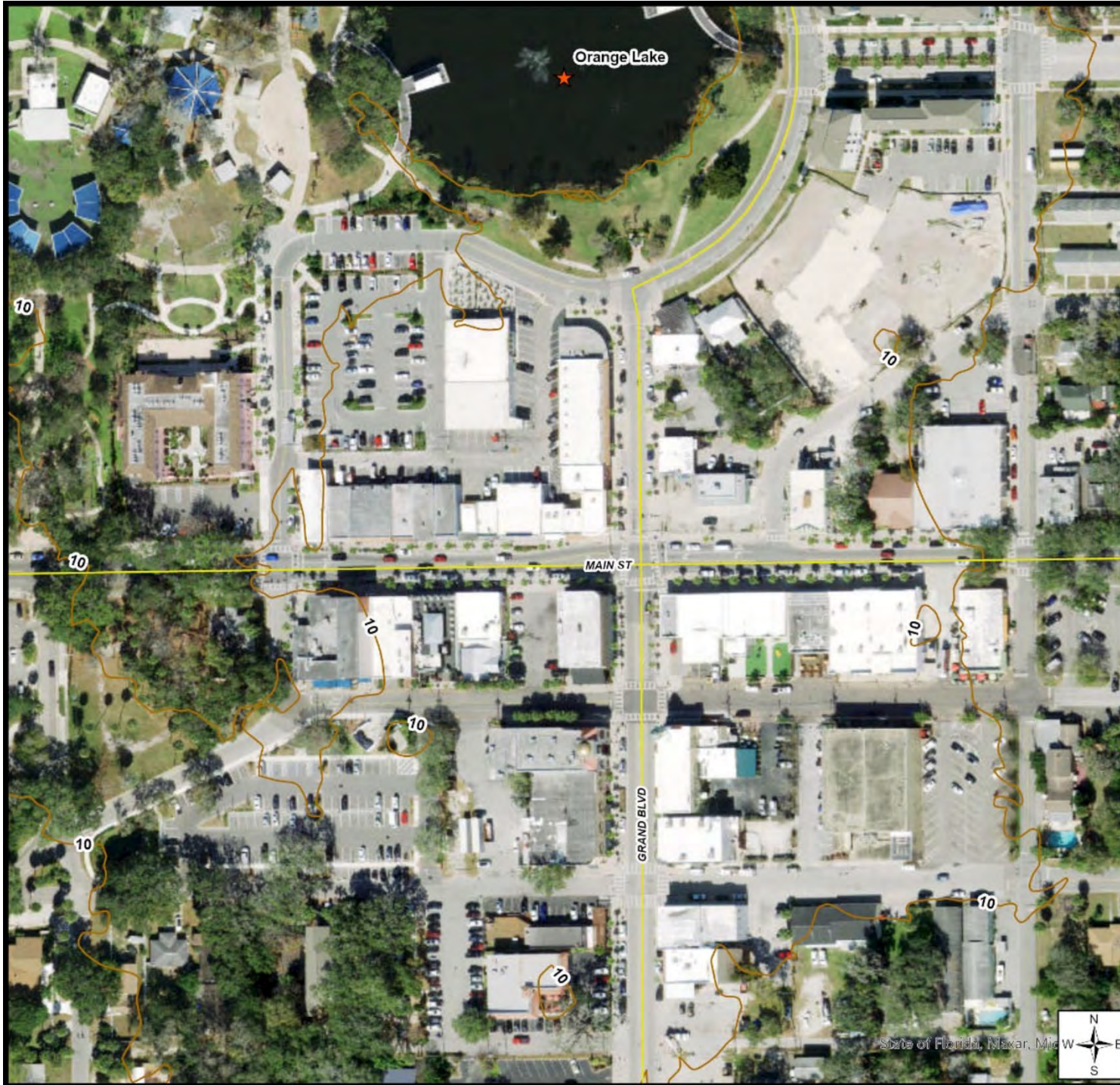
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.

Scale: Feet  
 0 490 980 1,960

Date: 8/3/2024



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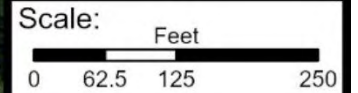


**Figure 3.  
Scenario 1  
Baseline +  
2070 SLR**

**Downtown**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - LiDAR (5ft)
  - ▭ NPR Boundary
  - Ocean
- 3: 1 Baseline + 2070SLR (ft)**
- 4 ft Water
  - 3 ft Water
  - 2 ft Water
  - 1 ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



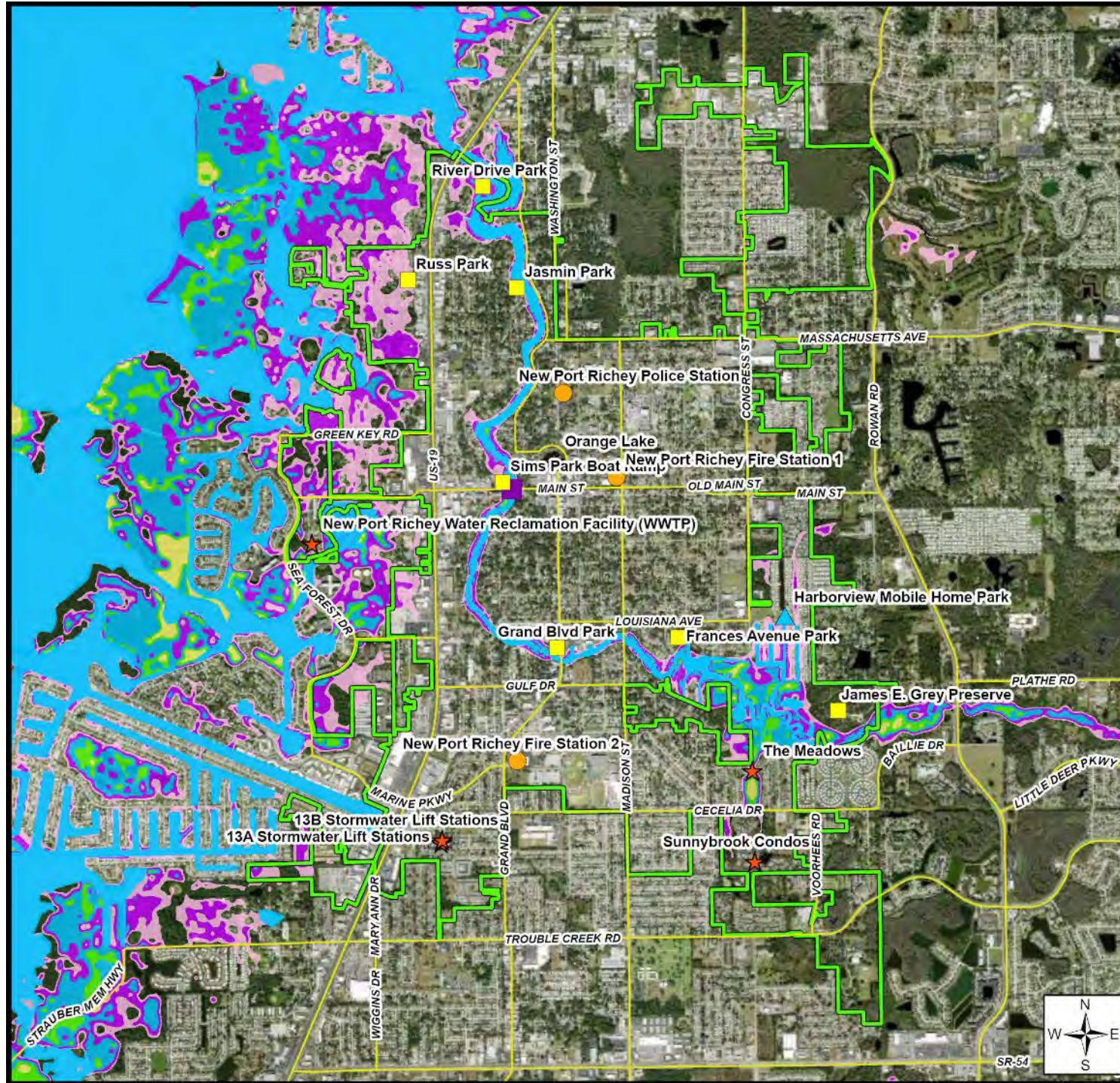
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# **Appendix E: Scenario 4 Models.**

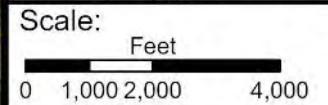
**Figure 4.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline**

**Overview**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- NPR Boundary
- Ocean
- Ocean
- 4: MAX Tide BASELINE (ft)
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

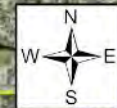
NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/4/2024

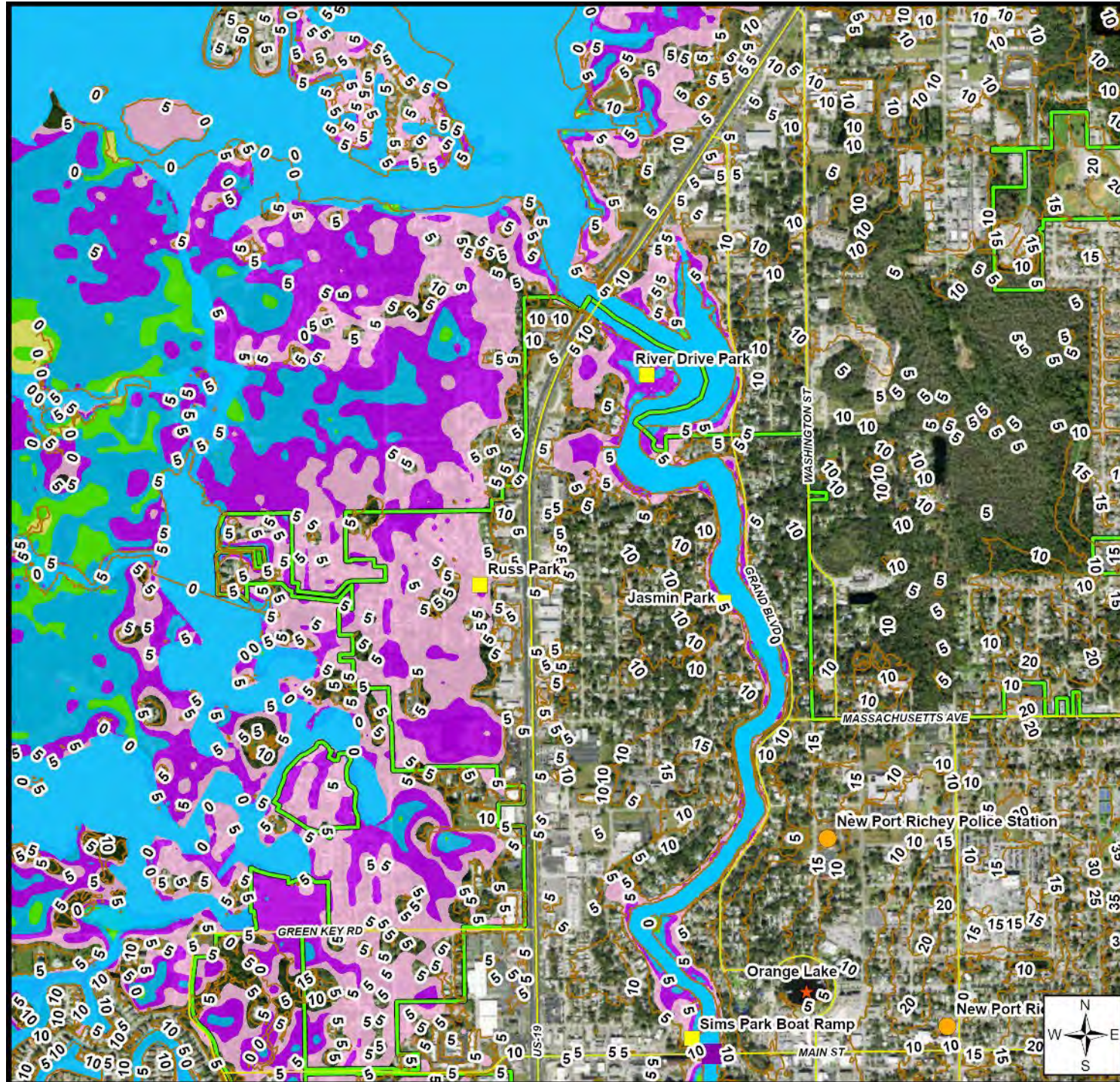


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**Figure 4.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline**

**Northwest**



Most Vulnerable Critical Assets

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- ▲ Main St Gage
- Major Roads
- LIDAR (5ft)
- NPR Boundary

Ocean

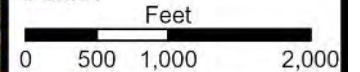
4: MAX Tide BASELINE (ft)

- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:

- Anclote Key Preserve and Warner Boyce Salt Springs will be under water.
- Magnolia Valley and Orange Grove Park are outside of the city limits.

Scale:



Date: 8/4/2024

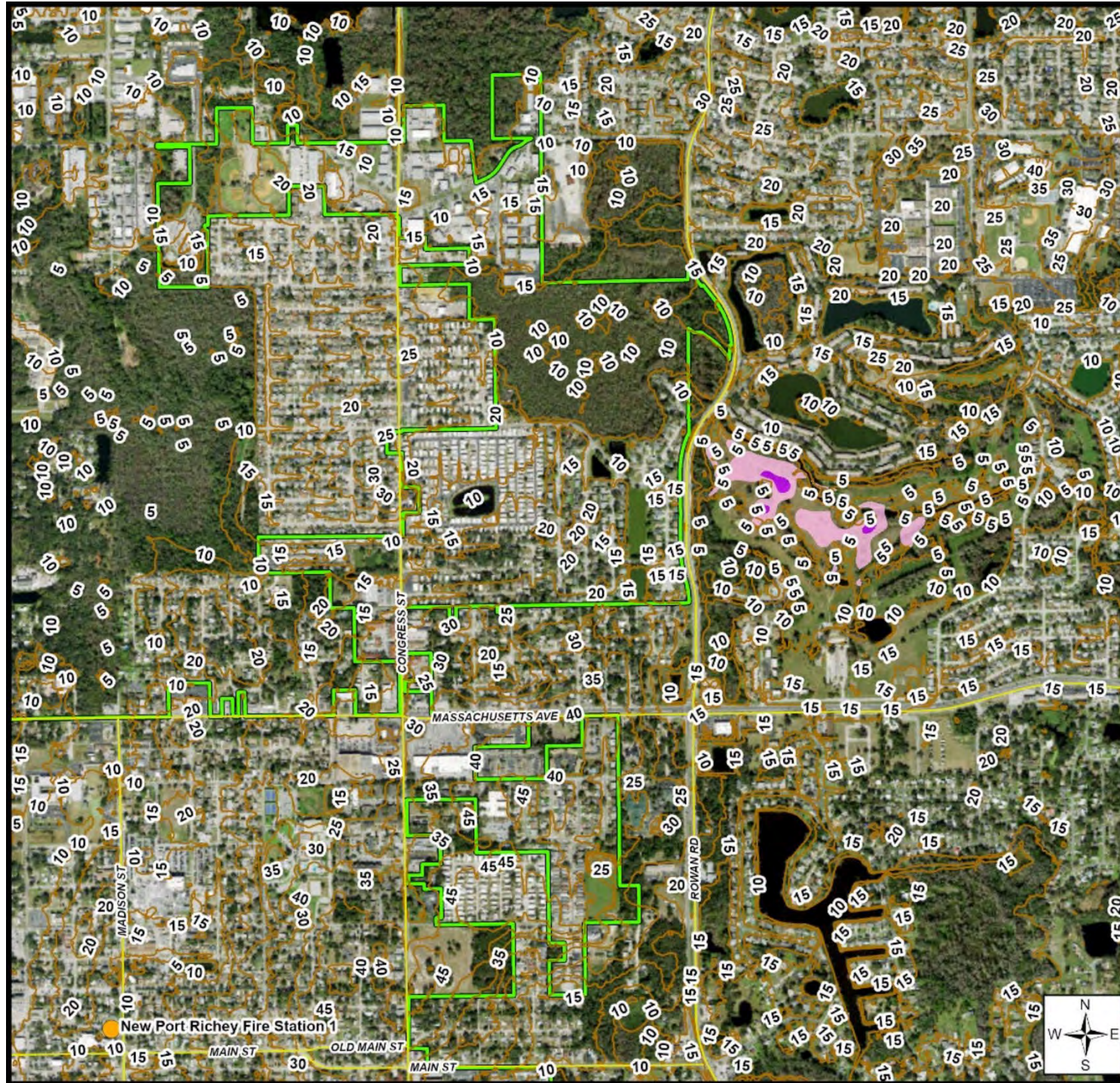


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**Figure 4.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline**

*Northeast*

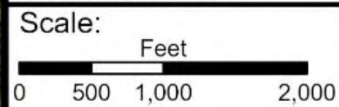


Most Vulnerable Critical Assets

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- LIDAR (5ft)
- NPR Boundary

- Ocean
- Ocean
  - 4: MAX Tide BASELINE (ft)
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



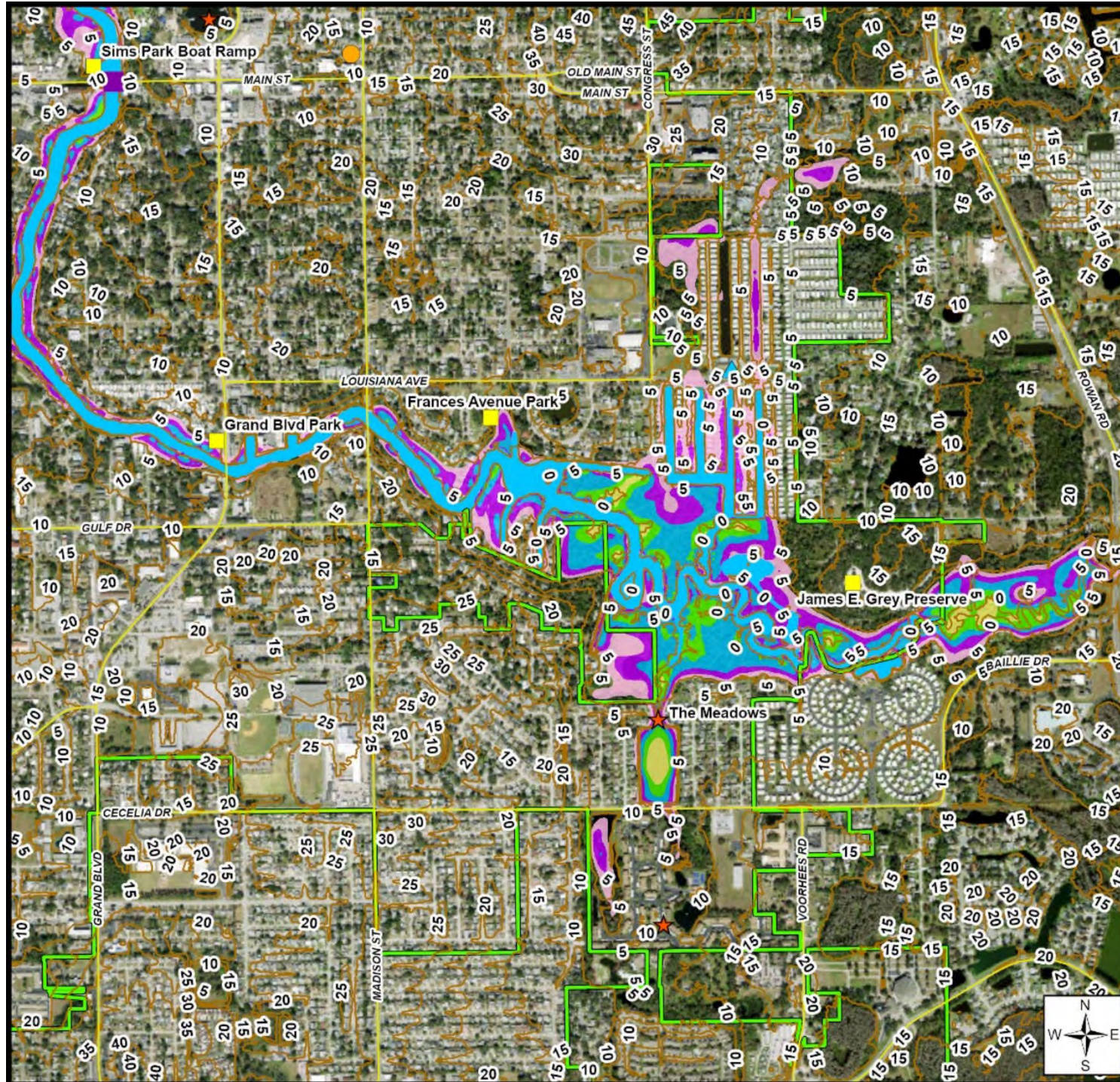
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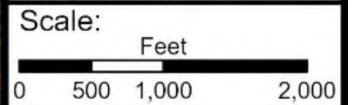
**Figure 4.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline**

**Southeast**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5ft)
  - NPR Boundary
- Ocean
- Ocean
- 4: MAX Tide BASELINE (ft)
- 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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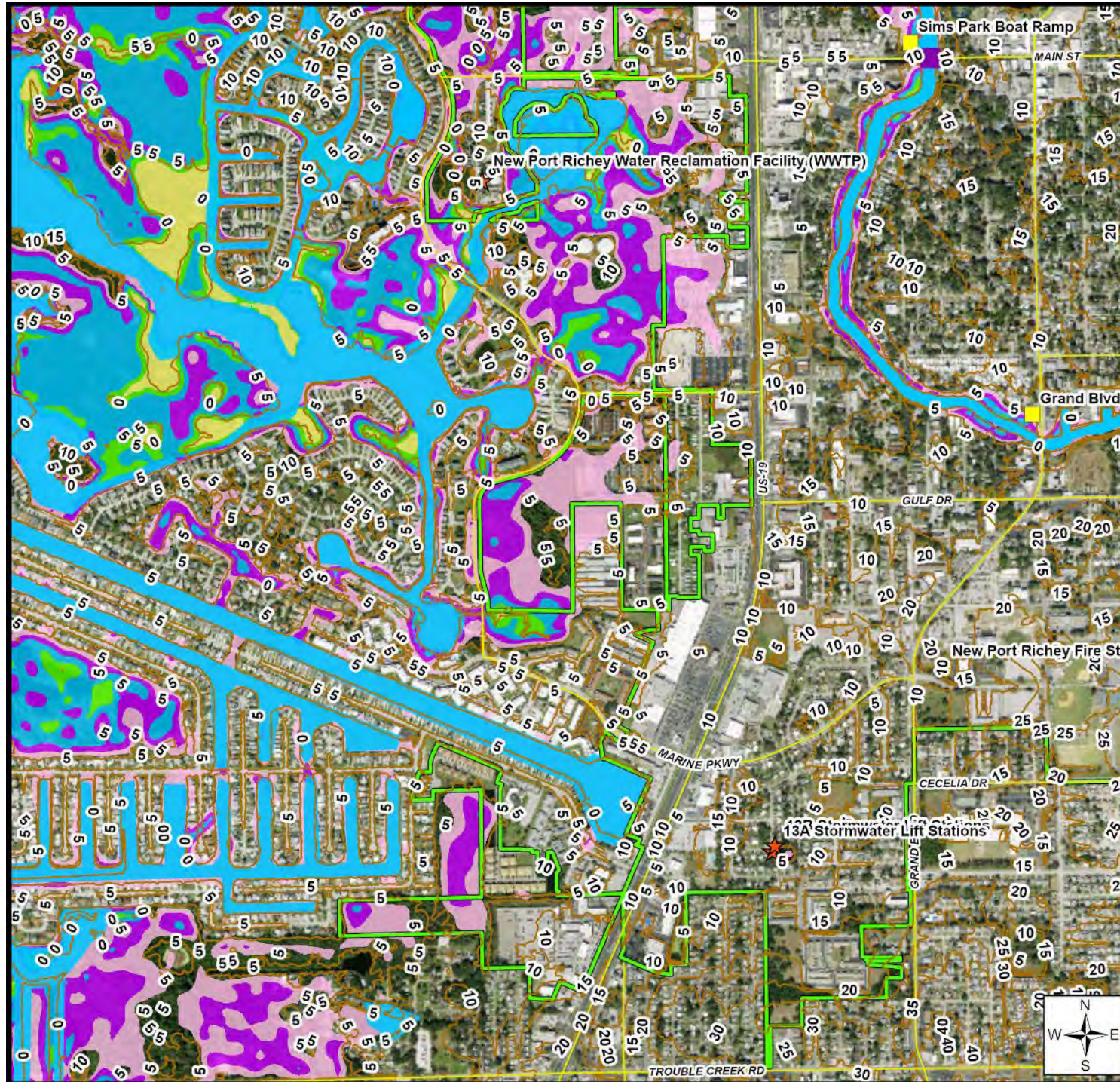


