Apalachee Regional Planning Council

Serving Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson,
Liberty, Leon and Wakulla counties and their municipalities

June 1, 2020

Angel Baratta
Florida Department of Environmental Protection
Office of Resilience and Coastal Protection
3900 Commonwealth Boulevard
Douglas Building, 854E, MS235
Tallahassee, Florida 32399-3000

Dear Ms. Baratta,

This letter is regarding Task 1: Vulnerability Assessment (DEP Agreement # R1934).

This task will involve the compilation and summarization of existing information relevant to the previous and anticipated erosion of the portions of Alligator Point Road that have washed out in recent years. This includes review of available wave/surge and sea level rise data from online sources, road maintenance and shoreline armoring records from Franklin County, parcel/ownership information, and stakeholder input.

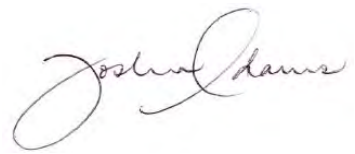
Deliverable: 1) Summary report of current Vulnerability Assessment/Conservation & Coastal Zone Management Element with recommendations and edits shown via strikethrough/underline changes to include key potential vulnerabilities to natural hazards, and adaptive capacity assets in Alligator Point; 2) Draft of Goals, Objectives, and Polices for adoption into the Comprehensive Plan and; 3) Timeline for Presentation to the local governing body

Performance Measure: The Department's Grant Manager will review the deliverables to verify that they meet the specifications in the Grant Work Plan and this task description.

Summary: Attached is a document that contains the summary report of current Vulnerability Assessment/Conservation and Coastal Zone Management Element, recommended edits to the comprehensive plan, and timeline for presentation to the Franklin County Board of County Commissioners.

Please let me know of you have any questions or concerns.

Sincerely,



Joshua Adams
Regional Planner - Environmental

OFFICE
2507 Callaway Rd, Ste 200
Tallahassee, Florida 32303

CONTACT
850.488.6211
www.thearpc.com

Alligator Point Coastal Resiliency Alternatives Analysis
Part I – Vulnerability and Asset Assessment

Completed by:

and

ecology and environment, inc.
Member of WSP

Funded by the Florida Department of Environmental Protection (Florida Resilient Coastlines Program grant) and the Northern Gulf of Mexico Sentinel Site Cooperative.

Table of Contents

List of Figures

List of Tables

Acronyms and Abbreviations

APWRD	Alligator Point Water Resources District
ARPC	Apalachee Regional Planning Council
Cat	Category (hurricane strength)
E & E	Ecology and Environment, Inc., member of WSP
FDEP	Florida Department of Environmental Protection
FEMA	Federal Emergency Management Agency
ft	feet
in/yr	inches per year
kn	knots
NOAA	National Oceanic Atmospheric Administration
mm/yr	millimeters per year
NAVD88	North American Vertical Datum of 1988
TS	Tropical Storm
USGS	United States Geological Survey
VFD	Volunteer Fire Department

1.0 Introduction and Objectives

Under contract to the Apalachee Regional Planning Council (ARPC), Ecology and Environment, Inc. (hereafter referred to as E & E) has completed a high-level vulnerability assessment for Alligator Point, which is in the southeast corner of Franklin County, Florida. The overall intent of this project is to further public discussion regarding potential management strategies to increase the long-term resilience of the Alligator Point community. The anticipated outcome of this project will be a matrix of the primary strategies available for increasing coastal resilience.

Activities associated with this study included:

1) Compilation of data regarding topography, bathymetry, tidal datums, wind records, and sea level rise; and
2) Characterization of community assets that should be considered.

See **Figure 1** below for a map of the study area.

Future work for this project will include summarization of issues and challenges faced by the local community and evaluation of major management strategies available to increase coastal resilience of the Alligator Point community.

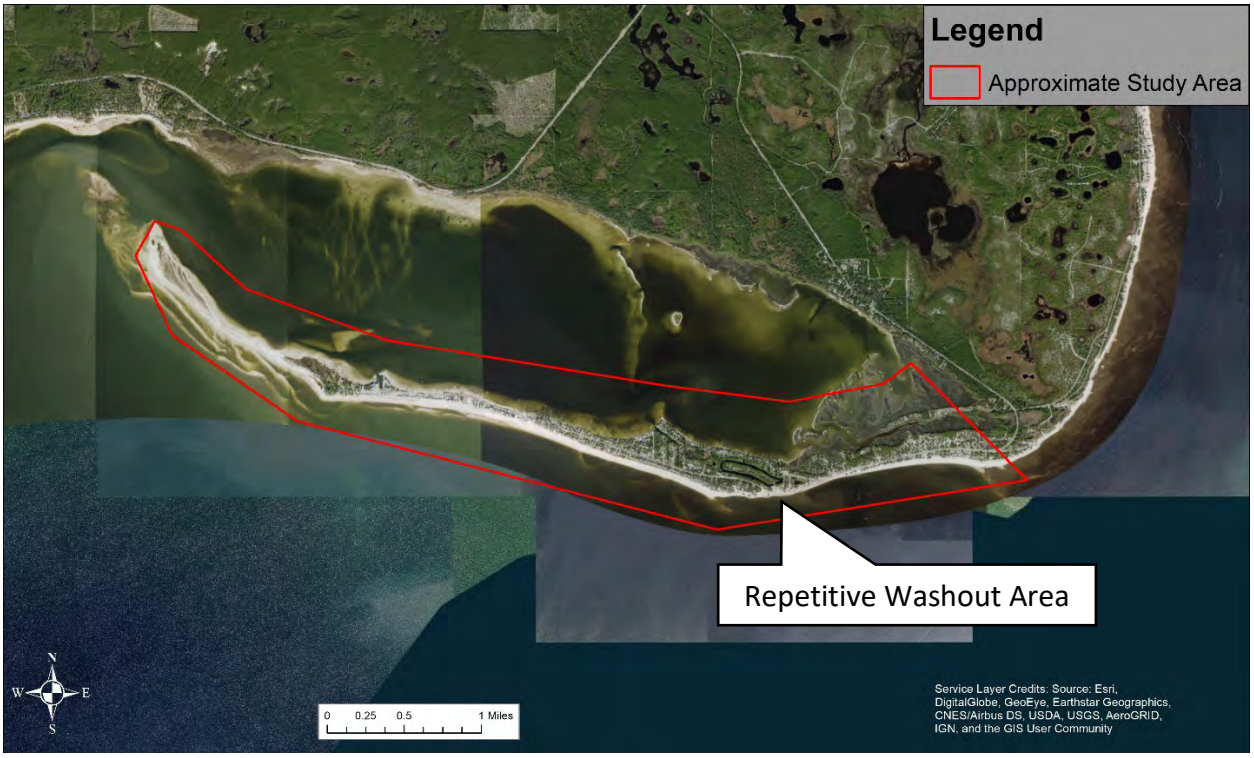


Figure 1: Map illustrating the boundaries (red line) of the Alligator Point study area, as well as the location where Alligator Drive frequently gets damaged by large storm events.

2.0 Physical Conditions

2.1 Elevation

The elevation of the Alligator Point peninsula is relatively low, with most areas being less than 10 feet above sea level. However, elevation does exceed 14 feet above sea level (yellow line, **Figure 2**) within a few narrow tracts of land within the middle-right regions of the study area (**Figure 3**).

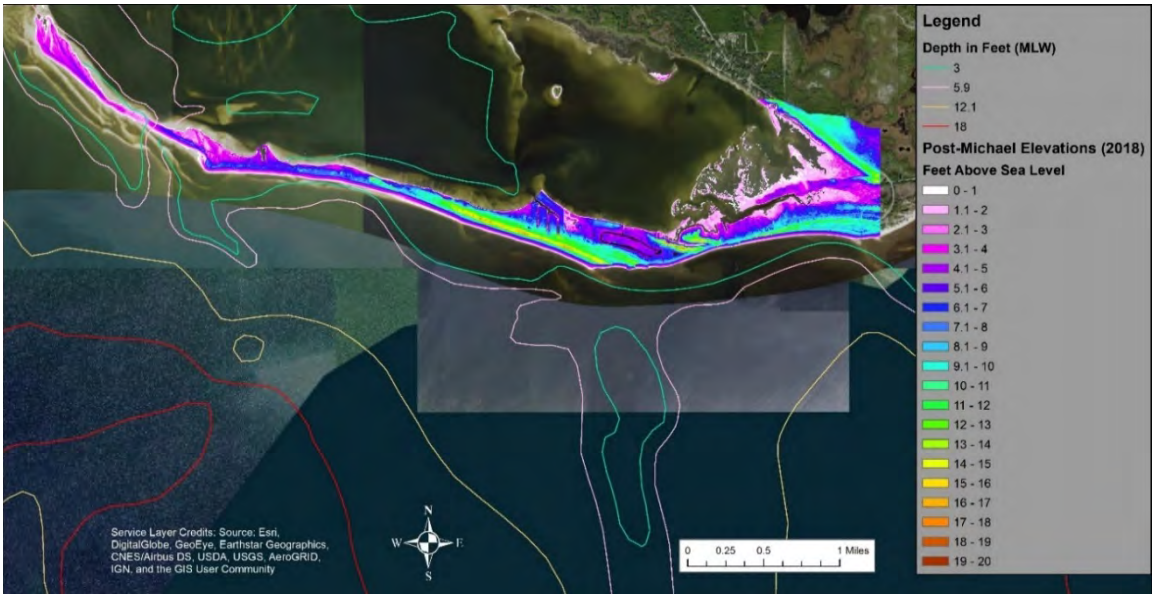


Figure 2: Elevations of the study area.

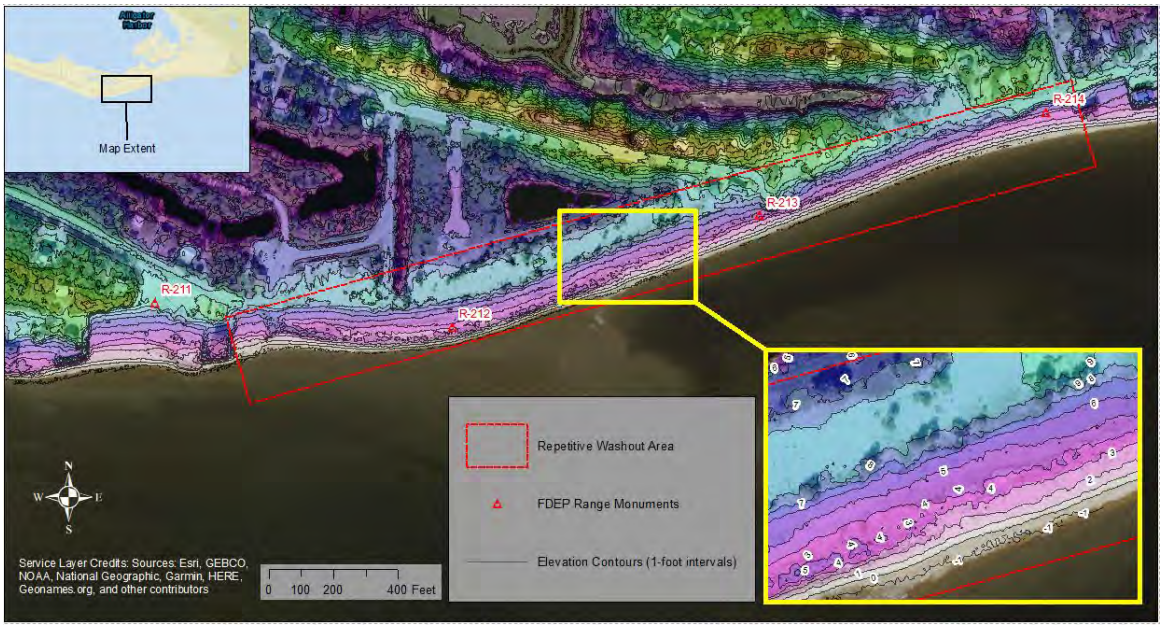


Figure 3: Repetitive washout area with elevations. Florida Department of Environmental Protection range monuments are also shown (as red triangles).

2.2 Geology

Alligator Point is comprised of unconsolidated sediments (sand/mud), which is frequently reconfigured by wind, waves, and currents. The map in **Figure 4** below shows the soil types that make up the Alligator Point peninsula. The entisols and histosols (soil types) present are mixed materials, typical of sediments that have travel down rivers and along the coast.

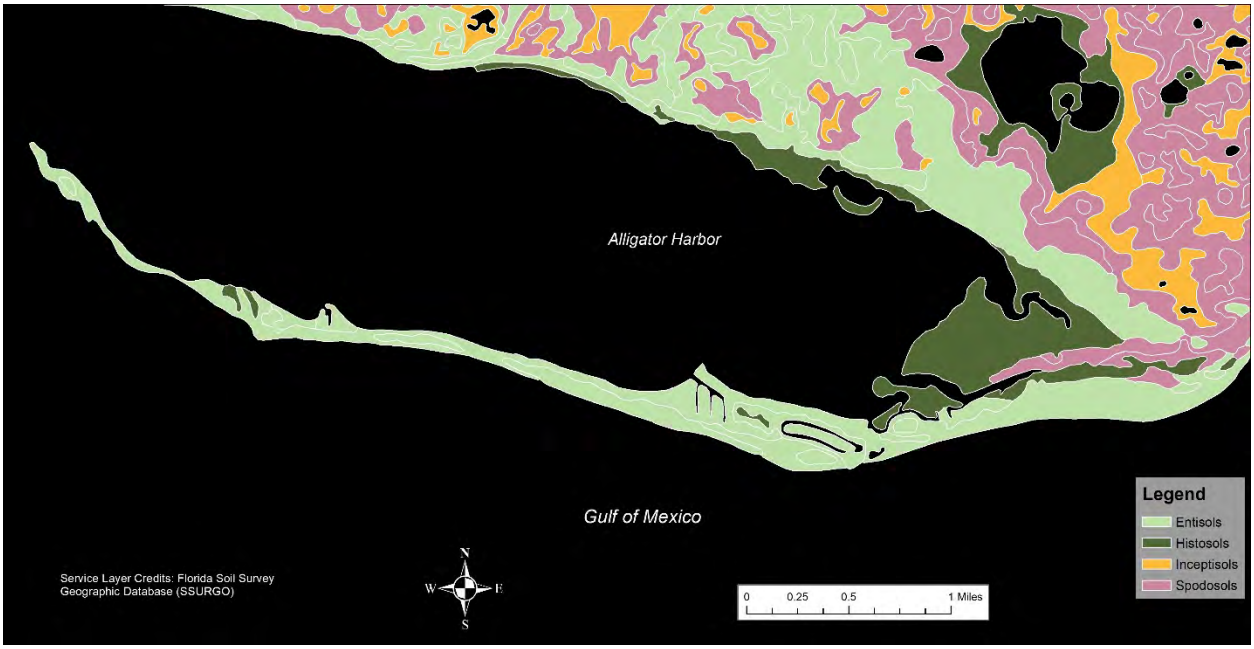


Figure 4: Map of soil types within the study area.

