DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AJ06

Endangered and Threatened Wildlife and Plants; Establishment of Three Additional Manatee Protection Areas in Florida

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the Fish and Wildlife Service (Service), establish three additional manatee protection areas in Florida. This action is authorized under the Endangered Species Act of 1973, as amended (ESA), and the Marine Mammal Protection Act of 1972, as amended (MMPA), to further recovery of the Florida manatee (*Trichechus manatus latirostris*) by preventing the taking of one or more manatees. We are designating areas in Lee, Duval, Clay, St. Johns, and Volusia counties as manatee refuges in which certain waterborne activities will be regulated. Specifically, watercraft will be required to operate at either slow speed or not more than 40 kilometers per hour (km/h) (25 miles per hour) in areas described in the rule. We also announce the availability of a final environmental assessment for this action.

DATES: *Effective date:* This rule is effective September 5, 2003.

Compliance date: Mandatory compliance with this rule will occur when appropriate signage has been installed in the regulated areas.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Jacksonville Field Office, U.S. Fish and Wildlife Service, 6620 Southpoint Drive, South, Suite 310, Jacksonville, Florida 32216.

FOR FURTHER INFORMATION CONTACT: David Hankla, Peter Benjamin, Stefanie Barrett, or Jim Valade (see **ADDRESSES** section), telephone 904/232–2580; or visit our Web site at *http://northflorida.fws.gov.*

SUPPLEMENTARY INFORMATION:

Background

The West Indian manatee is federally listed as an endangered species under the ESA (16 U.S.C. 1531 *et seq.*) (32 FR 4001) and the species is further protected as a depleted stock under the MMPA (16 U.S.C. 1361–1407). Florida manatees, a native subspecies of the West Indian manatee (Domning and Hayek, 1986), live in freshwater, brackish, and marine habitats in coastal and inland waterways of the southeastern United States. The majority of the population can be found in Florida waters throughout the year, and nearly all manatees use the waters of peninsular Florida during the winter months. The manatee is a cold-intolerant species and requires warm water temperatures generally above 20 °Celsius (68 °Fahrenheit) to survive during periods of cold weather. During the winter months, most manatees rely on warm water from industrial discharges and natural springs for warmth. In warmer months, they expand their range and occasionally are seen as far north as Rhode Island on the Atlantic Coast and as far west as Texas on the Gulf Coast.

Status of the Florida Manatee

Long-term studies, as described below, suggest that there are four relatively distinct regional populations of manatees in Florida—(a) The Northwest Region, along the Gulf of Mexico from Escambia County east and south to Hernando County; (b) the Upper St. Johns River Region, consisting of Putnam County from Palatka south to Lake and Seminole counties; (c) the Atlantic Region, consisting of counties along the Atlantic coast from Nassau County south to Miami-Dade County and that portion of Monroe County adjacent to the Florida Bay and the Florida Keys; and counties along the lower portion of the St. Johns River north of Palatka, including Putnam, St. Johns, Clay and Duval counties; and (d) the Southwest Region, consisting of counties along the Gulf of Mexico from Pasco County south to Whitewater Bay in Monroe County. We have concluded that these groups meet the criteria for designation as separate stocks, per the MMPA (67 FR 69081, November 14, 2002).

Despite significant efforts dating back to the late 1970s and early 1980s, scientists have been unable to develop a useful means of estimating or monitoring trends in the size of the overall manatee population in the southeastern United States (O'Shea, 1988; O'Shea *et al.*, 1992; Lefebvre *et al.*, 1995). In 2001, the Manatee Population Status Working Group (MPSWG) provided a statement summarizing what they believed to be the status of the Florida manatee at that time (Wildlife Trust, 2001). The MPSWG stated that, for the Northwest and Upper St. Johns River stocks, available evidence indicated that there had been a steady increase in animals over the last 25 years. The statement was less optimistic for the Atlantic Stock due to an adult survival rate that was lower than the rate necessary to sustain population growth. The MPSWG believed that this region had likely been growing slowly in the 1980s, but then may have leveled off or even possibly declined. They considered the status of the Atlantic Stock to be ''too close to call.'' This finding was consistent with high levels of human-related and, in some years, cold-related deaths in this Stock. Regarding the Southwest Stock, the MPSWG acknowledged that further data collection and analysis would be necessary to provide an assessment of the manatee's status in this region. Preliminary estimates of adult survival available to the MPSWG at that time indicated that the Southwest Stock was similar to the Atlantic Stock and ''substantially lower than [the adult survival estimates] for the Northwest and Upper St. Johns Regions.'' The Southwest Stock was cited as having had high levels of watercraft-related deaths and injuries and natural mortality events (*i.e.*, red tide and severe cold).

Recent information suggests that the overall manatee population has grown since the species was listed in 1967 (50 CFR 17.11). Based on data provided at the April 2002 Manatee Population Ecology and Management Workshop, we believe that the Northwest and Upper St. Johns River stocks are approaching demographic benchmarks established in the Florida Manatee Recovery Plan (Service, 2001) for reclassification from endangered to threatened status. We also believe that the Atlantic Stock is relatively close to meeting the downlisting benchmark for adult survival, and is close to meeting or exceeding other demographic criteria. We are less optimistic, however, regarding the Southwest Stock. Although data are still insufficient or lacking to compare the Southwest Stock's status to the downlisting/delisting criteria, preliminary data for adult survival and modeling results indicate that this stock is below the benchmarks established in the recovery plan, and may be experiencing a population decline.

Although we are optimistic about the potential for recovery in two out of the four regions, it is important to clarify that in order to downlist or delist the manatee, pursuant to the ESA, all four regions must simultaneously meet the appropriate criteria as described in the Florida Manatee Recovery Plan (Service, 2001). In addition to meeting the demographic criteria established in the recovery plan, in order for us to determine that an endangered species

has recovered to a point that it warrants reclassification to threatened or removal from the List of Endangered and Threatened Wildlife and Plants, the species' status must have improved to the point at which the current classification is no longer appropriate under the threat-based listing factors set out in section 4(a)(1) of the ESA. That is, threats to the species must be reduced or eliminated such that the species no longer fits the definition of endangered, if reclassifying to threatened, or threatened, for delisting. While suggestions of increasing manatee population size are very encouraging, there has been no confirmation that significant threats to the species, including human-related mortality, injury, and harassment, and habitat alteration, have been reduced or eliminated to the extent that the Florida manatee may be reclassified from endangered to threatened status. Accordingly, the Third Revision of the Florida Manatee Recovery Plan (Service, 2001) establishes criteria for downlisting and delisting the Florida manatee under the relevant threat factors in section 4(a)(1) of the ESA. Pursuant to our mission, we continue to assess this information with the goal of meeting our manatee recovery objectives.

Threats to the Species

Human activities, and particularly waterborne activities, are resulting in the take of manatees. Take, as defined by the ESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Harm means an act which kills or injures wildlife (50 CFR 17.3). Such an act may include significant habitat modification or degradation that kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass includes intentional or negligent acts or omissions that create the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3).

The MMPA sets a general moratorium, with certain exceptions, on the take and importation of marine mammals and marine mammal products (section 101(a)) and makes it unlawful for any person to take, possess, transport, purchase, sell, export, or offer to purchase, sell, or export, any marine mammal or marine mammal product unless authorized. Take, as defined by section 3(13) of the MMPA means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal. Harassment is defined under the MMPA as any act of pursuit, torment, or annoyance which—(i) Has the potential to injure a marine mammal or marine mammal stock in the wild; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

Human use of the waters of the southeastern United States has increased dramatically as a result of residential growth and increased visitation in this region. This phenomenon is particularly evident in the State of Florida. The human population of Florida has grown by 146 percent since 1970, from 6.8 million to 16.7 million residents (U.S. Census Bureau, 2003), and is expected to exceed 18 million by 2010, and 20 million by 2020. According to a report by the Florida Office of Economic and Demographic Research (2000), it is expected that, by 2010, 13.7 million people will reside in the 35 coastal counties of Florida. In a parallel fashion to residential growth, visitation to Florida has increased dramatically. It is expected that Florida will have 83 million visitors annually by 2020, up from 48.7 million visitors in 1998. In concert with this increase of human population growth and visitation is the increase in the number of watercraft that travel Florida waterways. In 2002, 961,719 vessels were registered in the State of Florida (Florida Division of Highway Safety and Motor Vehicles, 2003). This represents an increase of 59 percent since 1993. The Florida Department of Community Affairs estimates that, in addition to boats belonging to Florida residents, between 300,000 and 400,000 boats registered in other States use Florida waters each year.

Increases in the human population and the concomitant increase in human activities in manatee habitat compound the effect of such activities on manatees. Human activities in manatee habitat cause direct and indirect effects to manatees. Direct effects include injuries and deaths from watercraft collisions, deaths from water control structure operations, lethal and sublethal entanglements with recreational and commercial fishing gear, and alterations of behavior due to harassment. Indirect effects can result from habitat alteration and destruction, such as the creation of artificial warm water refuges, decreases in the quantity and quality of warm water in natural spring areas, changes in water quality in various parts of the State, the introduction of marine debris, and other, more general disturbances.

The number of watercraft-related deaths each year continues to rise. The following is an excerpt from an analysis conducted by the U.S. Geological Survey's Biological Resources Division (USGS–BRD) for our recent efforts to promulgate incidental take regulations for manatees pursuant to the MMPA. ''There has been an increasing trend in watercraft-related mortality in all four stocks over the past decade. This is reflected in increases in the average annual number of watercraft-related mortalities as the period over which the average is taken becomes more recent. For instance, in the Atlantic Stock, the mean observed mortality due to watercraft was 25.8 per year for the period 1990 to 1999, 29.8 per year for the period 1993 to 2002, and 37.0 per year for the most recent 5-year period. This trend is statistically significant in all four stocks. The slope of the increase (as fit to the period 1992 to 2002) does not differ between the Upper St. Johns and Northwest stocks (5.96 percent), nor does it differ between the Atlantic and Southwest regions (9.53 percent). To interpret these rates of increase, however, it is important to compare them to the historic growth rates (1990 to 1999) in each stock, to account for the increase in watercraft-related mortalities that would be expected due to increases in manatee population size. In the Atlantic and Southwest stocks, the rate of increase in watercraft-related mortality over that period far outstripped the estimated growth rate of those populations (by 8.5 percent in the Atlantic and 10.6 percent in the Southwest). In the Northwest stock, the rate of increase in mortality (6.0 percent) is somewhat larger than the estimated growth rate (3.6 percent). In the Upper St. John's stock, the increase in boat-related mortality can be completely explained by the estimated increase in the population size.

The continuing increase in the number of recovered dead manatees throughout Florida has been interpreted as evidence of increasing mortality rates (Ackerman *et al.*, 1995). From 1976 to 1999, the number of carcasses collected in Florida increased at a rate of 5.8 percent per year, and deaths caused by watercraft strikes increased by 7.2 percent per year (Service, 2002). Because the manatee has a low reproductive rate, a decrease in adult survivorship due to any cause, including watercraft collisions, could contribute to a long-term population decline (O'Shea *et al.*, 1985). It is believed that a 1 percent change in adult survival likely results in a

corresponding change in the rate of population growth or decline (Marmontel *et al.*, 1997). Accordingly, the Service is continuing to assess, and take steps to reduce, significant causes of mortality to manatees.

Collisions with watercraft are the largest cause of human-related manatee deaths. Data collected during manatee carcass salvage operations in Florida indicate that 1,145 manatees (from a total carcass count of 4,545) are confirmed victims of collisions with watercraft (1978 to 2002). This number may underestimate the actual number of watercraft-related mortalities, since many of the mortalities listed as ''undetermined causes'' show evidence of collisions with vessels and because not all carcasses are found. Collisions with watercraft comprise approximately 25 percent of all manatee mortalities since 1978. Approximately 75 percent of all watercraft-related manatee mortality has taken place in 11 Florida counties (Brevard, Lee, Collier, Duval, Volusia, Broward, Palm Beach, Charlotte, Hillsborough, Citrus, and Sarasota) (Florida Fish and Wildlife Commission's (FWCC) Florida Marine Research Institute (FMRI) Manatee Mortality Database, 2003). The last 5 years have been record high years for the number of watercraft-related mortalities.

The second largest cause of human-related manatee mortality is entrapment in water control structures and navigation locks (FWCC: FMRI Manatee Mortality Database, 2003). Manatees may be crushed in gates and locks or may be trapped in openings where flows prevent them from surfacing to breathe. Locks and gates were responsible for 164 manatee deaths from 1978 to 2002, or approximately 4 percent of all deaths during this period. While there are no well-defined patterns characterizing these mortalities, it is believed that periods of low rainfall increase the likelihood of manatees being killed in these structures. These periods require more frequent, large-scale movements of water, which require more frequent gate openings and closings in areas that attract manatees searching for fresh water. We have been working, through an interagency task force, with various Federal and State agencies to retrofit these structures with reversing mechanisms that prevent manatee crushings.

Manatees are also affected by other human-related activities. Impacts resulting from these activities include deaths caused by entrapment in pipes and culverts; entanglement in ropes, lines, and nets; ingestion of fishing gear or debris; vandalism; and poaching. These activities have accounted for 124 manatee deaths since 1978, an average of more than 4 deaths per year. As with watercraft-related mortalities, these deaths also appear to be increasing, with 40 of these deaths occurring from 1998 to 2002 (an average of 8 deaths per year over the last 5 years).

Manatee Protection Areas

To minimize the number of injuries and deaths associated with watercraft activities, we and the State of Florida have designated manatee protection areas at sites throughout coastal Florida where conflicts between boats and manatees have been well documented and where manatees are known to frequently occur. These areas include posted signs to inform the boating public about restrictions and prohibitions. We are enhancing existing protection by establishing three additional manatee refuges in five Florida counties.

Federal authority to establish protection areas for the Florida manatee is provided by the ESA and the MMPA, and is codified in 50 CFR, part 17, subpart J. We have discretion, by regulation, to establish manatee protection areas whenever substantial evidence shows such establishment is necessary to prevent the taking of one or more manatees (that is, to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct). In accordance with 50 CFR 17.106, areas may be established on an emergency basis when such takings are imminent.

We may establish two types of manatee protection area—manatee refuges and manatee sanctuaries. A manatee refuge, as defined in 50 CFR 17.102, is an area in which we have determined that certain waterborne activities would result in the taking of one or more manatees, or that certain waterborne activities must be restricted to prevent the taking of one or more manatees, including but not limited to, a taking by harassment. A manatee sanctuary is an area in which we have determined that any waterborne activity would result in the taking of one or more manatees, including but not limited to, a taking by harassment. A waterborne activity is defined as including, but not limited to, swimming, diving (including skin and scuba diving), snorkeling, water skiing, surfing, fishing, the use of water vehicles, and dredge and fill activities.

Relationship to Manatee Lawsuit

On January 13, 2000, several organizations and individuals filed suit against the Service and the U.S. Army Corps of Engineers alleging violations of the ESA, the MMPA, the National Environmental Policy Act, and the Administrative Procedure Act. Four groups representing development and boating interests intervened. Following extensive negotiations, the suit was resolved by a Settlement Agreement dated January 5, 2001. On October 24, 2001, the plaintiffs filed a Formal Notice of Controversy alleging that the Service had violated provisions of the Settlement Agreement. On April 17, 2002, the plaintiffs filed an Expedited Motion to enforce the Settlement Agreement, and on July 9, 2002, the Court found that the Service had not fulfilled its settlement requirements to designate refuges and sanctuaries throughout peninsular Florida. On August 1, 2002, and November 7, 2002, the Court ordered the Federal defendants to show cause why they should not be held in contempt for violating the Court's orders of January 5, 2002, January 17, 2002, and August 1, 2002. To resolve these controversies, the plaintiffs and Federal defendants entered into a Stipulated Order wherein we agreed to submit to the **Federal Register** for publication a proposed rule for the designation of the additional manatee protection areas in the Caloosahatchee River in Lee County; the lower St. Johns River in Duval, St. Johns, and Clay Counties; and the Halifax and Tomoka Rivers in Volusia County, on or before March 31, 2003, and a final decision on the proposed rule on or before July 31, 2003. The proposed rule was submitted to the **Federal Register** on March 31, 2003, and published on April 4, 2003 (68 FR 16602). This notice constitutes the final rule and was submitted to the **Federal Register** on July 31, 2003.

Site Selection Process and Criteria

In order to establish a site as a manatee protection area, we must determine that substantial evidence shows such establishment is necessary to prevent the take of one or more manatees. We reviewed the sites referenced in the Stipulated Order and determined that the proposed sites met this test. This was based on aerial survey and telemetry data, mortality (carcass recovery) data, additional information from FMRI and the U.S. Geological Survey's Sirenia Project, manatee experts, and our best professional judgment. The areas designated in this final rulemaking are those that we have determined, based on the best currently available data and the public comments received, should be designated as manatee refuges. Where the final designations differ from

the proposal, we have determined that either alternative or existing measures are sufficient to protect manatees (*see* ''Summary of Comments and Recommendations'' and ''Summary of Changes From the Proposed Rule'' below).

Effective Date

This rule is effective 30 days after the date of this publication and once the manatee protection areas are marked and posted.

Definitions

The following terms are defined in 50 CFR 17.108. We present them here to aid in understanding this rule.

Planning means riding on or near the water's surface as a result of the hydrodynamic forces on a watercraft's hull, sponsons (projections from the side of a ship), foils, or other surfaces. A watercraft is considered on plane when it is being operated at or above the speed necessary to keep the vessel planing.

Slow speed means the speed at which a watercraft proceeds when it is fully off plane and completely settled in the water. Watercraft must not be operated at a speed that creates an excessive wake. Due to the different speeds at which watercraft of different sizes and configurations may travel while in compliance with this definition, no specific speed is assigned to slow speed. A watercraft is *not* proceeding at slow speed if it is—(1) On a plane, (2) in the process of coming up on or coming off of plane, or (3) creating an excessive wake. A watercraft is proceeding at slow speed if it is fully off plane and completely settled in the water, not plowing or creating an excessive wake. Exceptions to slow speed restrictions are contained in 50 CFR 17.105 and include activities ''* * * reasonably necessary to prevent the loss of life or property due to weather conditions or other reasonably unforeseen circumstances, or to render necessary assistance to persons or property''.

Slow speed (channel exempt) designates a larger area where slow speed is required, through which a maintained, marked channel is exempt from the slow speed requirement (although the channel may also have a higher posted speed limit). Exceptions to slow speed restrictions are contained in 50 CFR 17.105 and include activities ''* * * reasonably necessary to prevent the loss of life or property due to weather conditions or other reasonably unforeseen circumstances, or to render necessary assistance to persons or property''.

Slow speed (channel included) means that the slow-speed designation applies to the entire marked area, including within the designated channel. Exceptions to slow speed restrictions are contained in 50 CFR 17.105 and include activities ''* * * reasonably necessary to prevent the loss of life or property due to weather conditions or other reasonably unforeseen circumstances, or to render necessary assistance to persons or property''.

Wake means all changes in the vertical height of the water's surface caused by the passage of a watercraft, including a vessel's bow wave, stern wave, and propeller wash, or a combination of these.

Summary of Comments and Recommendations

In the April 4, 2003, proposed rule (68 FR 16602), we requested all interested parties to submit factual reports or information that might contribute to the development of a final rule. We published legal notices announcing the proposal, inviting public comment, and announcing the schedule for public hearings, in the *Fort Myers News-Press, Daytona Beach News-Journal, Naples Daily News, Orlando Sentinel, Charlotte Sun-Herald, Sarasota Herald-Tribune, Florida Times-Union, St. Augustine Record,* and *Clay Today.* We held the public hearings at the Harborside Convention Hall in Fort Myers, Florida, on May 13, 2003; the Ocean Center in Daytona Beach, Florida, on May 14, 2003; and at the University Center, University of North Florida, in Jacksonville, Florida, on May 15, 2003. Approximately 3,325 people attended the public hearings. We received oral comments from 203 individuals. The comment period closed on June 3, 2003.

In addition to soliciting comments from the public, we solicited peer review comments from three independent experts in manatee ecology, boating activity, and waterway regulation, from The Ocean Conservancy, Mote Marine Laboratories, and the United States Coast Guard, respectively. Their comments and our responses are summarized below.

During the comment period, we received approximately 5,931 written and oral comments concerning the proposal. Most were form letters expressing support for the proposed designation; however, most substantive comments expressed concern or opposition to the proposed action. The following is a summary of the comments received and our responses. Comments of a similar nature have been grouped together.

Comment 1: Several commentors, including the FWCC, suggested that the Service does not have the resources to enforce these additional zones. They are concerned that lack of enforcement will result in the new zones being less protective than the existing zones. The FWCC also expressed concern that, in areas where Federal and State speed zones overlap, enforcement by State law enforcement officers may be complicated.

Response 1: We are fully committed to implementing these protection areas, including enforcement of these areas upon posting. However, we are very aware of the fact that compliance is critical to the effectiveness of manatee protection area regulations and that compliance is facilitated, in large part, by enforcement. We are also aware that enforcement resources are limited at all levels of government, and that cooperation among law enforcement agencies is needed to maximize effectiveness of limited resources. We know that State and local law enforcement agencies have many enforcement mandates in addition to manatee protection and that it may be difficult for these agencies to make enforcement of Federal manatee protection areas a high priority, particularly if they do not agree that the Federal designations are necessary or appropriate.

We believe that local and State law enforcement improves compliance with Federal designations and leads to more effective Federal rules. The final rule has been designed to reflect the best available information regarding manatee and boating use of these waters, and was also intended to address (to the extent possible) State and local concerns regarding the proposed rule. We have attempted to make our designations consistent with existing regulations, where possible, in order to minimize the boating public's confusion and facilitate signage, enforcement, and compliance, while ensuring appropriate protection for manatees.

Comment 2: Several commentors believe that adoption of new zones at this time is premature. The FWCC stated that they are currently studying the zones in Lee and Duval Counties and are currently collecting new data in Volusia County. Their report on Duval County is expected in November 2003. The new data collection from Volusia County is expected to be completed in June 2004.

Response 2: We have concluded that the actions identified in the final rule are warranted and prudent to undertake at this time, and that sufficient information is currently available to

support these designations. We recognize and support efforts to continually evaluate and improve information regarding manatee distribution and habitat use, boating activity, and the effectiveness of existing regulations. But we also know perfect information will never be available to definitively address all the issues that are raised by such rulemakings. We have attempted to design this final rule to address issues that we believe are necessary and appropriate to address at this time, without hindering the State's ability to make additional changes as needed in the future. In some areas there is considerable overlap between our final designations, existing State regulations, and FWCC regulatory actions anticipated in the near future (*e.g.*, the Halifax River). We are committed to working with the FWCC to make necessary changes through the rulemaking process at that time to our manatee protection areas to ensure consistency with State designations as long as manatee protection is not compromised. If changes are beneficial and/or necessary, we may initiate concurrent rulemaking with the FWCC to ensure consistency with State-designated zones to meet this goal.

Comment 3: Several commentors believe that implementation of Federal zones that are not consistent with the existing FWCC zones will confuse boaters, reduce compliance, and delay dissemination of educational material.

Response 3: We have made our final designations as consistent as possible with existing regulations, in order to minimize boater confusion and enhance compliance while ensuring appropriate protection for manatees. We recognize that, in those areas where these Federal designations represent considerable changes to the existing regulations, educational material specific to those areas will need to be updated.

Comment 4: The FWCC and other commentors believe that the Service could improve existing zones by providing funds for improved signage of existing manatee protection zones.

Response 4: Appropriate signage is critical to effective implementation of manatee protection areas. For example, we have long identified the inadequacy of the signage of the current State manatee protection zone on the St. Johns River as the primary deficiency of the existing regulations in this area. Establishment of Federal manatee protection areas will make it easier for us to devote Federal funding to signage in the areas designated.

Comment 5: The FWCC and other commentors also believe that the Service should/could have used funds spent on new rules to increase Federal enforcement of existing manatee protection zones.

Response 5: We agree that, in general, enforcement of existing manatee protection areas can be more cost effective than establishment of new areas. However, when substantial evidence shows that establishment of a manatee protection area is necessary to prevent the taking of one or more manatees then designation of a manatee protection area may be a proper course of action for us to take. Such a situation exists for the areas designated by this rule. Notwithstanding this determination, we would like to emphasize that we have increased our efforts to enforce existing Federal and State manatee protection areas.

Comment 6: Although they do not necessarily recommend it, the FWCC commented that, as an alternative to the proposed rule, the Service could adopt existing State zones, thereby eliminating any conflict between sign posting and enforcement issues. Further, adopting the existing State zones as Federal zones may provide more security to the zones by making legal challenges to the zones more difficult to mount.

Response 6: In some cases we did this, but in some cases we believe that adoption of existing State zones would hinder State efforts to modify zones in the future, and in some cases we believed that additional protection for manatees is needed at this time.

