

Socioeconomic Analysis
Passenger Ferry Departure Site
Environmental Assessment/Assessment of Effect
Cape Lookout National Seashore
PMIS 142436



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I. INTRODUCTION & BACKGROUND

Dornbusch Associates was engaged by Otak to perform a socioeconomic impact analysis to support the Passenger Ferry Departure Site Environmental Assessment/Assessment of Effect (EA) that is currently being performed. Under contract with the National Park Service (NPS), the firm Otak recently completed the “Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study” which analyzes the feasibility of transitioning to ferry service provided under a concession contract. Much of this analysis is based on data provided in that report.

This report analyzes the potential impacts to the socioeconomic environment of the Town of Morehead City and the Town of Beaufort, located within Carteret County, North Carolina, based on actions proposed under the EA alternatives. The impact topics addressed in this analysis include impacts to economic output, labor income/employment, and state/local taxes. The report also addresses cumulative impacts associated with other actions within the region.

The report is organized as follows:

Section II. Alternatives & Impact Topics summarizes the EA alternatives and briefly discusses the impact topics considered in this analysis.

Section III. Affected Environment presents an overview of the socioeconomic environment in the Town of Beaufort and the Town of Morehead City, with an emphasis on the impact topics being considered – economic output, labor income/employment, and state/local taxes.

Section IV. Environmental Consequences describes the methodologies used to estimate impacts and provides a detailed summary of the estimated impacts under each alternative for the Town of Beaufort and the Town of Morehead City.

II. ALTERNATIVES & IMPACT TOPICS

This section summarizes the alternatives considered under the Environmental Assessment (EA) and presents the changes to existing ferry operations for each alternative. The following are common to all action alternatives considered in the EA:

- The NPS would award a single concession contract to a ferry operator for use of one departure site in *either* the Town of Beaufort or the Town of Morehead City with the purpose of providing ferry service to Cape Lookout National Seashore.
- Ferry service to Shackleford Banks would be a requirement of the concession contract.
- Ferry service to the Cape Lookout Lighthouse (“lighthouse”) would be authorized but not required.
- Ferry service would predominately be to the Shackleford Beach landing area and the Shackleford Dock. Authorized ferry service to the lighthouse, for which there is anticipated to be significantly less demand and fewer trips, would utilize the existing dock at the lighthouse.
- The NPS will develop criteria and formulate policies to determine the types of tours that would be permitted under Commercial Use Authorizations (CUAs).
- Ferry service would be provided via defined operating schedules.

All action alternatives include those program elements identified as essential to establishing a gateway ferry departure site in the Town of Beaufort/Town of Morehead City area. These include:

- Passenger vehicle parking recreational vehicle (RV)/bus parking
- Loading/unloading area
- Pedestrian connections
- An orientation area
- Ticketing area
- Passenger queuing area
- Shade/rain shelter
- Public restrooms
- Wayfinding signage from US 70
- Ferry docks
- Accessibility (as defined by the Americans with Disability Act [ADA] and Architectural Barriers Accessibility Act Standards [ABAAS])

A. ALTERNATIVE A: NO ACTION ALTERNATIVE

Under Alternative A, there would be no changes to the current method of providing ferry service to Cape Lookout National Seashore and the NPS would continue to grant CUAs annually to ferry operators located in the Town of Beaufort and the Town of Morehead City. The number and location of ferry service providers would be unpredictable and subject to variation from year to year, with no guarantee that ferry service to Shackleford Banks and the lighthouse would be available. As is currently the case, visitors would receive limited information regarding park resources, history, rules/regulations, and orientation. Since, the provision of park related information is currently at the discretion of the ferry CUA operators, visitors would likely continue to receive information that is non-standardized or information that has received little or no NPS review or approval.

The location of the ferry arrival sites would also continue to be variable and depend on the preferences of the ferry operators and land owners. The NPS would continue to provide orientation and public restroom facilities at both main arrival sites on Shackleford Banks and the lighthouse.

B. ALTERNATIVE B: FRONT STREET – TOWN OF BEAUFORT

Under Alternative B, ferry service would be consolidated under a single concession contract and ferry service concession operations would be located in the Post Office building on Front Street in the Town of Beaufort. The following sections highlight individual planning elements as specified in the conceptual site development plans.

Ferry Docks. The docks that would be utilized by the ferry concessioner under Alternative B include the docks known as the swimming dock at Grayden Paul Park. Upgrades to the docks, piles, and electrical and light systems would be necessary for safe and accessible ferry boat operations to begin at this location.

New Orientation/Interpretive, Ticketing and Other Facilities. The Post Office building, which is being acquired by the Town of Beaufort, would house space for NPS/ferry concessioner use, potentially including an orientation, interpretive, and ticketing area and restrooms. As a temporary alternative, a ticketing area with wayfinding signage directing visitors to the ferry service location would be developed within an expanded deck area on the docks. A covered pavilion would be provided for passenger queuing prior to departure.

Passenger Parking. Parking would be dispersed throughout downtown Beaufort in existing parking areas and curb-side spaces. The required 100 vehicle spaces could be identified within two tenths of a mile from the proposed docks.

Wayfinding Signage. Under this alternative, new wayfinding signage would be erected at the intersection of Front and Pollock Street as well as along US-70 to inform visitors of the location of the ferry departure site to the national seashore.

C. ALTERNATIVE C: 10TH STREET – TOWN OF MOREHEAD CITY

Under Alternative C, ferry service would be consolidated under a single concession contract and ferry service operations would be located at 10th Street along the western border of The Town of Morehead City's downtown district. The following sections highlight individual planning elements as specified in the conceptual site development plans.

Ferry Docks. Under Alternative C, several marine infrastructure improvements would be required to make the site operational for ferry service. The 10th Street site concept plan proposes to take the existing boat ramp out of service and reconstruct the existing boat ramp docks for ferry vessels. The reconstructed docks would be of wood timber and pile construction and 8' wide with a length of 100' for the west dock and approximately 70' for the east dock. The docks would be able to accommodate the proposed ferry fleet with vessels ranging from approximately 25 to 60 feet. The docks would be equipped with electric power pedestals, dock lighting and water.

New Orientation/Interpretive, Ticketing and Other Facilities. A gateway/orientation area and sheltered queuing area would be developed adjacent to the docks. A new ticketing/restroom/concessions building would be constructed near the street, adjacent to the parking lot.

Passenger Parking. The current site could accommodate roughly 70 parking spaces with 30 additional parking spaces being provided on nearby adjacent streets. A loading and unloading area is proposed at the north side of Shepard Street along with an improved pedestrian crossing. A pedestrian walkway would provide a direct access to the ferry dock from the street.

Wayfinding Signage. Under this alternative, the prohibition on left turns from US 70 (Arendell Street) onto 10th Street would be changed by the town in order to facilitate access to the site and wayfinding signs would be posted.¹

D. IMPACT TOPICS CONSIDERED

This analysis addresses the following impact topics as related to the changes being proposed under the alternatives discussed in the preceding section.

1. Economic Output

This report analyzes the impacts of the action alternatives on economic output in the Town of Beaufort, the Town of Morehead City, and more broadly to Carteret County. Economic output is defined as the combined value of all goods and services produced within the project study area. Economic output was selected as an impact topic, as changes in the ferry passenger spending patterns and levels, employment in the ferry industry, and changes in construction spending on ferry dock/site improvements is anticipated to impact the local demand for and consequently production of goods and services.

2. Labor Income/Employment

Labor income/employment was selected as an impact topic as changes in ferry passenger spending patterns and levels, employment in the ferry industry, and changes in construction spending on ferry dock/site improvements is anticipated to impact income levels within the project area, primarily by affecting employment.

3. State/Local Taxes

Taxes were selected as an impact topic as shifts in ferry passenger spending patterns and levels, employment in the ferry industry, and changes in construction spending on ferry dock/site improvements is anticipated to impact the level of state/local taxes in the study region.

¹ Information presented in this section is based on conceptual site development plans described in the “Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study / May 2010,” by Otak.

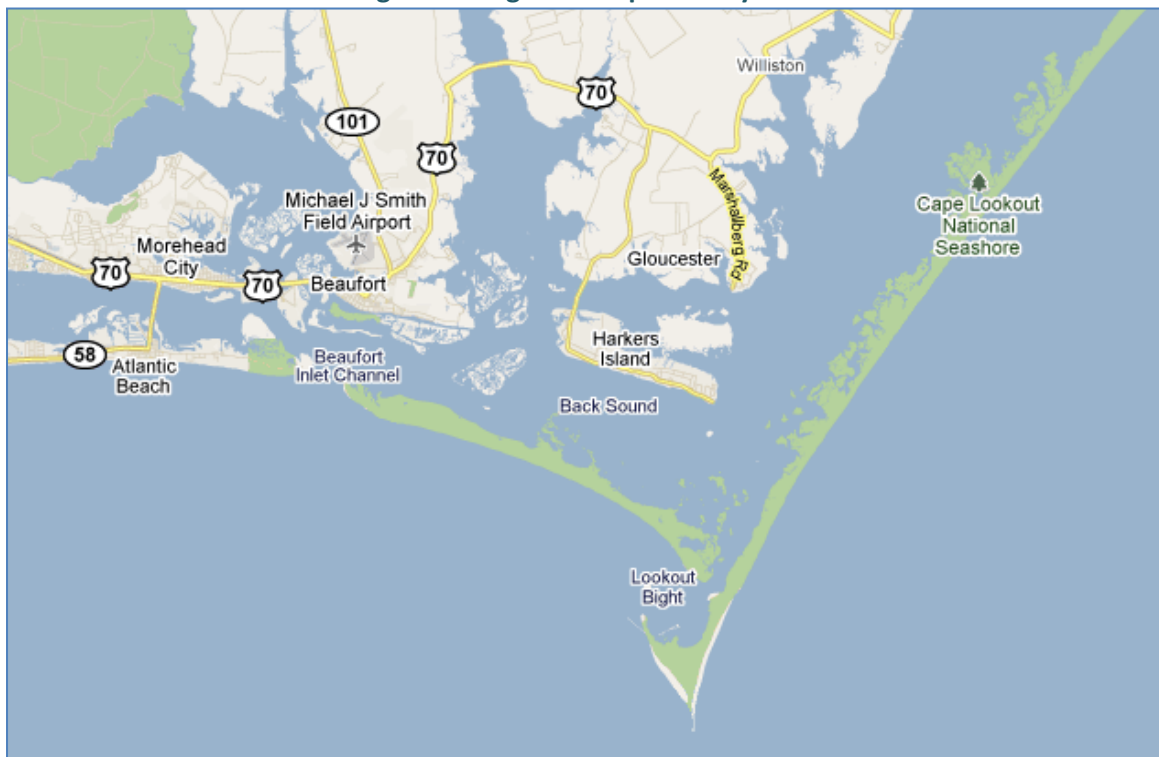
III. AFFECTED ENVIRONMENT

A. OVERVIEW OF AFFECTED ENVIRONMENT

The primary study areas considered in this analysis are the Town of Beaufort and the Town of Morehead City both located in Carteret County, North Carolina. Ferry service to Shackleford Banks within Cape Lookout NS has historically operated out of the Town of Beaufort and the Town of Morehead City. Therefore, these communities have provided an important transportation link to visitors wishing to visit Cape Lookout NS. Since this report analyzes the impacts associated with changes to ferry service operations, it is necessary to understand the socioeconomic environment, in this case the Town of Beaufort and the Town of Morehead City, in which the proposed changes may occur.

Figure 1 displays a map of the region including the locations of the Town of Beaufort and the Town of Morehead City relative to Cape Lookout NS.

Figure 1. Regional Map of Study Area



As can be seen in the figure, the Town of Morehead City lies several miles west of the Town of Beaufort. The main access between the two communities is US Highway 70. Considering the close proximity of both communities to the boundaries of Cape Lookout NS, the Town of Beaufort and the Town of Morehead City are natural locations from which to provide ferry service to the southern portions of Cape Lookout NS.

The downtown waterfront area of the Town of Morehead City is the one the main areas frequented by visitors. This region offers fine dining options for travelers and access to charters, diving excursions,

tours, and other water based recreation. In recent years, the downtown waterfront area has been upgraded with improved pedestrian walkways, new docks, public restrooms, parks, and other amenities.

The Town of Beaufort, which lies directly to the east of the Town of Morehead City, is also a popular tourism destination in the region and is the county seat of Carteret County. The primary attraction in the Town of Beaufort is the historic downtown area bordered by Turner and Front Streets. The waterfront district offers a range of upscale restaurants, marinas, and retail establishments. The Town of Beaufort is also located in close proximity to popular regional attractions, including the Rachel Carson Estuarine Reserve, the North Carolina Maritime Museum and numerous historic sites.

B. DEMOGRAPHIC SUMMARY

Exhibit 1 summarizes population estimates for the Town of Beaufort, the Town of Morehead City and Carteret County over the period 2000 to 2008.

Exhibit 1. Population in the Towns of Morehead City, Beaufort and Carteret County, 2000 to 2008

	Morehead City	Beaufort	Carteret County
2000	7,882	3,794	59,404
2001	7,913	3,796	59,737
2002	7,977	3,833	60,247
2003	8,182	3,893	60,958
2004	8,563	4,002	61,846
2005	8,909	4,122	62,405
2006	9,323	4,221	63,202
2007	9,446	4,188	63,154
2008	9,513	4,189	63,195
CAGR (2000-2008)²	2.4%	1.2%	0.8%

Source: US Census

The exhibit indicates that the population of the Town of Morehead City was 9,513 in 2008 while the population of the Town of Beaufort was less than one-half this amount at 4,189. Together, the Town of Morehead City and the Town of Beaufort populations represent approximately 22% of Carteret County's population. In addition, over the last nine years, from 2000 to 2008, the population of the Town of Morehead City has grown at double the rate of population growth in the Town of Beaufort, or 2.4% compared to 1.2%. Population growth for Carteret County over this period averaged 0.8% per year, which is lower than growth rates in both the Town of Morehead City and the Town of Beaufort and is below the annual population growth rate for the entire state of North Carolina over this period of 1.7%.

