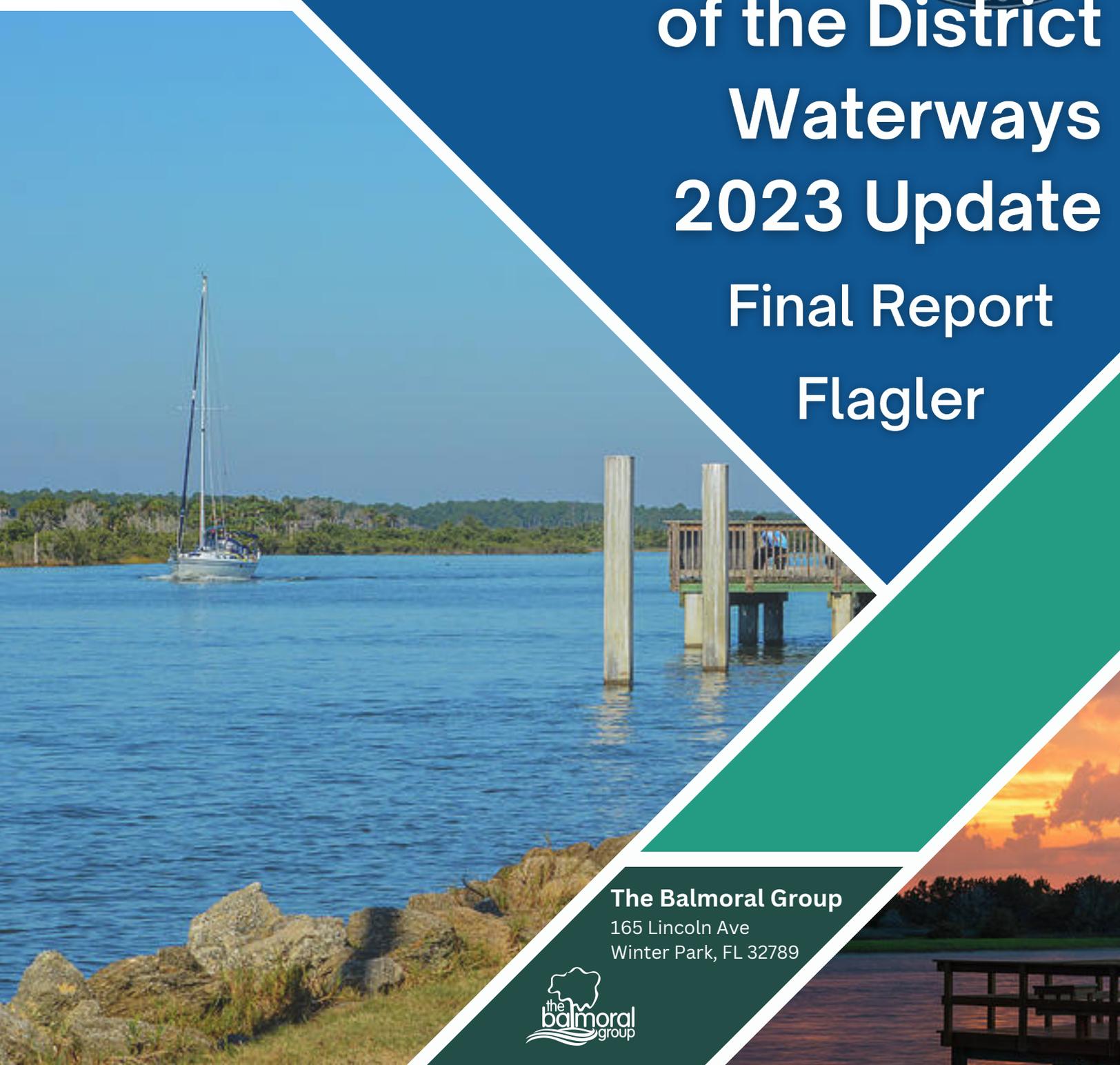




Economic Analysis of the District Waterways 2023 Update Final Report Flagler



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Suggested citation:

The Balmoral Group, 2023. Economic Analysis of the District Waterways: Flagler County, Florida. The Balmoral Group, Winter Park, FL.

Executive Summary

The Atlantic Intracoastal Waterway extends 19 miles in Flagler County, entering at mile 796. The Florida Inland Navigation District (District) is the state sponsor for Federal navigation projects along the Atlantic Intracoastal Waterway (“the Waterways”). The District has invested more than \$4.3 million in Flagler County’s Waterways in the past 34 years, generating significant economic impact. In addition, industry has capitalized on these investments, reflected for example in the Brunswick Corporation’s 2021 225,000 square foot manufacturing facility that is expected to contribute 400 jobs to the area.

This report provides an estimate of the economic impact of the Florida Inland Navigation District (District)’s navigation projects in Flagler County as of March 2023.¹ Continued investments and ongoing operations of the waterway benefit the public, marine businesses and recreational users, the twelve-member counties, and other government agencies. To estimate total benefits, a series of impacts were evaluated:

1. Spending by recreational boaters
2. Spending by tourists, both Floridians and out-of-state visitors
3. Specialized Sectors which include investments by the District and Commercial Fishing, and
4. Proximity effects of the Waterways on real estate.

The indirect and induced economic impacts generated from each of the spending effects were estimated using IMPLAN, an econometric modelling application that generates regional economic impact multipliers. **Table 1** provides a summary of the economic impacts:

Table 1. Estimated Economic Impacts of District Waterways in Flagler County

Impact Type	Employment	Labor Income Value Added Output		
		(in Millions \$)		
Local Recreational Boaters	408	\$12	\$23	\$32
Floridian Tourists	32	\$1	\$2	\$3
Out-of-State Tourists	911	\$26	\$47	\$74
Specialty Sectors	590	\$34	\$43	\$147
Total Annual Impacts	1,940	\$73	\$115	\$256
Property Value Impacts, Annualized**				\$79
Estimated Annual Economic Impacts including Property Amenity Values				\$335

**The total contribution of the Waterways to 2022 property values of \$1.3 billion, was annualized at 6% discount rate and this annual value is \$79 million. Source: TBG Work Product, from Surveys, published FWC data, and Flagler Property Appraiser data

¹ For purposes of the estimate, the District’s Waterways are defined as all navigable waterways within the District’s boundaries including the Intracoastal Waterway and all waterways that are physically connected to it. Flagler does not have a waterway inlet to access offshore waters, however the closest inlet is two miles north into St. Johns County.

Property amenity values are estimated at \$1.3 billion, out of the county’s total reported Just Value of \$21.6 billion, broken down as shown in **Table 2**. Premiums extend to tributaries that connect to the ICW; more than 3,000 single family homes are located on tributaries, and over 700 multi-family units.

Table 2. Estimated Property Value Premiums

	Waterfront to ICW	Non-Waterfront	Tributary frontage/ Access to ICW
Premium % of Market Value	38%	3 – 17%	23%
Estimated Premium (in Millions \$)	\$255	\$532	\$436

The economic benefits of district activities include the generation of tax revenues for local, state and federal governments. **Table 3** provides a breakdown of calculated tax impacts totalling about \$19 million in annual revenues.