Comment 7: One peer reviewer noted that any manatee protection area with either a channel exempt, 25 mph in the channel, or shoreline buffer designation should, in general, result in minimal impact to recreational boating (the reviewer acknowledges that recreational boating activity varies widely from location to location, and some areas, as well as some commercial activities, may be more significantly impacted than others). According to the peer reviewer's studies, a vast majority of recreational boat traffic is already traveling between 20 and 30 mph. Additionally, very few hull designs are not capable of achieving and maintaining planing speed at 25 mph. Therefore, slow-speed, channel exempt (or 25 mph in the channel) seems to be a reasonably effective management alternative in areas where manatee use is well documented and there is a well defined, marked channel.

Response 7: We agree with this assessment, and as such believe that our final designations should result in minimal adverse impacts on the boating public, except in those limited areas in which high-speed travel was previously allowed.

Comment 8: One commentor stated that our proposed rule ''makes clear that there is a far more compelling basis for designating these areas as refuges than existed for some of the other protected areas recently created by the Service.''

Response 8: In our previous rulemakings (finalized in 2002) (67 FR 680–696 and 67 FR 68450–68489), we established four criteria for selecting Federal manatee protection areas. The sites addressed in this final rule were evaluated against those criteria during the previous rulemaking. They were not selected because in 2002 we concluded that, due to the earlier commitment of our limited resources to higher priority sites, we could not enact adequate protection measures at these sites and/or the State or local agencies were in a better position to address concerns at these sites. Per the Stipulated Order, we made a commitment to reevaluate these sites. As a result of this reevaluation we have concluded that Federal action is warranted at portions of these sites at this time, and that we now have the capability to implement these actions. Additionally, new information, such as FMRI's 2002 Caloosahatchee River study, was not available during the 2002 rulemaking. Specifically, the study showed significant manatee use of the Redfish Point area of the river and that manatees were likely crossing the river at this point, as opposed to confining most of their movement to shoreline habitat as they appear to do in most of the Caloosahatchee River. We do not agree with the commentor that these designations are more important to manatee conservation than previous Service actions.

Comment 9: One commentor noted that the Service stated in the March 18, 2003, Stipulated Order and the proposed rule that these zones were justified.

Response 9: It is correct to say that we had determined that portions of these three large areas met the criteria for designation as manatee protection areas. The proposed rule depicts the maximum extent of actions that were determined to be potentially warranted through the preliminary review conducted during the negotiations regarding the Stipulated Order. We put these sites out to the public as a proposed rule in order to collect information and data and have modified the designations in this final rule to reflect that analysis.

Comment 10: One commentor stated that the Service ''could refrain from adopting the refuges only by demonstrating that scientific data *not* previously available to the agency has

somehow eliminated the need for the refuges.''

Response 10: We disagree with the commentor. The Service would not have agreed to propose the manatee protection if we did not believe that substantial evidence shows such establishment is necessary to prevent the taking of one or more manatees. Nevertheless, our agreement in the Stipulated Order to propose the protection areas was ''based on the current best available data'' (Stipulation, ¶ 1) and the Service ''retain[ed] its discretion consistent with the Administrative Procedure Act in reaching its final decision with respect to [the] manatee protection areas.'' (Stipulation, ¶ 2) Numerous management options are available to improve manatee protection, and we could have concluded, after receiving input from the interested parties, the State, and other concerned citizens, that one of these other options would be more effective in protecting manatees in these areas.

Designation of manatee protection areas involves both scientific and practical considerations. This final rule reflects the results of in-depth analysis of the areas, including careful evaluation of manatee and watercraft use information, site visits, coordination with State and local regulatory experts, and review of public comments. This review revealed aspects of the available scientific information that were not fully considered during the development of the proposed rule, as well as many practical considerations that were not factored into the original analysis.

Comment 11: Peer review comments from the U.S. Coast Guard stated that speed limit requirements (*i.e.*, 25-mph maximum allowable speed) are not enforceable by the Coast Guard as they do not have the equipment or training necessary to determine the speed of a vessel.

Response 11: Our Division of Law Enforcement believes that a specific speed limit (*e.g.*, 25 mph) is enforceable. Additionally, we have adopted a 25-mph speed limit in several areas in order to be consistent with State regulations. In our view, this will improve manatee protection in these areas by enhancing public understanding and compliance.

Comment 12: Peer review comments from the U.S. Coast Guard stated that slow speed areas will be enforceable if zones are clearly and adequately marked. Otherwise, it will be difficult for enforcement officers to document cases based on distance judgments.

Response 12: We concur with the reviewer's comment. We intend to design and implement sign plans that will clearly and effectively mark the new manatee protection areas to facilitate public understanding and compliance, as well as ensure the enforceability of the zones. Additionally, we intend to work with State and local agencies to enforce these zones.

Comment 13: One peer reviewer concurred with the following assumptions of this proposed rule—(1) information on the existence of four subpopulations; (2) the difficulty of reliably monitoring trends in the overall population; (3) the problems associated with using uncalibrated indices based on maximum counts at winter refuges; and (4) the lack of utility and reliability of uncorrected counts as a basis for assessing population estimates or measuring trends in the population. These assumptions ''reflect the views of [the] manatee scientific community, including the consensus of the 2002 Manatee Population and Ecology Workshop panel of experts.''

Response 13: Comment noted.

Comment 14: One peer reviewer stated that assessments, such as the determination that the Atlantic and Southwest stocks are less stable than the Crystal River (*i.e.*, Northwest) and St. Johns River stocks, are supported by available scientific data. These assessments indicate that the Atlantic and Southwest stocks require additional management and conservation efforts.

Response 14: We concur with the reviewer regarding the need for additional management and conservation efforts in the Atlantic and Southwest stocks. We believe it is important to note that management and conservation efforts include a variety of options to improve or provide additional protection for manatees, such as enforcement, education, and improving the signage of existing zones. The designation of manatee protection areas is only one of those options and may not be the most beneficial or appropriate management/conservation tool in some areas or situations.

Comment 15: One peer reviewer noted that the current status of manatee populations within the Atlantic and Southwest stocks, while not critical or in imminent danger at this time, indicates that additional management and protection is warranted to expedite recovery and to put safeguards in place as the human population in Florida continues to grow. The reviewer concurs with the Service's assessment that ''* * * there has been no confirmation that significant threats to the species, including human-related mortality, injury, and harassment, and habitat alteration have been reduced or eliminated * * *'' (68 FR 16604). With the anticipated continued human population growth and development of Florida and the recent increase in human-related manatee mortality, especially from collision with watercraft, there is cause for concern relative to manatee adult survival and species recovery. The need for additional manatee protection areas is underscored by these facts.

Response 15: We concur with the reviewer regarding the status of the manatees in the Atlantic and Southwest stocks. The Caloosahatchee River-San Carlos Bay Manatee Refuge is located within the range of the Southwest Stock while the Lower St. Johns River Manatee Refuge and Halifax and Tomoka Rivers Manatee Refuge are both located within the range of the Atlantic Stock. As noted above, a variety of management and conservation options, in addition to or in lieu of manatee protection areas, can and should be explored to improve the status of these stocks.

Comment 16: One peer reviewer stated that further explanation was needed regarding the Service's assumption that designation of ''manatee protection areas at sites * * * where conflicts between boats and manatees have been well documented'' should ''minimize the number of injuries and deaths associated with watercraft activities'' (68 FR 16605). While the reviewer agrees with this assumption, she believes that a scientific basis for this assertion would better justify the rationale for designating manatee protection areas to minimize death and injury (for example, work by Mote Marine Laboratory and Brad Weigle using tethered and manned airships, respectively, and at the very least, anecdotal information from manatee researchers regarding manatee response to watercraft).

Response 16: We concur. The reviewer is correct in that, while no empirical studies specifically address this assumption, researchers have documented manatee response to oncoming boats. Manatee response to boats at distances of approximately 100 meters (328 feet) was documented in a study conducted in 1994 (Weigle *et al.*, 1994). Boat speeds during these response trials varied between slow speed and 48 km/h (30 mph). While no specific behavior was observed for each speed trial, researchers observed that bottom-resting manatees did not respond to oncoming boats and that manatees observed surface resting or

observed in shallows all responded to the presence of approaching boats. A study conducted from 1999 to 2000 documented manatee response to random boat traffic (Nowacek *et al.*, 2000). In each observation, manatees responded either by accelerating, turning, or moving toward or into a nearby channel when approached by boats.

Studies further addressed response times (Wells *et al.*, 1999). ''At an average initial response distance of 20 meters, the animal has less than two seconds to respond to a planing vessel and about seven seconds to respond to a vessel approaching at slow speed'' (Wells *et al.*, 1999). Based on these observations, it is apparent that manatees will respond to the presence of oncoming boats and that their ability to successfully do so is predicated on the speed of the oncoming boat. As such, protection areas that regulate boat speeds should minimize the incidence of manatee-boat encounters and, thereby, ''the number of injuries and deaths associated with watercraft activities.''

Comment 17: One peer reviewer believes the section on ''Relationship to Manatee Lawsuit'' is distracting to the overall intent of the rule, unless there is a legal requirement for its inclusion.

Response 17: The comment is noted; however, we believe it is important for the public to be aware of the lawsuit.

Comment 18: One peer reviewer suggested the addition of scale bars to the maps.

Response 18: The final maps have been revised accordingly.

Comment 19: One peer reviewer believed it would strengthen the rule and the Service's position to include a timeframe on which the requirement of ''preventing the take of one or more manatees'' is based.

Response 19: The only specific reference to a timeframe in our manatee protection area regulations is in regard to establishment on an emergency basis if the anticipated taking is ''imminent'' (50 CFR 17.106). That said, our regulations state that the establishment of manatee protection areas may occur if there is ''substantial evidence'' that the action is necessary to prevent the taking of one or more manatees. While not specific, this phrase strongly implies that there is a proximate connection between our action (establishment of a manatee protection area) and the result (prevention of take). We interpret this to mean that action may be warranted in those areas where take is documented and ongoing with sufficient regularity to indicate that it is likely to continue in the near future unless appropriate action is taken. In other words, our manatee protection area designations are intended to prevent take that we expect may occur in the near future in the absence of such regulations.

Comment 20: Several commentors suggest that the existing State and Federal zones on the Caloosahatchee are relatively new, and have so far been effective. Many of these commentors speculate that past manatee watercraft-related mortalities may have been related to fuel barges traveling the river to the power plant. These operations have now been greatly reduced.

Response 20: Our analysis indicates that the existing zones in the Caloosahatchee River do in fact provide appropriate protection over most of the areas on the river where manatees and watercraft are likely to interact. Our final designation has targeted those areas of the river and San Carlos Bay where the best available information indicates that the existing zones do not adequately protect manatees from high-speed collisions. Additionally, our adoption of the existing shoreline buffer zones will enable us to devote Federal funds to improving signage and enforcement.

Comment 21: One commentor noted that the most recently documented compliance rates on the Caloosahatchee River are low. The commentor cited this as evidence that the existing regulations are inadequate. Further, the commentor stated that Lee County boater compliance studies indicate the majority of boaters travel outside speed-restricted areas. The commentor concluded from this that manatees are being killed outside the existing zones and that the existing zones are therefore inadequate.

Response 21: The commentor does not indicate what percentage this ''majority'' comprises, or the level of boat traffic within the existing speed zones. Neither does the commentor mention that, while it is true that vessels navigating the Caloosahatchee River spend most of their time in the unregulated center of the river, all vessels navigating this river must pass through regulated waters at some point in their journey. Therefore, the statement is misleading. When the fact that all vessels on the river must travel through manatee speed zones is combined with the above-noted low levels of historic compliance, it is clear that this high volume of (noncompliant) high-speed vessel traffic in existing zones is the most likely contributing factor to manatee take in most parts of the river.

Comment 22: One commentor claims that the existing aerial survey data for the Caloosahatchee are skewed toward the shallower near-shore areas due to the flight path and observer and availability bias.

Response 22: We base our regulatory determinations on the best available information. We cannot base our determinations on speculation that manatees occur in areas not identified in the available data unless the data show such inferences to be reasonable. For example, we have determined that improved manatee protection in the vicinity of the Cape Coral Bridge is warranted. The data indicate that the Caloosahatchee River is used primarily as a travel corridor, and because aerial survey data indicate substantial manatee use upstream and downstream of the Cape Coral Bridge, it is reasonable to infer from these data that manatees do regularly occur near the Cape Coral Bridge. Additional protection is warranted due to the funneling effect of both watercraft and manatees that bridges often cause. Conversely, the commentor provides no basis, nor can we identify one, for assuming that manatees make more extensive use of the center portion of the river than is depicted in the available data.

Comment 23: With reference to the portion of the Caloosahatchee River from the Railroad Trestle to the Edison Bridge, one peer reviewer noted that aerial survey and telemetry data appear to indicate that manatees are distributed throughout this area, as opposed to concentrating along the shoreline as they appear to do in other areas of the river. The reviewer also noted that the seasonal component of the designation may not be warranted, as telemetry and aerial data do no show a strong seasonal bias. Furthermore, this area experiences generally lower overall watercraft use. Therefore, the reviewer believed that, although the proposed protection area (*i.e.*, slow speed in the channel from November 15 to March 31, 25-mph maximum speed in the channel April 1 to November 14) is justified, allowing a 25-mph maximum speed in the channel year-round may be feasible and justifiable without posing a significant threat to manatees. Another peer reviewer and other commentors also stated that it may be acceptable to leave the navigation channel as 25 mph year-round because this portion of the river has substantially less boat traffic than lower areas of the river. The FWCC stated that manatees are most abundant between Channel Marker ''23'' and the railroad tressle.

Response 23: Based on the comments as well as a more thorough evaluation by our biologists, we have modified our proposed rule to better reflect the best

available information regarding manatee use of this area. The final rule designates the portion of the Caloosahatchee River navigation channel from the Seaboard Coastline Railroad trestle downstream to Channel Marker ''25'' to be slow speed in the channel from November 15 to March 31, and not more than 25 mph in the remainder of the year.

Aerial survey data indicate that manatees do occur throughout this portion of the river throughout the year. However, the analysis of available data by FMRI (FWCC 2002) indicates that manatees are less likely to occur near the navigation channel downstream of the general area of Marker ''25''. This generally coincides with the change in the physiography of the river in this area. The river narrows upstream of channel Marker ''25,'' and Beautiful Island and other smaller islands act to further constrict the river. This constriction explains the change in manatee distribution at this point in the river. Manatees are more likely to be found in and near the navigation channel upstream of Marker ''25'' than downstream. This fact, combined with the above-referenced lower level of boat traffic in this portion of the river relative to areas further downstream, led us to conclude that the existing regulations downstream of Marker ''25'' were sufficient, whereas increased protection is warranted between Marker ''25'' and the railroad trestle.

Comment 24: With reference to the portion of the Caloosahatchee River from the Edison Bridge to the Caloosahatchee Bridge, one peer reviewer noted that manatee sightings are lower in this area than in other portions of the river and may not warrant the proposed slow speed (channel included) designation. However, a year-round slow speed zone in this area may be warranted for other reasons, such as travel through a constrained area and/or boater safety. Another peer reviewer stated that the proposed rule seems appropriate for this area, noting that the current slow speed restrictions are along the southern shore only, creating a situation where many boats ''short-cut'' the area by running on plane along the north shore. The FWCC stated that telemetry data, boat traffic patterns, and the physical configuration of the downtown area may combine to make that area higher risk for manatees.

Response 24: We have carefully reviewed the above comments and other public comments and concluded that the proposed action is warranted in this area due to the reasons cited in our proposed rule and comments received from the FWCC and peer review.

Comment 25: With reference to the portion of the Caloosahatchee River from the Caloosahatchee Bridge to the Cape Coral Bridge, one peer reviewer noted that distribution and travel data suggest that manatees remain close to the shoreline and away from the channel. Requiring slow speed within the 6-foot contour line would encompass most of the aerial survey sightings and is the depth at which manatees most frequently occur. This depth also provides manatees the opportunity to escape from passing watercraft. In the Caloosahatchee River, most of the manatee sightings as well as the 6-foot contour line appears to fall within 500 meters (1,640 feet) from the shore. From a scientific perspective, it may be feasible to allow a 25-mph corridor from major access points to the channel in waters deeper than 6 feet. Another peer reviewer indicated that the proposed designations seem appropriate based on boating activity in the area. The FWCC stated that data do not support expansion of the shoreline buffer beyond the existing 0.25-mile width, but designation of the waters between the existing buffer zones as 25-mph maximum speed would provide some potential reduction of risks to manatees.

Response 25: We generally agree with the reviewers' interpretation that manatee use data in this portion of the river indicate that manatees travel along the shoreline. We conducted a more detailed review of the recent special study of the Caloosahatchee River by the Florida Marine Research Institute (FWCC 2002), and it appears that the majority of manatee use in this area occurs within the current 0.25-mile (402 meters) shoreline buffer, a conclusion that is very similar to the peer reviewer's conclusions. Therefore, this final rule adopts a 0.25-mile minimum shoreline buffer, as marked. Between the shoreline buffers, the maximum allowable speed will be 25 mph, including the channel, except where the channel occurs within 0.25 mile from the shoreline and watercraft are restricted to slow speed.

While we agree that water depths of 6 feet or greater afford manatees greater opportunity to avoid collisions with watercraft, it does not appear that the 6-foot contour line approximates manatee distribution in this portion of the river, as this contour extends a great distance from shore in this area (particularly from the western shoreline), whereas manatee aerial survey data show manatee use concentrated closer (generally within 0.25 mile) to shore.

Comment 26: With reference to the portion of the Caloosahatchee River northwest and southeast of the Cape Coral Bridge, as with the Edison/Caloosahatchee Bridges area, peer reviewers noted that manatee sightings are lower in this area than in other portions of the river and may not warrant the proposed slow speed (channel included) designation. However, a year-round slow speed zone in this area may be warranted for other reasons, such as travel through a constrained area and/or boater safety. The FWCC and others stated that further speed restrictions were not warranted in the vicinity of this bridge.

Response 26: Even though manatees have not been sighted as frequently near the bridge as in other portions of the river, because this portion of the river is used primarily as a travel corridor it is reasonable to conclude that manatees sighted upstream and downstream of this bridge regularly travel under the bridge. Therefore, it is logical to conclude that manatees regularly occur in this area. We believe that, due to the presence of causeways and pilings, many bridges, including the Cape Coral Bridge, create a funneling effect for both watercraft traffic and manatees. Therefore, we believe additional protection measures are warranted in the vicinity of such bridges. Further, we believe that the river beneath the Cape Coral Bridge is sufficiently wide to allow for the higher speed operation in the navigation channel. As such, we have modified our proposal for this area from a shoreline-to-shoreline slow speed zone. We will allow watercraft to proceed at not more than 25 mph in the channel and slow speed outside the channel from 500 feet upstream and 500 feet downstream of the Cape Coral Bridge.

Comment 27: With reference to the portion of the Caloosahatchee River southeast of the Cape Coral Bridge to Channel Marker ''72,'' comments received were essentially the same as those addressed in comment 25 due to the similarity of the proposed designations.

Response 27: See the response to comment 25.

Comment 28: With reference to the portion of the Caloosahatchee River from Channel Marker ''72'' to Channel Marker ''82,'' one peer reviewer stated data indicate that manatees occur along the shoreline as well as toward the channel in this portion of the river, with telemetry data indicating that animals may be crossing the channel to get from one side of the river to the other at Redfish Point (a relatively narrow portion of the river). Therefore, the proposed rule for this portion of the river appears to be justified. Another

peer reviewer believed that this transition zone (requiring boaters to change speeds as they enter and leave this area) is not beneficial from a boating perspective. A common complaint among boaters is that there are too many changes in speed zones and that it is difficult for boaters to keep track of which zone they are in. Although the river narrows slightly at Redfish Point, this reviewer believed there is not sufficient evidence to suggest that boat traffic is significantly more concentrated in this area. The reviewer stated that, unless compelling evidence shows that there is an increased risk to manatees in this area, the shore-to-shore slow speed zone is not necessary, and suggested modifying the zone to be consistent with zones immediately upstream and downstream. The FWCC noted that a variety of data suggest that manatees may be at risk in the Redfish Point area of the river. We also received many comments from the boating public regarding the increased time needed to traverse the 1.9-mile slow speed zone we proposed to establish at Redfish Point. Many commentors recommended allowing for high-speed travel in the marked channel.

Response 28: We concur with the reviewers' interpretation of the available data regarding manatee movement patterns in the area of Redfish Point. Additionally, as the river narrows to approximately 1-half mile at Redfish Point, we believe that manatees are at higher risk of watercraft collision in this area. Because available evidence indicates that manatees cross the river regularly at this point, we do not believe it is appropriate to maintain a high-speed channel in this area. However, we did conduct a more detailed review of the available data and concluded that sufficient manatee protection could be achieved in this area by reconfiguring and shortening the slow speed zone, as reflected in the final rule. Our analysis of aerial and telemetry data indicates that manatee use is greatest between Channel Markers ''72'' and ''76.'' We have also attempted to address the concern associated with the frequent changes in designations along the river by maintaining a 25-mph corridor under the Cape Coral Bridge and through the channel between Channel Marker ''99'' and the Sanibel Causeway. These changes should make it easier for boaters to follow the designations as they navigate the river.

Comment 29: With reference to the portion of the Caloosahatchee River from Channel Marker ''82'' to Channel Marker ''93,'' comments received were essentially the same as those addressed in comment 25 due to the similarity of the proposed designations.

Response 29: See the response to comment 25.

Comment 30: With reference to the portion of the Caloosahatchee River from Channel Marker ''99'' to the Sanibel Causeway, one peer reviewer noted that aerial survey data indicate that manatees use both the deep and shallow water of this area and telemetry data show ''manatee places and corridors,'' particularly along the eastern boundary of this area. While allowing 25 mph in the deeper waters would provide relief for boaters, manatee use of the area justifies inclusion of the area in the proposed rule. Another peer reviewer noted that this area experiences an extremely high volume of boat traffic at times, in fact, so congested that travel speeds can be self-limiting. The majority of the vessel traffic remains in or near the marked channel between Channel Marker ''99'' and the Sanibel Causeway. It may be acceptable, therefore, to retain a speed of 25 mph in the channel and slow speed outside of the channel in this area. This area should be a priority for enforcement and compliance initiatives. The FWCC believes that regulation of the channel from marker ''99'' to the Sanibel Causeway would increase risks to manatees because of potential changes in boat traffic patterns. The data suggest that additional manatee protection zones should be considered around Fisherman's Key and Big Island. Several commentors noted that the configuration of the proposed rule (slow speed including the channel) would encourage boaters traveling between Sanibel Causeway and the Caloosahatchee River to travel up the unregulated channel on the western side of San Carlos Bay and through the Intracoastal Waterway (ICW) east-west ''Miserable Mile'' channel. This would place more high-speed boat traffic in an area of San Carlos Bay that is heavily used by manatees. Many commentors expressed concern regarding our proposed regulation of the navigation channel at slow speed, due to the resulting increase in travel time.

Response 30: We acknowledge that the proposal for this area may have done more harm than good for manatees utilizing the shallow seagrass flats of San Carlos Bay because the high volume of traffic would likely be diverted to the ''Miserable Mile'' channel where the manatees occur in the adjacent shallow seagrass flats. The diversion of a high volume of watercraft traffic into an already-congested channel may have also created a human safety issue. We have therefore modified this protection area to exclude the channel and an adjacent buffer from the regulation. The configuration of the final rule provides protection of the grass beds near the various keys in San Carlos Bay, without disrupting established boating travel patterns.

Comment 31: With reference to the portion of the St. Johns River from Reddie Point to the Main Street Bridge, one peer reviewer noted that, based on aerial survey data, manatee use of the area supports the proposed rule. The reviewer believes that the existing shoreline buffers are likely not adequate. The FWCC and the City of Jacksonville stated that available data indicate that the existing shoreline buffers are adequate in this area. The FWCC also stated that the existing buffer zones would be easier to mark than the proposed designations.

Response 31: We have reevaluated this area and believe that, based on the available data, our proposed rule for this portion of the St. Johns River is appropriate, with one exception. We have determined that the downstream boundary of this protection area should be moved upstream (south) to Channel Marker ''73'' instead of Reddie Point. We believe this revision is necessary given the configuration of the river relative to the marked navigation channel. Downstream of Channel Maker ''73'' the river widens and curves. At this point the navigation channel hugs the western shoreline. Such configuration is not intuitive and most boaters will tend to continue on a straighter path up the middle of the river, particularly if traveling upstream from Reddie Point. We agree with the FWCC that a clear and effective sign plan in this portion of the river would be difficult, at best, due to the channel configuration as well as water depth, minimal existing signs, and the current watercraft traffic in the areas (*i.e.*, large ships, barges, and tug boats in addition to recreational watercraft). We note the signage for the existing speed zones in this area is inadequate to inform boaters of the location of the existing zones. Overall, we believe that speed zones that follow the marked navigation channel in this area will be easier for boaters to understand, with the exception of the above noted area downstream of Channel Marker ''73,'' where we intend to work with the FWCC regarding signage of the existing zones.

Comment 32: With reference to the portion of the St. Johns River from the Main Street Bridge to the Fuller Warren Bridge, one peer reviewer noted that, based on aerial survey data, manatee use of this area is not notably higher than

in other areas of the river. The sighting data do not appear to justify the establishment of a year-round slow speed zone in this portion of the river for manatee protection. However, the proposed rule may be warranted based on other issues, such as constrained waterways and/or boater safety. The FWCC and others provided similar comments regarding this portion of the St. Johns River.