2.3 Tide Range and Water Levels

Two National Oceanic and Atmospheric Administration (NOAA) tidal benchmarks located in proximity to the study area were used to estimate tidal range and associated water levels:

- Alligator Point, Southwest Cape (Station 8728261) is located on the south shore of Alligator Point, approximately 0.6 miles west of the area of road washout.
- Alligator Point (Station 8728288) is located on the north shore of Alligator Point, at Eastpoint, approximately 2.2 miles west of the area of road washout.

Data were gathered from the NOAA online data repository (https://tidesandcurrents.noaa.gov) for the Epoch 1983-2001 and are summarized in **Table 1**. Station datum data sheets obtained from the website are included in Appendix A.

Table 1: Water level data representative of study area conditions collected at reference tidal benchmarks to the north (Station: 8728261) and south (Station: 8728288) of the study area from the NOAA online data repository. Data include water level data from each of the reference stations as well as water level datum and associated abbreviation information.

Datum (Epoch 1983 2001)	Abbreviation	Alligator Point, Southwest Cape	Alligator Point
Mean Higher-High Water (ft)	MHHW	2.77	2.79
Mean High Water (ft)	MHW	2.55	2.55
Mean Tide Level (ft)	MTL	1.57	1.57
Mean Sea Level (ft)	MSL	1.49	1.49
Mean Diurnal Tide Level (ft)	DTL	1.38	1.4
Mean Low Water (ft)	MLW	0.58	0.61
Mean Lower-Low Water (ft)	MLLW	0	0
North American Vertical Datum of 1988 (ft)	NAVD88	1.49	1.53

Key: ft = feet

2.4 Sea Level Rise

Local water level data were unavailable. Therefore, sea level trend analyses utilized data from the from the Apalachicola tide station (NOAA Station 8728690; https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?id=8728690) which is located approximately 38 miles west of the study area. The average rate of relative sea level rise, as predicted by nearly 50 years of mean sea level data (1967 – 2019), is estimated at 2.56 millimeters per year (mm/yr; 0.10 inches per year [in/yr]) with a 95% confidence interval of ± 0.62 mm/yr (± 0.02 in/yr; **Figure 5**).

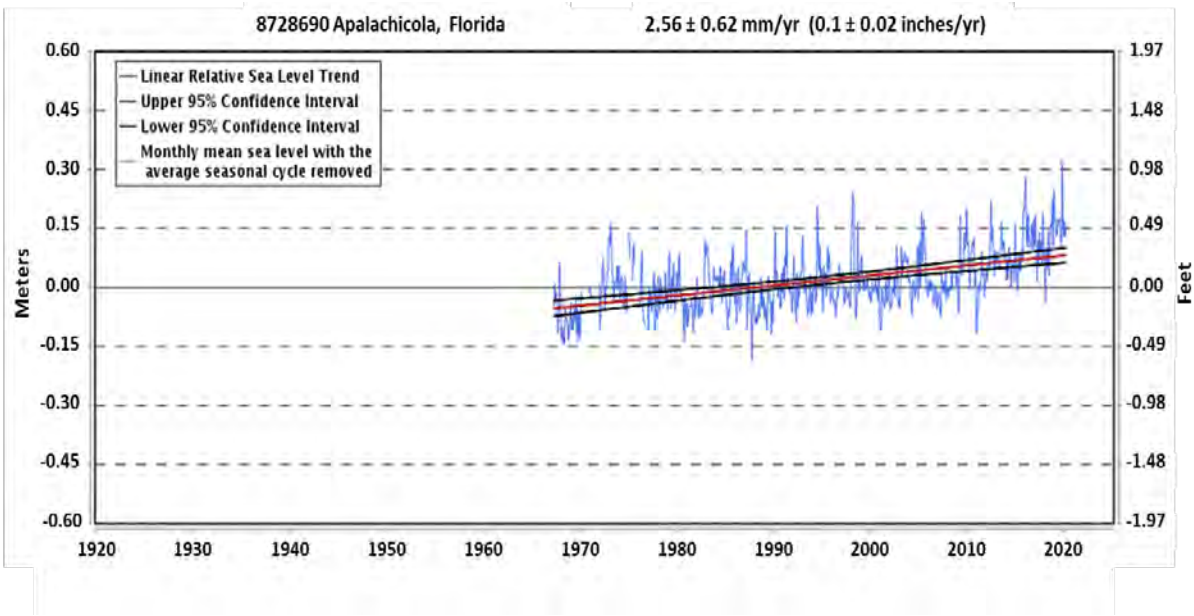


Figure 5: Sea level rise trends representative of the study area. Long-term (i.e., 55 year) trends from a nearby tide station (Apalachicola, FL, Station 8728690) suggest sea levels are increasing at a rate of 2.56 mm/yr (0.1 in/yr) within the study area. This figure is adapted from the NOAA sea level rise trend tool to reflect water levels in US Standard Units (right y axis).

2.5 Storm Surge

Similar to sea level rise analyses, long-term storm surge trend analysis was conducted using data from the nearby Apalachicola tide station (NOAA Station 8728690). To supplement these data and to obtain a better understanding of historic storm surge, a list of significant tropical storms was compiled from online Federal Emergency Management Agency (FEMA) data to include storms resulting in a major disaster area declaration for Franklin County. This list was later augmented to include additional storms noted within the 2018 Strategic Beach Management Plan, the 2019 Critically Eroded Beach report, and Franklin County records of road maintenance.

Water level data resolution at the Apalachicola Station is limited to only monthly averages in the years prior to 1990 and, as such, the storm surge analyses considered here included data from 1990 on (i.e., 1990 through 2020; ~30 years). Following FEMA data, 17 tropical storm events were reviewed as summarized in **Table 2** below. For each the storm, the maximum surge (maximum difference between measured and predicted tide level), peak wind, and peak wind gust were noted (hereafter, storm surge data; **Figure 6**). Storms for which data were not available are noted as "N/A."

E & E's review of storm surge data indicated that the highest surge reported within the survey period was associated with Hurricane Michael. During this intense storm, which reached Category 5 status shortly before making landfall with the Florida panhandle, water levels peaked at over 8 feet above predicted tide levels and winds peaked at 54 knots. Hurricane Dennis (a Category 4 storm) resulted in nearly 7 feet of storm surge above predicted water levels with winds peaking at about 41 knots (**Table 2** and **Figure 6**). Other major hurricanes (i.e., Earl, Ivan, and Hermine) each had storm surges estimated at between 4 to 5 feet with winds typically in the range of 30 to 35 knots (**Figure 6**). Interestingly, the maximum differences between the reported storm surge data and the predicted water levels for Hurricane Francis and Irma cases were negative.

Table 2: Alligator Point Surge During Significant Tropical Events

	Category	Date	Max Stage Ft	Peak Wind kn	Peak Gust kn
Nestor	TS	10/19/2019	3.6	26.1	31.7
Michael	5	10/10/2018	8.4	54.0	70.2
Irma	5	9/11/2017	-3.4	33.6	44.3
Hermine	1	9/2/2016	4.1	33.8	42.8
Collin	TS	6/7/2016	2.3	N/A	N/A
Isaac	1	8/27/2012	3.4	24.5	30.7
Debbie	TS	6/24/2012	3.6	38.9	51.5
Gustav	3	10/27/2008	N/A	N/A	N/A
Katrina	5	8/4/2005	N/A	N/A	N/A

Table 2: Alligator Point Surge During Significant Tropical Events

	Category	Date	Max Stage Ft	Peak Wind kn	Peak Gust kn
Dennis	3	7/10/2005	6.9	40.8	56.6
Ivan	5	9/15/2004	4.1	34.0	48.6
Frances	4	9/5/2004	-3.1	30.5	40.6
Charlie and Bonnie	TS	8/12/2004	0.9	13.4	23.7
Georges	4	9/27/1998	2.9	N/A	N/A
Earl	2	9/3/1998	4.5	N/A	N/A
Opal	4	10/4/1995	N/A	27.6	43.9
Alberto	TS	7/8/1994	N/A	19.2	32.5

Key:
kn = knots; Ft = feet; TS = tropical storm

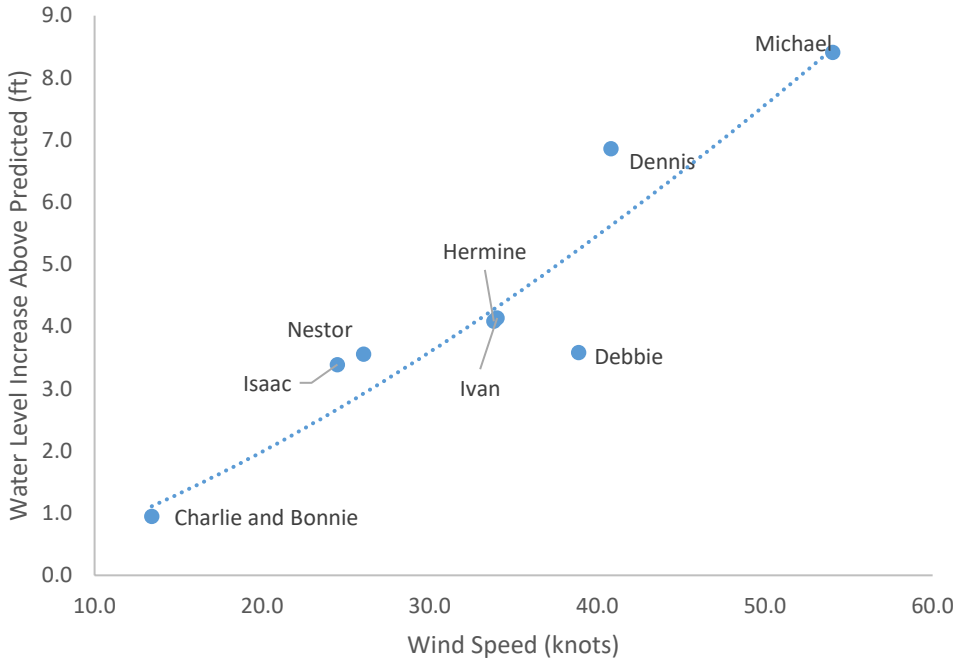


Figure 6: Relationship between hurricane wind speed and surge level at Apalachicola Station.

Figure 7 below presents predicted inundation by storm surge for various storm. Much of the study area will be inundated during a Category 1 hurricane. **Figure 8**, which follows, presents FEMA flood zones. Most of the study area is Coastal High Hazard Area (referred to as the velocity or "VE zone"), which corresponds to areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action.

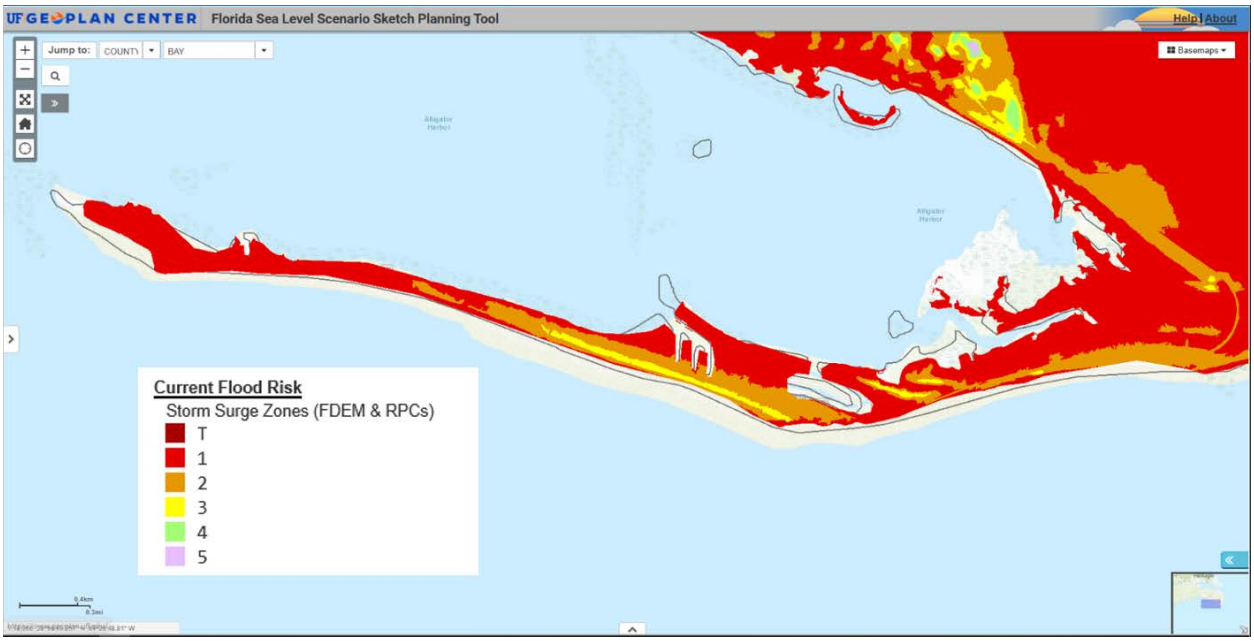


Figure 7: Predicted inundation by storm surge, based on size of each storm. T= Tropical Storm, number indicates intensity category per the Saffir-Simpson scale. (Source: UF GeoPlan Center, Florida Sea Level Scenario Sketch Planning Tool)

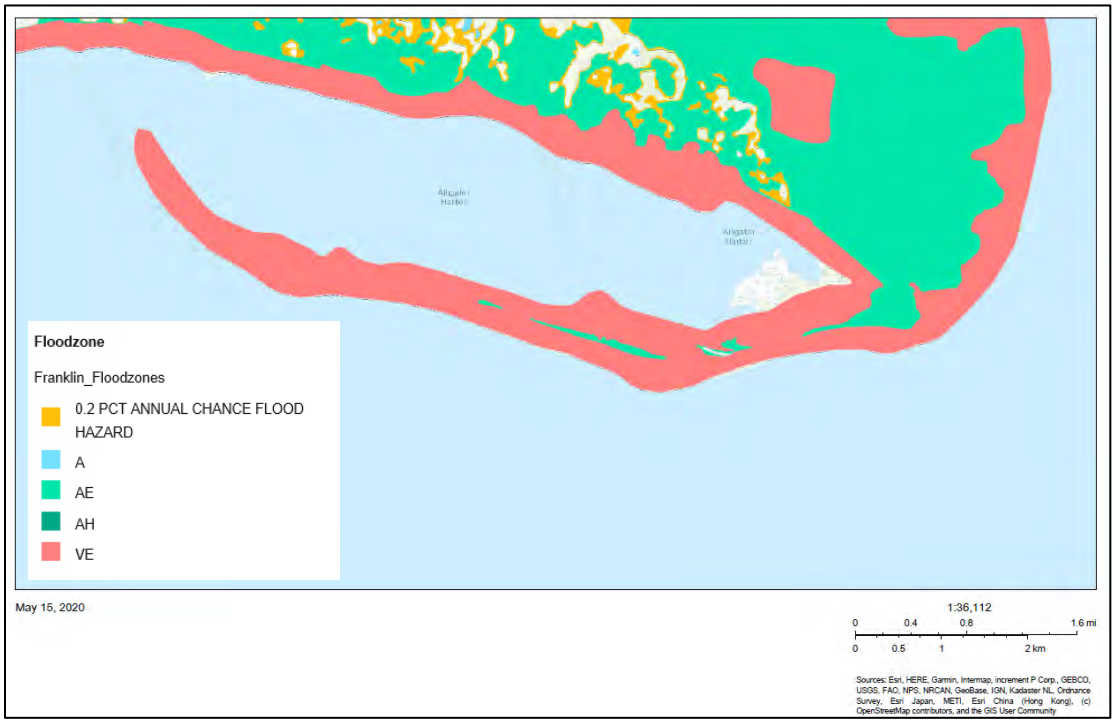


Figure 8: This map shows the FEMA flood hazard zones for the study area. (Source: ARPC n.d.)

