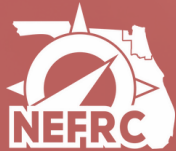


Northeast Florida Shrimping Industry Market Study



Prepared by the Northeast Florida Regional Council



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Introduction

Shrimping is a legacy industry in Northeast Florida that dates back to the late 1800s. Shrimping was and is a way of life for many residents, providing a steady source of income to small-business owners willing to work for a worthy catch. Over the past century, the shrimping industry has gone through a series of high and low points. Currently, the shrimping industry is at a crossroads in preserving shrimping as a way of life and reconciling the challenges the industry faces on multiple fronts. This study intends to provide a holistic overview of the shrimping industry, including its history, sustainability, current industry status, and input from community meetings. This study then provides recommendations to bolster the industry in the face of market challenges.

Shrimping History of Northeast Florida

Shrimp has been a staple food in the diets of coastal Americans for centuries. In the 1800s, shrimp was viewed as food only for poorer communities; however, the expansion of the railroad and ice manufacturing in the mid-nineteenth century allowed shrimpers to ship their catch to seafood markets across the country, like the Fulton Market in New York City, thus popularizing shrimp for the masses (“A History of the American Shrimping Industry,” 2013). Shrimp quickly became available across the country and became a status symbol in restaurants where dishes, such as shrimp cocktails, were served. As the industry grew, traditional dip nets were traded in for otter trawlers that catch an abundance of shrimp by trawling along the ocean floor (“A History of the American Shrimping Industry”).

The shrimping industry was built upon the wealth of knowledge from immigrants around the world who migrated to the United States. In Northeast Florida, prominent Italian and Greek immigrant families such as the Salvadors, Polis, and Versaggis spearheaded the industry in the region. At the turn of the century, shrimpers in Fernandina Beach were the first to use power boats to pull the highly effective otter trawl. Mike Salvador, a fisherman from Sicily, Italy, immigrated to the United States in the late 19th century to Fernandina Beach, Florida. Salvador is credited with bringing motorized shrimp boats to Fernandina Beach (Lyons, 2014). Integrating both technologies allowed shrimpers to capture more shrimp and search for shrimp in offshore waters (“A History of the American Shrimping Industry”, 2013).

Throughout the early 20th century, shrimping spread across Northeast Florida, including St. Augustine. The San Sebastian River flooded with shrimping boats lining up to unload their catch. Simultaneously, the city became a hub for boat building. The largest boat builder in St. Augustine, Diesel Engine Sales Company (DESCO), was founded in 1943 and built over 1700 trawlers by 1971 (“Florida-Style Shrimp Trawler,” n.d.). Alongside DESCO were several smaller trawler manufacturers, including St. Augustine Trawlers, Inc. By 1916, the St. Augustine Lighthouse & Maritime Museum reports that there were “32 raw shrimp houses, 10 canneries, and approximately 300 small boats pulling some type of shrimping net to meet the ever-growing demand of this bar-food turned restaurant specialty” (“St. Augustine Shrimping Heritage in the News”, 2007). As boats grew in size and length and refrigeration technologies improved, shrimpers could spend weeks on the water catching shrimp before unloading their catch. Although Flagler County was not a hub for shrimpers, the shrimp population thrives in the warm water of the coast of the county, making these waters ideal for shrimpers to catch shrimp.

During the mid-twentieth century, the shrimping industry boomed in Northeast Florida and the rest of the world. By the 1950s, shrimping docks had developed more in Fernandina Beach, Mayport Village in Jacksonville, and St. Augustine. The Beaches Museum reports that over 150 shrimping boats would unload at Mayport Village docks during this period (“Shrimping and Fishing in Mayport,” 2017). Gradually, imported shrimp began to take over U.S. markets due to their competitive price and the advancement of shrimp farming (Whitaker, 1973, p. 26). As shrimp farming became a predominant method of cultivating shrimp due to its high yield, commercial shrimping in the United States began to decline by the late 1990s.

Cultivating Community Character in Historic Working Waterfronts

Although the shrimping industry has been on the decline in Northeast Florida since the 1990s, the three main shrimping communities, Mayport Village, Fernandina Beach, and St. Augustine, are working to honor their community’s shrimping legacy while supporting a vision to develop thriving working waterfronts.

The Revitalization of the Mayport Village Working Waterfront

Mayport Village is Northeast Florida's most active shrimping community regarding pounds of shrimp landed annually. Mayport Village actively participates in revitalizing its working waterfront legacy through community organizations and projects. Most notably, the Mayport Waterfront Partnership, Ocearch, and the Florida Youth Maritime Training Academy are dedicated to seeing Mayport thrive as a modern working waterfront community that holds space for honoring its past.

The Mayport Waterfront Partnership was first organized in 1998, shortly after Mayport was designated as one of the first three Waterfronts Florida Communities. The Partnership’s Board of Directors is composed of community members, representatives from the fishing industry, and delegates from other stakeholders, including the U.S. Navy, National Park Service, Jacksonville University, and the Friends of the St. Johns River Ferry. The Partnership’s vision for Mayport rests on four pillars – commercial fishing, education and research, cultural heritage and history, and ecotourism.

Ocearch is a non-profit scientific and educational organization that has conducted 48 ocean expeditions to tag over 400 sea creatures (“About,” n.d.). Their innovative app allows members of the public to access their scientific data and learn more about the tagged animals, which also helps to increase public awareness of the threats faced by ocean life. Ocearch has entered into a research partnership with Jacksonville University’s Marine Science Research Institute. The M/V OCEARCH vessel is a floating laboratory and will dock at Mayport between expeditions.

The Florida Youth Maritime Training Academy is a 501(c)(3) non-profit organization dedicated to educating the next generation of maritime professionals through comprehensive training programs. It primarily serves disadvantaged and at-risk youth. By training skilled Merchant Seamen, the Academy continues Mayport’s legacy as a working waterfront community.

Nassau County's Isle of Eight Flags Shrimp Festival

Attracting over 130,000 visitors annually, the Isle of Eight Flags Shrimp Festival is an annual event hosted by Nassau County in Fernandina Beach. This event draws hundreds of thousands of people from Florida, Georgia, and across the country to celebrate Amelia Island's history and enjoy local seafood. This weekend-long event, hosted annually each May, hosts a variety of activities, including over 75 vendor booths, a pirate parade, and various contests and pageants (Isle of Eight Flags Shrimp Festival, n.d.).

The Isle of Eight Flags Shrimp Festival also hosts shrimping-related activities over the weekend. On the festival's last day, there is a Blessing of the Shrimping Fleet and Laying of the Wreath to pray for a good shrimping season. After this event, there is a shrimp boat decoration contest. Through these activities, Nassau County celebrates the past and present shrimping industry within the county.

St. Augustine's Nod to Shrimping History

In 2021, the City of St. Augustine named wild-caught shrimp as the official seafood of the City. The City Council named wild-caught shrimp as the official seafood because "the historic San Sebastian River hosted an important chapter in U.S. maritime history" (Gardner, 2021a). The same year, a group in St. Augustine raised \$50,000 to erect a monument honoring the families who spearheaded the modern-day shrimping industry in the City of St. Augustine. Today, this monument sits along the San Sebastian River for passersby to remember the history of the shrimping and boat-building industry of the city.

Current Industry Conditions

Shrimp Landings

The Florida Fish and Wildlife Conservation Commission collects data on shrimp landings in every county in Florida. The pounds of shrimp caught represent which county the shrimp were brought to land, rather than where the shrimp were caught. Duval, Nassau, and St. Johns Counties have dedicated dock space to unload catches, but Flagler County does not. Mayport Village in Duval County has one of the only shrimp packing facilities in Northeast Florida, Safe Harbor Seafood. Every year, the amount of shrimp brought to land depends on various factors, including the health of the shrimp population.

Table 1*Pounds of Shrimp Landed in Northeast Florida, 2015 - 2024*

Pounds of Shrimp Landed in Northeast Florida, 2015 - 2024				
<i>Year</i>	<i>Duval</i>	<i>Flagler</i>	<i>Nassau</i>	<i>St. Johns</i>
2015	3,641,765	-	1,115,993	420,804
2016	3,166,320	-	1,056,925	281,902
2017	4,596,686	5,205	1,378,300	353,983
2018	2,609,444	-	773,374	275,030
2019	5,217,164	285	1,112,012	1,060,474
2020	3,987,070	-	1,336,716	701,354
2021	4,263,253	58,181	1,302,364	842,647
2022	3,689,114	-	764,841	924,744
2023	3,338,102	24,900	497,068	540,258
2024	3,875,280	54,750	608,637	362,417

Note. Adapted from *Commercial Fisheries Landings Summary*, by Florida Fish and Wildlife Conservation Commission, 2025.

Economic Data

The average price of shrimp varies by species and market value annually. Below are the estimated values for the shrimp landed annually in Northeast Florida from 2015 to 2024.