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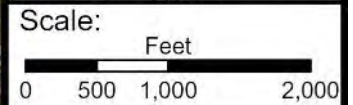
**Figure 4.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline**

**Southwest**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5ft)
  - NPR Boundary
- Ocean
- Ocean
  - 4: MAX Tide BASELINE (ft)
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

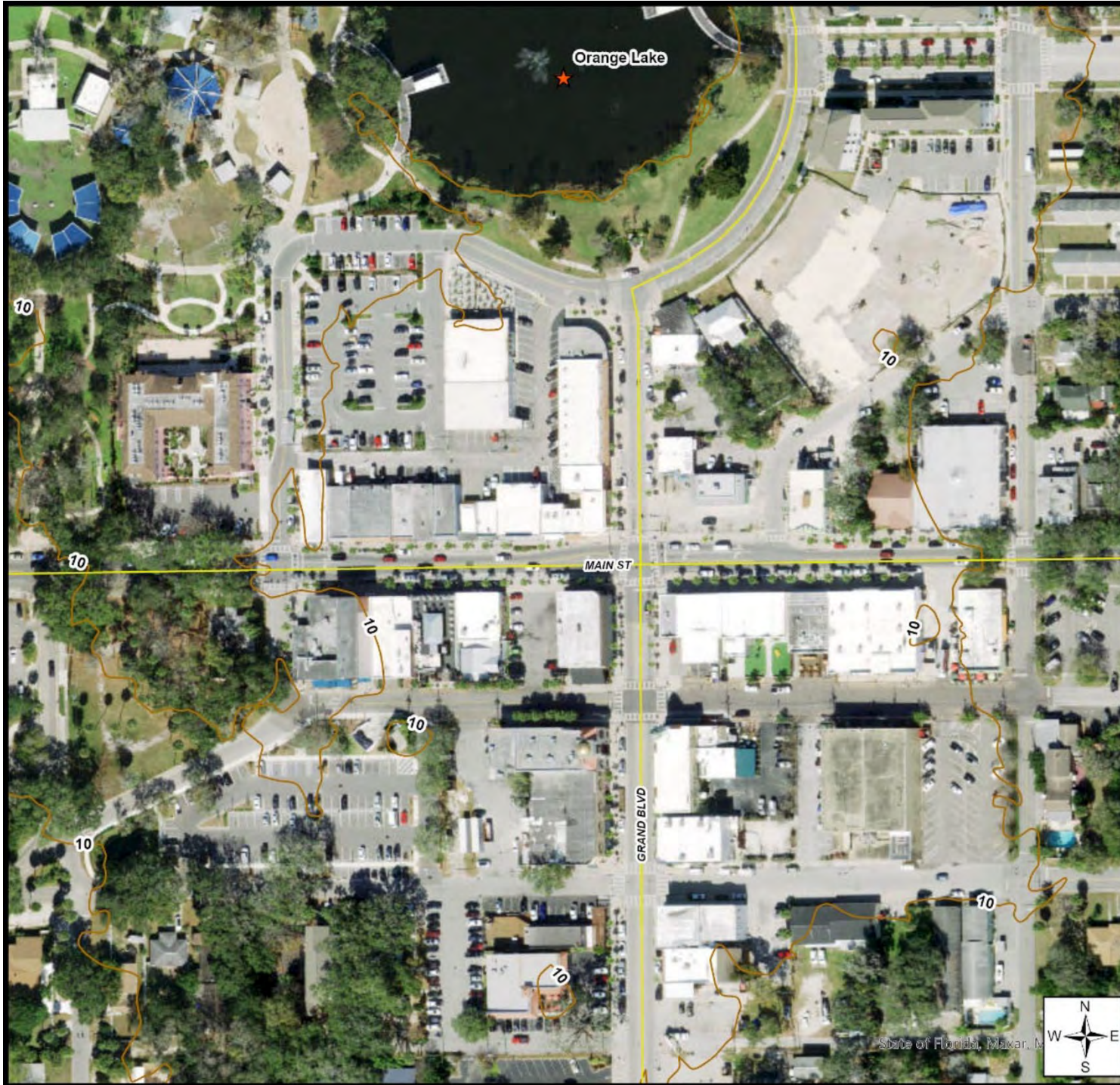
NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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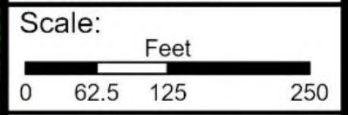


**Figure 4.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline**

***Downtown***

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5ft)
  - NPR Boundary
- Ocean
- Ocean
- 4: MAX Tide BASELINE (ft)
- 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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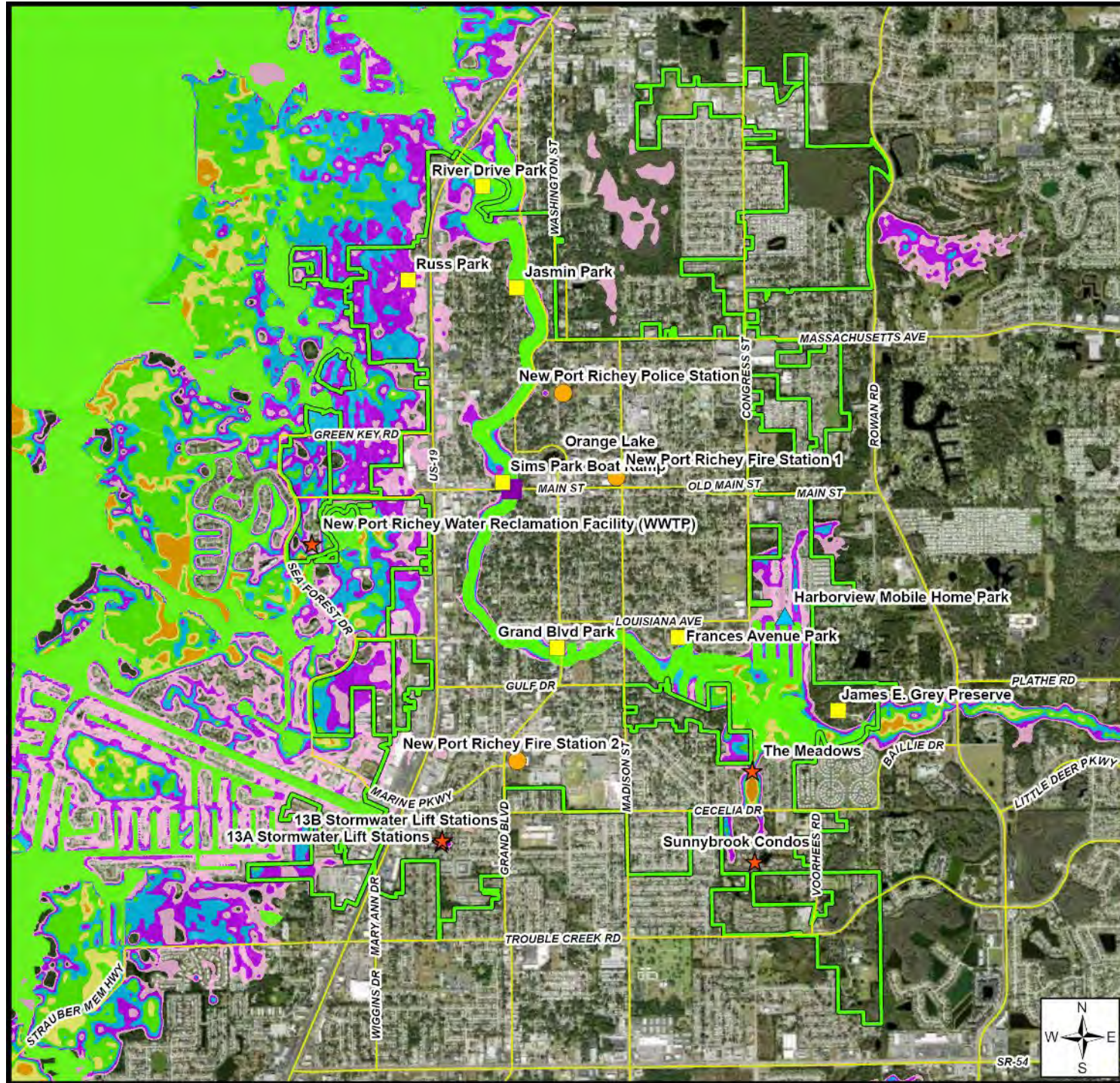
State of Florida, Maxar, Inc.



# **Appendix F: Scenario 5 Models.**

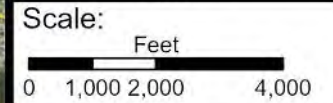
**Figure 5.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2040**

**Overview**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - ▲ Main St Gauge
  - Major Roads
  - NPR Boundary
  - Ocean
  - River 5.52ft (Avg)
- 5: MAX Tide BASELINE plus SLR2040 (ft)**
- 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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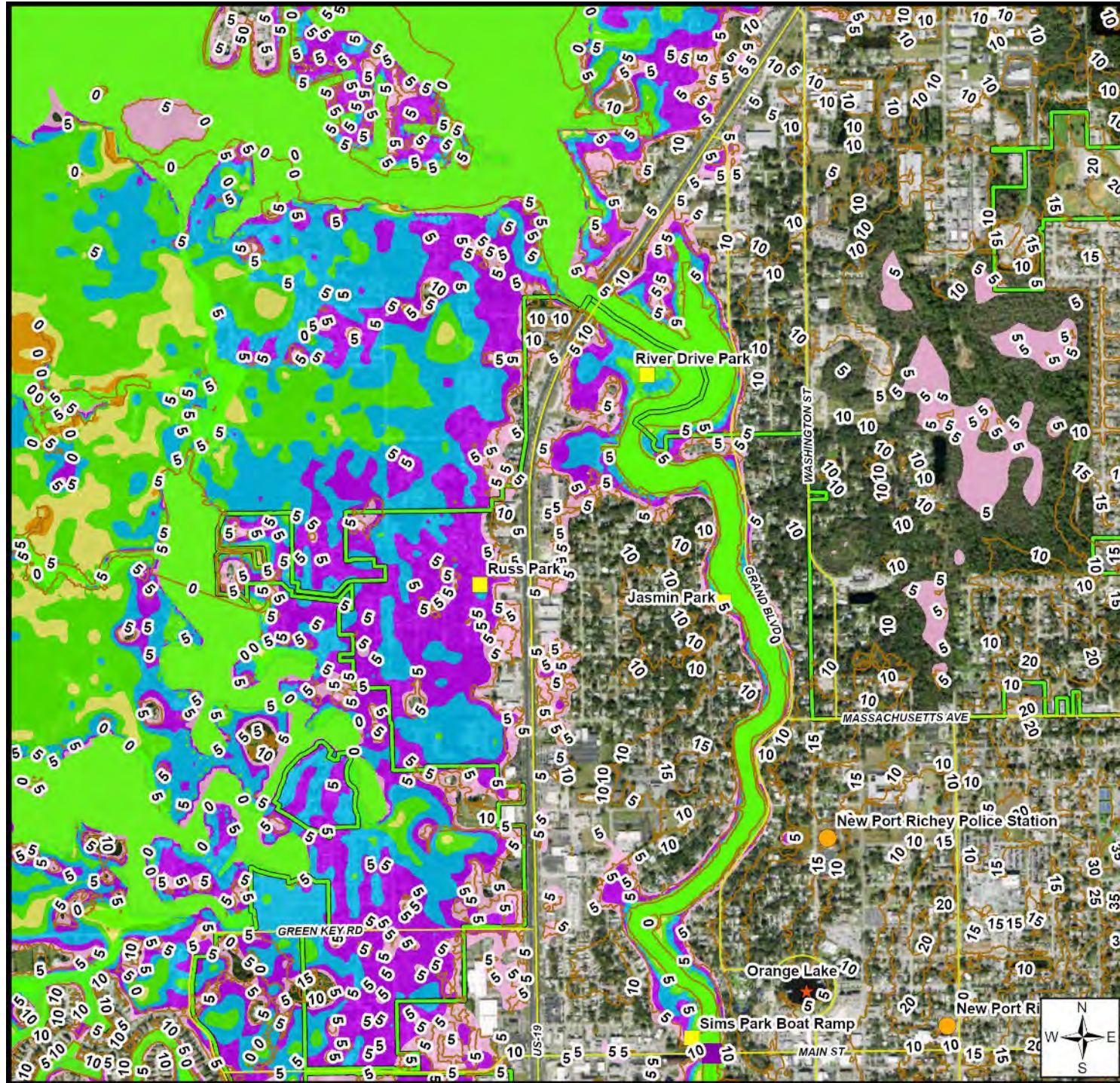


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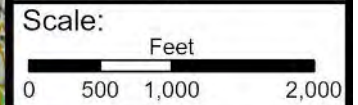
**Figure 5.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2040**

**Northwest**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - ▲ Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - NPR Boundary
  - Ocean
  - River 5.52ft (Avg)
  - 5: MAX Tide BASELINE plus SLR2040 (ft)
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



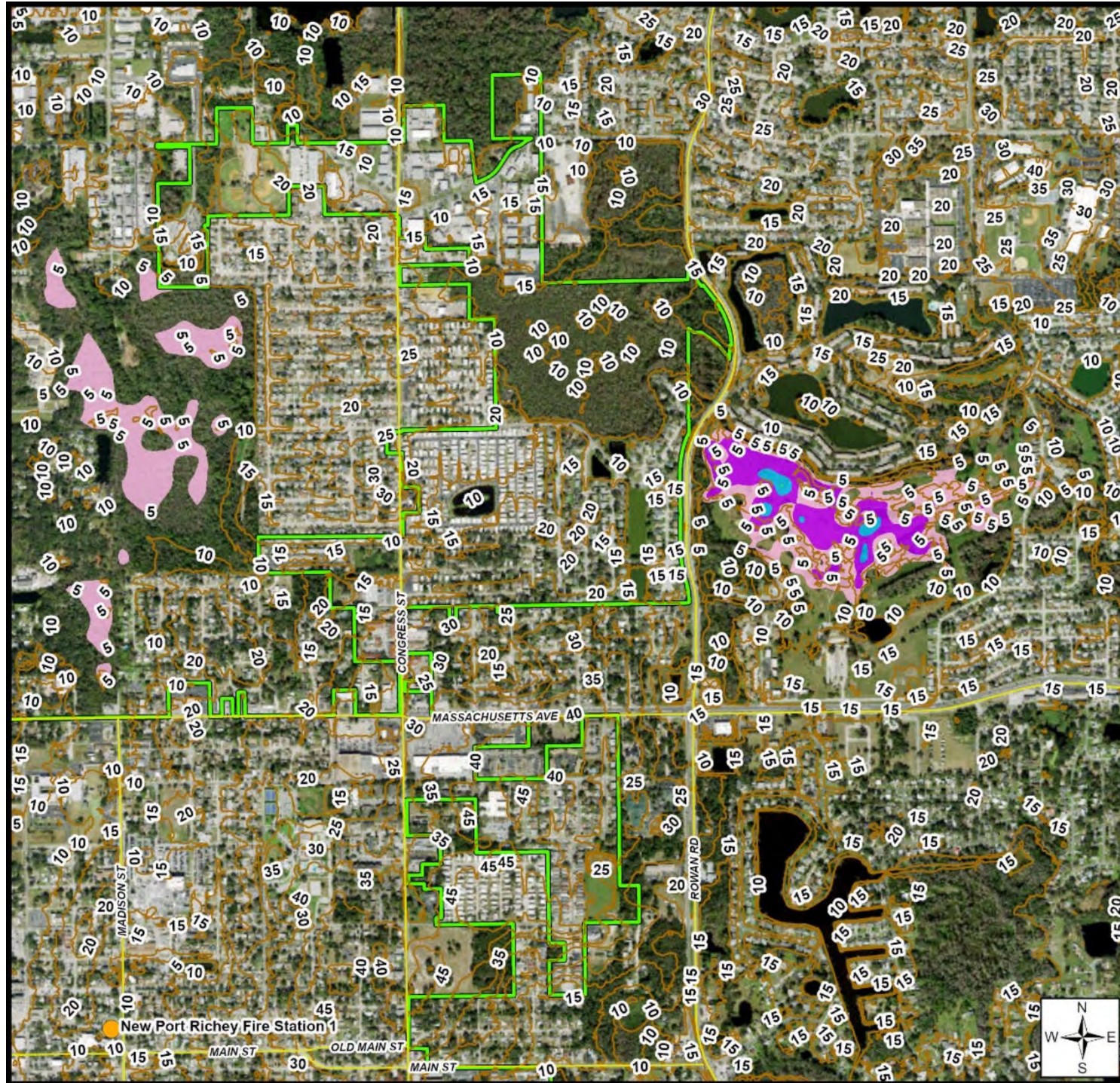
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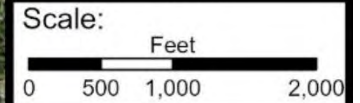
**Figure 5.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2040**

*Northeast*



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - NPR Boundary
  - Ocean
- 5: MAX Tide BASELINE plus SLR2040 (ft)**
- 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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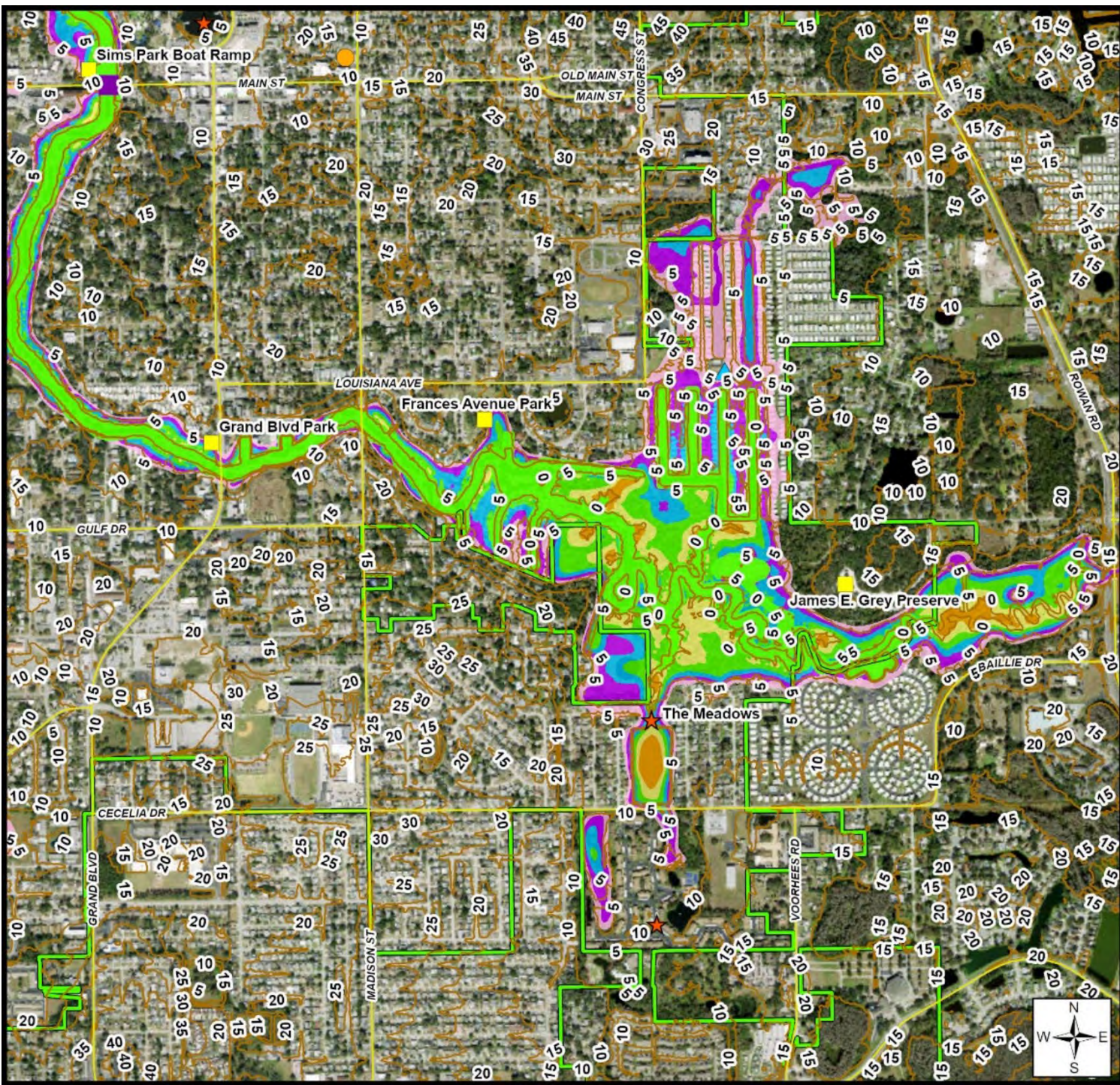
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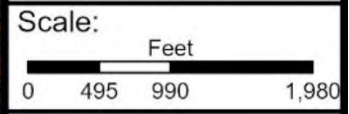
**Figure 5.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2040**

**Southeast**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - NPR Boundary
  - Ocean
- 5: MAX Tide BASELINE plus SLR2040 (ft)**
- 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

