



# Aurora Waterfront Development Analysis



Spring 2023

PLAN 4099

Christopher Medina



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# Executive Summary

In 2011, the Town of Aurora, North Carolina created a Waterfront Development Plan which addressed Aurora's Main Street and the waterfront shores of South Creek and Bailey Creek. The study area in the 2011 development plan extended from Sixth Street to South Creek, which forms a link between the downtown, the waterfront, and Highway NC-33. This study sought to create a "destination place" by enhancing access to the waterfront and to create recreational opportunities. The Town of Aurora chose Rivers and Associates Inc. as their consultant to develop the 2011 Waterfront Development Plan. This plan was made to illustrate a proposed redevelopment of the community and design the waterfront. The plan provides the groundwork for implementation of the recommendations to enhance Aurora's waterfront. Rivers and Associates combined community input, technical design evaluation, and shared principles of urban design to produce a feasible master plan. It was evident that there was a lot of community input while developing this plan.

The waterfront development plan was approved by the town's commissions, but implementation was cancelled because of the destructive effects of Hurricane Irene in August of 2011. The 2022-2024 Town of Aurora Strategic Plan reintroduces the 2011 Waterfront Development Plan prepared by Rivers and Associates. The original waterfront development plan is located under task 4.4 in Aurora's Strategic Plan.

The 2011 Waterfront Development Plan was funded by the NC Department of Commerce Office of Rural Development. Aurora was awarded funding money from the Talent Enhancement Demonstration Grant (TEDG) program. In 2014, the Town of Aurora applied for the Rural Transformation Grant Fund Downtown Revitalization Program. If Aurora received the \$582,500 Rural Transformation grant the grant funds would have been used to make improvements recommended in the proposed Waterfront Development plan. However due to Hurricane Irene, this did not occur.

My project is designed to provide the Town of Aurora a phasing implementation plan and renew the list of potential funders. This project also includes cost estimates for all waterfront projects in the Town of Aurora's Strategic Plan. This report provides Aurora with an achievable and realistic short, medium, and long-range goals for their future projects. It is important to note that my recommendations are only suggestions for the Town of Aurora. I am confident that Aurora's leadership team will do what is best for the future of their waterfront.

# Welcome to Aurora, North Carolina

## Location, Problem Statement & History

The Town of Aurora is located in southern Beaufort County of Eastern North Carolina and has a population of 490 people (2020 US Census Data). Beaufort County is east of Pitt County, closer towards the Outer Banks. The distance between Greenville, NC to Aurora, NC is 44 miles and driving from Greenville to Aurora was roughly 55 minutes. The Town of Aurora was incorporated in 1880 from Reverend William Henry Cunningham. Aurora was originally called “Betty Town” and was founded on the location of an Pomouik Indian village. Aurora’s waterfront is located at the end of East Main Street and it leads to South Creek. The large Aurora phosphate mine is located just outside the town.

On June 6, 2011, the Town of Aurora Board of Commissioners adopted the Main Street Waterfront Development Plan. The plan recommended improvements to one of the main assets of the town, the Pamlico River waterfront. Aurora wanted a plan that captured the unique features of the natural landscape and attracted visitors to the area. This plan was approved by the town’s commissions, but implementation was delayed due to the destructive effects of Hurricane Irene in 2011. My sponsor, Mr. Kurt Ryan, challenged me to find public grants or appropriations opportunities to expand and improve the watercraft access; research how flooding has negatively affected the waterfront; find cost estimations for various waterfront improvement plans; and provide a PDF of my feasibility study to the Town of Aurora leadership team.

Present day Aurora emerged in the early eighteenth century as a major town in Richland Township, known today as Beaufort County. Aurora was previously known as South Creek and it was given the name of Aurora in 1880. At the time, this area was covered by forests of longleaf pine. These longleaf pines provided the supply of pitch, turpentine, and tar. These were once supplied by naval stores. The Town of Aurora was originally established as an inspection site to ensure the quality of supplies before they were sold. As pine forests were exploited and the land was cleared, the soils became unproductive and wet. It was not until after the Civil War ended when the lands were drained to make them productive again. This time, for agriculture.

Aurora’s location on the waterway made it a marketable town that handled exports of crops and timber. The increasing demands for exports led to the construction of a railroad service through the Town of Aurora. During the early 1900s, the Irish potato became the next big primary export good from Aurora. The black soils and long growing season of eastern North Carolina provided Aurora with the ideal conditions to grow potatoes and export them to northern cities. This made sense because there was a large Irish population in northern cities such as New York, Boston, and Philadelphia. In the spring, fresh potatoes received high prices from northern states after a cold, long winter.



Location of Aurora in NC  
Source: Aurora, NC Wikipedia



November 25, 1914  
Redding Thompson, Rena Hooker wedding:  
Couple says farewell to family and friends as they leave from the  
Aurora train station for their honeymoon



Newly married couple leaving from Aurora's train station to honeymoon  
Source: Aurora Fossil Museum



GIS Map of Aurora's Waterfront inside town  
Source: Christopher Medina's Arc GIS Online



# Project Purpose

The purpose of this project is to provide a realistic implementation plan, schedule, and updated list of potential funding sources for the waterfront improvement plan that was adopted in 2011. The Town of Aurora is still committed to the 2011 plan but there have been challenges with implementation due to lack of funding resources and staffing personnel. There are several improvement projects identified in the 2011 plan that require significant costs. In addition, consistent and ongoing approaches to the project are required to complete all of the improvements identified. The plan identifies greater access to the waterfront through boat dockings, eco-tourism, social gatherings. These improvements will require public spaces, public restrooms, fuel, and amenities to support and expected by waterfront users.

Activation of the area is an ambitious improvement project for Aurora, but one that can be accomplished. Completion of this project will help revive this valuable economic development attraction amenity for the town. My plan will identify an implementation plan, schedule, potential cost estimates, and feasibility assessments for the 2011 plan. This can be used by the Town of Aurora to manage the project and schedule elements of the plan that can be completed over time until completed.