2.6 Tropical Storm Damage

2.6.1 Strategic Beach Management Plan, 2018

E & E reviewed the Florida Department of Environmental Protection (FDEP) 2018 Strategic Beach Management Plan for the Panhandle Gulf Region which includes Alligator Point as part of the Ochlockonee Barriers. The plan described the 1.1-mile segment between the Southwest Cape and Lighthouse Point on St. James Island as critically eroded beach. The plan identifies the following event causing significant damage to County Road 370:

- 1985 Hurricanes Elena and Kate: Coastal protection structures destroyed, revetment was constructed using federal and state disaster funds.
- 1994 Tropical Storm Beryl: Further damage, emergency repairs and a revetment extension.
- 1998 Hurricane Earl: Further damage.
- 2005 Hurricane Dennis: Severe erosion, road abandoned between FDEP Range Monuments R212 and R213.

In 2000, a feasibility study was completed on the area between Alligator Point and Lighthouse Point. The feasibility study recommended replacement of beach fill and construction of T-groins. The project included a +13 feet dune and a berm +5 feet (North American Vertical Datum of 1988 [NAVD88]) and 80 to 240 feet wide from R210 to R225. The project was not completed.

The current strategy for the area identified in the 2018 plan is to conduct the beach restoration and monitor.

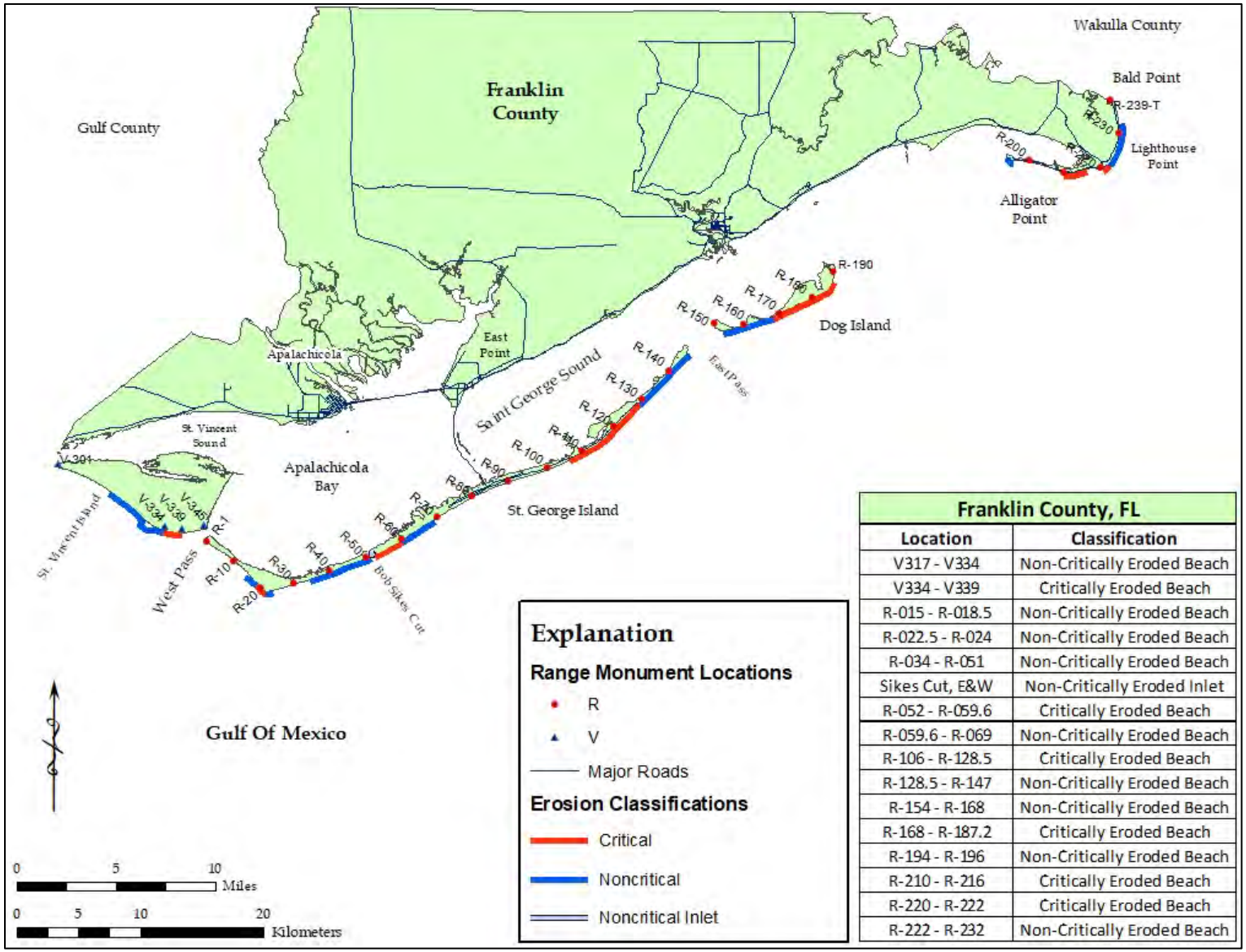
2.6.2 FDEP Critically Eroded Beaches, 2019

E & E reviewed the FDEP 2019 report, *Critically Eroded Beaches in Florida*, which provides an inventory of erosion areas along Florida's sandy beaches and coastal barrier tidal inlets. FDEP defines a critically eroded shoreline as:

> *"a segment of the shoreline where natural processes or human activity have caused or contributed to erosion and recession of the beach or dune system to such a degree that upland development, recreational interests, wildlife habitat, or important cultural resources are threatened or lost…."* (FDEP 2019)

Two locations on Alligator Point are referenced in the report, the first being the east end of Alligator Point (R210 – R216) between the Southwest Cape and Lighthouse Point. The area is classified as critically eroded for 1.1 miles and it is noted that erosion at the Southwest Cape has destroyed and continues to threaten private development and the adjacent county road. The second area is west end of Alligator Point (R194 – R196), part of the Phipps Preserve, which is noted as severely eroded for 0.4 miles. However, erosion into the Phipps Preserve is not considered a threat to any interests at this time.

Figure 9 presents a map of Franklin County Critically eroded beaches.



Franklin County, FL	
Location	**Classification**
V317 - V334	Non-Critically Eroded Beach
V334 - V339	Critically Eroded Beach
R-015 - R-018.5	Non-Critically Eroded Beach
R-022.5 - R-024	Non-Critically Eroded Beach
R-034 - R-051	Non-Critically Eroded Beach
Sikes Cut, E&W	Non-Critically Eroded Inlet
R-052 - R-059.6	Critically Eroded Beach
R-059.6 - R-069	Non-Critically Eroded Beach
R-106 - R-128.5	Critically Eroded Beach
R-128.5 - R-147	Non-Critically Eroded Beach
R-154 - R-168	Non-Critically Eroded Beach
R-168 - R-187.2	Critically Eroded Beach
R-194 - R-196	Non-Critically Eroded Beach
R-210 - R-216	Critically Eroded Beach
R-220 - R-222	Critically Eroded Beach
R-222 - R-232	Non-Critically Eroded Beach

Figure 9: Critically eroded shoreline in Franklin County (FDEP 2019).

2.6.3 Franklin County Maintenance Records Review

The portion of Alligator Drive (County Road 370) from Southwest Cape to Lighthouse Point has historically presented a challenge to Franklin County due to its repetitive damage resulting from storm events. E & E received from the County a history of maintenance costs related to storm damage for the period from 1985 through 2016. The information is summarized by year in **Table 3**. The memorandum received from the County is included as Appendix B. Data were incomplete for the period from 1991 to 2003, thus the values reflected in the table are County estimates. In addition, the post- Hermine repair cost for a project, including a sheet pile sea wall, was not completed by the time Hurricane Michel caused additional damage. The current County estimate for repair of the road is about $4.7 million.

Table 3: Summary of Road Maintenance Costs

Year	Road Maintenance Cost ($)	Events
1990	$0	
1991	$125,000	Non Declared Events
1992	$75,000	Non Declared Events, Andrew
1993	$155,000	Non Declared Events, Winter Storm
1994	$960,000	Alberto, Beryl
1995	$100,000	Opal
1996	$10,000	Josephine
1997	$0	
1998	$35,000	Earl, Georges
1999	$40,000 (est.)	
2000	$40,000 (est.)	
2001	$40,000 (est.)	
2002	$40,000 (est.)	
2003	$40,000 (est.)	
2004	$315,000	Non-Declared Events, Ivan
2005	$1,000,000	Dennis
2006	$0	
2007	$0	
2008	$683,000	Gustav
2009	$0	
2010	$0	
2011	$0	
2012	$142,000	Debbie
2013	$0	
2014	$0	
2015	$0	
2016	$3,000,000 (est.)	Hermine
2017	$0	
2018	$4,700,000 (est.)	Michael
2019	$0	
2020	$0	

Maintenance costs identified in **Table 3** reflect costs at the time of the damage. These values were related current (2020) dollars assuming a 2.27% inflation rate (the average from 1990 through 2020). Both annual and cumulative damage costs are presented graphically in **Figure 10**. Review of the data indicates that relatively minor repairs were required annually in response to smaller events from 1990 to about 2005. These annual costs seemed to have been mitigated following Hurricane Dennis, when it is reported that the road was relocated and a revetment installed. However, mitigation measures proved inadequate against larger storms, particularly hurricanes Hermine and

Michael. If the post-Hermine repairs had been completed, damage caused by Hurricane Michael may have been less.

Over the past 30 years, over 14 million dollars (in 2020 dollars) in damages to Alligator Drive occurred as a result of storms. Average annual damages have been about $470,000. See **Figure 10** below.

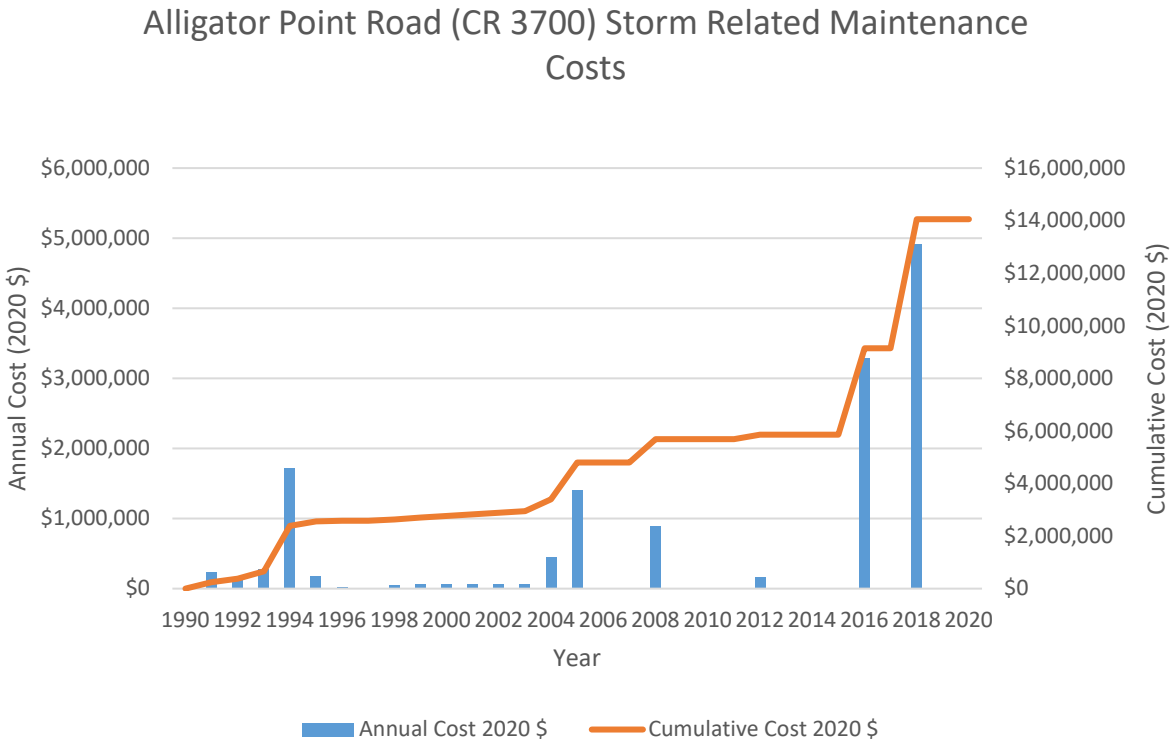


Figure 10: This graph presents the recorded maintenance costs associated with road repairs for Alligator Drive since 1990.

2.6.4 Damage Timeline

The above information was compiled to construct a timeline of damage events as presented on **Figure 11**.

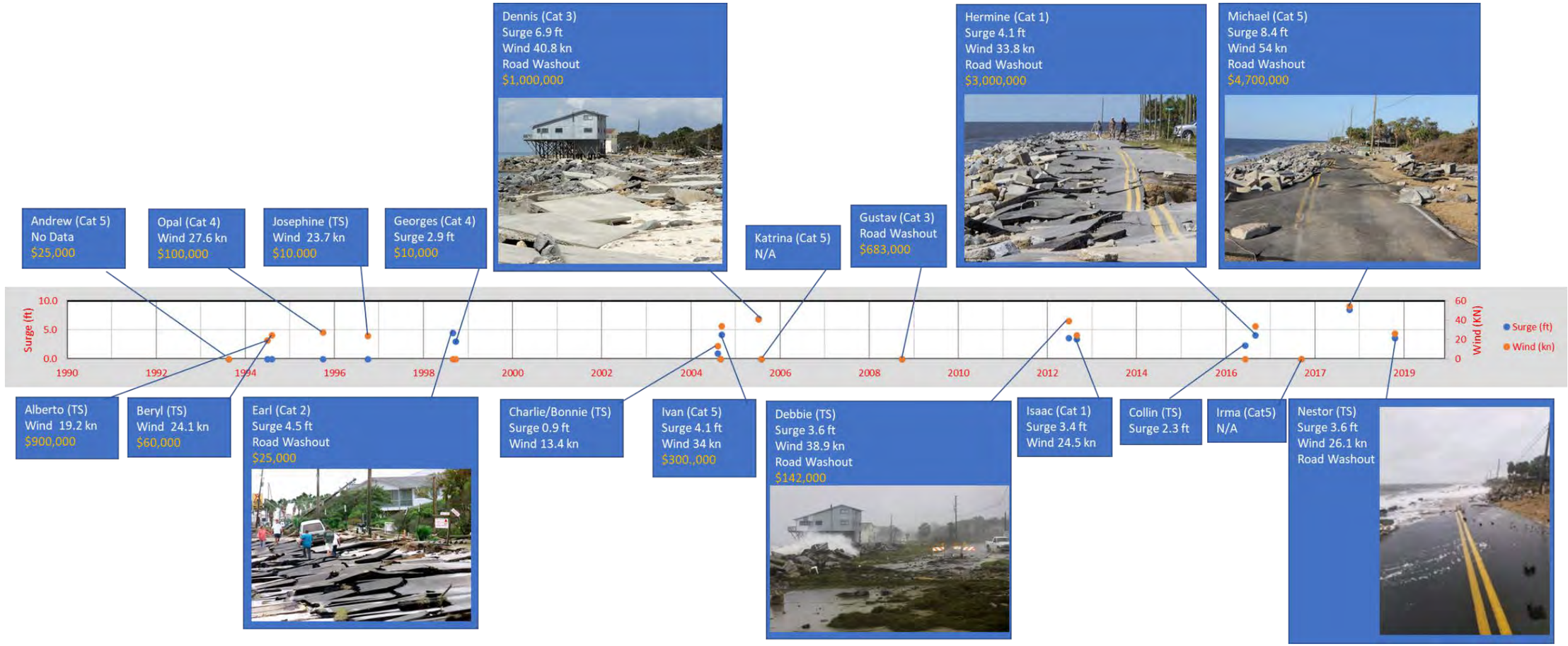


Figure 11: Here is a summary of storm impacts to Alligator Drive since 1993. When available, wind and surge data, as measured by the tide gauge at the City of Apalachicola, is provided. Approximate repair costs are also provided (in orange text).