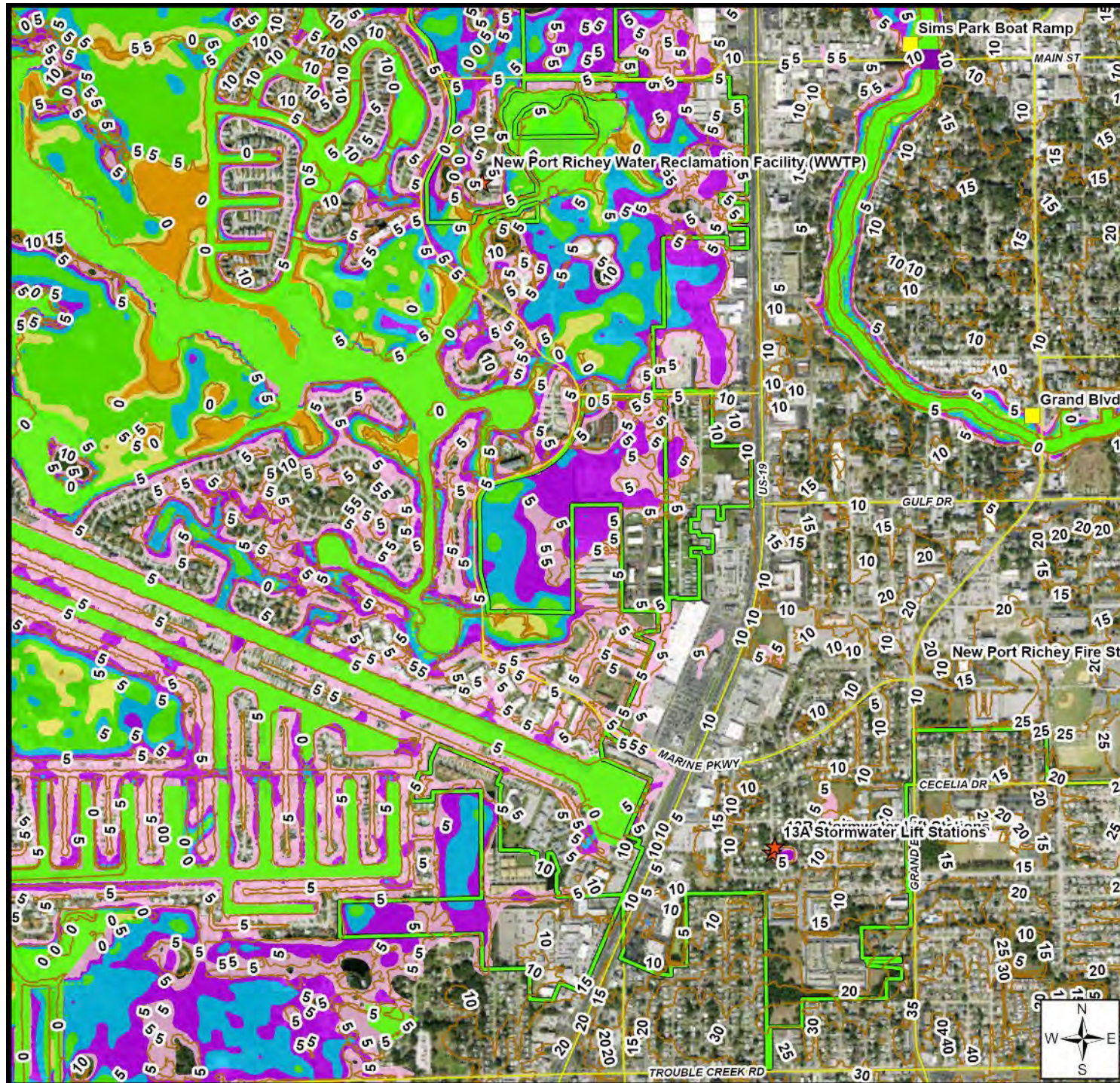
NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



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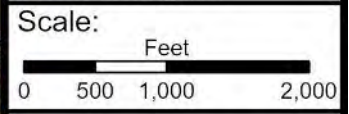


**Figure 5.**  
**Max Tide**  
**at Clearwater**  
**Beach and Max**  
**River Baseline**  
**with SLR 2040**

**Southwest**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5ft)
  - NPR Boundary
  - Ocean
  - River 5.52ft (Avg)
- 5: MAX Tide BASELINE plus SLR2040 (ft)**
- 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

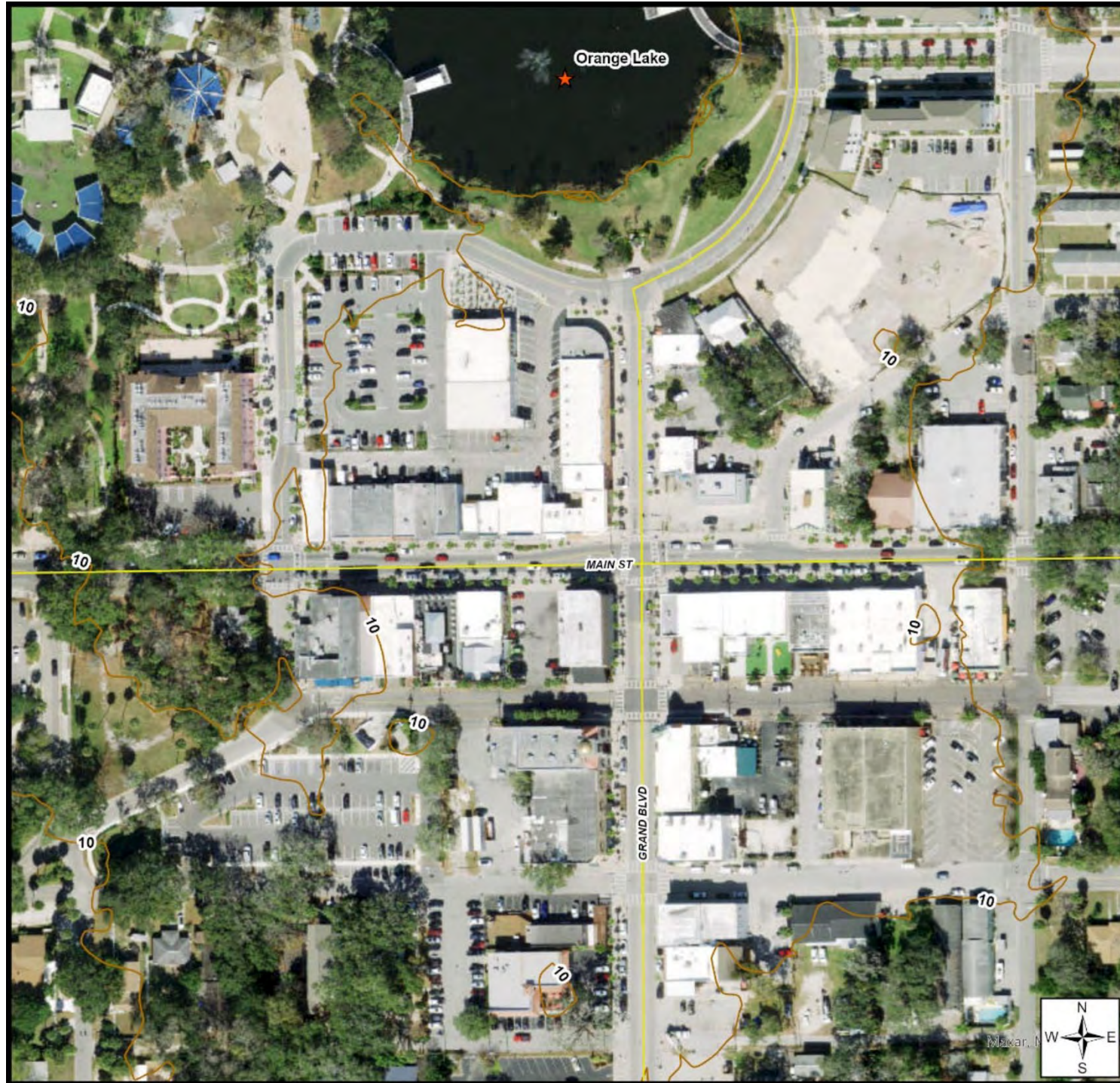
NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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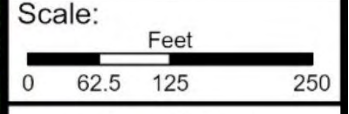


**Figure 5.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2040**

***Downtown***

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5ft)
  - NPR Boundary
  - Ocean
- 5: MAX Tide BASELINE plus SLR2040 (ft)**
- 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/3/2024

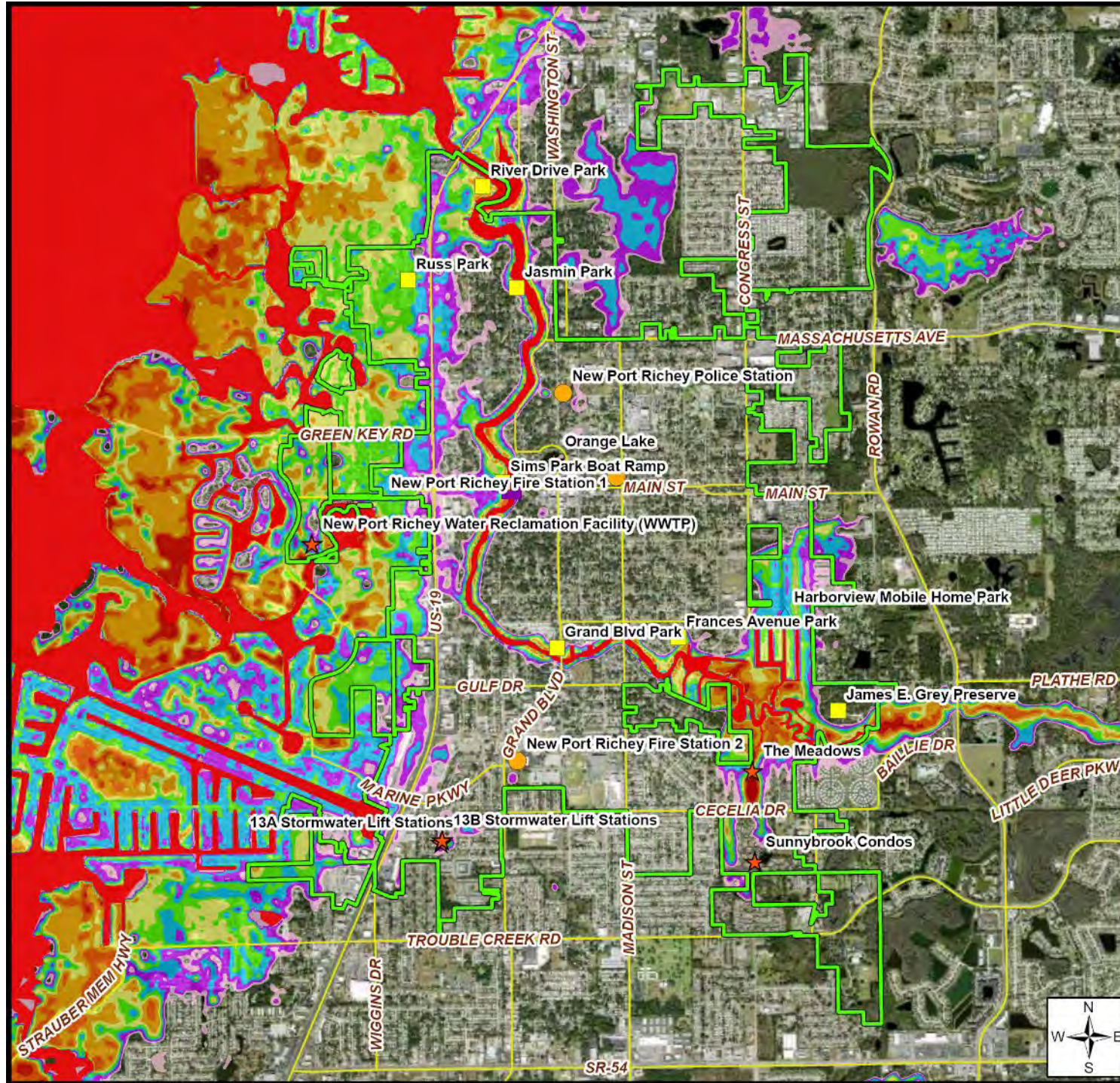
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# **Appendix G: Scenario 6 Models.**

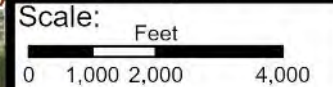
**Figure 6.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2070**

**Overview**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- New Port Richey City Boundary
- Major Roads
- Ocean
- River 7.66ft (Avg)
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/4/2024

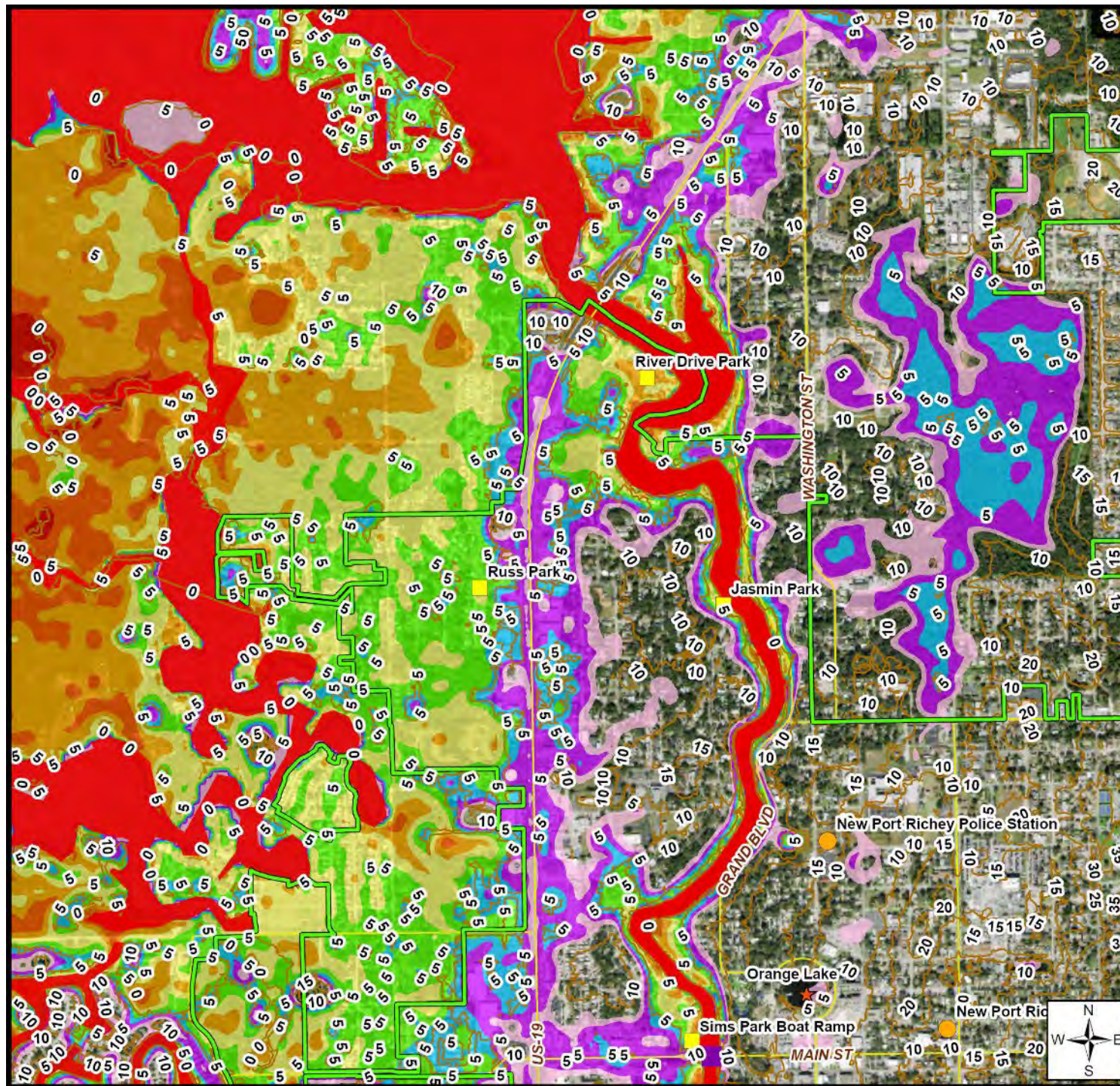


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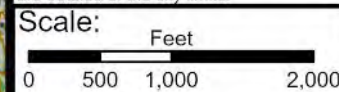
**Figure 6.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2070**

**Northwest**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - New Port Richey City Boundary
  - LIDAR (5 ft)
  - Major Roads
  - Ocean
  - River 7.66ft (Avg)
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/4/2024

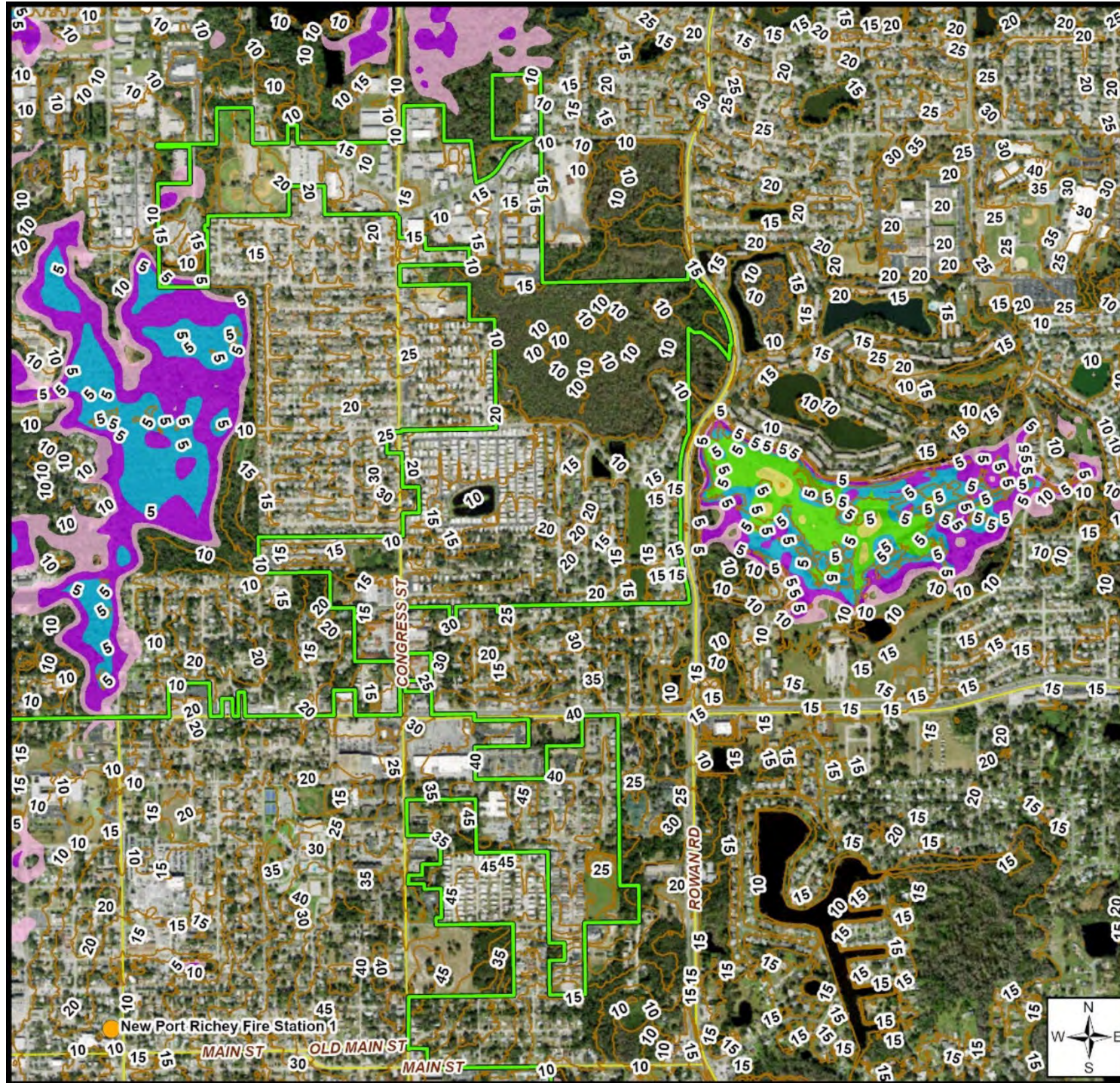


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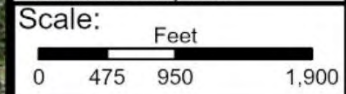
**Figure 6.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2070**

**Northeast**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - ★ Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - New Port Richey City Boundary
  - LIDAR (5 ft)
  - Major Roads
  - Ocean
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/3/2024

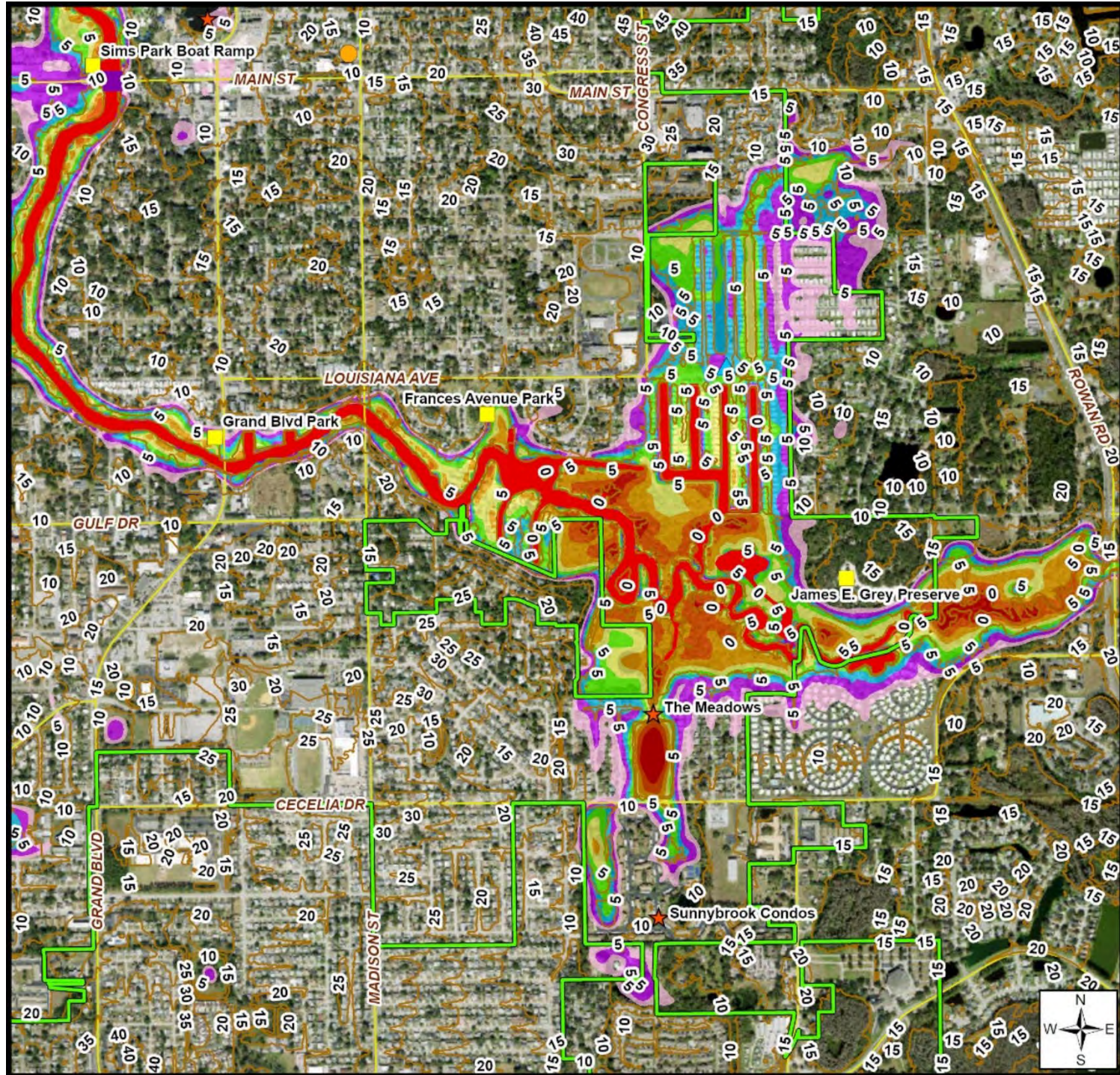


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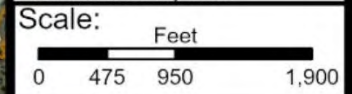
**Figure 6.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2070**

**Southeast**



- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - ☆ Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - New Port Richey City Boundary
  - LIDAR (5 ft)
  - Major Roads
  - Ocean
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
-Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
-Magnolia Valley and Orange Grove Park are outside of the city limits.