Exhibit 2 summarizes several demographic characteristics of the Town of Beaufort and the Town of Morehead City.

² CAGR stands for compound annual growth rate.

Exhibit 2. Demographic Characteristics in the Towns of Morehead City and Beaufort

	Beaufort	Morehead City	Carteret County
Median Age	43	41	42
Average Household Income	\$69,626	\$76,005	\$76,036
Number of Households	5,788	7,401	30,123
% of Pop. Below Poverty Line	16.6%	14.6%	10.7%

Source: US Census; IMPLAN 2008 County Plus Data for Carteret County

The exhibit indicates average household income is nearly the same in Carteret County and the Town of Morehead City yet slightly lower in the Town of Beaufort. The proportion of the population below the poverty line is greater in both the Town of Beaufort and the Town of Morehead City relative to the county, at 16.6% and 14.6%, respectively, compared to 10.7% for the county. The greater proportion of the population below the poverty line highlights the rural nature of the region in which the Town of Beaufort and the Town of Morehead City are located.

C. OVERVIEW OF THE LOCAL ECONOMY IN THE TOWNS OF BEAUFORT AND MOREHEAD CITY

The following sections summarize key aspects of the Town of Beaufort and The Town of Morehead City economies including the largest industries by economic output, employment, and labor income. The software program IMPLAN used to estimate impacts in this analysis provides useful economic metrics regarding the composition and size of the Town of Beaufort and the Town of Morehead City economies. The following sections summarize the existing levels of economic output, labor income, employment, and state/local taxes for the Town of Beaufort and the Town of Morehead City. The data presented for economic output, labor income/employment, and state/local taxes is used to understand the magnitude of impacts to these indicators, which are discussed in Section IV of this analysis.

1. Economic Output by Industry

Exhibit 3 displays the top ten industries with the largest contributions to economic output in the Town of Beaufort.

Exhibit 3. Top Ten Industries by Economic Output in the Town of Beaufort, 2008 (\$2010)

	Value of Output	% of Total Local Output
Veneer and plywood manufacturing	\$57,777,580	10%
Boat building	\$41,615,084	7%
Imputed rental activity for owner-occupied dwellings	\$40,254,024	7%
Food services and drinking places	\$36,904,016	7%
Wholesale trade businesses	\$35,722,348	6%
Education (state/local government)	\$29,169,632	5%
Construction of new nonresidential commercial and health care structures	\$25,734,232	5%
Real estate establishments	\$19,494,606	3%
Construction of new residential permanent site single- and multi-family structures	\$15,599,769	3%
Construction of other new nonresidential structures	\$14,537,183	3%
Total Value of Output for Top-Ten Industries	\$316,808,474	56%
Total Value of Output in the Town of Beaufort	\$567,237,763	100%

Source: IMPLAN 2008 County Plus Data for Carteret County

The exhibit reveals that veneer/plywood, boat building, rental activities, and food service/drinking places are some of the largest producers of goods and services in the Town of Beaufort. The prominence of the food services industry, including restaurants, bars and cafes, which alone represents 7% of total annual economic output, reflects the importance of tourism in the local economy. Similarly, the strength of the real estate sector likely reflects vacation rentals in the community, again signifying the importance of tourism to the Town of Beaufort's economy.

In addition, the importance of the construction industries in the Town of Beaufort, collectively representing 11% of the local economy would tend to indicate a community that is growing as new housing, medical, and commercial facilities are constructed. IMPLAN estimates that total economic output in 2008, the latest year for which estimates are available, was approximately \$567 million in 2010 dollars.

Exhibit 4 presents the top ten industries with the largest contributions to economic output in the Town of Morehead City.

Exhibit 4. Top Ten Industries by Economic Output in the Town of Morehead City, 2008 (\$2010)

	Value of Output	% of Total Local Output
Food services and drinking places	\$92,306,520	7%
Offices of physicians, dentists, and other health practitioners	\$82,497,856	6%
Wholesale trade businesses	\$62,514,112	5%
Imputed rental activity for owner-occupied dwellings	\$50,842,648	4%
Air conditioning, refrigeration, and warm air heating equipment manufacturing	\$48,117,060	4%
Retail Stores - General merchandise	\$44,084,856	3%
Construction of new nonresidential commercial and health care structures	\$43,555,720	3%
Monetary authorities and depository credit intermediation activities	\$40,139,736	3%
State and local government (non-education)	\$38,154,036	3%
Education (state/local government)	\$36,842,560	3%
Total Value of Output for Top-Ten Industries	\$539,055,104	42%
Total Value of Output in the Town of Morehead City	\$1,276,405,703	100%

Source: IMPLAN 2008 County Plus Data for Carteret County

The exhibit indicates that some of the top producers of goods and services in the Town of Morehead City are the food services, health, wholesale trade, and housing rental industries. Considering the range of industries in the Town of Morehead City relative to the Town of Beaufort, it is clear that economy of the Town of Morehead City is more diversified compared to the Town of Beaufort. Similar to the Town of Beaufort, the high degree of goods and services produced by the foods services industry in the Town of Morehead City likely reflects the importance of tourism to the local economy.

IMPLAN data indicates that total economic output in the Town of Morehead City in 2008 was approximately \$1.28 billion in 2010 dollars. The exhibit also reveals that the economy of the Town of Morehead City is more than twice as large as the Town of Beaufort, producing \$1.28 billion worth goods and services annually, compared to \$567 million in the Town of Beaufort.

2. Employment by Industry

According to the 2000 Census, the largest employers within the Town of Beaufort were the following industries:

- Arts, entertainment, recreation, accommodation and food services – *18% of workforce*,
- Retail trade - *10% of workforce*,
- Education, health and social services – *13% of workforce*,
- Construction - *10% of workforce*

The large concentration of employment within the arts/entertainment/recreation/accommodation/food services and retail industries again highlights the importance of the tourism industry in the Town of Beaufort. At the time of the 2000 Census, these industries employed nearly one-third of all workers in the Town of Beaufort. The IMPLAN model provides more current estimates of labor income/employment for the Town of Beaufort.

Exhibit 5 summarizes the top ten largest industry employers in the Town of Beaufort.

Exhibit 5. Top Ten Industries by Employment in the Town of Beaufort, 2008 (\$2010)

	# of Jobs	Labor Income	% of Total Employment
Food services and drinking places	727	\$11,728,427	13%
Education (state/local government)	543	\$25,753,768	10%
Veneer and plywood manufacturing	345	\$10,195,010	6%
Wholesale trade businesses	278	\$13,395,295	5%
State and local government (non-education)	238	\$10,163,146	4%
Construction of new nonresidential commercial and health care structures	210	\$6,516,968	4%
Boat building	170	\$8,220,352	3%
Real estate establishments	158	\$3,173,927	3%
Construction of new residential permanent site single- and multi-family structures	151	\$3,885,918	3%
Private household operations	145	\$728,937	3%
Total Employment/Labor Income for Top-Ten Industries	2,965	\$93,761,748	54%
Total Employment in the Town of Beaufort	5,581	\$176,654,963	100%

Source: IMPLAN 2008 County Plus Data for Carteret County

The exhibit shows that largest employment is in the food services industry, which constitutes 13% of all jobs in the Town of Beaufort. The exhibit indicates that the food services sector paid \$11.7 million in labor income to employees and proprietors in 2008. Again, the high level of employment in food services in the Town of Beaufort is a reflection of the importance of regional tourism. In 2008, there were 5,581 full and part-time jobs in the Town of Beaufort representing \$176.7 million in labor income.

The 2000 Census reported the largest employers within the Town of Morehead City consisted of the following industries:

- Education, health and social services – *20% of the labor force*,

- Arts, entertainment, recreation, accommodation and food services –14% of labor force,
- Retail trade - 12% of labor force,
- Construction - 12% of workforce

Similar to the Town of Beaufort, the large degree of employment within the arts/entertainment and retail industries in the Town of Morehead City is a reflection of the importance of tourism in the local economy. At the time of the 2000 Census, these industries employed nearly one-quarter of all workers in the Town of Morehead City. The IMPLAN model provides more current estimates of labor income/employment for the Town of Morehead City.

Exhibit 6 summarizes the top ten largest industry employers in the Town of Morehead City.

Exhibit 6. Top Ten Industries by Employment in the Town of Morehead City, 2008 (\$2010)

	# of Jobs	Labor Income	% of Total Employment
Food services and drinking places	1,818	\$29,335,837	12%
Offices of physicians, dentists, and other health practitioners	822	\$46,820,883	6%
State and local government (non-education)	789	\$33,686,068	5%
Retail Stores - General merchandise	768	\$19,337,384	5%
Education (state/local government)	686	\$32,528,168	5%
Investigation and security services	599	\$9,919,554	4%
Wholesale trade businesses	487	\$23,441,766	3%
Retail Stores - Motor vehicle and parts	383	\$14,361,173	3%
Construction of new nonresidential commercial and health care structures	355	\$11,030,103	2%
Retail Stores - Building material and garden supply	322	\$9,956,815	2%
Total Employment/Labor Income for Top-Ten Industries	7,029	\$230,417,751	47%
Total Employment in the Town of Morehead City	14,836	\$470,679,946	100%

Source: IMPLAN 2008 County Plus Data for Carteret County

The exhibit indicates that, similar to the Town of Beaufort, the largest employer in the Town of Morehead City is the food services industry. The exhibit reveals that the food service industry alone represents 12% of total employment, followed by healthcare and state/local government, representing 6% and 5% of total employment, respectively. One of the main differences between employment in the Town of Morehead City and the Town of Beaufort is the greater prominence of the retail sector in the Town of Morehead City. IMPLAN reports that in 2008, there were 14,836 full and part-time jobs in the Town of Morehead City, representing \$470.7 million in labor income.

3. Estimated State/Local Taxes

The share of state and local taxes generated by the Town of Beaufort and the Town of Morehead City were estimated using the most recent data available from the 2008 IMPLAN model. In the impact analysis section of this study, impacts to state and local taxes are estimated and compared to the existing shares of state/local taxes in the Town of Beaufort and the Town of Morehead City. **Exhibit 7** summarizes estimated state/local taxes in the Town of Beaufort and the Town of Morehead City in 2008, adjusted to 2010 dollars.

Exhibit 7. State/Local Taxes in the Towns Morehead City and Beaufort, 2008 (\$2010)

	Share of 2008 State/Local Taxes
Town of Beaufort	\$76,799,376
Town of Morehead City	\$220,376,955

Source: IMPLAN 2008 County Plus Data for Carteret County

The larger share of state/local taxes in the Town of Morehead City is a reflection of the city's larger and more diversified economy compared to the Town of Beaufort.

D. CURRENT FERRY SERVICE IN THE TOWNS OF BEAUFORT AND MOREHEAD CITY

Currently there are two ferry service providers located in the Town of Beaufort and one in the Town of Morehead City. All ferry service providers are required to apply annually for an NPS issued Commercial Use Authorization or CUA which allows the operator to provide commercial ferry service to Cape Lookout NS. Historically, the vast majority of visitor ridership has been provided by ferry operators located in the Town of Beaufort. Ferry operators primarily provide visitors with access to the west end of Shackleford Banks and will occasionally provide service to the lighthouse. Ferry service to the lighthouse is mainly provided by four CUA ferry operators located on Harkers Island. The ferry operators in the Town of Beaufort and the Town of Morehead City have been providing ferry service for the last 10 to 15 years.

Ferry service to Shackleford Banks provided by operators in the Town of Beaufort is just one of several services provided by these operators. Other services provided include a range boat tours and charter trips that include excursions to Cape Lookout NS and other popular destinations in the region. The ferry operator in the Town of Morehead City provides limited service to Shackleford Banks.

The ferry operators in the Town of Beaufort use small skiffs to transport passengers to Cape Lookout and offer scheduled hourly service primarily during the summer, spring and fall seasons. Ferry service during the winter is provided based on demand and is always subject to cancellation due to inclement weather. In the summer, one ferry operator in the Town of Beaufort (Outer Banks Ferry) provides half-day tours of the lighthouse. Finally, there is also a sailboat tour operator located in the Town of Beaufort that provides half-day tours/excursions to Cape Lookout NS during the summer months using a large catamaran vessel. This operator *does not* provide regular ferry service to Cape Lookout NS. Ferry rates typically range between \$12.00 to \$15.00 for adults and \$6.00 to \$8.00 for children, with group discounts generally offered.

According to data provided by NPS, ferry ridership out of the Town of Beaufort has averaged approximately 22,200 during the last three years, from 2007 to 2009. Ferry ridership out of the Town of Morehead City typically averages between 200 and 300 passengers per year.³ These figures exclude tours and multi-destination excursions provided by the ferry operators in these locations. Currently, the CUA ferry operators in the Town of Beaufort and the Town of Morehead City are only required to report their ridership volumes and gross revenues to the NPS and the North Carolina Utilities Commission. Considering that the action alternatives presented in this analysis call for ferry service to Shackleford Banks to be provided under a long-term concession contract instead of a CUA, it is likely that existing

³ This is based on ridership information provided by Vanasse Hangen Brustlin, Inc. (VHB) - the firm currently contracted to develop/draft the ferry Environmental Assessment (EA) - and confirmed by Denard Harris, owner of Waterfront Ferry Service in the Town of Morehead City.

ferry operators in the Town of Beaufort and the Town of Morehead City will be negatively impacted if they were not awarded the new ferry concession contract. However, given each operator's experience providing ferry service to Shackleford Banks, the current operators might have a competitive advantage relative to an outside operator without such experience.