2.7 Shoreline Changes

The shoreline along Alligator Point is extremely dynamic (**Figure 12**), with some segments eroding quickly and others accreting quickly. For example, the segment between FDEP Range Monuments R210 and R-214 (**Figure 13**) have suffered from severe erosion. Appendix B shows the approximate historic shorelines based on aerial imagery since 1994 (accessed via Google Earth).

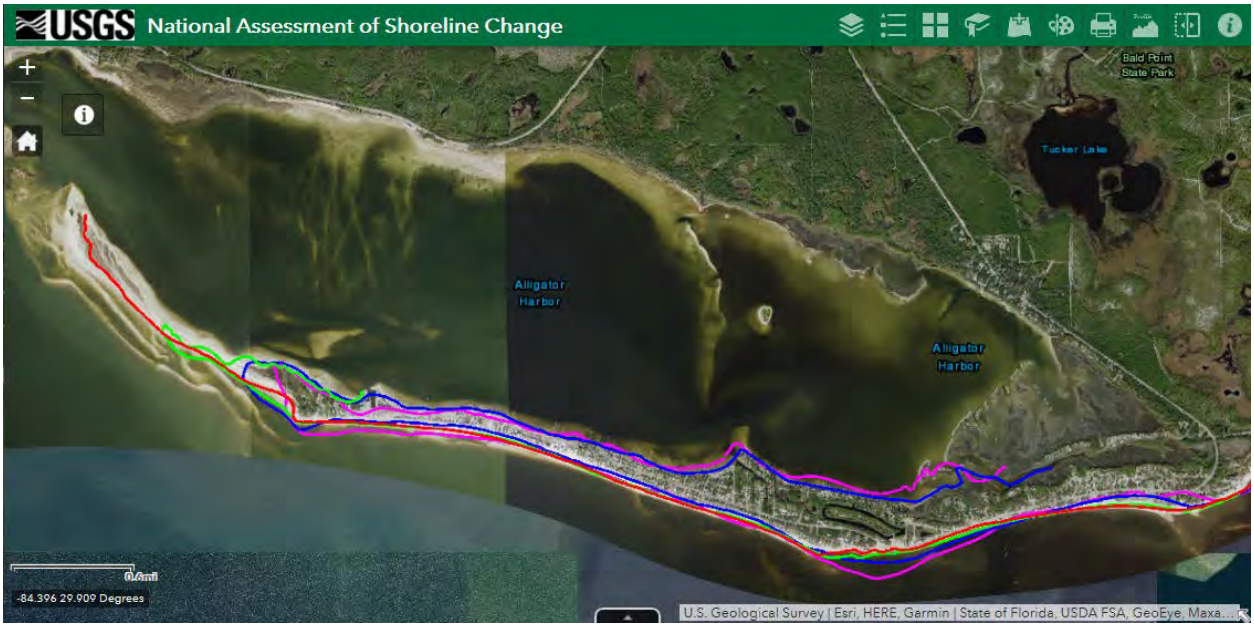


Figure 12: Shoreline position has changed over the years, indicating the highly dynamic nature of Alligator Point's coastline (USGS n.d.[a]).

Figure 13: The segment of shoreline shown on this map has eroded significantly, as evidenced by historical map data. These lines show the approximate shoreline position over time, with the 1858 shoreline shown in purple (farthest from land) and the 2001 shoreline shown in red (closest to land). (USGS n.d.[b])

3.0 Land Use and Ownership

3.1 Land Use

Most of the developed parcels on Alligator Point are currently used for residential purposes, with many of them used as vacation rental properties. See **Figure 14** below. Of particular concern is the western portion of the peninsula that becomes inaccessible (by road) whenever Alligator Drive is severely damaged during tropical storm events.

According to 2017 Florida Department of Revenue parcel data, there were 540 parcels located west of the constriction shown on **Figure 15**. Of the parcels constricted by limited access after storms, nearly all (97%) were residential. Only 87 of the developed residential parcels west of the constriction had homestead exemptions in 2017, suggesting that the remainder (over 75% of dwellings) were used as second homes and/or vacation rentals. See pie charts in **Figure 16** for more details.

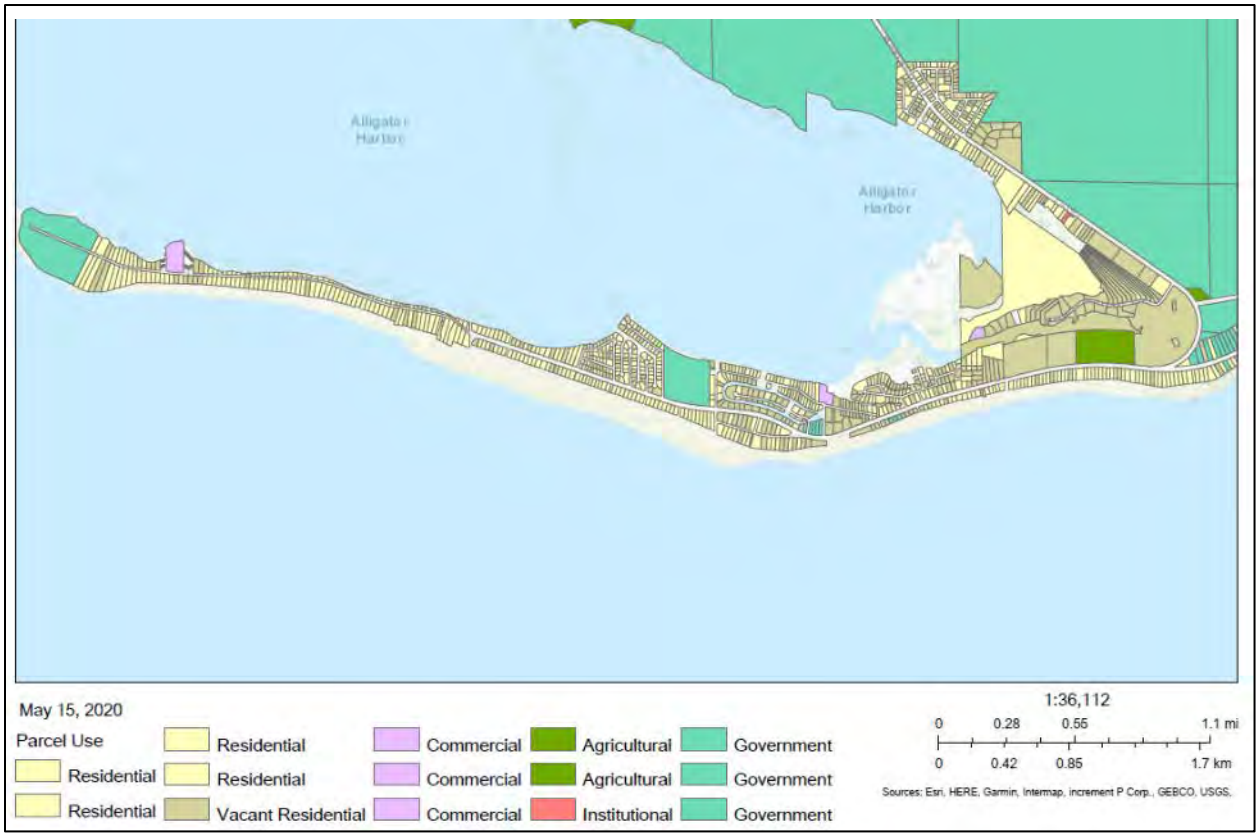


Figure 14: This map shows the existing land use category for parcels within the study area (Franklin County n.d.)

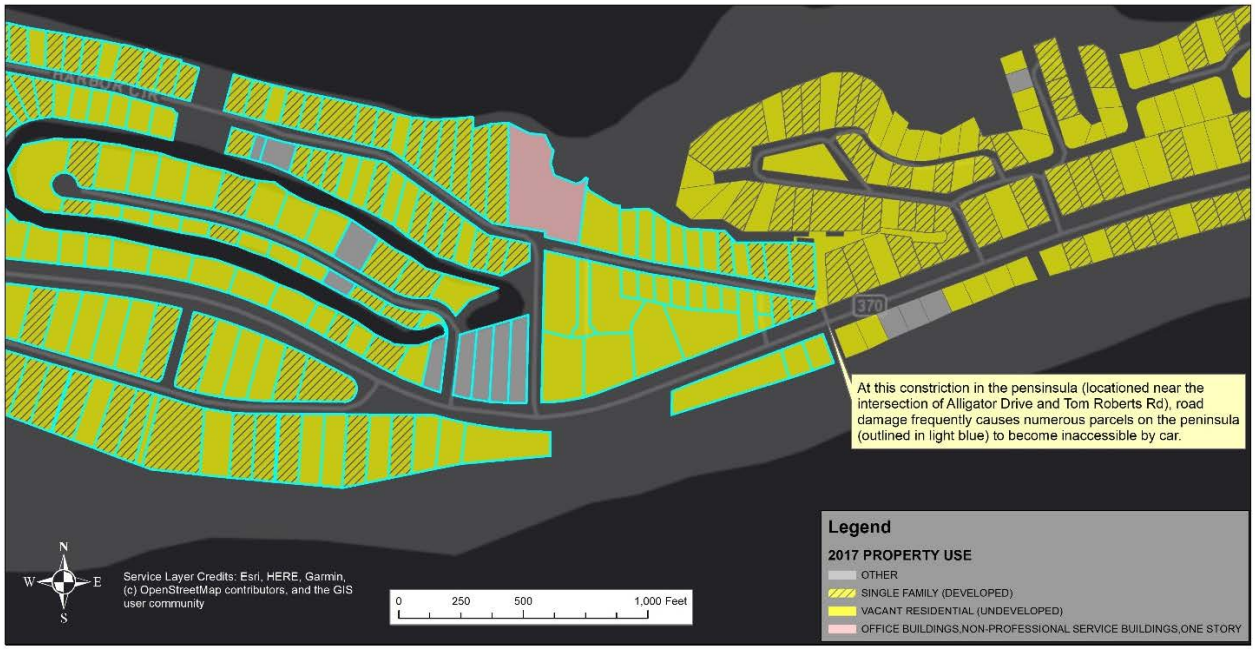


Figure 15: This map shows the portion of the Alligator Point peninsula where vehicle access typically gets disrupted due to storm damage. As a result, numerous residential properties frequently become inaccessible.

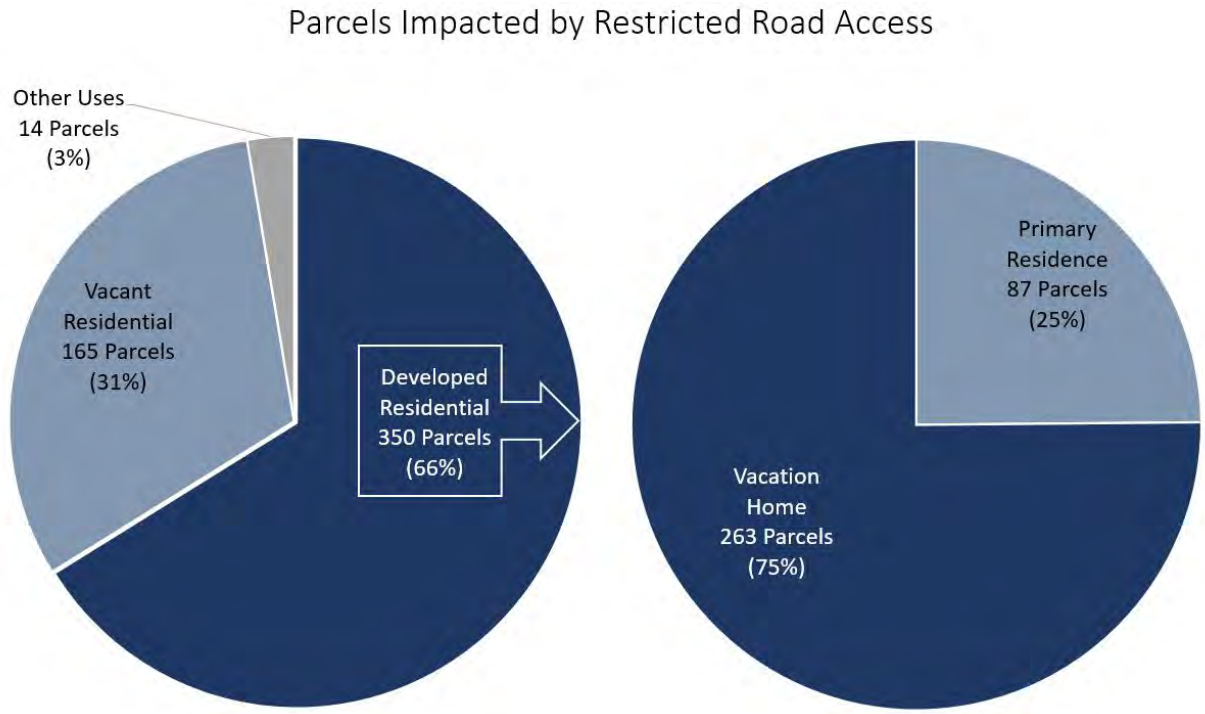


Figure 16: Here is a summary of the parcels located beyond (west of) the location where road access is frequently restricted. The pie chart on the left shows that nearly all parcels (97%) are designated for residential use, with about one third being vacant lots, while the other two thirds are developed. The pie chart on the right illustrates that the majority (75%) of developed residential parcels are used for vacation homes.

3.2 Local Economy

Alligator Point's economy is built around the many recreational fishing and ecotourism opportunities both within the study area and within Bald Point State Park bordering the northern reach of the study area. Local businesses supporting these activities include various vacation rental property services (e.g., Harbor Point Realty) and the Alligator Point Marina, a large marina complex that offers dry boat storage and maintenance, wet slips, and various supplies to support recreational fishing (e.g., ships store, bait, and tackle). The marina also offers access to inshore and offshore fishing guides and charters and other tourism-based businesses, such as sailing lessons, rentals, and entertainment (e.g., within-marina Tiki Bar).