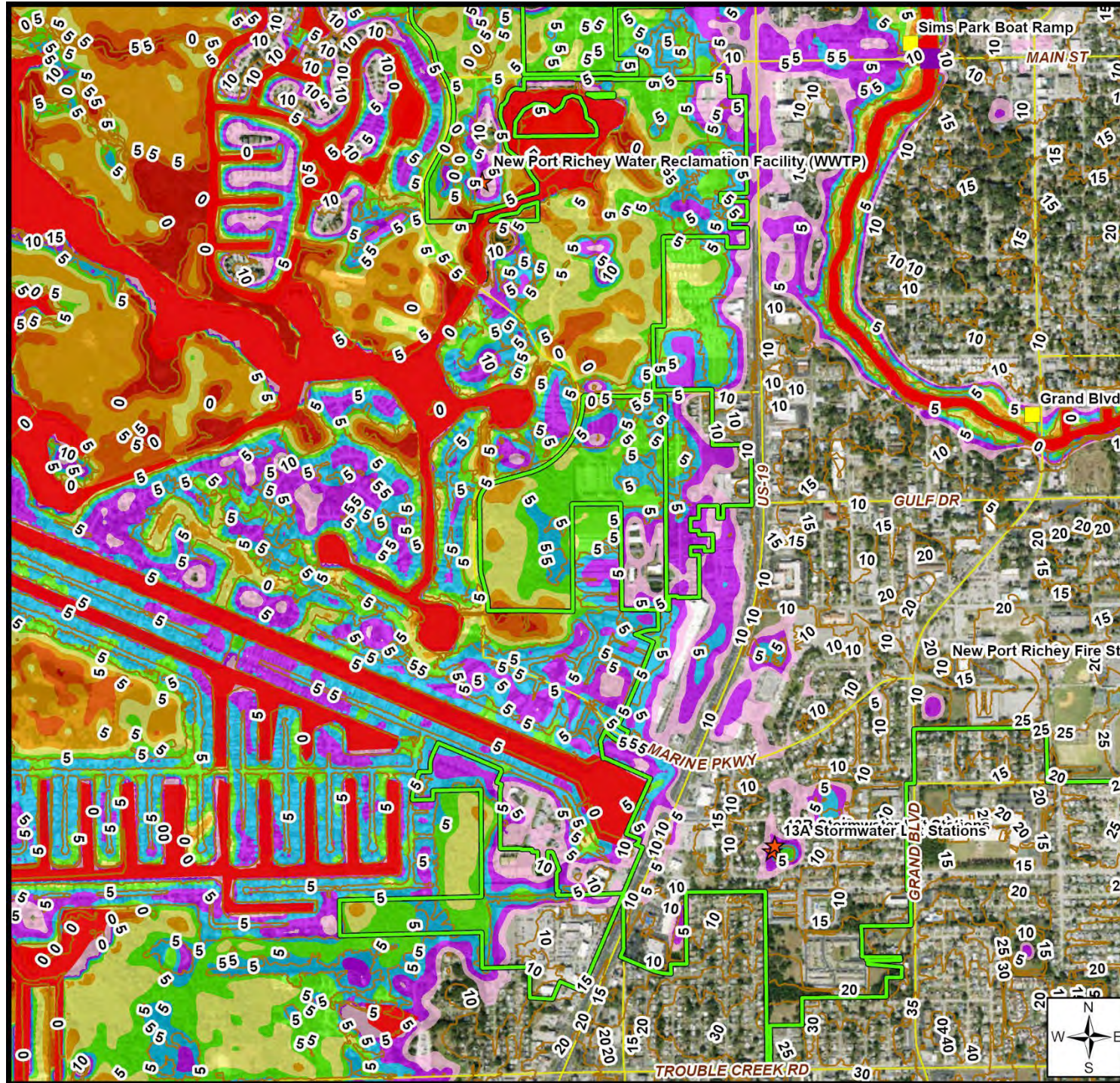


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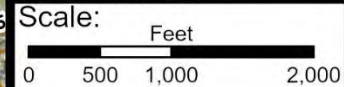


**Figure 6.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2070**  
**Southwest**



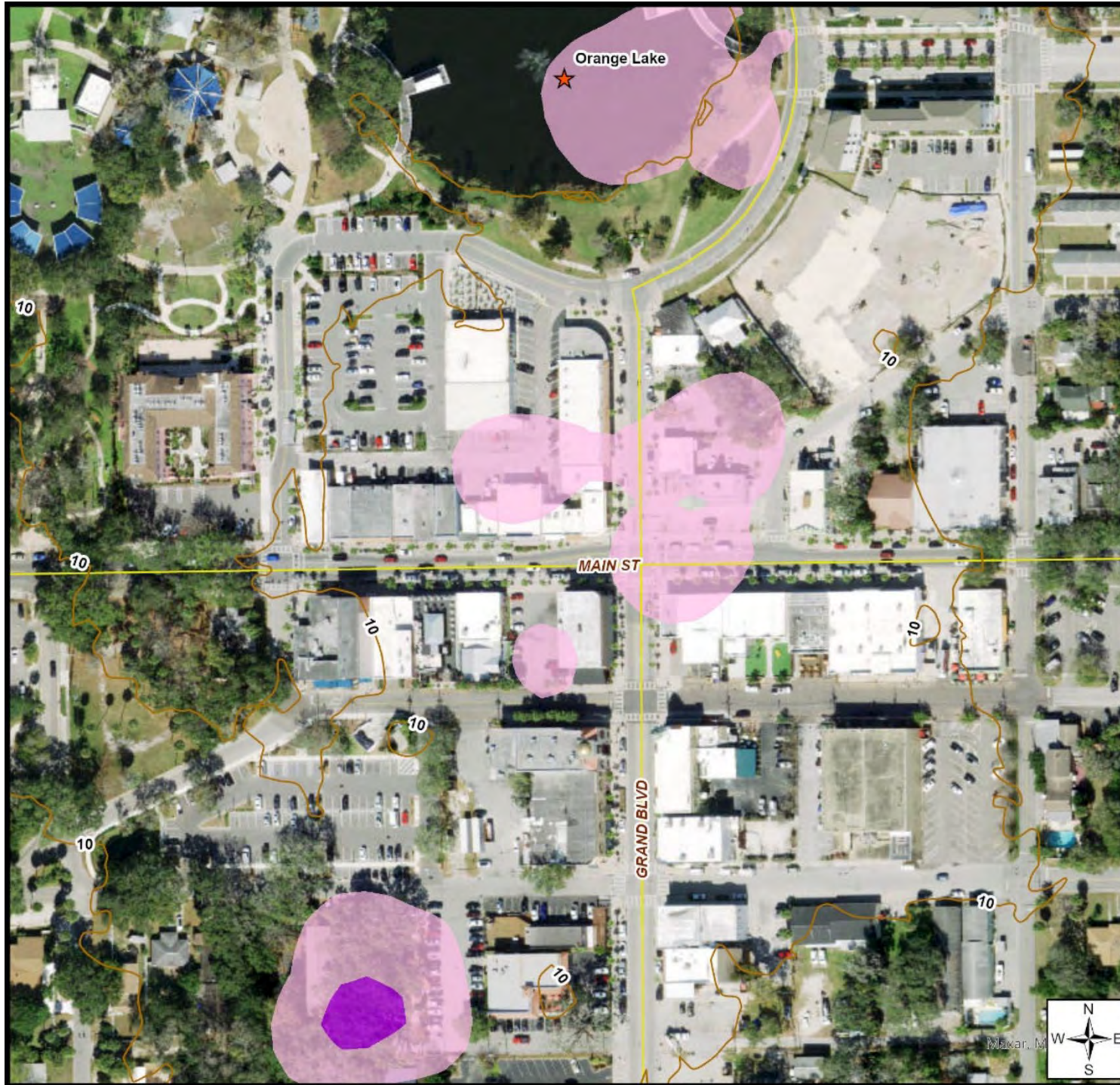
- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - New Port Richey City Boundary
  - LiDAR (5 ft)
  - Major Roads
  - Ocean
  - River 7.66ft (Avg)
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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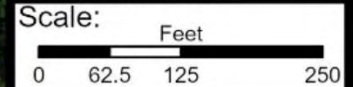


**Figure 6.  
Max Tide  
at Clearwater  
Beach and Max  
River Baseline  
with SLR 2070**

***Downtown***

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - New Port Richey City Boundary
  - LIDAR (5 ft)
  - Major Roads
  - Ocean
- 6: 2 BASELINE MaxTide + SLR2070 (ft)
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/3/2024

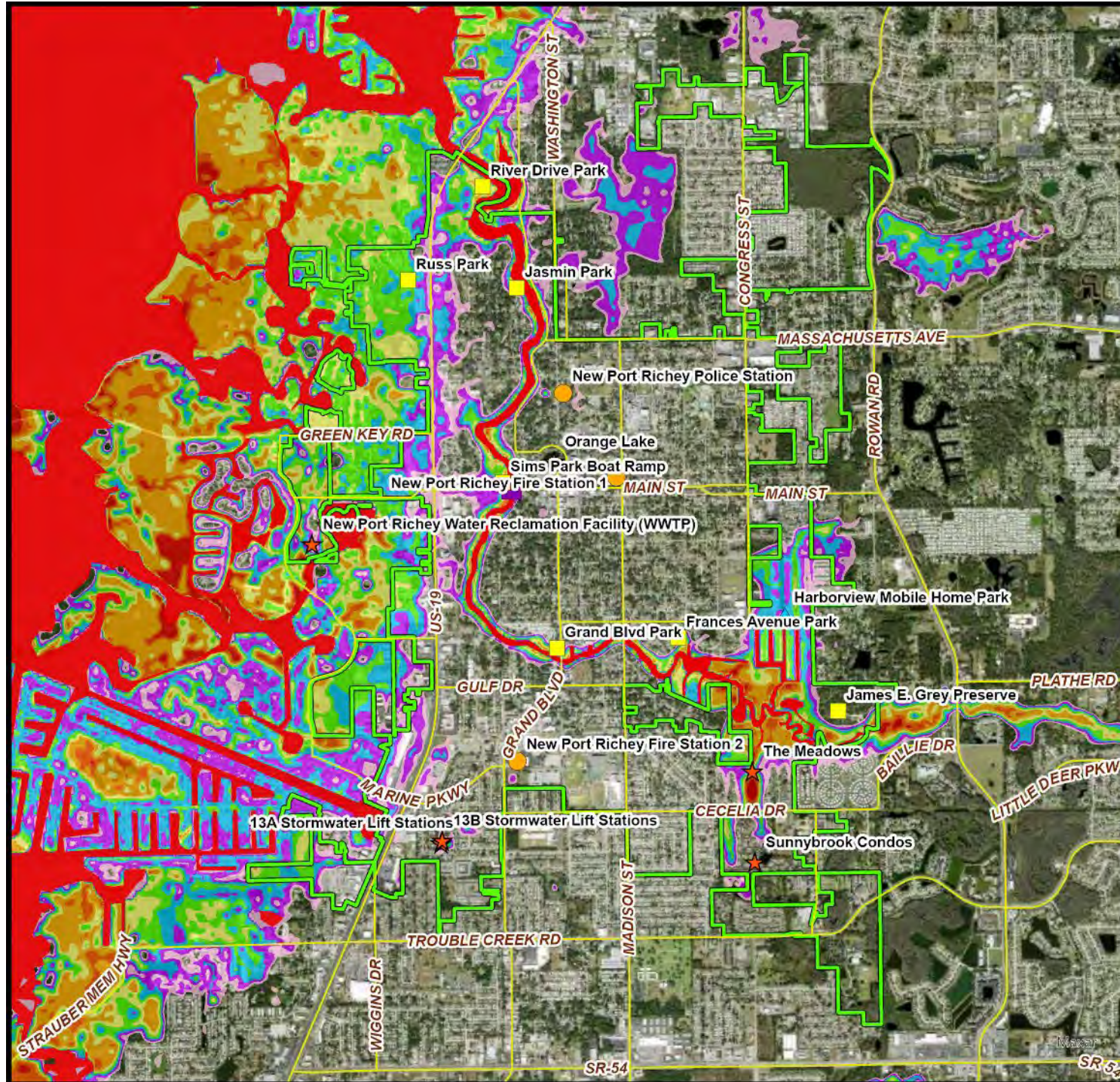


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# **Appendix H: Scenario 7 Models.**

**Figure 7. Max Tide at Clearwater Bch & Max River During Hurricane Hermine**

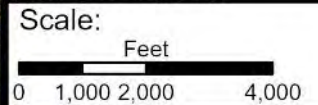


**Overview**

- Most Vulnerable Critical Assets
  - Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - ▲ Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - Ocean
- 7: Max Tide & River During Hermine (ft)**
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water



NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.

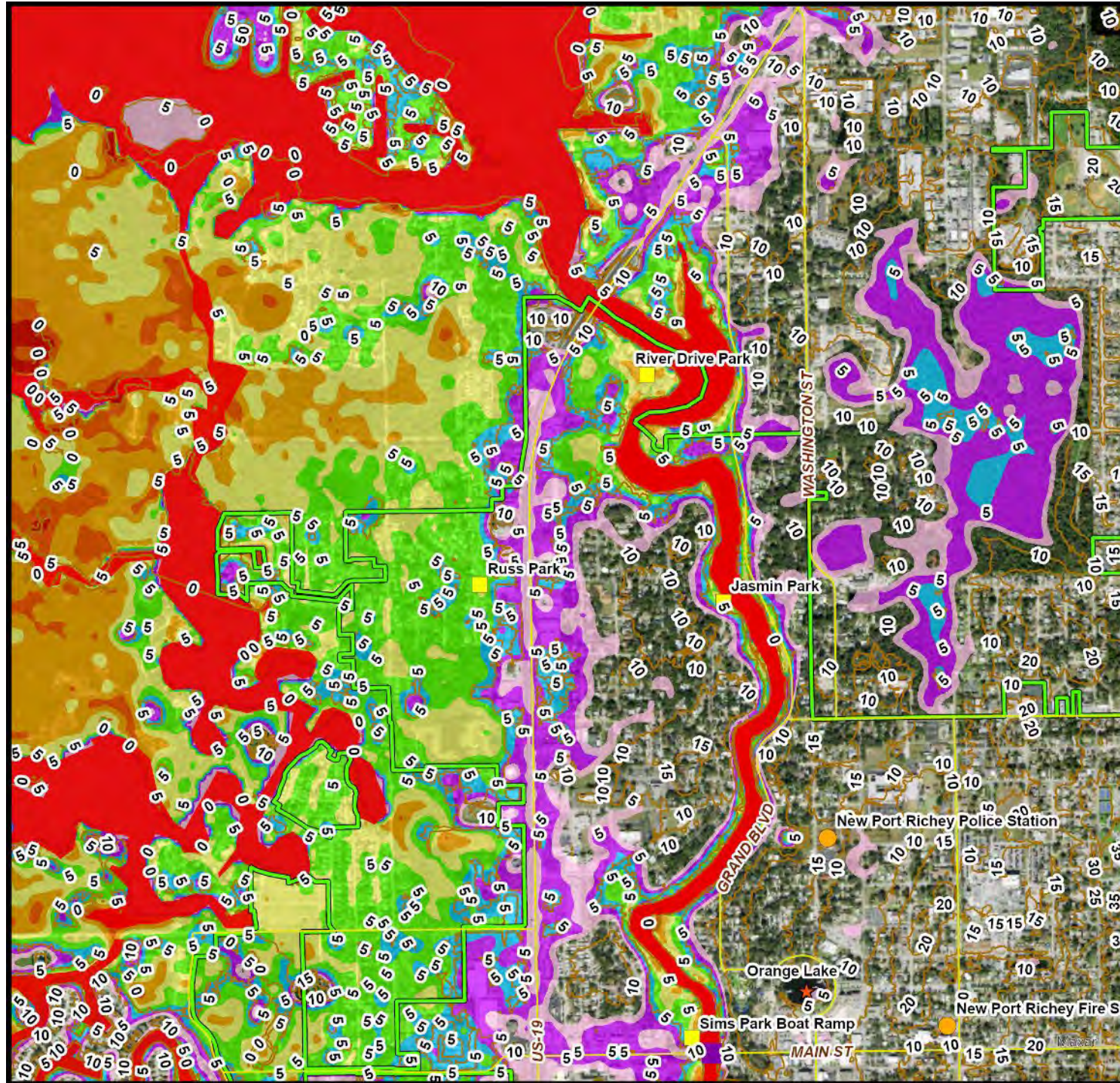


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**Figure 7. Max Tide at Clearwater Bch & Max River During Hurricane Hermine**



**Northwest**

Most Vulnerable Critical Assets

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- Major Roads
- New Port Richey City Boundary
- LiDAR (5 ft)
- Ocean

**7: Max Tide & River During Hermine (ft)**

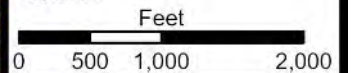
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water



NOTES:

- Anclote Key Preserve and Warner Boyce Salt Springs will be under water.
- Magnolia Valley and Orange Grove Park are outside of the city limits.

Scale:

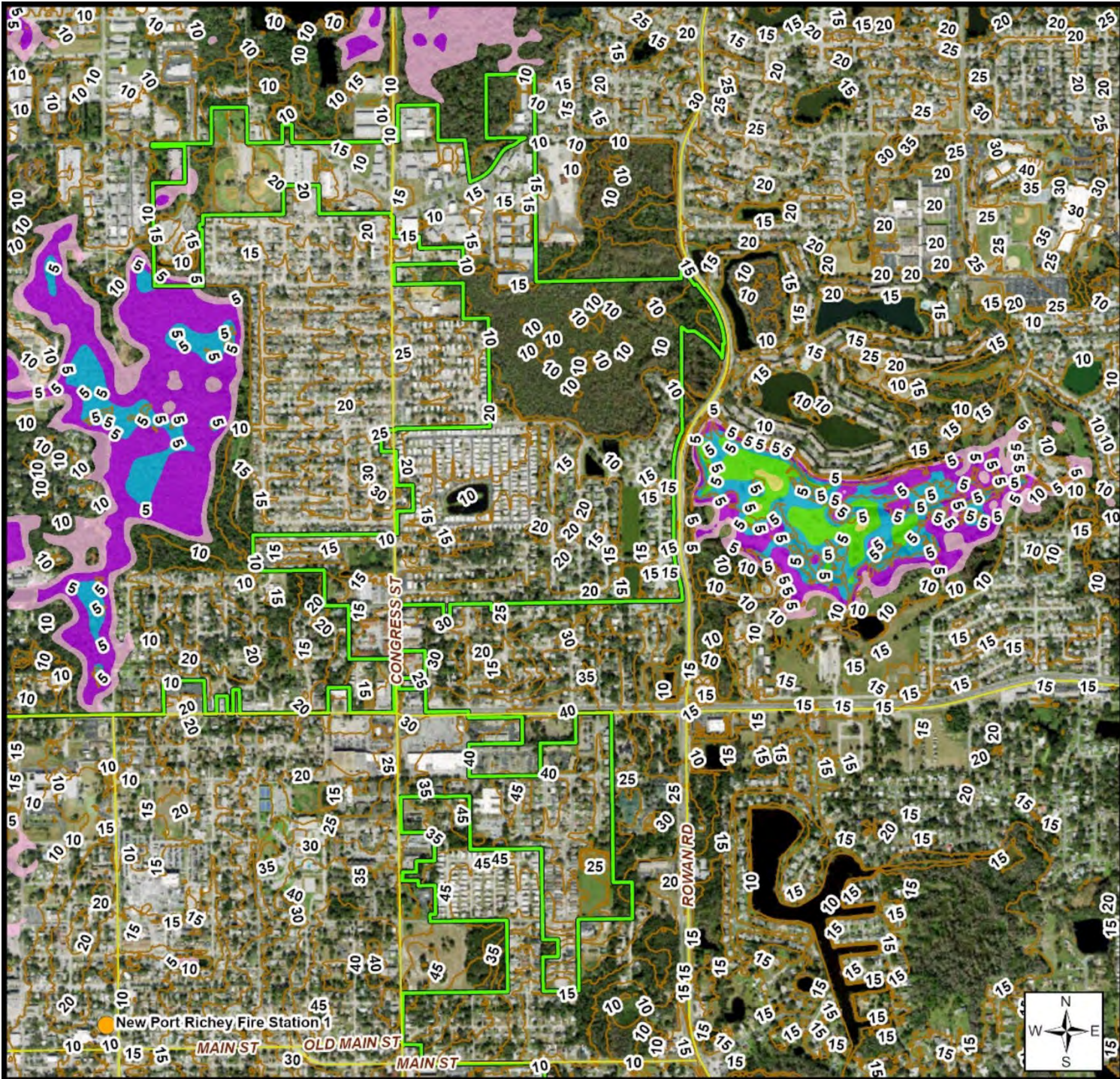


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**Figure 7. Max Tide at Clearwater Bch & Max River During Hurricane Hermine**



**Northeast**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - LiDAR (5 ft)
  - Ocean

- 7: Max Tide & River During Hermine (ft)**
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



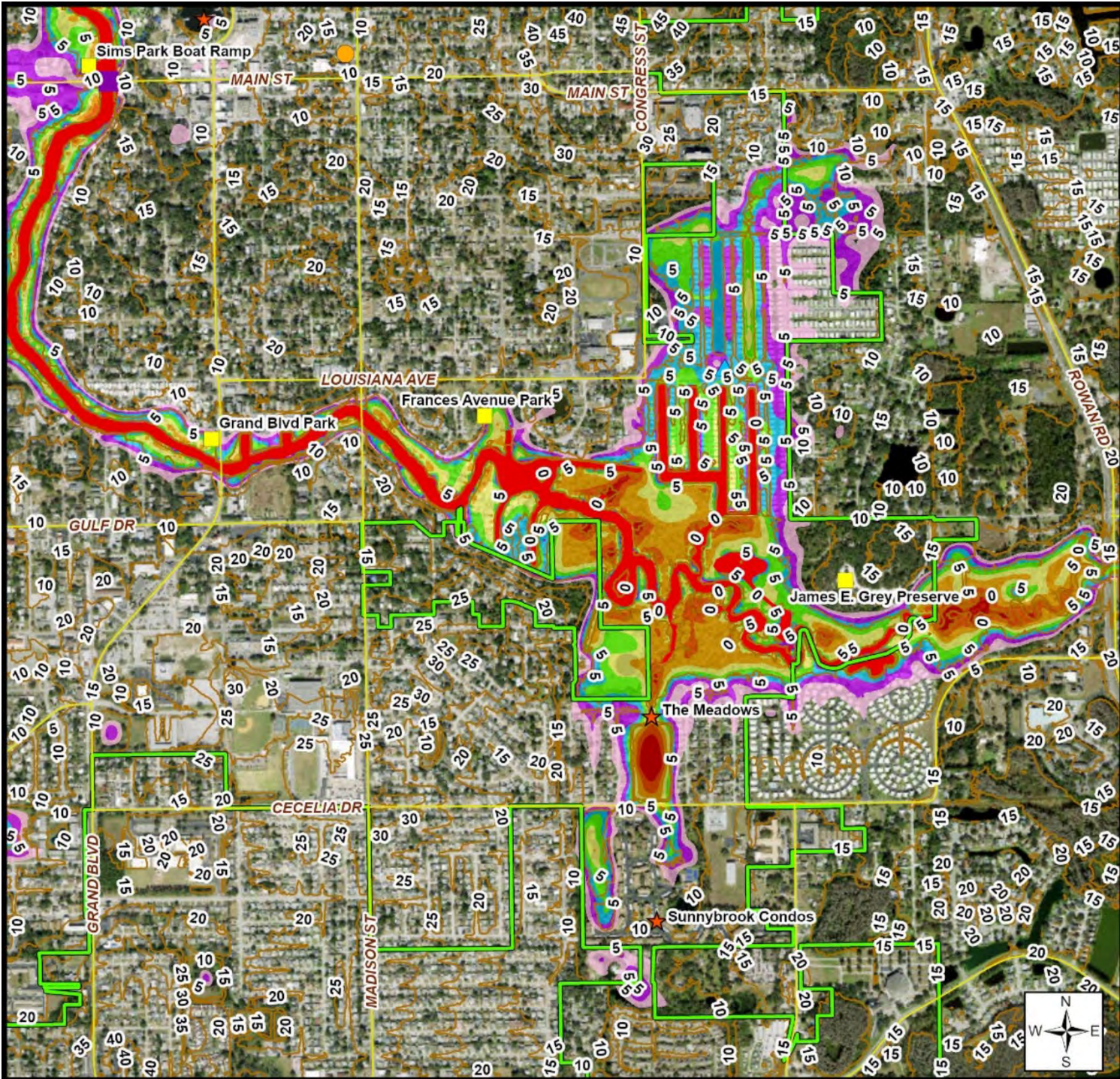
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**Figure 7. Max Tide at Clearwater Bch & Max River During Hurricane Hermine**

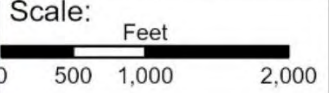


**Southeast**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - LiDAR (5 ft)
  - Ocean

- 7: Max Tide & River During Hermine (ft)**
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.