Table 2*Average Annual Estimated Value of Shrimp Landings, 2015 - 2024*

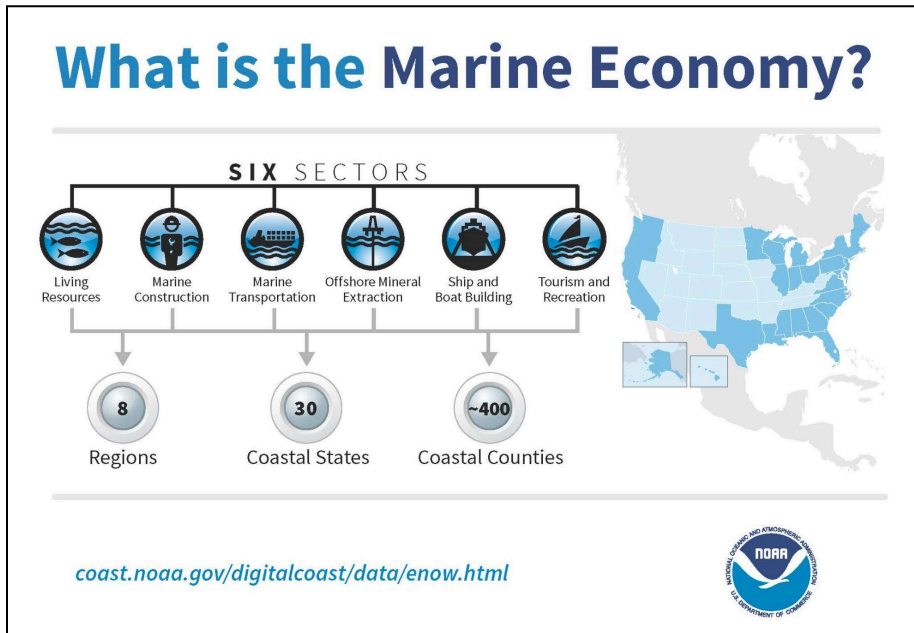
Average Annual Estimated Value of Shrimp Landings, 2015-2024	
<i>County</i>	<i>Estimated Value</i>
Duval	\$9,033,100.40
Flagler	\$25,884.10
Nassau	\$2,616,814.90
St. Johns	\$1,434,521.10

Note. Adapted from *Commercial Fisheries Landings Summary*, by Florida Fish and Wildlife Conservation Commission, 2025.

Employment Data

Florida has the largest ocean-based economy of all coastal states within the United States. The National Oceanic and Atmospheric Administration (NOAA) categorizes the Marine Economy into six sectors: Living Resources, Marine Construction, Marine Transportation, Offshore Mineral Extraction, Ship and Boat Building, and Tourism and Recreation. Shrimping and fishing generally fall under the Living Resources category, which “includes commercial

fishing, fish hatcheries, aquaculture, seafood processing, and seafood markets” (“ENOW Explorer,” 2025).



Note. From *ENOW Explorer*, by National Oceanic and Atmospheric Administration, 2025.

Duval County has the largest Marine Economy among the four counties in Northeast Florida. In the Living Resources sector, 299 people are employed, and 210 people are self-employed (“ENOW Explorer”, 2025). The average wage for an employee was \$24,171 in 2021 (“ENOW Explorer”). In Flagler, Nassau, and St. Johns Counties, the number of employees and average wage in the Living Resources sector is not noted due to its marginal size; however, self-employed employment numbers are reported. The following table displays the available employment data for the Living Resources sector in Northeast Florida. Less than 1% of each county’s population works in the shrimping and commercial fishing industry.

Table 3

ENOW Explorer Employment Data for the Living Resources Sector

ENOW Explorer Employment Data for the Living Resources Sector			
<i>County</i>	<i>Self-Employed</i>	<i>Employed</i>	<i>Average Annual Wage</i>
Duval County	210	299	\$24,171
Flagler County	25	-	-
Nassau County	44	-	-
St. Johns County	133	-	-

Note. Adapted from *ENOW Explorer*, by National Oceanic and Atmospheric Administration, 2025.

An Aging Workforce

As local shrimping declines, Northeast Florida is seeing an aging shrimping workforce. Shrimpers in Mayport Village reported little interest from younger generations in choosing shrimping as a career. The U.S. Bureau of Labor Statistics estimates that employed persons in the “fishing, hunting, and trapping industry” had a median age of 45 to 54 years old in 2022, compared to the median age of 42 years old in the general workforce (“Employed persons by detailed industry and age”, 2023; “Median age of the labor force, by sex, race, and ethnicity”, 2024).

Current Legislation

Florida’s shrimp fisheries are primarily regulated by the Florida Fish and Wildlife Conservation Commission (FWC), which enforces rules on gear specifications, closed seasons, catch limits, and licensing for both recreational and commercial shrimp harvesters (Florida Fish and Wildlife Conservation Commission [FWC], 2023). At the federal level, the Magnuson-Stevens Fishery Conservation and Management Act provides the legal framework for regulating shrimp fisheries in U.S. waters through the National Oceanic and Atmospheric Administration (NOAA) Fisheries, with oversight from regional fishery management councils such as the Gulf of Mexico Fishery Management Council and the South Atlantic Fishery Management Council (NOAA Fisheries, 2023a). These councils develop fishery management plans (FMPs) that include measures such as seasonal closures, bycatch reduction requirements, and mandatory use of turtle excluder devices (TEDs) in certain trawl fisheries (Gulf of Mexico Fishery Management Council [GMFMC], 2022).

Proposed federal legislation has focused on further strengthening bycatch reduction programs and enhancing habitat protection to support sustainable shrimp stocks. Meanwhile, state-level proposals aim to refine licensing requirements and protect nursery habitats in estuaries (FWC, 2023; NOAA Fisheries, 2023a). Additionally, research initiatives under the NOAA Southeast Fisheries Science Center’s Bycatch Reduction Engineering Program continue to advance the development of improved fishing gear and practices, ensuring the long-term conservation of shrimp populations and the habitats upon which they depend (NOAA Fisheries, 2023a).

In April 2025, President Trump signed an executive order to restore American seafood competitiveness. This executive order directs the Secretary of Commerce to reduce regulatory burdens and develop a seafood trade strategy to bolster domestic seafood production. The order also directs the National Marine Fisheries Service (NMFS) to update technology, provide exempted fishing permit programs, and modernize data collection (Exec. Order No. 14276, 2025). This comprehensive order intends to assist commercial fishermen by reducing barriers to fish and decreasing competition with imported products. This order reestablishes the administration’s dedication to restoring American seafood competitiveness after a similar executive order (13921) was signed by President Trump in 2020.

Recently, at the federal level, there have been several pieces of proposed legislation introduced to the 118th and 119th Congress, including the *Save our Shrimpers (SOS) Act*, *Destruction of Hazardous Imports Act*, *Laws Ensuring Safe Shrimp (LESS) Act*, and *National Seafood Supply Act*. The proposed bills aim to bolster the commercial fishing industry, including

expanding USDA aid to fishermen, increasing oversight on imported shrimp, and protecting working waterfronts. One of the most notable pieces of legislation, the *SOS Act*, was introduced to the 119th Congress in 2025 and proposes to “prohibit Federal funds from being made available to international financial institutions for the purposes of financing foreign shrimp farms, and for other purposes” (H.R. 2071, 2025). If this bill is passed, it will reduce aid to international shrimp farming operations and encourage national shrimp production. The *LESS Act* and *National Seafood Supply Act* did not move out of the introduction phase at the end of the 118th Congress. These acts will not become law unless reintroduced, routed, approved, and signed into law.

Market Challenges

Since the 1990s, the shrimping industry has faced numerous challenges, including market and land use competition, climatic changes, and a shrinking workforce. To begin to see how the industry needs to move forward, it is important to first understand the challenges the industry faces today.

Competition with Imported Shrimp

Imported shrimp has significantly impacted the shrimping industry in Northeast Florida. The influx of cheaper, farm-raised shrimp from overseas has saturated the market, driving down prices for locally caught shrimp. This price competition makes it difficult for local shrimpers to compete, as they face higher operational costs, including fuel and maintenance. Additionally, the increased availability of imported shrimp has led to a decline in demand for local shrimp, further straining the industry (Talton, 2023). Many local shrimpers struggle to maintain their businesses, with some being forced to dock their vessels due to unsustainable prices and high costs. The combination of these factors has created a challenging environment for the shrimping industry in Northeast Florida, threatening the livelihoods of many local shrimpers and the long-standing tradition of shrimping in the region.

Rising Diesel Fuel Costs

Rising fuel costs have significantly impacted the shrimping industry in Northeast Florida. Fuel is a major expense for shrimping vessels, and as fuel prices rise, the cost of operating these vessels increases, which can reduce profit margins for shrimpers (Powell, 2023). Higher fuel costs can force shrimpers to limit their time at sea to conserve fuel, leading to smaller catches and reduced income (Hughes, 2023). Additionally, shrimpers may need to travel further to find abundant shrimp populations, especially as environmental changes affect shrimp habitats, which increases fuel consumption and costs. Rising fuel costs combined with other economic pressures makes it difficult for local shrimpers to sustain their businesses.

Competition of Land Uses

The competition for land use in Northeast Florida has significantly impacted the shrimping industry. As the region continues to develop, there has been increased pressure on coastal areas, leading to habitat loss and environmental degradation. This has affected the availability of shrimp nursery areas and the overall health of the marine ecosystem.