Under the ferry concession contract, the concessioner would be required to utilize two larger capacity vessels capable of transporting up to 48 passengers each, and also utilize a smaller skiff with a 16 passenger capacity. The use of these vessels would represent the primary capital investment that a concessioner would be required to make.

Impacts to consumer choice and wellbeing should also be considered when assessing the concept of equity. Transitioning to ferry service provided under a concession contract creates a number of benefits to visitors to the national seashore. For example, providing a dedicated, long-term location for ferry service with fixed operating schedules will help minimize visitor confusion over the location/times ferry service is available. The quality of the visitor experience would also be improved by providing visitors with NPS approved information regarding park resources and desired behavior while at the national seashore. In addition, the NPS plans to secure a ferry docking/launch site via a long-term agency partnership, relieving the concessioner of the burden of providing a launch site which would be cost prohibitive. In addition, under a concession contract, the NPS would have a greater ability to regulate the prices charged by a concessioner while permitting the concessioner the opportunity to earn a reasonable return on its investments. This greater ability to regulate ferry prices would tend to maintain or increase any consumer surplus by keeping prices reasonable. Although visitors to the national seashore would have fewer choices between ferry service providers under a concession contract, visitors would still have a choice between two distinct ferry concession operations, consisting of ferry operations at Harkers Island and ferry operations in Town of Beaufort/ Town of Morehead City.

IV. ENVIRONMENTAL CONSEQUENCES

A. METHODOLOGY

1. Overview of Economic Model

This section summarizes the methods used to analyze the potential impacts associated with the action alternatives being considered as part of the EA. The primary sources of impacts to economic output, personal income, taxes, and the current CUA ferry operators within the project area include:

- Net changes in visitor spending on ferry services;
- Net changes in visitor spending on other goods/services;
- Net changes in ferry industry employment;
- Net changes in ferry fuel expenditures;
- Net changes in ferry vessel repair and maintenance;
- Construction expenditures on new ferry facilities;

Since the action alternatives being considered locate *all* ferry services to Shackleford Banks in either the Town of Beaufort or the Town of Morehead City, the impact analysis presented in this report examines the impacts to both communities under each alternative. Since ferry service operations currently exist in the Town of Beaufort and the Town of Morehead City, this analysis examines the marginal or net change in spending and employment in these communities that would occur under each alternative, which avoids double counting the magnitude of the associated impacts.

An important assumption in this analysis is that all shifts in spending and changes in employment/personal income occur in either the Town of Beaufort or the Town of Morehead City. This is a reasonable assumption for spending on ferry services, as this spending is expected to be concentrated in the location where the ferry concession is ultimately developed. However, other spending shifts, such as visitor spending on other goods/services, are likely to be more dispersed and distributed *between* the Town of Beaufort and the Town of Morehead City or other locations in Carteret County. For example, if ferry concession operations are located in the Town of Morehead City (Alternative C), visitors planning to ride the ferry will not necessarily shift all of their expenditures on other goods/services to the Town of Morehead City, but will likely continue to visit and make purchases in the Town of Beaufort and other areas of Carteret County as well. However, there is little information available that would allow us to estimate the distribution of spending shifts *between* the Town of Beaufort and the Town of Morehead City for a particular alternative. For this reason, the magnitude of the estimated impacts presented in this analysis represent conservative, upper-bound estimates, while the magnitude of the actual impacts would likely be smaller than those estimated in this report.

The input/output software IMPLAN was used in this analysis to model impacts to the local economies of the Town of Beaufort and the Town of Morehead City under each of the action alternatives considered in the EA. Input/output models work by analyzing how a change in spending or labor income/employment within a particular industry or for a good/service (i.e. the input) circulates through the economy via production and demand linkages, impacting the demand and supply for other goods/services. An initial change in spending or labor income/employment will have multiplier effects within the economy, increasing or reducing the value of economic output, labor income/employment,

and taxes.⁴ For example, if a construction project generates spending of \$100,000 on equipment rentals from a local business, that equipment rental business receives this spending, and in-turn itself spends a fraction of the \$100,000, such as on purchases of new supplies/equipment, hires new staff, etc. thus generating additional spending impacts. This multiplier process continues to ripple through the economy until the effect is exhausted.

IMPLAN uses historical data to determine the sectors that exist within a particular economy. If spending shifts occur in a particular economic sector, then IMPLAN is capable of modeling these impacts as growth in this and related sectors. However, if a spending shift occurs in a sector that does not exist in the economy, IMPLAN will alert the user that this sector does not exist and provides an option to create the new sector, which will enable the model to estimate the associated impacts. IMPLAN is also capable of matching spending shifts in sub-sectors of a larger economic sector, for example, retail spending on gifts/souvenirs compared to retail spending on clothing.

In IMPLAN, the impacts of new spending in retail sectors will typically be lower than the initial spending amount, as spending impacts are only applied to the local retail margins. This is because the model assumes that most retail items are produced outside the local economy, and therefore wholesale spending by retailers based in the local economy impact other economies where the item is produced or sold.

It is important to recognize that different economies are linked to each other (to a greater or lesser extent) via imports and exports of goods and services. IMPLAN accounts for these linkages by analyzing the trade flows (imports/exports) of goods and services within and between economies. However, IMPLAN does not permit analysis of impacts *between* economies using the 2008 IMPLAN zip code data on which this analysis is based. For example, impacts to economic output, employment/personal income, and taxes in the Town of Morehead City that result from changes in visitor spending in the Town of Beaufort cannot be analyzed. In this case, only the impacts to economic output, employment/personal income, and taxes in the Town of Beaufort can be analyzed, not the transferred impacts (acting through imports/exports) occurring in The Town of Morehead City.

2. Impact Terms and Key Assumptions

a. Impacts Estimated by IMPLAN

IMPLAN distinguishes between three primary types of impacts or effects, which include:

- **Direct Effects** are defined by IMPLAN as “a series (or single) of production changes or expenditures made by producers/consumers as a result of an activity or policy. Applying these initial changes to the multipliers in an IMPLAN model will then display how the region will respond, economically to these initial changes.”
- **Indirect Effects** are defined by IMPLAN as “the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to value added.”

⁴ In this report economic output is defined as the value of all goods/services produced in the local economy within one year.

- **Induced Effects** are defined by IMPLAN as “the response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added.” In this case IMPLAN “recognizes that labor income (employee compensation and proprietor income components of value added) is not a leakage to the regional economy. This money is re-circulated through the household spending patterns causing further local economic activity.”⁵

The sum of direct, indirect, and induced effects (or impacts) represent the total impact from an initial change in spending or employment within the local economy. For sake of clarity, this study only reports the total impacts associated with changes in spending and employment in the Town of Beaufort and the Town of Morehead City under each alternative.

This study utilizes the IMPLAN 2008 County Plus Package data for Carteret County, North Carolina. This data package allows Carteret County to be separated into ZIP codes that can be analyzed individually, which allows impacts to local economies to be analyzed. In this case, we use the ZIP codes for the Town of Beaufort (28516) and the Town of Morehead City (28557) to represent the economies of these communities.

The following subsections present the terms and key assumptions that are used to assess the impacts that are estimated under each alternative.

b. Type of Impact: Beneficial or Adverse

Beneficial impacts are defined as a positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition. In this analysis, increases in economic output, labor income/employment, and state/local taxes are considered beneficial impacts to the area.

Adverse impacts are defined as a change that moves the resource away from a desired condition or detracts from its appearance or condition. In this analysis, decreases in economic output, labor income/employment, and state/local taxes are considered adverse impacts to the area.

c. Impact Context

Context refers to the setting within which an impact occurs and can be site specific, local, parkwide, or regionwide. Site-specific impacts would occur at the location of the action, local impacts would occur within the general vicinity of the project area, parkwide impacts would affect a greater portion outside the project area yet within the park, and regionwide impacts would extend beyond park boundaries. In this analysis, all impacts are judged to occur locally, within the Town of Beaufort and The Town of Morehead City.

d. Impact Intensity

Impact intensity is the degree to which a resource would be affected by the impact ranging from negligible, minor, moderate, to major. The following impact intensities are defined for each impact topic addressed in this analysis and are based on professional judgment.

⁵ Minnesota IMPLAN Group website glossary, found online at:
http://implan.com/v3/index.php?option=com_glossary&Itemid=164

Economic output. The following summarizes intensity definitions for impacts to economic output.

- Negligible impacts to output are impacts that would likely be so small as to be nearly unperceivable to actors in the location where the impact is judged to occur. For the purposes of this analysis, impacts that are less than \$250,000 are considered to be negligible.
- Minor impacts are those that would likely be somewhat perceivable by actors in the location where the impact is judged to occur, but would be relatively small compared to current levels of economic activity. In this analysis, impacts to economic output that are between \$250,000 and \$1.5 million are considered minor.
- Moderate impacts are those that would be perceivable by actors in the location where the impact is judged to occur. In this analysis, impacts to economic output that are between \$1.5 million and \$5.0 million are considered moderate.
- Major impacts to economic output are those that would be highly perceivable to local economic actors and would represent a significant change in the structure of the existing economy. In this analysis, impacts to economic output that are greater than \$5.0 million are considered major.

Labor income/employment. The following summarizes intensity definitions for impacts to labor income/employment. Note that new jobs are reported as the number of average annual part-time and full-time jobs created as the result of a given impact.

- Negligible impacts to labor income/employment are those that would likely be so small as to be nearly unperceivable to economic actors in the location where the impact is judged to occur. For the purposes of this analysis, impacts to labor income/employment that are less than \$200,000 (or less than 10 new jobs) are considered to be negligible.
- Minor impacts to labor income/employment are those that would be somewhat perceivable by actors in the location where the impact is judged to occur, but would be relatively small compared to current levels of labor income/employment. In this analysis, impacts to labor income/employment that are between \$200,000 and \$1.0 million (or between 10 and 30 new jobs) are considered minor.
- Moderate impacts to labor income/employment are those that would be perceivable by actors in the location where the impact is judged to occur. In this analysis, impacts to labor income/employment that are between \$1.0 million and \$5.0 million (or between 30 and 90 new jobs) annually are considered moderate.
- Major impacts to labor income/employment are those that would be highly perceivable to local economic actors and would represent a significant change in the levels of labor income/employment in the local economy. In this analysis, impacts to labor income/employment that are greater than \$5.0 million (or greater than 90 new jobs) are considered major.

Taxes. The following summarizes intensity definitions for impacts to state/local taxes.

- Negligible impacts to state/local taxes are those that would likely be so small as to be nearly unperceivable to economic actors in the location where the impact is judged to occur. For the purposes of this analysis impacts to state/local taxes that are less than \$100,000 are considered to be negligible.
- Minor impacts to state/local taxes are those that would be somewhat perceivable by actors in the location where the impact is judged to occur, but would be relatively small compared to

current tax levels. In this analysis, impacts to state/local taxes that are between \$100,000 and \$400,000 are considered minor.

- Moderate impacts to state/local taxes are those that would be perceivable by actors in the location where the impact is judged to occur. In this analysis, impacts to state/local taxes that are between \$400,000 and \$1.0 million are considered moderate.
- Major impacts to state/local taxes are those that would be highly perceivable to local economic actors and would represent a significant change in the tax base of the local economy. In this analysis, impacts to state/local taxes that are greater than \$1.0 million are considered major.

e. Impact Duration

A short-term impact is considered to be temporary in duration and is associated with construction/investment activities. Typically short-term impacts would last as long as construction was taking place. Long-term impacts are those that would last beyond the construction period, and more specifically, would be expected to occur during the ferry concession contract period, which is assumed to be 10 years, with the potential for contract extensions/renewals beyond the initial 10 year period.

f. Cumulative Impacts

Cumulative impacts are defined as impacts which result when the impact of the proposed action is added to the impacts of other present and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions (40 CFR 1508.7). The cumulative impacts are also classified by the impact concepts of impact type, context, intensity, and duration discussed in the preceding section.

In defining the contribution of each alternative to cumulative impacts, the following terminology is used:

- Imperceptible. The incremental effect contributed by the alternative to the overall cumulative impact is such a small increment that it is impossible or extremely difficult to discern.
- Noticeable. The incremental effect contributed by the alternative, while evident and observable, is still relatively small in proportion to the overall cumulative impact.
- Appreciable. The incremental effect contributed by the alternative constitutes a large portion of the overall cumulative impact.

In this analysis, the geographic area in which cumulative impacts are analyzed is Carteret County.

g. Key Assumptions/Definitions

The following summarizes key assumptions made in this analysis.

- All impacts estimated for The Town of Morehead City and the Town of Beaufort under each alternative are assumed to occur only in those communities.
- Cumulative impacts are only analyzed at the county level.
- Economic Output is the value of all industry production over a year within the study area.
- Labor Income represents all forms of employment income, including wages/benefits and proprietor income.
- Employment is defined as the average annual number of full and part-time jobs.

- State/Local Taxes include all business, income, and other state/local taxes within the study area.

The following sections present in detail how the source of impacts - including net changes in spending, ferry employment, and construction expenditures - were estimated in this analysis.