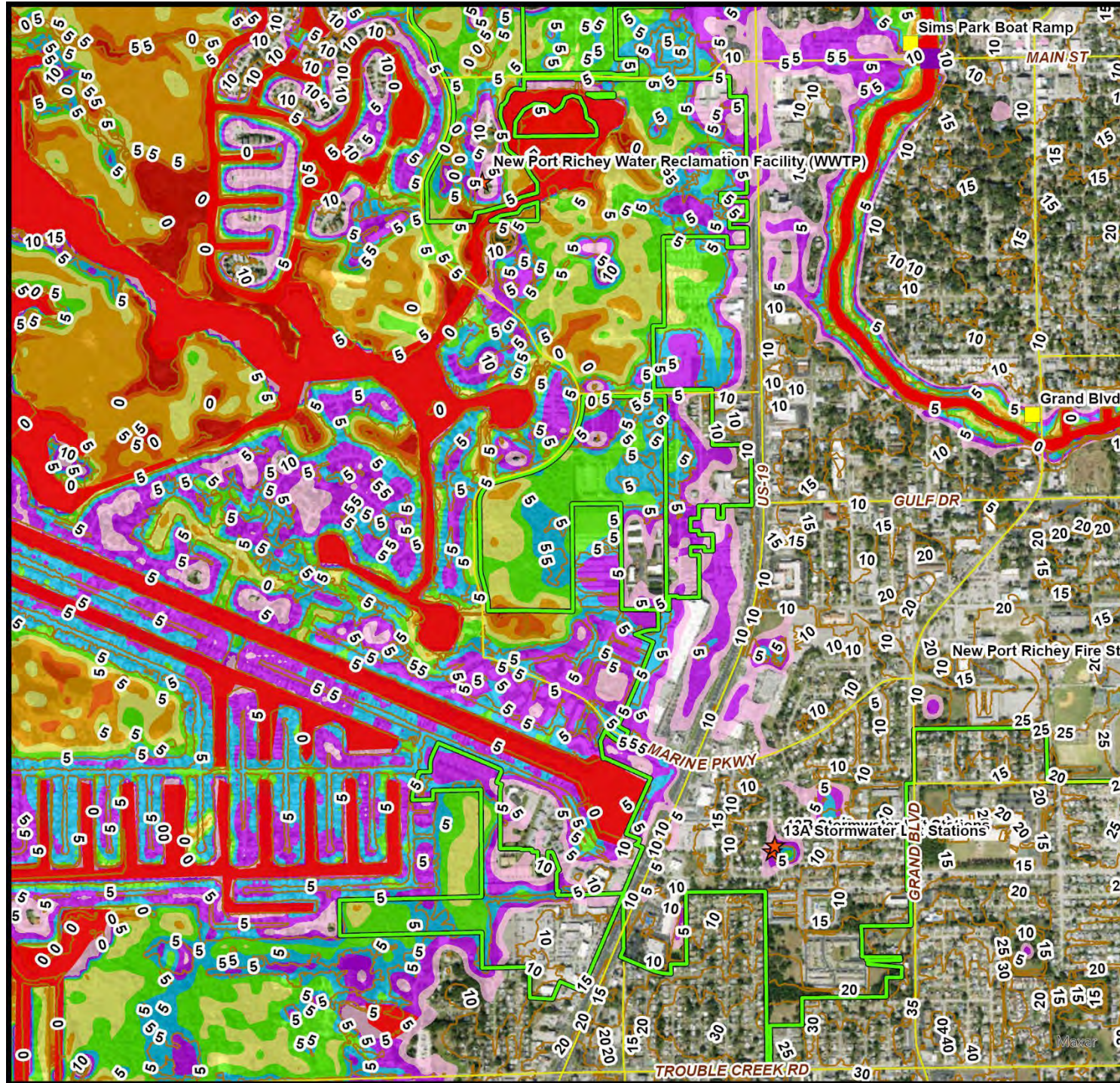


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**Figure 7. Max Tide at Clearwater Bch & Max River During Hurricane Hermine**



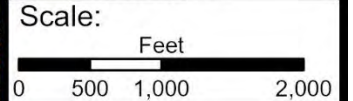
**Southwest**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - LiDAR (5 ft)
  - Ocean

- 7: Max Tide & River During Hermine (ft)**
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
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  - 3ft Water
  - 2ft Water
  - 1ft Water



NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
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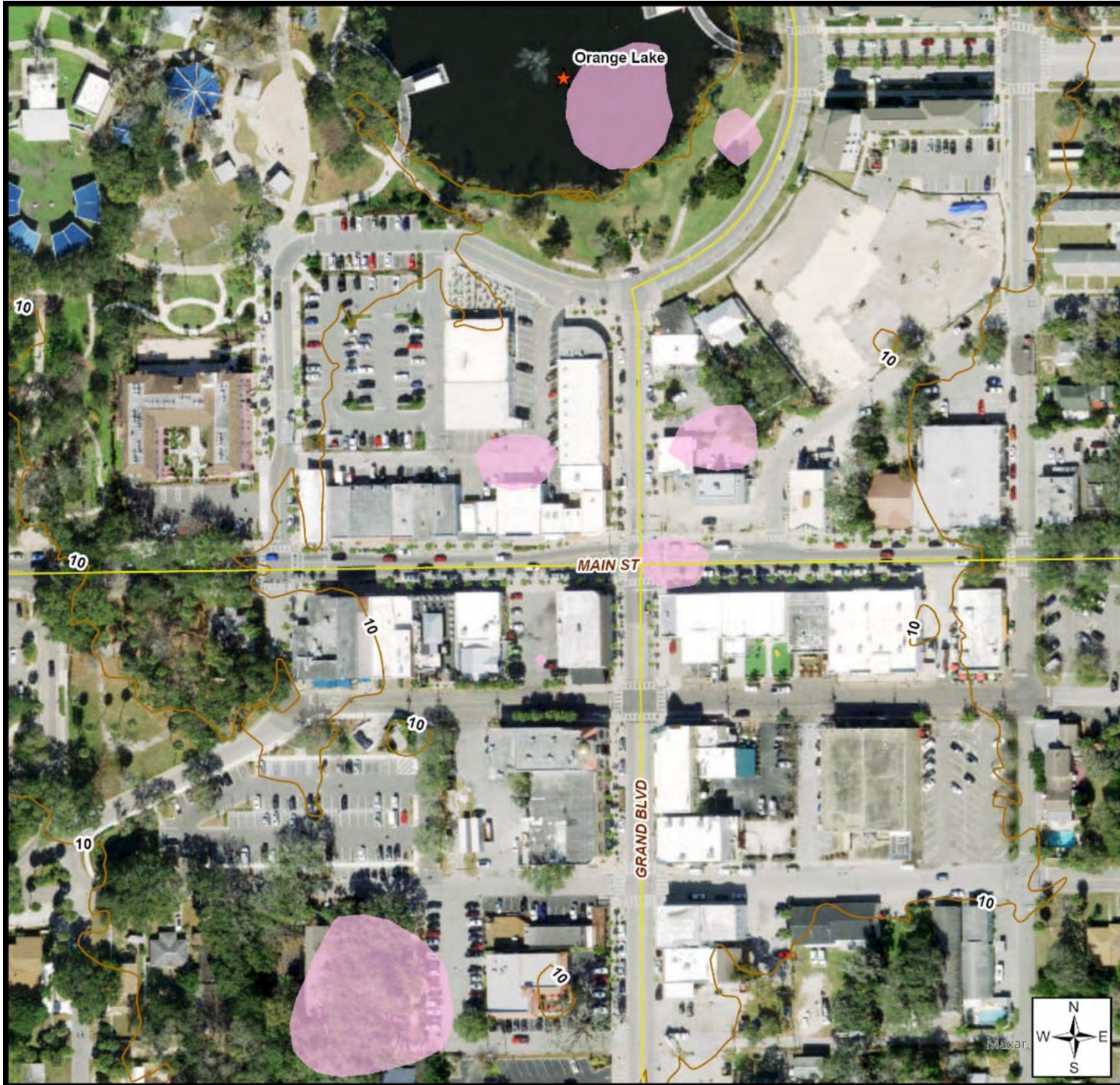


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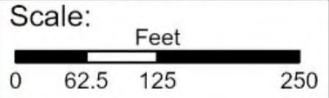
**Figure 7. Max Tide at Clearwater Bch & Max River During Hurricane Hermine**

***Downtown***

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - LiDAR (5 ft)
  - Ocean

- 7: Max Tide & River During Hermine (ft)**
- 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
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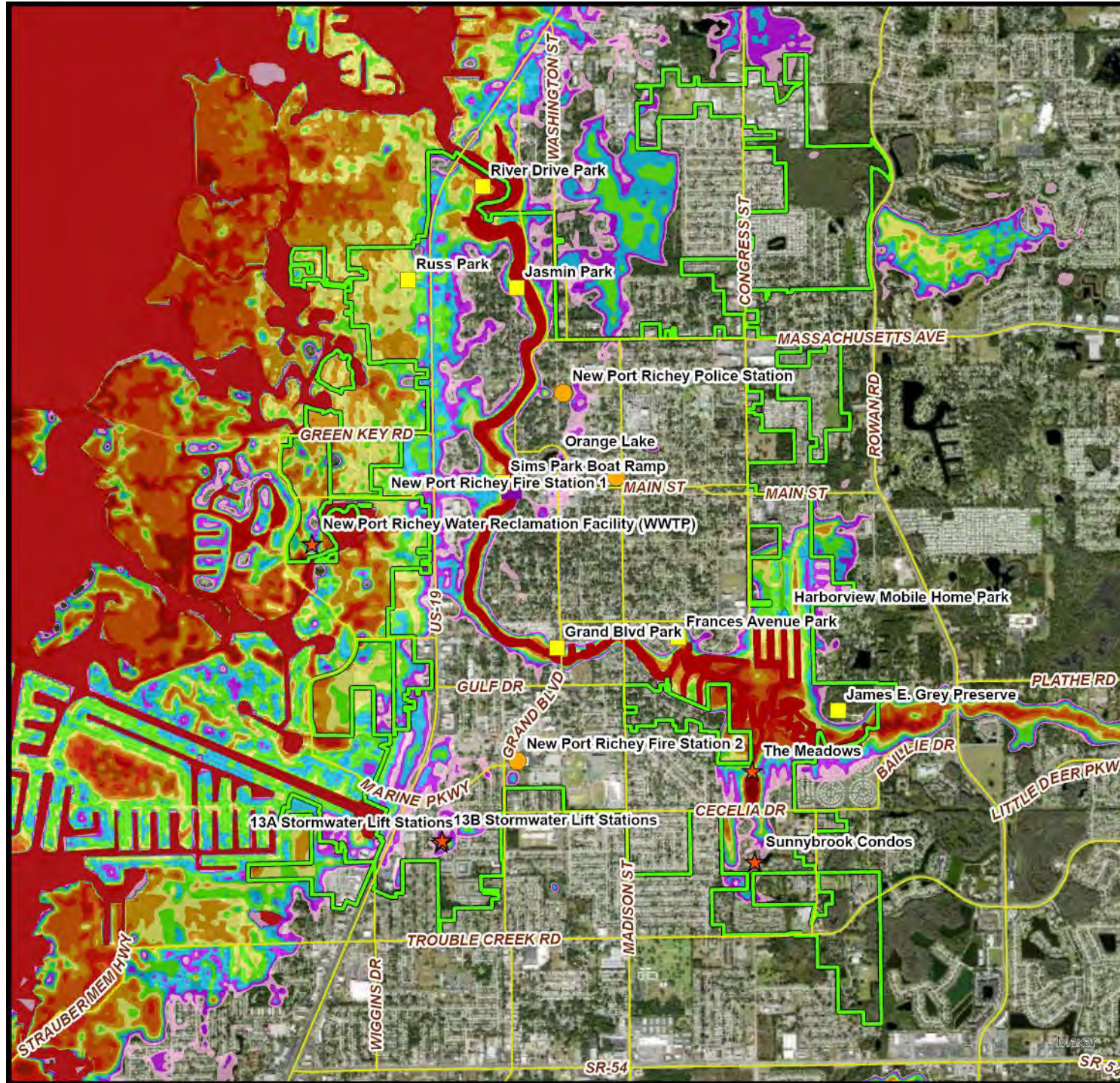
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# **Appendix I: Scenario 8 Models.**

**Figure 8. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2040 SLR**



**Overview**

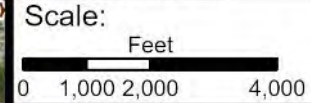
- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - ▲ Main St Gage
  - Major Roads
  - ▭ New Port Richey City Boundary
  - Ocean

**8: Max Tide & River During Hermine 2040SLR (ft)**

- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water



NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.

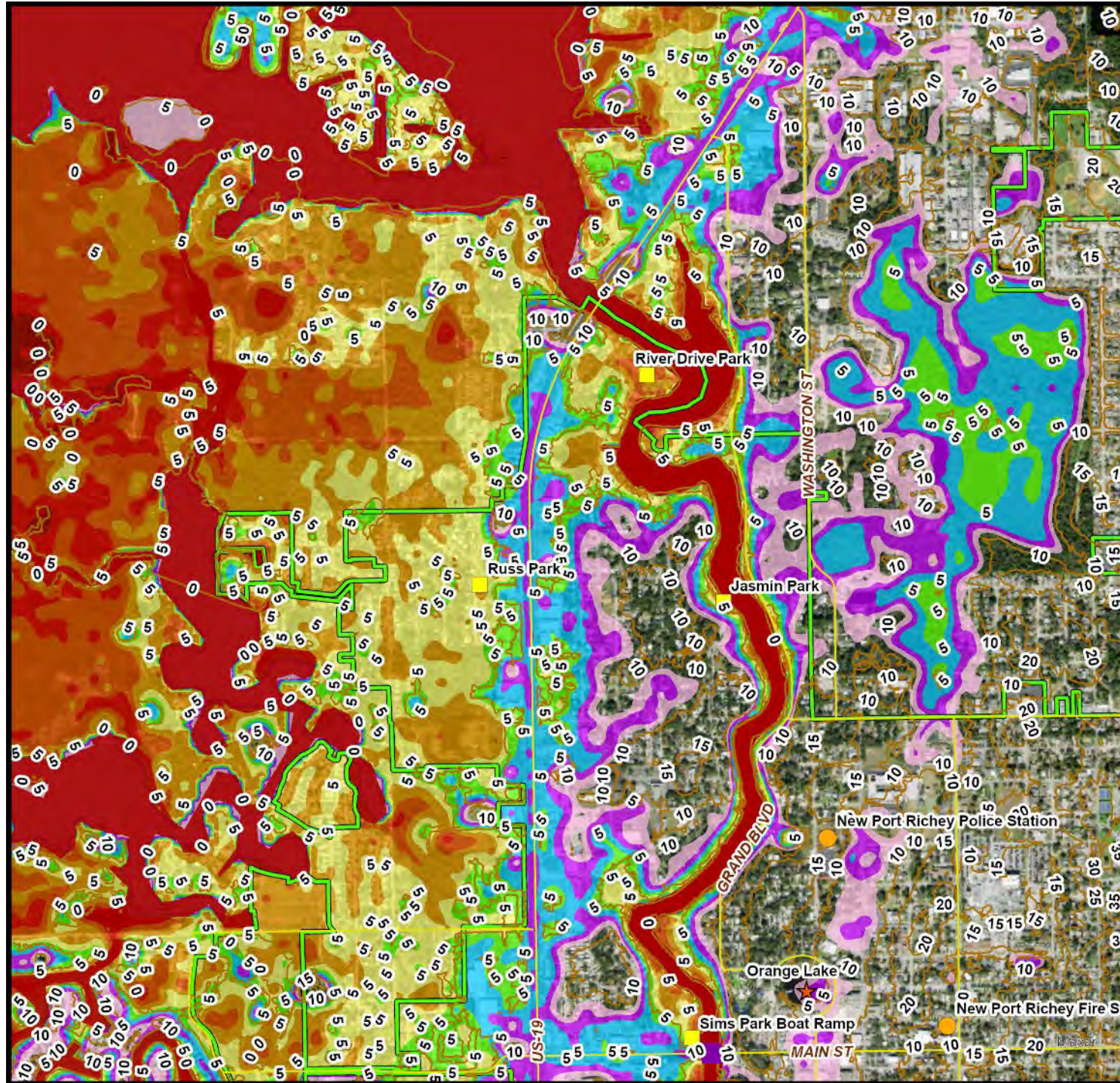


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**Figure 8. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2040 SLR**



**Northwest**

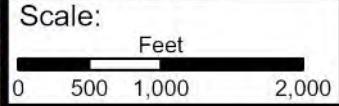
- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LIDAR (5 ft)
  - New Port Richey City Boundary
  - Ocean

**8: Max Tide & River During Hermine 2040SLR (ft)**

- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water



NOTES:  
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**Figure 8. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2040 SLR**

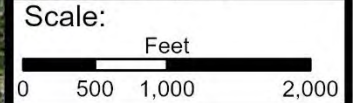
**Northeast**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5 ft)
  - New Port Richey City Boundary
  - Ocean