The growing demand for waterfront property and recreational activities has also led to conflicts between commercial shrimpers and other user groups, such as recreational fishermen and tourism operators. These conflicts have resulted in stricter regulations and spatial closures to protect sensitive habitats and reduce user-group conflicts (Florida Fish and Wildlife Conservation Commission, 2019).

Lack of Workforce

The lack of workforce in Northeast Florida has significantly impacted the shrimping industry. The industry relies heavily on labor for tasks such as shrimping, processing, and distribution. With a shortage of workers, many shrimping businesses are struggling to maintain their operations efficiently. This labor shortage has led to several challenges. Reduced production is a major issue; with fewer workers, the amount of shrimp that can be harvested and processed has decreased, leading to lower overall production. Increased costs are another problem; businesses are forced to offer higher wages and incentives to attract workers, which increases operational costs. Operational delays also occur due to insufficient labor, causing delays in shrimping schedules and distribution, which affects the supply chain. Finally, small businesses are particularly vulnerable to workforce shortages, as they may not have the resources to compete with larger companies for labor (Gardner, 2021b).

Safety Concerns

Commercial fishing is one of the most dangerous occupations in the United States in terms of fatalities (Centers for Disease Control and Prevention, 2024). Commercial fishermen experience a fatality rate of 114 deaths per 100,000 full-time equivalent (FTE) employees compared to an average of 4 deaths per 100,000 FTE employees. Common causes of death among commercial fishermen are “vessel disasters, falls overboard, and a variety of gear and equipment onboard” (Centers for Disease Control and Prevention).

Ocean Acidification Impacts on Shrimp Populations

Ocean acidification is the process by which seawater becomes more acidic as it absorbs excess carbon dioxide (CO₂) from the atmosphere, leading to reduced pH levels and a decrease in carbonate ion concentration (Intergovernmental Panel on Climate Change [IPCC], 2021). This process is rapidly occurring in all of the world’s oceans today (NOAA Ocean Acidification Program, 2022).

Crustaceans, including shrimp, rely on calcium carbonate to form their exoskeletons. As ocean acidification progresses, carbonate ions become less available, potentially hindering the ability of shrimp to calcify and maintain strong shells (Kroeker et al., 2013). This can lead to thinner exoskeletons, making shrimp more vulnerable to predation, disease, and physical damage (NOAA Ocean Acidification Program, 2022). Although many studies on crustaceans have focused on crabs, lobsters, and oysters, emerging research suggests that shrimp may also experience reduced growth rates, altered physiology, and compromised immune function under increasingly acidic conditions (Kroeker et al., 2013).

Additionally, ocean acidification can negatively influence the availability and nutritional quality of shrimp food sources, such as planktonic organisms and detrital material. If the base of

the marine food web is disrupted by changing pH levels, shrimp populations could face indirect stressors, including reduced prey abundance and shifts in ecosystem dynamics (IPCC, 2021). While the direct, long-term impacts on wild shrimp populations are still being studied, there is consensus among scientists that persistent acidification, combined with other climate stressors like warming temperatures, could compound pressures on shrimp stocks over time (NOAA Ocean Acidification Program, 2022).

Impact of Ocean Deoxygenation

Ocean deoxygenation is the reduction of dissolved oxygen (DO) concentrations in marine environments. It is driven primarily by rising sea temperatures (which lower oxygen solubility in water) and eutrophication (nutrient runoff leading to algae blooms that consume oxygen when they decompose) (Diaz & Rosenberg, 2008). Across the world, the ocean has lost approximately 2% of its dissolved oxygen, affecting many marine organisms, including shrimp (“Ocean Deoxygenation, n.d.).

Shrimp rely on sufficient levels of dissolved oxygen to support respiration, growth, and reproductive processes. In waters where DO levels plummet—often referred to as “dead zones” or hypoxic zones—shrimp can face severe stress or mortality if they cannot relocate to oxygen-rich habitats (NOAA, 2023). Chronic exposure to marginal oxygen levels can reduce feeding and slow growth, as shrimp divert energy away from reproduction and towards basic survival (Diaz & Rosenberg, 2008).

Moreover, hypoxic events can force shrimp to migrate outside of their usual ranges, disrupting seasonal spawning cycles and nursery habitats (GMFMC, 2022). Some research indicates that when dissolved oxygen levels fall below 2 mg/L, shrimp and other crustaceans may become lethargic, making them more susceptible to predation and disease (Diaz & Rosenberg, 2008). Thus, widespread or prolonged hypoxic conditions can undermine shrimp population stability and diminish the long-term yields of commercial fisheries reliant on healthy shrimp stocks.

Habitat Changes in the St. Johns River

The Jacksonville Harbor Deepening Project, completed in May 2022, aimed to increase the depth of the St. Johns River shipping channel from 40 feet to 47 feet over an 11-mile stretch near Blount Island. This \$420 million project was designed to accommodate larger cargo vessels and included the construction of a vessel turning basin to facilitate improved navigation. While the project has significant economic benefits, environmental concerns have been raised, particularly those affecting local aquatic ecosystems and shrimp populations.

One major concern is the potential for increased salinity levels. Deepening the channel allows more saltwater from the ocean to penetrate further upstream. Elevated salinity levels can degrade critical habitats such as wetlands and submerged aquatic vegetation, which are essential as nursery areas for juvenile shrimp. The loss of these habitats could adversely affect shrimp populations by reducing their breeding and feeding grounds.

Altering the river's depth and flow dynamics can also impact water quality parameters, including oxygen levels, turbidity, and temperature. These changes disrupt the river's ecological

balance, potentially leading to a decline in shrimp populations and other aquatic life. Environmental advocates, including the St. Johns Riverkeeper, have voiced concerns that these effects could be long-lasting and difficult to reverse without appropriate mitigation efforts.

To address these challenges, ongoing environmental monitoring and the implementation of mitigation measures, such as restoring wetlands and other estuarine adjacent areas and using salinity barriers, are essential. Balancing economic development with environmental preservation is critical to ensuring the health of the St. Johns River and its aquatic species.

Decreasing Dock Space in Mayport Village

Over 15 years ago, the City of Jacksonville eliminated almost 1000 feet of commercial dock space in Mayport Village due to a proposed cruise ship terminal in the Village. Due to extensive activism from residents of Mayport and proponents of the character of the Village, this proposal was never completed. Afterward, the Jacksonville Port Authority Board sold a restrictive easement over the city-owned waterfront property, which limited the type of development in this City-owned property. This easement was put in place due to its proximity to the Mayport Naval Station. The easement sets a height limit of 52 feet and limits the dwelling unit per acre to five. The easement also restricts cruise ship passengers in this area to 600, which thus restricts the development of a commercial cruise ship terminal in Mayport.

The Mayport Waterfront Partnership, the Northeast Florida Regional Council, and the City of Jacksonville determined that the best path forward would be to allocate future funding from the City of Jacksonville's Comprehensive Improvement Plan (CIP) for new commercial fishing and recreational docks. In 2024, the City of Jacksonville's Public Works Department decided to collaboratively work together to agree on a new dock design that prioritizes the needs of commercial fishing people ("MWP's Next Steps & Updates", n.d.).

Over the past nine years, the removal of docks has significantly impacted Jacksonville's shrimping industry. The docks serve as critical infrastructure for shrimpers, providing essential facilities for unloading, processing, and maintaining their vessels. When docks are removed or damaged, it disrupts these operations and can lead to several challenges:

Operational Disruptions: Without access to docks, shrimpers have difficulty unloading their catch, which can lead to delays and potential spoilage of the shrimp.

Increased Costs: Shrimpers may need to travel further to find alternative docking facilities, which will increase fuel and labor costs.

Reduced Capacity: The lack of adequate docking space can limit the number of vessels that can operate simultaneously, reducing the shrimping industry's overall capacity (Ruviez, 2024).

Impact of Hurricanes

The shrimping industry supports many local jobs and businesses. Disruptions such as hurricanes can have a ripple effect on the local economy, affecting not only shrimpers but also related industries such as seafood processing and distribution. For example, during Hurricane

Irma, shrimp vessels from the Jacksonville area had to relocate to safer docking spaces, highlighting the vulnerability of the industry to hurricane-related disruptions (Dixon, 2017).

Analysis of Sustainable Shrimping Practices

Ideal Shrimp Habitat Conditions

East Coast shrimp, which include species such as white shrimp (*Litopenaeus setiferus*), brown shrimp (*Farfantepenaeus aztecus*), and pink shrimp (*Farfantepenaeus duorarum*), thrive in warm, shallow estuarine and nearshore coastal waters that offer abundant food sources and protective vegetation (National Oceanic and Atmospheric Administration [NOAA] Fisheries, 2023b). These estuaries—often characterized by seagrass beds and salt marshes—provide critical nursery habitats rich in nutrients, allowing shrimp to feed on plankton, detritus, and small invertebrates while finding shelter from predators (Breuer, 2000). The brackish mix of freshwater inflow from rivers and the saline ocean environment helps maintain optimal salinity levels, which is crucial for juvenile shrimp survival and growth (Marine Stewardship Council [MSC], 2019). Protecting and restoring these coastal wetlands and estuaries is essential, as pollution, habitat destruction, and climate-driven changes in salinity can significantly impact shrimp populations and the fisheries that depend on them (NOAA Fisheries, 2023b).