2. Methodology for Estimating Changes in Spending and Employment

a. Visitor Spending on Ferry Services

The action alternatives being considered in the EA stipulate that the new ferry concession would be located in either the Town of Beaufort (Alternative B) or the Town of Morehead City (Alternative C) and therefore spending on ferry services would shift entirely to the new location of the ferry concession. This would result in a decline in spending on ferry services in one community and a new level of spending on ferry service in the community where the ferry concession would be located. Since ferry services currently exist in both communities, it is important to analyze only the marginal or net change in spending on ferry service occurring in the community. The following calculation summarizes how the net change in ferry spending was estimated under each alternative and within each community:

- **[1] Spending on Concession Ferry Services** (in Beaufort or Morehead City) *less*
- **[2] Historical Spending on Ferry Services** (in Beaufort or Morehead City)
- **= [3] Net Change in Spending on Ferry Services** (in Beaufort or Morehead City)

Historical ferry ridership from the Town of Beaufort and the Town of Morehead City was provided by the National Park Service and Vanasse Hangen Brustlin, Inc. (VHB) and is based on ridership data reported to NPS by existing CUA ferry operators in these communities. Note that since the proposed ferry concession would focus primarily on providing ferry service, not other services such as tours, historical ridership associated with multi-destination tours and lighthouse tours are excluded from the historical ridership data.

Over the last three years, from 2007 to 2009, combined annual ridership for ferry operations located in the Town of Beaufort has averaged approximately 22,200 passengers. Annual ridership out of the Town of Morehead City was significantly lower averaging approximately 250 passengers. These average ridership levels were used to form the basis of the historical demand estimate for existing ferry service to Shackleford Banks from the Town of Beaufort and the Town of Morehead City.

A recent feasibility analysis being performed in conjunction with this EA analyzes the financial feasibility of the proposed ferry concession, provides an analysis of ferry service demand and estimates annual ridership for the ferry concession. The estimates of ferry ridership under a concession contract were based on historical ferry ridership levels from the Town of Beaufort and the Town of Morehead City and also consider growth in ridership in part due to improvements in service/capacity over existing ferry operations. This analysis estimates average annual ridership over a ten year concession contract using the recommended ridership forecasts provided in the financial feasibility analysis or roughly 24,000 passengers per year.⁶

⁶ "Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study / May 2010." Performed by Otak. Note that much of this study utilizes information from the Feasibility Study.

To estimate the net change in visitor spending on ferry services, historical ferry ridership to Shackleford Banks from the Town of Beaufort and the Town of Morehead City were compared to average annual ridership estimates under a ferry concession contract. Spending on ferry service was then calculated using information provided in the ferry feasibility analysis which was based on the prevailing rates of ferry operators in the Town of Beaufort and the Town of Morehead City. Rate discounts are typically given for children and for groups and the data provided to the NPS by ferry operators regarding the split between adult and child ticket sales were used to calculate an average fare of \$13.00. The feasibility study uses an average fare for groups of \$10.00 per person. Therefore, an average ferry ticket price of \$13.00 per passenger for individuals/families and \$10.00 per passenger for school and social group charters were applied to the historical and projected concession ridership averages to generate an estimate of visitor expenditures on ferry services within the study area.⁷

b. Visitor Spending on Other Goods and Services

Another visitor spending impact that is considered in this analysis is spending on goods and services in the vicinity of the ferry operation. For example, visitors traveling to Shackleford Banks for the day are likely to purchase trip supplies such as food and beverages, groceries, water/snacks, sun block, swim wear, hats/sunglasses, etc. prior to their trip. Similarly, visitors might make retail purchases of gifts/souvenirs or patronize restaurants/cafes in the area before or after their trip. By shifting ferry concession operations to either the Town of Beaufort or the Town of Morehead City, there will likely be a shift in visitor spending on these types of goods and services.

However, very little data exists on the spending patterns of visitors/ferry passengers in the local area and no NPS park visitor studies or surveys have been performed for Cape Lookout National Seashore in recent years. Therefore, average spending profiles for national park visitors reported by Michigan State University's widely used Money Generation Model 2 (MGM2) were used to estimate impacts associated with shifts in visitor spending within the study area.

Specifically, average system-wide park visitor spending profiles reported in the *"National Park Visitor Spending and Payroll Impacts, 2008"* study were used to estimate impacts in the Town of Beaufort and the Town of Morehead City. The report estimates average spending per visitor party day by type of visitor segment, including local day trips, non-local day trip, and various types of overnight visitors, including campers and visitors opting to stay overnight in hotels/motels. The average visitor spending estimates presented in the study provide a breakdown of average spending by the type of good or service, such as expenditures on food and beverages, lodging, etc. It is judged that the majority of local spending by ferry riders would be on groceries, food and beverage services, other retail such as gifts/souvenirs, and fuel/oil. Since the location of the ferry concession operation is unlikely to affect visitors choice of where and how long to stay in the area, we judge that there would not be substantial shifts in expenditures on lodging between the Town of Morehead City and the Town of Beaufort. Therefore, visitor expenditures on lodging are excluded from the analysis.

Average spending per visitor was then weighted by the share of that visitor segment traveling to Cape Lookout National Seashore based on estimates on the distribution of park visitor segments provided in the 2007 Cape Lookout Commercial Services Plan - Environmental Assessment.

⁷ Ibid.

Exhibit 8 summaries average visitor expenditures by visitor segment and spending category adjusted to 2010 dollars.

Exhibit 8. National Park Visitor Spending in the Local Area by Segment (\$/visitor per day/night)⁸

<u>Spending Category</u>	<u>Visitor Segment</u>				
	<u>Local Day Trip</u>	<u>Non-Local Day Trip</u>	<u>Back Country Camping</u>	<u>Motel Outside Park</u>	<u>Average for All Segments</u>
Restaurants & bars	\$5.19	\$8.52	\$3.86	\$23.43	\$11.86
Amusements/entertainment	\$1.67	\$3.59	\$2.06	\$7.30	\$4.17
Groceries	\$2.57	\$3.17	\$2.74	\$5.44	\$3.69
Gas & oil	\$3.65	\$9.00	\$7.52	\$8.67	\$7.68
Souvenirs	\$3.39	\$5.86	\$0.28	\$1.26	\$3.43
Total	\$16.47	\$30.14	\$16.46	\$46.10	\$30.83
Visitor Segment Shares	20%	40%	10%	30%	100%

Source: "National Park Visitor Spending and Payroll Impacts, 2008" Michigan State University; 2007 Cape Lookout Commercial Services Plan - Environmental Assessment.

The exhibit indicates that average total expenditures per visitor per day for the spending categories relevant to this analysis were \$30.83 per visitor per day for *all* visitors. The largest expenditure category was spending at restaurants and bars followed by spending on gas and oil.

To estimate the net change in visitor spending in the Town of Beaufort and the Town of Morehead City under each action alternative, average spending per visitor was multiplied by historical and projected ferry ridership under the proposed ferry concession operation. The following calculation summarizes how the net change in ferry spending was estimated under each alternative and within each community:

- **[1] Visitor Spending at New Concession Location** (in Beaufort or Morehead City) *less*
- **[2] Historical Visitor Spending** (in Beaufort or Morehead City)
- **= [3] Net Change in Visitor Spending** (in Beaufort or Morehead City)

It should be noted that the spending averages presented in Exhibit 8 cover all trip expenses within roughly 50 miles of the Cape Lookout NS. This analysis implicitly assumes that all visitor spending occurs within either the Town of Beaufort or the Town of Morehead City; however, it is likely that visitor spending will occur in *both* the Town of Morehead City and the Town of Beaufort or in other locations, either elsewhere in Carteret County or in other counties in North Carolina. As such, the impacts associated with shifts in visitor spending likely overstate the true magnitude of the impacts to the communities of the Town of Beaufort and the Town of Morehead City.

c. Employment in the Ferry Industry

Impacts associated with changes in the level of employment within the ferry service industry in the Town of Beaufort and the Town of Morehead City were also analyzed for each action alternative. Changes in employment within the ferry service industry would occur from the potential layoffs resulting from existing CUA ferry operators not being awarded the ferry concession contract. Since the

⁸ Average park visitor spending estimates were converted from dollars per party per day to dollars per visitor per day by using the National Park system wide average of 2.6 visitors per party.

concession contract would grant the winning concessioner an exclusive right to operate ferry services to Shackleford Banks from the Town of Beaufort or the Town of Morehead City, existing CUA ferry operators would likely need to lay off staff working to provide this service. Conversely, the winning concessioner would need to hire/employ workers to provide the required ferry services. Therefore, the net impact resulting from changes in employment in the local ferry service industry would be the difference between the labor income/employment created under the new concession contract and the labor income/employment lost due to the current ferry operators not being awarded the concession contract.

Layoffs and hiring in the ferry industry would impact the demand for goods and services in the local economy by changing the levels of personal income in the economy. To analyze the impacts associated with changes in employment in the ferry industry in the Town of Beaufort and the Town of Morehead City, existing CUA operators in each community were interviewed regarding their 2009 annual labor expenses associated with providing ferry service to Cape Lookout NS. Information on ferry CUA operators' labor expenses was also provided by the National Park Service based on annual reporting to the North Carolina Utility Commission (Tariff Reporting). Since all CUA ferry operators provide other commercial services in addition to ferry service to Shackleford Banks, such as tours, fishing charters, etc., operators interviewed were requested to provide labor expenses only for ferry service operations to Shackleford Banks and the lighthouse.

The current total ferry labor expense in each community was then compared to the annual labor expense estimated for the new ferry concession contract. Annual labor expenses were estimated and reported in the recent ferry feasibility study conducted by Otak. The following calculation summarizes how the net change in ferry industry employment was estimated under each alternative and within each community:

- **[1] Annual Labor Expense for Ferry Concession** (in Beaufort or Morehead City) *less*
- **[2] Current Annual Labor Expense for CUA Ferry Operators** (in Beaufort or Morehead City)
- **= [3] Net Change in Labor Expense (Income)** (in Beaufort or Morehead City)

Exhibit 9 summarizes the estimated average annual labor expenses for existing CUA ferry operators in the Town of Beaufort and the Town of Morehead City relative to those estimated for the proposed ferry concession operation.

Exhibit 9. Estimated Ferry Labor Expenses⁹

	Average Annual Labor Expense (\$2010)
Total Annual Ferry Labor Expenses for CUA Ferry Operators in Beaufort	\$118,000
Total Annual Ferry Labor Expenses for CUA Ferry Operators in Morehead City	\$3,500
Total Annual Ferry Labor Expenses for Ferry Concession Operation	\$157,000

Source: NPS; Bill Harper (Island Ferry Adventures); Perry Barrow (Outer Banks Ferry); Denard Harris (Waterfront Ferry Service); "Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study / May 2010," Otak.

The exhibit reveals that estimated total labor expenses for the Town of Beaufort and the Town of Morehead City ferry operators were \$118,000 and \$3,500, respectively. Annual labor expenses under

⁹ Note that CUA holders are not required by NPS to provide detailed audited annual financial reports for their operations. Therefore, detailed historical revenue and operating costs for ferry CUA operators does not exist.

the new ferry concession contract are estimated to be approximately \$157,000. The greater labor expenses under the concession contract are explained by higher wage rates assumed for captains and crews based on Service Contract Act requirements for Department of Labor rate determinations.

d. Changes in Ferry Industry Fuel Expenditures

The potential spending impacts associated with net changes in fuel expenditures within the ferry industry under both action alternatives was also analyzed. The recent ferry concession feasibility study performed by Otak estimated annual fuel costs under the ferry concession operation. This figure was then compared to estimated 2009 fuel expenditures made by ferry operators in the Town of Beaufort and the Town of Morehead City, based on interviews with ferry CUA operators and fuel cost data provided by the NPS.

Exhibit 10 summarizes the estimated average annual fuel expenses for existing CUA ferry operators in The Town of Beaufort and the Town of Morehead City relative to those estimated for the proposed ferry concession operation.

Exhibit 10. Estimated Annual Ferry Fuel Expenditures

	Average Annual Fuel Expense (\$2010)
Total Annual Ferry Fuel Expenses for CUA Ferry Operators in Beaufort	\$28,000
Total Annual Ferry Fuel Expenses for CUA Ferry Operators in Morehead City	\$900
Total Annual Ferry Fuel Expenses for Ferry Concession Operation	\$29,000

Source: NPS; Bill Harper (Island Ferry Adventures); Perry Barrow (Outer Banks Ferry); Denard Harris (Waterfront Ferry Service). "Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study / May 2010," Otak.

The exhibit reveals that estimated total fuel expenses for ferry operators in the Town of Beaufort and the Town of Morehead City was \$28,000 and \$900, respectively. Annual fuel expenses for the ferry concession are estimated to be approximately \$29,000. Given similar demand levels and ferry routes/distances, fuel expenditures under the ferry concession are expected to be relatively similar to current CUA ferry operators' annual fuel expenditures.

The following calculation summarizes how the net change in ferry industry fuel expenditures was estimated under each alternative and within each community:

- **[1] Annual Fuel Expense for Ferry Concession** (in Beaufort or Morehead City) *less*
- **[2] Current Annual Fuel Expense for CUA Ferry Operators** (in Beaufort or Morehead City)
- **= [3] Net Change in Fuel Expenditures** (in Beaufort or Morehead City)

5. Changes in Ferry Vessel Repair & Maintenance Expenditures

This study analyzes the potential spending impacts associated with net changes in ferry industry expenditures on vessel repair and maintenance under each action alternative. The recent ferry concession feasibility study performed by Otak estimated annual repair and maintenance costs for the ferry concession operation. This figure was then compared to estimated 2009 repair and maintenance expenditures made by ferry operators in the Town of Beaufort and the Town of Morehead City, based on interviews with ferry CUA operators and repair and maintenance cost data provided by the NPS.