## GIS Map of Aurora's Waterfront

Image from Christopher Medina's Arc GIS Online



## Modern-day Aurora Waterfront

Source: auronc.us

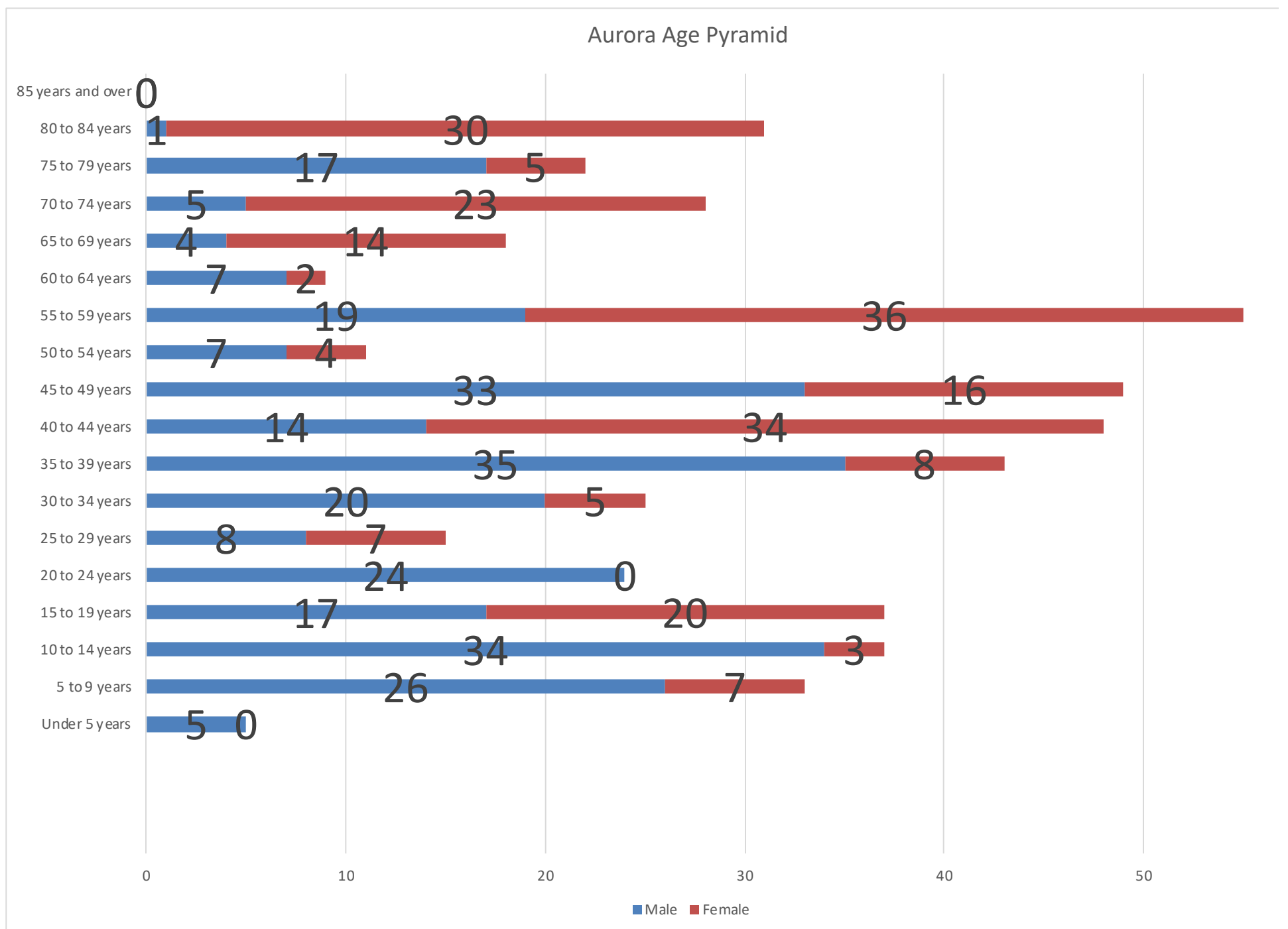


# Demographics (Discussions of Population, Race, Gender, Age, Education, Income, & Poverty)

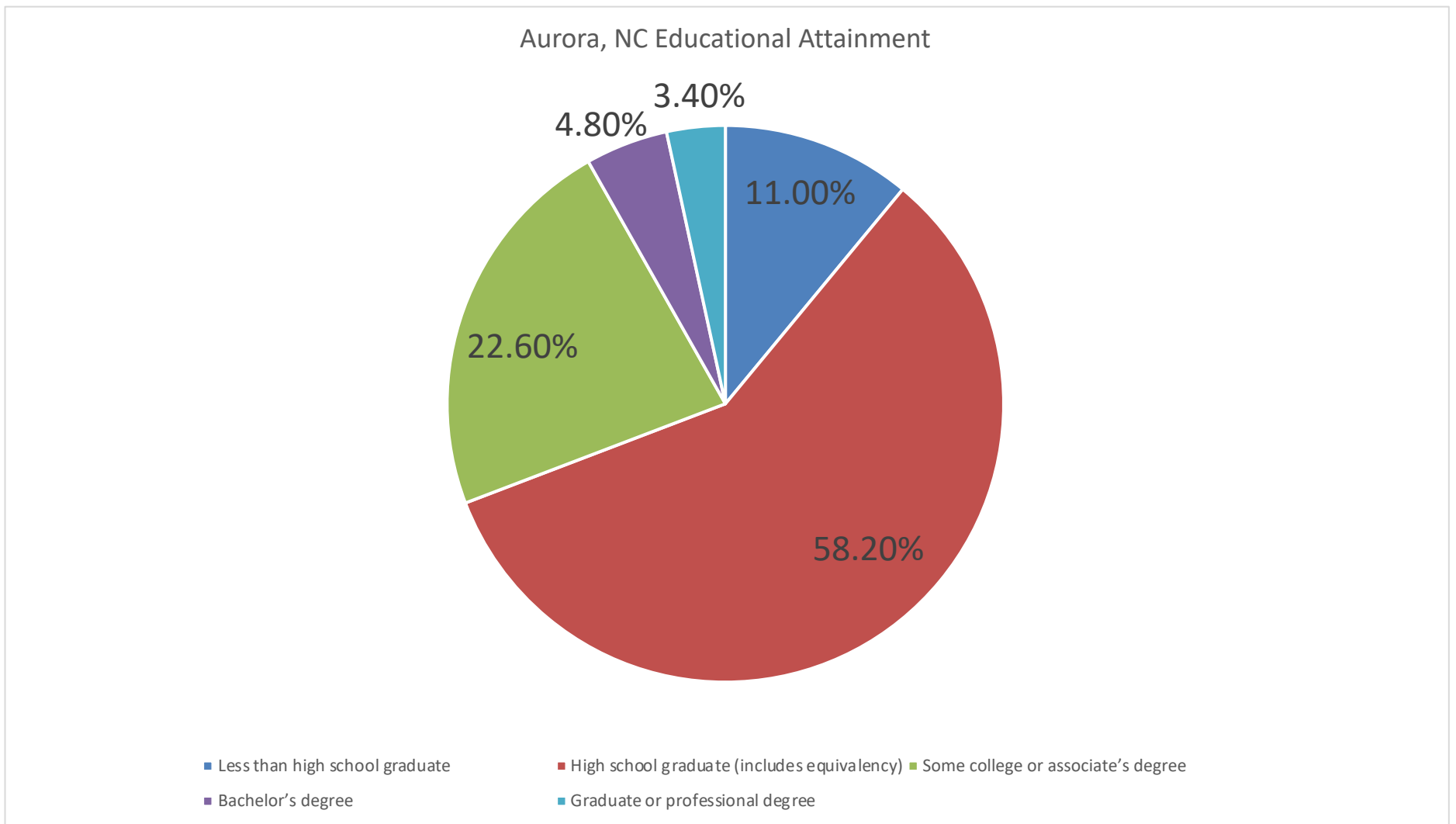
The Town of Aurora has a smaller population compared to surrounding towns in Beaufort County such as Washington, NC. It was evident that Aurora has a small population during my visit in January of 2023. As previously mentioned, the Town of Aurora has a total population of 490 people.

The population of the town of Aurora is 490 people and of the total population, 439 individuals reported as one race in the 2020 US Census (2020: DEC Redistricting Data). In reporting ethnicity, 439 of them are of one race. Ethnically Aurora is of the following: 219 people identify as white, 218 identify as African American/Black people, 1 person identified as American Indian and/or Alaska Native, and 1 person identified as of some other race. There are sixteen people who identified ethnically of 2 or more races. In further identification of ethnicity, 10 people identified with multi ethnicities. There were 10 people who identified as White and African-American and some other race and one person identified as being of three races.

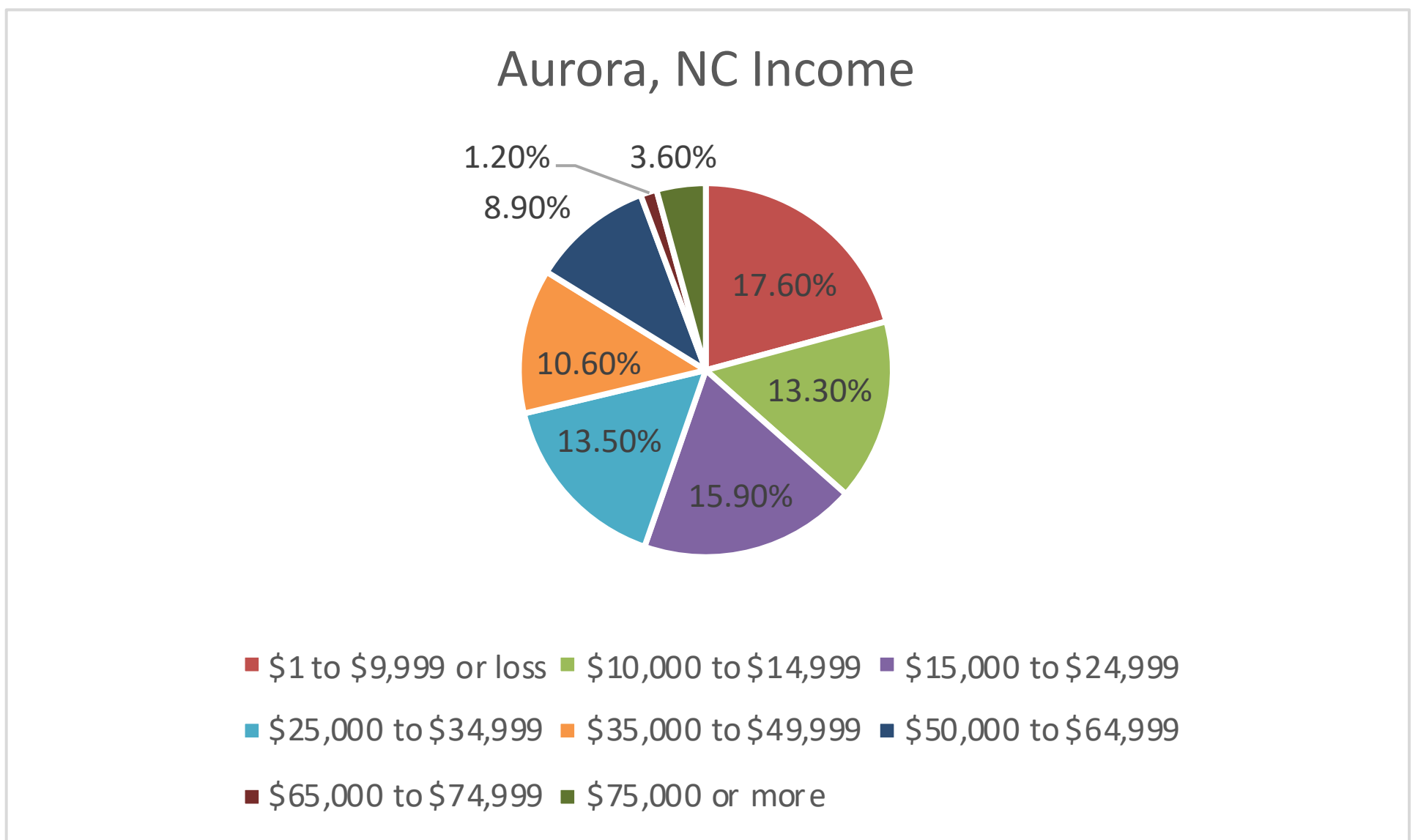
The Town of Aurora is generally a middle aged community with a median age of 43.4 years according to the US Census. There are people within all of the age brackets as demonstrated by the chart below.