Determining a Sustainable Yield of Wild-Caught Shrimp

Sustainable capacity, often quantified as the Maximum Sustainable Yield (MSY), is determined through robust stock assessments and scientific modeling that account for species-specific biological traits, environmental conditions, and fishing efforts (NOAA Fisheries, 2023b). Because shrimp in regions like the Gulf of Mexico and the South Atlantic generally have short life cycles—averaging one to two years—stocks can rebound relatively quickly under favorable conditions and responsible management (Gulf of Mexico Fishery Management Council [GMFMC], 2022).

Brown, white, and pink shrimp each exhibit high fecundity, producing hundreds of thousands of eggs per female in a single spawning event (Pérez-Farfante & Kensley, 1997). Such prolific reproduction allows shrimp populations to expand swiftly when environmental parameters (temperature, salinity, and food availability) are suitable. Seasonal movements between estuaries (where juveniles grow) and offshore waters (where adults spawn) help distribute shrimp across diverse habitats, reducing localized stress and promoting long-term resilience (NOAA Fisheries, 2023b).

Fishery managers use a combination of measures to preserve shrimp populations at or near sustainable levels. These may include:

- **Catch limits and quotas**: Setting total allowable catch (TAC) or harvest quotas based on stock assessments.
- **Seasonal closures**: Protecting shrimp during peak spawning or juvenile development periods.
- **Gear restrictions**: Requiring bycatch reduction devices (BRDs) and turtle excluder devices (TEDs) to minimize non-target capture and habitat damage.
- **Monitoring and data collection**: Regularly collecting and analyzing catch data to update management plans as needed (GMFMC, 2022).

When these strategies are effectively implemented, shrimp stocks can maintain stable or even rising trends despite being heavily fished, reaffirming that robust scientific data and adaptive management are critical for sustainable fisheries (NOAA Fisheries, 2023b).

State Regulations on the Amount of Shrimp an Area Can Catch

In Florida, shrimp fisheries are overseen by the Florida Fish and Wildlife Conservation Commission (FWC), which sets regulations on both recreational and commercial shrimp harvests to protect stocks and maintain healthy ecosystems. While these rules apply statewide, certain provisions and local ordinances specifically target Northeast Florida—an area recognized for important shrimping communities in coastal counties such as Nassau, Duval, St. Johns, and Flagler (FWC, 2023).

Commercial operations are subject to licensing requirements, gear restrictions (including net mesh sizes and bycatch reduction devices), and area/seasonal closures meant to protect shrimp during peak spawning or juvenile development periods. For example, seasonal closures may be enforced in or near estuarine systems along the lower St. Johns River to help ensure reproductive success for future generations. By tailoring regulations to regional environmental conditions and habitat characteristics, FWC aims to maintain stable shrimp stocks in Northeast Florida while supporting the economic interests of local fishing communities (FWC, 2023).

All state-level regulations interact with federal mandates under the Magnuson-Stevens Fishery Conservation and Management Act, administered through NOAA Fisheries and regional councils (NOAA Fisheries, 2023a). This multi-layered regulatory approach helps maintain robust shrimp stocks, provide economic viability for fishing communities, and safeguard critical estuarine and coastal habitats upon which shrimp depend.

Shrimp Farming as a Sustainable Alternative

The wild-caught shrimping industry in Northeast Florida is still prevalent; however, environmental concerns such as bycatch and trawling along sensitive estuaries raise concerns about the industry's sustainability. To provide local food security and reduce the environmental impacts of shrimping, some farmers in the United States are turning towards shrimp farming. Shrimp farming on land is a viable mechanism for reducing the environmental impacts of shrimping and reducing the competition for dock space on high-priced waterfront property. Farmers can raise a sustainable, local supply of shrimp by producing shrimp on locally owned shrimp farms, opening up a niche industry that attracts socially conscious consumers and spurs economic development across the Northeast Florida region.

One family in Missouri is spearheading a movement in the Midwest to raise seafood on land. Triple J Farms runs an aquaponic farm that raises over 5,000 pounds of Pacific whiteleg shrimp annually (Halloran, 2023). Triple J Farms relies on a shrimp hatchery in Florida to buy young 10-day-old shrimp to raise through adulthood. This farm is an example of a small, family-owned business that was able to capitalize on the market gap of fresh, locally sourced seafood. As an indirect benefit, shrimp from Triple J Farms have less of an environmental impact compared to wild-caught shrimp. By selling shrimp locally, Triple J Farms reduces shipping costs and fossil fuel use.

In southwest Florida, Sun Shrimp, established in 2013, is one of the largest shrimp farm operations in the United States (About Us, n.d.). This shrimp farm employs over 100 people and provides livable wages to each employee. Working on a farm poses fewer safety concerns than commercial fishing, which creates an inviting atmosphere for the workforce. Sun Shrimp is a strong example of a thriving shrimp farming business that provides high-paying jobs while simultaneously producing locally sourced food that is raised and consumed in the United States.

Summary of Community Input

After over a century of commercial shrimping, three communities still have active shrimping infrastructure and shrimpers in Northeast Florida: Fernandina Beach, Mayport, and St. Augustine. To gain insight into this industry and build relationships with shrimping stakeholders, the Northeast Florida Regional Council (NEFRC) hosted seven community meetings throughout the development of the market study. First, the NEFRC hosted a project kickoff meeting in Mayport. Then, the NEFRC hosted four Shrimping Industry Listening Sessions to identify the strengths, weaknesses, opportunities, and threats of the shrimping industry today. To wrap up the project, the NEFRC hosted a virtual meeting to share the draft recommendations from the market study. Additionally, the NEFRC hosted a Community Asset Inventory Meeting to connect local shrimping stakeholders with local and state experts. The following section describes input received at the four Listening Sessions, as feedback from these meetings helped the NEFRC define relevant recommendations to assist the industry.

Listening Session 1: Fernandina Beach

NEFRC staff, in partnership with the City of Fernandina Beach, hosted the first Shrimping Industry Listening Session on February 24th, 2025, at Fernandina Beach City Hall. There were approximately 25 attendees at this meeting. The discussion at this meeting revolved around ideas of community pride for developing the shrimping industry over a century ago while acknowledging the many challenges of the industry today.

The group sought guidance on branding and marketing locally caught shrimp, reducing imported shrimp, and ensuring more restaurants sell wild-caught shrimp. The group also discussed how to support and expand the shrimping industry and periphery industries to ensure the industry’s long-term success. Identifying solutions to share the industry’s history is important to the Fernandina Beach community. The group recognized that collaboration and community will be the key to preserving this industry.

AMELIA ISLAND

Bring the boats back



PHOTO COURTESY AMELIA ISLAND MUSEUM OF HISTORY

This historic photo was taken from the water, showing three shrimp trawlers tied up at wharves on the Amelia River north of where the marina is now. A processing or storage building is in the background, and a large rack of lumber behind that. Local residents and business people believe Fernandina Beach can resurrect the local shrimping industry, and are organizing with the help of the Northeast Florida Regional Council.

Locals hope to revive shrimping in Fernandina Beach

JULIA ROBERTS
News-Leader

Fernandina Beach is often referred to as the birthplace of the modern shrimping industry. Despite the history of Fernandina, there are few boats on the Amelia River waterfront bringing in shrimp. Can the industry make a comeback locally?

That was the question when the Northeast Florida Regional Council spoke in Fernandina Beach City Hall Monday. Roughly 30 people attended the meeting, which was led by Cassidy Taylor, Post Disaster Economic Recovery coordinator for NEFRC.

“We need recommendations ... to help guide the shrimp industry forward,” Taylor said, explaining NEFRC received a Community Planning Technical Assistance grant from the state to conduct a study that will provide recom-

mendations to support the expansion of small shrimping businesses, encourage the use of market-friendly and sustainable shrimping practices, cultivate a sense of community character in historic shrimping districts and ultimately strengthen the regional food economy.

While the shrimping industry grew during the 20th century thanks to power boats, trawling and refrigeration, commercial shrimping has been on the decline locally, due to influx of imported shrimp. Data shows the amount of shrimp “landed,” or unloaded in the counties served by NEFRC since 2015. Nassau County is second to Duval, with a high of 1,378,300 pounds of shrimp brought ashore in 2017. However, that total declined from more than a million pounds in 2021 to 764,841 pounds in 2022. The total for 2024 was 608,637. The estimated

BOAIS Continued on 8A

Listening Session 2: Mayport

In collaboration with the Mayport Waterfront Partnership, the NEFRC hosted the Shrimping Industry Listening Session on February 25th, 2025. There were approximately 15 attendees, including local shrimpers, Mayport Waterfront Partnership members, and Mayport Lighthouse Association members. The discussion focused on the hardships that shrimpers face today while identifying potential solutions that could benefit the industry, including the construction of new docks in Mayport.

During this meeting, participants praised the quality and taste of “Mayport Shrimp.” Local shrimpers are looking forward to the new docks being built in Mayport and feel that there are new opportunities for shrimpers as these docks are built, including negotiating the cost of renting a dock slip and building an additional shrimp packing house in Mayport. The shrimpers discussed opportunities for commercial fishermen to band together in an alliance to support multiple initiatives. The group agreed that educating elected officials on the benefits of working waterfronts, as well as advocating for legislative changes, is critical for ensuring the long-term success of the industry.