Exhibit 11 summarizes the estimated average annual vessel repair and maintenance expenses for existing CUA ferry operators in the Town of Beaufort and the Town of Morehead City relative to those estimated for the proposed ferry concession operation.

Exhibit 11. Estimated Annual Ferry Repair and Maintenance (R&M) Expenditures

	Average Annual Fuel Expense (\$2010)
Total Annual Ferry R&M Expenses for CUA Ferry Operators in Beaufort	\$42,000
Total Annual Ferry R&M Expenses for CUA Ferry Operators in Morehead City	\$900
Total Annual Ferry R&M Expenses for Ferry Concession Operation	\$13,000

Source: NPS; Bill Harper (Island Ferry Adventures); Perry Barrow (Outer Banks Ferry); Denard Harris (Waterfront Ferry Service). "Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study / May 2010," Otak.

The exhibit indicates that the estimated total repair and maintenance expenses for ferry operators in the Town of Beaufort and the Town of Morehead City were \$42,000 and \$900, respectively. Annual repair and maintenance expenses for the ferry concession are estimated to be approximately \$13,000. It is important to recognize that although the majority of repair and maintenance costs reported by ferry operators reflect ferry service operations to Shackleford Banks, these costs also include repair and maintenance expenditures associated with other boat services (e.g. tours, charters, etc.) provided by the ferry operators. Ferry operators interviewed indicated that it is difficult to precisely estimate repair and maintenance costs for ferry service to Shackleford Banks alone, since the same vessels are used in the other services provided. Therefore, the actual annual ferry repair and maintenance costs are likely to be slightly lower than those reported in this analysis and therefore the magnitude of the impacts associated with changes in repair and maintenance expenditures would be lower as well. Another difference between the magnitude of the repair and maintenance expenditures reported by ferry CUA operators and those estimated for the ferry concession operation is due to the fact that ferry CUA operators are utilizing older vessels requiring greater levels of maintenance. In contrast, the ferry concession analysis assumes *new* vessels are utilized in operations which would likely have lower annual maintenance costs compared to older vessels.

The following calculation summarizes how the net change in ferry industry repair and maintenance expenditures was estimated under each alternative and within each community:

- **[1] Annual R&M Expense for Ferry Concession** (in Beaufort or Morehead City) *less*
- **[2] Current Annual R&M Expense for CUA Ferry Operators** (in Beaufort or Morehead City)
- **= [3] Net Change in R&M Expenditures** (in Beaufort or Morehead City)

e. Construction Expenditures on New Ferry Facilities

The recent ferry feasibility study conducted by Otak provides detailed site concept plans for the new ferry concession facilities proposed at the Front Street/Post Office site in the Town of Beaufort (Alternative B) and the 10th Street site in the Town of Morehead City (Alternative C). The site development costs estimates include the following items:

- **Miscellaneous Construction.** Mobilization/demobilization, required infrastructure demolition, surveying, and permitting costs.

- **Site Improvements.** All asphalt and concrete paving, ADA connections, walkways, parking lots, pedestrian areas, clearing, grubbing, earthwork, landscaping, erosion and sediment control, striping, and traffic and wayfinding signage.
- **Building and Other Structures.** New building and/or building renovation costs, shade/rain shelters, and kiosks.
- **Utilities.** All utilities structures for water, sewer, communications, and electricity.
- **Dock Improvements.** Renovation of existing docks, new dock construction, dredging, wood and steel piles, bulkhead/shoreline improvements, aluminum ramps, and dock power pedestals and water service.

Spending to construct and improve the ferry concession facilities at the selected sites in the Town of Beaufort and the Town of Morehead City would impact the local economies of these communities by generating temporary additional demand for goods/services and labor. The impacts associated with construction spending would be temporary in duration and would be expected to last until construction of the facilities was complete.

Exhibit 12 summarizes estimated total construction costs for each site in the Town of Beaufort and the Town of Morehead City.

Exhibit 12. Estimated Ferry Concession Site Construction Costs (\$2010)

Ferry Concession Site Location	Total Site Construction Cost
Post Office (Front Street) - Beaufort	\$523,262
10th Street - Morehead City	\$1,088,925

Source: "Cape Lookout National Seashore / Passenger Ferry Transportation Feasibility Study / May 2010," Otak.

The exhibit reveals that the development costs for the Front Street/Post Office site in the Town of Beaufort would be less than one-half the cost to develop the 10th Street Site in the Town of Morehead City. The explanation for the larger development costs for 10th Street site are primarily due to the higher site improvement and utility development costs at this location. Greater construction spending in the local economy will create a larger impact on the demand for goods/services and labor, which will create a positive impact on economic output, labor income/employment, and taxes.

B. CUMULATIVE ACTIONS CONSIDERED

This analysis considers the impacts associated with the following cumulative actions:

1. Harkers Island Ferry Service

NPS plans to consolidate existing CUA ferry operations on Harkers Island into a single concession contract. The new ferry concession contract would be required to provide service to the lighthouse and the east beach area of Shackleford Banks. The new ferry concessioner may be authorized to provide ferry service to other areas on Shackleford Banks. The consolidation of ferry operations on Harkers Island under a single concession contract has the potential to negatively impact existing ferry CUA operators on Harkers Island and could potentially result in some ferry operators discontinuing ferry services to Cape Lookout as part of their overall marina business. However, the new concessioner would bring positive spending/employment impacts to the region and should ferry concession operation improve service to Cape Lookout NS, this could further increase visitation and concession revenues,

resulting in additional positive impacts to regional economic output, labor income/employment, and taxes. The net impact to Carteret County resulting from this action is expected to be long-term negligible and beneficial impacts to economic output, labor income/employment, and taxes.

By providing ferry service to the east end of Shackleford Banks, this action may represent a potential source of competition for the ferry concessioner in the Town of Beaufort/Town of Morehead City who would also be providing ferry services to Shackleford Banks. However, the Town of Beaufort/Town of Morehead City is a popular vacationing region and demand for ferry service to Shackleford Banks is likely to continue, particularly given the close proximity of the Town of Beaufort/Town of Morehead City to the west end of Shackleford Banks. Therefore, it is unlikely that the Harkers Island ferry operation would pull a significant amount of business away from the Town of Beaufort/Town of Morehead City ferry operator. Given these considerations, this action will likely not impact economic output, labor income/employment and taxes in the Town of Beaufort/Town of Morehead City.

2. Vehicle/Passenger Ferry Service to North and South Core Banks

Vehicle/passenger ferries currently operate out of Atlantic and Davis on the mainland with service to Long Point on North Core Banks and to Great Island on South Core Banks, respectively. A passenger ferry also operates from Ocracoke, North Carolina. This ferry operates from the lighthouse in Cape Hatteras NS across Ocracoke Inlet to historic Portsmouth Village in Cape Lookout NS on North Core Banks. These ferries provide access to the northern and central portions of Cape Lookout NS. The vehicle/passenger ferries provide access to off-road vehicles which are then managed by the off-road vehicle (ORV) plan in progress. Provision of these ferry services would continue to provide long-term minor beneficial impacts to economic output, labor income/employment, and taxes in Carteret County. However, continued ferry service from these locations would not be expected to create any additional impacts to economic output, labor income/employment, or taxes in the Town of Beaufort or the Town of Morehead City as the ferries operate in and provide service to other locations in Cape Lookout NS.

3. Private Tour Operations

Currently, there is one tour operator, Lookout Cruises, who visits the national seashore as part of educational tours. In addition, Outer Banks Ferry Service currently offers one tour of the lighthouse. The NPS plans to develop specific criteria and policies that will govern the type of tours that would be permitted under Commercial Use Authorizations (CUAs). Allowing tours of Cape Lookout NS that do not interfere with or hinder ferry concession operations would result in long-term negligible to minor beneficial impacts to economic output, labor income/employment and taxes in Carteret County and the Town of Beaufort/Town of Morehead City. There is the potential that tour boat operators landing at Shackleford Banks and the lighthouse could be adversely impacted if the new CUA criteria/policies developed by the NPS prohibited tour boat operators from landing at these locations. However, it is important to recognize that if the NPS *permitted* direct access to Shackleford Banks and the lighthouse by CUA tour boat operators, then this could negatively affect ferry concession operations and therefore adversely impact economic output, labor income/employment, and taxes in the Town of Beaufort/Town of Morehead City. Since new CUA criteria/policies have not yet been established by the NPS, more information is needed to determine the impacts of this action.

4. Reuse Implementation Plan/EA for Cape Lookout Village Historic District

The 2007 Reuse Implementation Plan/EA proposes to rehabilitate and adaptively use a number of building structures in the Cape Lookout Village Historic District over the next 25 years. The implementation of the NPS preferred alternative of this plan would provide renovated space for NPS administration, visitor interpretation and concessions, including overnight lodging available to the public. The renovated facilities and in particular the new concession lodging would tend to improve the visitor experience and potentially increase visitation to Cape Lookout Village Historic District. Since these improvements under the preferred alternative would potentially increase visitation to the lighthouse area, this would tend to translate into an increase in ferry ridership and ferry concession revenues. This is particularly true for the Harkers Island ferry concessioner, since this concessioner would be the primary provider in the region of ferry services to the lighthouse and the Cape Lookout Village Historic District. If the ferry concessioner operating in the Town of Beaufort/Town of Morehead City were authorized to provide ferry service to the lighthouse, the improved amenities in the Cape Lookout Village Historic District might also increase ferry ridership to the area, increasing concessioner revenues. Therefore, if the preferred alternative of the Reuse Implementation Plan/EA were to be implemented, it would have long-term negligible to minor beneficial impacts to economic output, labor income/employment, and taxes in Carteret County and the Town of Beaufort/Town of Morehead City.

5. Personal Watercraft Use

Since September 8, 2006 the NPS has permitted personal watercraft (PWCs) to land at ten selected locations within Cape Lookout NS. One of these locations is near the current ferry passenger dock on Shackleford Banks, and two other locations are adjacent to the lighthouse ferry dock. It is unlikely that PWC landing access at these locations would reduce passenger ridership and therefore revenues of the ferry concessioners located in Harkers Island or the Town of Beaufort/Town of Morehead City, as the majority of visitors are expected to prefer the convenience of ferry access to the park. If the PWC landing areas became highly congested or impacted the quality of marine resources, then this could potentially discourage visitors traveling to Shackleford Banks and the lighthouse who desire pristine natural resources, serenity and isolation. This would tend to negatively impact ferry revenues, and potentially result in long-term negligible adverse impacts to economic output, labor income/employment, and taxes in Carteret County. However, permitting PWC access to Shackleford Banks and the lighthouse could also potentially generate greater spending on PWC rentals, fuel purchases, and purchases of other goods and services in Carteret County and the Town of Beaufort/Town of Morehead City which would tend to positively impact economic output, labor income/employment, and taxes in those communities. In total, there would likely be long-term negligible beneficial impacts to economic output, labor/income, and taxes in Carteret County and the Town of Beaufort/Town of Morehead City.

6. Dredging by Army Corps of Engineers

Dredging by the Army Corps of Engineers near Shell Point on Harkers Island would potentially generate short-term negligible beneficial impacts to economic output, labor income/employment, and taxes within Carteret County with no direct impacts to the Town of Beaufort/Town of Morehead City. There is a risk that dredging could interfere with ferry concession operations on Harkers Island, resulting in short-term negligible adverse impacts to economic output, labor income/employment, and taxes in Carteret County. However, since dredging is required to allow ferry/watercraft access to the lighthouse, *not* dredging would represent a *greater* adverse impact compared to the potentially short-term adverse

impact associated with a brief interruption in ferry service while dredging is occurring. Therefore, the overall impact of dredging in these locations is expected to be short-term negligible beneficial impacts to economic output, labor income/employment, and taxes in Carteret County.

7. *The Town of Morehead City Parks and Recreation Comprehensive Management Plan*

The Town of Morehead City Parks and Recreation Comprehensive Management Plans initially called for the development of a boat ramp and public access at the 10th Street site where new ferry concession facilities would be developed under Alternative C. However, according to the NPS, the Town of Morehead City now plans to develop boat launch facilities at Radio Island which would offset loss of access to the waterfront at 10th Street. Since Radio Island is located between the Town of Morehead City and the Town of Beaufort, the development of a boat launch ramp would be expected to potentially increase visitation to the region, which would tend to generate beneficial spending impacts on goods and services in both the Town of Morehead City and the Town of Beaufort. In addition, spending on construction to develop a boat launch ramp would tend to have short-term negligible to minor beneficial impacts on economic output, labor income/employment in the Town of Beaufort, the Town of Morehead City, and Carteret County. The overall impact is judged to be long-term, negligible to minor beneficial impacts to economic output, labor income/employment, and taxes in the Town of Beaufort, the Town of Morehead City and Carteret County.

C. *IMPACT ANALYSIS*

This section presents the impacts to economic output, labor income/employment, and state/local taxes in the Town of Beaufort and the Town of Morehead City under each alternative. Impacts to these indicators are presented in tables for both the Town of Beaufort and the Town of Morehead City and reflect the inputs and outputs of the IMPLAN model of these economies.

The Direct Change column in each table presents the net change in the source of the impact, for example, the net change in visitor spending associated with the alternative. The Direct Changes are the inputs to the IMPLAN model, while the outputs are presented in the adjacent columns entitled “Total Impact to...” the impact topic being considered. In some cases, Total Impacts are less than the Direct Change because for spending in retail sectors, IMPLAN only applies impacts to the retail *margin*, not the entire dollar value of the expenditure. Finally, the last column in the impact tables show the Total Impact as a percentage of local economic output, labor income/employment, or state/local taxes, which provides an indication as to the order of magnitude of the impact within the community. Note that negative figures are reported in red font and within parenthesis in the tables.