**8: Max Tide & River During Hermine 2040SLR (ft)**

- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

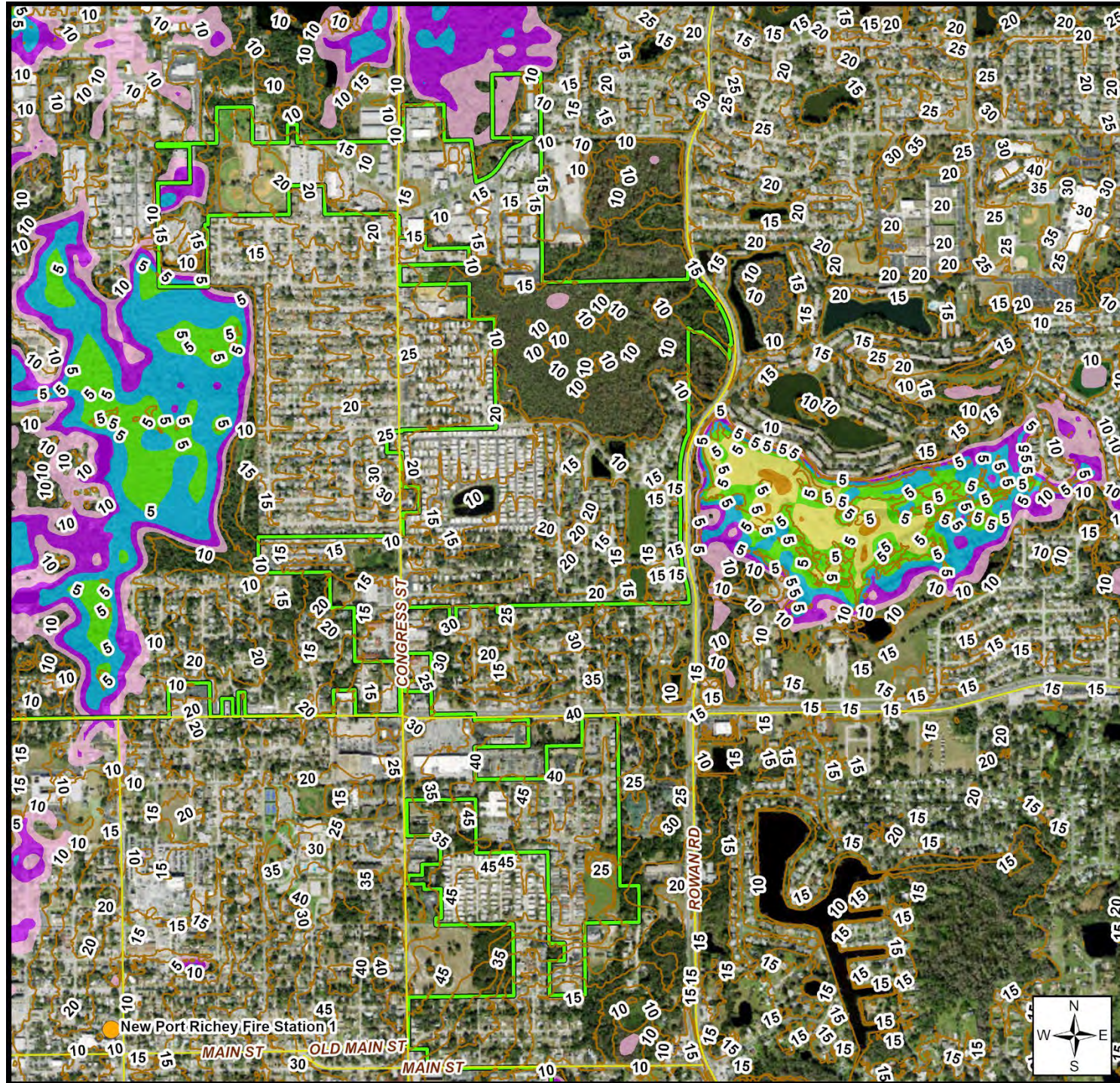
NOTES:  
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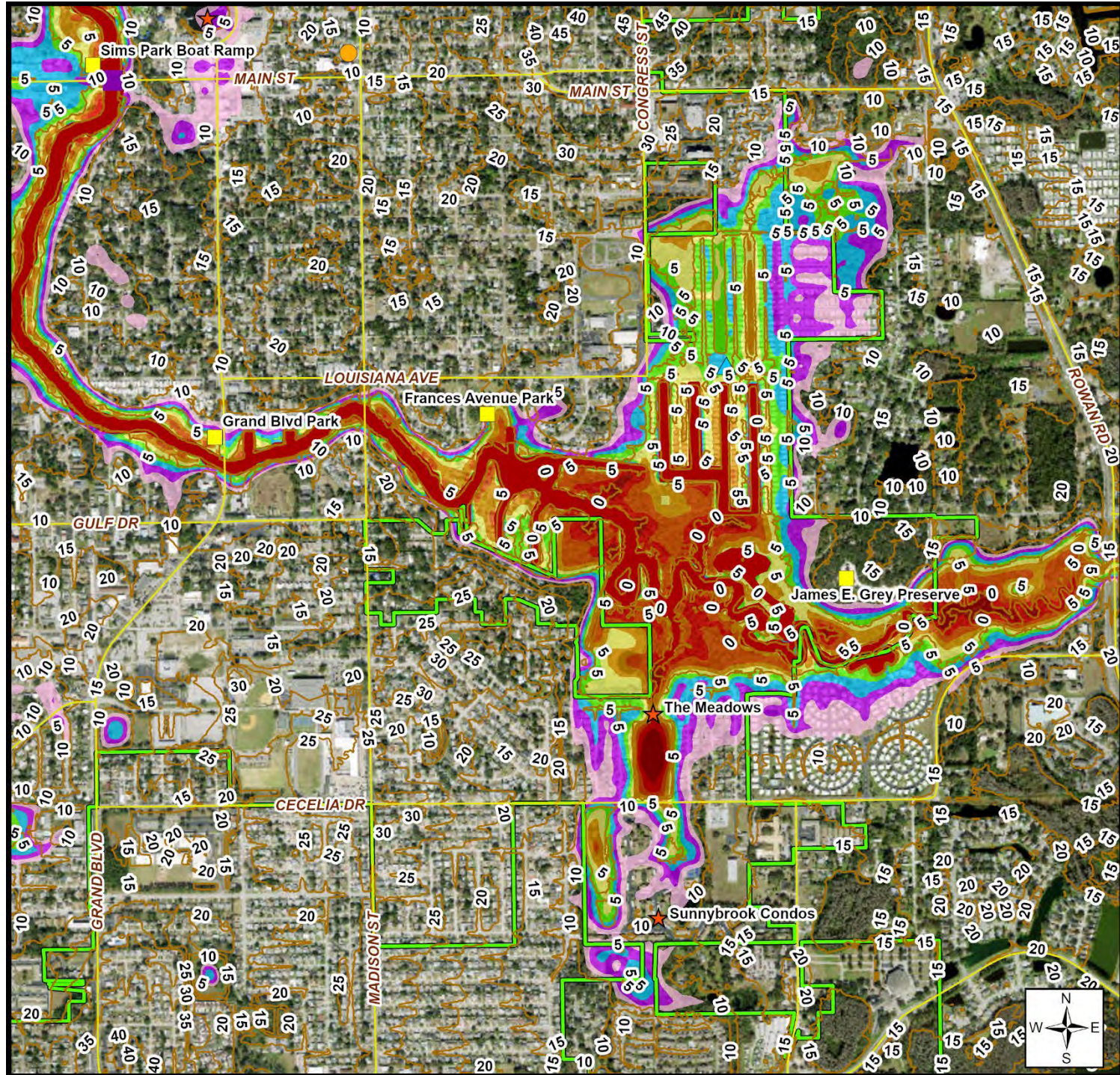
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**Figure 8. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2040 SLR**



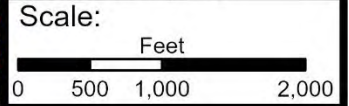
**Southeast**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5 ft)
  - New Port Richey City Boundary
  - Ocean

**8: Max Tide & River During Hermine 2040SLR (ft)**

- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:  
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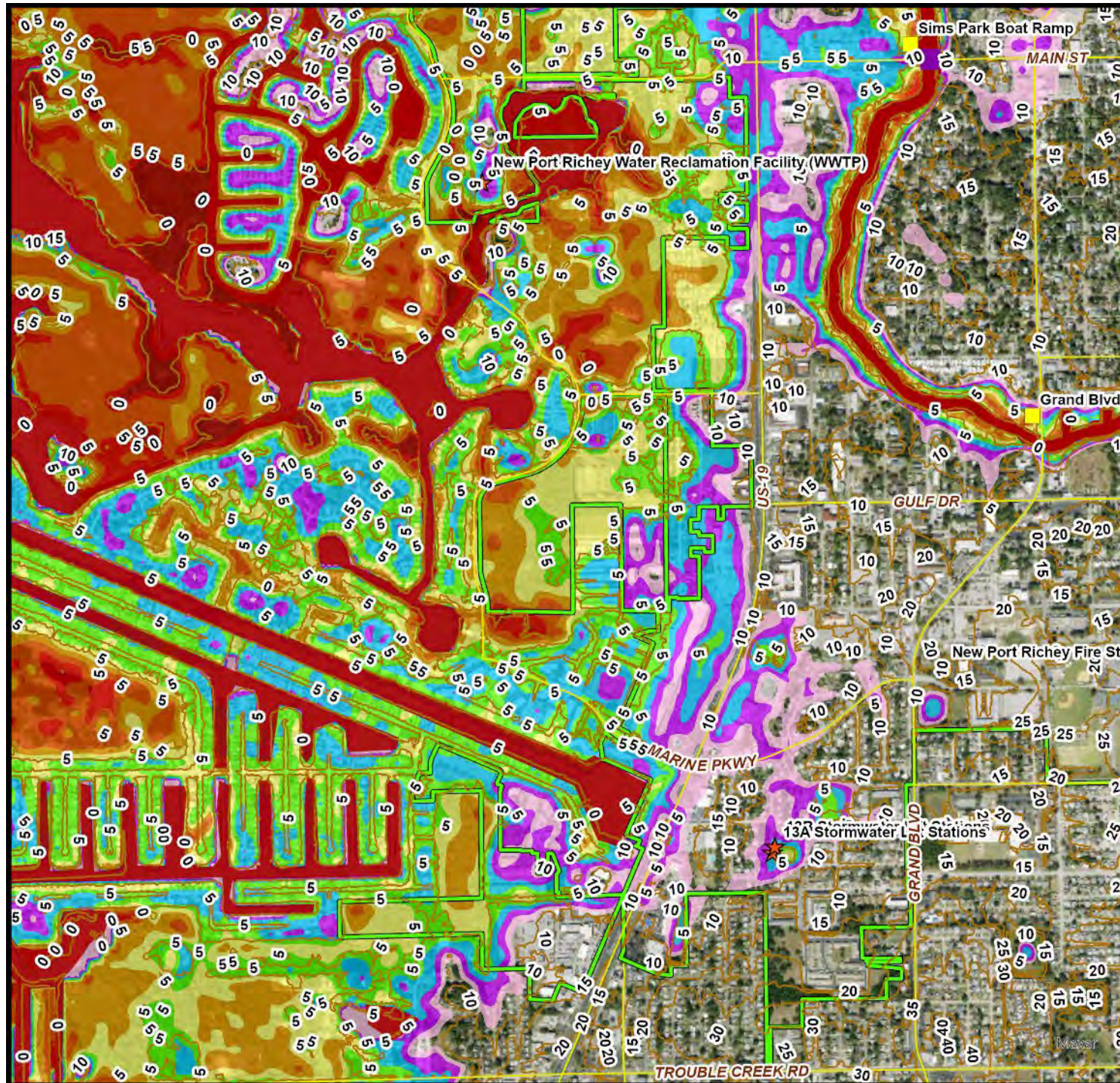


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**Figure 8. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2040 SLR**

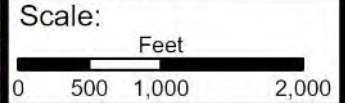


**Northwest**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5 ft)
  - New Port Richey City Boundary
  - Ocean
- 8: Max Tide & River During Hermine 2040SLR (ft)**
- 9ft Water
  - 8ft Water
  - 7ft Water
  - 6ft Water
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  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water



NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.

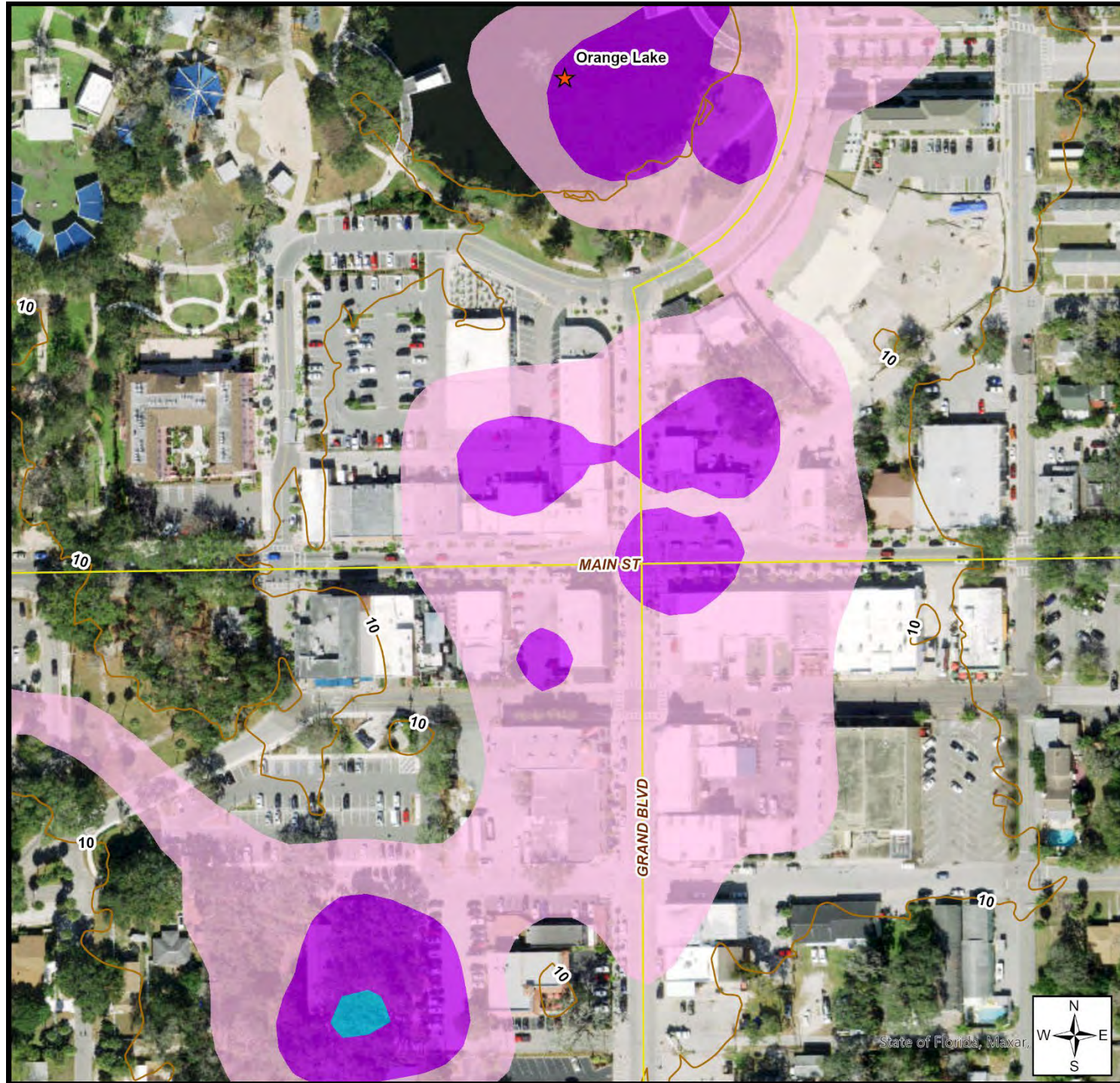


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**Figure 8. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2040 SLR**



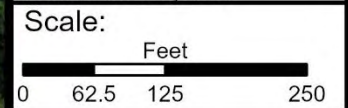
**Downtown**

- Most Vulnerable Critical Assets
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - LiDAR (5 ft)
  - ▭ New Port Richey City Boundary
  - Ocean

**8: Max Tide & River During Hermine 2040SLR (ft)**

- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:  
 -Anclote Key Preserve and Warner Boyce Salt Springs will be under water.  
 -Magnolia Valley and Orange Grove Park are outside of the city limits.



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# **Appendix J: Scenario 9 Models.**

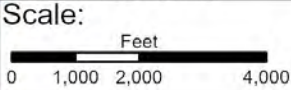
**Figure 9. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2070 SLR**

**Overview**

- Most Vulnerable Critical Assets**
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - Major Roads
  - New Port Richey City Boundary
  - Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
- 11ft Water
  - 10ft Water
  - 9ft Water
  - 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water



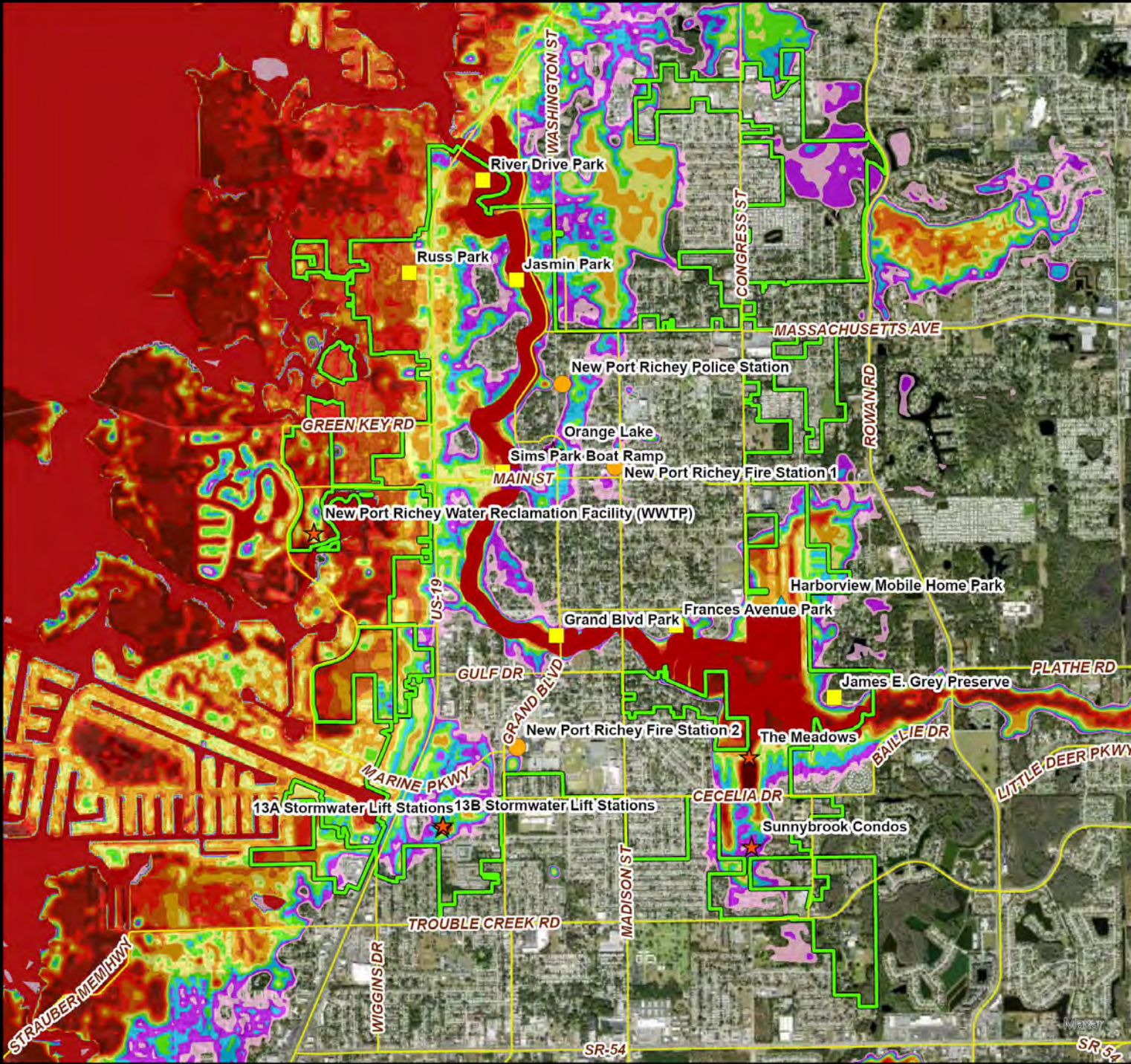
**NOTES:**  
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 -Magnolia Valley and Orange Grove Park are outside of the city limits.



**Date: 8/4/2024**

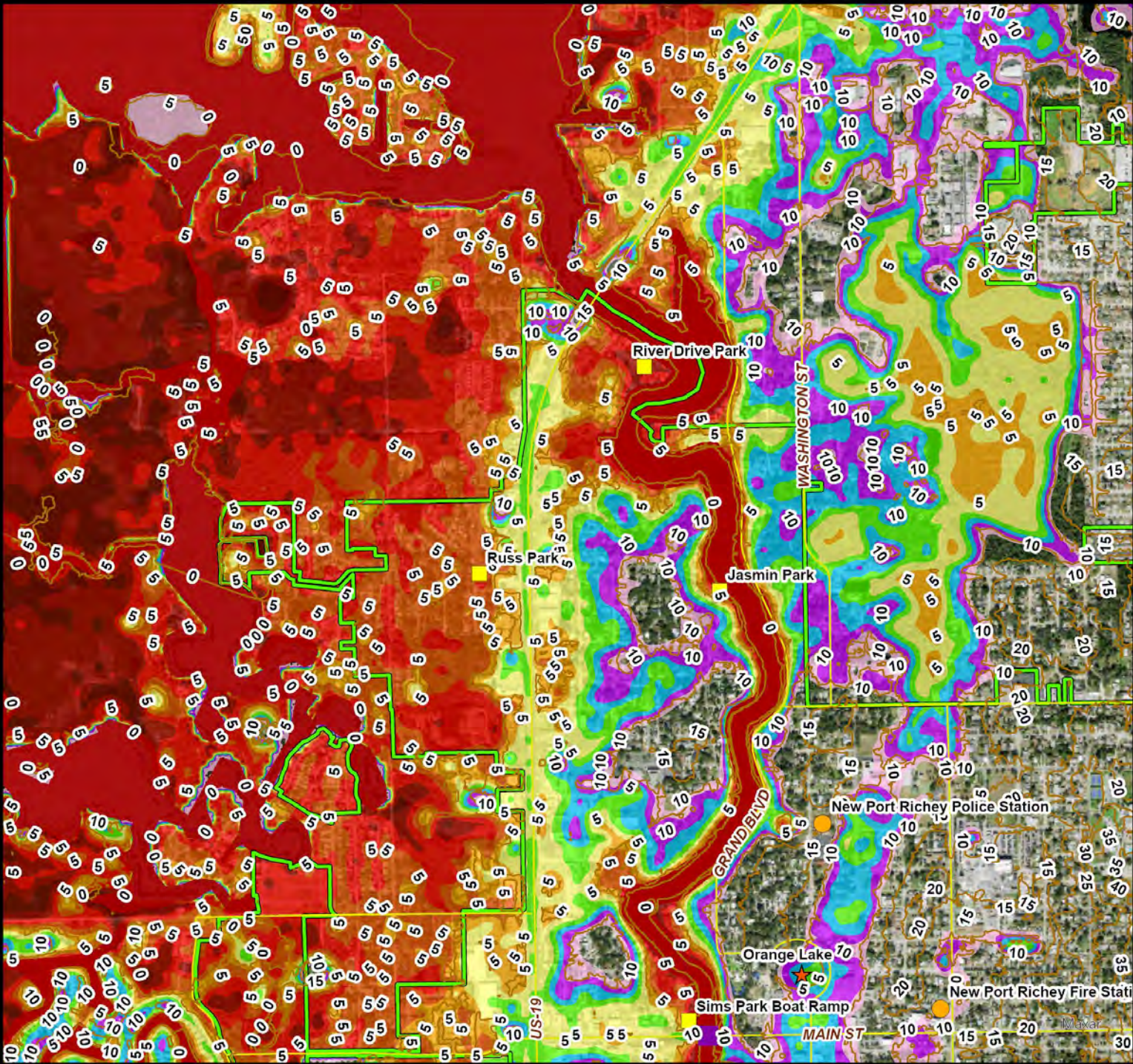


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**Figure 9. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2070 SLR**

**Northwest**

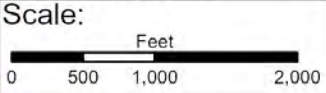


**Most Vulnerable Critical Assets**

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- LIDAR (5 ft)
- Major Roads
- New Port Richey City Boundary
- Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
- 11ft Water
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- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water



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 -Magnolia Valley and Orange Grove Park are outside of the city limits.