Listening Session 3: St. Augustine

The Shrimping Industry Listening Session in St. Augustine took place on March 18th, 2025 with the support of the City of St. Augustine. This meeting had a smaller turnout of four people; however, the group had a robust discussion about the shrimping industry in St. Augustine. Among the attendees was a resident from a historic shrimping family, a person with associations with the St. Augustine docks, a local expert on food systems and resiliency, and the St. Johns Chamber of Commerce. The group noted that the shrimping industry is small, but local and state support for the industry may revitalize shrimping in St. Augustine.

Meeting participants discussed potential marketing solutions for locally-caught shrimp, including education for residents and tourists alike about local shrimp and the community’s rich history involving the shrimping industry. The group was also interested in exploring opportunities for the shrimping industry to be classified as an agricultural product, so shrimpers can get assistance and recognition from the state for supporting the state’s food system. The St. Johns County Chamber of Commerce brought up the idea of connecting the county’s diesel workforce development program with shrimpers in need of boat repairs.

Listening Session 4: Virtual

On April 21st, the NEFRC hosted an all-county virtual Shrimping Industry Listening Session. This meeting has attendees from past meetings as well as new stakeholders in the shrimping industry who had not yet participated in a listening session. The discussion at this meeting emphasized opportunities for the shrimping industry, including developing a shrimping cooperative model and trademarking a logo for shrimp landed in Northeast Florida. Through marketing and branding at the co-op level, participants noted that creating recognizable selling points for locally caught shrimp will be key for the industry.

Recommendations for the Shrimping Industry

The NEFRC developed recommendations for the shrimping industry through a comprehensive process that combined community insight with extensive research. By engaging directly with stakeholders in the shrimping industry, the NEFRC gained a deep understanding of the industry's challenges and opportunities. The following recommendations reflect the needs of those most impacted while promoting a thriving shrimping industry for the future.

Create an Agriculture Cooperative

In broad terms, an agricultural cooperative, or co-op, is an independent entity that works on behalf of agricultural producers, and the producers have a role in managing it. Many of the subsequent recommendations in this report would be easier to implement if there was an organization responsible for managing them. Co-ops are often responsible for marketing agricultural products, food processing, and other activities which benefit from economies of scale, specialized skills, or expensive equipment.

Many meeting participants indicated that shrimp boat operators need to have a voice in activities that affect them. A co-op could provide such a voice and help ensure that projects meant to benefit the industry actually do.

An agricultural co-op may be legally organized under Chapter 618 of the Florida Statutes. This statute specifically authorizes co-ops for “aquacultural” and “aquatic” products in addition to more commonly thought of as forms of agriculture. Legally, co-ops can be empowered to own property, manage food processing, do marketing, borrow and lend money, receive grants, and many other business activities.

As with any business enterprise, there may be a steep learning curve for some of these activities, and others may require high levels of investment. A co-op could begin by working on marketing and brand management activities to develop experience and credibility with boat operators and other stakeholders, and then expand into other activities, such as workforce development and education.

Due to the small size of the industry, and the common issues faced by shrimp boat operators across the region, we recommend that a co-op accept membership from any boat operator based in Nassau, Duval, St. Johns, or Flagler counties.

If the City of Jacksonville issues a Request for Proposals (RFP) to manage the new Mayport docks, that RFP should be written so that a co-op may be eligible to respond. Additionally, a co-op could assist shrimpers with collecting tax documents, navigating regulations, and providing assistance to shrimpers with fuel and other tax exemptions.

Trademark a Unique Logo

Imported shrimp is the main competitor of wild-caught, local shrimp due to its cheaper price and high quantity in the United States. Currently, imported shrimp comprises over 90% of shrimp sold in the United States. Recent shrimp genetic testing from the Southern Shrimp

Alliance has uncovered deceptive marketing practices of imported shrimp being sold as “local” and “wild-caught” shrimp. To compete, local shrimpers need to define a recognizable brand to market themselves as offering an authentic, high-quality fresh product with a local connection. One way to accomplish this is through registering a trademark through the United States Patent and Trademark Office (USPTO) and allowing only certified restaurants and retailers to utilize the logo.

According to the United States Patent and Trademark Office (USPTO), a trademark can identify unique goods and services while providing legal protections. Organizations can register trademarks with the USPTO to provide county-wide protection on a unique brand. Trademark owners are responsible for maintaining the use of their trademark, meaning that only groups with explicit permission may utilize a trademark logo. If an organization in Northeast Florida owns a trademark logo, this organization can allow restaurants and stores to utilize this logo, proving the authenticity of locally caught shrimp to customers.

In Southeast Georgia, shrimpers recognized their need to distinguish themselves as a local brand of high-quality, fresh, and local seafood. In 2004, the longstanding Georgia Shrimp Association developed the Wild Georgia Shrimp marketing program. This program utilizes a trademark logo, and local restaurants can use this logo and brand name when selling fresh, wild-caught Georgia shrimp. Because the logo is trademarked, consumers can feel assured that they are eating true, locally sourced seafood when they see it at a market or restaurant.



Note. From *Georgia Shrimp Association*, by Georgia Shrimp Association, n.d.

The Georgia Shrimp Association details that “with the cooperation of our shrimp boats, unloading facilities, processing plants and distributors, we were able to produce, market and distribute a quality product” (Georgia Shrimp Association, n.d.). The Georgia Shrimp Association lists certified shrimp processors, food distributors, and restaurant suppliers that are allowed to use the trademark logo, as they meet the requirement for providing wild-caught Georgia shrimp. The one certified shrimp processor in Georgia, Anchored Shrimp Company, provides additional transparency by listing the restaurants, markets, and food trucks that directly buy from the company weekly. This logo is maintained by an organizing body, the Georgia Shrimp Association, who provide monthly updates to the list of certified restaurants and markets.

A similar process can take place in Northeast Florida by following the steps listed to create and register a trademarked logo.

Step 1: Identify a project champion. The process of registering, maintaining, and distributing the trademark is a multi-year commitment, so identifying an organization that will carry this project forward is critical. Recommended partners include the Mayport Waterfront

Partnership or Amelia Island Convention and Visitors Bureau. The Mayport Waterfront Partnership is a longstanding organization that maintains various programs for shrimpers, while the Amelia Island Convention and Visitors Bureau currently maintains various trademarks and may be familiar with the process. An agricultural cooperative could also hold the trademark.

Step 2: Define the brand. Local shrimping stakeholders will need to agree upon a common brand. Some suggestions include “Mayport Shrimp” or “Certified Northeast Florida Shrimp”. The designated organization can work with a graphic designer to create a logo.

Step 3: Register the logo with the United States Patent and Trademark Office. Registering a trademark in the United States typically takes 12 to 18 months. The USPTO outlines a fee schedule, which states that the minimum fee for filing an application is \$350. Depending on the filing organization’s expertise, an attorney may be necessary to file the paperwork correctly.

Step 4: Maintaining the logo. Once the logo is a registered trademark, the organization must maintain and distribute the logo. Every ten years, a logo must be recertified through the USPTO. The owner of the trademark should begin to catalog restaurants and shrimp distributors selling only locally caught shrimp. With this inventory, the organization can offer the use of the logo to these businesses for them to advertise on their menus and websites. Over time, this will build trust with consumers by gaining reassurance that the shrimp they are consuming is locally sourced. Additionally, this brand will elevate local Northeast Florida shrimp as a desirable, premium product.

Collaborate with Workforce Development Programs

Local shrimpers report that fewer and fewer people are working on shrimping boats, building boats, or repairing them. This combination of an aging workforce and boat fleet poses a risk to the continuation of the shrimping industry. By partnering with various workforce development groups across the region, Northeast Florida can reinvigorate the shrimping workforce. Northeast Florida offers a range of workforce development opportunities tailored to the shrimping industry, leveraging local educational institutions and specialized training programs.

The region benefits from collaborations between K-12 schools, technical colleges, and universities, ensuring a robust talent pipeline. One example is the St. Johns River State College’s Engineering Technology program that prepares students in machinery mechanics. A potential internship opportunity could be sought for students to provide shrimping boat engine maintenance for course credit.

Career Source Northeast Florida has supported additional programs such as Quick Response Training (QRT) and Incumbent Worker Training (IWT) designed to upskill workers and meet the evolving needs of the industry, including the shrimping industry. Initiatives like the Talent Advancement Network focus on creating a stronger talent pipeline by leveraging existing educational systems and industry strengths. Additionally, training with BAE Systems in advanced dry dock procedures has been supported. Opportunities are there, but a shrimping industry advocate could further lobby for training to be tailored to support the shrimping industry.

In parallel, the non-profit Florida Youth Maritime Training Academy offers training programs for at-risk youth in Mayport Village, concluding with certification by the Coast Guard as Able Seaman. The program currently trains about 30 students a year and has a 75% placement rate within the industry. The Florida Youth Maritime Training Academy is looking into opportunities for young people to get involved in the industry through boat building and low start-up cost options, such as shrimp trapping.

The City of Jacksonville runs the Veterans Resource and Integration Center, a point of entry for Veterans and transitioning military to get assistance with resume preparation and employment opportunities. This could be an opportunity for veterans familiar with maritime work looking to transition into any aspect of the shrimping industry.