The tables also present impacts as Long-Term, i.e. those that are expected to last over the duration of the concession contract, and Short-Term, which reflect impacts associated with one-time expenditures occurring over a short time period. As discussed in Section IV(A) of this report, Long-Term impacts are judged to occur as a result of net changes to the following five variables:

- Net change in expenditures on Cape Lookout NS ferry services
- Net change in ferry passenger/visitor spending in region
- Net change in labor income in ferry sector
- Net change in fuel expenditures within the ferry industry
- Net change in ferry vessel repair/maintenance (R&M) expenditures

Note that the greatest impacts to the local economy result from changes in labor income/employment. This is because of the large degree of localized spending impacts associated with greater employment and labor income levels in the local economy. In addition, given that the concession contract will be for a 10-year period, there is the potential that the demand for ferry services could start out low and then grow over the period, which would result in growth in economic output, employment/labor income, and taxes.

Short-Term impacts that are analyzed in this study include:

- Construction/development of new ferry concession facilities

The construction of new ferry facilities would occur over the course of approximately one year and would represent a temporary increase in spending, economic output, and labor income/employment. Once the construction project is completed, the impacts to the local economies of the Town of Beaufort and the Town of Morehead City would cease. The new concession contract would require the concessioner to use two 40-foot ferry vessels, each with a capacity of 48 passengers, and one small skiff with a capacity of 16 passengers. However, based on input provided by the NPS, this analysis assumes that the ferry concessioner would purchase these vessels outside of the Town of Beaufort, the Town of Morehead City, and Carteret County. Therefore, the short-term minor beneficial impacts associated with the investment in these new vessels would occur outside of the study area and are not estimated in this analysis.

Exhibit 13 summarizes the impacts to economic output, labor income/employment, and state/local taxes in the Town of Beaufort and the Town of Morehead City under each action alternative.

Exhibit 13. Summary of Impacts in the Towns of Beaufort Morehead City for each Action Alternative

	ALTERNATIVE B			ALTERNATIVE C		
	Econ Output	Labor Income/Emp	Taxes	Econ Output	Labor Income/Emp	Taxes
Beaufort						
Impact Type	Beneficial	Beneficial	Beneficial	Adverse	Adverse	Adverse
Impact Context	Local	Local	Local	Local	Local	Local
Impact Intensity	Negligible	Negligible	Negligible	Minor	Minor	Minor
Impact Duration	Short/Long Term	Short/Long Term	Short/Long Term	Long Term	Long Term	Long Term
Morehead City						
Impact Type	Adverse	Adverse	Adverse	Beneficial	Beneficial	Beneficial
Impact Context	Local	Local	Local	Local	Local	Local
Impact Intensity	Negligible	Negligible	Negligible	Minor	Minor	Minor
Impact Duration	Long Term	Long Term	Long Term	Short/Long Term	Short/Long Term	Short/Long Term

The following sections discuss in detail the impacts to the Town of Beaufort and the Town of Morehead City for each alternative.

1. *Alternative A: No Action Alternative*

Under Alternative A, there would be no changes to existing ferry services serving the southern region of Cape Lookout NS, including primarily Shackleford Banks. Ferry services would continue to be authorized by the NPS via the granting of CUA permits to ferry operators in the Town of Beaufort and the Town of Morehead City. In addition, no new ferry facilities would be developed under Alternative A and ferry service providers would continue to operate from their current locations.

Since no changes to existing ferry service would occur under Alternative A, there would be no net impacts to economic output, labor income/employment, or state/local taxes in the Town of Beaufort, the Town of Morehead City, and Carteret County. The provision of ferry services in both the Town of Beaufort and the Town of Morehead City would continue to represent long-term beneficial contributions to local economic output, labor income/employment, and state/local taxes.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to economic output in Carteret County. Under Alternative A, there would be no net impacts to economic output, labor income/employment, or state/local taxes in the Town of Beaufort or the Town of Morehead City. The impacts of the cumulative actions, in combination with the impacts of Alternative A in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County.

2. *Alternative B: Front Street – Town of Beaufort*

Under Alternative B, ferry services serving the southern region of Cape Lookout NS, including primarily Shackleford Banks, would be located at the Front Street/Post Office site in the Town of Beaufort and operated under a single concession contract. The concessioner would be required to provide scheduled services to Shackleford Banks and potentially authorized to provide ferry service to the lighthouse.

The following sections discuss impacts under Alternative B to the Town of Beaufort and the Town of Morehead City.

a. *Impacts to Economic Output*

i. Impacts to Economic Output in the Town of Beaufort

Exhibit 14 presents the impacts to economic output in the Town of Beaufort under Alternative B. The exhibit reveals that the total long-term impacts to economic output would be approximately \$129,000 or an increase in total economic output in the Town of Beaufort of roughly 0.02%. The largest impact is associated with an increase in labor income of nearly \$39,000 which is estimated to generate \$85,000 in economic output.

Similarly, short-term impacts to economic output were estimated at approximately \$674,000 due to construction spending on new ferry facilities, representing an increase in economic output in the Town of Beaufort of 0.24%.

Exhibit 14. Impacts to Economic Output in the Town of Beaufort – Alternative B (\$2010)

	Direct Change	Total Impact to Economic Output	% Change in Local Output
Long-Term Impacts			
Net Change in Ferry Spending	\$23,256	\$30,116	0.0053%
Net Change in Visitor Spending	\$56,881	\$47,772	0.0084%
Net Change in Ferry Labor Income	\$38,714	\$85,130	0.0150%
Net Change in Ferry Fuel Expenditures	\$1,540	\$315	0.0001%
Net Change in Vessel R&M Expenditures	(\$28,574)	(\$34,554)	(0.0061%)
TOTAL	\$91,817	\$128,779	0.0227%
Short-Term Impacts			
New Ferry Facilities Construction	\$523,262	\$673,779	0.2424%
TOTAL	\$523,262	\$673,779	0.2424%

The following summarizes judgments regarding the impacts to economic output in the Town of Beaufort.

Type of Impact: Beneficial or adverse. Since spending and employment activities are estimated to increase under Alternative B in the Town of Beaufort, the net impact to economic output is judged to be beneficial.

Impact Context. Most of the impacts are likely to occur locally, within the Town of Beaufort. Some degree of visitor spending impacts may occur in nearby communities including the Town of Morehead City or other areas of Carteret County, as visitors travel through the region on day trips or upon departure and arrival. In addition, the full visitor spending impact might not be entirely concentrated in the Town of Beaufort as visitors will continue to travel to and make purchases in other areas in the region. Labor income/employment impacts are somewhat dependent upon where new ferry employees choose to live. If the new ferry employees live in another community, some of the impacts resulting from changes in labor income/employment would occur in that community instead of the Town of Beaufort. For these reasons, the impacts to economic output in the Town of Beaufort presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to economic output, the impacts would represent long-term negligible and short-term minor impacts to economic output in the Town of Beaufort.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years with the potential for contract extensions or renewals. Therefore, these impacts would be expected to occur over the 10-year contract term. Short-term impacts would be expected to include spending to construct the new ferry facilities, which would occur over approximately one year.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to economic output in Carteret County. The impacts presented in this section for the Town of Beaufort would represent short and long-term negligible beneficial impacts to economic output in Carteret County. The impacts presented in the following section for the Town of Morehead City would represent long-term negligible

adverse impacts to economic output in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative B in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County. The impacts to economic output in the Town of Beaufort and the Town of Morehead City under Alternative B would be noticeable relative to the impacts of the cumulative actions.

ii. Impacts to Economic Output in the Town of Morehead City

Exhibit 15 presents the impacts to economic output in the Town of Morehead City under Alternative B. The exhibit reveals that the total long-term impact would be a reduction in economic output of \$19,000 or 0.001% of total economic output in the Town of Morehead City. The largest impact results from the decline of \$7,738 in visitor spending on other goods/services that would result from all ferry operations being relocated to the Town of Beaufort. There would be no short-term impacts to economic output as spending on the construction of new ferry facilities would occur in the Town of Beaufort instead of the Town of Morehead City.

Exhibit 15. Impacts to Economic Output in the Town of Morehead City – Alternative B (\$2010)

	Direct Change	Total Impact to Economic Output	% Change in Local Output
Long-Term Impacts			
Net Change in Ferry Spending	(\$3,167)	(\$4,040)	(0.00032%)
Net Change in Visitor Spending	(\$7,738)	(\$6,486)	(0.00051%)
Net Change in Ferry Labor Income	(\$3,500)	(\$7,582)	(0.0006%)
Net Change in Ferry Fuel Expenditures	(\$927)	(\$194)	(0.00002%)
Net Change in Vessel R&M Expenditures	(\$876)	(\$1,091)	(0.00009%)
TOTAL	(\$16,208)	(\$19,393)	(0.00154%)
Short-Term Impacts			
New Ferry Facilities Construction	\$0	\$0	None
TOTAL	\$0	\$0	None

The following summarizes judgments regarding the impacts to economic output in the Town of Morehead City.

Type of Impact: Beneficial or adverse. Since spending and employment activities are estimated to decline under Alternative B in the Town of Morehead City, the net impact to economic output is judged to be adverse.

Impact Context. The impacts are likely to occur locally, within the Town of Morehead City. Some degree of visitor spending impacts may occur in nearby communities including the Town of Beaufort or other areas of Carteret County, as visitors travel through the region on day trips or upon departure and arrival. In addition, the full visitor spending impact might not be entirely concentrated in the Town of Morehead City, as visitors will continue to travel to and make purchases in the Town of Morehead City and other areas in the region. Labor income/employment impacts are somewhat dependent upon where ferry employees choose to live. If ferry employees that are laid off live in another community, some of the impacts resulting from changes in labor income/employment would occur in that community instead of the Town of Morehead City. For these reasons, the impacts to economic output

in the Town of Morehead City presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to economic output, the impacts would represent long-term negligible impacts to the economic output in the Town of Morehead City.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years with the potential for contract extensions or renewals. Therefore, these impacts would be expected to occur over the 10-year contract term. There would be no short-term impacts to economic output in the Town of Morehead City.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to economic output in Carteret County. The impacts presented in this section for the Town of Morehead City would represent long-term negligible adverse impacts to economic output in Carteret County. The impacts presented in the previous section for the Town of Beaufort would represent short and long-term negligible beneficial impacts to economic output in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative B in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County. The impacts to economic output in the Town of Beaufort and the Town of Morehead City under Alternative B would be noticeable relative to the impacts of the cumulative actions.

b. Impacts to Labor Income/Employment

i. Impacts to Labor Income/Employment in the Town of Beaufort

Exhibit 16 presents the impacts to labor income/employment in the Town of Beaufort under Alternative B. The exhibit indicates that a total of nearly \$50,000 in additional labor income or 1.6 jobs would be created as result of the spending and employment changes under Alternative B. This translates into an increase of roughly 0.03% in both labor income and employment in the Town of Beaufort. The short-term impacts associated with the construction of new ferry facilities are estimated to generate \$174,000 in additional labor income or 5.4 jobs. This short-term impact would represent an increase in current labor income in the Town of Beaufort of 0.10% and a 0.10% increase in employment.

Exhibit 16. Impacts to Labor Income/Employment in the Town of Beaufort – Alternative B (\$2010)

	Direct Change	Total Impact to Labor Income	Total Impact to Jobs	% Change in Labor Income	% Change in Jobs
Long-Term Impacts					
Net Change in Ferry Spending	\$23,256	\$17,604	0.3	0.0100%	0.0054%
Net Change in Visitor Spending	\$56,881	\$16,901	0.7	0.0096%	0.0125%
Net Change in Ferry Labor Income	\$38,714	\$49,762	0.9	0.0282%	0.0161%
Net Change in Ferry Fuel Expenditures	\$1,540	\$92	0.0	0.0001%	0.0000%
Net Change in Vessel R&M Expenditures	(\$28,574)	(\$34,544)	(0.3)	(0.0196%)	(0.0054%)
TOTAL	\$91,817	\$49,815	1.6	0.0282%	0.0287%
Short-Term Impacts					
New Ferry Facilities Construction	\$523,262	\$173,599	5.4	0.0983%	0.0968%
TOTAL	\$523,262	\$173,599	5.4	0.0983%	0.0968%

The following summarizes judgments regarding the impacts to labor income/employment in the Town of Beaufort.

Type of Impact: Beneficial or adverse. Since labor income and employment are estimated to increase under Alternative B in the Town of Beaufort, the net impact to labor income and employment is judged to be beneficial.

Impact Context. Most of the impacts are likely to occur locally, within the Town of Beaufort. Some degree of visitor spending impacts may occur in nearby communities including the Town of Morehead City or other areas of Carteret County, as visitors travel through the region on day trips or upon departure and arrival. In addition, the full visitor spending impact might not be entirely concentrated in the Town of Beaufort as visitors will continue to travel to and make purchases in other areas in the region. Labor income/employment impacts are somewhat dependent upon where new ferry employees choose to live. If the new ferry employees live in another community, some of the impacts resulting from changes in labor income/employment would occur in that community instead of the Town of Beaufort. For these reasons, the impacts to labor income/employment in the Town of Beaufort presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to labor income/employment, the impacts would represent short-term and long-term negligible impacts to labor income/employment in the Town of Beaufort.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to labor income/employment would be expected to occur over the 10-year contract term. Short-term impacts to labor income/employment associated with spending to construct the new ferry facilities would occur over approximately one year.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to labor income/employment in Carteret County. The impacts presented in this section for the Town of Beaufort would represent short and long-term negligible beneficial impacts to labor income/employment in Carteret County. The impacts presented in the following section for the Town of Morehead City would represent long-term negligible adverse impacts to labor income/employment in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative B in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to labor income/employment in Carteret County. The impacts to labor income/employment in the Town of Beaufort and the Town of Morehead City under Alternative B would be noticeable relative to the impacts of the cumulative actions.

ii. Impacts to Labor Income/Employment in the Town of Morehead City

Exhibit 17 presents the impacts to labor income/employment in the Town of Morehead City under Alternative B. The exhibit reveals that labor income/employment would decline by nearly \$10,000 or 0.2 jobs, representing a decline in labor income of 0.002% and a decline in employment of 0.001% in the Town of Morehead City. There would be no short-term impact to labor income/employment in the

Town of Morehead City, as ferry construction spending on new ferry facilities would occur in the Town of Beaufort.