Response 32: This area of the river is used as a travel corridor, and because manatees are regularly sighted upstream and downstream of this area, it is reasonable to conclude that they regularly traverse this area. Additionally, in this area the river narrows and curves and the presence of many bridges in the downtown Jacksonville area creates a funneling effect for both watercraft traffic and manatees. This combination of factors warrants implementation of additional manatee protection measures in this area.

Comment 33: With reference to the portion of the St. Johns River upstream of the Fuller Warren Bridge including Doctors Lake, one peer reviewer noted that aerial survey data indicate that manatees routinely use these areas. Extending the shoreline buffers, as proposed, provides additional protection to manatees that often spend much of their time within these shoreline areas for many activities, such as resting, feeding, and caring for young. Additionally, several carcasses of manatees killed by watercraft have been recovered in this portion of the river. The available data justify the inclusion of this area in the proposed rule. The City of Jacksonville, Clay County, and others stated that the existing regulations were adequate in this area and that Federal designation was not warranted. The FWCC recommends that if we were to do anything in this area we should adopt a Federal zone the same as the existing State zones, or alternatively consider adoption of a fixed 700-foot buffer in this area. The FWCC further stated that the greatest contribution we could make to improving manatee protection in this area would be through improved signage and enforcement.

Response 33: We concur with the peer reviewer's interpretation of the data that manatees generally utilize the shoreline areas. Upon further review of the data and the public comments, our final rule is modified slightly from the proposed rule in that the shoreline slow speed buffer will be a minimum of 700 feet from the shoreline, but not more than 1,000 feet in the St. Johns River, as marked, and a minimum of 700 feet from the shoreline, but not more than 900 feet in Doctors Lake, as marked. The intent is to mark the zones as close to the 700-foot minimum as possible, but given the non-linear configuration of the shoreline in both the river and the lake, the maximum distance allows flexibility to design an effective, understandable, and enforceable sign plan. The Federal designation of this portion of the river and Doctors Lake will enable us to devote Federal funds to appropriately marking this area.

Comment 34: Peer review comments stated that the proposed rule in the St. Johns River will be easier to post than the existing configuration, which is beneficial because better signage translates to better compliance and better protection.

Response 34: We concur with the reviewer and believe that the final rule, which is modified slightly from the proposed rule, will allow us to effectively post the new Federal manatee protection areas in the lower St. Johns River. We note that the existing signage in this portion of the river is inadequate.

Comment 35: Peer review comments cautioned us not to assume that manatee deaths in the St. Johns River occurred at the location where the carcasses were recovered, as implied in the proposed rule (68 FR 16608). Often it is not known where the death occurred, rather it is known where the carcass was recovered.

Response 35: We agree. The language in the final rule has been changed to avoid giving this impression, which was not intended.

Comment 36: One commentor assumed that, since Duval County was designated as an ''Area of Inadequate Protection'' under the Service's final interim strategy for section 7 consultation, the waters of the County would be one of the highest priorities for refuge status.

Response 36: In response to the commentor, we wish to clarify that the reach of the St. Johns River within Duval County considered to be an ''Area of Inadequate Protection'' (AIP) was not designated as such due to inappropriate design of the existing zones, but rather because we believe the signage of the existing zones to be inadequate. In some areas of the Duval/Clay/St. Johns County portion of the St. Johns River, inadequate signage also resulted in a reduced ability to enforce the zones. We did not consider this area to be as high a priority as actions taken in previous rulemakings. Our final designation will enable us to correct the signage deficiency.

Comment 37: One commentor stated that the submerged aquatic vegetation in the main stem of the St. Johns River extends approximately 900 feet from the shoreline and states further that this distance is variable. The commentor believed that the proposed shoreline buffer will improve manatee protection by expanding it and creating consistency. The commentor claimed this expansion ''from 300 to 1,000 feet will only increase boater travel time by 1.6 minutes.''

Response 37: We believe that our final designation, which designates a slow speed shoreline buffer extending a minimum of 213 meters (700 feet) and a maximum of 305 meters (1,000 feet), encompasses the area most used by manatees and will have limited adverse effects on boater use of the St. Johns River.

Comment 38: With reference to the Halifax Creek from the Flagler/Volusia County line to Channel Marker ''9,'' peer review comments stated that manatees use this area as a travel corridor and have little room to navigate around boat traffic within or outside of the channel in this narrow, constrained northern stretch of the river. These factors support the proposed rule.

Response 38: We agree.

Comment 39: With reference to the Halifax River from Channel Marker ''9'' to the Granada Bridge, peer review comments stated that the proposed rule improves the existing zones without substantial changes. Extension of the shoreline buffers should increase protection of manatees without interfering with watercraft traffic.

Response 39: Manatees exhibit a general tendency to utilize the nearshore waters preferentially throughout their range. As such, establishment of slow speed shoreline buffers is often an effective strategy for minimizing collisions between manatees and watercraft. However, any given manatee may deviate from this pattern at any time and wander farther from shore than ''normal.'' Therefore, wider buffers would always be considered to be most protective of manatees if no other factors were considered.

With respect to the Halifax river, subsequent to publishing the proposed rule, we conducted a more detailed analysis of this area and determined that the river is approximately 2,000 feet wide over most of its length. The practical effect of our proposed rule (a 1,000-foot shoreline buffer) would have been to make the river slow speed outside the ICW channel. In areas where the river is somewhat wider than 2,000 feet, the proposed rule would have

created unregulated ''pockets'' that would have been difficult or impossible to regulate, and would have been of no practical use to boaters. While our stated intent in proposing a 1,000-foot shoreline buffer was, in part, to make the regulations in this area more understandable and enforceable, the proposed rule would have actually had the opposite effect by creating the unregulated ''pockets'' discussed above, thereby potentially compromising manatee protection instead of enhancing it. Additionally, the FWCC noted that manatee use data for this portion of Volusia County are limited and dated. We agree and further note that the limited available data do not support the need for a ''slow-speed outside the channel'' designation. We have, therefore, concluded that establishment of a 1,000-foot shoreline buffer is not prudent.

Subsequent to the publication of the proposed rule, we also examined possible alternatives for expanding the shoreline buffers to some other distance from shoreline. As stated previously, wider buffers are generally more protective, so expansion of the existing 300-foot buffer to some greater distance would arguably improve manatee protection. As indicated above, the widest possible buffer for the Halifax River would have been 1,000 feet (as proposed), or slow speed outside the channel for all practical purposes, which was determined to be unwarranted. Additionally, the quality of the available data is such that we cannot conclude that substantial evidence supports expansion of the shoreline buffer to some distance other than the currently designated 300 feet. In other words, we conclude that the selection of some other width for the shoreline buffer would be arbitrary. We support the FWCC's ongoing efforts to collect additional data regarding manatee distribution and habitat use in this area, in order to provide for better informed decision-making.

Comment 40: With reference to the Tomoka River upstream of U.S. 1, peer review comments noted that manatee sightings occur throughout the river and sightings of manatee calves coupled with perinatal carcasses close to I–95 indicate the importance of this section as a nursery area. The continuation of the slow speed designation to I–95 is justified. Another peer reviewer noted that eliminating the 25-mph status in narrow waterways such as the Tomoka River and Spruce Creek is appropriate for areas where manatee activity is well documented because the entire waterway can function as a channel, with boats traveling at high speeds along the entire width. Further, in-channel and out-of-channel designations in narrow waterways present a problem for law enforcement because it may be difficult to distinguish whether the vessel is in or out of the channel. There are also obvious human safety benefits to slowing watercraft down in narrow waterways. This peer reviewer also noted that, while there are differences in the established definitions of ''idle'' and ''slow'' speed zones, in the reviewer's experience, there is little practical difference between boats traveling at idle versus slow speed. Such differences between the two designations are difficult to enforce and may not provide a significantly different level of protection for manatees. The reviewer recommends the designation of more enforceable, consistent slow speed zones throughout the length of this river. The FWCC noted that the Tomoka River and its tributaries are known calving and nursing areas for manatees, so it is appropriate to consider extra protection in this system. However, they recommended that we defer Federal designation pending completion of their reevaluation of the zones in Volusia County, and stated that their review would consider whether speed zone designations in this area should be seasonal. Another commentor noted that manatee carcasses have been discovered from the Tomoka River in every month except February.

Response 40: Given the narrow configuration of the river, documented high seasonal use by manatees, and demonstrated watercraft-related mortality in this river, we have concluded that it is appropriate to take Federal action at this time to eliminate the 25-mph zone between Alligator Island and the I–95 Bridge on a seasonal basis. We agree with the peer reviewer that a consistent designation throughout the length of the Tomoka River would be preferable. However, we do not have the authority to undo more restrictive existing regulations, such as the existing idle speed and year-round zones. Except for the portion of the Tomoka River where we are implementing a Federal seasonal slow speed zone, we believe the existing zones in the river to be adequate and possibly more restrictive than necessary given the seasonality of manatee use. We decided not to overlay the existing zones with Federal designations over most of the river in order to avoid hindering State efforts to revise these zones in the future. We have determined that seasonal designations are appropriate for this area. While manatee carcasses may have been recovered throughout the year in the Tomoka River, it is important to note that no watercraft-related mortalities have been recorded during winter months. Carcasses found in winter months are more likely related to cold stress as there are no reliable warm water sources in the Tomoka River.

Comment 41: With reference to the Halifax River at the Granada Bridge, peer review comments indicated that, although manatees have been spotted in this area during aerial surveys, the sighting data do not justify the establishment of a year-round slow speed zone in this area for manatee protection. However, the proposed rule may be warranted based on other issues, such as constrained waterways and/or boater safety.

Response 41: We believe that the presence of causeways and pilings associated with many bridges (including the Granada Bridge) creates a funneling effect for both watercraft traffic and manatees. Therefore, we believe additional protection measures are warranted in the vicinity of such bridges and have finalized the rule as proposed in this portion of the Halifax River.

Comment 42: With reference to the Halifax River from the Granada Bridge to Seabreeze Bridge, peer reviewer comments noted that, although manatees have been sighted in this area, the abundance does not appear to be as great as in other regions. However, manatees moving from one higher-use area to another will likely move through this area as a travel corridor, justifying the need for some protection. Although no empirical data support the benefits of regulating watercraft speeds at 25 mph versus 30 mph; it is intuitive that watercraft traveling at higher speeds afford manatees less time to get out of the way, would impact a manatee with greater force, and would cause more harm than those at lower speeds. The available data support the proposed rule in this area. The FWCC commented that in its more recent rulemakings the agency has consistently used 25 mph as the ''minimum planing speed'' for most vessels.

Response 42: As noted above, a more detailed analysis of this area subsequent to publication of the proposed rule revealed that the proposed 1,000-foot slow speed shoreline buffers are not warranted. With reference to establishing a 25-mph speed limit outside the shoreline buffers, we believe that this action will enhance manatee protection by making the regulations more consistent throughout the area, thereby improving compliance by making the zones easier for boaters to understand.

Comment 43: With reference to the Halifax River from the Seabreeze Bridge to Channel Marker ''40,'' peer review comments stated that, based on the recovery of perinatal carcasses, this area may be an important nursery area. This may not be the best location for the high-speed watersports area.

Response 43: We concur with the reviewer's interpretation of the data. The final rule consists of a slow speed zone from 500 feet north to 500 feet south of the Seabreeze Bridge and reduces the speed in the Seabreeze watersports area to slow speed to be consistent with the existing speed zone in the area. Although our final rule for the area is scaled back from the proposed rule in that we do not overlay the entire existing zone with a Federal slow speed zone, we believe the final rule provides improved protection where it is most needed (i.e., at the pinch point created by the bridge and the high-speed watersports area). Additionally, we conclude that the existing designation of slow speed (channel included), is warranted through this section of the river because of the high volume of boat traffic in the Daytona Beach area.

Comment 44: With reference to the Halifax River from Channel Marker ''40'' to the Dunlawton Bridge, peer review comments stated that the proposed rule improves the existing zones without substantial changes. Extension of the shoreline buffers should increase protection of manatees without interfering with watercraft traffic. Manatees often rest, feed, mill, and socialize in waters less than 6 feet deep, not just within 300 feet of shore. The proposal eliminates a second high-speed watersports area. Although this area appears to be a travel corridor for manatees, and carcasses of manatees killed by watercraft have been recovered from the area, this high-speed area appears to be in a ''less egregious'' area than the high-speed area near the Seabreeze Bridge, based on the data.

Response 44: See the response to comment 39 regarding shoreline buffers, and the response to comment 41 regarding constricted areas near bridges.

Comment 45: With reference to the Halifax River north and south of the Dunlawton Bridge, peer review comments noted that, although manatees have been sighted in this area during aerial surveys and manatee carcasses attributed to watercraft collisions have been recovered from the area, the reviewer does not believe that those data justify the establishment of a year-round slow speed zone in this area for manatee protection. However, the proposed rule may be warranted based on other issues, such as constrained waterways and/or boater safety.

Response 45: See response to comment 41.

Comment 46: With reference to the Halifax River from south of the Dunlawton Bridge to Ponce Inlet, peer review comments stated that the proposed rule improves the existing zones without substantial changes. Extension of the shoreline buffers should increase protection of manatees without interfering with watercraft traffic. Manatees often rest, feed, mill, and socialize in waters less than 6 feet deep, not just within 300 feet of shore. The change from 30 mph to 25 mph intuitively improves manatee protection, but the reviewer knows of no empirical data to support it. The proposed rule will increase the uniformity of the regulations, which should improve boater comprehension of and compliance with the manatee protection zones.

Response 46: There is a wide variety of existing speed zones in this area that we believe to be unnecessarily complicated and confusing. Our proposed rule would have simplified the speed zones to a degree, by eliminating the 30 mph designation, and would have improved manatee protection somewhat in this area, but would not have improved the logistical situation enough to significantly reduce or eliminate boater confusion and increase compliance. We do not have the ability to substantially modify the existing zones in this area unilaterally because many of the State-designated speed zones are as restrictive as the proposed rule and we do not have the authority to impose regulations that are less restrictive than existing State rules. Simplifying these zones would necessarily need to be done by the FWCC. The FWCC stated in its comments that the agency is collecting additional data on manatee distribution in Volusia County for the purpose of reevaluating the existing speed zones. Because we do not want to hinder the State's efforts to improve the existing zones, we have decided not to designate this area at this time beyond reducing the maximum allowable speed, outside of existing slow speed zones, from 30 mph to 25 mph.

Comment 47: One peer reviewer was unclear as to why the Ponce Inlet has a proposed speed limit of 30 mph. This speed may be appropriate if it has been determined that 30 mph is necessary to navigate through the inlet, or it is a designated watersports area. Otherwise, it creates confusion for boaters to have too many types of speed zones.

Response 47: We believe the existing State-designated zone in the Ponce Inlet is adequate and have, therefore, decided not to implement Federal regulations in the Ponce Inlet at this time. Our proposed rule in this area simply mirrored the existing zone. The FWCC is currently collecting additional data regarding manatee distribution in this area, and we concluded that, in the absence of such information, we did not have a solid basis for action at this time. Additionally, Federal designation could possibly hinder State efforts to modify the speed zones in this area, should updated information warrant such action.

Comment 48: With reference to the Live Oak Point to Channel Marker ''2,'' peer review comments noted that manatee sightings in this area are more frequent than in other nearby areas; therefore, the proposed rule is supported by the available data.

Response 48: We concur with the reviewer's interpretation of the data. However, the proposed rule would have simply resulted in the federalization of the existing State-designated zones. For this final rule, we believe that it is not necessary to overlay the existing zones that appear to be appropriately designed and signed. Therefore, we will not proceed with designating this area at this time.

Comment 49: With reference to the ICW from Redland Canal to the A1A Bridge, peer review comments noted that manatee sightings in the area just south of the Ponce Inlet are more frequent than in other nearby areas, and these sightings are probably why the area is currently designated as slow speed. The existing 30-mph stretch occurs in an area where manatee sightings have occurred. The data support the proposed designation of the area to slow speed.

Response 49: We agree.

Comment 50: Some commentors strongly suggested that the Service maintain at least a 25-mph channel at New Smyrna.

Response 50: We carefully considered this comment in light of the increased travel time that would result from our proposed designation. However, in light of the available information, we have concluded that slow speed designation in this area should include the channel in order to effectively improve manatee protection in this area.

Comment 51: One peer reviewer stated that the proposed rule in the Halifax and Tomoka Rivers will be easier to post than the existing configuration, which is beneficial because better signage translates to better compliance and better protection.

Response 51: We agree.

Comment 52: One commentor claims that the proposed zones in the Halifax River will help improve boater compliance by reducing the complex mosaic of different zones without indicating how the proposed zones would be more understandable than the existing zones.

Response 52: Based on our analysis and information provided by Volusia County, we have determined that aspects of our proposed zones would have actually created additional confusion, while eliminating very little (*see* Response 39). Our final designations provide for some simplification of the regulations in this area; further improvements are dependent on State action. We have attempted to design our manatee protection areas to avoid hindering future State actions, while ensuring appropriate protection for manatees.

Comment 53: One commentor stated that the Service has previously designated both refuges and sanctuaries in areas without documented mortality; therefore, these proposed refuges are fully justified.

Response 53: Manatee protection area designations serve different purposes in different areas. The previously designated protection areas to which the commentor is referring were located at and around warm water sites where take by harassment was the primary concern. By contrast, the proposed regulations are not specifically designed to provide additional protection at warm water sites, except in a small portion of the upstream extent of the Caloosahatchee River-San Carlos Bay Manatee Refuge (*i.e.*, in the vicinity of the Seaboard Coastline Railroad trestle to the Beautiful Island area). There are, in fact, no warm water aggregation sites within either the Lower St. Johns River Manatee Refuge or the Halifax and Tomoka Rivers Manatee Refuge. Rather, the purpose of the proposed refuges, which establish slow speed zones, is to minimize the risk of high-speed collisions between watercraft and manatees in areas where collisions are likely to occur.

Comment 54: We received two comments regarding the effects of the proposed regulations on seaplane operations. Both recommended that seaplanes in general should be excluded from regulation under the rules, and one identified a seaplane operation that would be severely affected by the proposed speed restrictions on the Caloosahatchee River.

Response 54: According to our regulations the terms ''Water vehicle, watercraft, and vessel'' are defined to include, but are not limited to, ''boats (whether powered by engine, wind, or other means), ships (whether powered by engine, wind, or other means), barges, surfboards, personal watercraft, water skis, or any other device or mechanism the primary or an incidental purpose of which is locomotion on, or across, or underneath the surface of the water.'' This definition is sufficiently broad to include seaplanes, and the 25-mph speed limit on the Caloosahatchee River would effectively preclude the use of seaplanes in this area. After reviewing the information provided during the public comment period we have concluded that the seaplane business currently operating on the Caloosahatchee River poses an insignificant and discountable threat to manatees. Based on information provided during the public comment period, the seaplanes operating at this location take off and land in the middle of the river, well outside the existing 0.25 mile buffer zones. This portion of the river does not receive significant manatee use, based on review of aerial survey and telemetry data. During take-off and landing, the seaplanes are operating at speeds in excess of 25 mph for no more than a few seconds over a distance of approximately 1,500 feet. Given the location on the river and the short distance involved, it is exceedingly unlikely that seaplanes would encounter manatees while taking off and landing.

By definition, a manatee refuge is an area in which ''certain'' waterborne activities are restricted to prevent the taking of one or more manatees. For the portion of the Caloosahatchee River-San Carlos Bay Refuge between the Caloosahatchee River Bridge and the Cape Coral Bridge (the area currently utilized by seaplanes), we have concluded that the waterborne activities to be regulated per this rule need not include seaplanes. As such, the final rule has been modified to state that in this portion of the Caloosahatchee River all watercraft, except seaplanes, are required to operate at speeds less than 25 mph. As far as we know, no other seaplane operations would be affected by these regulations, so we are not adopting a broader exclusion for seaplanes at this time.

Comment 55: One peer reviewer commented that, based on boat surveys he conducted in the Caloosahatchee River, it appears that the proposed rule should not have a significant impact on the majority of boaters using this river because—(1) The Caloosahatchee River functions as a boating corridor as opposed to a destination (*i.e.*, it is used as a pathway to and from other boating destinations); (2) the majority of boat traffic remains within or near the Intracoastal Waterway when traveling through the river; and (3) speedgun studies conducted in the river prior to a numerical speed regulation demonstrated that the average vessel speed was 24.33 mph. Similar speedgun results have been found in other areas. Many of the public comments, however, expressed concern that the proposed rule would concentrate boat traffic within the navigation channel, thereby compromising boater safety.

Response 55: The available research on boating activity in this area (as summarized in the reviewers' comments) appears to indicate that threats to boater safety are more perceived than actual. Nonetheless, these perceptions are strong among local boaters and would clearly undermine public support for the proposed speed zones, thereby compromising compliance and ultimately the effectiveness of the regulation. Additionally, we have determined that the configuration of the proposed rule lacks a solid biological basis (*see* Response 25). As such, we have modified the final rule to better reflect the best available information regarding manatee use of this river, which will have the additional benefit of assuaging boater concerns for safety.

Comment 56: Many commentors believe that the economic impacts of the rule are underestimated. In particular, several commentors believe that the rule fails to properly analyze the full range of businesses that will be affected or the cumulative effect of reduced boating in Florida resulting from slower speed zones. Some commentors stated that the proposed rule does not adequately address how the restrictions will affect the dock building industry, restaurants, hotels, and marinas. Other commentors indicated that businesses dependent on water access or transportation, such as commercial fishing, waterfront restaurants, and fishing guides, would be severely impacted and may no longer be economically viable. One commentor believes all service industries on the Caloosahatchee River would be affected. One commentor believes that the economic impact on commercial fishing is dismissed in the analysis. Another commentor noted that recreational fishing trips will be affected.

Response 56: The discussion in the proposed rule assesses in a qualitative manner the economic effects of the rule to determine if it would have a significant economic effect. In order to make this determination, we examined the categories of impact that are likely to have minor impact and focused on

activities that are likely to incur the greatest economic impacts. In particular, the analysis focuses on recreational and commercial boating activities likely to be affected by the rule. We believe that the rule will lead to changes in recreational activities based on increased travel time and may cause some consumers to forgo some activities. The economic impacts associated with these changes are above-and-beyond those associated with the system of State-designated manatee protection areas already in place in each of the manatee refuges established in this rule. For example, some impacts associated with manatee protection areas in the Caloosahatchee River are already occurring because of existing slow speed zones implemented by the State beginning in 1979. The economic impacts of this rule are related only to the inconvenience of travel time that is additional to these existing slow speed zones. We do not expect that changes in consumer activity related to these additional speed zones would result in significant economic impacts. Moreover, based on further review by the Service and in response to various comments, the extent of the speed zone restrictions initially proposed has been reduced in the final rule. Therefore, we continue to believe that the economic impact of the speed zones in the final rule will not be significant (*i.e.*, over $100 million annually).

We consider only economic impacts associated with this rule. Comments that discuss the overall contribution of industries in general do not describe the effects of this proposed rule specifically. In addition, the analysis estimates impacts on a broad geographic area. Comments that provide information on the impacts to specific sites that cannot be generalized to the broad geographic area are not able to be incorporated into the current analysis.

Comment 57: One commentor noted that popular activities such as water skiing and wakeboarding will not be possible along the entire length of the Caloosahatchee River.

Response 57: The analysis acknowledges that some recreationists may have to travel farther to participate in certain activities or may choose to forgo some activities. However, the speed zone restrictions imposed by the rule do not preclude participation in any recreational activities. Further, based on Caloosahatchee River data, the major use of the river is for travel and not waterskiing or wakeboarding (Gorzelany, 1998). Thus, it is unlikely that including the number of forgone waterskiing and wakeboarding trips resulting from the rule would result in a determination of significant economic impact. Moreover, based on further review by the Service and in response to various comments, the speed zone restrictions initially proposed for the Caloosahatchee River and San Carlos Bay have been reduced in the final rule. Therefore, the number of forgone waterskiing and wakeboarding trips are expected to be minimal, and we continue to believe that the economic impact of the speed zones in the final rule will not be significant.

Comment 58: One commentor stated that Clay County is unlikely to experience any benefits due to an increase in tourism related to manatee viewing because of the shallow and/or brackish nature of the water.

Response 58: While the brackish nature of Doctors Lake and the shallow waters of St. Johns River do not lend themselves to manatee viewing as well as clear, deep water, there are currently manatee viewing points in these areas within the proposed designated manatee protection areas. Economic benefits related to increased tourism resulting from increased manatee protections afforded by this rule are indeed expected to be small, if any occur. The rule does not attempt to quantify these benefits, or to assign them to a particular area; however, we believe that such benefits may occur as a result of this rule.

Comment 59: One commentor stated that consumer surplus is not defined in the proposed rule.

Response 59: Consumer surplus is an economic measure based on the principle that some consumers benefit at current prices because they are able to purchase goods and services at a price that is less than their total willingness to pay for the good. For example, boaters may incur consumer surplus benefits when they can drive at faster speeds on the water because their enjoyment of the boating experience increases. Due to lack of available data, the Service did not quantify the net change in consumer surplus resulting from this rule.