These efforts collectively enhance the workforce's readiness and adaptability, supporting the growth and sustainability of the shrimping industry in Northeast Florida.

Develop Non-Traditional Partnerships

Forming non-traditional partnerships with various expertise and skill sets can amplify the voices of the shrimping community. The NEFRC heard at community engagement meetings that shrimpers are facing issues on multiple fronts, including branding, operations, and workforce development. By engaging in partnerships with groups with the proper expertise, the shrimping community can combat many of the issues they face. If a co-op was developed, the co-op could cultivate many of these relationships.

Branding and marketing is an important aspect of selling Northeast Florida shrimp as a unique product. Groups such as chambers of commerce, tourist development councils, and convention and visitors bureaus have the resources to market shrimp. In Jacksonville and Fernandina Beach, “shrimp trails” are a unique advertising mechanism to promote shrimp. There are opportunities for partnerships with Jacksonville’s Jumbo Shrimp minor league baseball team to host more shrimp-related events and serve locally caught shrimp.

Northeast Florida played a critical role in developing the modern-day shrimping industry. Currently, museums, such as the Amelia Island Museum of History and the St. Augustine Lighthouse Museum, feature exhibits on the shrimping industry. There are opportunities for partnerships with other historical groups, such as the Mayport Lighthouse Association or southeast Georgia museums to educate the public on this industry’s history in the region by sharing resources or having rotating exhibits. Additionally, these museums can work with school districts to provide educational material or field trip opportunities to educate the next generation about the industry.

As the new shrimping docks in Jacksonville are constructed, there are opportunities for shrimpers to partner with various city departments to receive resources necessary for running shrimping boats. For example, the City of Jacksonville could develop a program to allow shrimpers to purchase diesel at an at-cost or low-cost rate through the City’s Fleet Division. Creative solutions to support the shrimping industry will be paramount for the industry to thrive moving forward.

Improve Public Outreach

Over the past 20 years, Northeast Florida has seen a huge population boom, with many new residents calling Northeast Florida home. New residents may not know the region's deeply rooted history in shrimping, high quality of locally caught shrimp, or the importance of the industry to the economy. Public education about shrimping is paramount to make more residents and visitors aware of the industry and to protect it for generations to come. Shrimping stakeholders should seek to educate a variety of groups, including elected officials and legislators, the youth, and environmentalists. Each group of people requires a unique approach.

1. Outreach to Elected Officials and Legislators

Elected officials and policymakers play a pivotal role in protecting the shrimping industry through favorable policies, such as maintaining industrial waterfront zoning and taxation policy. Outreach to this audience should inform them of the industry's economic impact, cultural significance, and constituent support, while offering experiences that connect them directly with the industry.

Stakeholders can organize "Shrimping Industry Day," inviting officials and legislators to working waterfront tours, live catch demonstrations, sustainable practices exhibits (e.g., turtle-excluder devices), and local shrimp tastings. This firsthand exposure emphasizes the industry's economic and cultural value and the necessity of preserving industrial waterfront zoning. Regularly involve legislators as honorary chairs at events, bolstering their public profile and linking them to industry advocacy.

A co-op or group of shrimping stakeholders can establish a group of legislative advocates equipped with robust talking points, NOAA sustainability data, and citizen testimonials. Encourage their participation in public forums to build public trust and advocacy. Additionally, this group can produce infographics and reports highlighting job creation, tax revenue, and tourism impacts. Stakeholders can seek proclamations (e.g., "Local Shrimp Week") to raise awareness and legislative support for the industry.

2. Outreach to Youth

Engaging young people is essential to preserve the shrimping heritage for future generations and to spark interest in maritime careers. Outreach to youth should be interactive, educational, and fun – connecting local history and environmental science with hands-on experiences. By integrating the shrimp industry's story into schools and youth activities, we ensure that the next generation appreciates the value of locally sourced seafood and becomes advocates for its preservation.

Collaborate with local schools in Nassau, Duval, and St. Johns Counties to integrate shrimping history and science into state-standard-aligned curricula, including ready-made teaching resources such as videos, historical photos, and historical artifacts. Arrange interactive field trips to local docks (e.g., Safe Harbor Seafood), enabling students to tour boats, handle gear, and learn catch-to-plate processes. Educational boat rides can provide direct estuary and wildlife observation. Enhance existing events like the Isle of Eight Flags Shrimp Festival with youth-focused interactive booths, touch tanks, and turtle excluder device demonstrations

3. Outreach to Environmentalists and Conservation-Minded Public

Environmentalists are important stakeholders who can either be allies or critics of the shrimping industry. In Northeast Florida, many conservationists focus on coastal ecosystem health, sustainable seafood, and smart development. Outreach to this audience should highlight the shrimping industry's sustainable practices, align the industry's survival with environmental goals, and build partnerships that demonstrate a shared commitment to stewardship. By finding common ground, such as protecting the St. Johns River and estuaries that both shrimp and wildlife depend on, the coalition can turn environmental advocates into champions for local shrimp.

Host collaborative events engaging shrimpers and environmentalists together, showcasing mutual interest in healthy ecosystems and preserving the coast against development while highlighting the steps shrimpers can take to become more environmentally conscious. Develop targeted campaigns emphasizing local shrimp's lower carbon footprint and sustainability advantages over imported seafood. Frame advocacy around shared goals of sustainable coasts and healthy communities.

Redefine Relationship with Government

Local shrimpers or cooperatives have the potential to redefine the shrimping industry's relationship with the government. Currently, the shrimping industry is heavily regulated and monitored due to its perception as an extractor of ocean resources. However, if the industry were recognized primarily as a food producer, this relationship could shift from regulatory to promotional, akin to the beef industry. This change in narrative could align the shrimping industry more closely with government departments focusing on industry promotion and expansion, such as the United States Department of Agriculture.

Include Agriculture & Commercial Fishing in Economic Development & Tourism Development Decisions

City and County economic development efforts typically focus on attracting new, high-wage manufacturing and office jobs. These are significant efforts, but other opportunities exist in cultivation industries. Cultivation industries (agriculture and commercial fishing) also benefit the region in less noticeable ways, by maintaining community character, providing resiliency in employment, and improving food security. Similarly, local cultivation industries can contribute to tourism development by offering unique, authentic experiences rooted in the region's history. Cities and Counties should examine their economic and tourism development policies to ensure that they allow for support of innovative local cultivation projects.

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Appendix A: Case Studies on Market Opportunities

Maine Lobster Marketing Collaborative

One of the challenges the shrimpers in Northeast Florida have encountered is the ease with which shrimp can be labeled ‘Mayport Shrimp’. One way to ensure the proper branding of Mayport Shrimp is to look at potentially utilizing state statutes.

In Maine, the Lobster Collaborative is established by Chapter 6455 of the Maine Statutes. As per the Statute, the collaborative shall draw upon the expertise of the Maine lobster industry and established private marketing firms to identify market areas that will provide the greatest return on investment made by lobster license holders and undertake those media or promotional efforts that represent the most cost-effective use of a limited promotional budget. The collaboration has the following powers: undertake promotional marketing programs in cooperation with the lobster industry, promote national and international markets for lobsters harvested or processed in the State, and provide material and technical assistance to persons seeking to market lobsters harvested or processed in the State, conduct other efforts as determined necessary to increase the sales of lobsters harvested or processed in the state, market and sell goods directly related to the functions of the collaborative and deposit all proceeds in the fund, and make expenditures from the fund to carry out the purposes of this subchapter (Maine Lobster Marketing Collaborative, 2021).

Money in the fund may be used only for the following purposes: promotion, advertising, marketing, development, the hiring of staff, and the payment of compensation. The collaborative may implement programs and activities to promote, advertise, and develop markets for lobster and make or enter into contracts with any local, state, federal, or private agency, department, firm, corporation, entity, or person for those purposes. Also, the Collaborative can charge license surcharges for the Lobster Promotion Fund. This includes the ability to charge non-resident lobster and crab landing permits.

Waterfront “Blue” Gentrification

Professor Joshua P. Newell at the School for the Environment and Sustainability at the University of Michigan received funding through the Michigan Sea Grant to assess the extent of blue gentrification from 2006 to 2020, identifying its driving forces, and developing policies and strategies. This research project began within the 2025 academic year. The research team aims to answer questions about the spatial and chronological patterns, driving forces, and effective policies to combat blue gentrification in Michigan. The project will employ a mixed-methods approach, combining geospatial analysis, surveys, interviews, and policy review. It will focus on 46 coastal communities, identifying gentrification hotspots and conducting in-depth fieldwork in selected municipalities (“Assessing Blue Gentrification in Michigan’s Coastal Communities”, 2024).

The project aims to raise awareness among researchers, decision-makers, and the public about blue gentrification and its impacts. Outputs will include interactive tools, webinars, policy briefs, and outreach activities. The multidisciplinary team combines expertise in environmental science, social research, and community outreach to address the issue and promote justice, equity, diversity, and inclusion. Ultimately, this project will support sustainable and equitable

development along Michigan’s coastline while preventing the displacement of long-term residents. The research from this project could help assist in the community redevelopment of Mayport without crowding out the waterman/shrimping industry.