The next highest percentage of educational attainment is possession of a high school diploma and some college or an associates degree. The pie chart below shows the educational attainment of Aurora residents by percentage and levels of educational attainment.



According to the US Census, 17.6 percent of people in Aurora have an income of \$1 to \$9,999 or less. Most of the population has an annual income of less than \$75,000. This means there are not a lot of high-paying jobs in the Town of Aurora. The median income in Aurora was \$21,445 in 2021, which is below the state median income of \$60,516.





# 2011 Waterfront Improvement Plan, Vision, & History

The 2011 Waterfront Development Plan for the town of Aurora was initiated with the receipt of a grant from the NC Department of Commerce from a Talent Enhancement Grant. The plan was developed over a one-year time frame and was developed to identify an improvement vision for the waterfront that will result in additional social activities, boating, and eco-tourism. As a result of the community input during the early stages from this plan, the following objectives broadened the study:

- To enhance the downtown vibrancy and sustainability
- To strengthen the identity of Aurora with improved gateways and internal wayfinding
- To improve pedestrian livability and walkability of connector streets within Aurora (NC-33, Main Street, Fifth Street, Third Street, First Street, and NC-306)
- To improve boater accessibility to Aurora and improve connectivity to open spaces along the waterfront
- To build upon the existing cultural and historic assets of Aurora by re-introducing past traditions and promoting new community event
- To improve the appearance and image of the community by addressing derelict properties, improving controls on noxious aesthetics, and creating a more consistent appearance and quality
- To improve the success of local businesses by uniting merchants and creating shared standards of retailing

The 2011 Waterfront Development Plan was funded by the North Carolina Department of Commerce Office of Rural Development. The Town of Aurora was awarded funding money through the Talent Enhancement Demonstration Grant (TEDG) program. The TEDG program was a pilot program targeting eastern units of government to enhance the capacity to develop competitive and strategic Community Development Block Grant (CDBG) proposals and grant admissions. This pilot program represented a partnership with East Carolina University's (ECU) Office of Engagement, Innovation, and Economic Development. The TEDG program was funded through the CDBG grant in the amount of \$600,000.

The 2011 Waterfront Development Plan also identified how the community was engaged in public workshops and town board meetings. There were three public meetings where the community participated by discussing existing conditions analysis, visual preferences, and proposed improvements to the waterfront. This public participation provided the basis for the design recommendations and planning prepared by River and Associates.

The Town of Aurora introduced the waterfront project in the first public meeting on April 18, 2011. River and Associates representatives gave a presentation about the project area, its context, and its strategic value in Aurora. The meeting attendees expressed support for revitalization of Aurora through the redevelopment and aesthetic improvements to the waterfront and Main Street. The common themes were to provide an enhanced waterfront with a fuel station, accessible public space along the waterfront, food and beverage facilities, and lodging facilities for short-term and long-term visitors.

The citizens suggestions were brought up during the Town of Aurora Board of Commissioners meeting on May 2, 2011. Rivers and Associates also presented a refined draft conceptual plan to Aurora. This plan was developed from the input received from attendees during the public meeting on April 18, 2011. Rivers and Associates described this effort as Aurora's plan to move into the future. The suggestions and comments that were received were used to develop a final conceptual plan and planning report.



After the second public meeting, Rivers and Associates developed a final, conceptual, site development report and plan. This plan represents the selection of development ideas that best represents the agreed guiding ideas and uses for Aurora. This plan, integrated from the public meetings along with dialogue with the Town of Aurora's administrators, answers questions about the community's perspective on what is desirable, what is possible and what the community will likely support. The adoption of this plan would permit the Town of Aurora to make decisions on individual elements within the context of the entire development vision. On June 2, 2011, the Town of Aurora's Board of Commissioners voted to adopt the Main Street Waterfront Development Plan.



Aurora's Waterfront boat dock January of 2023

Photo by Christopher Medina



# Current Vision & Sponsorship of this Project

This project to examine the 2011 waterfront redevelopment and redesign project is sponsored by Mr. Kurt Ryan. Mr. Ryan clearly expressed the importance this waterfront project to the people in Aurora. Mr. Ryan did a fantastic job providing me with the necessary documents, resources, and professional contacts for this project. Mr. Ryan would like me to design a feasibility analysis and find potential funding strategies for the 2011 Waterfront Design study.

Mr. Kurt Ryan provided me with the following study outcomes:

1. Waterfront development survey (Citizens of Town and Richland Township) - Optional
2. Severe weather impacts to flooding
3. Public grants and appropriations opportunities to expand/improve watercraft access
4. CAMA impacts, rules to build
5. Potential dredging requirements to 7' depth
6. Channel marking requirements
7. Visit too and engagement with similar pier/s in Beaufort, Pamlico, or Craven County
8. Visualization of a design that can be marketed and submitted as a grant or appropriation
9. ROM cost estimate to build new public boat pier, gazebo, public bath, adequate lighting, boardwalks along bulkheads and adequate storm proof A-wall with strong cleats to secure various sized boats
10. Provide PDF feasibility study to Town of Aurora leadership

## Project Sources

My sponsor, Mr. Kurt Ryan provided me with the following list of sources and professional contacts:

- Mayor Clif Williams, Vision of waterfront
- Ms. Judi Lannon, Town Clerk - Rural Transformation Grant Scope
- Ms. Jamie Heath, Mid-east Commission (Resiliency)
- NC Wildlife Resources Commission
- Mr. Brad Hufford, Director - Beaufort County Economic Development
- P.J. Connelly, Director - Governor's Eastern Office
- Town of Aurora 2022-2024 Strategic Plan (Key Task 4.4)
- ALC Strategic Plan Update
- Rivers and Associates "Main Street Waterfront Development Plan", 2011 historical
- Beaufort County Historical Outdoor Recreational Development Study, April 1972



Image of Aurora's waterfront on the fishing dock

Source: auronc.us

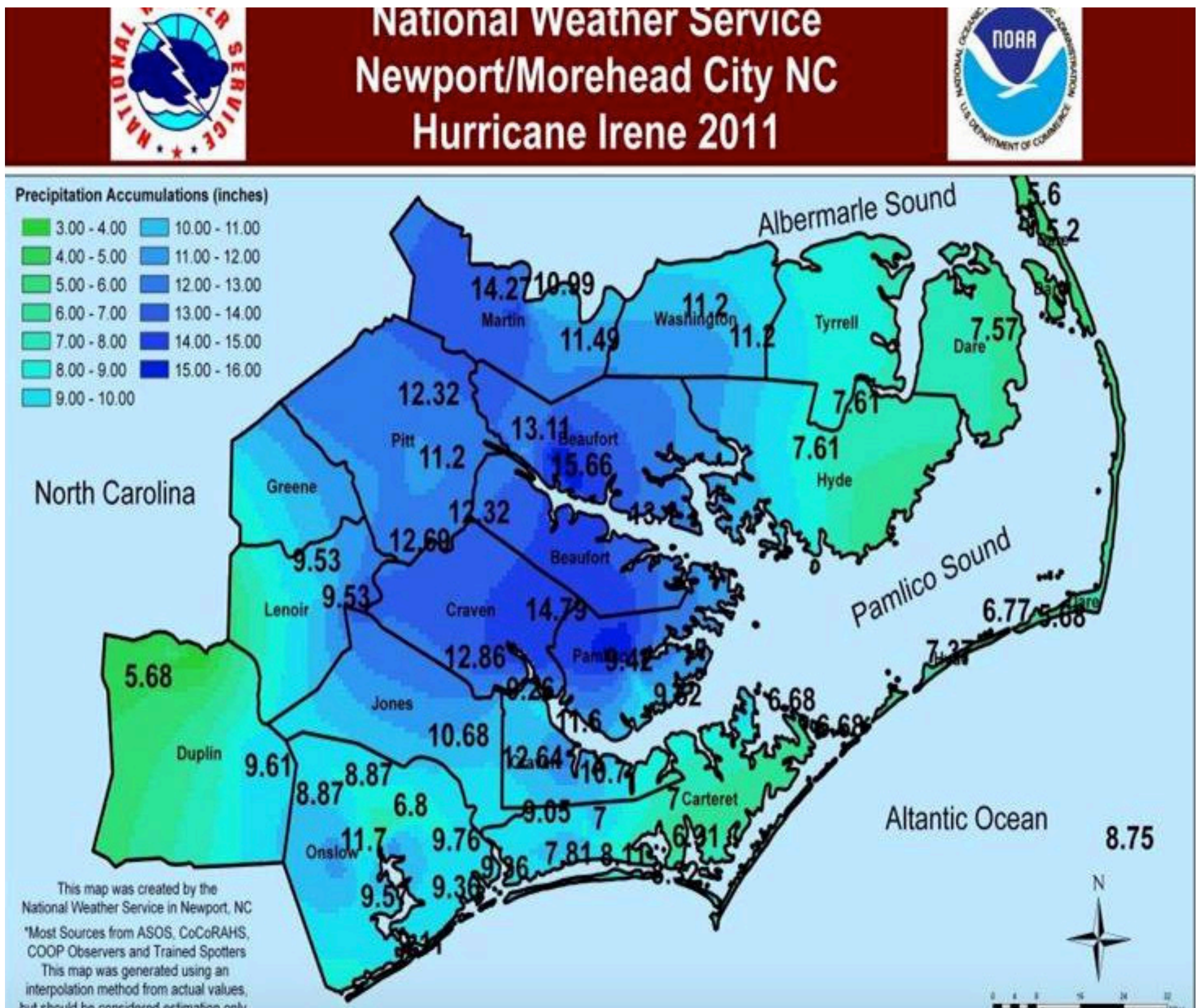


# Hurricane Irene

As previously mentioned, the 2011 Main Street Waterfront Development Plan was never fully implemented because of Hurricane Irene's destructive aftermath. Hurricane Irene left disaster not only in Aurora, but all across eastern North Carolina. The category one hurricane flooded more than 270 roads and left behind more than 686 million dollars in property and agriculture damages.