Comment 60: One commentor believes that it is incumbent upon the Service to perform a cost-benefit analysis in order to determine whether the economic impact of the rule is over $100 million.

Response 60: Agencies should assess the potential costs and benefits of significant regulatory actions. Accordingly, the Service has performed a preliminary economic analysis and determined that the economic impact of designating three additional manatee protection areas will not be significant (*i.e.*, over $100 million annually). However, a qualitative discussion of the likely costs and benefits is found in the Required Determinations section of the preamble. As was noted in the proposed rule, and supported by statements of several commentors, existing manatee protection regulations in the affected areas are already extensive. Based on further review by the Service and in response to various comments, the speed zone restrictions proposed have been reduced in the final rule. Therefore, we continue to believe that the economic impact of the speed zones in the final rule will not be significant.

Comment 61: A number of commentors were concerned that the proposed rule would affect property owners' ability to build docks on their property.

Response 61: This rule establishes three manatee protection areas. In so doing, we are regulating the speed at which boats can travel in certain waters in five counties in Florida. This rule in no way affects property owners' ability to build a dock on their property. The Service considers it unlikely that property owners would choose not to build a dock on their property as a result of this rule.

Comment 62: A number of commentors were concerned that the proposed rule would negatively affect property values. In addition, one commentor noted that, despite the introduction of slow speed zones in the Tomoka and Halifax Rivers, property values have continued to increase. Several commentors believe that property values will increase as a result of the rule. Another commentor noted that property values on Doctors Lake have risen considerably over the past 10 years during which time slow speed zones have been established in the lake. Another commentor stated that the impact of the rule could be greater than $100 million based on the belief that the rule could cause 200 people each to decide not to spend $500,000 on a home in Cape Coral because of the rule.

Response 62: We determined the economic impact of the proposed rule by considering the net effect of the rule on the housing market. The analysis is not based on a single site-specific study. However, we do believe that more information is needed to better understand the impact of manatee protection areas on property values in specific areas. Given the timeframe of the analysis, performing primary research such as an original study of property values is not feasible.

Comment 63: One commentor stated that our analysis was based on the Bell and McLean (1997) study, which they believe is suspect and out-of-date.

Response 63: There is very little published information available regarding the impact of slow speed zones on property values. We believe that more information is needed to better understand the impact of manatee protection areas on property values in specific areas. Given the timeframe of the analysis, performing primary research, such as an original study of property values, was not feasible. The study by Bell and McLean appears to be one of the few studies and the most recent study addressing this issue.

Comment 64: Several commentors suggested that tax revenues from a loss in property values could be negatively impacted by the rule. That is, property value reductions in an area may lead to lower real estate and other tax revenues.

Response 64: While some existing properties may realize a gain in value (thereby generating greater tax revenues), other properties may experience a loss in value (thereby reducing tax revenues). Given the lack of data, it is difficult to know the magnitude of this overall effect. However, the Bell and McLean (1997) study suggests that property values may increase with slow speed zone implementation, which would lead to increased tax revenue. However, given the timeframe of the analysis, performing the primary research to determine the overall effect was not feasible.

Comment 65: One commentor believes the rule to be a major rule (will have an annual impact of more than $100 million on the economy), given that it threatens the recreation of 1.4 million boaters in Florida and a $15 billion marine industry in Florida.

Response 65: It appears that the commentor's boater and marine industry information is based on a 2001 study performed by Thomas J. Murray and Associates for the Marine Industries Association of Florida, titled ''Florida's Recreational Marine Industry—Economic Impact and Growth 1980–2000'' (no citation was provided). This study conducts a regional economic impact of retail sales by motorboat and yacht dealers in the State of Florida (Revenue Kind Code 28). The analysis estimates the direct, indirect, and induced impacts associated with this sector to calculate the $14.1 billion economic impact. We have focused on the economic impact likely resulting from the rule—those impacts associated with a reduction in marine recreational and commercial fishing activities due to slow speed zones. Murray *et al.* measures an impact not associated with the proposed rule; thus, these impacts have not been incorporated into the analysis.

Comment 66: The Small Business Administration's Office of Advocacy (SBA-Advocacy) recommends that the Service complete an Initial Regulatory Flexibility Analysis.

Response 66: This screening-level study indicates that changes to existing speed zones would affect a number of small entities, but the economic impacts would not be to a substantial number of entities. In addition, we believe that the rule would not have a significant economic impact on these affected entities. Because we certify that this rule would not have a significant economic impact on a substantial number of small entities, an Initial Regulatory Flexibility Analysis is not required.

Comment 67: SBA-Advocacy recommends that the Service refine its analysis in order to determine whether a substantial number of small entities will be significantly affected by the rule. In particular, SBA-Advocacy suggests revising the analysis to focus exclusively on entities affected by the rule.

Response 67: Based on a review of publicly available data sources, the data that would be needed to satisfy SBA-Advocacy's concerns are not available. Alternative analyses, different from the one described in the proposed rule, could be conducted; however, none of these analyses would be able to produce the level of detail recommended by SBA-Advocacy.

Comment 68: SBA-Advocacy has indicated that, as a result of preliminary outreach conducted, a substantial number of small entities will face significant economic impacts from the rule. Affected entities identified generally by SBA-Advocacy include charter fishing companies, a ferry company, a boat builder, harbor facilities, restaurants, marine construction firms, and realtors. SBA-Advocacy recommended that the Service conduct outreach to affected small entities to obtain information on the potential impacts of the proposed rule and to solicit input on alternatives to minimize regulatory burdens imposed on small entities.

Response 68: While we agree that there is the potential for an economic effect on a number of small entities in the affected area, information on the total number of small businesses in the affected area does not exist. Conducting outreach efforts to obtain data on the impact to small entities, beyond providing a public review comment period, would require a level of effort that is incompatible with the timeframe of the rule. In addition, we received no comments during the public comment that included information on substantial numbers of entities impacted, or significant impacts.

Furthermore, Federal courts and Congress have indicated that a Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act (RFA/SBREFA) analysis should be limited to direct and indirect impacts on entities subject to the requirements of the regulation. As such, entities not directly regulated by the proposed establishment of manatee protection areas need not be considered in this RFA/SBREFA screening analysis. For example, SBA-Advocacy suggested impacts on restaurants and realtors should be considered; however, these entities are not subject to the restrictions on speed at which a boat can travel, and are therefore correctly excluded from the analysis.

Comment 69: One commentor suggested his fast ferry business would experience dire effects from the regulation. Another commentor suggested his jet ski business would be negatively affected. Other commentors suggested that the rule would impact small businesses.

Response 69: Because of its location in Fort Myers, this ferry service is currently incurring costs related to speed zones affecting its travel time. The commentor did not provide a specific estimate of how much time would be added to his trip that would impact the value of his business. While the length of a trip aboard this ferry service will be affected, it may still be the fastest alternative available to consumers and consumers may still choose this option. Given available information, it is difficult to determine whether this business will be significantly affected. Because the jet ski business indicated that personal watercraft sales and service are only approximately 20 percent of revenues for this business and the expected reduction in sales and service related to jet skis is 17 to 25 percent, the expected overall impact on revenues would be less than 5 percent. Based on further review by the Service and in response to various comments, the speed zone restrictions initially proposed have been reduced in the final rule. Therefore, the impacts anticipated by the commentors will likely also be reduced correspondingly. Given our analysis of available information, we continue to believe that the economic impact of the speed zones in the final rule will not result in significant impacts to a substantial number of small entities.

Summary of Changes From the Proposed Rule

In the Caloosahatchee River-San Carlos Bay Manatee Refuge, we have reduced the length of the seasonal slow speed area of the channel from the Seaboard Coastline Railroad trestle. This portion of the manatee protection area was proposed to be approximately 7.2 km (4.5 miles) in length and has been reduced to approximately 1.6 km (1.0 mile). Based on the comments as well as a more thorough evaluation by our biologists, we have modified our proposed rule to better reflect the best available information regarding manatee use of this area. The final rule designates the portion of the Caloosahatchee River navigation channel from the Seaboard Coastline Railroad trestle downstream to Channel Marker ''25'' to be slow speed in the channel from November 15 to March 31, and not more than 25 mph in the remainder of the year.

Aerial survey data indicate that manatees do occur throughout this portion of the river throughout the year. However, the analysis of available data by FMRI (FWCC 2002) indicates that manatees are less likely to occur near the navigation channel downstream of the general area of Marker ''25.'' This generally coincides with the change in the physiography of the river in this area. The river narrows upstream of Channel Marker ''25'' and Beautiful Island and other smaller islands act to further constrict the river. This explains the change in manatee distribution at this point in the river. Manatees are more likely to be found in and near the navigation channel upstream of Marker ''25'' than downstream. This fact, combined with the above-referenced lower level of boat traffic in this portion of the river relative to areas further downstream, led us to conclude that the existing regulations downstream of Marker ''25'' were sufficient, whereas increased protection is warranted between Marker ''25'' and the railroad trestle.

In three segments of the main body of the river, we are establishing ''slow speed'' shoreline buffers similar to the existing 0.40-km (0.25-mile) shoreline buffers, and are establishing a speed limit not to exceed 40 km per hour (25 mph) between the buffers. In the proposed regulations, the shoreline slow speed buffers would have extended out to within 91 meters (300 feet) of the marked navigation channel. We conducted a more detailed review of the recent special study of the Caloosahatchee River by the Florida Marine Research Institute (FWCC 2002) and it appears that the majority of manatee use in this area occurs within the current 0.40 km (0.25 mile) shoreline buffer. We believe these changes better reflect the known shoreline use patterns of manatees, allow boaters to have more time to avoid manatees should they be encountered between the buffers, and provide manatees greater time to react to oncoming vessels. Our final regulation states that the slow speed shoreline buffers will have a minimum width of 0.40 km (0.25 mile), as marked, recognizing that in some locations signage may be placed at a slightly greater distance from shore in order to provide a more easily identifiable boundary.

While we acknowledge that water depths of 6 feet or greater afford manatees greater opportunity to avoid collisions with watercraft, it does not appear that the 6-foot contour line approximates manatee distribution in this portion of the river, as this contour extends a great distance from shore in this area (particularly from the western shoreline), whereas manatee aerial survey data show manatee use concentrated closer (generally within 0.40 km (0.25 mile)) to shore.

For the portion of the Caloosahatchee River—San Carlos Bay Refuge between the Caloosahatchee River Bridge and the Cape Coral Bridge, we have concluded that the waterborne activities to be regulated per this rule need not include seaplanes. After reviewing the information provided during the public comment period, we have concluded that the seaplane business currently operating on the Caloosahatchee River poses an insignificant and discountable threat to manatees. Based on information provided during the public comment period, the seaplanes operating at this location take off and land in the middle of the river, well outside the existing 0.40 km (0.25 mile) buffer zone. This portion of the river does not receive significant manatee use, based on review of aerial survey and telemetry data. During take-off and landing, the seaplanes are operating at speeds in excess of 40 km per hour (25 mph) for no more than a few seconds over a distance of approximately 457 meters (1,500 feet). Given the location on the river and the short distance involved, it is exceedingly unlikely that seaplanes would encounter manatees while taking off and landing. As such, the final rule has been modified to state that, in this portion of the Caloosahatchee River, all watercraft, except seaplanes, are required to operate at speeds less than 25 mph.

At Redfish Point, we are reducing the downstream extent of the shoreline to shoreline slow speed zone from Channel Marker ''82'' to Channel Marker ''76.'' This better reflects the known manatee use patterns and provides a slow speed corridor for manatees crossing between the canals of Cape Coral and Deep Lagoon. We conducted a more detailed review of the available data and concluded that sufficient manatee protection could be achieved in this area by reconfiguring and shortening the slow speed zone. Our analysis of aerial and telemetry data indicates that manatee use is greatest between Channel Markers ''72'' and ''76.''

In San Carlos Bay, the navigation channel and adjacent waters from Channel Marker ''99'' south to the Sanibel Causeway will be excluded from regulation. The proposal to make this slow speed would have potentially done more harm than good for manatees utilizing the shallow seagrass flats of San Carlos Bay because the high volume of traffic would likely be diverted to the ''Miserable Mile'' channel where the manatees occur in the adjacent shallow seagrass flats. The diversion of a high volume of watercraft traffic into an already-congested channel may have also created a human safety issue. The final designation protects the known areas of high manatee use in San Carlos Bay.

In the Lower St. Johns River Manatee Refuge, we have reduced the downstream extent of the manatee protection area from Reddie Point to Channel Marker ''73,'' a distance of about 1.6 kilometers (1 mile). Existing manatee protection measures downstream of Channel Marker ''73'' to Reddie Point are sufficient, provided that signage is improved by the State, and moving the boundary will improve compliance in the area without compromising manatee protection. We intend to work with the State to improve the signage in the Reddie Point area.

Shoreline buffers in the St. Johns River upstream of the Fuller Warren Bridge have been revised to be from 213 to 305 meters (700 to 1,000 feet) in the river (as marked) and 213 to 274 meters (700 to 900 feet) in Doctors Lake (as marked). This will encompass the areas of highest known manatee use. The adopted zone width will allow us to approximate the current manatee protection area configuration, remedy the posting issue with the current zones, and minimize any perceived increased risk to human safety in Doctors Lake as a result of our action.

In the Halifax and Tomoka Rivers Manatee Refuge, there have been several

changes. In the Tomoka River we are including only a seasonal slow speed zone in the area currently designated as 40 km per hour (25 mph) immediately downstream of the I–95 bridge. This will protect manatees during their highest use period. We believe the existing slow and idle speed zones in the river to be adequate and the year-round zones are possibly more restrictive than necessary given the seasonality of manatee use.

We are maintaining the current 91-meter (300-foot) slow speed buffer zones in much of the river and are adopting a 40-km-per-hour (25-mph) speed limit between the buffers. This will provide sufficient protection in areas known to be used by manatees and will improve compliance by making the zones easier to understand. It will also avoid creating any additional safety risks to boaters as a result of our action. We had proposed a 305-meter (1,000-foot) buffer in many of these areas. In some cases, these buffers could have compressed high-speed use into very small areas as much of the river is very close to 610 meters (2,000 feet) wide. The practical effect of our proposed rule would have been to make the river slow speed outside the ICW channel. In areas where the river is somewhat wider than 2,000 feet, the proposed rule would have created unregulated ''pockets'' that would have been difficult or impossible to regulate, and would have been of no practical use to boaters. While our stated intent in proposing a 1,000-foot shoreline buffer was, in part, to make the regulations in this area more understandable and enforceable, the proposed rule would have actually had the opposite effect by creating the unregulated ''pockets'' discussed above, thereby, potentially compromising manatee protection instead of enhancing it. Additionally, the FWCC noted that manatee use data for this portion of Volusia County are limited and dated. We agree and further note that the limited available data do not support the need for a ''slow-speed outside the channel'' designation. We have, therefore, concluded that establishment of a 1,000-foot shoreline buffer is not prudent.

Subsequent to the publication of the proposed rule, we also examined possible alternatives for expanding the shoreline buffers to some other distance from shoreline. As stated previously, wider buffers are generally more protective; so expansion of the existing 300-foot buffer to some greater distance would arguably improve manatee protection. As indicated above, the widest possible buffer for the Halifax River would have been 1,000 feet (as proposed), or slow speed outside the channel for all practical purposes, which was determined to be unwarranted. Additionally, the quality of the available data is such that we cannot conclude that substantial evidence supports expansion of the shoreline buffer to some distance other than the currently designated 300 feet. In other words, we conclude that the selection of some other width for the shoreline buffer would be arbitrary. We support the FWCC's ongoing efforts to collect additional data regarding manatee distribution and habitat use in this area, in order to provide for better informed decisionmaking.

In other portions of the Halifax River and adjacent waterbodies north and south of Ponce Inlet, we are placing a 40-km-per-hour (25-mph) cap on speeds not more restrictively regulated. We had proposed slow speed outside of marked channels in many of these areas.

The key features of this final designation in the Halifax and Tomoka Rivers are the elimination or modification of watersports areas and slowing boat speeds around the bridges' areas, which may function as pinch points where manatees and boats are forced into close proximity. We believe these are the areas that are most problematic for manatees within the original proposal and are the measures necessary to avoid take of manatees.

Areas Designated as Manatee Refuges

Caloosahatchee River—San Carlos Bay Manatee Refuge

We are establishing a manatee refuge in portions of the Caloosahatchee River and San Carlos Bay in Lee County (in the Southwest Region) for the purpose of regulating vessel speeds, from the Seaboard Coastline Railroad trestle, downstream to Channel Marker ''93,'' and from Channel Marker ''99'' to the Sanibel Causeway. Except as provided in 50 CFR 17.105, watercraft will be required to proceed as follows:

a. From the Seaboard Coastline Railroad trestle at Beautiful Island, downstream to a Channel Marker ''25,'' a distance of approximately 1.6 km (1 mile), slow speed in the marked navigation channel from November 15 to March 31, and not more than 40 kilometers (km) per hour (25 miles per hour (mph)) in the channel from April 1 to November 14;

b. from a point 152 meters (500 feet) east of the Edison Bridge downstream to a point 152 meters (500 feet) west of the Caloosahatchee Bridge, approximately 1.1 km (0.7 miles) in length, slow speed year-round, shoreline-to-shoreline including the marked navigation channel;

c. from a point 152 meters (500 feet) west of the Caloosahatchee Bridge downstream to a point 152 meters (500 feet) northeast of the Cape Coral Bridge, a distance of approximately 10.9 km (6.8 miles), year-round, slow speed shoreline buffers extending out to a distance of approximately 402 meters (1,320 feet), as marked. Vessel speeds between these buffers (including the marked navigation channel) are limited to not more than 40 km per hour (25 mph) throughout the year, with the exception of seaplanes;

d. from a point 152 meters (500 feet) northeast of the Cape Coral Bridge downstream to a point 152 meters (500 feet) southwest of the Cape Coral Bridge, a distance of approximately 0.3 km (0.2 mile), slow speed outside the marked navigation channel and a speed limit of not more than 40 km per hour (25mph) in the channel, year-round;

e. from a point 152 meters (500 feet) southwest of the Cape Coral Bridge to Channel Marker ''72,'' a distance of approximately 1.9 km (or 1.2 miles), year-round, slow speed shoreline buffers extending out to a minimum distance of approximately 402 meters (1,320 feet), as marked. Vessel speeds between these buffers (including the marked navigation channel) are limited to not more than 40 km per hour (25 mph) throughout the year;

f. from Channel Marker ''72'' to Channel Marker ''76'' (in the vicinity of Redfish Point), for a distance of approximately 1.8 kilometers (1.1 miles) in length, slow speed year-round shoreline-to-shoreline, including the marked navigation channel;

g. from Channel Marker ''76'' to Channel Marker ''93,'' a distance of approximately 5.2 kilometers (3.2 miles), in length, year-round, slow speed shoreline buffers extending out to a minimum distance of approximately 402 meters (1,320 feet), as marked. Vessel speeds between these buffers (including the marked navigation channel) are limited to not more than 40 km per hour (25 mph) throughout the year; and

h. In San Carlos Bay, from Channel Marker ''99'' to the Sanibel Causeway, slow speed year-round within the following limits—a northern boundary described by the southern edge of the marked navigation channel, a line approximately 2.9 kilometers (1.8 miles) in length; a southern boundary described by the Sanibel Causeway (approximately 1.9 kilometers (1.2 miles) in length); a western boundary described by a line that connects the western end of the easternmost Sanibel Causeway island and extending northwest to Channel Marker ''7''

(approximately 2.9 kilometers (1.8 miles) in length); the eastern boundary includes the western limit of the State-designated manatee protection area (68C–22.005) near Punta Rassa (approximately 2.9 kilometers (1.8 miles) in length). However this area excludes the marked navigation channel from Channel Marker ''99'' to the Sanibel Causeway and adjacent waters, as marked.

Manatee presence has been documented in the designated areas through aerial surveys, photo-identification studies, telemetry studies, and a carcass salvage program (FWCC 2002). Per these data and analysis, it is apparent the Caloosahatchee River is used throughout its length throughout the year by manatees. Primary winter-use areas include the Florida Power and Light Company's Fort Myers Power Plant and Matlacha Pass, upstream and downstream (respectively) of the refuge. The power plant is a major winter refuge for manatees. On January 6, 2001, 434 manatees were observed wintering in this region (FWCC: FMRI Aerial Survey Database, 2003).

In warmer months, manatee use is concentrated within the existing 402-meter (0.25-mile) buffer. They use the river as a travel corridor between upstream fresh water, foraging, and resting sites and downstream foraging areas. Manatees use the canal systems in Fort Myers and Cape Coral (between the Edison Bridge upstream and Shell Point) to rest and drink fresh water (Weigle *et al.*, 2002). Manatees travel west of Shell Point to feed in the seagrass beds in San Carlos Bay and adjacent waterways.

A more in-depth analysis of the telemetry data indicates that manatees appear to travel along shallow areas relatively close (within approximately 402 meters or 0.25 miles) to shore and cross the river in narrow areas near Redfish Point and Shell Point (FWCC 2002). The Redfish and Shellfish Point sections of the river represent specific areas where manatees and boats overlap during their travels (Weigle *et al.*, 2002). The funneling of high-speed watercraft and manatees through these narrow areas increases the likelihood of manatee-watercraft collisions in this area. Four watercraft-related manatee mortalities occurred in this area since January 2001 (FWCC: FMRI Manatee Mortality Database, 2003). Given these findings, we designated Shell Island (the area around Shell Point) as a manatee refuge on November 8, 2002 (67 FR 68450).

The number of registered vessels in Lee County has increased by 25 percent over the past 5 years (from 36,255 vessels in 1998 to 45,413 in 2002) (FWCC, 2002). According to the FWCC's recent study of manatee mortality, manatee habitat, and boating activity in the Caloosahatchee River (FWCC 2002), vessel traffic increases as the day progresses and doubles on the weekends compared to weekdays. The highest volumes of traffic were recorded in the spring and lowest volume in the winter. Highest vessel traffic densities occurred at Shell Point where the Caloosahatchee River and San Carlos Bay converge. Many of the boats in the lower Caloosahatchee River originate from the Cape Coral canal system and head toward the Gulf of Mexico.

Presently, there are State-designated, manatee speed zones throughout most of Lee County. Seasonal speed zones were established in the Caloosahatchee and Orange Rivers around the Fort Myers power plant in 1979 (68C–22.005 FAC). Additional speed zones were established in the Caloosahatchee River downstream of the power plant in November 1989 (68C–22.005 FAC). Speed zones were established countywide in November 1999 (68C–22.005 FAC). The majority of these zones include shoreline buffers that provide protection in nearshore areas frequented by manatees. All zones were to be posted with the appropriate signage by July 2001 (68C–22.004 and 68C–22.005 FAC). Compliance with speed zones in the Caloosahatchee averaged only 57 percent (FWCC, 2002).

According to FWCC: FMRI's manatee mortality database, 764 manatee carcasses were recorded in Lee County from 1974 to 2002 (FWCC: FMRI Manatee Mortality Database, 2003). Of this total, 163 manatee deaths were watercraft-related (21 percent of the total number of deaths in Lee County). Over the past 13 years, the County's rate of increase in watercraft-related manatee mortality is higher than the rates of increase in watercraft-related mortality in southwest Florida and in watercraft-related deaths statewide. Areas east of the Edison Bridge and west of Shell Point are areas with recent increases in watercraft-related mortality; eight watercraft-related carcasses have been recovered east of the railroad trestle and seven have been recovered in San Carlos Bay since 2000, including two watercraft-related carcasses in San Carlos Bay since July 2001, when State speed zones were marked (FWCC: FMRI Manatee Mortality Database, 2003). From January 1, 2003, to June 30, 2003, there have been 7 watercraft-related manatee mortalities in Lee County, one of which occurred in the Caloosahatchee River.

We believe the measures in this regulation will improve manatee protection in the Caloosahatchee River and San Carlos Bay and are necessary to prevent the take of at least one manatee in this area by harassment, injury, and/or mortality by extending coverage and/or improving upon existing protection measures in areas used by manatees.

Lower St. Johns River Manatee Refuge

We are establishing a manatee refuge for the purpose of regulating waterborne vessel speeds in portions of the St. Johns River (in the Atlantic Region) and adjacent waters in Duval, Clay, and St. Johns Counties from Channel Marker ''73'' upstream to the mouth of Peter's Branch (including Doctors Lake) in Clay County on the western shore, and to the southern shore of the mouth of Julington Creek in St. Johns County on the eastern shore. Except as provided in 50 CFR 17.105, watercraft will be required to proceed as follows:

a. From Channel Marker ''73'' upstream to the Main Street Bridge, a distance of approximately 16.8 kilometers (10.4 miles), slow speed, year-round, outside the navigation channel and not more than 40 km per hour (25 mph) in the channel (from Channel Marker ''81'' to the Main Street Bridge, the channel is defined as the line of sight extending west from Channel Markers ''81'' and ''82'' to the bridge fenders of the Main Street Bridge);

b. from the Main Street Bridge to the Fuller Warren Bridge, a distance of approximately 1.6 km (or 1.0 miles) slow speed (channel included), year-round;

c. upstream of the Fuller Warren Bridge, a 213- to 305-meter (700- to 1,000-foot), slow speed, year-round, shoreline buffer to the south bank of the mouth of Peter's Branch in Clay County along the western shore (approximately 31.1 km or 19.3 miles); and in Doctors Lake in Clay County, slow speed, year-round, along a 213- to 274-meter (700- to 900-foot) shoreline buffer (approximately 20.8 km or 12.9 miles); and a 213- to 305-meter (700- to 1,000-foot), slow speed, year-round, shoreline buffer to the south bank of the mouth of Julington Creek in St. Johns County along the eastern shore (approximately 32.5 km or 20.2 miles) to a line north of a western extension of the Nature's Hammock Road North.