Exhibit 17. Impacts to Labor Income/Employment to the Town of Morehead City – Alternative B (\$2010)

	Direct Change	Total Impact to Labor Income	Total Impact to Jobs	% Change in Labor Income	% Change in Jobs
Long-Term Impacts					
Net Change in Ferry Spending	(\$3,167)	(\$2,429)	0.0	(0.0005%)	0.0000%
Net Change in Visitor Spending	(\$7,738)	(\$2,500)	(0.1)	(0.0005%)	(0.0007%)
Net Change in Ferry Labor Income	(\$3,500)	(\$4,558)	(0.1)	(0.0010%)	(0.0007%)
Net Change in Ferry Fuel Expenditures	(\$927)	(\$59)	0.0	(0.00001%)	0.0000%
Net Change in Vessel R&M Expenditures	(\$876)	(\$283)	0.0	(0.0001%)	0.0000%
TOTAL	(\$16,208)	(\$9,829)	(0.2)	(0.0021%)	(0.0014%)
Short-Term Impacts					
New Ferry Facilities Construction	\$0	\$0	\$0	None	None
TOTAL	\$0	\$0	\$0	None	None

The following summarizes judgments regarding the impacts to labor income/employment in the Town of Morehead City.

Type of Impact: Beneficial or adverse. Since labor income and employment are estimated to decrease under Alternative B in the Town of Morehead City, the net impact to labor income and employment is judged to be adverse.

Impact Context. The impacts are likely to occur locally, within the Town of Morehead City. Some degree of visitor spending impacts may occur in nearby communities including the Town of Beaufort or other areas of Carteret County, as visitors travel through the region on day trips or upon departure and arrival. In addition, the full visitor spending impact might not be entirely concentrated in the Town of Morehead City, as visitors will continue to travel to and make purchases in the Town of Morehead City and other areas in the region. Labor income/employment impacts are somewhat dependent upon where ferry employees choose to live. If ferry employees that were laid off resided in another community, some of the impacts resulting from changes in labor income/employment would occur in that community instead of the Town of Morehead City. For these reasons, the impacts to labor income/employment in the Town of Morehead City presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to labor income/employment, the impacts would represent long-term negligible impacts to labor income/employment in the Town of Morehead City.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to labor income/employment would be expected to occur over the 10-year contract term.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to labor

income/employment in Carteret County. The impacts presented in this section for the Town of Morehead City would represent long-term negligible adverse impacts to labor income/employment in Carteret County. The impacts presented in the previous section for the Town of Beaufort would represent short and long-term negligible beneficial impacts to labor income/employment in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative B in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to labor income/employment in Carteret County. The impacts to labor income/employment in the Town of Beaufort and the Town of Morehead City under Alternative B would be noticeable relative to the impacts of the cumulative actions.

c. Impacts to State/Local Taxes

i. Impacts to State/Local Taxes in the Town of Beaufort

Exhibit 18 presents the impacts to state/local taxes in the Town of Beaufort under Alternative B. The exhibit indicates that a total of approximately \$13,000 in additional state/local tax revenues would be generated as a result of the spending and employment changes under Alternative B. This represents an increase of roughly 0.02% in state/local taxes in the Town of Beaufort. The short-term impacts associated with the construction of new ferry facilities is estimated to generate approximately \$17,000 in additional state/local tax revenues or an increase of 0.02% in state/local taxes in the Town of Beaufort.

Exhibit 18. Impacts to State/Local Taxes in the Town of Beaufort – Alternative B (\$2010)

	Direct Change	Total Impact to State/Local Taxes	% Change in State/Local Taxes
Long-Term Impacts			
Net Change in Ferry Spending	\$23,256	\$2,911	0.0038%
Net Change in Visitor Spending	\$56,881	\$3,491	0.0045%
Net Change in Ferry Labor Income	\$38,714	\$8,230	0.0107%
Net Change in Ferry Fuel Expenditures	\$1,540	\$40	0.0001%
Net Change in Vessel R&M Expenditures	(\$28,574)	(\$2,029)	(0.0026%)
TOTAL	\$91,817	\$12,643	0.0165%
Short-Term Impacts			
New Ferry Facilities Construction	\$523,262	\$16,881	0.0220%
TOTAL	\$523,262	\$16,881	0.0220%

The following summarizes judgments regarding the impacts to state/local taxes in the Town of Beaufort.

Type of Impact: Beneficial or adverse. Since tax revenues are estimated to increase under Alternative B in the Town of Beaufort, the impact to state/local taxes is judged to be beneficial.

Impact Context. To the extent that increases in ferry/visitor spending and additional employment in the ferry industry occur within the Town of Beaufort, this will translate into greater state/local taxes and expand the local tax base in the Town of Beaufort.¹⁰

¹⁰ IMPLAN only reports tax impacts for *combined* state and local taxes and does not provide a separate breakdown between state and local taxes.

Impact Intensity. Considering the magnitude of the impacts to taxes, the impacts would represent short and long-term negligible impacts to state/local taxes in the Town of Beaufort.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to state/local taxes would be expected to occur over the 10-year contract term. Short-term impacts to state/local taxes associated with spending to construct the new ferry facilities would occur over approximately one year.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to state/local taxes in Carteret County. The impacts presented in this section for the Town of Beaufort would represent short and long-term negligible beneficial impacts to state/local taxes in Carteret County. The impacts presented in the following section for the Town of Morehead City would represent long-term negligible adverse impacts to state/local taxes in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative B in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to state/local taxes in Carteret County. The impacts to state/local taxes in the Town of Beaufort and the Town of Morehead City under Alternative B would be imperceptible relative to the impacts of the cumulative actions.

ii. Impacts to State/Local Taxes the Town of Morehead City

Exhibit 19 presents the impacts to state/local taxes in the Town of Morehead City under Alternative B. The exhibit indicates that state/local tax revenues would be decline by roughly \$2,000 or 0.001% as a result of the decline in spending and employment in the Town of Morehead City under Alternative B. There would be no short-term impacts to state/local taxes as spending on the construction of new ferry facilities would occur in the Town of Beaufort.

Exhibit 19. Impacts to State/Local Taxes in the Town of Morehead City – Alternative B (\$2010)

	Direct Change	Total Impact to State/Local Taxes	% Change in State/Local Taxes
Long-Term Impacts			
Net Change in Ferry Spending	(\$3,167)	(\$430)	(0.0002%)
Net Change in Visitor Spending	(\$7,738)	(\$577)	(0.0003%)
Net Change in Ferry Labor Income	(\$3,500)	(\$808)	(0.0004%)
Net Change in Ferry Fuel Expenditures	(\$927)	(\$27)	(0.00001%)
Net Change in Vessel R&M Expenditures	(\$876)	(\$73)	(0.00003%)
TOTAL	(\$16,208)	(\$1,915)	(0.00094%)
Short-Term Impacts			
New Ferry Facilities Construction	\$0	\$0	None
TOTAL	\$0	\$0	None

The following summarizes judgments regarding the impacts to state/local taxes in the Town of Morehead City.

Type of Impact: Beneficial or adverse. Since tax revenues are estimated to decline under Alternative B in the Town of Morehead City, the impact to state/local taxes is judged to be adverse.

Impact Context. To the extent that decreases in ferry/visitor spending and employment in the ferry industry occur within the Town of Morehead City, this will translate into less state/local taxes and reduce the local tax base in the Town of Morehead City.

Impact Intensity. Considering both the magnitude of the impacts to taxes, the impacts would represent long-term negligible impacts to state/local taxes in the Town of Morehead City.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to state/local taxes would be expected to occur over the 10-year contract term.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to state/local taxes in Carteret County. The impacts presented in this section for the Town of Morehead City would represent long-term negligible adverse impacts to state/local taxes in Carteret County. The impacts presented in the previous section for the Town of Beaufort would represent short and long-term negligible beneficial impacts to state/local taxes in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative B in Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to state/local taxes in Carteret County. The impacts to state/local taxes in Beaufort and the Town of Morehead City under Alternative B would be imperceptible relative to the impacts of the cumulative actions.

3. Alternative C: 10th Street – Town of Morehead City

Under Alternative C, ferry services serving the southern region of Cape Lookout NS, including primarily Shackleford Banks, would be located at the 10th Street site in the Town of Morehead City and operated under a single concession contract. The concessioner would be required to provide scheduled ferry service to Shackleford Banks and potentially authorized to provide service to lighthouse.

The following sections discuss impacts under Alternative C to the Town of Beaufort and the Town of Morehead City.

a. Impacts to Economic Output

i. Impacts to Economic Output in the Town of Beaufort

Exhibit 20 presents the impacts to economic output in Beaufort under Alternative C. The exhibit reveals that the total long-term impacts would be a decline of approximately \$1.25 million in economic output in the Town of Beaufort, representing a decrease of roughly 0.22%. The largest impact is associated with a decrease in local visitor spending of \$684,000 which is estimated to reduce economic output by \$574,000. The decline in ferry employment implicitly assumes that current ferry operators in the Town of Beaufort would need to lay-off employees currently providing ferry service to Cape Lookout NS or equivalently that ferry employees would relocate to the Town of Morehead City.

Similarly, short-term impacts to economic output associated with construction spending on new ferry facilities would not occur in the Town of Beaufort as these expenditures would be made in the Town of Morehead City.

Exhibit 20. Impacts to Economic Output in the Town of Beaufort – Alternative C (\$2010)

	Direct Change	Total Impact to Economic Output	% Change in Local Output
Long-Term Impacts			
Net Change in Ferry Spending	(\$280,043)	(\$362,653)	(0.0639%)
Net Change in Visitor Spending	(\$684,025)	(\$574,473)	(0.1013%)
Net Change in Ferry Labor Income	(\$118,116)	(\$259,730)	(0.0458%)
Net Change in Ferry Fuel Expenditures	(\$27,635)	(\$5,648)	(0.0010%)
Net Change in Vessel R&M Expenditures	(\$41,911)	(\$50,683)	(0.0089%)
TOTAL	(\$1,151,730)	(\$1,253,187)	(0.2209%)
Short-Term Impacts			
New Ferry Facilities Construction	\$0	\$0	None
TOTAL	\$0	\$0	None

The following summarizes judgments regarding the impacts to economic output in the Town of Beaufort.

Type of Impact: Beneficial or adverse. Since spending and employment activities are estimated to decline under Alternative C in the Town of Beaufort, the net impact to economic output is judged to be adverse.

Impact Context. The impacts are likely to occur locally, within the Town of Beaufort. However, the full visitor spending impact might not be entirely concentrated in the Town of Beaufort, as visitors will continue to travel to and make purchases in the Town of Beaufort and other areas in the region. Similarly, the negative impacts associated with reductions in employment might be mitigated if new ferry employees chose to reside in the Town of Beaufort or if ferry employees that were laid off resided in a different community. For these reasons, the impacts to economic output in the Town of Beaufort presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to economic output in the Town of Beaufort, the impacts would represent long-term minor impacts to economic output in Beaufort.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years with the potential for contract extensions or renewals. Therefore, these impacts would be expected to occur over the 10-year contract term.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to economic output in Carteret County. The impacts presented in this section for the Town of Beaufort would represent long-term negligible to minor adverse impacts to economic output in Carteret County. The impacts presented in the following section for the Town of Morehead City would represent long-term negligible

to minor beneficial impacts to economic output in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative C in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County. The impacts to economic output in the Town of Beaufort and the Town of Morehead City under Alternative C would be noticeable relative to the impacts of the cumulative actions.

ii. Impacts to Economic Output in the Town of Morehead City

Exhibit 21 presents the impacts to economic output in the Town of Morehead City under Alternative C. The exhibit reveals that the total long-term impacts would be an increase in economic output of \$1.33 million or 0.10% of total economic output in the Town of Morehead City. The largest impact would result from the increase in visitor spending of \$733,000 which would generate \$614,000 in economic output.

Similarly, short-term impacts to economic output resulting from construction spending on new ferry facilities were estimated at approximately \$1.44 million representing an increase in economic output in the Town of Morehead City of 0.21%.

Exhibit 21. Impacts to Economic Output in the Town of Morehead City – Alternative C (\$2010)

	Direct Change	Total Impact to Economic Output	% Change in Local Output
Long-Term Impacts			
Net Change in Ferry Spending	\$300,132	\$382,904	0.0300%
Net Change in Visitor Spending	\$733,168	\$614,454	0.0481%
Net Change in Ferry Labor Income	\$153,330	\$332,163	0.0260%
Net Change in Ferry Fuel Expenditures	\$28,248	\$5,924	0.0005%
Net Change in Vessel R&M Expenditures	\$12,462	\$15,521	0.0012%
TOTAL	\$1,227,340	\$1,350,966	0.1058%
Short-Term Impacts			
New Ferry Facilities Construction	\$1,088,925	\$1,443,799	0.2086%
TOTAL	\$1,088,925	\$1,443,799	0.2086%

The following summarizes judgments regarding the impacts to economic output in the Town of Morehead City.