Table 3. Estimated Tax Revenues of District Waterways in Flagler County

Impact Type	State & Local	Federal	Total (In millions \$)
Local Recreational Boaters	\$2.75	\$3.16	\$5.90
Floridian Tourists	\$0.21	\$0.24	\$0.45
Out-of-State Tourists	\$5.97	\$6.96	\$12.93
Specialized Sectors	\$0.06	\$11.52	\$11.58
Total Annual Impacts	\$8.97	\$21.88	\$30.86

A series of benchmarks to assist local marine resource managers were compiled and are included herein. The metrics capture trends in the number of boat registrations, available boat slips, etc. to understand whether marine assets can be better utilized or where resource allocation may be improved. The metrics are provided in the final section of the report, and provide a baseline for evaluation of trends going forward.



ECONOMIC BENEFITS OF THE DISTRICT WATERWAYS

Flagler County, 2022

TOTAL ANNUAL ECONOMIC IMPACT \$335M

TOURISM SPENDING

\$77 Million

generated annually from 46,000 visitors



BOATER SPENDING

\$32 Million

local boater spending from Registered Vessels



ANNUAL PROPERTY VALUE \$79 Million

portion of property market values attributed to ICW proximity



Flagler County is home to a 225,000 square foot Boston Whaler factory, a popular manufacturer of recreational boats with their fiberglass boats used nationwide. Over 400 jobs are supported by this production center, managed by the headquarters in nearby Edgewater, FL, contributing to a \$147M in economic impacts across all specialty sectors in Flagler County.



Flagler County's Waterways currently support 1,940 jobs countywide



FIND INVESTMENT in the ICW of \$132,000 annually protects annual economic impact of \$335 Million



ANNUAL TAX BENEFITS

\$22M



FEDERAL TAX REVENUE

\$12M



STATE AND LOCAL TAX REVENUES



Registered vessels utilizing the ICW 5,375



Pleasure boating	3,402
Fishing	1,488
Sailing & other activities	213
Watersports	532



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Introduction

The Balmoral Group was retained to update the previous estimation of the economic impact of District investments in Flagler County to 2022. The District operates four main programs:

- the Long Range Dredged Material Management, which provides for maintenance operations and improvements for the waterway and a permanent infrastructure of land for perpetual management of the Waterways;
- the Waterways Assistance Program, which provides cost share resources for various public improvements such as public access, public safety, and inlet management;
- the Cooperative Assistance Program, which leverages Federal, State and Regional resources to implement public Waterways improvements, and
- A Public Information Program.

To ensure continued public support and investment, the District requires accurate, current estimates quantifying the economic value of the District's continued maintenance and investment in the Waterways. The information is used to explain the importance of investment and operations to the public, marine businesses and recreational users, and other government agencies. To achieve its objectives, the report contained herein includes the following sections:

- I. The value of properties influenced by the Waterways, and the specific amenity value of proximity to the Waterway;
- II. The total economic impact of the Waterways, including indirect and induced impacts associated with sales, income, employment, and taxes, using an input-output model;
- III. Metrics that have been identified as meaningful for tracking the impact of marine industry activity.

I. Direct impacts of commercial businesses and recreational users of the Waterways

Recreational Users

To estimate the spending of recreational users of the Waterways, and their impact on commercial businesses through spending, surveys were conducted of Florida boat owners and visitors to Florida who indicated that they used a boat in Flagler County during the prior 12-month period. The surveys were conducted in 2017, and adjusted to 2022 values for this analysis.

Local/Florida Boat Owners

The population of Flagler County has increased by 18% since 2017. In 2022, the Florida Office of Economic and Demographic Research estimates population at 124,202. The vessel registration statistics suggest that of the total population in Flagler, 5% are boat owners. Along with the increase in population, those that own a boat have also increased by 3%. Spending associated with resident boaters' usage of the waterways is derived from the survey data obtained from Florida-registered recreational boaters completed in 2017, adjusted to 2022 values. Spending varied by boat size, with the highest average spending reported by owners of larger boats (exceeding 26'). **Table 4** shows a breakdown of reported annual expenditures by boat size in 2022 values.²

² Prior economic modelling on the 2017 survey showed a high degree of correlation existed between storage and maintenance costs, indicating some respondents may have answered the questions as related, rather than independent, costs. Both coefficients were statistically significant at the 1% and 5% level, respectively, and considered valid.

Table 4. Florida Recreational Boater Spending Categories by Boat Size, Flagler County

	Less than 16'	16' to 26'	26' or greater
Overall annual expenditure	\$90,049	\$227,359	\$159,387
Share of total expenditure	19%	48%	33%
Average Annual Costs:			
Storage	\$20	\$432	\$572
Maintenance	\$337	\$1,059	\$1,851
Insurance	\$303	\$432	\$910
Average Annual Trip Costs on the ICW:			
Food	\$1,932	\$2,181	\$4,878
Transportation & Accommodation	\$1,502	\$2,376	\$6,187
Fees & Recurring Costs	\$793	\$535	\$333
Gear or Specialized Equipment	\$445	\$1,045	\$93
Average Annual Trip Costs off the ICW:			
Food	\$838	\$940	\$2,595
Transportation & Accommodation	\$1,777	\$636	\$2,872
Fees & Recurring Costs	\$820	\$173	\$302
Gear or Specialized Equipment	\$445	\$113	\$451

Source: TBG Work Product, Surveys, Department of Highway Safety and Motor Vehicles

Tourists

Tourists who use the Waterways also contribute to the economic impact of the maintenance of the Waterways. Tourism data from Visit Florida indicates that in 2022 (the most recent data available), 137.6 million tourists visited Florida, with 336,703 visitors to Flagler County. Of those, estimates from the previous FIND survey and a more recent FDEP survey indicate about 14%, or about 46,000 would specifically visit the Waterways in Flagler County. This number was used as a proxy for tourists from other U.S. States that were Waterway users.

The average out-of-state visitor respondent reported spending approximately \$2,206 over the course of a year. Florida residents that visited Flagler County reported spending approximately \$176 annually. The share of expenditures on fuel, food and other categories is shown in **Table 5**. Total spending from in-state and out-of-state tourists' activities aggregates to \$88.6 million annually.

Table 5. Breakdown of Annual Average Tourist Spending on Recreational Boating, Flagler County

Item	All Florida visitors	Out of state visitors
Food, Restaurants	\$49	\$864
Transportation & Lodging	\$55	\$702
Fees & Recurring Expenses	\$23	\$150
Specialized Gear or Equipment	\$21	\$138
Total	\$148	\$1,854

Source: TBG Work Product, Surveys, FDEP

II. Specialty Sectors

Recreational boaters are by far the greatest users of the Waterways, and the spending by local (Flagler County) and visiting boaters accounts for a substantial portion of the economic impact. There are other sectors that are not accounted for through either source, either because they are outside the normal regional input-output multipliers accounted for in regional flows, or because the entities generating the impact are not captured by traditional survey methods for locals or tourists. For purposes of economic impact modeling these are referred to as specialty sectors.

In the case of Flagler County, three specialty sectors were considered:

- Boat Building;
- Expenditures for periodic dredging and navigation activities;
- Commercial Fishing.

Boat Building

At the time of the previous economic update, Sea Ray Boats had announced closing its manufacturing facility in Palm Coast which employed nearly 500 people. In 2021, Brunswick Corporation, which owns and operates Boston Whaler, announced opening a 225,000 square foot manufacturing facility in Palm Coast. This investment by the company has been expected to add 400 jobs to its plant in Flagler County which will add to the 1,200-employee portfolio at the Brunswick global headquarters in Edgewater, Volusia County. Additionally, the Palm Coast facility expands the company’s manufacturing capacity by 40%. According to IBISWorld Industry Reports, Brunswick Corporation currently occupies nearly 13% of the market share in the U.S. for the Boat Building sector in which it observes \$1.55 billion in annual revenues with 18,000 employees.