Manatee presence has been documented in this area through aerial surveys, photo-identification studies, telemetry studies, and a carcass salvage program. Manatees occur throughout the manatee protection area; the extent of use varies by habitat type and time of

year (White *et al.*, 2002). Telemetry and aerial survey data indicate that peak numbers occur between March and June with heaviest use along the St. Johns River shorelines (typically within 213 meters or 700 feet of shore) upstream of the Fuller Warren Bridge and along the southeast shoreline of Doctors Lake. The latter appears to correlate with the highest quality feeding habitat. Recent studies demonstrate little use during the December through February period (White *et al.*, 2002). While there were warm water discharges (*i.e.*, power plant and industrial effluents) located within the area of the refuge, these man-made attractants no longer exist.

Vessel speeds are currently restricted throughout the manatee protection area. In 1989, boating restricted areas were adopted by Duval County and established by the State of Florida for portions of the St. Johns River. These include a bank-to-bank, slow-speed zone between the Florida East Coast Railroad Bridge and the Main Street Bridge and a ''slow down/minimum wake when flashing'' zone between the Main Street and Hart Bridges, activated during special events at the discretion of the Jacksonville Sheriff's Office (16N–24.016 Duval County Boating Restricted Areas). The first manatee protection areas were adopted in 1989 by Duval County and in 1994 by the State of Florida. These measures included a slow speed (channel exempt) zone from Reddie Point to the Main Street Bridge and a 91-meter (300-foot) shoreline buffer in portions of the St. Johns River upstream of the Fuller Warren Bridge. The manatee protection areas were reconfigured in 2001. Current protection measures consist of shoreline buffers that vary in width from 91 to 274 meters (300 to 900 feet). There are provisions upstream of the Fuller Warren Bridge that include a shoreline buffer of 152 meters (500 feet) or 61 meters (200 feet) from the end of docks, whichever is greater (an expansion of the 1989 91-meter (300-foot) buffer) (68C–22.027 FAC). We believe that the variable shoreline buffers are not adequately posted, which makes these areas hard to enforce and difficult for the boating public to understand and comply with these measures.

Overall, 270 manatee deaths were recorded in Duval County between 1974 and 2002 (FWCC: FMRI Manatee Mortality Database, 2003). Ninety-four of these deaths included deaths caused by watercraft collision. Fifty-one watercraft-related manatee carcasses were recovered within the manatee protection area. Of these, 24 were recovered between Channel Marker ''73'' and the Matthews Bridge, 10 were recovered between the Hart and Acosta bridges, 6 were recovered between the Fuller Warren and Buckman bridges, and 11 were recovered upstream of the Buckman Bridge. Most of these carcasses have been recovered in that portion of the river where manatees and boats are most constricted (FWCC 2003). From 1994 to 2001, when the area was protected under the initial State rule, watercraft-related manatee deaths averaged two per year between Channel Marker ''73'' and the Fuller Warren Bridge. In 2002, subsequent to adoption of the current rule, one watercraft-related carcass was documented in this area; a single watercraft-related carcass was recovered upstream of the Fuller Warren Bridge in 2001.

We believe the measures in this regulation will improve manatee protection in the Lower St. Johns River and are necessary to prevent the taking of at least one manatee in this area through harassment, injury, and/or mortality. The regulation extends coverage to currently unprotected areas used by manatees, improves the ability of the public to comply with the vessel operation restrictions, and improves the ability of law enforcement personnel to enforce the restrictions. The configuration is less complicated, easier to post, and will reduce reliance on waterway users to judge distances from the shoreline or the ends of docks and piers. The regulation will not detract from operation of the boater safety zone downstream of the Main Street Bridge during special events.

Halifax and Tomoka Rivers Manatee Refuge

We are establishing a manatee refuge in portions of the Halifax River and associated waterbodies in Volusia County (in the Atlantic Region) for the purpose of regulating vessel speeds, from the Volusia/Flagler county line to New Smyrna Beach. Except as provided in 50 CFR 17.105, watercraft will be required to proceed as follows:

a. From the Volusia County/Flagler County line at Halifax Creek south to Channel Marker ''9,'' a distance of approximately 11.3 km (7.0 miles) in length, not more than 40 km per hour (25 mph) in the channel;

b. from Channel Marker ''9'' to a point 152 meters (500 feet) north of the Granada Bridge (State Road 40) (including the Tomoka Basin), a distance of approximately 5.0 km (3.1 miles) in length, not more than 40 km per hour (25 mph) in areas between the existing 91-meter (300-foot) buffers (and including the marked navigation channel);

c. in the Tomoka River, the current 40-km-per-hour (25-mph) zone approximately 1.6 km (1 mile) downstream of the I–95 bridge will be slow speed shoreline to shoreline from April 1 through August 31;

d. from 152 meters (500 feet) north to 305 meters (1,000 feet) south of the Granada Bridge (State Road 40), a distance of approximately 0.5 km (0.3 miles) in length, slow speed, year-round, channel included;

e. from a point 305 meters (1,000 feet) south of the Granada Bridge (State Road 40) to a point 152 meters (500 feet) north of the Seabreeze Bridge, a distance of approximately 6.4 km (4.0 miles) in length, not more than 40 km per hour (25 mph) in areas between the existing 91-meter (300-foot) buffers, and including the marked navigation channel;

f. from 152 meters (500 feet) north of the Seabreeze Bridge, to 152 meters (500 feet) north of the Main Street Bridge, a distance of approximately 1 km (0.6 miles) in length, slow speed, year-round, channel included;

g. from Channel Marker ''40'' south of the Seabreeze Bridge to a point a minimum of 152 meters (500 feet) north, as marked, of the Dunlawton Bridge, a distance of approximately 6.6 kilometers (4.1 miles) in length, not more than 40 km per hour (25 mph) in areas between the existing 91-meter (300-foot) buffers, and including the marked navigation channel;

h. from a minimum of 152 meters (500 feet) north, as marked, to a minimum of 152 meters (500 feet) south, as marked, of the Dunlawton Bridge, a distance of approximately 0.3 km (0.2 miles) in length, slow speed, year-round, channel included. The existing 30-meter (100-foot) shoreline buffer immediately north and west of the bridge/causeway for a distance of approximately 640 meters (2,100 feet) would also be increased to 91 meters (300 feet) as marked;

i. from a minimum of 152 meters (500 feet) south, as marked, of the Dunlawton Bridge to Ponce Inlet, a distance of approximately 10.5 km (6.5 miles) in length, not more than 40 km per hour (25 mph) in waters not more restrictively designated; along the western shore of the Halifax River, a distance of approximately 3.1 km (1.9 miles), not more than 40 km per hour (25 mph) in the waters not more restrictively designated; in Rose Bay, a distance of approximately 2.7 km (1.7 miles), not more than 40 km per hour (25 mph) in waters not more restrictively designated; in Turnbull Bay, a distance of approximately 3.9 km (2.4 miles), not more than 40 km per

hour (25 mph) in waters not more restrictively designated; and

j. in the Intracoastal Waterway and adjacent waters from Redland Canal to the A1A Bridge (New Smyrna Beach), for a distance of approximately 5.3 km (3.3 miles) in length, slow speed, year-round, channel included.

Manatee presence has been documented in this area through aerial surveys, photo-identification studies, telemetry studies, and a carcass salvage program (FWCC, 2003). In general, manatees primarily use the Halifax River as a travel corridor (Deutsch *et al.*, 1998 and Deutsch *et al.*, 2000); manatees use the downtown Daytona Beach area marinas as a source of drinking water and may calve there. The Tomoka River system is a known calving area, as evidenced by observations of calving manatees (McNerney 1982) and aerial observations of significant numbers of cow and calf pairs (FWCC 2000). Other activities observed throughout these systems include playing and/or engaging in sexual activity, feeding, and resting. Manatees are known to occur in these areas throughout the year (Deutsch *et al.*, 1998 and Deutsch *et al.*, 2000), although they are more abundant during the warmer months of the year (FWCC 2000).

Two hundred and eight manatee deaths occurred in Volusia County between 1974 and 2002 (FWCC: FMRI Manatee Mortality Database, 2003). This number includes 60 watercraft-related deaths. Of these, 30 carcasses attributed to watercraft were recovered in coastal Volusia County, (including 6 in the Tomoka River system and 16 in the Halifax River). Twenty of these carcasses were recovered over the past 10 years and seven of these over the past 2 years. Three of the watercraft-related carcasses were found in the Tomoka River in 2001. Carcass recovery sites for manatees known to have died as a result of watercraft collision include the lower Tomoka River and tributaries, the Halifax River in downtown Daytona Beach, areas to the south of Channel Marker ''40'' and the Dunlawton Bridge, and areas to the south of Ponce Inlet. Watercraft-related deaths occur between the months of March and October, with most occurring in May, June, and July.

The existing, State-designated manatee protection areas in coastal Volusia County were adopted by the State of Florida in 1994 (68C–22.012 FAC). These measures include slow and idle speed restrictions in the Tomoka River and associated waterbodies (except for in those areas upstream and downstream of Alligator Island), 91-meter (300-foot) shoreline buffers along most of the Halifax River (with maximum speeds varying between 40 and 48 km per hour (25 and 30 mph) outside of the buffers), slow speeds in the downtown Daytona Beach area (except for a watersports area to the south of Seabreeze Bridge), and a complex of varying restrictions between the Dunlawton Bridge and New Smyrna Beach. The existing State measures include 10 different types of restrictions that are used to restrict 30 discrete areas within the area of the final refuge. Fifteen watercraft-related manatee carcasses were recovered within the area of the final refuge since the State protection areas were first adopted. Seven of these deaths occurred in 2001, and no watercraft-related deaths were known to have occurred in 2002.

We believe the measures in this regulation will improve manatee protection in the Halifax and Tomoka Rivers and will prevent the take of at least one manatee in this area through harassment, injury, and/or mortality by reducing boat speeds in areas used by manatees, and by improving the ability of the public to understand and, thus, comply with protection measures through simplification of restrictions.

Required Determinations

Regulatory Planning and Review

In accordance with the criteria in Executive Order 12866, this rule is not a significant regulatory action. The Office of Management and Budget makes the final determination under Executive Order 12866.

a. This rule will not have an annual economic impact of over $100 million or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. A quantitative assessment of the costs and benefits is not required, nor is consideration of alternatives. It is not expected that any significant economic impacts would result from the establishment of three manatee refuges (approximately 141.6 river km (87.8 river miles)) in five counties in the State of Florida.

The purpose of this rule is to establish three manatee protection areas in Florida. The three areas are located in the Caloosahatchee River in Lee County, the St. Johns River in Duval, Clay and St. Johns Counties, and the Halifax River and Tomoka River in Volusia County. We are preventing take of manatees by controlling certain human activity in these three areas. For the three manatee refuges, the areas are year-round or seasonal slow speed, or speed limits of 40 km per hour (25 mph). Affected waterborne activities include transiting, cruising, water skiing, fishing, and the use of all water vehicles. This rule will impact recreational boaters, commercial charter boats, and commercial fishermen, primarily in the form of restrictions on boat speeds in specific areas. We will experience increased administrative costs due to this rule. Conversely, the rule may also produce economic benefits for some parties as a result of increased manatee protection and decreased boat speeds in the manatee refuge areas.

Regulatory impact analysis requires the comparison of expected costs and benefits of the rule against a ''baseline,'' which typically reflects the regulatory requirements in existence prior to the rulemaking. For purposes of this analysis, the baseline assumes that we take no additional regulatory actions to protect the manatee. In fact, even with no further activity by us, an extensive system of State-designated manatee protection areas is already in place in each of the manatee refuges. Thus, the rule will have only an incremental effect. As discussed below, the net economic impact is not expected to be significant, but cannot be monetized given available information.

The economic impacts of this rule would be due to the changes in speed zone restrictions in the manatee refuge areas. These speed zone changes are summarized below.

In Lee County, in the Caloosahatchee River area, the designation of the Caloosahatchee-San Carlos Bay Manatee Refuge results in the following changes:

- The portion of the channel from the Seaboard Coastline Railroad trestle at Beautiful Island, downstream to Channel Marker ''25'' changes from a 40 km per hour (25 mph) limit to seasonal slow speed in the marked navigation channel from November 15 to March 31, and not more than 40 kilometers (km) per hour (25 miles per hour (mph)) in the channel from April 1 to November 14.
- The portion of the channel 152 meters (500 feet) east and west of the Edison/ Caloosahatchee Bridge complex changes from 40 km per hour (25 mph) to slow speed year-round.
- Between the Edison/Caloosahatchee Bridge complex and Cape Coral Bridge, shoreline buffers approximate the existing shoreline protection configuration (*i.e.*, slow speed within 0.4 km (0.25 mile) but limits speeds between the buffers to not more than 40 km per hour (25 mph). However, this change also eliminates two unprotected shoreline areas along the north shore at and below the Edison/Caloosahatchee Bridge complex.

• The shore to shore, channel-included buffer, 152 meters (500 feet) east and west of Cape Coral Bridge changes from 40 km per hour (25 mph) year-round to slow speed year-round, channel excluded.

• Between the Cape Coral Bridge and the Shell Island Manatee Refuge, shoreline buffers approximate the existing shoreline protection configuration (*i.e.*, slow speed within 0.4 km (0.25 mile)) but limits speeds between the buffers to not more than 40 km per hour (25 mph). The exception to this is from Channel marker ''72'' to Channel marker ''76,'' where the slow speed zone runs from shoreline to shoreline.

• In San Carlos Bay, much of the area to the west of the Shell Island Manatee Refuge, south of the Intracoastal Waterway, north of the Sanibel Causeway, to a line extending southwest from Channel Marker ''7'', changes from unregulated to slow speed year-round. The exception to this is the navigation channel and adjacent waters, which extend from Channel Marker ''99'' to the Sanibel Causeway, and which remain unregulated.

Speed zones have been in existence in the Caloosahatchee River since 1979. Since 1989, almost all of the near-shore waters of the Caloosahatchee have been under a slow speed restriction year-round. The Caloosahatchee River Manatee Refuge affects approximately 25.8 km (16 river miles) overall. For the most part, the regulation expands existing slow speed zones in areas around the bridges, maintains or slightly expands shoreline buffers, and slows portions of the navigation channel.

In Duval, Clay, and St. Johns Counties, in the St. Johns River and tributaries (including Doctors Lake), the designation of the Lower St. Johns River Manatee Refuge results in the following changes from the current speed restrictions:

• In the downtown Jacksonville area, between Channel marker ''73'' and the Main Street Bridge, slow speed zones extend out to the channel from 91- to 274-meter (300- to 900-foot) shoreline buffers. The channel changes from unrestricted speed to a 40-km-per-hour (25-mph) limit.

• Between the Main Street Bridge and the Fuller Warren Bridge, slow speed shoreline buffers change from variable width, slow speed (currently variable width along the western and northern shore and 183 meters (600 feet) on the eastern shore) to bank-to-bank, slow speed (channel included).

• South of the Fuller Warren Bridge to the southern bank of the mouth of Julington Creek (St. Johns County) on the eastern shore and to the mouth of Peter's Creek (Clay County) along the western shore, slow speed shoreline buffers change from variable width (152 meters (500 feet) from shore or 61 meters (200 feet) from the end of docks) to between 213–305 meters (700–1,000 feet) as marked. Boat speed remains unregulated outside of the buffer.

• In Doctors Lake and Inlet, slow speed shoreline buffers extend from variable width (152 meters (500 feet) minimum or 61 meters (200 feet) beyond docks), to a 213–274 meter (700–900 feet) as marked buffer along both shorelines. Boat speed also remains unregulated outside of the buffer.

Overall, the Lower St. Johns River Manatee Refuge affects approximately 56 km (35 miles) of the St. Johns River and adjacent waters. In areas upstream of the Fuller Warren Bridge, newly protected areas extend existing slow speed areas out no more than an additional 152 meters (500 feet) but will approximate the existing shoreline buffer in many areas. Downstream of the Fuller Warren Bridge, shoreline buffers will be slightly extended from their variable widths to the channel. The greatest width of the shoreline buffer in this area is approximately 1.6 km (1 mile).

In Volusia County, for the Halifax and Tomoka Rivers Manatee Refuge including the Halifax River and tributaries (including Halifax Creek and the Tomoka River Complex), the Ponce Inlet area, and Indian River North, the final rule will result in the following changes from current speed restrictions:

• The channel in Halifax Creek changes to 40 km per hour (25 mph) from 48 km per hour (30 mph) (40 km per hour (25 mph) at night).

• An approximate 1.6-km (1-mile) reach of the Tomoka River downstream of I–95, where the speed restriction was 40 km per hour (25 mph), changes to a seasonal (April 1 to August 31) slow speed restriction.

• In the Halifax River from the Tomoka River Basin and the southern extent of Halifax Creek to 152 meters (500 feet) north of the Seabreeze Bridge (except in the vicinity of the Granada Bridge), the speed limit changes from 48 km per hour (30 mph) (40 km per hour (25 mph) at night) outside the buffer and in the marked navigation channel to 40 km per hour (25 mph).

• In the vicinity of the Granada Bridge (the SR 40 Bridge), the current shore-to-shore, channel-included buffer, 152 meters (500 feet) north and 305 meters (1,000 feet) south of the bridge, changes from a 91-meter (300-foot) slow speed buffer (48 km per hour (30 mph) outside of buffer) to slow speed.

• The area approximately 152 meters (500 feet) north of the Seabreeze Bridge to 152 meters (500 feet) north of the Main Street Bridge, changes from slow speed (channel included) excepting the watersports area, to slow speed (channel included) (including the watersports area) shoreline to shoreline.

• Between the shoreline buffers in the Halifax River from Channel Marker ''40'' south of the Seabreeze Bridge to a minimum of 152 meters (500 feet) north, as marked, of the Dunlawton Bridge, the speed limit changes from 48 km per hour (30 mph) (40 km per hour (25 mph) at night) outside the buffer and in the marked navigation channel to 40 km per hour (25 mph).

• The shore-to-shore, channel included buffer, a minimum of 152 meters (500 feet) north and south, as marked, of the Dunlawton Bridge would change from a 91-meter (300-foot) slow speed buffer 56 km per hour (35 mph outside of buffer) to slow speed. The adjacent western shoreline slow speed buffer north of the bridge increases from 30 meters (100 feet) to 91 meters (300 feet) for a distance of 640 meters (2,100 feet).

• Waters between the Dunlawton Bridge and Ponce Inlet will change from 48 km per hour (30 mph) to 40 km per hour (25 mph) where it is not more restrictively designated by existing regulation.

• Waters adjacent to Ponce Inlet change from variable zones with 48 km per hour (30 mph) within the channel to not more than 40 km per hour (25 mph) in waters not more restrictively designated.

• The Intracoastal Waterway (Indian River North) and adjacent waters from Redland Canal to the A1A Bridge (New Smyrna Beach) maintains the existing slow speed (channel included), year round, designation but eliminates the existing exception for the New Smyrna Beach watersports area.

Overall, the Halifax River and Tomoka River Manatee Refuge will affect approximately 58.2 km (36.1 miles) of Volusia County's waterways. The majority of the changes would include reducing the maximum speed limit, slowing boats around the bridges, and reducing or eliminating watersports zones. The overall impact of the changes would be to reduce the likelihood of take of manatees in areas where boats and manatees are most likely to interact and to reduce some of the complexity of the speed restrictions to be more consistent and clear and thus improve compliance.

In addition to speed zone changes, the rule no longer allows for the speed zone exemption process in place under State

regulations. Currently, Florida's Manatee Sanctuary Act allows the State to provide exemptions from speed zone requirements for certain activities, including fishing and events such as high-speed boat races. Under State law, commercial fishermen and professional fishing guides can apply for permits granting exemption from speed zone requirements in certain counties. However, speed zone exemptions have not been authorized in most of the areas affected by the rule. Speed zone exemption permits for commercial fishing and professional fishing guides are not available for affected areas in Duval County, coastal Volusia County, and in the Caloosahatchee River (except along a small portion of San Carlos Bay/ Matlacha Pass, at the mouth of the river) (FWCC, 2003g). Exceptions to these final Federal speed zones will require a formal rulemaking (including publishing a proposed rule in the **Federal Register**, public review, and comment) prior to our making a final decision. Based on available information, very few events have been permitted to take place in the affected areas in the past 5 years (Service, 2003c; Lee County, 2003). Therefore, the lack of a process for speed zone exemptions is not likely to have much impact.

In order to gauge the economic effect of this rule, both benefits and costs must be considered. Potential economic benefits related to this rule include increased manatee protection and tourism related to manatee viewing, increased property values, increased boater safety, increased fisheries health, and decreased seawall maintenance costs. Potential economic costs are related to increased administrative activities related to implementing the rule and affected waterborne activities, as well as potential decreased property values. Economic costs are measured primarily by the number of recreationists who use alternative sites for their activity or have a reduced quality of the waterborne activity experience at the designated sites. In addition, the rule may have some impact on commercial fishing because of the need to maintain slower speeds in some areas. While the State of Florida has 19,312 km (12,000 miles) of rivers and 1.21 million hectares (3 million acres) of lakes, this rule will affect approximately 141.6 km (87.8 river miles). The extension of slower speed zones in this rule is not expected to affect enough waterborne activity to create a significant economic impact (*i.e.*, an annual impact of over $100 million).

Economic Benefits

We believe that the designation of the three manatee refuges in this rule will increase the level of manatee protection in these areas. Two studies have examined the public's willingness to pay for protection of the manatee (Bendle and Bell, 1995; Fishkind & Associates, 1993). Based on these contingent valuation studies, we believe that there is large public support for manatee protection regulations.

It is difficult to apply the results of these studies to this rule, because neither study measures an impact similar to that associated with this rulemaking. For example, the Fishkind study was designed to gauge the economic impact of the Florida Manatee Sanctuary Act. First, the estimates of economic benefit are predicated on a different baseline in terms of both the manatee population being protected at that time versus now and the regulatory conditions in existence, such as current manatee protection areas. Second, the Fishkind study is not clear about the type and extent of manatee protection. The study does not clearly state if protection refers simply to the establishment of speed zones, or whether implementation and enforcement are included. Nor does the study clearly state whether residents are providing a willingness to pay for manatee protection for a specific region or for the entire manatee population in the State of Florida. While neither of these studies is specific enough to apply to this rule, they provide an indication that the public holds substantial value for the protection of the manatee.

Another potential economic benefit is increased tourism resulting from an increase in manatee protection. To the extent that some portion of Florida's tourism is due to the existence of the manatee in Florida waters, the protection provided by this rule may result in an economic benefit to the tourism industry. We are not able to make an estimate of this benefit given available information.

Florida waterfront property owners may benefit from manatee protection areas such as the three manatee refuges. Bell and McLean (1997) showed that speed zone enforcement may provide an economic benefit to adjacent landowners. Bell and McLean studied the impact of posted manatee speed zones on the property values of waterfront homes in Fort Lauderdale, Broward County, Florida. The authors found a strong relationship between property values and slow speed zones, and found evidence that slow speed zones may have a positive impact on home sale price. Slow speed zones were found to correlate with as much as a 15 to 20 percent increase in sale price, although this result has not been corroborated by other studies. The authors speculated that speed zones may increase property values by reducing noise and fast traffic, as well as making it easier for boats to enter and leave primary waterways. In each of the three manatee refuge areas there are stretches of river where residential property owners may experience these benefits.

In addition, due to reductions in boat wake associated with speed zones, property owners may experience some economic benefits related to decreased expenditures for maintenance and repair of shoreline stabilization structures (*i.e.*, seawalls along the water's edge). Speed reductions may also result in increased boater safety. Another potential benefit of slower speeds is that fisheries in these areas may be more productive because of less disturbance. These types of benefits cannot be quantified with available information.

Based on previous studies, we believe that this rule produces some economic benefits. However, given the lack of information available for estimating these benefits, the magnitude of these benefits is unknown.

Economic Costs

The economic impact of the designation of three manatee protection areas results from the fact, that in certain areas, boats are required to go slower than under current conditions. As discussed above, an extensive system of manatee speed zones promulgated by the State exists in each of the areas covered under this rule. The rule will add to these areas by extending shoreline buffers and reducing speed limits slightly in some channels. Some impacts may be felt by recreationists who have to use alternative sites for their activity or who have a reduced quality of the waterborne activity experience at the designated sites because of the rule. For example, the extra time required for anglers to reach fishing grounds could reduce onsite fishing time and could result in lower consumer surplus for the trip. Other impacts of the rule may be felt by commercial charter boat outfits, commercial fishermen, and agencies that perform administrative activities related to implementing the rule.