In addition to the economic benefits these businesses provide, several residents stress the importance of local businesses in providing other valuable community services. For example, stakeholder feedback collected following a recent public meeting indicated that Harbor Point Realty provides scanning and printing services, notary service, and referrals for licensed contractors in the area (e.g., electricians, plumbers, roofers, etc.).

Potable water infrastructure (**Figure 17**) is critical to support tourists, residents, and businesses within the Alligator Point community. Original infrastructure within the Alligator Point Water Resources District (APWRD), including the elevated water tank, began development circa 1963, but has since been expanded to include two additional ground source tanks to support increasing community needs. In total, the APWRD provides service to nearly 640 customers, 30% of whom are full time residents. Not surprisingly, local business centers including Harbor Point Realty and Alligator Point Marina are among customers generating the greatest water usage rates within the district.

Figure 17: The water system that serves Alligator Point is a critical asset to the local community (ARPC 2018).

Other assets valuable or needed to support the local economy include the Volunteer Fire Department (VFD) and public beach access. According to feedback, ambulance call response

times can often exceed 45 minutes. Therefore, as a local entity, the VFD often provides many lifesaving services as first responders to emergency calls.

Beach access, and especially the limited infrastructure and facilities therein, is a contentious issue among residents. However, stakeholder feedback following public meetings generally indicates that the use of public beach access points by tourists has increased significantly recently. The growing use of these access points lends credence to the importance of these facilities to the local economy.

References

Apalachee Regional Planning Council (ARPC). 2018. Franklin County maps. Accessed at: https://www.apalacheeonline.org/projecto-2.

_____. n.d. Franklin Flood Zones. Accessed at: https://arpc.maps.arcgis.com/apps/View/index.html?appid=7f0a505fb1584d5dae48fb3c0e5e8205.

Florida Department of Environmental Protection (FDEP). 2019. *Critically Eroded Beaches in Florida*. Division of Water Resource Management. June 2019. Accessed at: https://floridadep.gov/sites/default/files/FDEP-Critically-Eroded-Beaches-2019.pdf.

Franklin County. n.d. Franklin Existing Land Use. Accessed at: https://arpc.maps.arcgis.com/apps/View/index.html?appid=fb129433e2554a408b095c0c02c48c9d.

U.S. Geological Survey (USGS). n.d.[a]. U.S. Geological Survey Coastal and Marine Geology Program Interactive Map: USGS National Assessment of Shoreline Change. Accessed at: https://coastalmap.marine.usgs.gov/js_map/national/ShoreLC/.

———— n.d.[b] The National Assessment of Shoreline Change: A GIS Compilation of Vector Shorelines and Associated Shoreline Change Data for the U.S. Gulf of Mexico. USGS Open File Report 2004-1089. Accessed at: https://pubs.usgs.gov/of/2004/1089/gis-data.html.

Appendix A
Benchmark Sheets for Nearby Tide Stations

NOTICE: All data values are relative to the MLLW

Elevations on Mean Lower Low Water

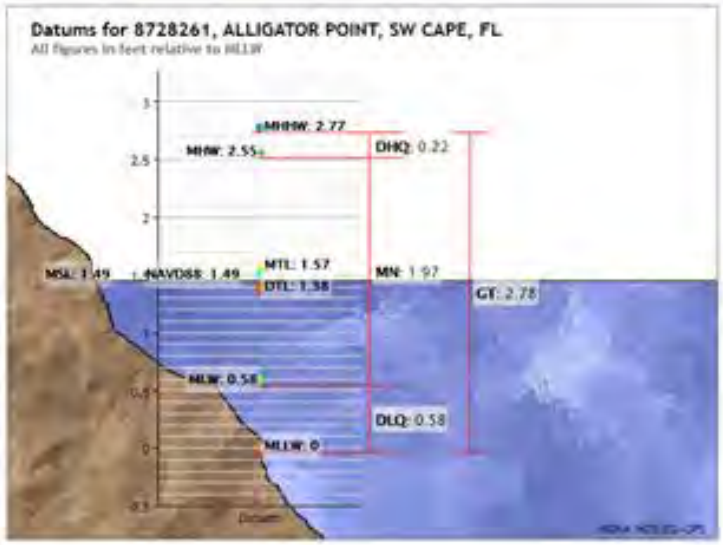
Station: 8728261, ALLIGATOR POINT, SW CAPE, FL
Status: Accepted (Apr 16 2004)
Units: Feet
Control Station: 8727520 Cedar Key, FL

T.M.: 75
Epoch: 1983-2001
Datum: MLLW

Datum	Value	Description
MHHW	2.77	Mean Higher-High Water
MHW	2.55	Mean High Water
MTL	1.57	Mean Tide Level
MSL	1.49	Mean Sea Level
DTL	1.38	Mean Diurnal Tide Level
MLW	0.58	Mean Low Water
MLLW	0.00	Mean Lower-Low Water
NAVD88	1.49	North American Vertical Datum of 1988
STND	-1.91	Station Datum
GT	2.78	Great Diurnal Range
MN	1.97	Mean Range of Tide
DHQ	0.22	Mean Diurnal High Water Inequality
DLQ	0.58	Mean Diurnal Low Water Inequality
HWI	6.83	Greenwich High Water Interval (in hours)
LWI	0.58	Greenwich Low Water Interval (in hours)
Max Tide		Highest Observed Tide
Max Tide Date & Time		Highest Observed Tide Date & Time
Min Tide		Lowest Observed Tide
Min Tide Date & Time		Lowest Observed Tide Date & Time
HAT		Highest Astronomical Tide
HAT Date & Time		HAT Date and Time
LAT		Lowest Astronomical Tide
LAT Date & Time		LAT Date and Time

Tidal Datum Analysis Periods

02/01/1977 - 07/31/1977



Showing datums for

8728261 ALLIGATOR POINT...

Datum

MLLW

Data Units ◉ Feet ○ Meters

Epoch ◉ Present (1983-2001) ○ Superseded (1960-1978)

Submit

NOTICE: All data values are relative to the MLLW

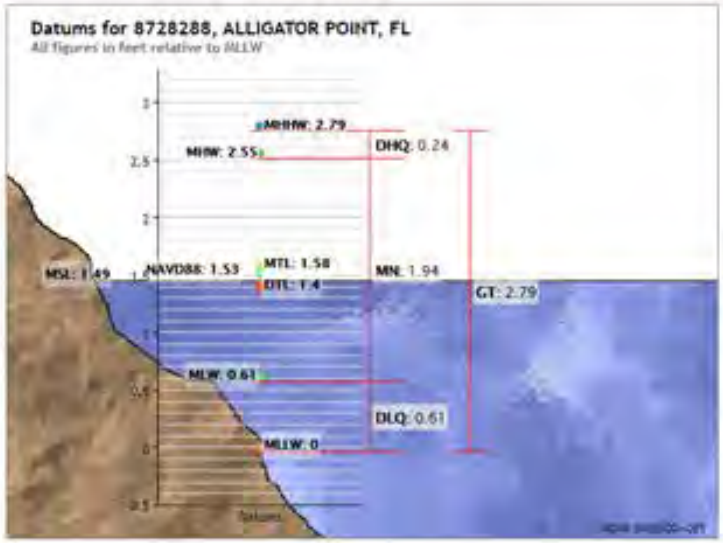
Elevations on Mean Lower Low Water

Station: 8728288, ALLIGATOR POINT, FL
Status: Accepted (Apr 15 2004)
Units: Feet
Control Station: 8728229 SHELL POINT, WALKER CREEK, FL
T.M.: 75
Epoch: 1983-2001
Datum: MLLW

Datum	Value	Description
MHHW	2.79	Mean Higher-High Water
MHW	2.55	Mean High Water
MTL	1.58	Mean Tide Level
MSL	1.49	Mean Sea Level
DTL	1.40	Mean Diurnal Tide Level
MLW	0.61	Mean Low Water
MLLW	0.00	Mean Lower-Low Water
NAVD88	1.53	North American Vertical Datum of 1988
STND	-0.86	Station Datum
GT	2.79	Great Diurnal Range
MN	1.94	Mean Range of Tide
DHQ	0.24	Mean Diurnal High Water Inequality
DLQ	0.61	Mean Diurnal Low Water Inequality
HWI	6.85	Greenwich High Water Interval (in hours)
LWI	1.04	Greenwich Low Water Interval (in hours)
Max Tide		Highest Observed Tide
Max Tide Date & Time		Highest Observed Tide Date & Time
Min Tide		Lowest Observed Tide
Min Tide Date & Time		Lowest Observed Tide Date & Time
HAT		Highest Astronomical Tide
HAT Date & Time		HAT Date and Time
LAT		Lowest Astronomical Tide
LAT Date & Time		LAT Date and Time

Tidal Datum Analysis Periods

10/01/1975 - 11/30/1975



Showing datums for

8728288 ALLIGATOR POINT, ...

Datum

MLLW

Data Units ◉ Feet ○ Meters

Epoch ◉ Present (1983-2001) ○ Superseded (1960-1978)

Submit

Appendix B
County Memo Regarding Road Maintenance for Alligator Drive

ecology and environment, inc.
Member of WSP

FRANKLIN COUNTY

REPLY TO: □
BOARD OF COUNTY COMMISSIONERS
33 MARKET STREET, SUITE 203
APALACHICOLA, FL 32320
(850) 653-8861, EXT. 100
(850) 653-4795 FAX

REPLY TO: X
PLANNING & BUILDING DEPARTMENT
34 FORBES STREET, SUITE 1
APALACHICOLA, FL 32320
(850) 653-9783
(850) 653-9799 FAX

History of Public Funds Spent Repairing Alligator Point Drive
(CR 370)

Below is a history compiled from records of the Franklin County and FEMA from 1985 to 2015. The non-declared events represent expenditures of county funds.

YEAR	FUNDS SPENT
1985 – Hurricane Juan	$100,000
1985- Hurricane Elena	$100,000
1985- Tropical Storm Kate	$250,000
1987- August 26-28- non-declared event	$ 50,000
1987- Sept. 21-23- non-declared event	$ 50,000
1988- Sept. 9- non-declared event	$ 10,000
1989- June 27-29- non-declared event	$ 25,000
1991- January 7-12- non-declared event	$ 50,000
1991- March 4-6- non-declared event	$ 50,000
1991- April 1-4- non-declared event	$ 25,000
1992- July 27-30- non-declared event	$ 25,000
1992- Hurricane Andrew	$ 25,000
1992- October 3-8- non-declared event	$ 25,000
1993 – March Winter Storm	$150,000
1993- October 30- non-declared event	$ 5,000
1994- Tropical Storm Alberto	$900,000
1994- Tropical Storm Beryl	$ 60,000
1995- Hurricane Opal	$100,000
1996 Tropical Storm Josephine	$ 10,000
1998- Hurricane Earl	$ 25,000
1998 –Hurricane Georges	$ 10,000

1999-2003 Data incomplete (County estimate)	$200,000
2004- February- non-declared event	$ 5,000
2004- June- non-declared event	$ 10,000
2004- Hurricane Ivan	$300,000
2005- Hurricane Dennis	$1,000,000
2008- Hurricane Gustav	$ 683,000

(The county had a FDOT grant to resurface all of All Pt Road, not just the section that was damaged so the county utilized the FDOT grant and not the authorized PW, but the funds were expended repairing the road from storm damage.)

2009-2011- There are no identified expenditures on Alligator Drive. There was a lull in severe weather activity, and the most vulnerable section of the road was relocated. Once the road was relocated the frequency of repairs dropped dramatically.

2012 Tropical Storm Debbie	$142,000

2013-2015- There are no identified expenditures on Alligator Drive. The most vulnerable section of the road had been relocated, and the second most vulnerable section of the road was protected by an enhanced rock revetment.

Total Expenditure of Public Funds (1985-2015)	$4,390,000

****

2016 Estimated Cost of Repairing Road From Hurricane Hermine	$3,000,000

(The repair costs include the consideration of vertical sheetpile seawall to replace the rock revetment, as erosion has caused the toe of the revetment to be below mean high tide and a revetment is not as protective as a vertical seawall.)

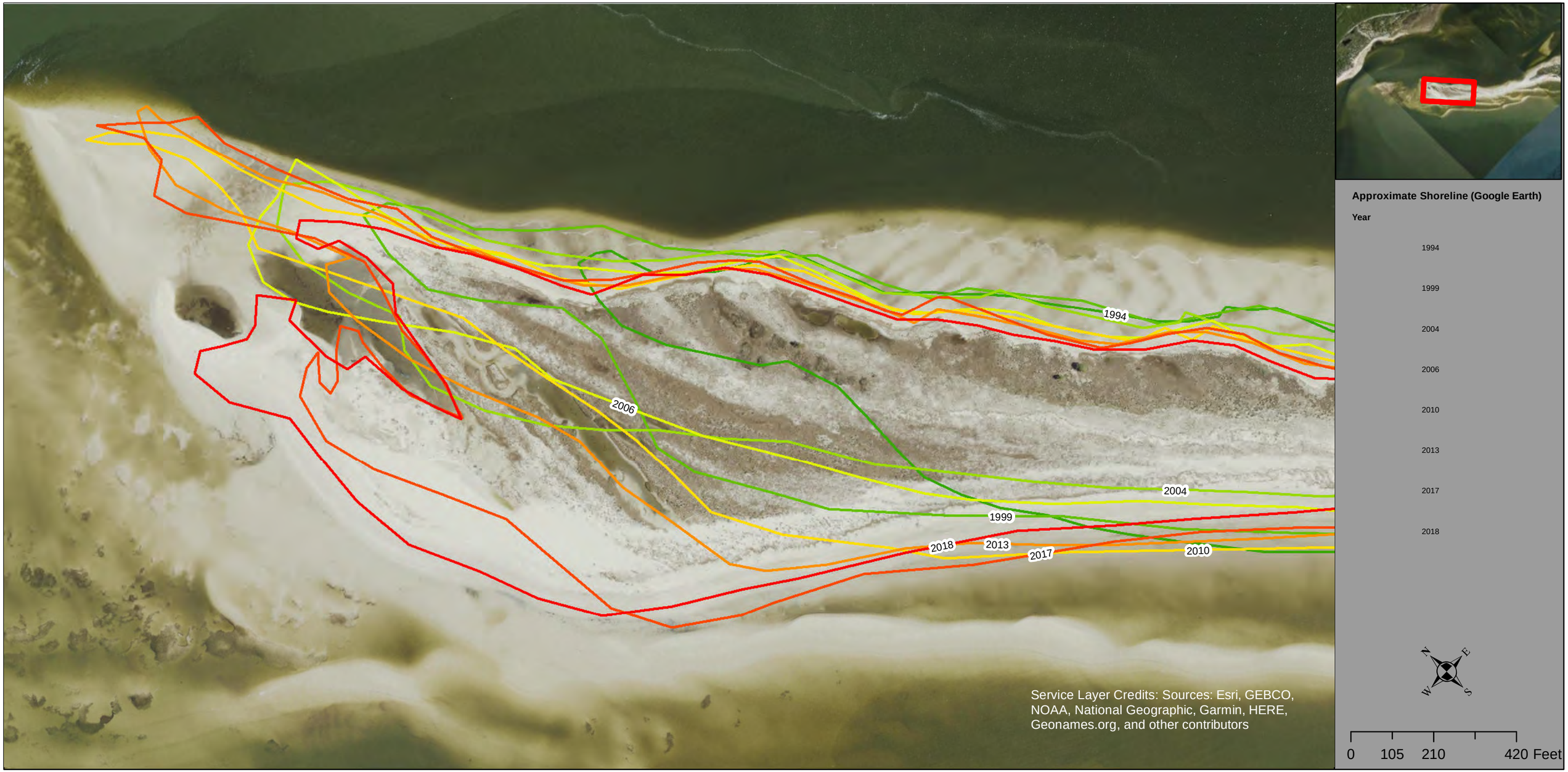
(Erosion continues to work on Alligator Point and it is possible additional sections of Alligator Drive will suffer future damage.)