Growth Management within Waterfront Communities

The National Oceanographic and Atmospheric Administration, the U.S. Environmental Protection Agency, Leaders at the Core of Better Communities, and Sea Grant Rhode Island published a guide on Smart Growth suggestions for coastal and waterfront communities and provides frameworks and tools that can be utilized by working waterfront communities who want to ensure that growth does not threaten the communities who engage with the waterfront commercially (2024).

Some elements offer potential policies, tools, and techniques that waterfront communities can utilize to ensure the continued existence of a practicing waterfront. The first element focuses on mixed land uses, including water-dependent uses. The employment of visioning exercises to determine community support for maintaining a working waterfront, the development of a waterfront master plan to guide land-based uses, and develop a harbor management plan to guide water-based activities to better plan for the needs of water-dependent recreational, and commercial, and industrial uses. Communities can also use current-use zones, tax abatements, and tax exemptions to reduce the cost of critical activities of a working waterfront to implement fiscal policies and incentives that support a mix of uses.

The tools that can enhance community design include engaging in hazard mitigation planning and considering hazard mitigation plan findings and recommendations when updating comprehensive plans and regulations to integrate hazard mitigation into local comprehensive and capital planning and regulations. Communities can increase resilience planning by protecting critical areas with the creation of setbacks from the waterfront, planning for open space preservation of community-scale green infrastructure, and engaging in floodplain mapping and protection to encourage green infrastructure approaches.

The provision of workforce housing accommodations and the development of live-near-your-work programs can help meet the needs of both seasonal and permanent residents. Community land trusts can also retain ownership of underlying land while the house is bought and sold, and deed restrictions can be created to ensure affordability to maintain affordable housing for permanent and seasonal residents.

Creating walkable communities with physical and visual access to and along the waterfront for public use can open up access. Communities can accomplish the creation of more access to the waterfront by inventorying existing access sites and comparing them to current and projected demand for access. Communities can also prioritize access needs by identifying what types of access are needed and their most appropriate locations, while also identifying potential funding sources that will support the acquisition of properties for new access and the construction of any infrastructure needed to expand and manage physical access to the water.

Focusing on distinctive, attractive communities with a strong sense of place that capitalizes on the waterfront’s heritage will secure a community’s sense of place. This includes conducting a community asset inventory and incorporating community asset inventories and

ecological history into the visioning effort to create an understanding of the community's assets. Communities can also implement historic preservation districts, tax incentives to protect historic resources, grants for reuse of historic structures, and an economic development agenda that capitalizes on the community's waterfront heritage and natural assets to incorporate historic and cultural structures in development projects, including working waterfront features.

Waterman Heritage Supplemental Income

In the summer of 2014, a final market analysis report was completed on water heritage tourism funded by a NOAA grant to address the decline in blue crabs in the Chesapeake Bay and the need for local watermen to supplement their income stream to active working watermen confronting economic hardship. A Market Analysis was conducted to define the potential for a Waterman heritage tourism program on the Chesapeake Bay, identify the most attractive market segments, and quantify the program's current capacity and forecast growth.

According to market research, the potential for the program is intrinsically linked to the tourism potential for the communities facing the Bay. In the long term, the Waterman Heritage Tourism Program could have an opportunity to enhance local tourism development. However, the program's potential in the short term is best realized through a position that is aligned with current tourism marketing and plans.

According to the research, there are many frameworks that tourism professionals use to guide destination management decisions and to describe visitor attitudes and behavior. In the early 1990s the National Trust outlined five principles to successfully develop a cultural heritage tourism program: collaborate, find the fit (this principle highlights the need to match the tourism opportunity with the values and capacity of the locality), make sites and programs come alive (making the site engaging), focus on quality and authenticity (can this cultural heritage site compete with other leisure travel options), and preserve and protect (make sure tourism does not erode the quality of the place or the authenticity of the culture) (Park, 2014, pp. 8-9).

In addition, the market research highlights community-based tourism as a grassroots model where local communities manage their destinations in the early stages of development. The main focus of the research is 'geotourism,' which is a term coined by National Geographic and enhances the geographic character of places. This is the primary framework within the research that incorporates the two additional frameworks.

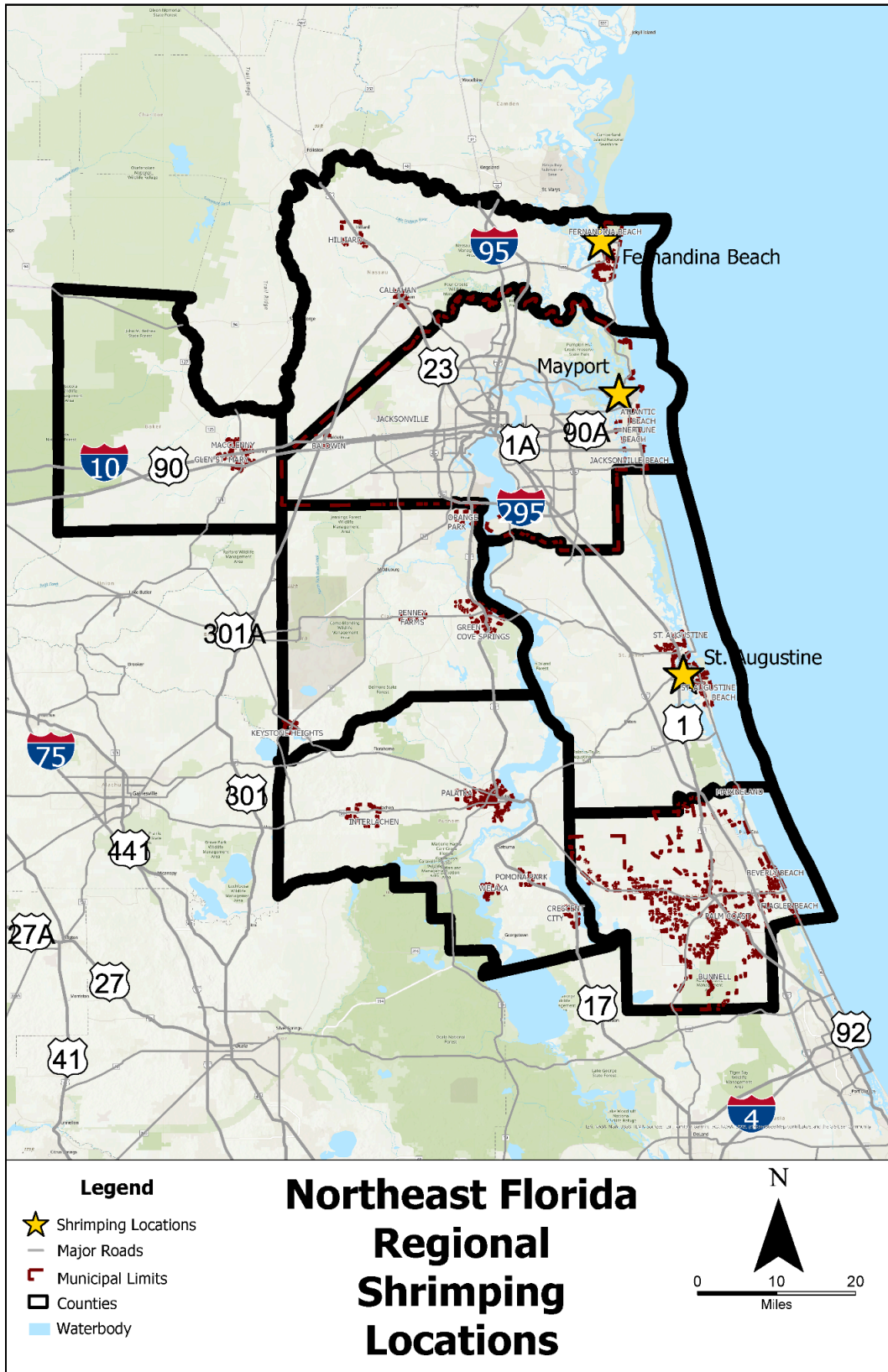
A landmark geotourism segmentation study completed by the Travel Industry Association of America and National Geographic identifies eight segments of geotourism. Three of the eight segments were determined to be the most desirable, and at the time of the study (2003), they represented an estimated 54 million Americans (Park, 2014, p. 39). The top three segments from this study are identified as; Geo-Savvy shows a distinct preference for culturally/socially oriented travel. These travelers prefer small-scale accommodations run by local people, experience with people and cultures different from their own, and a focus on the destination's history. Urban Sophisticates travel quite frequently, taking 6.4 trips per year on average (Park, p. 42). They prefer culturally and socially oriented travel and are interested in learning about the people, customs, and history of their destinations. They are more likely to say that the opportunity to try local foods is very important. Finally, Good Citizens are typically