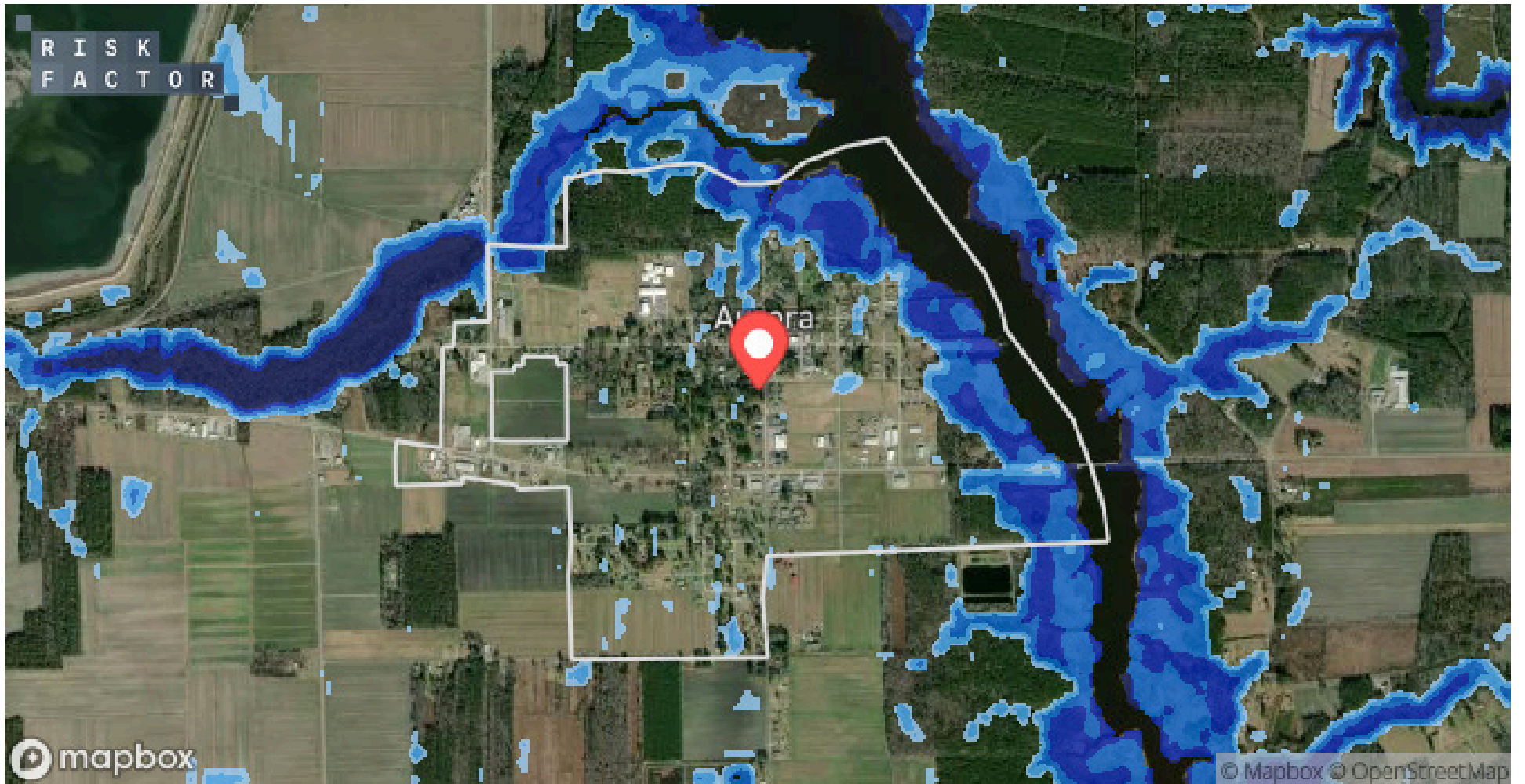
With that being said, Aurora was one of the hardest hit areas Hurricane Irene hit. The Town of Aurora received roughly around 14 to 15 inches of rain. Irene caused 5 deaths in North Carolina. On the evening of August 26, 2011, ahead of landfall, Hurricane Irene spawned several tornadoes. Doppler Radar estimated totals of over 17 inches of rainfall in portions of Beaufort, Craven, and Pamlico Counties. Extensive storm surge and wind damage also occurred with Irene.

Peak wind gusts were recorded at 115 miles per hour at the Cedar Island Ferry Terminal in Carteret County as the hurricane's eye was moving ashore. Trees were downed throughout eastern North Carolina and thousands were left without electricity. Ocean and sound overwash created numerous breaches of Highway 12 along the Outer Banks. There are over 400 properties in Aurora that have greater than a 26 percent chance of being severely affected by flooding over the next 30 years. This represents over 99 percent of all properties in Aurora, including the waterfront.



2011 Hurricane Irene Rainfall Amount (Inches) in eastern North Carolina  
Source: weather.gov





Map shows properties in Aurora that were impacted in 2018 from Hurricane Florence.  
Source: riskfactor.com



Road in North Carolina flooded from Hurricane Florence in 2018  
Source: The New York Times published on September 22, 2018

# Implementation Steps of 2011 Plan

The Main Street Waterfront Plan states that it should be considered a guide to assist in driving Aurora's waterfront redevelopment. It was expected that a plan of that scale would be implemented over the course of 15 to 20 years. The recommended phasing described in this section is based upon a realistic and practical approach with initial, more tangible projects recommended to lay the foundation. The intent of the projects were to get the "ball rolling" by attracting people to and drawing attention to the many opportunities that lie in the water and on the banks in South Creek. As momentum builds, so will the market offering opportunities to develop more ambitious anchor projects. The establishment of the anchor projects will create critical mass that could spill over to Main Street's redevelopment and the surrounding town.

It will take strong leadership to bring this project to fruition, to give this plan a "voice". This plan should be ambitiously shared and "sold" to visitors, citizens, developers, investors, economic development advocates, regulatory agencies, etc. This "voice" should turn into a leadership team who will meet regularly to review, coordinate, (re)assess, and prioritize efforts, market the plan, identify funding opportunities and potential investors.

Development of this scale is considered ambitious given the funding climate. With that being said, small towns such as Aurora are in a unique position to offer opportunities for nature-based, pedestrian-oriented development. Markets are trending toward communities that provide high quality of life amenities for all types of residents. The communities that embrace these values will come out on top when the market is once again more favorable.

Each phase included a group of projects that were combined, where feasible, to ideally mix revenue generating projects to balance those that may not. Based on market conditions and funding sources, these projects may be reassembled into smaller projects. This plan was also designed to "flex", if need be, based on fluid market conditions, priorities, and/or funding. If the conditions are favorable, there may also be opportunities to complete phases in parallel instead of sequentially. Furthermore, market or funding opportunities may present other opportunities for projects or phases to "leap-frog" others.

Finally, it would be important to recognize that perseverance and a keen business mindset will lead to each project's success. Each phase will require the leadership team to understand the market conditions and present a compelling development package to investor and developer teams. Each project will also require "site specific" design in which a design consultant should be selected to provide services to either the Town of Aurora or a developer, depending on the project. The design consultant might be charged with master planning through construction documentation, as well as schedule and budget development, regulatory implications and permitting. With the environmentally sensitive context of the planning area and the need for well-designed buildings and pedestrian-oriented spaces, it is recommended that the design team should present a multi-disciplinary approach with a working knowledge of the environmental regulations, as well as pedestrian-oriented, nature-based design principles.



# Personal Observations

The conclusions identified in the 2011 Waterfront Development Plan had a good potential for success in the five-year to ten-year time period. Rivers and Associates stated their waterfront development plan had the potential to be successful in the market of eco-tourism, if a destination image was appropriately constructed and marketed.

Rivers and Associates recommended the Town of Aurora would have to combine a number of funding sources in order to implement the number of identified projects outlined in that plan. They continued by stating Aurora should seek all funding opportunities for project implementation, including state, federal, and private monies whenever available. Rivers and Associates mentioned the most reliable funding will come from local government, so it was important for Aurora to continue to allocate the necessary funds each year. The following is a summary of identified funding opportunities available to local governments in North Carolina.