Affected Recreational Activities

For some boating recreationists, the inconvenience and extra time required to cross additional slow speed areas

may reduce the quality of the waterborne activity, or cause them to forgo the activity. This will manifest in a loss of consumer surplus to these recreationists. In addition, to the extent that recreationists forgo recreational activities, this could result in some regional economic impact. In this section, we examine the waterborne activities taking place in each area and the extent to which they may be affected by designation of the manatee refuges. The resulting potential economic impacts are discussed below for each manatee refuge area. These impacts cannot be quantified because the number of recreationists and anglers using the designated sites is not known.

Caloosahatchee River Area: In the Caloosahatchee River Manatee Refuge, affected waterborne activities include transiting, fishing, sailing, waterskiing, and personal watercraft use. The number of registered recreational vessels in Lee County in 2002 was 45,413 (Division of Highway Safety and Motor Vehicles, 2003). Based on aerial surveys and boat traffic surveys conducted in 1997 and 1998, the highest number of vessels observed on the Caloosahatchee River sites on a given day was 477 vessels. Based on aerial, boat traffic, and boater compliance surveys of the Caloosahatchee River, over 60 percent of vessels observed were small powerboats, while less than seven percent were personal watercraft (*e.g.*, jet skis) (Gorzelany, 1998). Waterskiing and personal watercraft use in the Caloosahatchee primarily occurs between the Caloosahatchee and Cape Coral Bridges (Lee County, 2003). Shell Point and Redfish Point are also popular access areas where personal watercraft use may be affected (FWCC, 2002). The Caloosahatchee River area is also a popular location for recreational guiding for snook and redfish fishing, particularly at night (FWCC, 2003c). The extra time required for anglers to reach fishing grounds could reduce onsite fishing time and could result in lower consumer surplus for the trip. The number of anglers on the Caloosahatchee, and their origins and destinations, are currently unknown. One study indicates that approximately 70 percent of the boat traffic on the Caloosahatchee originates from the Cape Coral Canal system (FWCC, 2002). Another boat traffic survey indicated that the majority of boat traffic exits the Caloosahatchee River in the morning and enters the river in the afternoon. The majority of vessels leaving the Caloosahatchee River travel south toward the Sanibel Causeway and Gulf of Mexico. Approximately 94 percent of vessel traffic on the Caloosahatchee was reported as ''traveling,'' while less than one percent was engaged in ''skiing'' based on boater compliance observations at 10 sites along the Caloosahatchee River (Gorzelany, 1998).

Based on these trends, it appears that most recreational waterborne activity on the Caloosahatchee River will be affected by the manatee refuge. While the designation will cause an increase in travel time, it is unlikely that the increase will be great enough to cause a significant economic dislocation. Much of the boat traffic on the Caloosahatchee likely originates from the Cape Coral Canal system (FWCC, 2002) and would experience added travel time of approximately 15 minutes (from Cape Coral Bridge to Sanibel Causeway) for a trip that currently lasts 50 minutes. At most, a boat traveling from Beautiful Island to the Sanibel Causeway will experience an estimated added travel time of 20 minutes to 35 minutes (depending on time of the year) due to the final designation; currently this trip would take approximately 1 and one-quarter hours.

The small percentage of recreational boaters using the river for waterskiing or personal watercraft use will choose either to go to alternative sites such as San Carlos Bay or Pine Island Sound or to forgo the activity. The amount of added travel time to get to an alternative site will depend on the origin of the trip and whether the trip originates from a dock or a ramp. For example, ramp users may choose to trailer their boats to a different location, closer to the alternative site, and may experience little added travel time. For dock users, under the rule, travel time on the Caloosahatchee from the Cape Coral Bridge to the Sanibel Causeway could be approximately 1 and one-quarter hours. The amount of added travel time and the expected quality of the experience will likely influence the recreationists' choice of whether to travel to an alternative site or forgo the activity. The number of recreationists who will use alternative sites or forgo recreational activities is unknown, but it is not expected to be a large enough number to result in a significant economic impact.

St. Johns River Area: In the Lower St. Johns River Manatee Refuge, the affected recreational waterborne activities are likely to include cruising, fishing, and waterskiing. Based on a survey of boat ramp users in Duval County, these three activities were the most popular reasons cited as the primary purpose of the trip. Recreational fishing was cited as the primary purpose by 62 percent of those surveyed, while cruising was cited by 19 percent and waterskiing was cited by 7 percent (Jacksonville University, 1999). The total number of recreational vessels registered in Duval, Clay, and St. Johns counties in 2002 is 57,388 (Division of Highway Safety and Motor Vehicles, 2003). The portion of these vessels using the St. Johns River area covered by the designation is unknown. Recreational fishing for bass, redfish, sea trout, croaker, and flounder, as well as shrimping with nets, are popular activities in the near-shore waters of the St. Johns River south of the Fuller Warren Bridge. Because the submerged aquatic vegetation near shore provides food, and docks provide protection, for the fish, this is where the fishing activity primarily takes place (FWCC, 2003c). Because recreational fishing is likely occurring primarily in existing slow speed areas, the extension of slow speed zones by not more than 152 meters (500 feet) further will not have a significant effect. Recreationists engaging in fishing or cruising are unlikely to experience much impact due to the regulation. The expanded/extended buffers are not expected to increase travel times by any more than about 8 minutes (one way). The designation will cause some inconvenience in travel time, but alternative sites within the proximity of designated areas are available for all waterborne activities. Because the designated areas are part of larger waterbodies where large areas remain unrestricted, the impact of the designation on recreational waterborne activities in the St. Johns River and adjacent waterbodies will be limited. Recreationists engaging in cruising, fishing, and waterskiing may experience some inconvenience by having to go slower or use undesignated areas; however, the extension of slow speed zones is not likely to result in a significant economic impact.

Halifax River and Tomoka River Area: In the Halifax River and Tomoka River Manatee Refuge, affected waterborne activities include fishing, traveling, cruising, waterskiing, and personal watercraft use. Based on a boating activity study that relied on a variety of survey mechanisms, the two most popular activities in the Intracoastal Waterway in Volusia County were recreational fishing and traveling (Volusia County Environmental Management Services, 1996). Recreationists engaging in fishing or traveling are unlikely to experience much impact due to the regulation. The two most popular destinations are the Mosquito Lagoon and the Ponce Inlet

area (Volusia County Environmental Management, 2002). Recreationists engaging in fishing or traveling may experience some inconvenience by having to go slower; however, small changes in boater behavior due to the extension of slow speed zones should not result in a significant economic impact.

For the Tomoka River, the primary activity affected by the designation is waterskiing. A ski club has used the river in an area currently designated at 40 km per hour (25 mph). This will change to slow speed for a portion of the year. The nearest alternative site where these recreationists can water ski is at least 11 to 16 km (7 to 10 miles) away (Volusia County, 2003). It is estimated that the on-the-water travel time for the skiers to reach the nearest alternative site could be up to 2½ hours. The regulation may cause some water skiers to forgo this activity, or may reduce the quality of their experience. The number of skiers that may be affected and the number of trips per year are not currently known. With additional information on the number of affected individuals, we could estimate the impact of lost or diminished skiing days given the value of a waterskiing day published in the literature. One study by Bergstrom and Cordell (1991) suggested the lost surplus value may be $38/day (2002$) for a day of waterskiing. They applied a multi-community, multi-site travel cost model to estimate demand for 37 outdoor recreational activities and trip values, including water skiing. The analysis was based on nationwide data from the Public Area Recreational Visitors Study collected between 1985 and 1987 and several secondary sources.

In the Halifax River, one of the activities that may be affected by the designation is personal watercraft (PWC) use. These activities are primarily taking place in the recreational zones located south of the Seabreeze Bridge and north of the Dunlawton Bridge. PWC likely represent a very small portion of vessels on the Intracoastal Waterway in Volusia County. Based on a boating activity study from 1994 to 1995, less than two percent of observations in the Intracoastal Waterway area were PWCs (based on 12,000 observations during aerial, boat ramp and shoreline, and mailing surveys) (Volusia County Environmental Management Services, 1996). The number of pleasure PWC in Volusia County in 2000 was 2,432, with 204 rental PWC (FWCC, 2000a). The nearest alternative site for using personal watercraft is near the Dunlawton Bridge, where an area remains unrestricted between the channel and the expanded shoreline buffer, or in the Ponce Inlet vicinity, approximately 20 km (12.5 miles) downriver. Under the rule, travel time from the Daytona Beach watersports area (south of Seabreeze Bridge) to the Ponce Inlet area would be approximately one hour. Added travel time to reach alternative sites would depend on the origin of the trip, which is currently unknown. The regulation may cause some personal watercraft users to forgo this activity, or may reduce the quality of their experience. The number of PWC users that may be affected and the number of trips per year are not currently known. To the extent that these recreationists choose to forgo the activity, this could also impact local businesses that rent personal watercraft.

Currently, not enough data are available to estimate the loss in consumer surplus that water skiers in the Tomoka River or PWC users in the Halifax River will experience. While some may use substitute sites, others may forgo the activity. The economic impact associated with these changes on demand for goods and services is not known. However, given the number of recreationists potentially affected, and the fact that alternative sites are available, it is not expected to amount to a significant economic impact.

Affected Commercial Charter Boat Activities

Various types of charter boats use the waterways in the affected counties, primarily for fishing and nature tours. The number of charter boats using the Caloosahatchee, Halifax, and St. Johns Rivers, and their origins and destinations, are currently unknown. For nature tours, the extension of slow speed zones is unlikely to cause a significant impact, because these boats are likely traveling at slow speeds. The extra time required for commercial charter boats to reach fishing grounds could reduce onsite fishing time and could result in fewer trips. The fishing activity is likely occurring at a slow speed and will not be affected. In the Caloosahatchee and St. Johns Rivers, fishing charters may experience some impact from the extension of slow speed zones, depending on their origins and destinations. Added travel time may affect the length of a trip, which could result in fewer trips overall, creating an economic impact. In the Halifax River, it is likely that most fishing charters are heading offshore or to the Mosquito Lagoon and will experience little impact from the rule (Volusia County, 2003).

Affected Commercial Fishing Activities

Several commercial fisheries may experience some impact due to the regulation. Specifically, the blue crab fishery and, to a lesser extent, mullet fishing, along the Caloosahatchee River; the crab and shrimp industries in the St. Johns River; and the crab and mullet fishing industries in Volusia County may experience some economic impact. To the extent that the regulation establishes additional speed zones in commercial fishing areas, this may increase the time spent on the fishing activity, affecting the efficiency of commercial fishing. While limited data are available to address the size of the commercial fishing industry in the manatee refuges, county-level data generally provide an upper bound estimate of the size of the industry and potential economic impact. This section first provides some background on the blue crab industry in Florida, and then addresses the impact of the rule on the commercial fishing industry for each manatee refuge area.

One industry in particular that may be affected by the rule is the blue crab fishery, which represents a sizeable industry in the State of Florida. Based on a study done for the Florida Fish and Wildlife Commission, Division of Marine Fisheries (Murphy *et al.*, 2001), between 1986 and 2000 the average annual catch statewide was 6.4 million kilograms (14.1 million pounds) (39.7 million crabs). However, year to year fluctuation is significant, including highs of 8.2 million kilograms (18 million pounds) statewide in 1987 and 1996 and a low of 2.5 million kilograms (5.5 million pounds) statewide in 1991. In the last 3 years, blue crab landings have been depressed throughout the East Coast and Gulf of Mexico, though specific reasons for this are unknown at this time (FWCC, 2003d). Landings in 2001 were approximately 3.4 million kilograms (7.4 million pounds) statewide. Based on a 2001 weighted average price of $1.06 per 0.5 kilograms (pound) of crab, this represents just under $8 million (FWCC: FMRI, 2003). Data from 2001 on marine fisheries landings from FWCC: FMRI is preliminary and subject to revision.

Caloosahatchee River Area: Lee County, where the Caloosahatchee River Manatee Refuge is located, had 157 licensed blue crab boat operators in 2001 (FWCC: FMRI, 2003). Crabbing in the Caloosahatchee is likely to be minimally impacted by limited extension of slow speed areas. In slow speed areas crab boats have to travel at slower speeds between crab pots, thereby potentially reducing the number

of crabs landed on a daily basis. For example, to the extent that crab boat operators frequently change fish pot locations in search of optimal fishing grounds, this activity could be slightly affected by extension of some existing slow speed zones (FWCC, 2003a).

In 2001, blue crab landings in Lee County were 175,805 kilograms (387,585 pounds), and the weighted average price was $1.06 per 0.5 kilograms (pound) for blue crab statewide. The entire value of the blue crab fishery in Lee County is estimated to be $411,167 (FWCC: FMRI, 2003). Only a very small portion of this value is likely to be affected, as the activity will still occur but with some limited changes due to additional speed zones. In addition, this figure includes landings for all of Lee County. The number of crab boats operating and the amount of blue crab landings occurring in areas that would be newly designated speed zones under this rule is unknown. Crabbing likely occurs in parts of Lee County outside of the Caloosahatchee River, including Charlotte Harbor, San Carlos Bay, Estero Bay, etc. (FWCC, 2003e). The county-wide figures provide an upper bound estimate of the economic impact on this fishery; this would assume that the regulation closed down the entire fishery, which is not the case.

In Lee County, commercial mullet fishing is also occurring in the Caloosahatchee River Manatee Refuge area. These fishermen may also be impacted by slower commuting times from boat launch (e.g., dock or ramp) to fishing grounds. However, fishing activity associated with mullet fishing generally includes slow net casting within a relatively small geographic area (FWCC, 2003e). Therefore, speed limits are likely to have a very limited effect on mullet fishing. In 2001, based on mullet landings in Lee County of 997,903 kilograms (2.2 million pounds), and the weighted average price of $0.66 for mullet statewide, the value of the mullet fishery in Lee County is estimated to be $1.4 million (FWCC: FMRI, 2003). Only a very small portion of these values is likely to be affected, as the activity will still occur but with some changes due to additional speed zones. In addition, this figure includes landings for all of Lee County. The amount of mullet fishing occurring in areas that would be newly designated speed zones under this rule is unknown.

St. Johns River Area: In the Lower St. Johns River Manatee Refuge, most of which is in Duval County, current commercial fishing can be divided into activity south and north of the Fuller Warren Bridge. Commercial fishing north (*i.e.*, downstream) of the bridge consists primarily of shrimping, while commercial fishing activity south of the bridge consists primarily of blue crab fishing. Commercial net shrimping is not allowed south of the Fuller Warren Bridge (Jacksonville Port Authority, 2003).

Commercial blue crab fishing occurs both north and south of the Fuller Warren Bridge. Crab fishing is likely to be impacted by the manatee refuge. The extension of the shoreline buffer zone may impact fishing operations because the majority of crabbing activity takes place in the submerged aquatic vegetation, which is located along the immediate shoreline (FWCC, 2003b). Therefore, when crabbers enter and exit these shoreline areas, they will be required to travel slowly (*i.e.*, 6.4 to 12.9 km per hour (4 to 8 mph)) for not more than 152 additional meters (500 feet) (incremental to the existing variable width shoreline buffer). In addition, travel between pots within the buffer will also be slowed, thereby potentially reducing the number of crabs landed on a daily basis. However, once outside the shoreline buffer, boats can travel up to 40 km per hour (25 mph) in areas downstream of the Fuller Warren Bridge, and at unrestricted speeds upstream.

There were 61 commercial licences for blue crab issued in Duval County in 2001 (FWCC: FMRI, 2003). In 2001, based on blue crab landings in Duval County of 506,401 pounds, and the weighted average price of $1.06 per 0.5 kilogram (pound) for blue crab statewide, the value of the blue crab fishery in Duval County is estimated to be $537,213 (FWCC: FMRI, 2003). Only a small portion of this value is likely to be affected, as the activity will still occur but with some changes due to additional speed zones. In addition, this figure includes landings for all of Duval County. The number of crab boats operating and the amount of blue crab landings occurring in areas that are newly designated speed zones under this rule is unknown. The county-wide figures provide an upper bound estimate of the economic impact on this fishery; this would assume that the regulation closed down the entire fishery, which is not the case.

Commercial shrimping north of the Fuller Warren Bridge in the St. Johns River is likely to receive minimal impact due to the extension of year-round slow speed areas outside of the marked channels. Impacts to this industry are likely to be minimal because shrimp boats tend to trawl at a slow speed. Nonetheless, shrimp boats will still be required to travel at slower speeds between fishing grounds, thereby potentially increasing the time it takes to access fishing areas and reducing shrimp landed on a daily basis (Jacksonville Port Authority, 2003).

The majority of commercial shrimping activity in the St. Johns River occurs between the mouth of Trout River and the Fuller Warren Bridge, which approaches the northern limit of the St. Johns Manatee Refuge (Jacksonville Port Authority, 2003). Commercial shrimping activity in Duval County also occurs along the Nassau River, which represents the border between Duval and Nassau County, and, to a lesser extent, along the Intracoastal Waterway (FWCC, 2003f). Shrimp landings in Clay County are negligible, based on the fact that commercial shrimping is not allowed upriver of the Fuller Warren Bridge. Shrimp landings in St. Johns County most likely represent activity along the Intracoastal Waterway and not in the St. Johns River area. While some limited commercial bait shrimping occurs along this stretch of river, the vast majority of commercial shrimping in this area is related to the harvest of shrimp for food production (FWCC, 2003e). In 2001, based on shrimp landings in Duval County of 997,903 kilograms (2.2 million pounds), and the weighted average price of $2.33 for shrimp statewide, the value of the shrimp fishery in Duval County is estimated to be about $5.2 million (FWCC: FMRI, 2003). Less than one percent of commercial shrimp landings in 2001 in Duval County are related to bait shrimp (FWCC: FMRI, 2003); therefore, these figures represent only food shrimp harvest. Only a small portion of this value is likely to be affected, as the activity will still occur but with some changes due to additional speed zones. In addition, this figure includes landings for all of Duval County. The number of shrimp boats operating and the amount of shrimp landings occurring in areas that would be newly designated speed zones under this rule is unknown. The county-wide figures provide an upper bound estimate of the economic impact on this fishery; this would assume that the regulation closed down the entire fishery, which is not the case.

Halifax River and Tomoka River Area: In Volusia County, the Halifax River and Tomoka River Manatee Refuge includes a variety of waterways, including the Tomoka River, the Tomoka Basin, Halifax Creek, and the Halifax River. In these areas, it is likely that blue crab and mullet fishing activities will be impacted by the speed zones. As discussed above for Lee County, crab boats will have to travel at slower

speeds in some locations between crab pots, thereby potentially reducing the number of crabs landed on a daily basis. The speed limits may also slow transit speeds between fishing grounds for both crab and mullet fishing boats. As noted above, mullet fishing activity generally includes slow net casting and, therefore, such activities are unlikely to receive much impact. Note also that along the Halifax River, a corridor is available for boats to travel up to 25 mph. The manatee refuge area along the Halifax River stretches from the Flagler-Volusia County line in Halifax Creek past the Ponce de Leon Inlet to the South Causeway Bridge (New Smyrna Beach), a distance of approximately 43.5 km (27 miles). The waterbody ranges from 0.5 km (0.3 miles) to just over 1.6 km (1 mile) in width. The manatee refuge also includes tributaries and river basins of varying length and width. The number of fishing boats operating and the amount of blue crab and mullet landings occurring in areas that are newly designated speed zones under this rule is unknown.

There were 128 licensed blue crab operators in Volusia County in 2001. In 2001, based on blue crab landings in Volusia County of 230,577 kilograms (508,337 pounds), and the weighted average price of $1.06 for blue crab statewide, the value of the blue crab fishery in Volusia County is estimated to be $539,266 (FWCC: FMRI, 2003). In 2001, based on mullet landings in Volusia County of 188,675 kilograms (415,958 pounds), and the weighted average price of $0.66 for mullet statewide, the value of the mullet fishery in Volusia County is estimated to be $272,591 (FWCC: FMRI, 2003). Only a very small portion of these values is likely to be affected, as the crabbing and fishing activities will still occur but with some changes due to additional speed zones. In addition, crabbing and mullet fishing occur in parts of Volusia County outside of the manatee refuge area, including Mosquito Lagoon, St. Johns River, Lake George, etc. (Ponce Inlet Authority, 2003). The county-wide figures provide an upper bound estimate of the economic impact on these fisheries; this would assume that the regulation closed down the entire fishery, which is not the case.

Given available data, the impact on the commercial fishing industry of extending slow speed zones in portions of the Caloosahatchee, St. Johns, and Halifax Rivers cannot be quantified. The designation will likely affect commercial fishermen by way of added travel time, which may result in an economic impact. However, because the manatee refuge designations will not prohibit any commercial fishing activity, and because there is a corridor available for boats to travel up to 40 km per hour (25 mph) in most affected areas, it is unlikely that the rule will result in a significant economic impact on the commercial fishing industry. It is important to note that in 2001, the total annual value of potentially affected fisheries is approximately $8.3 million (2001$); this figure represents the economic impact on commercial fisheries in these counties in the unlikely event that the fisheries would be entirely shut down, which is not the situation associated with this rule.

Agency Administrative Costs

The cost of implementing the rule has been estimated based on historical expenditures by the Service for manatee refuges and sanctuaries established previously. The Service expects to spend approximately $600,000 (2002$) for posting and signing 15 previously designated manatee protection areas. This represents the amount that the Service will pay contractors for creation and installation of manatee signs. While the number and location of signs needed to post the manatee refuges is not known, the cost of manufacturing and posting signs to delineate the manatee refuges in this rule is not expected to exceed the amount being spent to post previously designated manatee protection areas (Service, 2003a). In addition, the Service anticipates that it will spend $1.7 million (2002$) for enforcement of newly designated manatee refuges annually. These costs are overstated because they represent the cost of enforcing 13 new manatee refuges and sanctuaries designated earlier on November 8, 2002, as well as the 3 manatee refuges included in this rule. The costs of enforcement include hiring and training five new law enforcement agents and two special agents, and the associated training, equipment, upkeep, and clerical support (Service, 2003b). Finally, there may be some costs for education and outreach to inform the public about these new manatee refuge areas.

While the State of Florida has 19,312 km (12,000 miles) of rivers and 1.21 hectares (3 million acres) of lakes, the rule will affect approximately 156 kilometers (97 river miles). The speed restrictions on approximately 156 km (97 miles) of manatee refuges in this rule will cause inconvenience due to added travel time for recreationists and commercial charter boats and fishermen. As a result, the rule will impact the quality of waterborne activity experiences for some recreationists, and may lead some recreationists to forgo the activity. The extension of existing State speed zones for 156 km (97 miles) is not expected to affect waterborne activity to the extent that it would have a significant economic impact. The rule does not prohibit recreationists from participating in any activities. Alternative sites are available for all waterborne activities that may be affected by this rule. The distance that recreationists may have to travel to reach an un-designated area varies. Water skiers in the Tomoka River will likely experience the greatest inconvenience in terms of added travel time, as travel by water to the nearest alternative site could take approximately 2½ hours depending on time of year. The regulation will likely impact some portion of the charter boat and commercial fishing industries in these areas as well. The inconvenience of having to go somewhat slower in some areas may result in changes to commercial and recreational behavior, resulting in some regional economic impacts. Given available information, the net economic impact of designating the three manatee refuges is not expected to be significant (*i.e.*, an annual economic impact of over $100 million). While the level of economic benefits that may be attributable to the manatee refuges is unknown, these benefits would cause a reduction in the economic impact of the rule.

b. The precedent to establish manatee protection areas has been established primarily by State and local governments in Florida. We recognize the important role of State and local partners and continue to support and encourage State and local measures to improve manatee protection. We are designating areas where existing State and local designations are considered minimal protection and where existing designations are confusing and/or unenforceable.

c. This rule will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Minimal restriction to existing human uses of the sites would result from this rule, but the restriction is believed to enhance manatee viewing opportunities. No entitlements, grants, user fees, loan programs or effects on the rights and obligations of their recipients are expected to occur.

d. This rule does not raise novel legal or policy issues. We have previously established other manatee protection areas.

Regulatory Flexibility Act

We certify that this rule will not have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). An initial/final Regulatory Flexibility Analysis is not required. Accordingly, a Small Entity Compliance Guide is not required.

In order to determine whether the rule will have a significant economic effect on a substantial number of small entities, we utilize available information on the industries most likely to be affected by the designation of three manatee refuges. Currently no information is available on the specific number of small entities that are potentially affected. This rule will add travel time to boating recreationist's and commercial activities resulting from extension of existing speed zones. Because the only restrictions on recreational activity result from added travel time, and alternative sites are available for all waterborne activities, we believe that the economic effect on small entities resulting from changes in recreational use patterns will not be significant. The economic effects on small business resulting from this rule are likely to be indirect effects related to reduced demand for goods and services if recreationists choose to reduce their level of participation in waterborne activities. Similarly, because the only restrictions on commercial activity result from the inconvenience of added travel time, and boats can continue to travel up to 40 km per hour (25 mph) in most areas, we believe that any economic effect on small commercial fishing or charter boat entities will not be significant. Also, the indirect economic impact on small businesses that may result from reduced demand for goods and services from commercial entities is likely to be insignificant.