The spending associated with this facility is not picked up in the trade models due to the Foreign Trade Zone 64 that the facility is within and therefore is added to the model separately. JAXPORT announced the expansion of FTZ No. 64 to Flagler County in 2019.

Expenditures by Army Corps of Engineers and Florida Inland Navigation District

Dredging and other maintenance expenses for the Intracoastal Waterway occur sporadically and are federally and state funded. Local support and coordination are managed by the District, which also implements a Dredged Material Management Plan. While local efforts would be embedded in regional trade flows, federal transfers to the private sector on a sporadic basis would not be picked up by recreational boating activity.

Commercial Fishing

Commercial fisheries are of minimal impact in Flagler County, owing to the lack of direct ocean access. FWC-reported Commercial Landings in Flagler County for 2022 generated spending of \$13,780; however, 96% of these expenditures leave the County.

III. Property Values

Property values associated with the Intracoastal Waterways were compiled for contextual analysis. Market values for the more than 1,700 Flagler County properties directly fronting the ICW total more than \$659 million, of which nearly \$553 million was generated by residences fronting the ICW in 2022. Commercial properties add another \$15 million. **Table 6** provides a breakdown of the property values of properties fronting the ICW by property type.

Table 6. ICW-Fronting Property Value by Property Type, Flagler County

DOR Category	Count	Average Just Value, 2022 (in dollars)	Total Just Value, 2022 (in Millions \$)
Commercial	15	\$1,028,049	\$15.4
Government	48	\$299,472	\$14.4
Industrial/Institutional	1	\$657,573	\$0.66
Miscellaneous/Vacant	312	\$240,332	\$75
Residential – Multifamily/Condo	78	\$309,878	\$24.2
Residential – Single Family	578	\$916,260	\$529.6
Totals	1,032	\$638,765	\$659.2

Source: Flagler County Property Appraiser, Florida Department of Revenue

Amenity Values of the Waterways

Economic valuations that assess the value of specific attributes – in this case, proximity to the Waterways - are known as hedonic price models. Hedonic modeling involves using regression analysis to hold constant variables that affect housing prices – such as number of bedrooms or bathrooms, square footage, whether a property has a swimming pool, etc. In doing so, it is possible to statistically measure the value of “amenities,” such as proximity to beach access, a popular park, or “disamenities,” such as a landfill.

The value of proximity to the ICW can be quantified by comparing the value of properties close to the ICW with properties that are not in proximity. Records from Flagler County Property Appraiser show that residential properties overall average \$290,000 in market value. By comparison, properties that are within one mile of the ICW average \$604,000. Removing beach premium reduces nearby property values to \$512,000. **Table 7** provides details.

Table 7. Single Family Residential Property Sales in 2021-2022 and ICW proximity, Flagler County

Distance	Count	Average Sale Price, 2022 (in dollars)	Total Property Sales, 2022 (in Millions \$)
Flagler County overall	8,876	\$289,818	\$8,589
Within 1 Mile of the Intracoastal	1,519	\$603,650	\$916.9
Beach Front	67	\$1,133,409	\$75.9
Within 1 mile, not Beachfront	1,452	\$579,206	\$841
Within 500 Meters of the Beach	509	\$707,348	\$360
Within 1 mile, not in Proximity to Beach	572	\$511,624	\$292.6

Source: TBG Work Product, Flagler County Property Appraiser, Florida Department of Revenue

Published research by The Balmoral Group and others has found that proximity to waterways adds a premium to property values at distances of up to 1,500 meters (0.93 miles or 4,921 feet). Hedonic modeling found that the real estate premium value enjoyed by Flagler County that is specifically attributable to ICW frontage or proximity totaled \$655 million for single family residences in 2022; tributaries or canals add another \$436 million.

The coefficient for frontage location, on the Intracoastal Waterway, accounts for more than a third of the sales value for properties fronting the Waterways and 12% of sales values for properties within 1500 meters of the Waterways. Additionally, the coefficient for tributary frontage, waterways connected to the Intracoastal Waterway, accounts for 23% of the sales values of properties that are waterfront but are not directly on the Intracoastal Waterway.

Of the total \$916 million in property sales over the 24-month period covering calendar years 2021 and 2022, approximately \$370 million in sales value related to waterfront homes. Of the \$370 million, about \$128 million in value was attributable solely to ICW frontage, holding other factors constant such as size, number of bedrooms/bathrooms/garages and age.

The properties that are not waterfront to the Intracoastal Waterway, but are directly located on a tributary or canal connecting to the Intracoastal Waterway benefit from a 23% premium. This is significant to the value of properties within Flagler County, as there are over 3,000 single-family residences on tributaries or canals connecting to the Intracoastal Waterway. Of the \$570 million



in sales values related to these properties, about \$112 million in value was attributable to tributary frontage.

Flagler County has over 700 residences along the Waterways that are not single-family units. Using similar share of sales price as indicative of proximity premiums, the amenity value attributable to Waterway proximity for condominiums totals \$91 million for waterfront and an additional \$134 million for near-Waterway properties, resulting in a total \$1.3 billion premium associated with the Waterways. The waterway premium associated with properties is \$79million annualized. For context, total property value in Flagler County is about \$23 billion, according to the Florida Department of Revenue, and premiums associated with the waterway’s accounts for 6%.

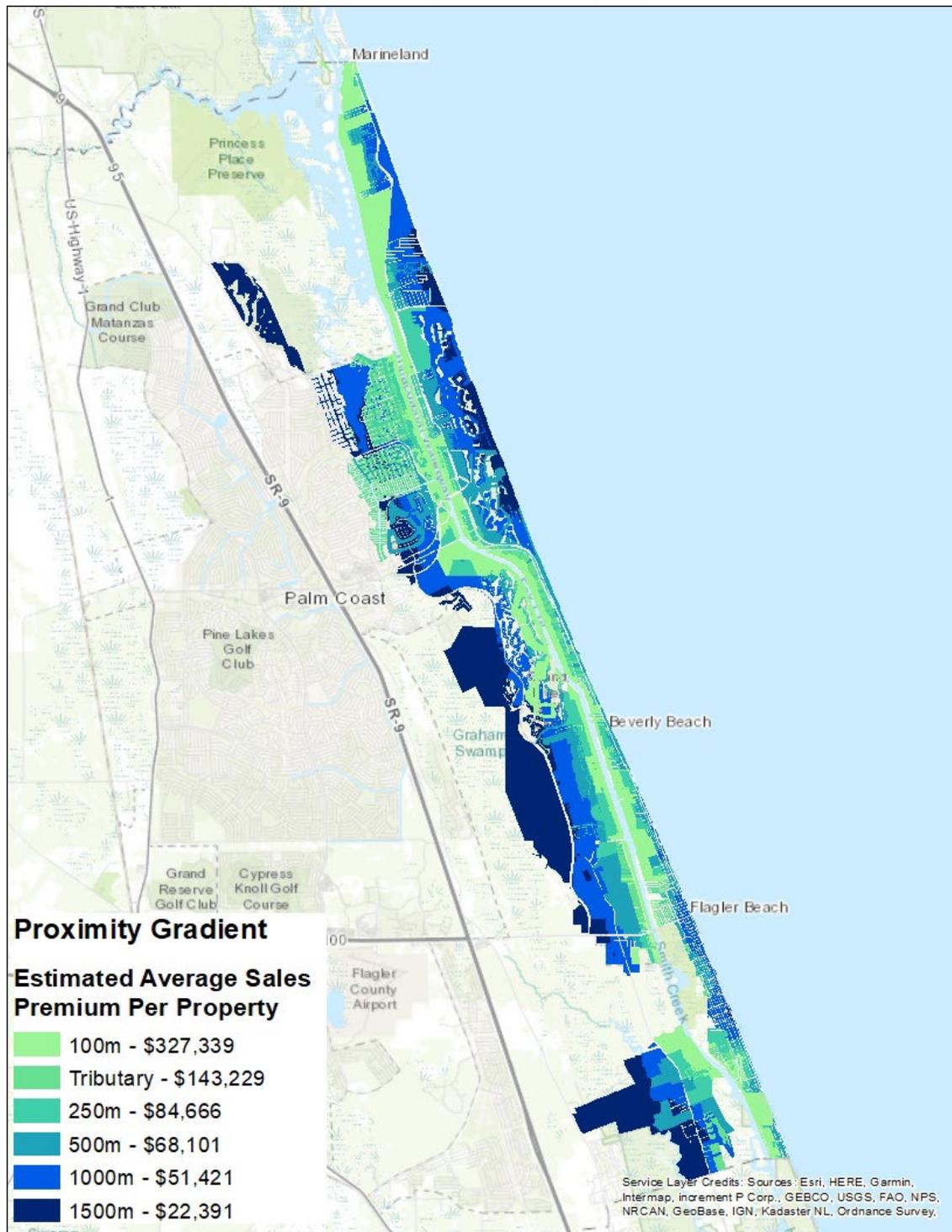
The effects of this premium on the County can be calculated by extrapolating the ICW waterfront coefficient to the entire set of ICW-waterfront properties. **Table 8** provides a breakdown of the premium associated with current waterfront properties that is attributable solely to the Waterways.