## Local Sources:

1. Revenue Plan
2. Annual Improvement Program
3. Special Assessments Bonds
4. Revenue Bonds
5. General Obligation Bonds
6. Impact Fee or Payment “in-lieu of” Dedication
7. Transportation Bonds
8. Excise Tax
9. Property Tax
10. Municipal Service District
11. Sales Tax
12. NC Department of Commerce
13. Highway Division Funds
14. Powell Bill Funds
15. The Recreational Trails Program
16. Transportation Enhancement Activities (TEAs)
17. Statewide Discretionary Funds
18. Land and Water Conservation Fund (LWCF)
19. North Carolina’s Clean Water Management Trust Fund (CWMTF)
20. Governor’s Highway Safety Program (GHSP)
21. North Carolina Parks and Recreation Trust Fund (PARTF) Grant Program
22. North Carolina Adopt A-Trail Program
23. Conservation Tax Credit
24. Watershed Protection and Flood Prevention Grants for Small Watersheds

## Private Sources

1. Active Living by Design (ALbD)
2. Z. Smith Reynolds Foundation
3. The Trust for Public Land
4. Developer Contributions
5. The Robert Wood Johnson Foundation
6. Small Grants
7. Wal-Mart Foundation
8. Other Private Funding Opportunities
9. Corporate Sponsorships

The 2011 development plan states that Aurora's waterfront presents a viable opportunity to become an eastern North Carolina fisherman's paradise, also a desirable destination for nature enthusiasts, business travelers, and young families. Physical ties to the Main Street Commercial Business District and surrounding residential neighborhood creates an exciting opportunity for nature based and pedestrian oriented development.

First Street is the main vehicle gateway to Aurora's downtown and waterfront from Highway 33. The First Street Streetscape and Gateway will provide visual queues for highways to explore Aurora. From this intersection, the view will draw people's attention down First Street, across Main Street, along the First Street Boardwalk, leading up to the South Creek Private Marina. This strong visual "spine" connecting Highway 33 to Main Street and the South Creek Waterfront are vitally important to inviting visitors and creating a well connected waterfront district.

The eastern-most part of Main Street at the South Creek Boat Ramp offers opportunity to enhance day-boat user amenities and provide green space with ample waterfront views and people watching opportunities. To the north, the First Street Boardwalk will provide an accessible pedestrian scale transition from the Hotel and Retail Development to the trails of South Creek Island Preserve. The First Street Boardwalk will end at Hodges' South Creek Marina offering many amenities to boaters passing through for the day and/or a multiple night stay. There is a residential community to the west of the marina that is designed to preserve and capitalize on the natural beauty of Baileys Creek.

In 2014, the Aurora Town Commission recommended an application for the Rural Transformation Grant Fund Downtown Revitalization Program to enhance the downtown marina. This grant would help them construct public day docks, a gazebo, and an improved fishing area. Mayor of Aurora, Clif Williams, expressed to me that Aurora would like to re-apply for this grant to receive additional funding for all waterfront improvements. This grant would have provided Aurora with a total of \$582,500. Broken down, \$376,000 for the construction of enhanced pier, gazebo, and day dock; \$50,000 for electrical (safety lighting on pier and gazebo); \$25,000 for National Register Consultant for preparation of nomination to National Register of Historic Places; \$100,000 for an engineering study, and preparation of architectural/construction plans; \$2,000 for preparation of CAMA permit application; \$29,000 for administration (5% of total budget); \$500 for CAMA permit application fee.



**Vision**  
*The Town of Aurora is an eastern North Carolina community situated off the beaten path and nestled among the picturesque natural setting of South Creek. Aurora, which is the pride of its hard-working citizens, welcomes visitors to come, stay and play; be it fishing, birding, fossil digging, or antiquing on Main Street.*

2011 Main Street Waterfront Development Plan Image Vision Statement  
Source: 2011 Rivers and Associates Main Street Waterfront Development Plan



# My Efforts

I found the 2011 Waterfront Development Plan was extremely detail-oriented. Rivers and Associates did a fantastic job writing the 2011 Main Street Waterfront Development Plan. They made it clear that not only did the Town of Aurora's leadership team want these improvement plans implemented, but Aurora's citizens did as well. There were many people who thought this plan would increase the number of people traveling to Aurora by boat and explore everything the town has to offer. This waterfront would increase Aurora's eco-tourism market, particularly from people in the surrounding towns in Beaufort County such as Washington, Bath, Belhaven, and many more. Many people in Aurora's leadership team, such as Mr. Kurt Ryan and Mayor Clif Williams, have a desire and passion to get these waterfront plans underway as soon as possible. They both stated that they see the potential of how this waterfront plan can improve the Town of Aurora's economy.

This waterfront implementation plan is achievable, but many of the goals stated in the 2022-2024 Town of Aurora Strategic Plan must be implemented in phases over multiple years. This is due to the fact that Aurora does not have adequate funding resources on hand to implement these goals all at once. The Town of Aurora must also receive permitting requests from the Army Corp of Engineers in order to raise the boat launch by 4 feet and dredge channels to a depth of 7 feet. It is also important to mention that Aurora's waterfront is in the 100-year floodplain zone. Unfortunately, this was evident after Hurricane Irene hit Aurora in 2011. Also, Aurora must obtain approvals from the United States Coast Guard in order to install channel markers into the Pamlico River.

Having short term, medium range, and long term goals are important because this is what will keep Aurora on track to ensure they will accomplish all of their waterfront goals. This also allows the Town of Aurora the ability to get public support, identify funding, find staff resources, review current regulations, etc. I have divided all of these goals/desires into short, medium and long range categories. The short range goals can be accomplished from 1 to 5 years, medium range goals from 6 to 8 years, and long range goals from 9 years and/or more. Updated cost estimates of the 2011 plan's recommendations have identified in the 2022 Aurora Strategic Plan are identified below:

- Raise boat launch by 4 feet: \$50,000 to \$70,000
- Dredge channels to a depth of 7 feet: \$100,000 per mile
- Install channel markers: \$25,000 to \$50,000 per mile
- Adequate storm proof A wall with strong cleats to secure various sized vessels: \$1,000,000
- Attractive concrete or brick boardwalks extended to First Street: \$800,000 or more for concrete per mile; brick will cost more than concrete
- Construct kayak boat ramp for eco-tourism: \$80,000 to \$100,000
- Demolition of existing structures not meeting health, safety, or welfare ordinances: \$300,000 to \$450,000
- Construct gazebo or pavilion for social gatherings/concerts: \$40,000 to \$60,000
- Construct public restrooms: \$350,000
- Install adequate lighting: \$5,000 for streetlight that is already installed; \$15,000 to install new streetlight
- Install flagpole with town banners: \$2,500 to \$3,000
- Expand non-trailer parking on available property: \$100,000 to \$150,000

# Potential Funding Opportunities

I spoke with Ms. Jamie Heath with Mid-East Commission about other potential grant opportunities to help improve Aurora's waterfront. It is important to note that many grant programs are going to require a 20 to 50 percent cash match and Aurora is usually not able to provide that. Ms. Heath mentioned there are some grant programs with zero cash match, such as the NC Resilient Coastal Communities grant and the Golden Leaf Flood Mitigation Program. I have listed potential funding opportunities recommended from my discussions with Ms. Jamie Heath.

- Raise boat launch by 4 feet: It is an NC Wildlife owned boat ramp, so the Wildlife Resources Commission might be able to fund raising boat launch project. Other potential funding programs include the NC Division of Coastal Management's (DCM) Public Beach and Coastal Waterfront Access Grant or FEMA's Building Resilient Infrastructure in Communities (BRIC) Grant.
- Dredge channels to a depth of 7 feet: The NC Dept. of Agriculture has a Streamflow Rehabilitation Assistance Program (STRAP). The NC Division of Soil and Water Conservation has something similar called the Stream Debris Removal Program. Important to mention that North Carolina has a dredging law and permits would be needed from NCDEQ. They are not as in favor of dredging as they used to be and the likelihood of obtaining permits should probably be explored before trying to fund this project.
- Install channel markers: NC Wildlife Resources Commission has a Waterway Marking Program that will be worth looking into. If that does not fall through, then this project could be linked with economic development which could be another great method to obtain funding.
- Adequate storm proof A wall: The FEMA BRIC grant can also be a potential funding opportunity for this project.
- Attractive concrete or brick boardwalks extended to 1st Street: The NC DCM Public Beach and Coastal Waterfront Access Grant is a potential funding source since it is providing waterfront access. Another option would be to submit this pedestrian project to the NCDOT which would then be funded through the Mid-East RPO.
- Construct kayak boat ramp for eco-tourism: The NC DCM Public Beach and Coastal Waterfront Access Grant would be perfect for this project. The Mid-East Commission has used this program before to fund canoe/kayak launches multiple times. The NC PARTF (Parks and Recreation Trust Fund) Grant would be another great program for this construction project.
- Demolition of existing structures not meeting health, safety, or welfare ordinances: If this residential structure in question floods, it may be eligible for a FEMA buyout. The CDBG Demolition grant is a potential for commercial structures. There may be a non-specific community improvement type grant that can be used for residential demolitions. The Town of Aurora could try NC Community Foundation and search grants there. Perhaps a Duke Foundation Grant since Duke Energy serves Aurora.
- Construct gazebo or pavilion for social gatherings/concerts: The PARTF grant program would be perfect for this project.
- Construct public restrooms: Once again, the PARTF grant program or the DCM Public Beach and Coastal Waterfront Access grant if on a waterfront site.
- Install adequate lighting: Duke Energy might be able to help fund this lighting project. If not, then some type of community improvement grant such as the NC Community Foundation.
- Install flagpole with town banners: There are a lot of small grant opportunities on NC Community Foundation that can help install this flagpole
- Expand non-trailer parking on available property: The NC Wildlife Resources could fund this type of project. If not, another good candidate would be the DCM Public Beach and Coastal Waterfront Access grant.