Compiled by Alan Pierce, RESTORE Coordinator
Dec. 28, 2016 (Revised Jan, 30, 2017)

Appendix C
Historic Shoreline Locations
(Based on Google Earth Imagery)

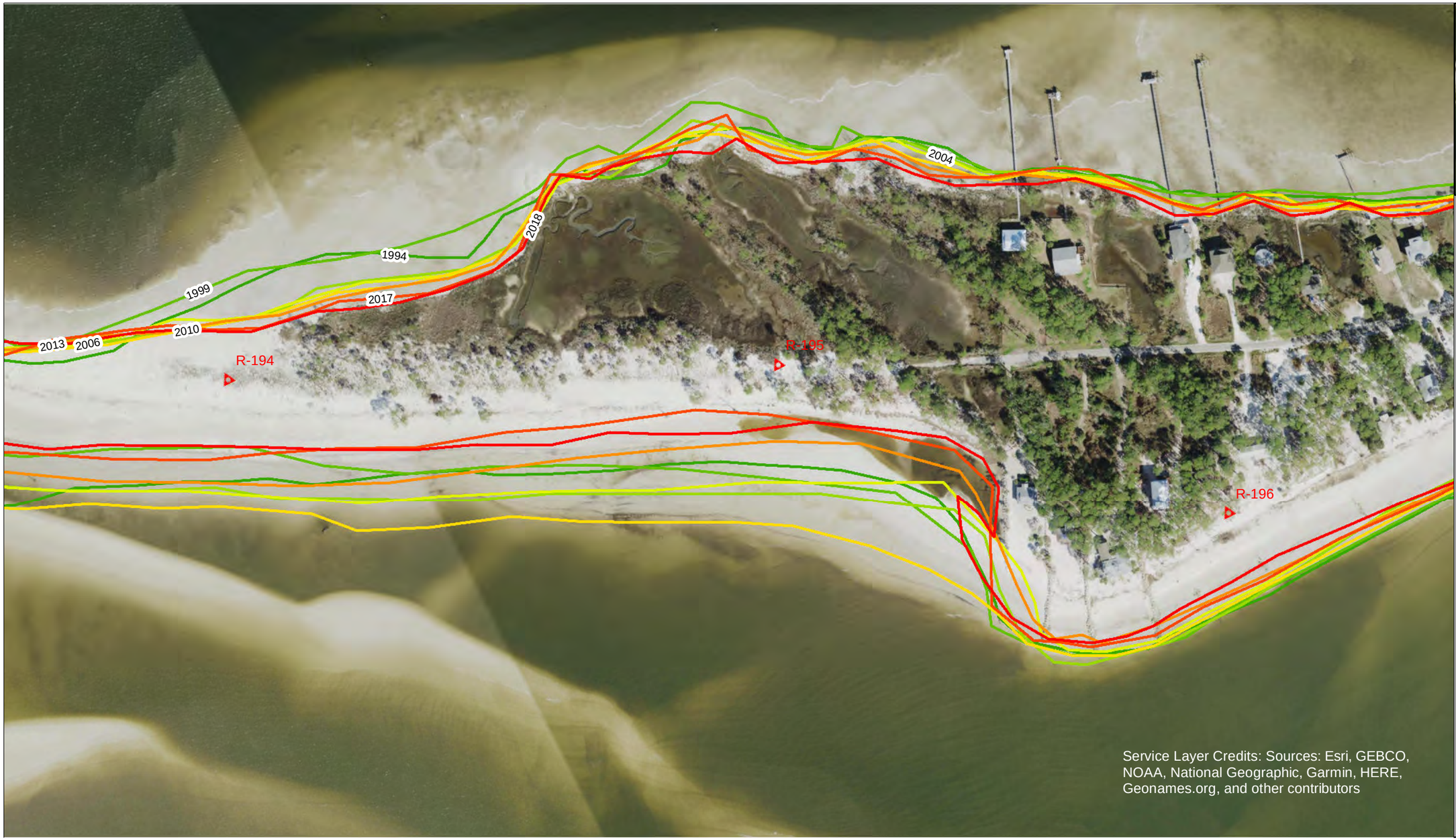
ecology and environment, inc.
Member of WSP

Alligator Point - Approximate Historic Shoreline Locations



Alligator Point - Approximate Historic Shoreline Locations

Alligator Point - Approximate Historic Shoreline Locations



Approximate Shoreline (Google Earth)

Year

1994

1999

2004

2006

2010

2013

2017

2018

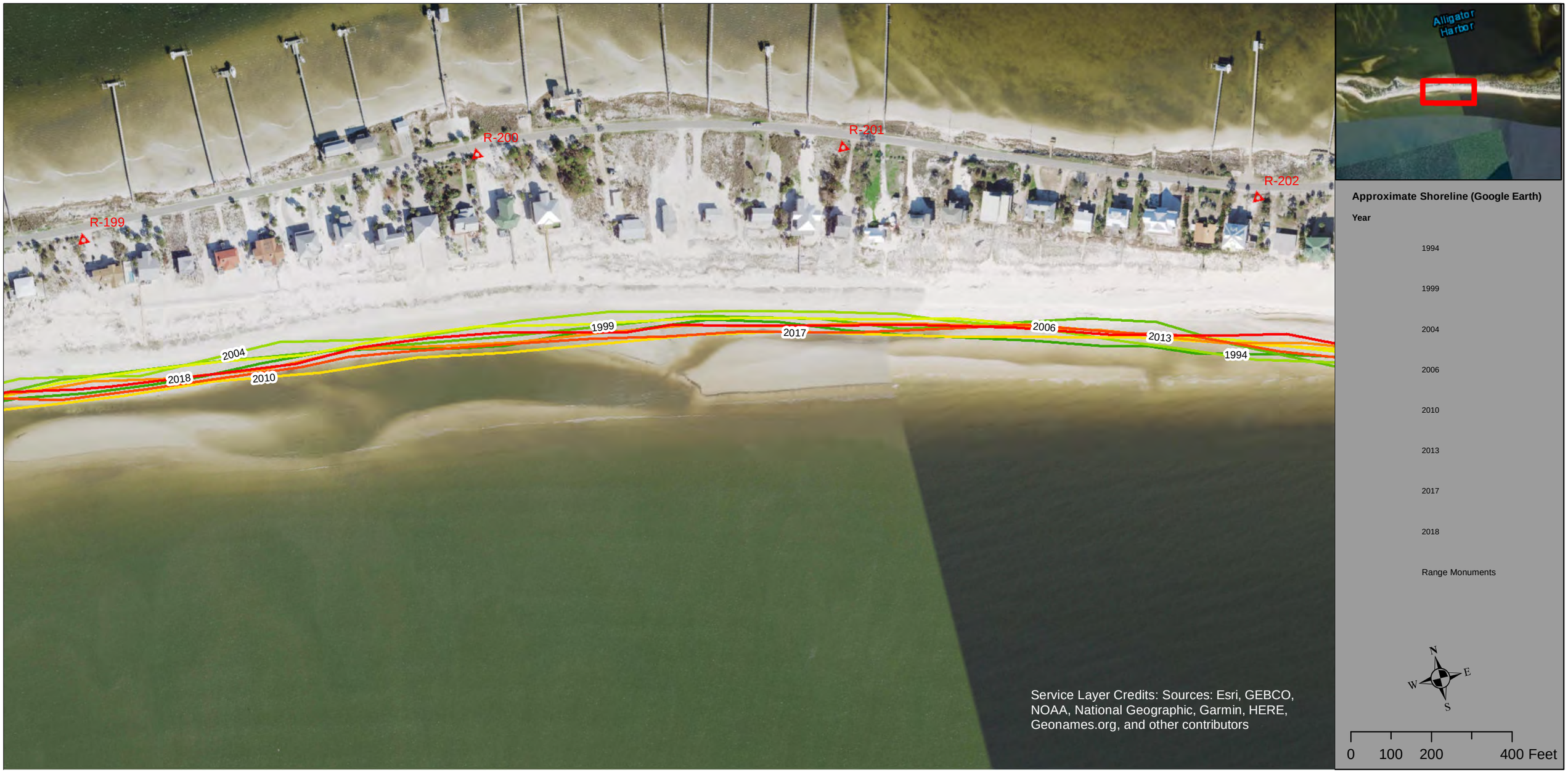
Range Monuments

N
E
S
W

0 100 200 400 Feet

Alligator Point - Approximate Historic Shoreline Locations

Alligator Point - Approximate Historic Shoreline Locations



Alligator Point - Approximate Historic Shoreline Locations

Alligator Point - Approximate Historic Shoreline Locations

Approximate Shoreline (Google Earth)

Year

1994

1999

2004

2006

2010

2013

2017

2018

Range Monuments

N
W
E
S

0 100 200 400 Feet

Alligator Point - Approximate Historic Shoreline Locations

Alligator Point - Approximate Historic Shoreline Locations

Alligator Point - Approximate Historic Shoreline Locations

Approximate Shoreline (Google Earth)

Year

1994

1999

2004

2006

2010

2013

2017

2018

Range Monuments

N
W E
S

0 100 200 400 Feet

Alligator Point - Approximate Historic Shoreline Locations

Approximate Shoreline (Google Earth)

Year

1994

1999

2004

2006

2010

2013

2017

2018

Range Monuments

N
W
E
S

0 100 200 400 Feet

GOALS, OBJECTIVES, AND POLICES

GOAL I
BALANCING GROWTH AND COASTAL RESOURCES – THE NATURAL AND HISTORIC RESOURCES OF THE COASTAL AREA SHALL BE PRESERVED, PROTECTED OR ENHANCED AS THE DEVELOPMENT PROPOSED IN THE FUTURE LAND USE ELEMENT OCCURS.

OBJECTIVE 1
The wetlands of Franklin County shall be conserved and protected such that no net loss (after mitigation) shall occur.

POLICY 1.1 The County will prohibit dredge and fill of the Wetlands without prior approval of State and Federal officials and then only after a mitigation agreement is finalized pursuant to Policy 1.2C.

POLICY 1.2 Franklin County shall complete its review and, if necessary, revision of County Land Development Regulations to ensure that:

a) Site plans for new development identify the location and extent of wetlands located on and adjacent to the property;

b) Subdivision and commercial site plans provide measures to guarantee that normal flows and quality of water will be assured to maintain wetlands;

c) Alterations of wetlands shall be discouraged. Altered wetlands shall be restored or additional wetlands shall be created at a 2:1 ratio to mitigate any wetland destruction. All approved mitigation shall be required to demonstrate, through appropriate monitoring and reporting by the project's developer, at least an 85% planting survival rate for the wetland area created/augmented during mitigation, for a period of at least two years for herbaceous wetland communities, and for at least five years for forested wetland communities.

POLICY 1.3 Franklin County shall oppose through formal resolution further depositing of dredge material in the floodplain of the Apalachicola River, other than those already approved spoil sites.

POLICY 1.4 No new subdivision will be approved unless all of the lots proposed for development contain uplands large enough to contain the proposed activity and all required buffers and preservation areas.

POLICY 1.5 No habitable development shall occur within 50 feet of the waters or wetlands of the State unless it is for principal water dependent structures in the commercial fishing district and then only after a stormwater management plan has been submitted and approved by the State Department of Environmental Protection (if

applicable) and the local planning board. Docks and elevated pervious walkways may be permitted to allow access to the water. Habitable development may be permitted within 50 feet of the waters or wetlands of the State pursuant to Policies 1.2, 1.6 and 1.7 of the Future Land Use Element

OBJECTIVE 2
The County will support the conservation and protection of native vegetation, ecological communities, fish and wildlife habitat to the extent that the County will prohibit development which can be proved to damage the County's natural resources.

POLICY 2.1 The County will cooperate, whenever possible, with the Apalachicola National Estuarine Research Reserve in it's effort to maintain a comprehensive inventory of ecological communities which shall include species, population, habitat conditions, occurrences and alterations.

Policy 2.2 The County shall cooperate with the Department of Environmental Protection, the U.S. Army Corps of Engineers, and the Northwest Florida Water Management District, as appropriate, to implement seagrass bed mitigation and restoration programs in association with projects located within the County.

POLICY 2.3 The County's land use regulations shall prohibit high density development adjacent to sensitive wetlands areas, and shall prohibit destruction of wetlands vegetation without mitigation.

POLICY 2.4 The County, through the land use planning and development review processes, shall conserve and protect seagrass beds from detrimental physical and hydrological alteration.

POLICY 2.5 The County shall continue to enforce erosion control regulations to reduce sedimentation and turbidity in coastal habitats (particularly seagrass beds) resulting from upland development activities.

POLICY 2.6 The County's land development regulations shall prohibit the development and disturbance of nesting areas of endangered species, threatened species, and species of special concern, including the nesting areas of sea turtles.

POLICY 2.7 The County shall, through the reduction of setback requirements, encourage the use of natural vegetation erosion control structures along the coastal area.

POLICY 2.8 The County shall prohibit the use of habitat destroying vertical seawalls, without rip rap reinforcement along natural waterbody shorelines. The County will encourage the removal of existing seawalls when the opportunity presents itself.

Restoration will be accomplished by replacing existing, deteriorating seawalls with sloped shorelines or rip rap which will be vegetated where technically feasible. When properly done, such vegetated areas will recreate habitat and also provide greater storm protection to upland areas.

POLICY 2.9 The County shall prohibit the alteration, other than approved maintenance, of mosquito ditches.

POLICY 2.10 The County shall encourage, through its land use regulations the use of native vegetation over exotic vegetation.

POLICY 2.11 The County shall protect sea turtles through land development regulations which prohibit disturbance of nesting areas, prohibit inappropriate beachfront lighting, and require low intensity lights, seasonal and timed lights, reflective tint on beachfront windows, and shading.

Policy 2.12 The County shall only allow minimal permitted amounts of backfill to be placed behind erosion control devices.

Policy 2.13 The County shall, through its land development regulations, protect existing natural reservations, identified in the Recreation Open Space Element.

Policy 2.14 The County shall protect manatees by imposing speed limits on boats in areas frequented by manatees and by posting signs indicating the presence of manatees.

OBJECTIVE 3

The County shall maintain the estuarine water quality surrounding Franklin County's coastal resources such that there shall be no loss of any approved shellfish harvesting classifications.

POLICY 3.1 The County shall require all owners and users of onsite sewage disposal systems in Franklin County to connect to a central sewerage system when it is available for use pursuant to Florida law.