Table 8. Amenity Value of Flagler Waterways – in millions

	Waterfront to ICW	100m (Non-waterfront)	250m	500m	1,000m	1,500m	Tributary front/ Access to ICW
Premium % of Sales Price	38%	17%	16%	13%	9%	3%	23%
Waterway Amenity Value Single Family Residences	\$256	\$20	\$59	\$126	\$162	\$33	\$436
Waterway Amenity Value Multi-Family/Condos	\$91	\$2	\$25	\$44	\$36	\$27	\$0
Total Waterway Amenity Value	\$347	\$22	\$84	\$170	\$198	\$60	\$436

Source: TBG Work Product, Flagler County Property Appraiser, Florida Department of Revenue

Figure 1. Proximity Effect on Property Values



Source: TBG Work Product, Flagler County Property Appraiser, Florida Department of Revenue

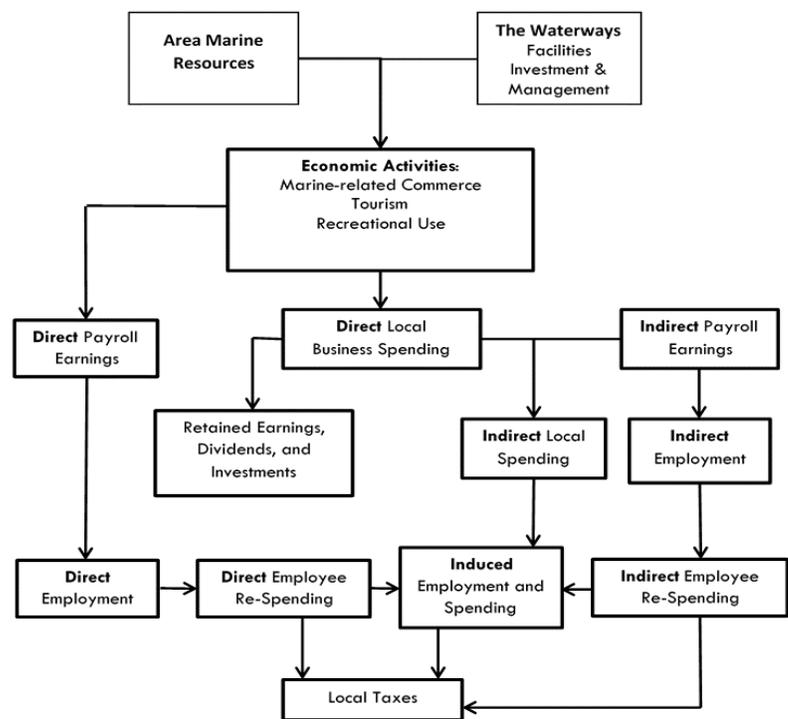
Figure 1 illustrates the proximity effect on property values for a selected stretch of the waterway. The legend shows the decline in property values that is reflected in each successive distance gradient from the Waterway.

IV. Total Economic Impact of the Waterways in Flagler County

To estimate the overall economic impacts associated with the Waterways, The Balmoral Group used IMPLAN®, an econometric modelling application that generates regional economic impact multipliers. **Figure 2** describes how economic impact models, such as IMPLAN®, translates the investment in the Waterways (including maintenance dredging) into business spending, employment, earnings, and taxes. To improve the level of public acceptance and appreciation of the I-O model output, The Balmoral Group understands the importance of explaining how economic impact multipliers are selected and applied.

IMPLAN® estimates the flows of supply and demand between and within counties by industry sector, and converts this estimate of cash flows to economic impacts – measured through jobs, revenues, and personal income. An important element of input-output modeling is understanding these flows, and using appropriate data to determine how much of a boat dealer’s stock, for example, was purchased from within the dealer’s county, versus from an adjacent county, or from elsewhere in the region or state. The local purchases generate indirect and induced impacts, while those that leave the area (which is defined by the scope

Figure 2. Input-Output Model for Waterways Economic



of the analysis – in this case, regional or county) do not. The IMPLAN software calculates the specific margins based on data prepared by the Bureau of Economic Analysis.³The spending associated with recreational boaters and tourists provide direct inputs for IMPLAN modeling.

Three IMPLAN models were prepared for the baseline analysis:

1. Recreational boater spending by Flagler County residents;
2. Tourist spending by In-State Visitors to Flagler County; and
3. Tourist spending by Out-of-State Visitors to Flagler County

³ The Bureau of Economic Analysis falls within the U.S. Department of Commerce.

4. Specialized sectors

Regional economic impacts generated by all three are summarized in **Table 9**.

Table 9. Estimated Regional Economic Impacts of the Waterways in Flagler County, by Source

Impact Type	Employment	Direct Effect	Indirect Effect (in Millions \$)	Induced Effect	Output
Local Recreational Boaters	408	\$28	\$4	\$0	\$32
Floridian Tourists	32	\$2	\$0	\$0	\$3
Out-of-State Tourists	911	\$56	\$8	\$9	\$74
Specialized Sectors	590	\$116	\$19	\$12	\$147
Total Annual Impacts	1,940	\$202	\$32	\$22	\$256

Source: TBG Work Product from Surveys, FWC data and Flagler County Property Appraiser data

Table 10 shows a breakdown of the spending categories that generate this impact.

Table 10. Spending by Impact Type

Impact Type	Total Spending (in Millions \$)
Local Recreational Boaters	\$50
Floridian Tourists	\$3
Out-of-State Tourists	\$85
Specialized Sectors	\$115
Total	\$255

Source: TBG Work Product

Each is addressed in turn.

Recreational Boaters Registered in Flagler County

Local boaters generate \$50 million in spending (**Table 12**), which results in a total economic contribution of \$31.7 million, as shown in **Table 11**. Note that local residents are part of the underlying economic model, and as such do not generate induced economic impacts.