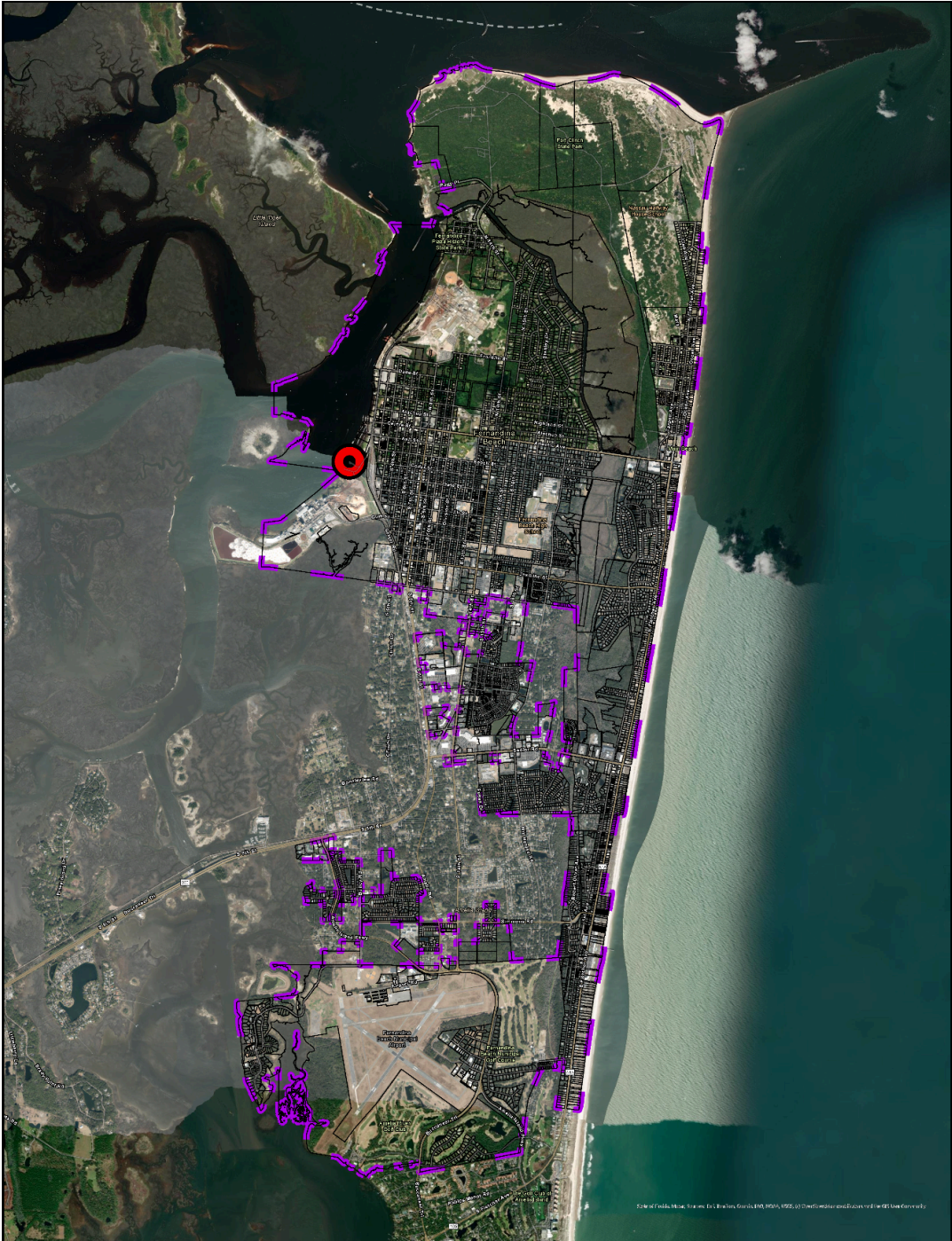
civically engaged senior citizens who spend less per trip than other segments but price learning on their trips.

Another research study published by Mandala Research in 2013 titled *The Cultural and Heritage Traveler* reported on cultural and heritage travel. This study found that 76% of all leisure travelers engaged in a cultural or heritage activity while traveling within the last three years (Park, 2014, p. 11). Additional segments highlighted in the study are labeled *Passionate* and *Well-Rounded*. The *Passionate* segment participates in cultural and heritage activities most often, and cultural and heritage options are most likely to drive their destination decisions. The *Well-Rounded* are open to experiencing a range of activities while traveling, including cultural or heritage activities. Ultimately, tours that offer participation in cultural activities, environmental projects, and educational opportunities will also enjoy soaring growth. Many travelers want to do much more than relax or shop while on tours—they want to get to know and understand the local people.

The potential for the Watermen Heritage Tourism program is intrinsically connected to tourism development in the coastal communities and depends on the varying levels of existing tourism infrastructure and support for future tourism development. An additional goal of this market analysis was to attempt to quantify the capacity of the waterman to be able to operate a tour business. Questions in the study on the capacity of offering tours to meet potential market demand need to focus on the number of commercial licenses (including licenses issued and grandfathered in from previous license issues) in the area of focus. Utilizing tourism data from Visit Florida can provide county raw tourism data to determine if there is a demand.

Appendix B: Northeast Florida Shrimping Community Maps





Fernandina Beach Community Map

Legend

- Existing Docks
- Parcels
- City Limits

N

0 0.2 0.4
Miles



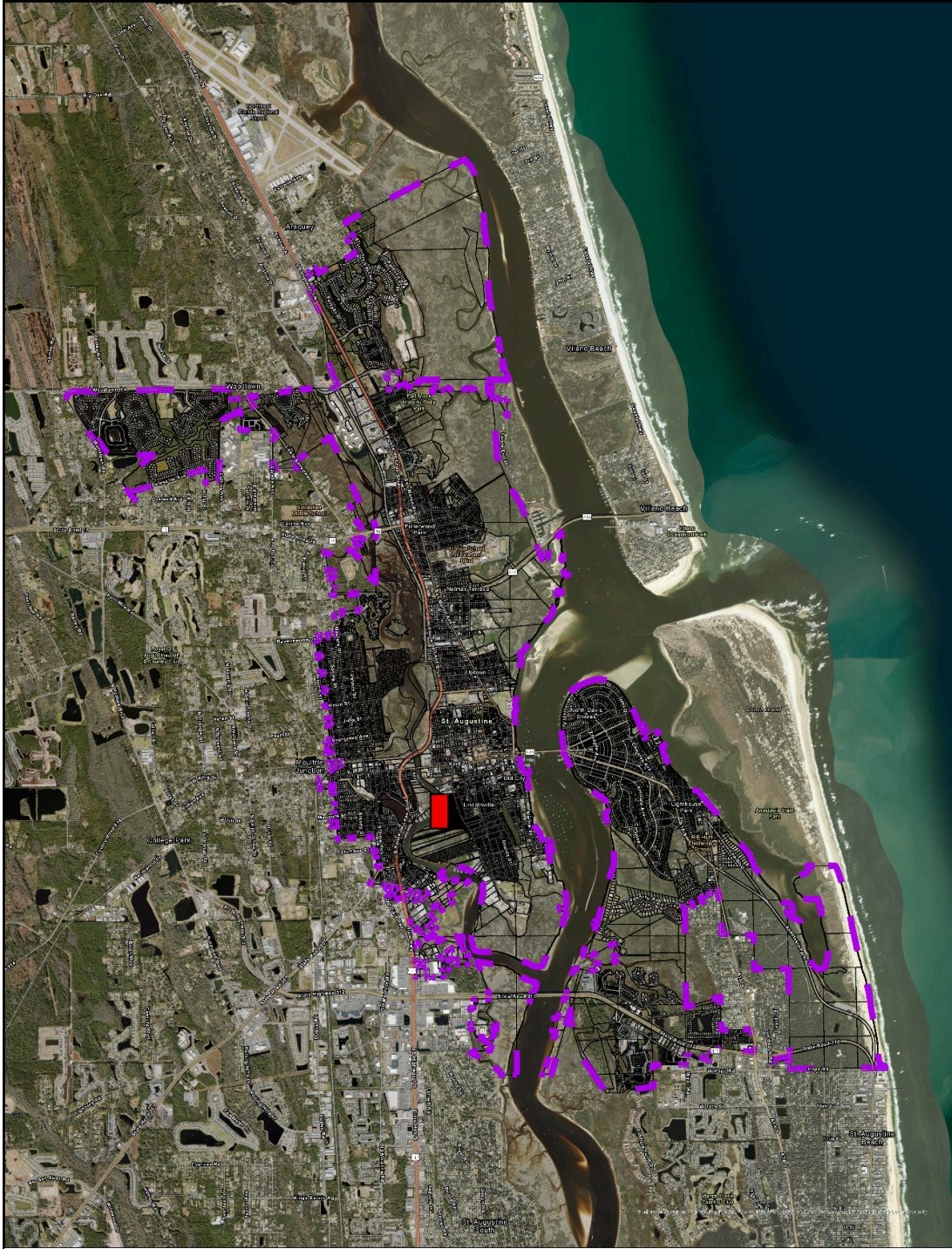
Mayport Community Map

Legend

- William "Bill" Gullford Jr. Community Center
- Ocean Research Center
- St. Johns River Ferry Terminal
- Proposed Docks
- Existing Docks
- Safe Harbor Seafood
- Youth Maritime Academy
- Mayport Naval Station
- Parcels

N

0 0.05 0.1 Miles



St. Augustine Community Map

- Legend**
- Historic Shrimping Location
 - Parcels
 - City Limits



Appendix C: Mayport Neighborhood Property Market Value Map

The Mayport Neighborhood Property Market Value Map demonstrates the rising costs of waterfront properties in working waterfront neighborhoods.