Date: 8/4/2024

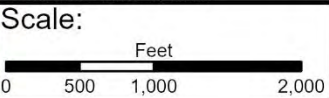
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**Figure 9. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2070 SLR**

**Northeast**

- Most Vulnerable Critical Assets**
- Critical Emergency Facilities
  - ★ Critical Infrastructure
  - Historical Resources
  - ▲ Neighborhoods
  - Main St Gage
  - LiDAR (5 ft)
  - Major Roads
  - New Port Richey City Boundary
  - Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
- 11ft Water
  - 10ft Water
  - 9ft Water
  - 8ft Water
  - 7ft Water
  - 6ft Water
  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

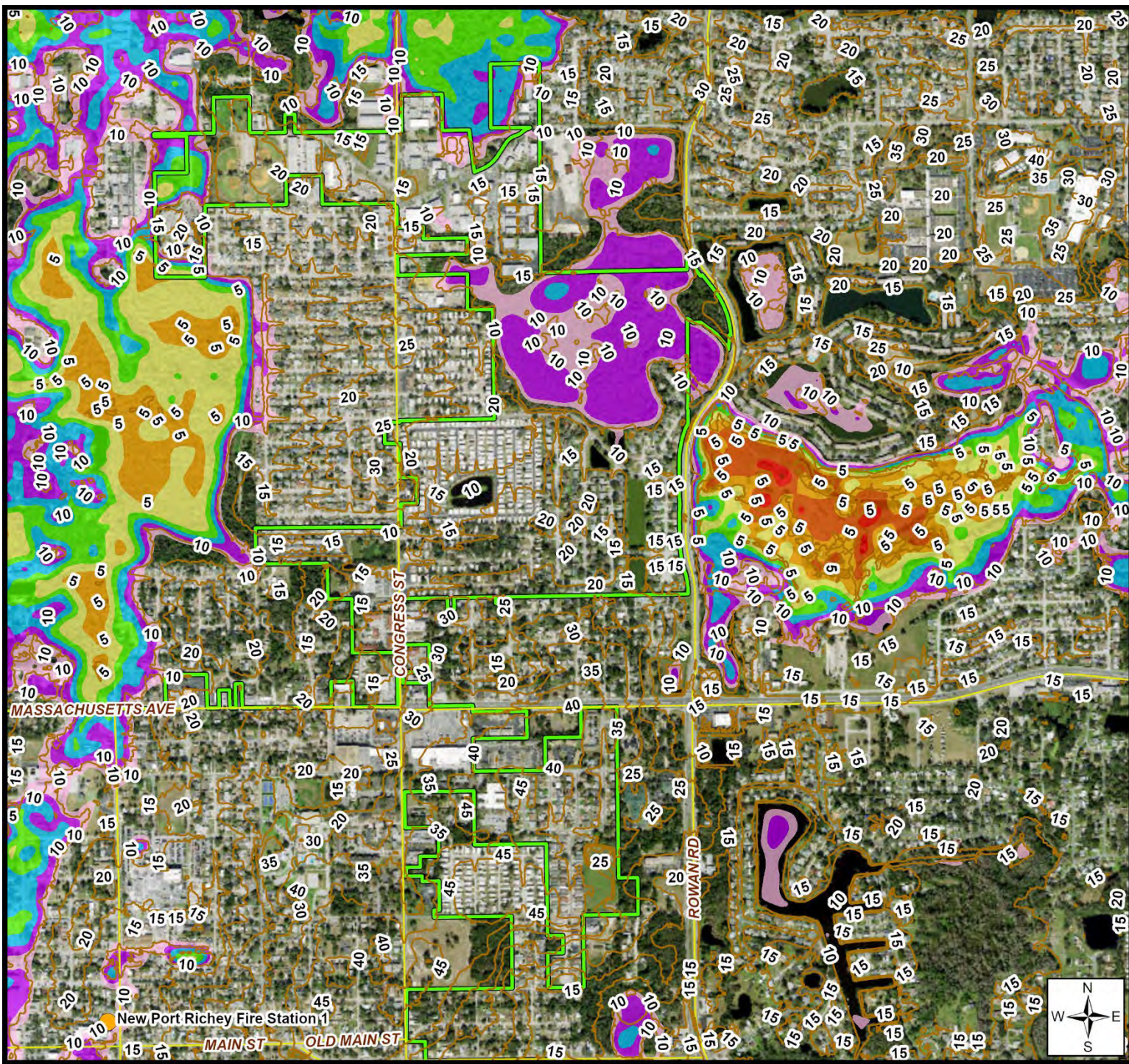
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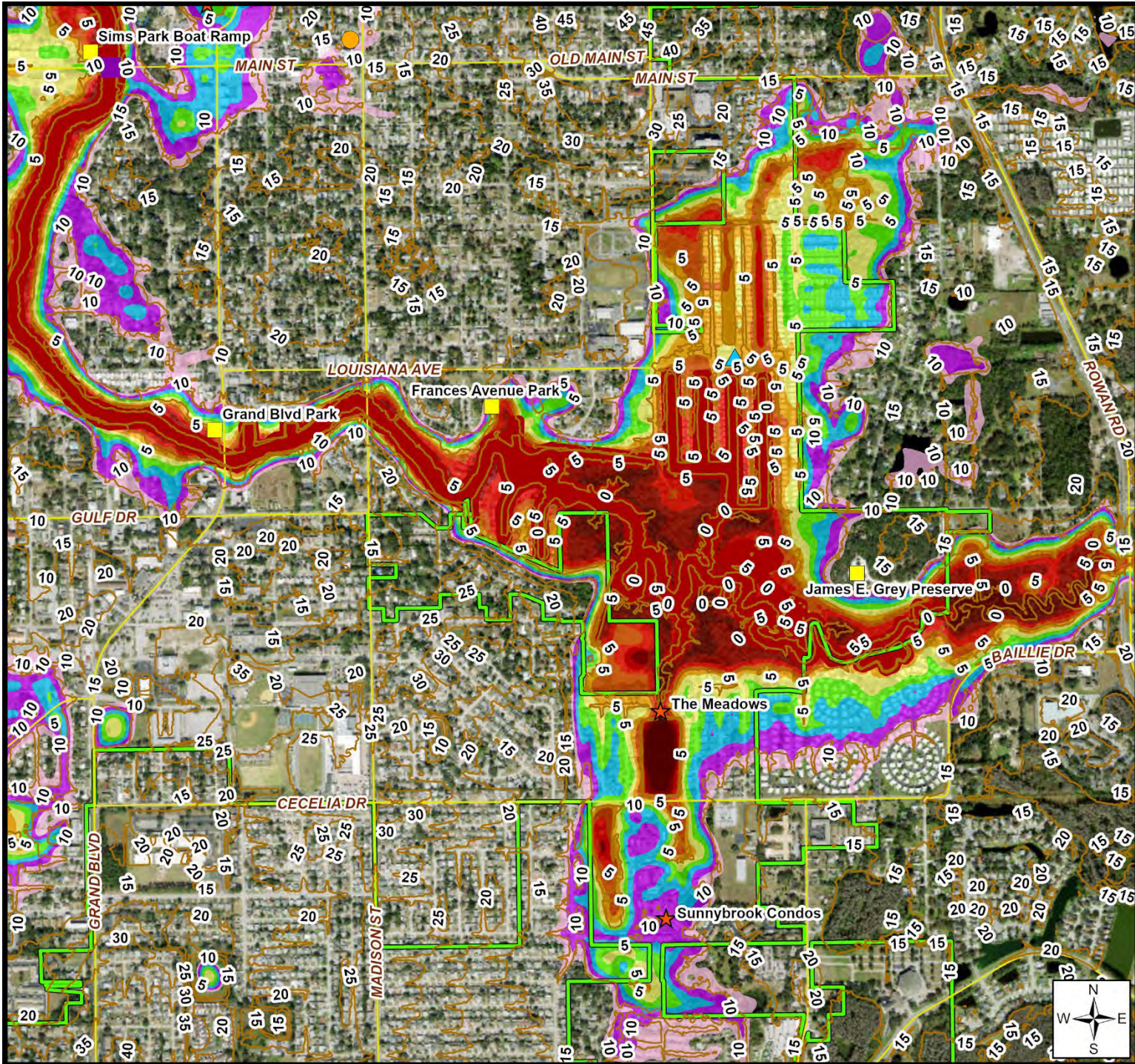


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**Figure 9. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2070 SLR**

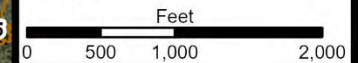
**Southeast**

**Most Vulnerable Critical Assets**

- Critical Emergency Facilities
- Critical Infrastructure
- Historical Resources
- Neighborhoods
- Main St Gage
- LiDAR (5 ft)
- Major Roads
- New Port Richey City Boundary
- Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
- 11ft Water
- 10ft Water
- 9ft Water
- 8ft Water
- 7ft Water
- 6ft Water
- 5ft Water
- 4ft Water
- 3ft Water
- 2ft Water
- 1ft Water

NOTES:  
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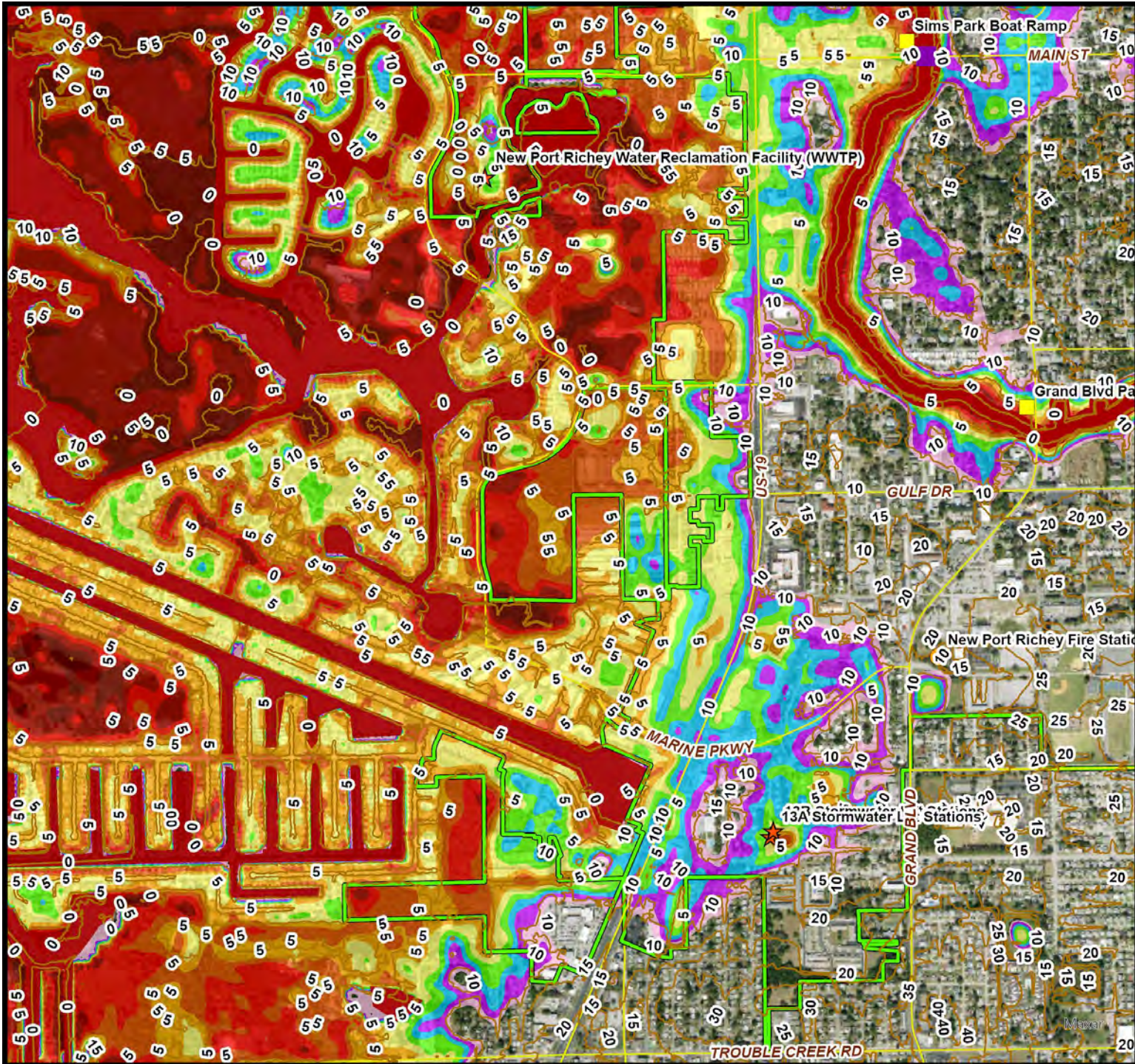
Scale:



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**Figure 9. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2070 SLR**

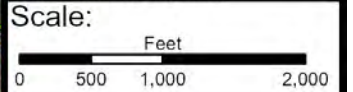
**Southwest**

**Most Vulnerable Critical Assets**

- Critical Emergency Facilities
- ★ Critical Infrastructure
- Historical Resources
- ▲ Neighborhoods
- Main St Gage
- LIDAR (5 ft)
- Major Roads
- New Port Richey City Boundary
- Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
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- 4ft Water
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- 2ft Water
- 1ft Water



NOTES:  
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Date: 8/4/2024



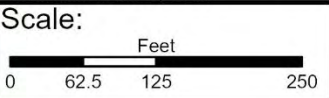
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 dana@ghsenvironmental.com  
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**Figure 9. Max Tide at Clearwater Bch & Max River During Hurricane Hermine Plus 2070 SLR**

**Downtown**

- Most Vulnerable Critical Assets**
- Critical Emergency Facilities
  - Critical Infrastructure
  - Historical Resources
  - Neighborhoods
  - Main St Gage
  - LiDAR (5 ft)
  - Major Roads
  - New Port Richey City Boundary
  - Ocean
- 9: 3 Baseline Hermine Max Tide + SLR2070 (ft)
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  - 8ft Water
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  - 5ft Water
  - 4ft Water
  - 3ft Water
  - 2ft Water
  - 1ft Water

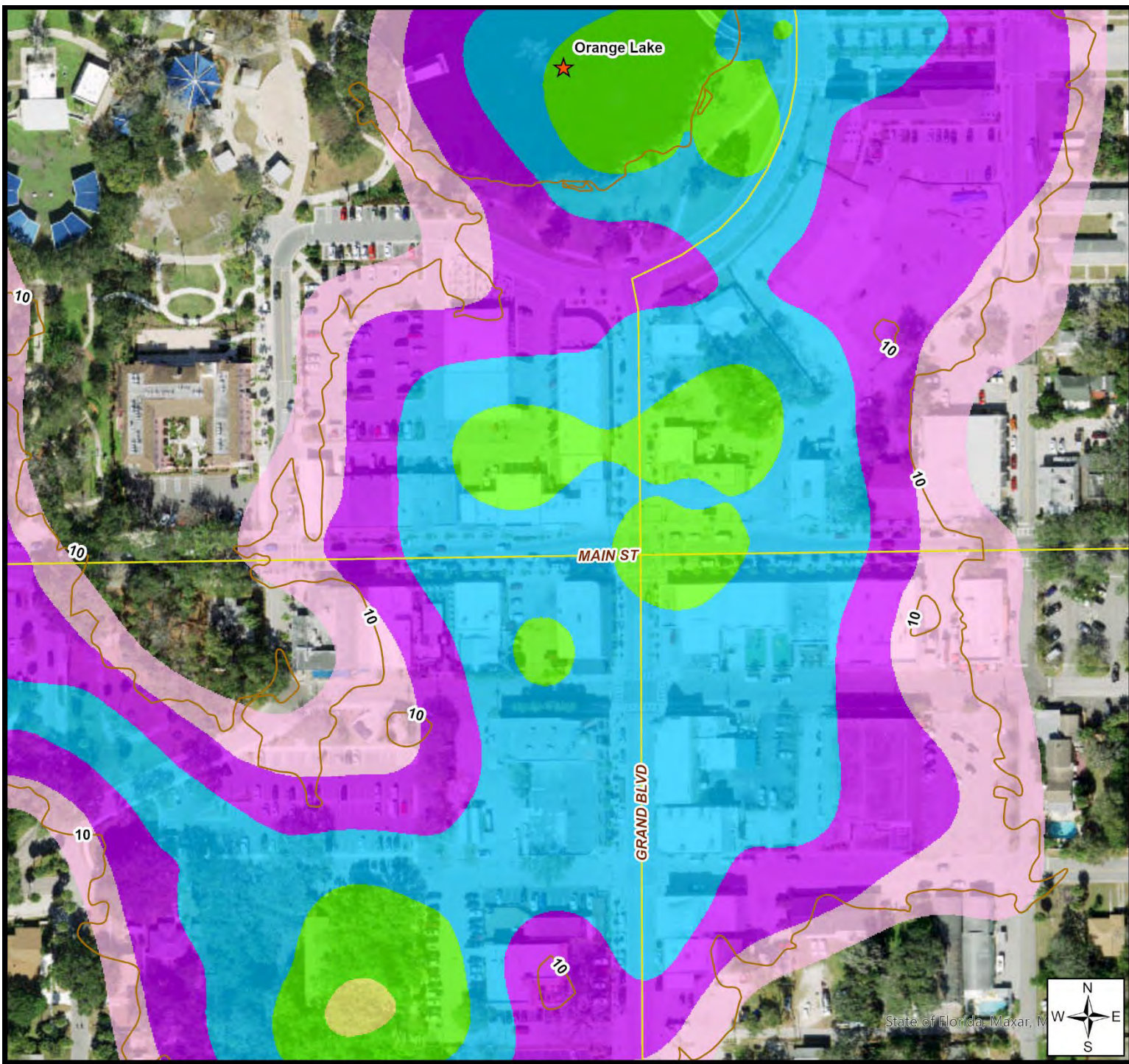
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# **Appendix K: Flood Potential Photos**





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St. Petersburg, FL 33732-5582  
727-667-6786  
[www.ghsenvironmental.com](http://www.ghsenvironmental.com)

Legend

**Potential Flood  
View**

**Police Station**



GHS Environmental  
PO Box 55802  
St. Petersburg, FL 33732-5582  
727-667-6786  
[www.ghsenvironmental.com](http://www.ghsenvironmental.com)

Legend

**Potential Flood  
View**

**Fire Station**



GHS Environmental  
PO Box 55802  
St. Petersburg, FL 33732-5582  
727-667-6786  
www.ghsenvironmental.com

Legend

**Potential Flood  
View**

**City Hall**



GHS Environmental  
PO Box 55802  
St. Petersburg, FL 33732-5582  
727-667-6786  
www.ghsenvironmental.com

Legend

**Potential Flood  
View**

**Grand Blvd &  
Main St**



GHS Environmental  
PO Box 55802  
St. Petersburg, FL 33732-5582  
727-667-6786  
[www.ghsenvironmental.com](http://www.ghsenvironmental.com)

Legend

**Potential Flood  
View**

**WWTP  
Admin Building**



GHS Environmental  
PO Box 55802  
St. Petersburg, FL 33732-5582  
727-667-6786  
www.ghsenvironmental.com

Legend

**Potential Flood  
View**

**WWTP  
Chemical Building**



GHS Environmental  
PO Box 55802  
St. Petersburg, FL 33732-5582  
727-667-6786  
[www.ghsenvironmental.com](http://www.ghsenvironmental.com)

Legend

**Potential Flood  
View**

**WWTP  
Maintenance Shed**

# **Appendix L: Summary of Proposed Plan Amendments**





A. Existing Plan Policies & Programs	B. Improvements and/ or Expansions to Existing Plan Policies & Programs
<p><b>A: National Flood Insurance Program</b>            The City has participated in the National Flood Insurance Program since 1981 and currently has a rating of 7, which results in a 15% discount in flood insurance premiums to its citizens.</p>	<p><b>B1:</b> Evaluate the methods necessary to increase the City’s rating which will result in increased discounts offered to its citizens; and implement those methods determined to be attainable, as appropriate, over a multi-year timeframe.   <b>Reference: New Policy CME 3.4.5</b></p>
<p><b>A2: Flood Damage Prevention Regulations</b>            The City adopted Flood Damage Prevention regulations in Ordinance 2014-2035 on August 19, 2014 that created comprehensive regulations for development on property in the flood zones. This Ordinance establishes requirements that development in the coastal areas be consistent with and in some cases more restrictive than the Florida Building Code.</p>	<p><b>B2a:</b> Evaluate increasing the required elevation above Base Flood Elevation to address impacts of sea level rise. The City’s current requirement is 1 ft above Base Flood Elevation.   <b>Reference: New Policy 3.4.7</b>   <b>B2b:</b> Evaluate if there are any septic tanks in the flood hazard areas, and if so, develop methods and financial incentives to abandon them and connect users to public wastewater service. Currently, City doesn’t allow new septic tanks in flood hazard areas.   <b>Reference: New Policy CME 3.4.9</b></p>
<p><b>A3: Public Expenditures in the CHHA</b>            The Conservation Element limits public expenditure within the CHHA, including roads, utility line extensions or expansions, wastewater treatment plant facilities (Objective CME 2.1 and Policies CME 2.1.2, 2.1.3, 2.1.4).</p>	<p><b>B3:</b> Evaluate impacts of Sea Level Rise on City Buildings and Facilities and develop appropriate responses.  <b>Reference: New Policy CME 2.1.6</b></p>
<p><b>A4: Density in the CHHA</b>            The Conservation Element prohibits increases in density for sites within the CHHA (Objective CME 2.2 and Policy CME 2.2.1. ).</p>	<p><b>B4:</b> Retain existing policy.</p>
<p><b>A5: Coastal Transfer of Development Rights</b>            The Future Land Use Element establishes the framework for the Transfer of Development Rights from City-owned land in the CHHA to receiving areas (Objective FLU 3.2 and Policies 3.2.1 through 3.2.22).</p>	<p><b>B5:</b> Evaluate expansion of the Transfer of Development Rights Program to allow transfers between private property owners. Expansion would not allow Transfers into vulnerable areas in the CHHA.  <b>Reference: New Policy FLU 3.2.23</b></p>



<b>C. New Plan Policies &amp; Programs</b>
<p><b>C1:</b> Designate Adaptation Action Area for area(s) that experience coastal flooding for the purpose of prioritizing funding and for the creation of adaptation policies unique to the area. <b>(Reference FS 163.3164 (1))</b></p> <p><u>Purpose:</u> Strengthen response in areas with flooding through prioritized funding and more detailed policies.</p> <p><b>Reference: New Objective CME 4.4 and Policies 4.4.1 through 4.4.5</b></p>
<p><b>C2:</b> Implement Public Outreach Program with technical assistance on FEMA assistance and funding options for residents with damage from multiple flood events.</p> <p><u>Purpose:</u> To inform residents of funding opportunities.</p> <p><b>Reference: New Policy CME 3.4.6</b></p>
<p><b>C3:</b> Evaluate best available permeable surfaces and provide incentives for their use in new paved surfaces, renovations of existing paved surfaces, or roads.</p> <p><u>Purpose:</u> To reduce stormwater runoff.</p> <p><b>Reference: New Policy CME 3.4.10</b></p>
<p><b>C4:</b> Evaluate current Bicycle and Pedestrian Network and identify gaps, expansions or repairs needed. Prioritize funding of the identified gaps, expansions and repairs to the Bicycle and Pedestrian Network in the Capital Improvement Plan.</p> <p><u>Purpose:</u> To assist in reducing vehicle miles traveled by providing reliable alternative means of transportation.</p> <p><b>Reference: New Policy FLU 1.4.11</b></p>
<p><b>C5:</b> Evaluate designing new City facilities to LEED standards (Leadership in Energy and Environmental Design). Evaluate encouraging appropriate City staff to pursue and achieve LEED certification.</p> <p><u>Purpose:</u> Demonstrate City’s commitment to responding to climate change and encourage sustainability.</p> <p><b>Reference: New Policy CME 3.4.8</b></p>
<p><b>C6:</b> Prepare detailed evaluation of potential adaptation solutions for the flooding on historic resources that will maintain the historic integrity of the buildings.</p> <p><u>Purpose:</u> Preserve historic resources into the future through development of unique solutions needed for historic resources.</p> <p><b>Reference: New Policy CME 1.2.2</b></p>
<p><b>C7:</b> The City can evaluate the feasibility and effectiveness of increasing the minimum height of seawalls to address the impacts of flooding and future sea level rise.</p> <p><u>Purpose:</u> To minimize the amount of flooding that occurs on waterfront properties.</p> <p><b>Reference New Policy CME 3.4.11</b></p>

# **Appendix M: Proposed Coastal Management Element Plan Amendments**

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# ***Coastal Management Element***

*March 21, 2016*

## **VULNERABILITY ASSESSMENT PROPOSED PLAN AMENDMENTS**

**Prepared by:  
GHS Environmental  
&  
Tarapani Planning Strategies**

**DRAFT  
September 3, 2024**

## **VI. Goals, Objectives and Policies**

### **Introduction**

Pursuant to sections 163.3177(6) and 163.3178, Florida Statutes, the following represents the Coastal Management Element goals, objectives and policies of the City of New Port Richey. These goals, objectives and policies are intended to address the establishment of a long-term directive for the protection of the natural environment systems, cultural resources and human life and property against the effects of natural disasters in the coastal area.