Table 11. Estimated Economic Impacts of Waterways from Resident Boaters – in millions \$

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	338	\$9.24	\$18.40	\$27.53
Indirect Effect	38	\$1.28	\$2.12	\$4.19
Total Effect	376	\$10.52	\$20.51	\$31.73

Source: TBG Work Product, IMPLAN

Table 12 provides a breakdown of total spending by boat size.

Table 12. Total Spending from Resident Boaters

Categories by Size	Total Spending (in millions \$)
Boats Less than 16'	\$25.5
Boats 16' to 26'	\$17.4
Boats 26' and more	\$7.4
Total	\$50.2

Source: TBG Work Product, IMPLAN

Tourist Spending by In-State Visitors to Flagler County

Visitors to Flagler County from across the State generate annual spending of \$3.2 million, with total impacts of more than \$2.6 million as shown in **Table 13**.

Table 13. Estimated Economic Impacts of Waterways, Florida Visitors, Flagler County

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	26	\$0.73	\$1.29	\$1.97
Indirect Effect	3	\$0.09	\$0.15	\$0.31
Induced Effect	3	\$0.08	\$0.18	\$0.32
Total Effects	32	\$0.90	\$1.63	\$2.60

Source: TBG Work Product, IMPLAN

Out-of-State Tourists

Tourists from out-of-state generate annual spending of about \$85 million.

After adjusting the model to reflect spending that leaves the area, known as leakage, the direct effects of out-of-state tourists total about \$56.3 million. Including indirect and induced effects, the total economic impact of the Waterways from out-of-state tourists aggregates to total impacts of \$74 million as shown in **Table 14**.

Table 14. Estimated Economic Impacts of Waterways, Out-of-State Visitors, Flagler County

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	765	\$21.24	\$37.61	\$56.34
Indirect Effect	74	\$2.48	\$4.19	\$8.37
Induced Effect	73	\$2.43	\$5.23	\$9.30
Total Effects	911	\$26.15	\$47.03	\$74.01

Source: TBG Work Product, IMPLAN

Specialty Sectors

Specialty sectors in Flagler County includes the maintenance activities of the Florida Inland Navigation District, Commercial Fishing, and Boat Building. **Table 15** summarizes the total impacts of these sectors. A breakdown of each is addressed in this section.

Table 15. Estimated Economic Impacts of Waterways in Flagler County, Specialty Sectors

Impact Type	Employment	Labor Income	Value Added	Output
in millions \$				
Direct Effect	401	\$25	\$28	\$116
Indirect Effect	111	\$6	\$9	\$19
Induced Effect	78	\$3	\$7	\$12
Total Effects	591	\$34	\$43	\$147

Source: TBG Work Product, IMPLAN

District Expenditures

As noted earlier, while local efforts would be embedded in regional trade flows, federal transfers to the private sector on a sporadic basis would not be picked up by recreational boating activity. For Flagler County, \$21,787 in annualized average costs of dredging and navigation and \$110,494 in annualized average expenditures for funding additional waterway related projects such as new boat ramps, dock extensions and marina expansions, were used as input values for spending. **Table 16** shows the estimated impacts of the District’s waterway-related maintenance activities.

Table 16. Estimated Economic Impacts of Waterways in Flagler County, District Expenditures

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	1	\$96,648	\$92,434	\$132,282
Indirect Effect	0	\$10,077	\$11,722	\$24,621
Induced Effect	0	\$10,896	\$24,651	\$45,289
Total Effects	2	\$117,621	\$128,807	\$202,192

Source: TBG Work Product, IMPLAN

Commercial Fishing

Commercial fisheries impact the economic sector differently than any of the listed categories. Using the value of all Commercial Landings in Flagler County in 2022, the industry contributes spending of \$13,780; however, 96% of these expenditures leave the County.

Boat Building

Brunswick’s Boston Whaler facility provides substantial economic impacts including employment. Using the estimated employment associated with the Palm Coast facility, boat building contributes an estimated annual spending of \$115 million. **Table 17** provides a detailed breakout, showing that value added associated with the boat building is about \$43 million.

Table 17. Estimated Economic Impacts of Waterways, Flagler County

Impact Type	Employment	Labor Income	Value Added	Output
in millions \$				
Direct Effect	400	\$25	\$28	\$116
Indirect Effect	111	\$6	\$9	\$19
Induced Effect	78	\$3	\$7	\$12
Total Effects	590	\$34	\$43	\$147

Source: TBG Work Product, IMPLAN

V. Tax Revenues

The economic benefits of District maintenance include the generation of tax revenues for local, state and federal governments. **Table 18** and **Table 19** provide a breakdown of calculated tax impacts based on the five different sectors used in this report, showing contribution to various public revenue streams annually from navigable waterways in Flagler County. Overall, about \$34 million in annual revenues are generated.

Table 18. State and Local Tax Revenues from District Waterways, Flagler County – in millions \$

Description	Employee Compensation	Tax on Production and Imports	Households	Corporations	Total Annual Impacts
Local Recreational Boaters	\$0.02	\$2.64	\$0.09	\$0.04	\$2.78
In-State Visitors	\$0.00	\$0.20	\$0.01	\$0.00	\$0.21
Out-of-State Visitors	\$0.04	\$5.73	\$0.19	\$0.07	\$6.03
Specialized Sectors	\$0.01	\$3.00	\$0.03	\$0.02	\$3.05
Total Annual Impacts	\$0.07	\$11.57	\$0.31	\$0.13	\$12.08

Source: TBG Work Product, IMPLAN. *Note: no local income tax hence \$0.

Table 19. Federal Tax Revenues from District Waterways, Flagler County – in millions \$

Description	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations	Total Annual Impacts
Local Recreational Boaters	\$1.65	\$0.01	\$0.20	\$0.97	\$0.32	\$3.16
In-State Visitors	\$0.13	\$0.00	\$0.01	\$0.08	\$0.02	\$0.24
Out-of-State Visitors	\$3.76	\$0.02	\$0.43	\$2.19	\$0.56	\$6.96
Specialized Sectors	\$5.56	\$0.13	\$2.30	\$3.43	\$0.11	\$11.52
Total Annual Impacts	\$11.10	\$0.17	\$2.94	\$6.67	\$1.01	\$21.88

Source: TBG Work Product, IMPLAN

VI. Metrics

Florida Tax Watch, an independent nonpartisan nonprofit research entity, identified nine key performance indicators to gauge the health of the marine industries in Flagler County. The Balmoral Group was asked to assist with compilation of the metrics in the course of the data collection effort for the economic analysis. The following seven metrics were identified:

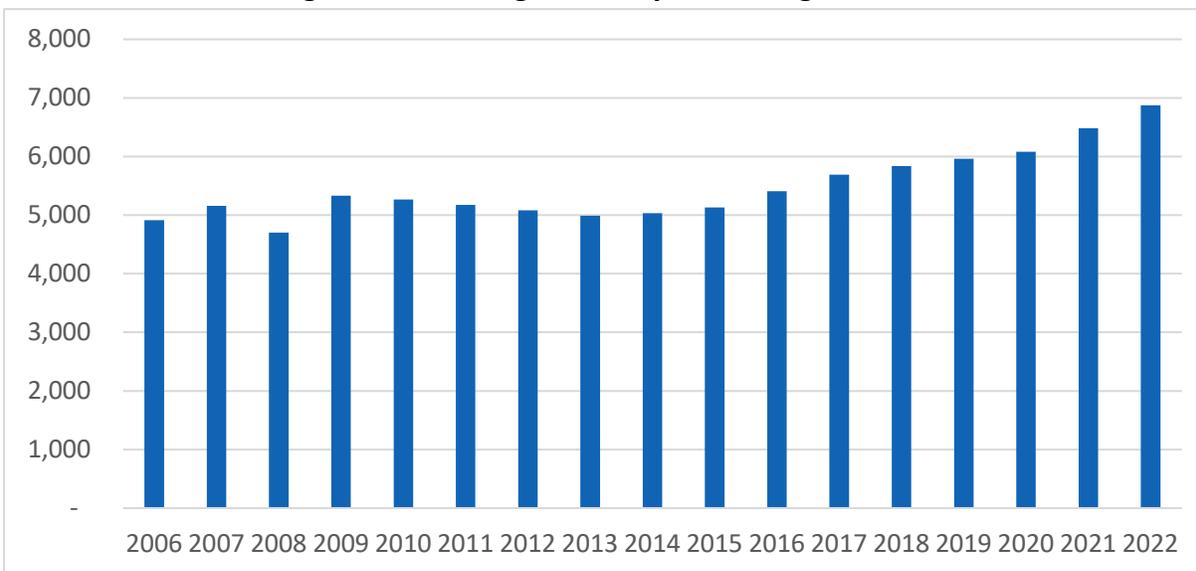
1. Boat registrations in Flagler County
2. Inventory of local businesses establishments engaged in marine activities, including marinas, boating, fishing, tours and water sports
3. Employment in the marine industry and related businesses (manufacturers, repair and service, retailers, and include lodging and food/beverage businesses located within a relatively short distance of beaches and marinas)
4. Taxable sales from marine industry establishments
5. Inventory of local marinas, including number of slips by size category
6. Inventory of boat ramps and available parking for vehicles and trailers and
7. Inventory of boat racks and storage capacity.

Each is addressed in turn.

Boat Registrations

Boat registration data were received from the Florida Department of Highway Safety and Motor Vehicles' (FHSMV) registration database. Total vessel registrations in Flagler County have increased by 20% since 2017, with an average increase of 4% annually.

Figure 3. Total Flagler County Vessel Registrations



Source: FHSMV

Table 20. Annual Vessel Statistics – Flagler County

Year	Pleasure	Dealer/Commercial	Total	Annual Change
2006	4,915	107	5,022	
2007	5,158	122	5,280	5.1%
2008	4,702	118	4,820	-8.7%
2009	5,329	112	5,441	12.9%
2010	5,265	98	5,363	-1.4%
2011	5,173	103	5,276	-1.6%
2012	5,082	89	5,171	-2.0%
2013	4,989	84	5,073	-1.9%
2014	5,033	92	5,125	1.0%
2015	5,131	92	5,223	1.9%
2016	5,408	104	5,512	5.5%
2017	5,688	108	5,796	5.2%
2018	5,835	92	5,927	2.3%
2019	5,961	87	6,048	2.0%
2020	6,080	85	6,165	1.9%
2021	6,484	87	6,571	6.6%
2022	6,876	99	6,975	6.1%

Source: FHSMV

Table 21. Vessel Registration Use

Vessel Use	Number of vessels
Commercial, Dealer, Other	99
Pleasure	6,876
Total	6,975

Source: FHSMV

Table 22. Vessel Length Group, Pleasure Vessels, excluding canoes

Length Group	Number of vessels
Under 16'	2,457
16' to 26'	3,795
26' and more	539
Total	6,791

Source: FHSMV

Waterway-Users

It is expected that not all vessels within the county would use district waterways, with some providing operation on freshwater waterbodies. The dataset was further refined to counts of vessels that exclude the vessel type “Airboat” as these users typically do not use the Intracoastal Waterway. Data limitations have provided the values as estimates. The census of potential waterway users based on vessel types shows that about 87% of vessels would likely use the waterways.

Table 23 provides an estimated breakdown of the vessel length groups to estimate the population of vessels using the District’s waterways, however it should be noted that of the total vessels within the county, a smaller portion will use the waterways on a regular basis.

Table 23. Vessel Length Group owned by individuals excluding airboats

Length Group	Number of vessels
Under 16’	2,036
16’ to 26’	3,447
26’ and more	416
Total	5,900

Source: FHSMV

Business Establishments and Employment in Marine Activities

An inventory was prepared of local business establishments engaged in marine activities, including marinas, boating, fishing, tours and water sports. Employment was estimated for the marine industry and related businesses (manufacturers, repair and service, retailers, and related businesses) located in Flagler County.

Table 24 provides a summary by North American Industry Classification System (NAICS) code of employment and number of establishments in Flagler County. Business level data was obtained from the Florida Department of Economic Opportunity. The data was sifted through for other businesses that might have been overlooked due to their NAICS code being unobvious such as “Other Household Goods Repair and Maintenance” which included businesses involved in fiberglass work, boatyard maintenance, boat detailing, etc. that was revealed upon reviewing the database. The business level data also provided insight into marine businesses proximity to the waterway.

Table 24. Local Business Establishments Engaged in Marine Activities, Flagler County

2 DIGIT NAICS	Description	Number of Businesses	Total Annual Wages	Employment
11	Agriculture, Forestry, Fishing and Hunting	1	**	**
23	Construction	2	**	**
32	Manufacturing	1	**	**
42	Wholesale Trade	2	**	**
44	Retail Trade	3	**	**
48	Transportation and Warehousing	4	\$250,596	7
71	Arts, Entertainment, and Recreation	1	**	**
81	Other Services (except Public Administration)	6	\$282,948	11
Total		20	\$2,318,956	73

Source: QCEW. Note, the data are obtained from the Florida Department of Economic Opportunity, which compiles the QCEW data quarterly and reports annual averages. ** denotes confidentiality per DEO requirements

Taxable Sales from Marine Industry Establishments

Since there is currently only one boat dealer in Flagler County per Department of Economic Opportunity data, taxable sales for boat dealerships (Kind Code 28) are unavailable after 2009 due to confidentiality and proprietary information. Therefore, data on boat dealerships in Flagler County were not compiled.

Commercial Fish Landings

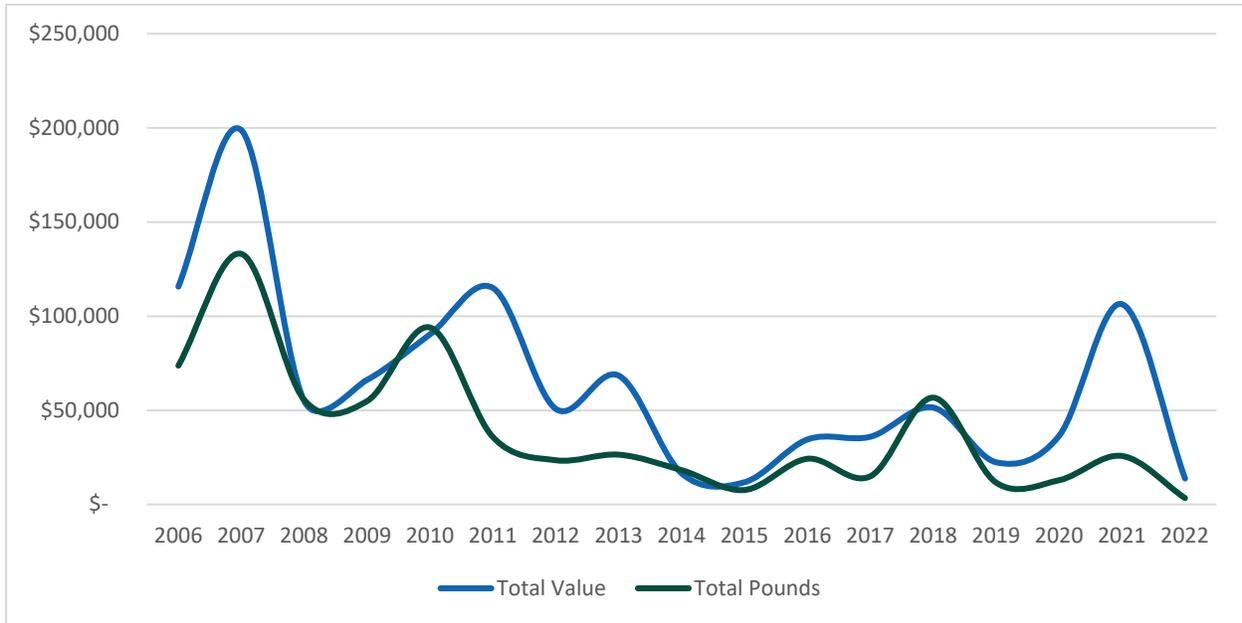
Landings data for Flagler were obtained from Florida Fish & Wildlife Commission and are provided in **Table 25**. The total value of commercial landings in Flagler County varies widely year to year with 2021 exhibiting a much larger value and total pounds landed compared to 2020. Following Table 42, **Figure 4** provides a graphic representation of the high variability in the trends in landings versus values.