# Funding Opportunities Summary

Aurora has several potential funding opportunities that they should explore. There are many grants and appropriations that the Town of Aurora qualifies for. My client, Mr. Kurt Ryan, advised me that funding would be the biggest obstacle they will have to overcome. Some waterfront improvement tasks will cost more than others, but Aurora can use some of these funding opportunities to help them. In this section, I will explain how each of these grants may assist with some of the costs for each of these improvements.

- **Raise boat launch by 4 feet:** The NC Wildlife Resources Commission might help pay for the raising of the boat launch. FEMA's Building Resilient Infrastructure in Communities (BRIC) program would be a phenomenal funding opportunity because this grant program targets local communities to address future risks for natural disasters. This is especially important for Aurora's waterfront since it was completely flooded after Hurricane Irene in 2011.
- **Dredge channels to a depth of 7 feet:** Before trying to obtain any grant funding for dredging channels, Aurora must look into the NCDEQ dredging law since it is required from the state of North Carolina. Section 404 of the Clean Water Act requires the US Army Corp of Engineers approval prior to discharging dredged or filling material into any waters in the United States. Aurora must seek approval from NCDEQ and the Army Corp of Engineers before trying to fund this dredging request.
- **Install channel markers:** As previously mentioned, the NC Wildlife Resources Commission owns the Town of Aurora's waterfront. They have a Waterway Marking Program that Aurora should look into because this would be a fantastic funding opportunity for this project. It also helps that the entire waterfront is owned by the NC Wildlife Resources Commission. The problem is I am not sure if they are taking requests for this program. Aurora could link this project to economic development and try to find a dredging grant this direction.
- **Adequate storm proof A wall with strong cleats to secure various sized vessels:** As with the raising boat launch by 4 feet, the FEMA BRIC grant can also be used to fund this project.
- **Attractive concrete or brick boardwalks extended to 1st Street:** The NC Division of Coastal Management Public Beach and Coastal Waterfront Access grant would be a perfect funding source since this project would be providing waterfront access to people in Aurora. This project is eligible for this grant after I read through the eligibility requirements online. If this opportunity does not work out, then Aurora can try submitting this project for NCDOT funding through the Mid-East RPO. As previously mentioned, this is the most expensive project compared to the others so it will take the longest amount of time for completion.
- **Construct kayak boat ramp for eco-tourism:** The NC DCM Public Beach and Coastal Waterfront Access grant would once again be perfect for this project. Ms. Jamie Heath from the Mid-East Commission expressed that they have used this grant in previous years to fund kayak/canoe launches many times. If this grant is unsuccessful, then the NC Parks and Recreation Trust Fund (PARTF) would be another fantastic option.
- **Demolition of existing structures not meeting health, safety, or welfare ordinances:** After much research into this project, I could not find any grants that would specifically fund this demolition. Considering this is a residential structure, there will have to be a planning process involved. After conducting parcel identification research, I found that the homeowners of the vacant property near the waterfront live in Florida. The Town of Aurora must create demolitions that they have to always abide by. There is another rusty-looking building that must also be demolished. This must be completed first before they demolish the property.
- **Construct gazebo or pavilion for social gatherings/concerts:** The NC PARTF grant would once again be a terrific opportunity for this project.
- **Construct public restrooms:** Once again, the NC PARTF and/or NC DCM Public Beach and Coastal Waterfront Access grants would be good funding sources for this.
- **Install adequate lighting:** This is something that Duke Energy can assist Aurora with. A community improvement grant can also work, perhaps the NC Community Foundation.



- Install flagpole with town banners: The NC Community Foundation offers many small grant opportunities that would fund this flagpole project.
- Expand non-trailer parking on available property: The NC Wildlife Resources Commission would be a good candidate for the funding of this project. If NC Wildlife does not provide funding money, then the NC DCM Public Beach and Coastal Waterfront Access grant would be able to fund the expand non-trailer parking project.



Representative examples of substandard structures near the waterfront that the Town of Aurora would like demolished

Photos by Christopher Medina



# Funding Descriptions

I have previously shared several potential funding opportunities for many elements of the Town of Aurora's waterfront improvement projects. There are several funding sources available to the Town of Aurora. Because Aurora is designated as a low-income community based upon reported incomes in the 2020 Census, there are several grants the town is eligible to submit applications for funding consideration. It is my recommendation to the Town of Aurora's leadership team to apply to as many of these grants as they possibly can.

It is important to note that many of these grant programs are going to require a 20 to 50 percent cash match, which is something Aurora is usually not able to provide. There are some grant programs with zero cash match such as the NC Resilient Coastal Communities Program grant and the Golden Leaf Flood Mitigation Program.

1. NC DCM Public Beach and Coastal Waterfront Access Grant: This grant can be used for construction projects in waterfronts, such as raising boat launch and ramps. It can also be used to help construct supporting facilities such as parking areas, restrooms, and other facilities. This grant also improves public access to deteriorating or underutilized urban waterfronts through reconstruction or rehabilitation. The application process has three steps: pre-application, invitation to submit a final application, and grant contract approval. The pre-application is due April 28, 2023.
2. FEMA's Building Resilient Infrastructure in Communities Grant (BRIC): This program supports states, local communities, territories, and tribes as they take on hazard mitigation projects. The goal of this grant is to reduce the risk communities face with future natural hazards and disasters. This would be an extremely beneficial grant opportunity for many of the waterfront projects previously listed.
3. NC Department of Agriculture Streamflow Rehabilitation Assistance Program (STRAP): STRAP is a new program that provides grants to projects that help reduce flooding and restore streams all across North Carolina. STRAP allocates money for projects that restore and protect the drainage infrastructure of North Carolina's waterways. Applicants receiving funds from STRAP must ensure that the extracted debris is either removed from the 100-year floodplain or processed so that debris will not pose a risk of blocking normal streamflow during a flood event. Unfortunately, the application window for STRAP is closed.
4. NC Division of Soil and Water Conservation Stream Debris Removal Program: This grant program is very similar to the STRAP program previously mentioned. This Stream Debris Removal Program is also meant to reduce flooding and restore streams in our state. This would be a maintenance period of one year.
5. NC Wildlife Resources Commission (NCWRC) Waterway Marking Program: The NCWRC Waterway Marking Program includes the maintenance of more than 1,800 buoys and navigational aids statewide. This program conforms with the United States' Coast Guard U.S. Aids to Navigation System (USATONS). The Town of Aurora will have to contact the NC Wildlife Resources Commission to see if they are taking requests for this program.
6. NC Parks and Recreation Trust Fund (PARTF): The NC PARTF awards matching grants to local governments for parks, public beach access, and improvements in state parks. This statewide program helps local governments reach their park and public access goals to improve the quality of life for everyone in their communities. Local applications for this grant opportunity are due on May 1, 2023.
7. NC Department of Commerce Rural Transformation Grant: The Rural Transformation Grant provides local governments with grants and expert guidance to improve economic vitality and overcome challenges many rural communities face. This grant program can help support Aurora's Main Street and downtown revitalization efforts as well as provide community enhancements to spur economic growth. The NC Department is accepting applications until May 3, 2023.
8. NC Department of Environmental Quality (DEQ) Resilient Coastal Communities Program: The NC DEQ Resilient Coastal Communities Program focuses on facilitating a community-driven



process for setting coastal resilience goals, prioritizing and identifying projects to improve community resilience to coastal hazards, and assessing existing and needed local capacity. Local governments throughout the twenty coastal counties in North Carolina are eligible to apply for this program. Aurora must complete a community engagement process, risk, and vulnerability assessment, as well as develop a resilience project portfolio for the application process. The Town of Aurora has already received funding money for a Wetland Restoration at Wastewater Treatment Plant (WWTP) project with an amount of \$74,885.

9. Golden Leaf Flood Mitigation Program: The Golden Leaf Foundation awards funds to local governments for public infrastructure projects to increase flood mitigation. Only up to \$250,000 may be awarded per project. The Golden Leaf Board of Directors will have to prioritize projects for awards because they expect that many applications will exceed funds that are available for this program.

## Contact Information

All of these funding programs are fantastic opportunities Aurora should explore. I have explained how each of the programs will help the different waterfront projects. I understand that applying for grant programs is a time consuming process. However, the sooner Aurora starts the application process the more likely they are to receive the grant money. I will now attach the contact information for all of the funding programs previously mentioned.