### **Implementation**

#### **Goal CME 1**

To preserve and protect natural and cultural resources within the coastal area.

#### **Coastal Natural Resources**

##### **Objective CME 1.1**

Protect, conserve, or enhance remaining coastal wetlands, living marine resources, coastal barriers, and wildlife habitat.

##### **Policies**

CME 1.1.1 The City shall emphasize the protection, maintenance and, where possible, acquisition, of ecological systems in all land and water planning, management and regulation activities in accordance with the policies of the Conservation and Future Land Use elements.

CME 1.1.2 The City shall coordinate dredge and fill activities in the coastal area with the Florida Department of Environmental Protection, the Southwest Florida Water Management District, and the Army Corps of Engineers, and pursuant to Chapters 62 and 40D-4, Florida Administrative Code; Section 404, Clean Water Act and the Land Development Code.

CME 1.1.3 The City shall consider programs or projects relative to seagrass protection, including participation in the efforts of adjacent local governments.

#### **Cultural Resources**

##### **Objective CME 1.2**

Provide for the protection, preservation, or sensitive reuse of historical and archaeological resources in the coastal area.

##### **Policies**

CME 1.2.1 Development applications shall address the occurrence or potential occurrence of historical and archeological resources.

CME 1.2.2 Prepare an evaluation of adaptation strategies for historic structures that addresses the impact of flooding and/ sea level rise and provide solutions tailored to the unique character of these structures and that will maintain the integrity of the historic structures.

#### **Goal CME 2**

Reduce the future risk to human life and public and private property from natural hazards, and expedite post-disaster recovery through hazard mitigation, evacuation facilities, disaster recovery and post-disaster redevelopment strategies.

**Public Facilities Expenditures in the CHHA**

**Objective CME 2.1**

Limit public expenditures that subsidizes development permitted in Coastal High Hazard Area except for restoration or enhancement of natural resources.

**Policies**

CME 2.1.1 Per Section 163.3178(2)(h), Florida Statutes, the Coastal High Hazard Area is defined as the area below the elevation of the category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

CME 2.1.2 The City shall not support or finance new local transportation corridors which lie within the Coastal High Hazard Area, although existing corridors may be maintained or improved as necessary to protect the health, safety or welfare of existing residents.

CME 2.1.3 The City shall not support sewer and water line extensions or expansions within the Coastal High Hazard Area which will encourage future growth/higher densities in those vulnerable areas.

CME 2.1.4 The City shall limit the construction of wastewater treatment plant facilities within the Coastal High Hazard Area to expansion of existing plants as permitted and monitored by the Florida Department of Environmental Protection in Chapter 62-6, FAC, except in the case of an overriding public health and safety issue.

CME 2.1.5 All new public facilities in the Coastal High Hazard Area shall be flood-proof to ensure minimal damage from major storms.

CME 2.1.6 Evaluate the risk of sea level rise and/ or flooding impact prior to the final decision on the location and design of new City buildings and infrastructure.

CME 2.1.6<sup>7</sup> Utility infrastructure in the Coastal High Hazard Area shall be designed to withstand floods and wind damage associated with major storms. Furthermore, the City shall require, where necessary and appropriate, electric, telephone, television cable and other private utility infrastructure be designed to withstand flood and major storm damage. All utility lines and services shall be installed underground at the owner's expense with exception of the following:

- a. Temporary construction lines;
- b. Appurtenances such as transformers, pedestal-mounted terminal boxes and meter cabinets, when placed on a level concrete slab and located so as to minimize noise effects on surrounding properties;
- c. Replacement of existing overhead service lines due to expansion or change of use, where no other site improvements are required;
- d. Replacement of lines on existing poles; and
- e. Service to individual residential lots in developed areas presently served by overhead utility lines.

**Development Density in the CHHA**

**Objective CME 2.2**

Direct population concentrations away from the designated Coastal High Hazard Area.

**Policies**

- CME 2.2.1 The City shall maintain or reduce allowable density in the Coastal High Hazard Area consistent with the Future Land Use Map of the Comprehensive Plan.
- CME 2.2.2 The City shall implement a program of land acquisition and management for recreation, conservation and preservation areas within the Coastal High Hazard Area.
- CME 2.2.3 The City shall review federal, state and county development projects which are to be located within the Coastal High Hazard Area, as well as the Hurricane Vulnerability Zone, and support those projects which are consistent with this Plan.
- CME 2.2.4 The City shall require a coastal hazard disclosure statement on all real estate transfers or leases within the Coastal High Hazard Area.

**Hurricane Evacuation**

**Objective CME 2.3**

Maintain or reduce hurricane evacuation clearance times and establish the level of service for Hurricane Evacuation at 18 hours in-County and 58 hours for out-of-County evacuation for a Category 5 storm event as measured on the Saffir-Simpson Scale.

**Policies**

- CME 2.3.1 The City shall coordinate with FDOT, Pasco County MPO and Pasco County to ensure that major evacuation routes are adequately signed and maintained and, as conditions warrant, improved to increase the rate of evacuation.
- CME 2.3.2 The City, in cooperation with the Pasco County Office of Emergency Management and West Pasco Chapter of the American Red Cross, shall continue to sponsor annual hurricane preparedness seminars and provide general information to the public on evacuation procedures to increase hurricane awareness.
- CME 2.3.3 City emergency response personnel and volunteers shall coordinate with county and state emergency response agencies in emergency planning, including communications, traffic control and warning operations, to affect a safe and efficient evacuation of the City.
- CME 2.3.4 The City shall ensure adequate roadway capacity to facilitate the evacuation of residents in the Hurricane Vulnerability Zone by evaluating any proposed changes in land use density/intensity against the currently acceptable evacuation plan.
- CME 2.3.5 The City shall consider the findings of the Tampa Bay Regional Planning Council Hurricane Evacuation Study in the Comprehensive Plan.

**Hazard Mitigation**

**Objective CME 2.4**

Reduce the risks to human life and public and private property from natural disasters through implementation of hazard mitigation measures.

**Policies**

- CME 2.4.1 The City shall adopt, at a minimum, the coastal construction standards embodied in the Coastal Zone Protection Act and shall strictly enforce these standards through the building inspection process.
- CME 2.4.2 The City shall continue to implement hazard mitigation programs, such as building codes, floodplain management regulations, stormwater management regulations,

land use regulations, as well as proper siting and management of public facilities in accordance with the Comprehensive Plan.

CME 2.4.3 Special care facilities shall not be located in the Coastal High Hazard Area. Special care facilities are discouraged in the Hurricane Vulnerability Zone unless adequate provisions for safe and efficient evacuation and shelter are ensured.

CME 2.4.4 The City shall ensure that the hazard mitigation considerations in the Pasco County Local Mitigation Strategy that are applicable to the City are implemented, when feasible.

CME 2.4.5 The City will incorporate the recommendations of interagency hazard mitigation reports into the Comprehensive Plan, as appropriate.

CME 2.4.6 Continue to participate in the National Flood Insurance Program Community Rating System. Evaluate and implement best methods to improve the City's rating to increase resilience and reduce the insurance rates for the City's residents.

CME 2.4.7 Implement a public outreach program that provides technical assistance to residents who have been impacted by flooding about the available FEMA programs and funding, and how to qualify for these programs.

CME 2.4.8 Evaluate increasing the required elevation above Base Flood Elevation for public and privately owned facilities and buildings, and roads to address the impacts of flooding and sea level rise.

CME 2.4.9 Encourage more energy-efficient and climate resilient construction practices through the following policies:

- a. Encourage compliance with the Florida Green Building Coalition or US Green Building Council Leadership in Energy and Environmental Design (LEED) for the new construction or major renovation of City-owned facilities.
- b. Encourage appropriate City staff to pursue LEED certification related to their fields of expertise.
- c. Encourage and provide incentives for private construction that complies with the Florida Green Building Coalition or US Green Building Council Leadership in Energy and Environmental Design (LEED).
- d. Incorporate building design standards into the City's Building Code that assist in the resistance or mitigation of the impact of flooding or sea level rise on structures.

CME 2.4.10 Conduct a study to determine whether there are any septic tanks located in flood hazard areas; and if so, develop a program with financial incentives to abandon the septic tanks and connect users to the public wastewater service.

CME 2.4.11 Within one year of adoption of this Policy, evaluate and identify the best available permeable materials for parking lots and roads and incorporate incentives for their use into the Land Development Code.

CME 2.4.12 Evaluate the feasibility and effectiveness of increasing the minimum seawall height to address the impacts of flooding and future sea level rise.

## **GOAL**

### **Objective CME 3**

Expedite post-disaster recovery and reduce the future risk to human life and public and private



property from natural hazards through recovery and re-development strategies.

**Post-Disaster Permitting**  
**Objective CME 3.2**

By 2020, in order to effectively manage the timing and sequence of reconstruction, establish reconstruction permitting procedures.

**Policies**

- CME 3.2.1 Following a major hurricane event, the City Council will adopt a temporary post-disaster building moratorium to allow sufficient time for immediate damage assessment, the identification of redevelopment opportunities and hazard mitigation policy implementation.
- CME 3.2.2 The City shall adopt a post-disaster procedure which will expedite permitting for minor repairs. The procedure shall include development plan review, engineering approval and building permitting and shall provide that all permitting procedures are coordinated with the appropriate agencies and are consistent with the objectives of this Comprehensive Plan.
- CME 3.2.3 The City shall adopt a Recovery and Reconstruction ordinance that addresses, at minimum, temporary land development regulations, demolition of damaged buildings, temporary and permanent housing and recovery and reconstruction strategies.

**Post-Disaster Redevelopment**  
**Objective CME 3.3**

The City shall address key reconstruction and redevelopment strategies which will be used to promote hazard mitigation.

**Policies**

- CME 3.3.1 Where feasible, property which has received recurring damage from storm surge shall be publicly acquired and designated Conservation on the Future Land Use Map to prevent redevelopment of the property to its pre-hurricane land use.
- CME 3.3.2 The City shall consider the feasibility one or more of the following strategies in those areas which receive major or moderate damage:
- a. Relocation of the use outside the Coastal High Hazard Area;
  - b. Reduction of permissible density of development in the area;
  - c. Reconstruction according to more stringent building and construction standards; and
  - d. Public acquisition.
- CME 3.3.3 The City shall hazard mitigation objectives and other community development objectives during reconstruction permitting including: toward the enhancement of:
- a. Recreational and open space opportunities;
  - b. Public access to waterfronts;
  - c. Natural ecosystems;
  - d. Access and mobility; and
  - e. The long-term economic vitality of the commercial base.

**Post-Disaster Redevelopment Plan**

**Objective CME 3.4**

Evaluate the long-term problems related to post-disaster relief in the development of a Post-Disaster Redevelopment Plan.

**Policies**

CME 3.4.1 By 2020, the City shall develop a Post-Disaster Redevelopment Plan that addresses repetitive loss areas that should not be reconstructed, abandonment or relocation of vulnerable buildings and principles for repair, replacement, modification or relocation of vulnerable public facilities.

CME 3.4.2 The City shall include build-back policies in the Post-Disaster Redevelopment Plan.

CME 3.4.3 The Post-Disaster Redevelopment Plan shall contain objectives and policies that distinguish between immediate repair and clean-up and long-term repair and redevelopment.

**GOAL CME 4**

Development that is complementary to the natural character and existing public facility capacity of the Coastal Planning Area.

**Public Access**

**Objective CME 4.1**

Maintain and improve public access to the waterfronts in the coastal area.

**Policies**

CME 4.1.1 The City shall continue to provide public access to the waterfront through its waterfront parks, catwalks, fishing piers and boat ramp.

CME 4.1.2 The City shall acquire lands or public access easements adjacent to the shoreline through Federal, State, regional, or local land acquisition funding programs or as part of the development review process, when feasible.

CME 4.1.3 The City shall manage all public access facilities in a manner consistent with Federal, State, and regional regulations, and local programs.

**Shoreline Uses**

**Objective CME 4.2**

Preserve waterfront lands to accommodate desired water-dependent uses.

**Policies**

CIE 4.2.1 The City shall establish criteria for prioritizing waterfront uses that gives priority to uses that are water-dependent.

**Public Facilities Planning**

**Objective CME 4.3**

Provide for adequate public facilities to accommodate existing and new development in the coastal area.

**Policies**

CME 4.3.1 The level of service standard for streets in the coastal area shall be consistent with the Transportation Element.

*March 21, 2016*

CME 4.3.2 The City shall coordinate with Pasco County and the City of Port Richey, as appropriate, relative to water and sewer service areas and the phasing of associated infrastructure in the coastal area.

**Adaptation Action Areas**

**Objective CME 4.4**

Identify and designate Adaptation Action Areas consistent with Florida Statutes Section 163.3164 (1) to address areas that are vulnerable to the impacts of flooding and sea level rise.

**Policies**

CME 4.4.1 The criteria for designation of Adaptation Action Areas shall be those areas that have a hydrological connection to coastal waters and/ or the Pithlascotee River and are vulnerable to flooding; areas that are designated as evacuation routes that experience significant flooding; and other areas impacted by stormwater/ flood control issues.

CME 4.4.2 The Adaptation Action Areas are those areas shown on Map \_\_\_\_\_. These Areas may be revised or additional Areas may be added through an amendment to this Element.

CME 4.4.3 Funding for Capital Improvement Projects to address flooding and sea level rise shall be prioritized for projects within the Adaptation Action Areas.

CNE 4.4.4 The City shall pursue public and private funding sources for the implementation of adaptation strategies within the Adaptation Action Areas.

CME 4.4.5 Within one year of adoption of this Policy, The City shall evaluate planning, development, building code, and other related policies and programs and propose policies to address adaptation to flooding and sea level rise within the Adaptation Action Areas.

# **Appendix N: Proposed Future Land Use Element Plan Amendments**

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# Future Land Use Element

*March 21, 2016*

## **VULNERABILITY ASSESSMENT PROPOSED AMENDMENTS**

**Prepared by  
GHS Environmental  
&  
Tarapani Planning Strategies**

**DRAFT  
JULY 17, 2024**

## Adequate Public Facilities and Services Objective FLU 1.4

Ensure that new development and redevelopment does not result in a reduction of the adopted level of service standards for public facilities and services.

### Policies

- FLU 1.4.1 The City shall continue to require development to be located in areas where urban services are available or will be provided while maintaining the adopted level of service standards concurrent with the impacts of development as outlined in the Capital Improvements Element, or otherwise comply with the policy requirements for by the Transportation Concurrency Exception Area as related to mobility improvements.
- FLU 1.4.2 Recognizing the limitations of groundwater resources in meeting regional water needs, the City shall continue to coordinate with Tampa Bay Water and the Southwest Florida Water Management District to ensure that the potable water supply is adequate to serve new development.
- FLU 1.4.3 The development of residential, commercial and industrial land shall be timed and staged in conjunction with provision of supporting community facilities (e.g., streets, utilities, police and fire protection, emergency medical service and public schools).
- FLU 1.4.4 Public facilities and utilities shall be located to maximize the efficiency of services provided; to minimize their costs; and to minimize their impacts on the natural environment.
- FLU 1.4.5 All residential developers shall contribute toward the cost of new recreational land and facilities, according to the need that will be generated by their development.
- FLU 1.4.6 The City shall promote land use patterns that maximize investments in public facilities and services (e.g., maintaining planned land use intensities adjacent to Public Transit Corridors).
- FLU 1.4.7 All changes to the transportation system in the City shall be consistent with the adopted Future Land Use Map. Conversely, all land use changes shall be consistent with the transportation system's ability to support the impacts associated with land use changes as defined within areas subject to concurrency and as otherwise specified in the Transportation Concurrency Exception Area;
- FLU 1.4.8 The City shall discourage amendments to the Future Land Use Map which would reduce the efficient functioning of transportation facilities. The designated Transportation Concurrency Exception Area shall meet this requirement through implementation of the TCEA strategies set forth in the Transportation Element that prioritize multimodal mobility.
- FLU 1.4.9 Through enforcement of the Land Development Code regulations, the City shall continue to ensure that the transportation facilities function safely and effectively to meet the level of service requirements within the Transportation and Capital Improvements elements or the provisions of the Downtown Transportation Concurrency Exception Area by:
  - a. Limiting curb cuts on arterial roads, providing for common access

points, and ensuring safe and convenient on-site and inter-parcel circulation.

- b. Concentrating proposed commercial development around major roadway intersections, and discouraging proposals that would increase the frontage of existing commercial strips.
- c. Locating higher intensity uses where transportation facilities and services can provide the most efficient access.
- d. Incorporating “pedestrian-friendly” design principles in new development projects, as described in the Transportation Element.
- e. Implementing the objective and policies of the Transportation Concurrency Exception Area in the Transportation Element.

FLU 1.4.10 The land use pattern shall serve to minimize travel requirements and shall encourage increased use of public transit and walking and bicycling to support the City’s multi-modal transportation system citywide and, particularly, within the Transportation Concurrency Exception Area.

FLU 1.4.11 Evaluate the current Bicycle and Pedestrian Networks and identify gaps in the existing facilities, areas where no facilities exist, or areas where repairs are needed. Based on the findings of the study, prioritize funding the identified gaps, expansions and repairs to create a complete Bicycle and Pedestrian Network in the City.

## Redevelopment Objective FLU 1.5

Address needs for the rehabilitation, conservation and redevelopment within the City through the appointment of a Community Redevelopment Agency.

### Policies

- FLU 1.5.1 The Community Redevelopment Agency shall pursue redevelopment opportunities in accordance with the provisions of Part III, Chapter 163, FS.
- FLU 1.5.2 The City Council shall continue to function as the Community Redevelopment Agency pursuant to Part III, Chapter 163, FS.
- FLU 1.5.3 The provisions of the Land Development Code shall be utilized by the Community Redevelopment Agency to carry out its redevelopment efforts.
- FLU 1.5.4 Through site plan review, redevelopment shall occur in a manner to minimize disruption within the community and relocation of residents, and to ensure the compatibility of land uses.

## Coastal Transfer of Development Rights

### Program Objective FLU 3.2

The City of New Port Richey shall continue to implement the adopted Coastal Transfer of Development Rights program to:

- Assist suitable redevelopment within the Coastal High Hazard Area;
- Protect environmentally-sensitive lands within the Coastal High Hazard Area;
- Redistribute residential development rights allocated by the Future Land Use Map in accordance with objectives CME 2.1, CME 2.2, CME 2.3, and CME 3.4 and their

supporting policies; and

- Implement hazard mitigation strategies.

## Policies

- FLU 3.2.1 The Coastal Transfer of Development Rights program adopted by the City shall be consistent with the requirements of Florida Statutes Section 163.3178 (Coastal Management).
- FLU 3.2.2 The City shall create an “entitlement bank” where severed residential development rights from City-owned land are deposited for the purposes of implementing the Coastal Transfer of Development Rights program.
- FLU 3.2.3 As part of the Coastal Transfer of Development Rights program, the City shall sever all or part of the residential development rights allocated by the Future Land Use Map on City-owned property and deposit those development rights into the entitlement bank for use in furthering the growth management goals of the City.
- FLU 3.2.4 Development rights authorized by the Future Land Use Map on lands owned by the City within the Coastal High Hazard Area are transferable to designated receiving lands within the Coastal High Hazard Area.
- FLU 3.2.5 The residential development rights allocated by the Future Land Use Map in the Coastal High Hazard Area shall not be exceeded.
- FLU 3.2.6 In no case shall residential development rights from areas outside the Coastal High Hazard Area be transferred into the Coastal High Hazard Area.
- FLU 3.2.7 A Coastal Transfer of Development Rights Conditional Use Permit shall be required to utilize residential development rights in the Coastal High Hazard Area.
- FLU 3.2.8 The Coastal Transfer of Development Rights Conditional Use Permit at a minimum shall:
- a. Specify the number of transferable development rights;
  - b. Include a build-out date;
  - c. Include a final physical development plan;
  - d. Include a final architectural plan;
  - e. Include a list and schedule for capital improvements necessary (if any) to maintain level of service; and
  - f. Include development conditions or exactions required by the City.
- FLU 3.2.9 The Coastal Transfer of Development Rights Conditional Use Permit shall not be transferable.
- FLU 3.2.10 The Coastal Transfer of Development Rights Conditional Use Permit shall be project specific and shall not automatically transfer to a new development project or property owner in the event of the sale of the property.
- FLU 3.2.11 The density proposed for a project participating in the Coastal Transfer of Development Rights program shall be compatible with the density of surrounding development.



- FLU 3.2.12 The build-out date associated with a Coastal Transfer of Development Rights Conditional Use Permit may be extended by the City Council.
- FLU 3.2.13 Sending lands are defined as City-owned lands where residential development rights may be severed in all or part for the purposes of transferring development rights to other parcels within the Coastal High Hazard Area.
- FLU 3.2.14 Sending lands shall be designated on the Future Land Use Map by a non-residential land use and used for public parks, flood control and mitigation, open space, and appropriate redevelopment, as determined by the City.
- FLU 3.2.15 Sending lands from which residential development rights have been severed shall remain under the ownership of the City.
- FLU 3.2.16 Sending lands shall be designated on Map FLU-11 Coastal Transfer of Development Rights Sending Areas of the Future Land Use Map Series.
- FLU 3.2.17 Sending lands shall not include:
- a. Lands that are wholly included in wetlands;
  - b. Lands that are seaward of the Coastal Construction Control line; or
  - c. Lands that are privately owned.
- FLU 3.2.18 Receiving lands shall be lands within the Coastal High Hazard Area that have been identified as being most appropriate for development and to which residential development rights from the City entitlement bank may be transferred.
- FLU 3.2.19 Receiving lands shall be designated on Map FLU-11 Coastal Transfer of Development Rights Receiving Areas of the Future Land Use Map Series upon adoption.
- FLU 3.2.20 Receiving lands shall be designated outside of the most vulnerable areas of the Coastal High Hazard Area. Vulnerable areas include coastal wetlands, areas of repetitive loss, velocity zones and areas of high aquifer recharge.
- FLU 3.2.21 If a Comprehensive Plan amendment is required to participate in the Coastal Transfer of Development Rights program, said amendment shall be submitted concurrently with the Coastal Transfer of Development Rights Conditional Use Permit.
- FLU 3.2.22 In no case shall receiving lands be:
- a. Located in Firm V-Zones;
  - b. Located in wetlands where no useable uplands exist; or
  - c. Located within areas designated for non-residential use on the Future Land Use Map.
- FLU 3.2.23 Evaluate the expansion of the Transfer of Development Rights Program to allow privately owned lands within the CHHA to be designated as Sending Lands provided that the Development Rights shall only be transferred to Receiving Lands that are outside of the most vulnerable areas within the CHHA.