Policy 3.2 Soil suitability guidelines set forth in State Administrative Code shall be met when locating on-site sewage treatment facilities.

Policy 3.3 Septic Tank monitoring standards should meet or exceed those set forth in State Administrative Code.

Policy 3.4 The County shall, through its land development regulations, require developers of new subdivisions with lots of less than one acre to connect to a public

wastewater system (or package plant) and provide sewers to each lot in the subdivision. The County shall also require all new subdivisions to submit and implement a stormwater management plan which will meet the adopted level of service standards.

Policy 3.5 The County shall, through its land development regulations, require all new construction within 150 feet of the waters or wetlands of Franklin County to install a stormwater management system that will provide for the treatment of runoff to applicable State standards.

OBJECTIVE 4
The County shall protect the quality of water on the Apalachicola River and Bay to the extent that all waters maintain ambient water quality as established by the Florida Department of Environmental Regulation.

POLICY 4.1 No new untreated point sources shall be permitted to discharge into the waters of Franklin County. In addition, no existing point source discharges may be expanded or increased if such increase has the potential to degrade the waters of Franklin County below ambient water quality standards established by the Florida Department of Environmental Protection.

POLICY 4.2 At such time that either the existing county landfill is approved to receive septic waste or a new one is built to accommodate it, county personnel at the landfill will monitor all disposal of septic tank waste and sewage treatment sludge and report violations to appropriate County officials for corrective enforcement action.

Policy 4.3 The County shall prohibit the installation of septic tanks within 150 feet of wetlands and shorelines of Franklin County. Between 150 and 75 feet of wetlands and shorelines the only onsite wastewater treatment system that will be allowed are aerobic systems. No onsite systems can be located closer than 75 feet from wetlands or shorelines in Franklin County.

Policy 4.4 The County shall require Type III sewage pump-out facilities for all new marina facilities along the waterfront and adopt and enforce regulations to require existing marinas to install such facilities.

Policy 4.4 In order to reduce non-point source pollutant loadings, and improve the functioning of the County's drainage system, dumping of debris of any kind, including yard clippings and trimmings, into drainage ditches and stormwater control structures is prohibited. The County shall initiate a public information program to help discourage future illegal dumping in drainage facilities.

Policy 4.5 The County has adopted and implemented a comprehensive stormwater management ordinance which provides for: (1) buffer zones between the Apalachicola

Bay/River and upland development so that stormwater discharge is diverted away from surface waters; (2) to the greatest extent possible the use of natural systems to provide filtration of stormwater runoff. (See Ordinance 89-8, Critical Shoreline Ordinance).

Policy 4.6 The County shall through its land development regulations establish periodic inspections for stormwater control structures to ensure their proper functioning and maintenance.

Policy 4.7 The County shall coordinate with DEP and the NWFWMD to initiate a water quality monitoring program in the Apalachicola Bay. The County shall assist in selecting the monitoring sites and shall coordinate with the Apalachicola National Estuarine Research Reserve in keeping record of the monitoring results. The purpose *of* the study will be to monitor contaminants entering the Apalachicola Bay. The study will commence as part of the NWFWMD's SWIM program for the Bay. As the study is completed, the appropriate recommendations shall be incorporated into the adopted portion of the comprehensive plan, including the capital improvements schedule.

Policy 4.8 The County shall develop a mosquito control plan which identifies chemicals, methods of application, frequency of application and disposal of residue. The plan shall be submitted to DEP for approval prior to implementation.

Policy 4.9 The County shall, in cooperation with DEP, develop an aquatic weed control program which identifies chemicals, methods of application, frequency of application and disposal of residue.

Policy 4.10 Stormwater impacts shall be minimized by using site suitable best management practices which maximize infiltration of stormwater and minimize off-site discharge. Best management practices shall include, but not limited to, such techniques as concrete grid and modular pavement, detention ponds, exfiltation basins, grassed waterways and swales, porous asphalt pavement, retention basins, rooftop runoff disposal, storage/treatment facilities, and underdrains and stormwater filter systems. These shall be implemented through land development regulations.

Policy 4.11 Through the land development regulations the County shall restrict lot coverage so that excessive stormwater runoff is not generated.

Policy 4.12 All development within 150 feet of wetlands and shorelines in Franklin County will be reviewed by the County Planning and Zoning Commission to insure that development conforms to the Critical Shoreline Ordinance and is done in a manner that minimizes stormwater runoff.

Policy 4.13 Within 150 feet of wetlands and shorelines no more than 20% of a lot shall be covered by impervious surface.

Policy 4.14 The County shall continue to enforce its existing measures to preserve high water quality in Apalachicola Bay, as established by existing Outstanding Florida Waters and Class II Shellfish Harvesting Waters designations. In addition to coordinating with the Florida Department of Environmental Protection and the Northwest Florida Water Management District to maintain water quality in Apalachicola Bay, the County shall coordinate with the staffs of the Aquatic Preserve and National Estuarine Research Reserve on development that may impact water quality in the Bay, such as large scale development projects and industrial development. The County shall rely on existing water quality monitoring programs within these entities to monitor water quality within the Bay.

Policy 4.15 The County shall continue to coordinate with the Florida Department of Environmental Protection and the Northwest Florida Water Management District to treat stormwater runoff before it enters the Bay, the Gulf, or estuaries.

OBJECTIVE 5
Coastal Barrier Protection/Conservation - The coastal barriers islands and high-energy beaches of Franklin County (including Alligator Point) shall be protected/conserved such that there will be no loss of the dune systems.

Policy 5.1 The County shall prohibit development seaward of the Department of Environmental Protection's coastal construction control line without prior written approval from the Department of Environmental Protection. The County shall limit any such development to single family dwellings at a density not to exceed one unit per acre, or lot of record.

Policy 5.2 Vehicular traffic on the Gulf Beach and in the primary dunes shall be prohibited through County land development regulations.

Policy 5.3 The County shall support beach re-nourishment projects when recommended by the U.S. Army Corps of Engineers or Florida Department of Environmental Protection and may act as the local sponsor if necessary.

Policy 5.4 The County shall amend as necessary its coastal building code to be consistent with the most recent revisions of the Florida Building Code.

Policy 5.5 The County shall require all applications for building permits for all new construction or substantial improvement of existing major structures within the County's coastal building zone to be certified by an architect or professional engineer registered in the State of Florida.

Policy 5.6 There shall be no alterations of any active sand dunes by excavating, leveling, filling, surfacing or any other construction which would impair the natural ability

of such a sand dune to provide storm protection. Structures shall be elevated above the dunelands on deep-anchored piles, and filling and general clearing, grading, and paving of the site is prohibited. Alteration of dune vegetation shall be discouraged and may only be allowed when altered vegetation is replanted. Augmentation of dunes by the addition of beach-compatible sand may be allowed, as long as it is completed in accordance with all required state permits and is established with native, salt-tolerant vegetation normally found in similar nearby dune communities.

Policy 5.7 Fill shall not be used for structural support.

Policy 5.8 Access to the beach shall be by means of elevated walkways which do not interfere with the action of the dunes and which do not destroy dune vegetation.

Policy 5.9 The County shall limit impervious coverage of lots in the Critical Shoreline District to 20%.

OBJECTIVE 6

WATER-DEPENDENT USES: The County hereby establishes land use criteria which give priority to the siting and development of water-dependent uses within the Coastal Area, as defined in the following policies.

Policy 6.1 It shall be the policy of the County to utilize the following priority list in reviewing applications for shoreline uses, so as to provide increased priority for water-dependent uses when allowed within applicable zoning districts. Uses listed first shall generally be given the highest priority of all uses that may be proposed along the shoreline, with other uses listed in the order of declining priority.

1) Water-dependent uses such as fish, and shellfish production;

2) Water-dependent recreation and commercial uses such as ports and marina-type uses

3) Water-related uses

4) Water-enhanced uses

Policy 6.2 New marinas and multislip docking facilities shall conform to the following criteria:

a) public use marinas shall be allowed only in commercial land use or as otherwise permitted in land use categories in the plan.

b) non-public use marinas or multislip docking facilities shall be allowed only in

residential zoning districts and then only if use of docking facilities are limited to use by residents;

c) marinas and multislip docking facilities must provide vehicular parking.

d) all parking, dry storage, and non-water dependent facilities must be built on existing uplands;

e) marinas and multislip docking facilities shall prepare hurricane plans which describe measures to be taken to minimize damage to marina sites, neighboring properties, and the environment; this hurricane plan shall be reviewed and approved by the Emergency Management Director;

f) marina or multislip docking facilities shall comply with the other policies of this plan;

g) marinas or multislip docking facilities which propose to disturb wetlands shall create new wetlands in compliance with Policy 1.2(c) of the Coastal Conservation Element. Destruction of grassbeds shall be prohibited.

h) dryslip use shall be maximized in order to minimize impacts on water quality, and minimize the areas extent of disturbance of the estuary; and

i) fueling facilities associated with marinas shall be designed to contain spills from on-land
equipment and shall be prepared to contain spills in the water.

j) No marina expansion or construction will be permitted if the expansion or construction results in any loss of waters classified for the harvest of shellfish. Docking facilities shall only be located in areas with good circulation, flushing, and adequate water depths.

k) The siting of docking facilities shall take into account the access of the boat traffic to avoid marine grassbeds or other aquatic resources in the surrounding area.

l) The siting of new facilities within the aquatic preserve shall be secondary to the expansions of existing facilities when such expansion is consistent with other standards.

m) New facilities shall be required to prepare and implement a DEP approved monitoring program to assure that there are no water quality problems associated with the marina.

Policy 6.3 The County shall review new marina applications for consistency with the Apalachicola Bay and Alligator Harbor Aquatic Preserve Plans.

OBJECTIVE 7
Franklin County shall maintain ambient air quality standards which are equal to or more stringent than the State and Federal National ambient air quality standards (NAAQs).

Policy 7.1 The County shall evaluate all industrial land development activities which will require a permit under Chapter 62-4, FAC with regard to appropriateness of location and shall adopt development order conditions consistent with this policy.

Policy 7.2 The County shall condition all commercial new construction development approval to implement best management practices for reduction of erosion, fugitive dust, and air emissions related to the construction of the development.

OBJECTIVE 8
The County shall continue to enforce mechanisms to conserve current and projected water sources within Franklin County, as defined in the 1992 Wellfield Protection Ordinance.

Policy 8.1 Proposed development which requires large water withdrawals from the aquifers will be submitted to the NWFWMD for review prior to development approval.

Policy 8.2 The County shall continue to coordinate with the NWFWMD to cap abandoned, free-flowing wells.

OBJECTIVE 9
The County shall by 2010, adopt and enforce aquifer protection measures to ensure the protection of the County's potable water source and to safeguard public health.

Policy 9.1 The County shall adopt a water conservation plan which shall be consistent with the emergency water shortage contingency plans developed by the NWFWMD and which shall apply to all water system users. The plan shall include such measures as:
a) implementation of the Water Conservation Act
b) compliance with the Florida Energy Conservation Standards
c) alternating days of ground watering
d) through land development planning, ensure that development activities do not impair the function of high or regionally significant recharge areas, and limit roads and other impervious surfaces and watershed alterations that reduce the availability and flow of good water to recharge areas.
e) Ensure that new development maintains natural groundwater levels, including seasonal fluctuations, consistent with sound ecological and public safety considerations.
f) Encourage incentives such as reduced connection fee and service charges through water and wastewater saving devices such as graywater systems.

Policy 9.2 The County shall coordinate with the NWFWMD to initiate a study of the cost/benefits associated with the installation of a water reuse system.

Policy 9.3 The County shall encourage the use of native vegetation over the use of exotic vegetation.

Policy 9.4 The County shall seek funding to identify cones of influence and will amend its land use and zoning maps to provide protection to such cones.

Policy 9.5 The County shall identify and protect the functions water recharge areas and provide incentives for their conservation.

Policy 9.6 The County shall promote water conservation as an integral part of water management programs as well as the use and reuse of water of the lowest acceptable quality for the purposes intended.

Policy 9.7 The County shall protect aquifers from depletion and contamination through appropriate regulatory programs and through incentives.

OBJECTIVE 10
The County shall continue to protect and conserve its soils and mineral resources.

Policy 10.1 The County's site plan review process shall continue to take into consideration natural constraints such as flood hazard, wetlands, soil suitability and aquifer recharge potential, and shall be restricted depending upon the severity of those constraints.

Policy 10.2 The county shall provide training to the community, home owners, and to construction companies requesting variances for seawalls. Such training shall include the use of upland and wetland vegetative measures, dune renourishment, use of berms, swales and other stormwater management practices to protect and conserve the soil.

Policy 10.3 The county shall continue to implement the Critical Shoreline District Ordinance which designates environmentally sensitive lands.

OBJECTIVE 11
The County shall maintain its hazardous waste management program.

Policy 11.1 The County, in conjunction with the cities, shall continue to have regular Amnesty Days to collect hazardous waste.

Policy 11.2 The County shall continue to identify all unauthorized dumps and, in

cooperation with DEP, develop closure plans for such dumps.

Policy 11.3 The County shall enforce those local ordinances which prohibit the discharge of petroleum and lead-based fuels and solvents from boat maintenance with the Apalachicola River adjacent to the County limits.

Policy 11.4 The County will ensure that the U.S. Department of Interior oil, gas and mineral lease sales do not allow for the exploration and development of these resources when it would threaten the productivity of marine, aquatic and estuarine resources.

GOAL 2
THE VULNERABILITY OF PEOPLE AND PROPERTY IN FRANKLIN COUNTY TO HARM FROM HURRICANES WILL BE REDUCED AND PUBLIC EXPENDITURES IN AREAS SUBJECT TO NATURAL DISASTER WILL BE LIMITED.

OBJECTIVE 12
Hazard Mitigation and Coastal High-Hazard Areas. The County shall adopt Land Development Regulations to restrict development within coastal high-hazard areas and shall develop budget policies to restrict public funding for facilities within coastal high-hazard areas.

Policy 12.1 The County shall not authorize the funding of public facilities in the coastal high hazard area unless a crucial need is demonstrated. Crucial need is defined at Policy 12.2. For the purposes of this policy, infrastructure, boat ramps, recreation facilities, roads are permissible in the CHHA.

Policy 12.2 A crucial need finding must be arrived at by the County to authorize public expenditures within the CHHA and shall establish that the expenditure is necessary to alleviate dangerously overcrowded or otherwise hazardous roads, to replace or construct wastewater facilities to alleviate or prevent potential violations of surface and potable water quality standards, or to construct recreational facilities unique to coastal sites such as boat-ramps and associated facilities. Furthermore, a crucial need may only be established after consideration has been given to hazard mitigation standards, including floodproofing and evacuation.

Policy 12.3 The County, through its land development regulations, shall restrict development in the CHHA to one unit per acre or one unit per lot of record.

Policy 12.4 The County's Floodplain Management Ordinance shall reference the building elevations of the Flood Insurance Rate Maps, the building requirements of the National Flood Insurance program, provide for detention of rain from a 25 year - 24 hour rainfall event, and restrict discharge of rainwater into ditches which may flood

evacuation routes.

Policy 12.5 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. Exact location of such surge line can be field verified with a survey. The area known as the Eastpoint Urban Service Area (USA), where it is in the Coastal High Hazard Area (CHHA), shall be exempt from the provisions of the CHHA, as the USA is an existing urbanized area where various state and county programs have encouraged the infill and development of the area to take advantage of the existing infrastructure.