1. NC DCM Public Beach and Coastal Waterfront Access Grant: Rachel Love-Adrick serves as the NC Division of Coastal Management District Planner for Beaufort County. All questions regarding this grant program should be directed to Ms. Love-Adrick, (252) 515-5403/ 1-888-4RCOAST (1-888-472-6278). <https://www.deq.nc.gov/about/divisions/coastal-management/coastal-management-beach-waterfront-access-program/beach-waterfront-access-grants#Tab-EligibleProjects-2113>.
2. FEMA's Building Resilient Infrastructure in Communities Grant (BRIC): Steve McGugan is the State Hazard Mitigation Officer for North Carolina. Aurora will have to contact Mr. McGugan if they have questions with this program. Mr. McGugan's office number is (919) 873-5843 and cell is (919) 971-1290. Mr. McGugan's email is [steve.mcgugan@ncdps.gov](mailto:steve.mcgugan@ncdps.gov). Their website is: <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>.
3. NC Department of Agriculture Streamflow Rehabilitation Assistance Program (STRAP): Matt Safford is the STRAP Manager with the NC Department of Agriculture and Consumer Services (NCDA&CS). Mr. Safford can be contacted using either phone or email, (919) 707-3784 and [matt.safford@ncagr.gov](mailto:matt.safford@ncagr.gov). Their website is: <https://www.ncagr.gov/SWC/watershed/StRAP.html>.
4. NC Division of Soil and Water Conservation Stream Debris Removal Program: Vernon Cox is the Director of the NCDA&CS and will be able to answer all questions regarding this program. Mr. Cox's phone number is (919) 707-3770. Their website is: [https://www.ncagr.gov/SWC/costshare-programs/ACSP/stream\\_debris\\_removal.html](https://www.ncagr.gov/SWC/costshare-programs/ACSP/stream_debris_removal.html).
5. NC Wildlife Resources Commission (NCWRC) Waterway Marking Program: I was unable to find a person to contact for this waterway program. With that being said, I advise that Aurora visit's the NC Wildlife Resources Commission website to find the appropriate person to contact with questions. Their website is: [https://www.ncwildlife.org/Boating/Where-to-Boat/Waterway-Marking-Program#:~:text=The%20N.C.%20Wildlife%20Resources%20Commission,to%20Navigation%20System%20\(USATONS\)](https://www.ncwildlife.org/Boating/Where-to-Boat/Waterway-Marking-Program#:~:text=The%20N.C.%20Wildlife%20Resources%20Commission,to%20Navigation%20System%20(USATONS)).
6. NC Parks and Recreation Trust Fund (PARTF): The NC Division of Parks and Recreation has two grant specialists named Lillian Heaton and Cande Killian Wood. Ms. Heaton's contacts are [lillian.heaton@ncparks.gov](mailto:lillian.heaton@ncparks.gov) and (919) 707-9362. Ms. Wood's contacts are [cande.killianwood@ncparks.gov](mailto:cande.killianwood@ncparks.gov) and (919) 707-9370. Their website is: <https://www.ncparks.gov/about-us/grants/parks-and-recreation-trust-fund>.
7. NC Department of Commerce Rural Transformation Grant: Ms. Hazel Edmond, Rural Engagement and Investment Program Director will be able to answer any questions. Ms. Edmond's email is [hazel.edmond@nccommerce.com](mailto:hazel.edmond@nccommerce.com). <https://www.commerce.nc.gov/grants-incentives/rural-transformation-grants>.



8. NC Department of Environmental Quality (DEQ) Resilient Coastal Communities Program: The NC Department of Environmental Quality can be contacted through (877) 623-6748. <https://www.deq.nc.gov/about/divisions/coastal-management/coastal-adaptation-and-resiliency/nc-resilient-coastal-communities-program>.
9. Golden Leaf Flood Mitigation Program: The Golden Leaf Foundation can be contacted using the following phone number and email, (252) 442-7474 and [info@goldenleaf.org](mailto:info@goldenleaf.org). <https://www.goldenleaf.org/mitigation/>.



# Short, Medium, & Long Term Action Steps

## Short Term Action Steps:

These are immediate steps the Aurora can do within a 1 to 5 year timeframe. The Town of Aurora should consider hiring someone to implement the plan by contracting with a professional to help them develop the waterfront development plan. For the purposes of this project,

1. Consider contracting with a consultant or hiring a staff member to implement the project on an ongoing basis. Aurora will need a dedicated effort to fully realize the vision of the 2011 Waterfront Development Plan.
2. The town will have to determine how much local funding they are capable of contributing to the efforts. Many of the grants require matching funds. Local financial commitment will be required for the Town of Aurora to see this effort realized.
3. Permitting is mentioned in page 46 (C-18) in the 2011 Waterfront Development Plan. This is an important first step prior to initiation of any waterfront project. Aurora leadership should begin permitting discussions with the agencies outlined in this part of the report, particularly the Army Corp of Engineers. Section 401 and 404 states that permitting is required, so this must be Aurora's first step before they make other improvements to the waterfront.
4. In addition, on page 49 (C-21) of the 2011 development plan identifies that much of the project is within a Special Flood Hazard Area (SFHA) requiring permits.
5. The entire waterfront area was also identified as being within the 100-year floodplain with a base flood elevation of 7 feet mean sea level. On top of the 401 and 404 permit ments, impacts of the proposed development are additional conversations required with the Army Corp of Engineers.
6. Install adequate lighting and installing a flagpole with Town of Aurora banners will take roughly 1 to 5 years to be implemented.

## Medium Term Action Steps:

These are "medium range" steps that will take a longer time to be implemented in the waterfront redevelopment. These are requirements that will take around 6 to 8 years for implementation. This is largely due to the fact that these improvements are more expensive compared to the short-term goal recommended improvements.

7. The Town of Aurora does not have enough money to pay for these improvement plans in the short-term.
8. However, with time and negotiations with the Army Corp of Engineers, NC Wildlife Resources Commission, and others, they will receive permitting permission and funding to pay for the following requirements.
9. Raise boat launch by 4 feet; install channel markers; construct kayak boat ramp for ecotourism; and construct gazebo or pavilion for social gatherings/concerts

## Long Term Action Steps:

These are long term goals that Aurora will be accomplish within 9 years and beyond. All of these are the waterfront improvements that cost \$100,000 or more to complete.

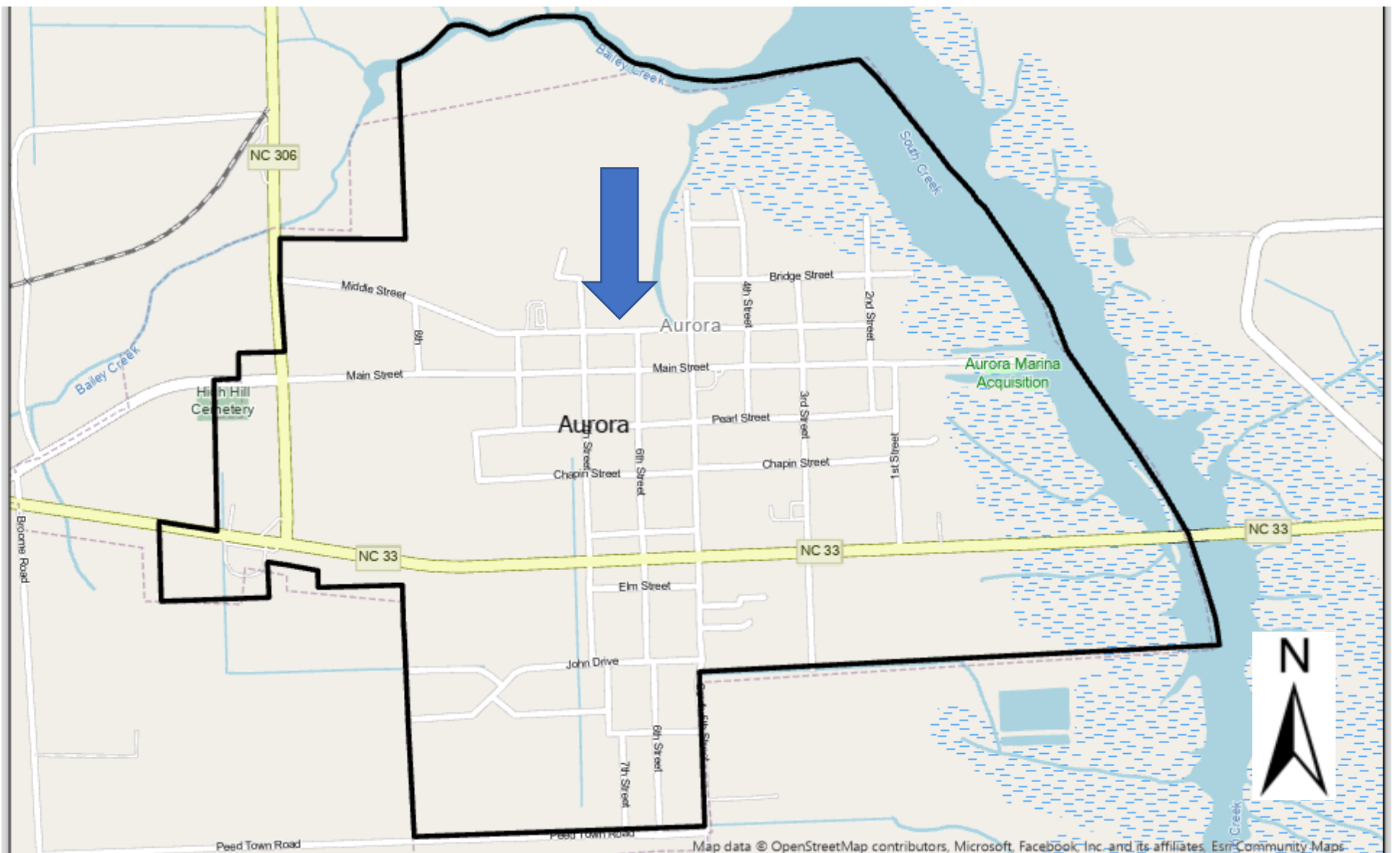
10. Dredge channels to a depth of 7 feet; adequate storm proof A wall with strong cleats to secure various sized vessels; attractive concrete or brick boardwalks extended to First Street; demolition of existing structures not meeting health, safety, or welfare ordinances; construct public restrooms; and expand non-trailer parking on available property.
11. Building an adequate storm proof A wall with strong cleats to secure various sized vessels is going to take the longest amount of time to construct because it has the largest cost estimate at \$1,000,000.