Type of Impact: Beneficial or adverse. Since spending and employment activities are estimated to increase under Alternative C in the Town of Morehead City, the net impact to economic output is judged to be beneficial.

Impact Context. The impacts are likely to occur locally, within the Town of Morehead City. Some degree of visitor spending impacts may occur in nearby communities including the Town of Beaufort or other areas of Carteret County, as visitors travel through the region on day trips or upon departure and arrival. In addition, the full visitor spending impact might not be entirely concentrated in the Town of Morehead City, as visitors will continue to travel to and make purchases in other areas in the region. Similarly, if new ferry employees chose to live in other locations, such as the Town of Beaufort, this would tend to reduce the impacts to economic output in the Town of Morehead City. For these reasons,

the impacts to economic output in the Town of Morehead City presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to economic output, the impacts would represent long-term and short-term minor impacts to economic output in the Town of Morehead City.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years with the potential for contract extensions or renewals. Therefore, these impacts would be expected to occur over the 10-year contract term. Short-term impacts would be expected to include spending to construct the new ferry facilities, which would occur over approximately one year.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to economic output in Carteret County. The impacts presented in this section for the Town of Morehead City would represent long-term negligible to minor beneficial impacts to economic output in Carteret County. The impacts presented in the previous section for the Town of Beaufort would represent long-term negligible to minor adverse impacts to economic output in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative C in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County. The impacts to economic output in the Town of Beaufort and the Town of Morehead City under Alternative C would be noticeable relative to the impacts of the cumulative actions.

b. Impacts to Labor Income/Employment

i. Impacts to Labor Income/Employment in the Town of Beaufort

Exhibit 22 presents the impacts to labor income/employment in the Town of Beaufort under Alternative C. The exhibit indicates that labor income would decline by \$581,000 or 0.33% and the number of jobs would decline by 15.5 or 0.28% of total employment in the Town of Beaufort.

Exhibit 22. Impacts to Labor Income/Employment in the Town of Beaufort – Alternative C (\$2010)

	Direct Change	Total Impact to Labor Income	Total Impact to Jobs	% Change in Labor Income	% Change in Jobs
Long-Term Impacts					
Net Change in Ferry Spending	(\$280,043)	(\$211,986)	(3.8)	(0.1200%)	(0.0681%)
Net Change in Visitor Spending	(\$684,025)	(\$203,244)	(8.5)	(0.1151%)	(0.1523%)
Net Change in Ferry Labor Income	(\$118,116)	(\$151,822)	(2.7)	(0.0859%)	(0.0492%)
Net Change in Ferry Fuel Expenditures	(\$27,635)	(\$1,643)	(0.1)	(0.0009%)	(0.0018%)
Net Change in Vessel R&M Expenditures	(\$41,911)	(\$12,557)	(0.4)	(0.0071%)	(0.0072%)
TOTAL	(\$1,151,730)	(\$581,252)	(15.5)	(0.3290%)	(0.2786%)
Short-Term Impacts					
New Ferry Facilities Construction	\$0	\$0	0	None	None
TOTAL	\$0	\$0	0	None	None

The following summarizes judgments regarding the impacts to labor income/employment in the Town of Beaufort.

Type of Impact: Beneficial or adverse. Since labor income and employment are estimated to decrease under Alternative C in the Town of Beaufort, the net impact to labor income and employment is judged to be adverse.

Impact Context. The impacts are likely to occur locally, within the Town of Beaufort. However, the full visitor spending impact might not be entirely concentrated in the Town of Beaufort, as visitors will continue to travel to and make purchases in the Town of Beaufort and other areas in the region. Labor income/employment impacts are somewhat dependent upon where ferry employees choose to live. If ferry employees that were laid off resided in another community, some of the impacts resulting from changes in labor income/employment would occur in that community instead of the Town of Beaufort. For these reasons, the impacts to labor income/employment in the Town of Beaufort presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to labor income/employment, the impacts would represent long-term minor impacts to labor income/employment in the Town of Beaufort.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to labor income/employment would be expected to occur over the 10-year contract term.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to labor income/employment in Carteret County. The impacts presented in this section for the Town of Beaufort would represent long-term negligible adverse impacts to labor income/employment in Carteret County. The impacts presented in the following section for the Town of Morehead City would represent long-term negligible beneficial impacts to labor income/employment in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative C in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County. The impacts to labor income/employment in the Town of Beaufort and the Town of Morehead City under Alternative C would be noticeable relative to the impacts of the cumulative actions.

ii. Impacts to Labor Income/Employment in the Town of Morehead City

Exhibit 23 presents the impacts to labor income/employment in the Town of Morehead City under Alternative C. The exhibit indicates that a total of nearly \$673,000 in additional labor income or 17.5 jobs would be created as result of the spending and employment changes under Alternative C. This translates into an increase of roughly 0.14% and 0.12% in labor income and employment in the Town of Morehead City, respectively. The short-term impacts associated with construction spending on new ferry facilities are estimated to generate \$387,000 in additional labor income or 11.8 jobs. This short-term impact would represent an increase in current labor income and employment in the Town of Morehead City of 0.08%.

Exhibit 23. Impacts to Labor Income/Employment in the Town of Morehead City – Alternative C (\$2010)

	Direct Change	Total Impact to Labor Income	Total Impact to Jobs	% Change in Labor Income	% Change in Jobs
Long-Term Impacts					
Net Change in Ferry Spending	\$300,132	\$230,168	4.1	0.0489%	0.0276%
Net Change in Visitor Spending	\$733,168	\$236,860	9.6	0.0503%	0.0647%
Net Change in Ferry Labor Income	\$153,330	\$199,666	3.6	0.0424%	0.0243%
Net Change in Ferry Fuel Expenditures	\$28,248	\$1,801	0.1	0.0004%	0.0007%
Net Change in Vessel R&M Expenditures	\$12,462	\$4,022	0.1	0.0009%	0.0007%
TOTAL	\$1,227,340	\$672,517	17.5	0.1429%	0.1180%
Short-Term Impacts					
New Ferry Facilities Construction	\$1,088,925	\$387,366	11.8	0.0823%	0.0795%
TOTAL	\$1,088,925	\$387,366	11.8	0.0823%	0.0795%

The following summarizes judgments regarding the impacts to labor income/employment in the Town of Morehead City.

Type of Impact: Beneficial or adverse. Since labor income and employment are estimated to increase under Alternative C in the Town of Morehead City, the net impact to labor income and employment is judged to be beneficial.

Impact Context. The impacts are likely to occur locally, within the Town of Morehead City. Some degree of visitor spending impacts may occur in nearby communities including the Town of Beaufort or other areas of Carteret County, as visitors travel through the region on day trips or upon departure and arrival. In addition, the full visitor spending impact might not be entirely concentrated in the Town of Morehead City as visitors will continue to travel to and make purchases in other areas in the region. Labor income/employment impacts are somewhat dependent upon where new ferry employees choose to live. If the new ferry employees live in another community, some of the impacts resulting from changes in labor income/employment would occur in that community instead of the Town of Beaufort. For these reasons, the impacts to labor income/employment in the Town of Morehead City presented in this analysis are upper-bound estimates, with the actual impacts potentially being of a smaller magnitude.

Impact Intensity. Considering the magnitude of the impacts to labor income/employment, the impacts would represent short and long-term minor impacts to labor income/employment in the Town of Morehead City.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to labor income/employment would be expected to occur over the 10-year contract term. Short-term impacts to labor income/employment associated with spending to construct the new ferry facilities would occur over approximately one year.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts labor income/employment in Carteret County. The impacts presented in this section for the Town of Morehead City would represent short and long-term negligible beneficial impacts to labor income/employment in Carteret

County. The impacts presented in the previous section for the Town of Beaufort would represent long-term negligible adverse impacts to labor income/employment in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative C in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to economic output in Carteret County. The impacts to labor income/employment in the Town of Beaufort and the Town of Morehead City under Alternative C would be noticeable relative to the impacts of the cumulative actions.

c. Impacts to State/Local Taxes

i. Impacts to State/Local Taxes in the Town of Beaufort

Exhibit 24 presents the impacts to state/local taxes in the Town of Beaufort under Alternative C. The exhibit indicates that state/local tax revenues would decline by \$106,000 or 0.14% as a result of the decline in spending and employment in the Town of Beaufort under Alternative C. There would be no short-term impacts to state/local taxes as spending on the construction of new ferry facilities would occur in the Town of Morehead City.

Exhibit 24. Impacts to State/Local Taxes in the Town of Beaufort – Alternative C (\$2010)

	Direct Change	Total Impact to State/Local Taxes	% Change in State/Local Taxes
Long-Term Impacts			
Net Change in Ferry Spending	(\$280,043)	(\$35,061)	(0.0457%)
Net Change in Visitor Spending	(\$684,025)	(\$41,976)	(0.0547%)
Net Change in Ferry Labor Income	(\$118,116)	(\$25,111)	(0.0327%)
Net Change in Ferry Fuel Expenditures	(\$27,635)	(\$730)	(0.0010%)
Net Change in Vessel R&M Expenditures	(\$41,911)	(\$2,976)	(0.0039%)
TOTAL	(\$1,151,730)	(\$105,854)	(0.1380%)
Short-Term Impacts			
New Ferry Facilities Construction	\$0	\$0	None
TOTAL	\$0	\$0	None

The following summarizes judgments regarding the impacts to state/local taxes in the Town of Beaufort.

Type of Impact: Beneficial or adverse. Since tax revenues are estimated to decline under Alternative C in the Town of Beaufort, the impact to state/local taxes is judged to be adverse.

Impact Context. To the extent that decreases in ferry/visitor spending and employment in the ferry industry occur within the Town of Beaufort, this will translate into less state/local taxes and reduce the local tax base in the Town of Beaufort.

Impact Intensity. Considering both the magnitude of the impacts to taxes, the impacts would represent long-term minor impacts to state/local taxes in the Town of Beaufort.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential

for contract extensions or renewals. Therefore, impacts to state/local taxes would be expected to occur over the 10-year contract term.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to state/local taxes in Carteret County. The impacts presented in this section for the Town of Beaufort would represent long-term negligible adverse impacts to state/local taxes in Carteret County. The impacts presented in the following section for the Town of Morehead City would represent short and long-term negligible beneficial impacts to state/local taxes in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative C in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to state/local taxes in Carteret County. The impacts to state/local taxes in the Town of Beaufort and the Town of Morehead City under Alternative C would be imperceptible relative to the impacts of the cumulative actions.

ii. Impacts to State/Local Taxes the Town of Morehead City

Exhibit 25 presents the impacts to state/local taxes in the Town of Morehead City under Alternative C. The exhibit indicates that a total of \$133,000 in additional state/local tax revenues would be generated as a result of the spending and employment changes under Alternative C. This represents an increase of roughly 0.06% in state/local taxes in the Town of Morehead City. The short-term impacts associated with construction spending on new ferry facilities is estimated to generate approximately \$44,000 in additional state/local tax revenues or an increase of 0.02% in state/local taxes in the Town of Morehead City.

Exhibit 25. Impacts to State/Local Taxes in the Town of Morehead City – Alternative C (\$2010)

	Direct Change	Total Impact to State/Local Taxes	% Change in ZIP State/Local Taxes
Long-Term Impacts			
Net Change in Ferry Spending	\$300,132	\$40,803	0.0185%
Net Change in Visitor Spending	\$733,168	\$54,593	0.0248%
Net Change in Ferry Labor Income	\$153,330	\$35,394	0.0161%
Net Change in Ferry Fuel Expenditures	\$28,248	\$810	0.0004%
Net Change in Vessel R&M Expenditures	\$12,462	\$1,040	0.0005%
TOTAL	\$1,227,340	\$132,640	0.0603%
Short-Term Impacts			
New Ferry Facilities Construction	\$1,088,925	\$44,500	0.0202%
TOTAL	\$1,088,925	\$44,500	0.0202%

The following summarizes judgments regarding the impacts to state/local taxes in the Town of Morehead City.

Type of Impact: Beneficial or adverse. Since tax revenues are estimated to increase under Alternative C in the Town of Morehead City, the impact to state/local taxes is judged to be beneficial.

Impact Context. To the extent that increases in ferry/visitor spending and additional employment in the ferry industry occur within the Town of Morehead City, this will translate into greater state/local taxes and expand the local tax base in the Town of Morehead City.

Impact Intensity. Considering magnitude of the impacts to taxes, the impacts would represent short and long-term minor impacts to state/local taxes in the Town of Morehead City.

Impact Duration. Impacts associated with spending and employment shifts would be expected to occur over the duration of the concession contract, the length of which would be 10-years, with the potential for contract extensions or renewals. Therefore, impacts to state/local taxes would be expected to occur over the 10-year contract term. Short-term impacts to state/local taxes associated with spending to construct the new ferry facilities would occur over approximately one year.

Cumulative Impacts & Conclusion. The impacts of the cumulative actions presented in Section IV.B would represent short and long-term negligible to minor beneficial impacts to state/local taxes in Carteret County. The impacts presented in this section for the Town of Morehead City would represent short and long-term negligible beneficial impacts to state/local taxes in Carteret County. The impacts presented in the previous section for the Town of Beaufort would represent long-term negligible adverse impacts to state/local taxes in Carteret County. The impacts of the cumulative actions, in combination with the impacts of Alternative C in the Town of Beaufort and the Town of Morehead City, would result in short and long-term negligible to minor beneficial cumulative impacts to state/local taxes in Carteret County. The impacts to state/local taxes in the Town of Beaufort and the Town of Morehead City under Alternative C would be imperceptible relative to the impacts of the cumulative actions.

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