Table 25. Commercial Fish Landings, Flagler County

Year	Total Value	Total Pound	Avg. Price
2008	\$ 54,916	55,529	\$2.48
2009	\$ 66,210	54,880	\$2.24
2010	\$ 90,356	93,980	\$1.60
2011	\$ 114,960	35,748	\$2.57
2012	\$ 50,722	23,478	\$2.21
2013	\$ 68,420	26,437	\$2.18
2014	\$ 16,473	18,189	\$1.55
2015	\$ 11,826	7,675	\$2.17
2016	\$ 34,532	24,266	\$2.84
2017	\$ 35,974	14,981	\$4.26
2018	\$ 51,451	56,706	\$4.28
2019	\$ 22,387	11,546	\$4.45
2020	\$ 36,524	12,880	\$3.31
2021	\$ 106,340	25,734	\$3.72
2022	\$ 13,780	3,366	\$14.87

Source: FWC

Figure 4. Commercial Fish Landings, by Weight and Value, Flagler County



Source: FWC

Inventory of Boat Ramps and Marinas

An inventory of boat ramps and marinas in Flagler county and statewide was obtained from the Florida Boating Access Facilities Inventory and Economic Study (2016).⁴ **Table 26** provides a summary of access facilities by use type.

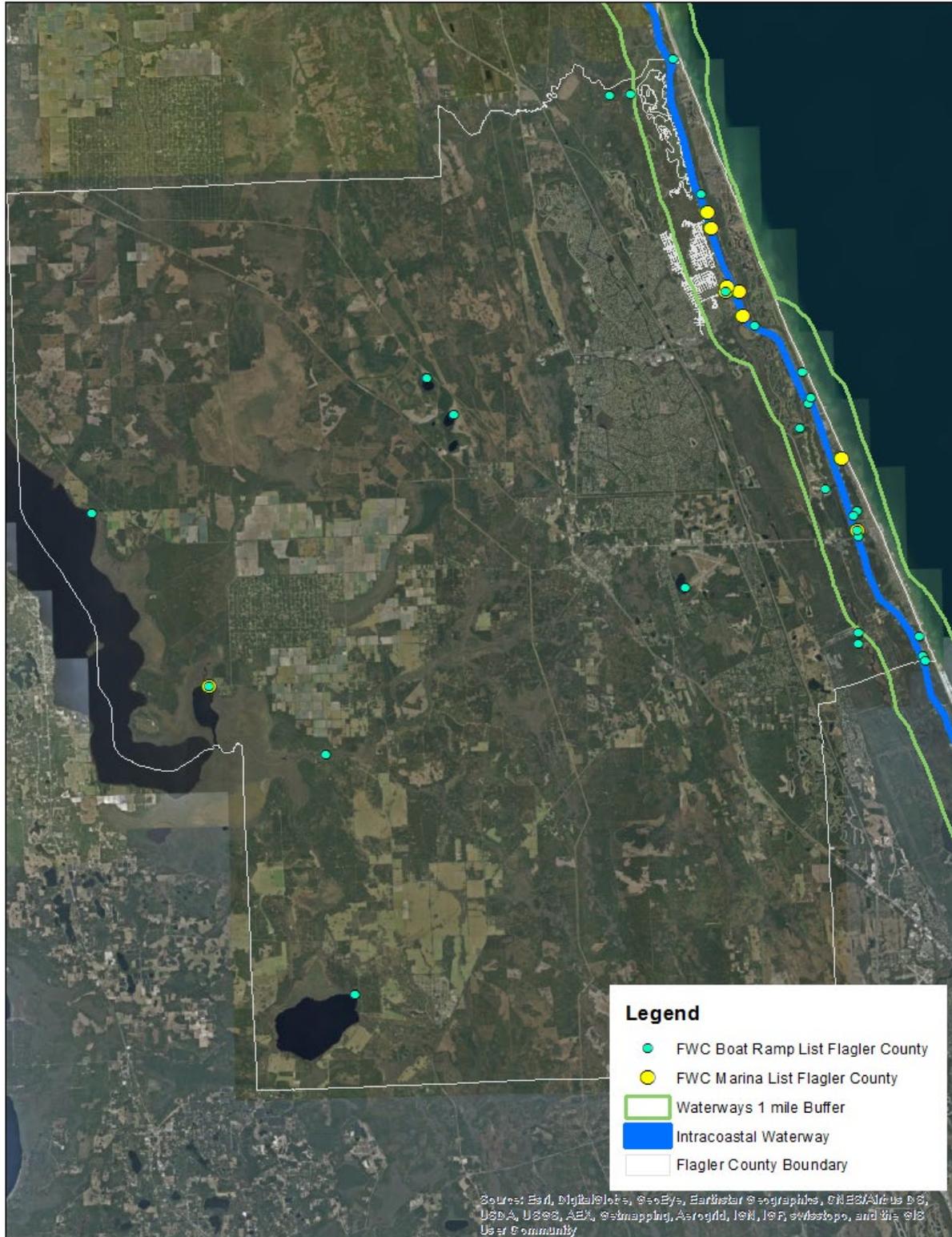
Table 26. Access Facility by Use Type, All of Flagler County.

Type	Facility Access Use Type	Boat Ramp Count	Marina Count	Total Access Facilities
Commercial	Commercially Owned for Business Use Only	1	2	3
Gov't	Government Owned for Government Business Only	3		3
Private	Community Association for Residents Only	4	4	8
Private	Single Family Residence	5		5
Public	Commercially Owned for Restricted Public Use	2	2	4
Public	Government Owned for General Public Use	10	1	11
Public	Undetermined	2		2
Totals		27	9	36

Source: FWC Boat Ramp Inventory Database, May 2017

⁴ The marina inventory database was updated in 2016 although it appears that the data are identical to the 2009 data in the original study. Boat Ramp inventory database was updated May 2022.

Figure 4. Boat Ramps and Marina facilities, Flagler County



Source: FWC Boat Ramp Inventory Database, May 2017

Inventory of Marinas

Flagler County has the seventeenth lowest number of marina facilities in the state. All except one marina have direct access to the Intracoastal Waterway. **Table 27** provides a summary of marina facilities with wet slips, and **Table 28** provides a count of marina facilities with wet slips disaggregated by the type of water access.