# Aurora Area Maps

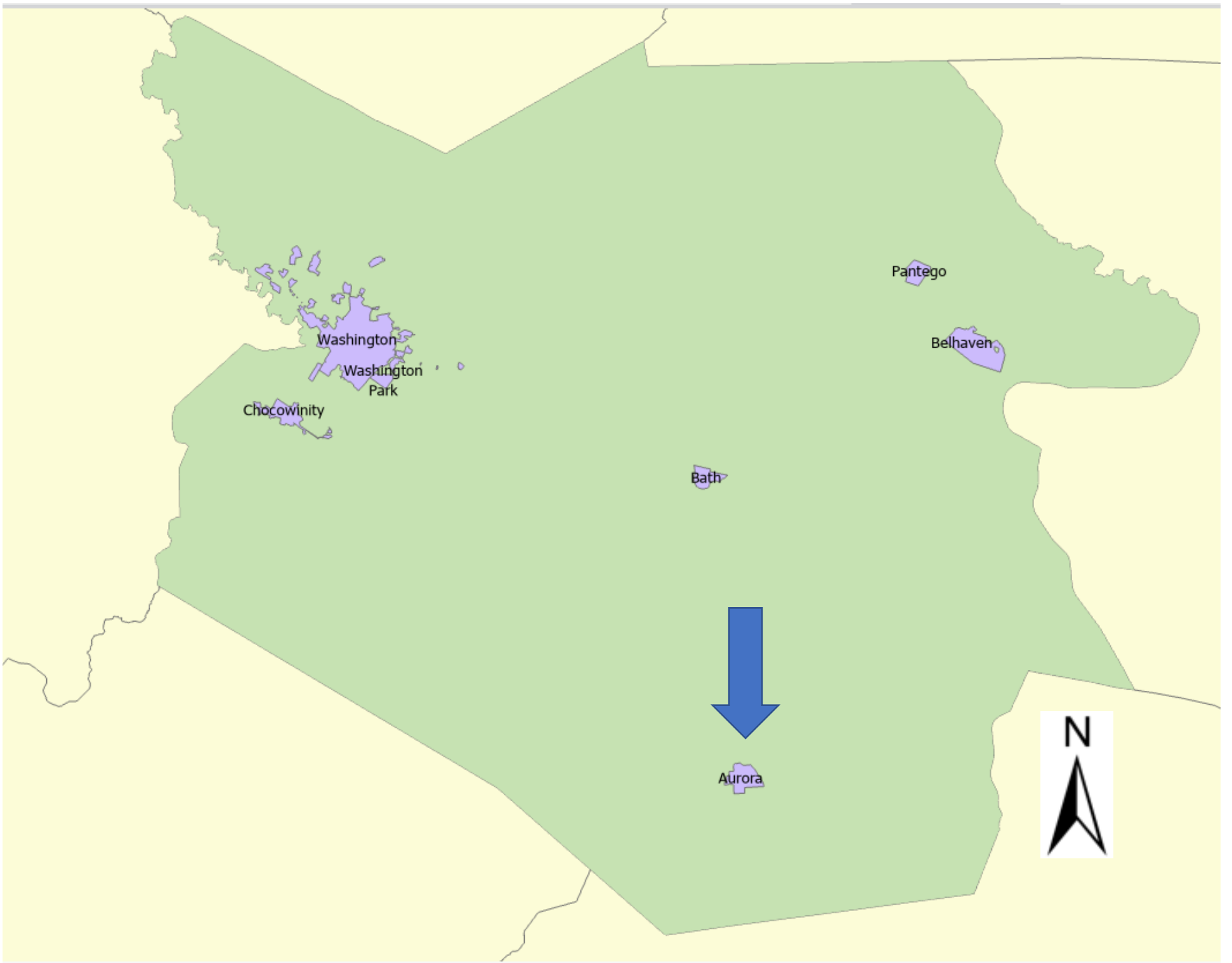


Short, medium, and long-term action goals in Aurora's waterfront. Refer to page 22 to see where the numbered project will occur on the waterfront.



Aurora's city limit area.





Aurora's location within Beaufort County.

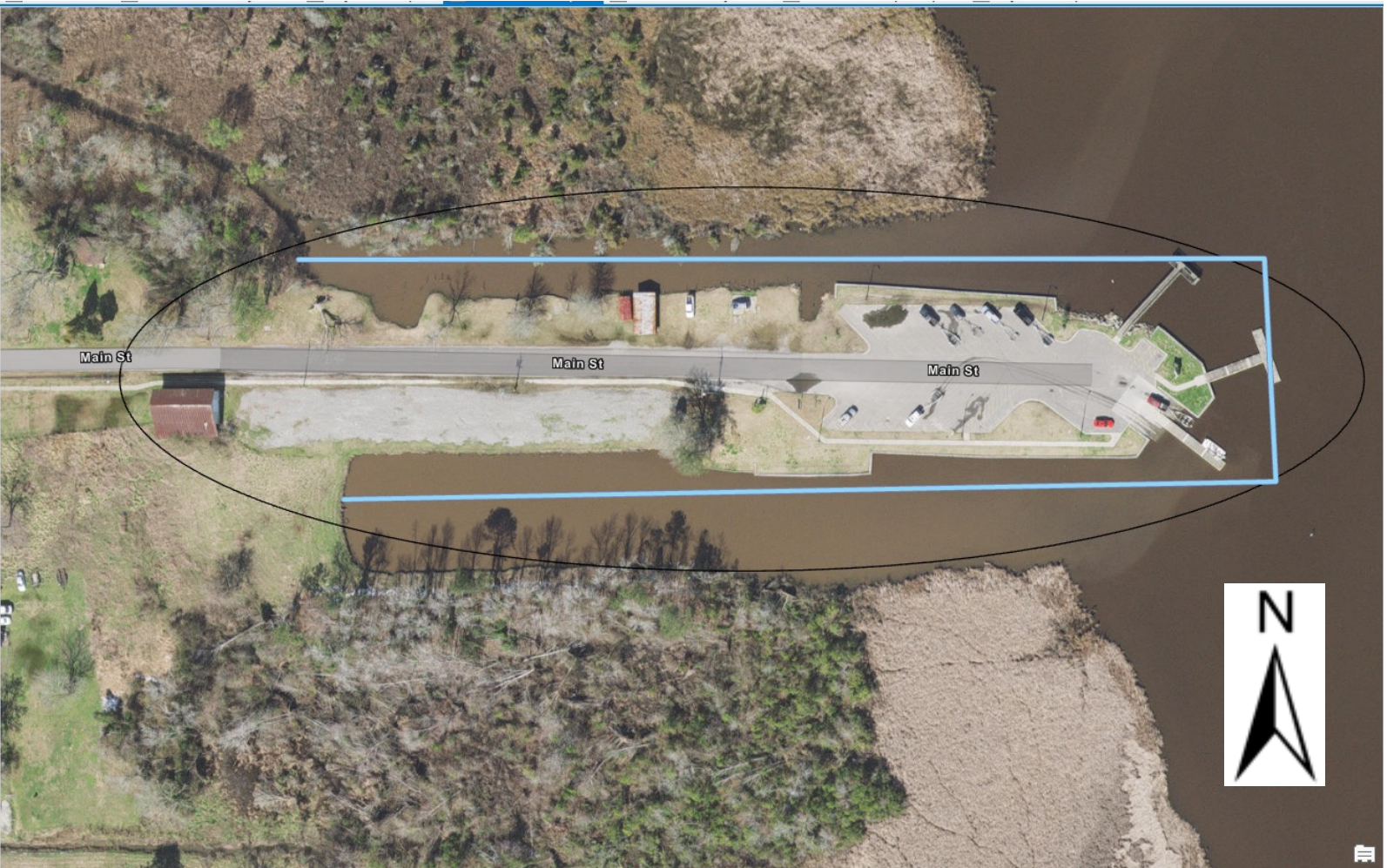


Aurora's location within North Carolina.





Affected parcels from the proposed projects in the 2022 Strategic Plan.



This map shows the total distance of the waterfront, which is roughly 2,252 feet.



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# Appendices

Appendix 1: Town of Aurora 2011 Waterfront Development Plan

Appendix 2: 2022-2024 Town of Aurora Strategic Plan

Appendix 3: Aurora's Historic District Plan

Appendix 4: East Carolina University (ECU) Town of Aurora Main Street Streetscape Improvement  
Conceptual Design