Policy 12.6 No capital improvements within the Coastal High-Hazard Area shall be financed or constructed without having first been reviewed to determine the extent to which the proposed improvement is sea-level rise-ready, and whether it will contribute to additional development within the vulnerable area.

OBJECTIVE 13

DEVELOPMENT DENSITY AND INTENSITY: The County shall through its Land Development Regulations, limit development density and intensity within the Coastal High Hazard Area and direct it outside of the Coastal High Hazard Area, to mitigate the impact of natural hazards in this area.

Policy 13.1 It shall be the policy of Franklin County to require that all land development applications within the Coastal High Hazard Area be planned and obtain approval pursuant to a site plan review process, to ensure that development is compatible with site characteristics. Applications will be reviewed for compliance with all applicable flood control regulation requirements.

Policy 13.2 Franklin County shall limit the density of new residential development within the Coastal High Hazard Area to a maximum of one dwelling units per acre (ie., the maximum density associated with the low intensity residential category described in the Land Use Element). Maximum density/intensity of new commercial development within any area of the Coastal High-Hazard Area shall be limited to the lowest density/intensity for those areas as provided for in the Future Land Use Element.

Policy 13.3 Promote, through Land Development Regulations in instances where a proposed project is located entirely within the CHHA, the clustering of uses. Such clustering will serve to limit the amount of infrastructure provided within the CHHA. Net density limits that are otherwise applicable to future land use categories may be waived for purposes of implementing the clustering concept identified in this policy, provided that the overall density caps are not exceeded

Policy 13.4 The County shall prohibit the approval of new development orders for

mobile home projects within the V-zones of the FEMA maps and on the barrier islands in Franklin County.

Policy 13.5 The County shall prohibit the siting of new acute care medical facilities within the Coastal High Hazard Area. Furthermore, existing medical facilities within the Coastal Area shall be discouraged from locating new facilities or expanding existing facilities. Medical facilities, as defined in this proposed policy, shall be limited to those regulated by applicable State law.

Policy 13.6 The County shall coordinate with the Regional Planning Council to formulate a methodology for assessing the impact of new development on evacuation time. Subsequent to formulating the methodology, the County shall assess the impact of all new development within the CHHA and not permit new development which increases LOS standards as established for evacuation times.

Policy 13.7 Franklin County may consider amendments to the Future Land Use Element for properties within the coastal high hazard area. Any Future Land Use Map amendments and corresponding density and intensity assignments shall be consistent with the requirements of Chapter 163, Part II, Florida Statutes, and the Franklin County Comprehensive Plan. Any amendment to the Future Land Use Map within the coastal high hazard area shall not exceed a residential density of one unit per acre and must be supported by best available data and analysis with particular attention to the impact the amendment will have on the established LOS hurricane evacuation clearance times.

Policy 13.8 Should a comprehensive plan amendment in the coastal high hazard area cause the hurricane evacuation clearance times for a Category One storm to exceed the established county standard, the amendment shall mitigate such impacts to insure compliance with applicable established hurricane evacuation level of service. Mitigation may include subscribing to “reverse 911” system, providing NOAA weather radios, developing hurricane evacuation plans, creating annual hurricane evacuation information, and providing other development specific requirements.

OBJECTIVE 14

Hurricane Evacuation - The County shall conduct its hurricane evacuation procedures to ensure that Countywide evacuation clearance times do not exceed 16 hours for Category 1 storms and 24 hours for Category 2, 3, 4, and 5 storms.

Policy 14.1 In order to prevent unnecessary evacuees crowding roads and shelters, the County Emergency Management Director shall, prior to the 2006 hurricane season, develop a plan to maximize use of existing transportation routes and to provide early notification. These strategies may include requiring or encouraging use of alternative routes to US 98 and SR 319 including SR 65 and SR 67, where appropriate, planning staged evacuations, and providing early notification and evacuation orders pursuant to

National Weather Service advisory issuances.

Policy 14.2 New or replacement bridges spanning the Intracoastal Waterway shall not be draw bridges.

Policy 14.3 The County shall coordinate with the cities of Apalachicola and Carrabelle in implementing this hurricane evacuation plan.

Policy 14.4 All future improvements to roads along the evacuation routes shall include remedies for flooding problems.

Policy 14.5 New or improved roads in the coastal area shall when feasible include paved areas which can be used to increase the number of traffic lanes for hurricane evacuation.

Policy 14.6 The County shall prioritize its roadway maintenance and construction projects such that projects located on critical links and on major evacuation routes are given first priority.

Policy 14.7 The County shall evaluate any proposed zoning changes in the areas vulnerable to Category 1 and 2 storms on how the change would affect the evacuation capabilities of the zone.

Policy 14.8 The County shall continue to coordinate with Gadsden, Liberty, Wakulla, and Leon counties to assess the availability of out-of-county sheltering facilities and to pursue agreements to provide out-of-county evacuation shelters during storm events. Additionally, the County shall identify as part of the evacuation plan funding mechanisms including impact fees or other revenue sources to be used for providing out-of-county sheltering facilities. The County shall reassess its out-of-county shelter needs at least every five years, beginning in 2009.

Policy 14.9 The County shall include, as part of its Emergency Management Plan, an evacuation plan for persons with special needs.

Policy 14.10 Annually, the County shall prepare for public dissemination, a public information brochure outlining the County's emergency preparation procedures.

OBJECTIVE 15

Post-Disaster Redevelopment. By 2009, the County shall adopt a post-disaster response and cleanup assistance, procedures for redevelopment permitting and hazard mitigation measures. ~~9J5.012 (3)(b)(8)~~

Policy 15.1 The County shall amend where necessary the natural disaster

preparedness technical data, as well as the Goals, Objectives and Policies of the Coastal Management Element to be consistent with an updated version of the Regional Planning Council's Hurricane Preparedness Plan when it becomes available.

Policy 15.2 Upon completion of DCA's Post Disaster Redevelopment Plan Pilot Program, the County shall work with the cities to modify the current Comprehensive Emergency Management Plan to comply with the policies under this objective, and shall contain step-by-step details for post disaster recovery operations.

Policy 15.3 The Recovery Task Force shall propose comprehensive plan amendments to County officials which reflect the recommendations in any interagency hazard mitigation reports or other reports prepared pursuant to Section 406 of the Disaster Relief Act of 1974 (PL 106-390),

Policy 15.4 In coastal areas needing redevelopment after a disaster, structures which were nonconforming in terms of flood elevation or land use and which suffered damage in excess of fifty percent of their appraised value shall be rebuilt to meet all current requirements, including those enacted since construction of the structure.

Policy 15.5 The County shall coordinate with the cities to develop and adopt prior to the ~~2009~~ 2021 hurricane season a formal decision making process to evaluate options for damaged public facilities in the CHHA including abandonment, repair in place, relocation, and reconstruction with structural modifications. This process shall consider these options in light of factors such as cost to construct, cost to maintain, recurring damage, impacts on land use, impacts on the environment, and public safety.

Policy 15.6 The County shall, through its local mitigation strategies, identify structures in the coastal high-hazard area, inventory their assessed value, judge the utility of the land for public access, and make recommendations for acquisition when post-disaster opportunities arise.

Policy 15.7 As modified pursuant to policy 15.2, the County shall incorporate into this plan recommendations listed in the hazard mitigation appendix of the Comprehensive Emergency Management Plan, as well as applicable hazard mitigation recommendations from future revisions to the Regional Hurricane Preparedness Plan. These recommendations shall be incorporated no later than 18 months after the recommendations have been adopted.

Policy 15.8 The County shall prioritize its post-disaster cleanup operations in such a way that those activities necessary to assure public health and safety are given priority over other cleanup activities. The provision of access to private property following a disaster shall be given secondary priority unless that access is determined to be necessary for the health and safety of the owner.

Policy 15.9 Upon completion of DCA's Post Disaster Redevelopment Plan (PDRP) pilot program, Franklin County shall initiate the PDRP process to adopt a PDRP, as per Objective 15 within the Coastal/Conservation Element, and include strategies for rebuilding historical structures (if any), purchasing repetitively damaged structures, and exploring additional funding sources for rehabilitating more substandard and dilapidated housing units per year. Initiation of the development of the PDRP shall be contingent upon available funding.

OBJECTIVE 16

The County shall promote community awareness of the hazards, such as hurricanes, wildfires, flooding, sea level rise (SLR) etc., that exist in the county, and techniques to minimize vulnerability in those areas.

Policy 16.1 The County shall continue its current efforts to provide emergency and hurricane preparedness information.

Policy 16.2 The County shall encourage the Emergency Management Office to continue its hurricane education and information programs and activities.

Policy 16.3 The County shall continue its current efforts to provide flood protection information, including information about Flood Insurance Rate Maps and the National Flood Insurance Program.

Policy 16.4 The County shall provide information about wildfire hazards and other hazards as needed.

Policy 16.5 The County shall provide information about sea level rise as needed.

OBJECTIVE 17

Public Access – The amount of public access to coastal resources shall be maintained and not decreased.

Policy 17.1 The County shall ensure that existing access for the public to the County's rivers, bays, beaches, and estuaries is maintained by new development. The County will require new waterfront development to show on map amendments, development orders and site plans any existing dedicated waterfront access ways. The proposed development shall indicate on map amendments, development orders, and site plans how the existing dedicated water access will remain open to the public, how it will be relocated with the County's approval, or that it will be donated to the County.

Policy 17.2 All public access facilities shall include parking facilities and access to a State or County road.

Policy 17.3 The County shall accept donations of shoreline lands suitable for use as public access facilities.

Policy 17.4 Except for donations to the County for public access as stated in Policy 17.1 or to preserve historic and archaeological sites as stated in Policy 18.2, the County shall not support the acquisition of additional land by the local, state, or federal government unless it is determined that such a purchase is necessary to protect the seafood industry or unless the County is compensated for the resulting loss in tax revenue.

Policy 17.5 In 2011, the County shall update the public access study performed in 1987 to determine whether any dedicated public access points or property with deed restrictions or easements have been illegally closed. Upon completion of the update, the county will initiate appropriate action to reopen illegally closed access points. The update will include a determination of the number of parking spaces available, and the capacity of the access points to serve future needs.

Policy 17.6 The County has inventoried the existing commercial water access facilities in Franklin County. This data shall be used to evaluate what improvements, if any, should be made to commercial water access facilities.

Policy 17.7 The County may provide expedited processes for land development approvals for development that increases recreational and commercial public water access in Franklin County.

Policy 17.8 The County may waive County fees for developments that increase public access to recreational and commercial water resources in Franklin County.

OBJECTIVE 18

Historic Resources - The County will identify all historic resources within the Coastal Area and establish development standards for the protection, preservation and sensitive reuse of historic resources throughout the County.

Policy 18.1 Historic Resources - County land development regulations shall prohibit the destruction of historic resources as referenced in the data & analysis section of this element on County owned property.

Policy 18.2 Historic and archaeological sites shall be incorporated into required setbacks, buffer strips, or open spaces up to the maximum area required by the development regulations. The County shall establish waivers for non-safety related setback requirements and site planning requirements in order to accommodate historic structures or sites within a proposed development.

Policy 18.3 As an alternative to preserving historic or archaeological sites, the owner may allow excavation of the site by the Division of Historic Resources or their approved alternate prior to development. Should a site be scientifically excavated, then development may proceed without preserving the site.

Policy 18.4 The County shall accept donations of historic or archaeological sites.

OBJECTIVE 19

Maintaining Scenic routes. The County will continue to support scenic roads designated in Franklin County in order to help preserve the area's natural beauty.

POLICY 19.1 U.S. Highway 98 within the County, shall be designated a scenic road along the coast.

Policy 19.2 Properties between designated scenic roads and wetlands or open water shall be zoned the lowest density allowed for their respective future land use categories.

Policy 19.3 Site plan requirements for areas between designated scenic roads and wetlands or open water shall require the use of native vegetation in landscaping, separation of buildings by at least 20 feet along the axis of the road, and the avoidance of fencing or landscaping that would obstruct views of wetlands or open water.

GOAL 3
INFRASTRUCTURE - PUBLIC FACILITIES SHALL BE ADEQUATE AND AVAILABLE TO SERVE THE RESIDENTS AND VISITORS TO THE COUNTY'S COASTAL AREA.

OBJECTIVE 20

Levels of Service - The level of service standards adopted in the Public Facilities Element shall be applied to all development within the coastal areas. The evacuation times established by Objective 14 shall also be considered levels of service standards for roads.

Policy 20.1 Through the Public Services Commission, the County shall allow service areas to be established for water and sewer service providers. Development within these service areas shall be limited to the capacity of the respective facilities to supply the appropriate service as established by the level of service standard adopted in this comprehensive plan.

OBJECTIVE 21

Required Improvements, Timing, and Funding. All public facilities shall be available by the time the impact of the new development occurs.

POLICY 21.1 Developments which would impact existing facilities by reducing the level of service below adopted levels shall not be allowed.

GOAL 4
INTERGOVERNMENTAL COORDINATION TO PROTECT COASTAL RESOURCES. COASTAL RESOURCE MANAGEMENT WILL ADDRESS NATURAL SYSTEMS ON A SYSTEMWIDE BASIS REGARDLESS OF POLITICAL BOUNDARIES.

OBJECTIVE 22
Coordinating with Other Local Governments - Franklin County shall continue to coordinate with other local governments in order to manage coastal resources affecting or affected by governments other than the County.

Policy 22.1 The County shall review the comprehensive plans of the cities to determine consistency.

Policy 22.2 The County shall develop joint planning and management programs with the Cities for hurricane evacuation, provision of public access, provision of infrastructure, providing water dependent use sites, controlling stormwater, reducing wastewater treatment plant discharges, protection of living marine resources, reduction of exposure to natural hazards.

Policy 22.3 The County shall continue to coordinate with the Cities to combat non-point source pollution in the Apalachicola Bay basin.

Policy 22.4 Prior to the adoption of any land development regulations developed pursuant to Section 163.3202, F.S. the County shall review and incorporate, where appropriate, policies recommended in the Apalachicola Bay Aquatic Preserve Management Plan, the National Estuarine Research Reserve Management Plan, the Northwest Florida Water Management District's Surface Water & Improvement Management Plan and the Lower Apalachicola River: Environmentally Endangered Lands Management Plan.

Policy 22.5 The County shall assist, however necessary, in the completion, periodic updating and implementation of the Apalachicola Bay Aquatic Preserve management plan.

GOAL 5
ENCOURAGE FUNDING MECHANISMS FOR COASTAL RESILIENCY PROJECTS

OBJECTIVE 23
Establishment of Special Overlay Districts – Franklin County shall use data and analysis to establish special overlay districts in areas in need of resiliency funding.

Policy 23.1 The County shall allow for the establishment of special overlay districts to finance resiliency projects such as nourishment, armoring, enhancing natural areas, etc.

Policy 23.2 Funds raised within special overlay districts shall remain within that special district.

Timeline for Presentation to BOCC

The project deliverable and proposed edits to the comprehensive plan will be presented to the Franklin County Board of Commissioners on Tuesday, July 21, 2020, at 9:00 a.m. eastern.