Table 27. Detailed Description of Marina Facilities - Flagler County

Use Type	Marina Facility Type	Count	Wet Slips	Rental Slips	Marina Operations Slips	Transient Slips
Commercial	Boat Dealer/Repair/Storage	2	0	0	0	0
Commercial	Commercial Marina	2	80	68	0	12
Private	Condominium	4	45	0	0	0
Public	Other	1	22	0	0	0
Total		9	147	68	0	12

Source: FWC.

Note: Marina Operations Slips is the number of wet slips reserved for marina operations (including marina-owned rental and charter boats).

Table 28. Count of Marina Facilities by Water Access Type, Flagler County

Water Access	Count
Canal	4
Intracoastal Waterway	4
Lake	1
Total	9

Source: FWC

Table 29 provides an inventory of marina facilities with dry stack storage. Number of Racks (inside/outside) is the number of racks for boats in the inside of dry stack buildings/outside stacks.

Table 29. Marina Facilities with Drystack Storage, Flagler County

Marina Facility Type	Count	# of Racks (Inside)	# of Racks (Outside)
Commercial	4	2	2
Private	4	2	2
Public	1	0	1
Totals	9	4	5

Source: FWC

Figure 5. Marina Facilities by Use Type



Source: FWC Marine Databases

Inventory of Boat Ramps

An inventory of local boat ramps in Flagler County was conducted to identify ramps and available parking for vehicles and trailers. **Table 30** provides the results for all boat ramps within Flagler County and a breakdown of parking spaces available. An inventory of ramp type and parking available for ramps within 1 mile of the ICW is summarized in **Table 31**.

Table 30. Inventory of Boat Ramps for All of Flagler County

Use Type	Description: Ramp Use Type	Count	Trailer	Handicap Trailer	Vehicle	Handicap Vehicle
Gov't	Hand Launch Only	9	48	0	248	8
Gov't	Stand Alone Ramp	9	106	2	91	6
Totals		18	154	2	339	14

Use Type	Description: Ramp Use Type	Count	Trailer	Handicap Trailer	Vehicle	Handicap Vehicle
Commercial	Commercially Owned for Business Use Only	1	0	0	0	0
Gov't	Government Owned for Government Business Only	3	0	0	0	0
Private	Community Association for Residents Only	4	6	0	0	0
Private	Single Family Residence	5	0	0	0	0
Public	Commercially Owned for Restricted Public Use	2	0	0	0	0
Public	Government Owned for General Public Use	10	94	2	43	6
Public	Undetermined	2	0	0	0	0
Total		27	100	2	43	6

Source: FWC *hand launch dataset includes kayak launches

Table 31. Boat Ramps on Waterways on or connecting to ICW, Flagler County

Use Type	Description: Ramp Use Type	Count	Trailer	Handicap Trailer	Vehicle	Handicap Vehicle
Gov't	Hand Launch Only	8	48	0	245	8
Gov't	Stand Alone Ramp	5	84	2	63	6
Total		19	84	2	43	6

Source: TBG Work Product, FWC *hand launch dataset includes kayak launches

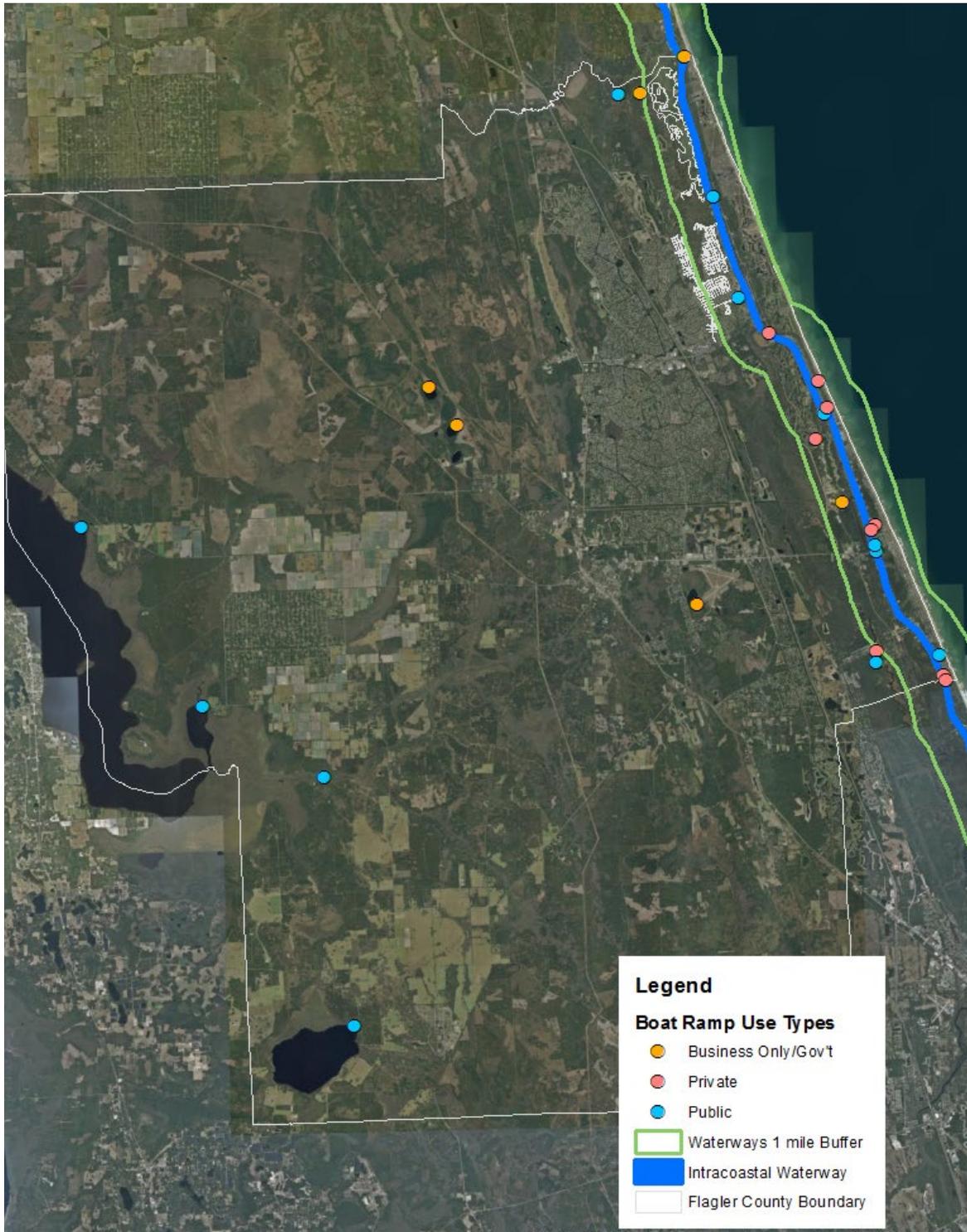
Table 32 shows an inventory of total ramp lanes for Boat Ramps either on Waterway or Connecting to Waterway.

Table 32. Total Ramp Lanes by Use Type and Distance to ICW, Flagler County

Use Type	Description: Ramp Use Type	Connecting to ICW	All of Flagler County
Public	Commercially Owned for Restricted Public Use	1	1
Public	Commercially Owned for Restricted Public Use	10	14
Total		11	15

Source: FWC Boat Ramp Database

Figure 6. Boat Ramp Access by Use Type



Source: FWC Boat Ramp Database

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