In order to determine whether small entities will be affected significantly, we examined county-level earnings data. We compared personal income data for the counties potentially affected to statewide averages to provide some background information about each county's economic situation. Because specific information about earnings of small entities potentially affected (both the total level and the amount of earnings potentially affected by the rule) is not available, we examined county-level earnings for industries potentially impacted by the designation. We further analyzed county business patterns data to examine the numbers of establishments in the affected counties that have a small number of employees. As stated above, economic impacts are believed to be minor and mostly will not interfere with the existing operation of small businesses in the affected counties.

Selected economic characteristics of the five affected counties are shown in Table 1. As demonstrated in the table, all counties except St. Johns have a lower per capita income than the State average. Growth in total personal income is slower than the statewide average in Duval, Lee, and Volusia Counties. St. Johns County greatly exceeds the statewide average in growth in both total and per capita personal income. For all five counties, the services sector represents the industry with the greatest earnings. The proportion of industry earnings attributable to amusement and recreation (a subcategory of the services industry potentially impacted by the rule) was relatively low for each county, ranging from one to five percent of total industry earnings. As a result, a small impact to the recreation sector is unlikely to have a significant effect on county-level income. Similarly, the proportion of industry earnings related to the fishing sector was less than 0.2 percent for each county. Thus, a small impact to the fishing sector is unlikely to adversely affect county-level income.

TABLE 1.—ECONOMIC CHARACTERISTICS OF THE FIVE AFFECTED COUNTIES IN FLORIDA—2000

Counties	Per capita personal income 2000 ($)	10-year annual growth of per capita income [a] (percent)	Total personal income 2000 (000$)	10-year annual growth of total personal income [a] (percent)	Total earnings by industry—all industries (000$)	Amusement and recreation industry earnings		Fishing industry earnings	
						Thousands of dollars	Percent of total	Thousands of dollars	Percent of total
Clay	25,421	3.8	3,601,576	8.4	1,225,569	18,565	1.5	73	0.01
Duval	27,084	4.1	21,118,751	6.3	19,916,074	194,900	1.0	3,440	0.02
Lee	26,655	3.0	11,833,528	7.0	6,379,956	106,875	1.7	10,619	0.17
St. Johns	40,635	7.7	5,057,864	15.9	1,553,900	82,280	5.3	581	0.04
Volusia	22,574	3.6	10,046,808	6.2	4,748,268	128,280	2.7	[b]	na
State of Florida	27,764	4.0	445,739,968	7.2	282,260,357	5,392,786	1.9	85,609	0.03

Source: Bureau of Economic Analysis (BEA), Regional Economic Information System, Regional Accounts Data, Local Area Personal Income (*http://www.bea.doc.gov/bea/regional/reis/*).

[a] Growth rates were calculated from 1990 and 2000 personal income data.

[b] BEA has withheld this information in order to avoid disclosure of confidential information.

The employment characteristics of the five affected counties are shown in Table 2. The latest available published data for the total number of establishments broken down by industry and county are from 1997. We included the following SIC (Standard Industrial Classification) categories, because they include businesses most likely to be directly affected by the designation of the manatee refuges:

- Fishing, hunting, trapping (SIC 09)
- Water transportation (SIC 44)
- Miscellaneous retail (SIC 59)
- Amusement and recreation services (SIC 79)
- Non-classifiable establishments (NCE)

TABLE 2.—EMPLOYMENT CHARACTERISTICS OF THE FIVE AFFECTED COUNTIES IN FLORIDA—1997
(Includes SIC Codes 09, 44, 59, 79, and NCE[a])

Counties	Total Mid-March employment[b] (all industries)	Mid-March employment[b] (select SIC codes)	Total establishments (all industries)	Select SIC Codes (Includes SIC Codes 09, 44, 59, 79, and NCE[a])				
				Total establishments	Number of establishments (1–4 employees)	Number of establishments (5–9 employees)	Number of establishments (10–19 employees)	Number of establishments (20+ employees)
Clay	28,106	1,940	2,747	255	158	48	30	19
Duval	361,302	14,459	21,016	1,510	877	330	164	139
Lee	135,300	7,734	11,386	974	602	193	92	87
St. Johns	33,173	1,971	3,127	273	177	58	24	14
Volusia	127,948	7,116	10,716	989	643	188	73	85

Source: U.S. Census County Business Patterns (*http://www.census.gov/epcd/cbp/view/cbpview.html*).
[a] Descriptions of the SIC codes included in this table as follows:
SIC 09—Fishing, hunting, and trapping
SIC 44—Water transportation
SIC 59—Miscellaneous retail service division.
SIC 79—Amusement and recreation services
NCE—non-classifiable establishments division
[b] Table provides the high-end estimate whenever the Census provides a range of mid-March employment figures for select counties and SIC codes.

As shown in Table 2, the vast majority (over 80 percent) of these business establishments in each of the five affected counties have less than ten employees, with the largest number of establishments employing less than four employees. In addition, in 1997, only four to seven percent of total mid-March employment for industries in the affected counties was in the industries likely to be affected by the rule. Any economic impacts associated with this rule will affect some proportion of these small entities.

Since the designation is for the development of manatee refuges, which only require a reduction in speed, we do not believe the designation would cause significant economic effect on small businesses. For example, because the manatee refuge designations will not prohibit any commercial fishing activity, and because there is a route available for boats to travel at up to 40 km per hour (25 mph) in most areas, it is unlikely that the rule will result in a significant economic impact on commercial fishing entities. Currently available information does not allow us to quantify the number of small business entities such as charter boats or commercial fishing entities that may incur direct economic impacts due to the inconvenience of added travel times resulting from the rule. An examination of county level information indicates that these economic impacts will not be significant for the affected counties. Based on an analysis of public comment, further refinement of the impact on small entities may be possible. In addition, the inconvenience of slow speed zones may cause some recreationists to change their behavior, which may cause some loss of income to some small businesses. The number of recreationists that will change their behavior, and how their behavior will change, is unknown; therefore, the impact on potentially affected small business entities cannot be quantified. However, because boaters will experience only minimal added travel time in most affected areas, we believe that this designation will not cause a significant economic impact on a substantial number of small entities.

Small Business Regulatory Enforcement Fairness Act

This rule is not a major rule under 5. U.S.C. 804 (2). This rule:

a. Does not have an annual effect on the economy of $100 million or more. As shown above, this rule may cause some inconvenience in the form of added travel time for recreationists and commercial fishing and charter boat businesses because of speed restrictions in manatee refuge areas, but this should not translate into any significant business reductions for the many small businesses in the five affected counties. An unknown portion of the establishments shown in Table 2 could be affected by this rule. Because the only restrictions on recreational activity result from added travel time, and alternative sites are available for all waterborne activities, we believe that the economic impact on small entities resulting from changes in recreational use patterns will not be significant. The economic impacts on small business resulting from this rule are likely to be indirect effects related to reduced demand for goods and services if recreationists choose to reduce their level of participation in waterborne activities. Similarly, because the only restrictions on commercial activity result from the inconvenience of added travel time, and boats can continue to travel up to 40 km per hour (25 mph) in most areas, we believe that any economic impact on small commercial fishing or charter boat entities will not be significant. Also, the indirect economic impact on small businesses that may result from reduced demand for goods and services from commercial entities is likely to be insignificant.

b. Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions. It is unlikely that there are unforeseen changes in costs or prices for consumers stemming from this rule. The recreational charter boat and commercial fishing industries may be affected by lower speed limits for some areas when traveling to and from fishing grounds. However, because of the availability of 40-km-per-hour (25-mph) routes in most areas, this impact is likely to be limited.

c. Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. As stated above, this rule may generate some level of inconvenience to recreationists due to added travel time, but the resulting economic impacts are believed to be minor and will not interfere with the normal operation of businesses in the affected counties.

Added travel time to traverse some areas is not expected to be a major factor that will impact business activity.

Energy Supply, Distribution or Use (Executive Order 13211)

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Because this rule is not a significant regulatory action under Executive Order 12866 and it only requires vessels to proceed at slow or idle speeds in less than 11.2 km (7 miles) of waterways in Florida, it is not expected to significantly affect energy supplies, distribution, and use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*):

a. This rule will not ''significantly or uniquely'' affect small governments. A Small Government Agency Plan is not required. The designation of manatee refuges imposes no substantial new obligations on State or local governments.

b. This rule will not produce a Federal mandate of $100 million or greater in any year, *i.e.*, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act.

Takings

In accordance with Executive Order 12630, this rule does not have significant takings implications. A takings implication assessment is not required. The manatee protection areas are located over State-or privately-owned submerged bottoms. Any property owners in the vicinity will have navigational access to and the wherewithal to maintain their property.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. This rule will not have substantial direct effects on the State, in the relationship between the Federal Government and the State, or on the distribution of power and responsibilities among the various levels of government. We coordinated with the State of Florida to the extent possible on the development of this rule.

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order.

Paperwork Reduction Act

This regulation does not contain collections of information that require approval by the Office of Management and Budget under 44 U.S.C. 3501 *et seq.* The regulation would not impose new recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations.

National Environmental Policy Act

We have analyzed this rule in accordance with the criteria of the National Environmental Policy Act. This rule does not constitute a major Federal action significantly affecting the quality of the human environment. An environmental assessment has been prepared and is available for review upon request by writing to the Field Supervisor (*see* **ADDRESSES** section).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951), E.O. 13175, and 512 DM 2, we have evaluated possible effects on federally recognized Indian tribes and have determined that there are no effects.

References Cited

A complete list of all references cited in this rule is available upon request from the Jacksonville Field Office (*see* **ADDRESSES** section).

Author

The primary authors of this document are Stefanie Barrett, James Valade, Peter Benjamin, Kalani Cairns, and David Hankla (*see* **ADDRESSES** section).

Authority

The authority to establish manatee protection areas is provided by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), and the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361–1407), as amended.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. Amend § 17.108 by adding paragraphs (c)(12) through (c)(14) as follows:

§ 17.108 List of designated manatee protection areas.

* * * * *

(c) * * *

(12) *The Caloosahatchee River—San Carlos Bay Manatee Refuge.*

(i) The Caloosahatchee River—San Carlos Bay Manatee Refuge is described as all waters of the Caloosahatchee River and San Carlos Bay downstream of the Seaboard Coastline trestle at Beautiful Island to Channel Marker ''93'' and from Channel Marker ''99'' to the Sanibel Causeway, in Lee County. A map showing the refuge and four maps showing specific areas in the refuge are at paragraph (12)(x) of this section.

(ii) From the Seaboard Coastline Railroad trestle at Beautiful Island, downstream to Channel Marker ''25'', a distance of approximately 1.6 kilometers (1 mile), watercraft are required to proceed at slow speed in the marked navigation channel from November 15 to March 31 and at not more than 40 kilometers per hour (km/h) (25 miles per hour) in the channel from April 1 to November 14. See map of ''Edison Bridge Area'' in paragraph (12)(x) of this section.

(iii) From a point 152 meters (500 feet) east of the Edison Bridge downstream to a point 152 meters (500 feet) west of the Caloosahatchee Bridge, approximately 1.1 kilometers (0.7 mile) in length, shoreline-to-shoreline (including the marked navigation channel), watercraft are required to proceed at slow speed (channel included), year-round. See map of ''Edison Bridge Area'' in paragraph (12)(x) of this section.

(iv) From a point 152 meters (500 feet) west of the Caloosahatchee Bridge downstream to a point 152 meters (500 feet) northeast of the Cape Coral Bridge, a distance of approximately 10.9 kilometers (6.8 miles), watercraft are required to proceed year-round at slow speed, while traveling within shoreline buffers extending out from the shore to a minimum distance of approximately

402 meters (1,320 feet), as marked. Watercraft, with the exception of seaplanes, are required to proceed at not more than 40 km/h (25 miles per hour) throughout the year between these buffers (including the marked navigation channel where not more restrictively designated). See map of ''Cape Coral Bridge Area'' in paragraph (12)(x) of this section.

(v) From a point 152 meters (500 feet) northeast of the Cape Coral Bridge downstream to a point 152 meters (500 feet) southwest of the Cape Coral Bridge, a distance of approximately 0.4 kilometer (0.25 mile), shoreline-to-shoreline (excluding the marked navigation channel), watercraft are required to proceed at slow speed, year-round. In the marked navigation channel, watercraft are required to proceed at not more than 40 km/h (25 miles per hour) throughout the year. See map of ''Cape Coral Bridge Area'' in paragraph (12)(x) of this section.

(vi) From a point 152 meters (500 feet) southwest of the Cape Coral Bridge to Channel Marker ''72,'' a distance of approximately 1.9 kilometers (1.2 miles), watercraft are required to proceed year-round at slow speed, while traveling within shoreline buffers extending out from the shore to a minimum distance of approximately 402 meters (1,320 feet), as marked. Watercraft are required to proceed at not more than 40 km/h (25 miles per hour) throughout the year between these buffers (including the marked navigation channel where not more restrictively designated). See map of ''Redfish Point Area'' in paragraph (12)(x) of this section.

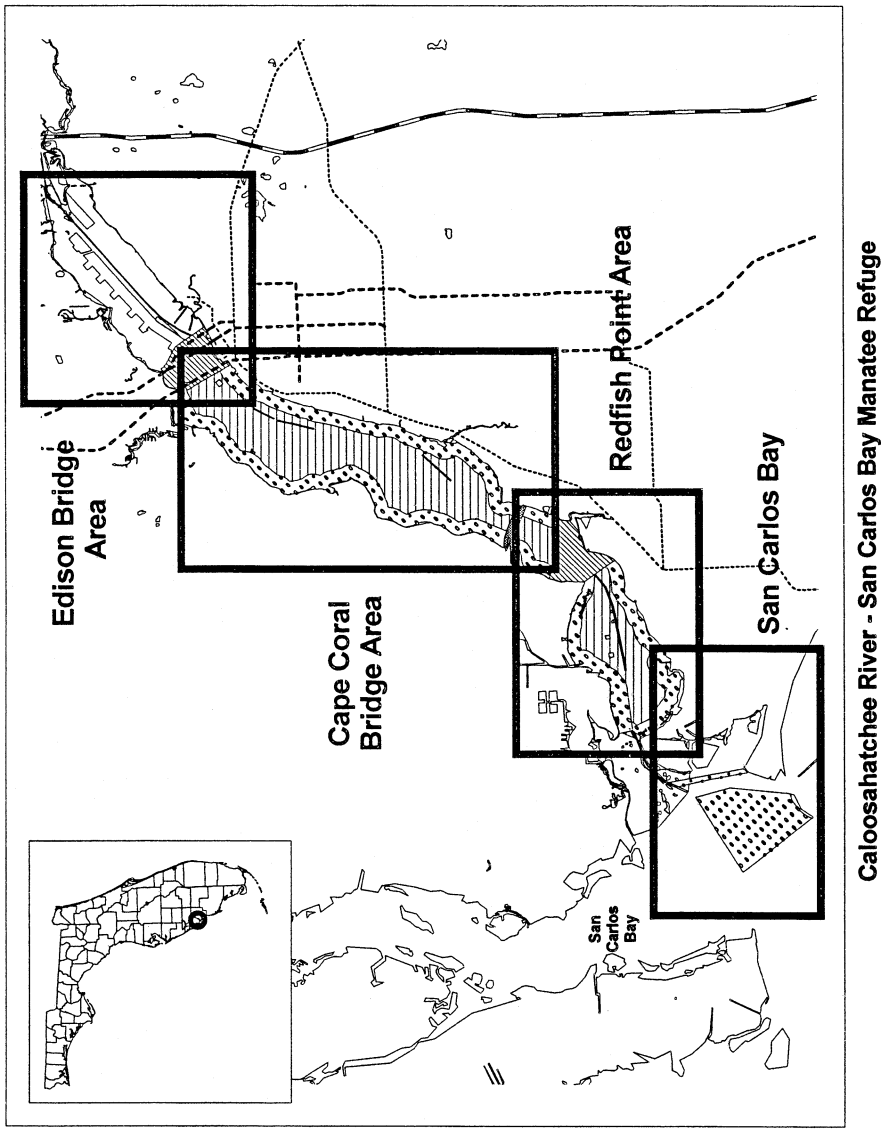
(vii) From Channel Marker ''72'' to Channel Marker ''76'' (in the vicinity of Redfish Point), for a distance of approximately 1.8 kilometers (1.1 miles) in length, shoreline-to-shoreline (including the marked navigation channel), watercraft are required to proceed at slow speed, year-round. See map of ''Redfish Point Area'' in paragraph (12)(x) of this section.

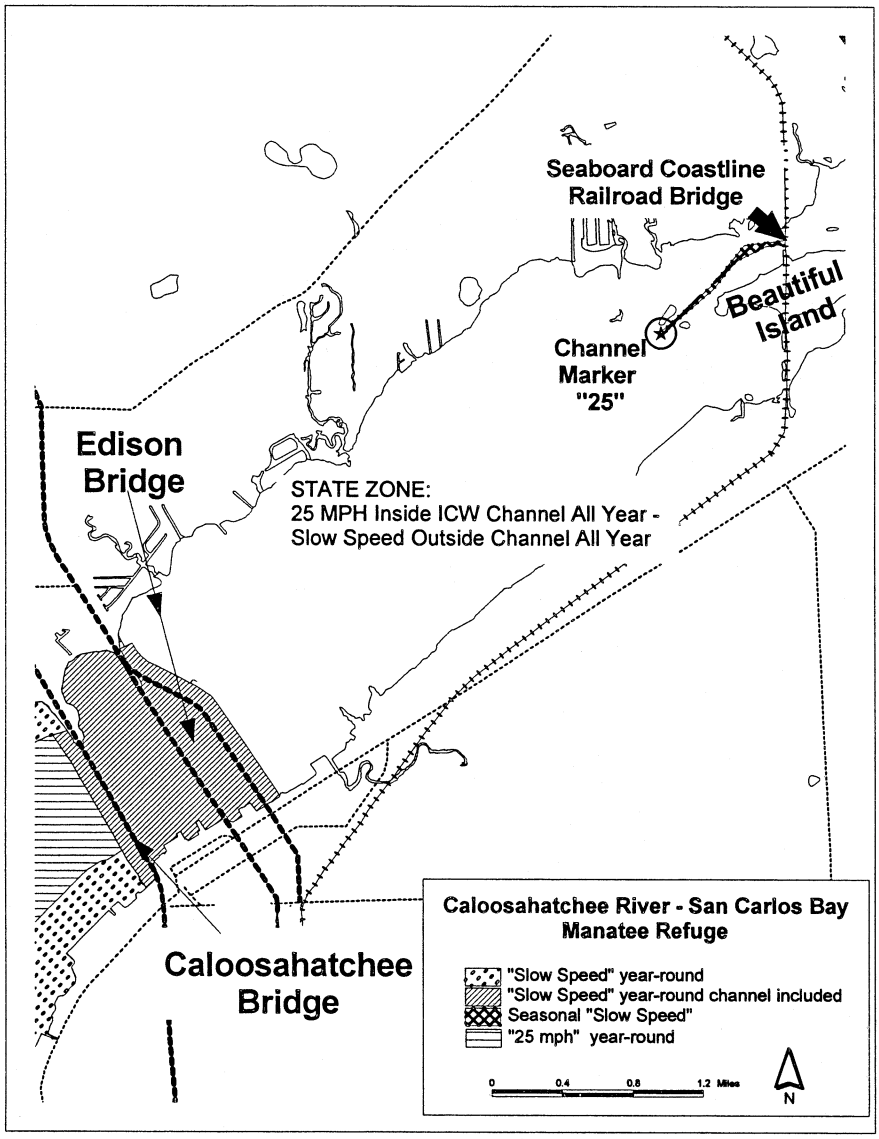
(viii) From Channel Marker ''76'' to Channel Marker ''93,'' a distance of approximately 5.2 kilometers (3.2 miles) in length, watercraft are required to proceed year-round at slow speed, while traveling within shoreline buffers extending out from the shore to a minimum distance of approximately 402 meters (1,320 feet), as marked. Watercraft are required to proceed at not more than 40 km/h (25 miles per hour) throughout the year between these buffers (including the marked navigation channel where not more restrictively designated). See map of ''Redfish Point Area'' in paragraph (12)(x) of this section.

(ix) Except as described below and as marked, from Channel Marker ''99'' to the Sanibel Causeway, watercraft are required to proceed at slow speed year-round in San Carlos Bay within the following limits: A northern boundary described by the southern edge of the marked navigation channel, a line approximately 2.9 kilometers (1.8 miles) in length; a southern boundary described by the Sanibel Causeway (approximately 1.9 kilometers (1.2 miles) in length); a western boundary described by a line that connects the western end of the easternmost Sanibel Causeway island and extending northwest to Channel Marker ''7'' (approximately 2.9 kilometers (1.8 miles) in length); and the eastern boundary includes the western limit of the State-designated manatee protection area (68C–22.005) near Punta Rassa (approximately 2.9 kilometers (1.8 miles) in length). However this area excludes the marked navigation channel from Channel Marker ''99'' to the Sanibel Causeway and adjacent waters, as marked. See map of ''San Carlos Bay'' in paragraph (12)(x) of this section.

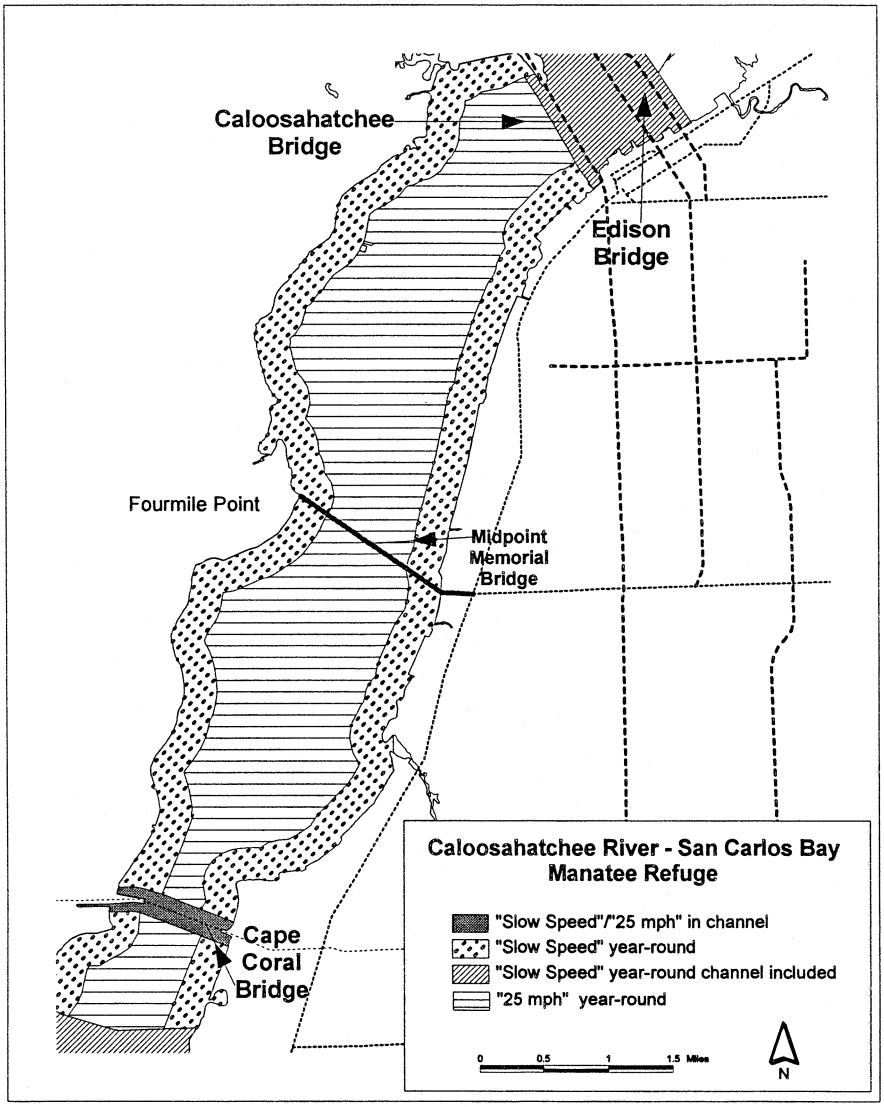
(x) Five maps of the Caloosahatchee River—San Carlos Bay Manatee Refuge follow:

BILLING CODE 4310-55-P

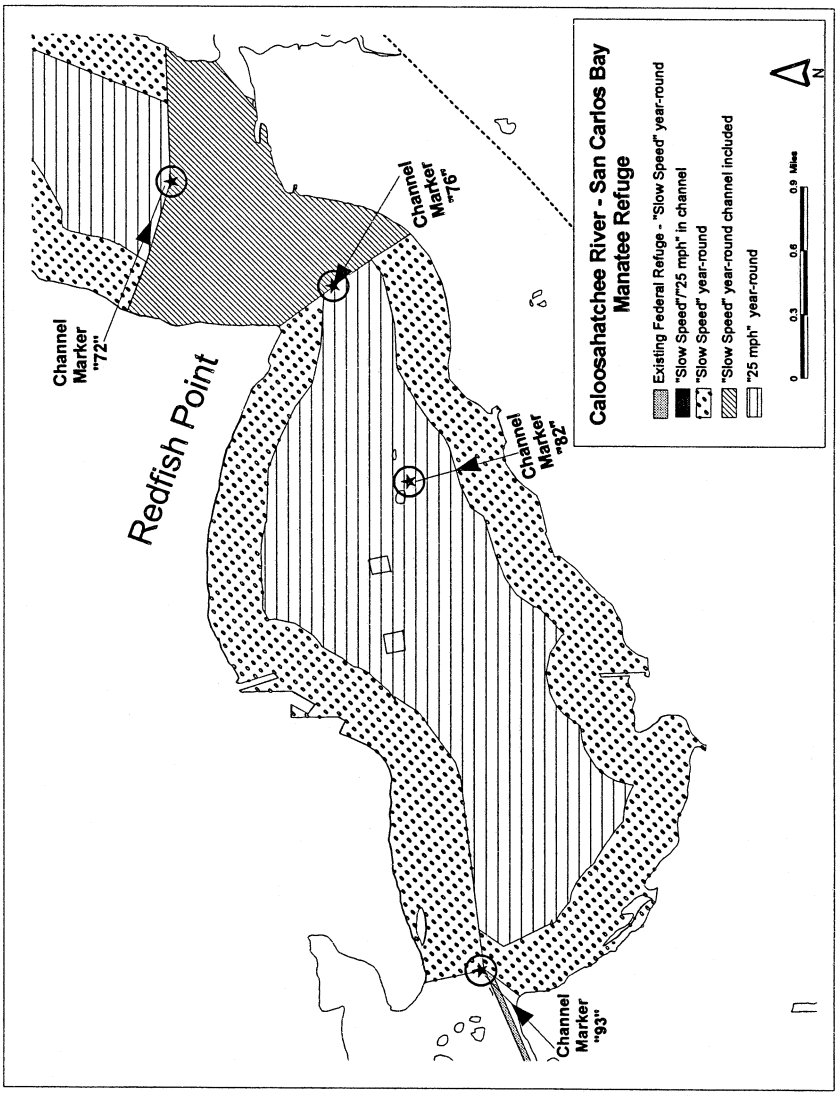

Edison Bridge Area
Cape Coral Bridge Area
Redfish Point Area
San Carlos Bay
Caloosahatchee River - San Carlos Bay Manatee Refuge
San Carlos Bay



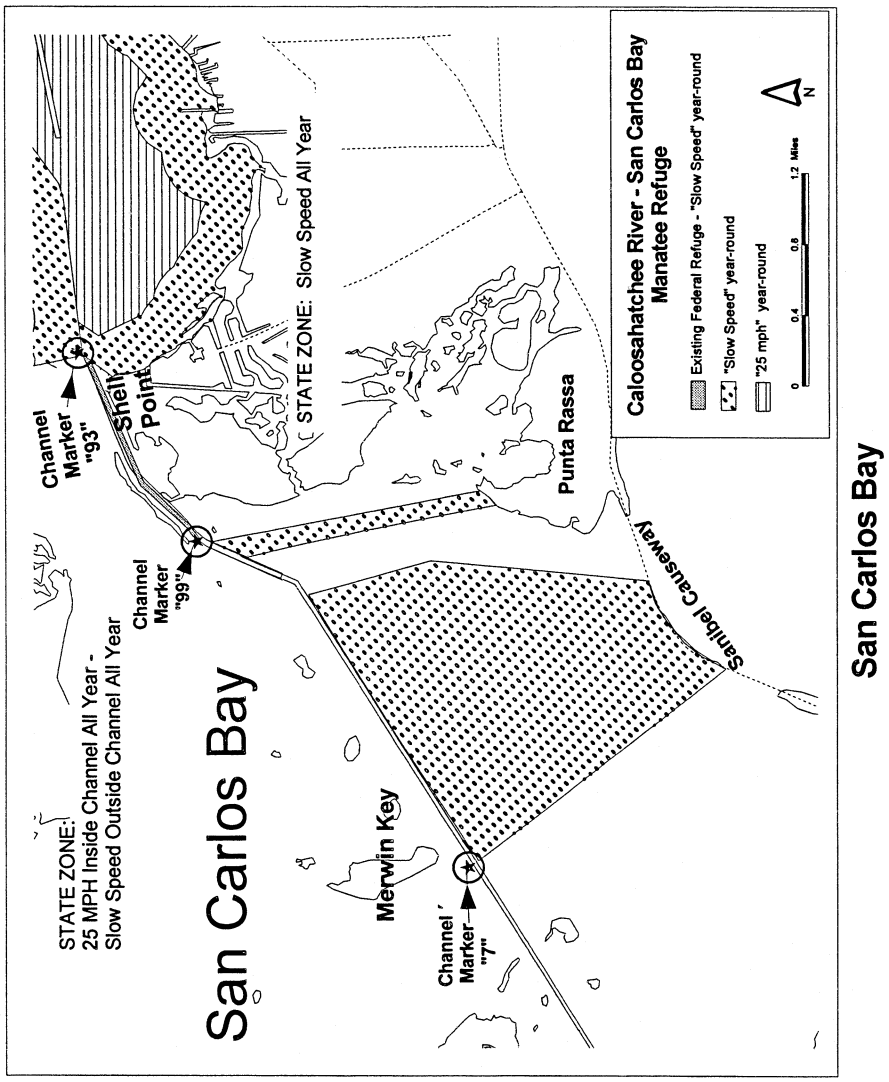
Edison Bridge Area



Cape Coral Bridge Area



Redfish Point Area



BILLING CODE 4310–55–C

(13) *The Lower St. Johns River Manatee Refuge.*

(i) The Lower St. Johns River Manatee Refuge is described as portions of the St. Johns River and adjacent waters in Duval, Clay, and St. Johns Counties from approximately Channel Marker ''73'', as marked, upstream to the mouth of Peter's Branch, including Doctors Lake, in Clay County on the western shore, and to the southern shore of the mouth of Julington Creek in St. Johns County on the eastern shore. A map showing the refuge and two maps showing specific areas of the refuge are at paragraph (13)(v) of this section.

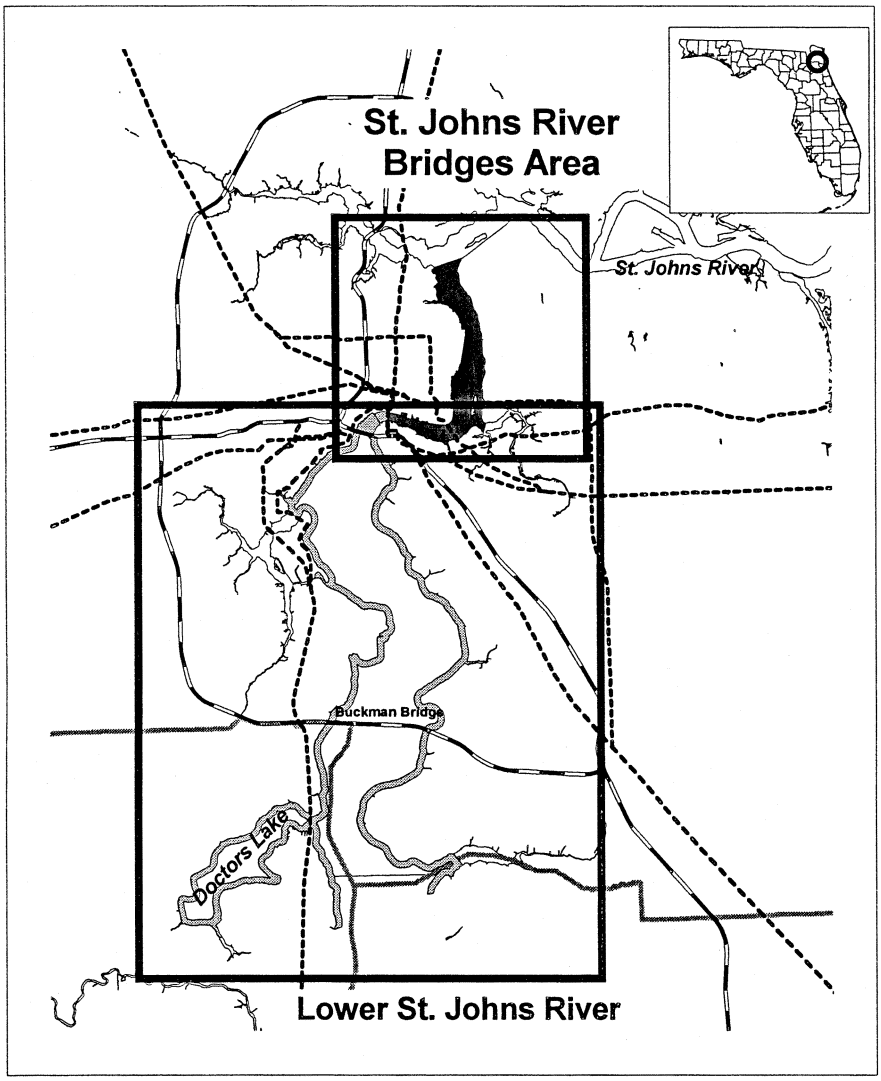
(ii) From Channel Marker ''73'' upstream to the Main Street Bridge, a distance of approximately 16.8 kilometers (or 10.4 miles), watercraft are required to proceed at slow speed, year-round, outside the marked navigation channel and at speeds of not more than 40 km/h (25 miles per hour) in the marked channel (from Channel Marker ''81'' to the Main Street Bridge, the channel is defined as the line of sight extending west from Channel Markers ''81'' and ''82'' to the fenders of the Main Street Bridge). See map of ''St. Johns River Bridges Area'' in paragraph (13)(v) of this section.

(iii) From the Main Street Bridge to the Fuller Warren Bridge, a distance of approximately 1.6 kilometers (1.0 mile), shoreline to shoreline, watercraft are required to proceed at slow speed (channel included), year-round. See map of ''St. Johns River Bridges Area'' in paragraph (13)(v) of this section.

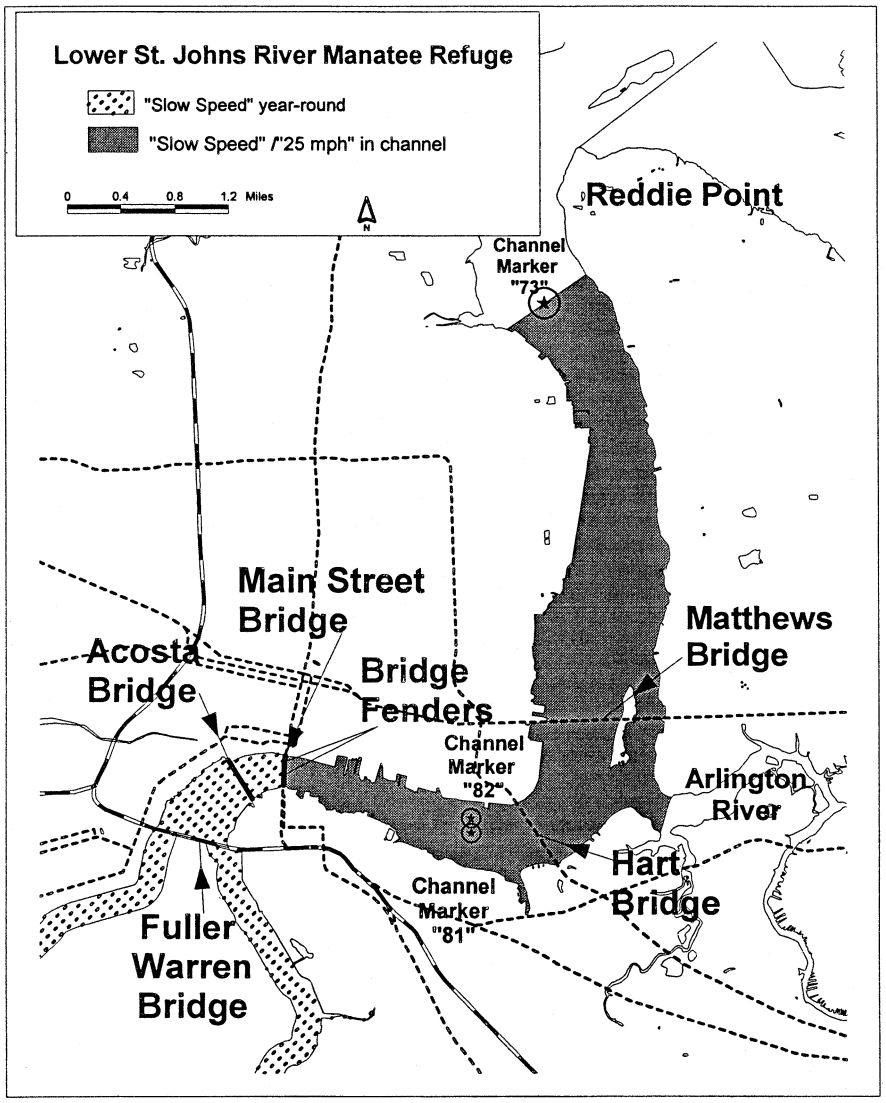
(iv) Upstream of the Fuller Warren Bridge, a 213-meter (700-foot) to 305-meter (1,000-foot) as-marked, watercraft are required to proceed at slow speed, year-round, shoreline buffer to the south bank of the mouth of Peter's Branch in Clay County along the western shore (approximately 31.1 kilometers (19.3 miles)); and in Doctors Lake in Clay County, watercraft are required to proceed at slow speed, year-round, along a 213-meter (700-foot) to 274-meter (900-foot) as-marked, shoreline buffer (approximately 20.8 kilometers (12.9 miles)); and a 213-meter (700-foot) to 305-meter (1,000-foot) as-marked, watercraft are required to proceed at slow speed, year-round, shoreline buffer to the south bank of the mouth of Julington Creek in St. Johns County along the eastern shore (approximately 32.5 kilometers (20.2 miles)) to a line north of a western extension of the Nature's Hammock Road North. See map of ''Lower St. Johns River'' in paragraph (13)(v) of this section.

(v) Three maps of the Lower St. Johns River Manatee Refuge follow:

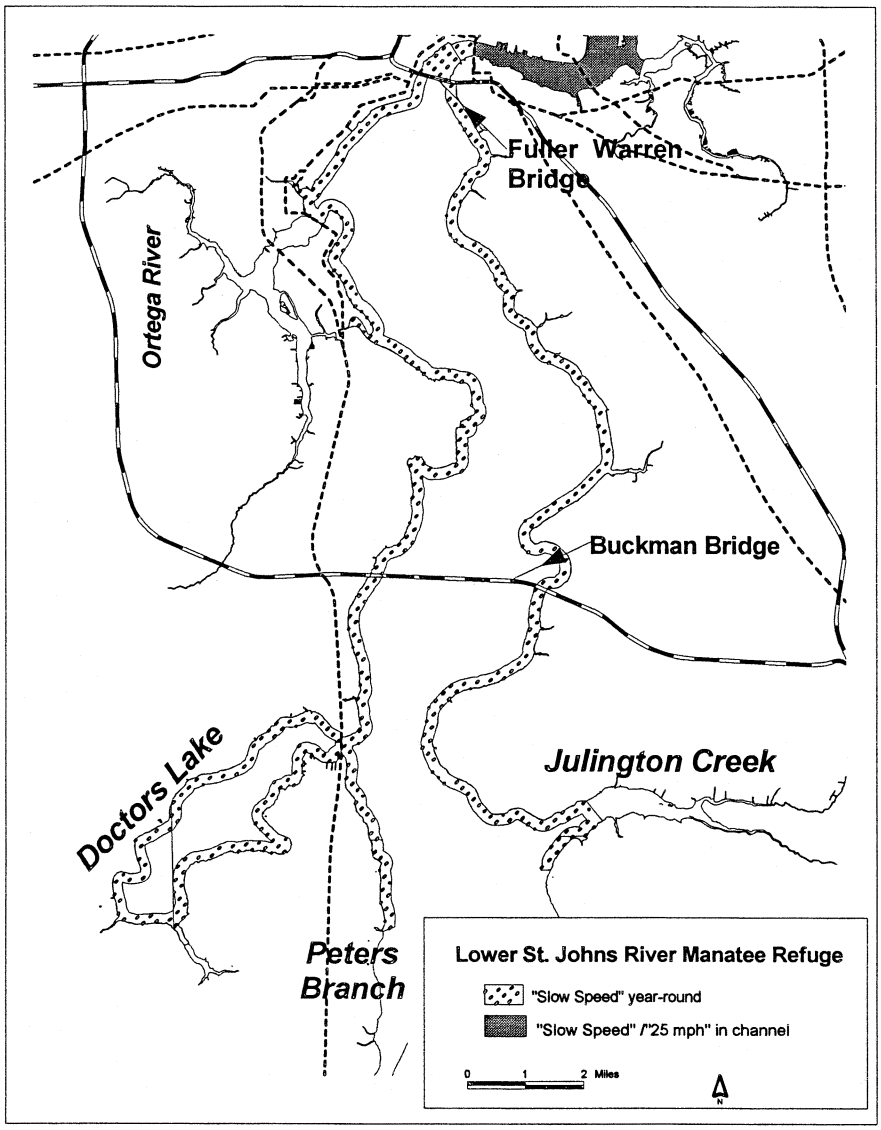
BILLING CODE 4310–55–P



Lower St. Johns River Manatee Refuge



St. Johns River Bridges Area



Lower St. Johns River

BILLING CODE 4310–55–C

(14) *The Halifax and Tomoka Rivers Manatee Refuge.*

(i) The Halifax and Tomoka Rivers Manatee Refuge is described as the Halifax River and associated waterbodies in Volusia County, from the Volusia County—Flagler County line to New Smyrna Beach. A map showing the refuge and eight maps showing specific areas in the refuge are at paragraph (14) (xii) of this section.

(ii) From the Volusia County—Flagler County line at Halifax Creek south to Channel Marker ''9,'' a distance of approximately 11.3 kilometers (7.0 miles) in length, watercraft are required to proceed at not more than 40 km/h (km/h)(25 miles per hour) in the channel. See maps of ''Halifax Creek'' and ''Tomoka River Basin'' in paragraph (14) (xii) of this section.

(iii) From Channel Marker ''9'' to a point 152 meters (500 feet) north of the Granada Bridge (State Road 40) (including the Tomoka Basin), a distance of approximately 5.0 km (3.1 miles) in length, watercraft are required to proceed at not more than 40 km/h (25 mph) in areas between the existing 91-meter (300-foot) buffers (and including the marked navigation channel). See maps of ''Tomoka River Basin'' and ''Tomoka River'' in paragraph (14) (xii) of this section.

(iv) In the Tomoka River, from the I–95 Bridge to Alligator Island, as marked, a distance of approximately 1.6 kilometers (1 mile), watercraft are required to proceed at slow speed, shoreline to shoreline, from April 1 to August 31. See map of ''Tomoka River'' in paragraph (14) (xii) of this section.

(v) From 152 meters (500 feet) north to 305 meters (1,000 feet) south of the Granada Bridge (State Road 40), a distance of approximately 0.5 kilometers (0.3 miles) in length, watercraft are required to proceed at slow speed, year-round, shoreline to shoreline. See map of ''Halifax River A'' in paragraph (14) (xii) of this section.

(vi) From a point 305 meters (1,000 feet) south of the Granada Bridge (State Road 40) to a point 152 meters (500 feet) north of the Seabreeze Bridge, a distance of approximately 6.4 km (4.0 miles) in length, watercraft are required to proceed at not more than 40 km/h (25 mph) in areas between the existing 91-meter (300-foot) buffers (and including the marked navigation channel). See map of ''Halifax River A'' in paragraph (14) (xii) of this section.

(vii) As marked, from 152 meters (500 feet) north of the Seabreeze Bridge, to 152 meters (500 feet) north of the Main Street bridge, a distance of approximately 1 kilometer (1 mile) in length, watercraft are required to proceed at slow speed (channel included), year-round. See map of ''Halifax River B'' in paragraph (14) (xii) of this section.

(viii) From Channel Marker ''40'' to a point a minimum of 152 meters (500 feet) north, as marked, of the Dunlawton Bridge, a distance of approximately 14.5 kilometers (9 miles) in length, watercraft are required to proceed at not more than 40 km/h (25 mph) in areas between the existing 91-meter (300-foot) buffers (and including the marked navigation channel). See map of ''Halifax River B'' in paragraph (14) (xii) of this section.

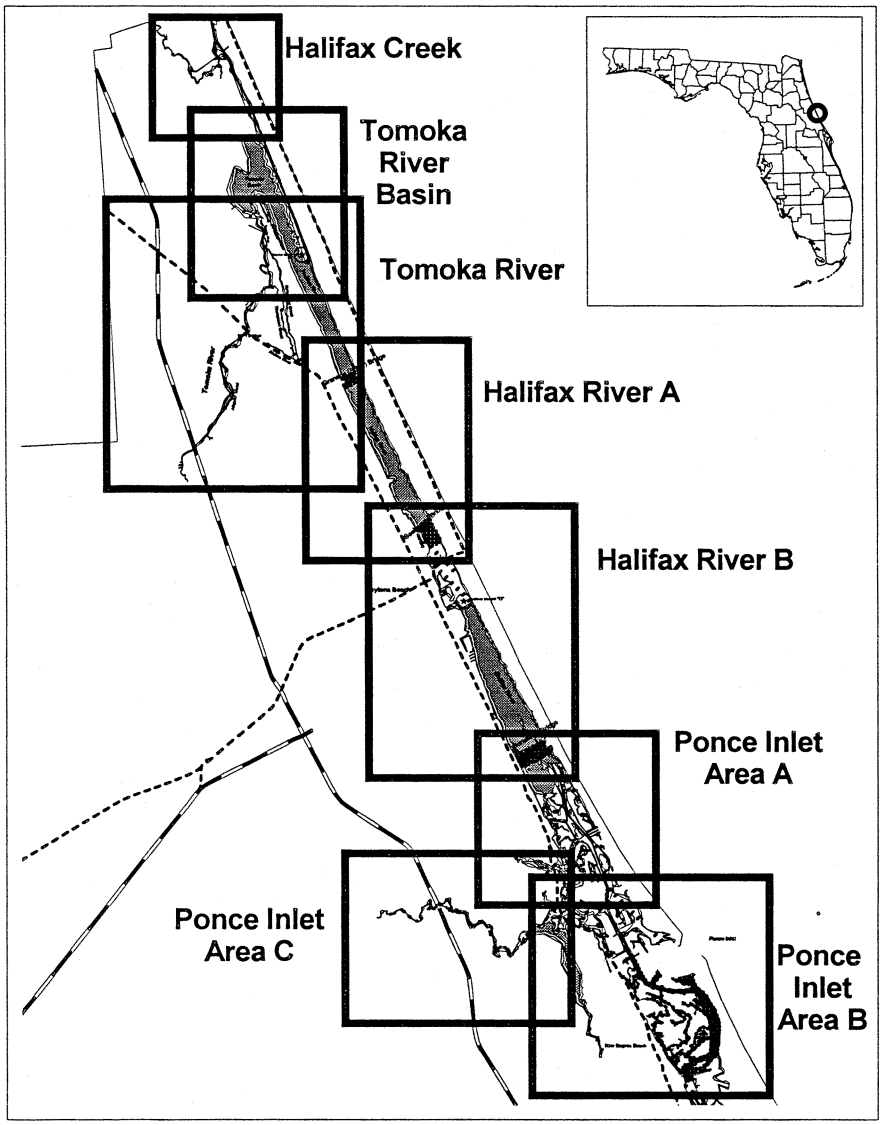
(ix) As marked, a minimum of 152 meters (500 feet) north to 152 meters (500 feet) south of the Dunlawton Bridge, a distance of approximately 0.3 kilometers (0.2 miles) in length, watercraft are required to proceed at slow speed (channel included), year-round, shoreline to shoreline; and adjacent to the western shoreline of the Halifax River north of the Dunlawton Bridge for a distance of approximately 640 meters (2,100 feet), and a minimum of 91 meters (300 feet) from shore, as marked, watercraft are required to proceed at slow speed, year-round. See map of ''Halifax River B'' in paragraph (14) (xii) of this section.

(x) As marked, from a minimum of 152 meters (500 feet) south of the Dunlawton Bridge to Redland Canal, a distance of approximately 10.5 kilometers (6.5 miles) in length, watercraft are required to proceed at not more than 40 km/h (25 mph) in waters not more restrictively designated; along the western shore of the Halifax River, a distance of approximately 3.1 km (1.95 miles), watercraft are required to proceed at not more than 40 km/h (25 mph) in the waters not more restrictively designated; in Rose Bay, a distance of approximately 2.7 km (1.7 miles), watercraft are required to proceed at not more than 40 km/h (25 mph) in waters not more restrictively designated; in Turnbull Bay, a distance of approximately 3.9 km (2.4 miles), watercraft are required to proceed at not more than 40 km/h (25 mph) in waters not more restrictively designated. See maps of ''Ponce Inlet Area A,'' ''Ponce Inlet Area B,'' and ''Ponce Inlet Area C'' in paragraph (14) (xii) of this section.

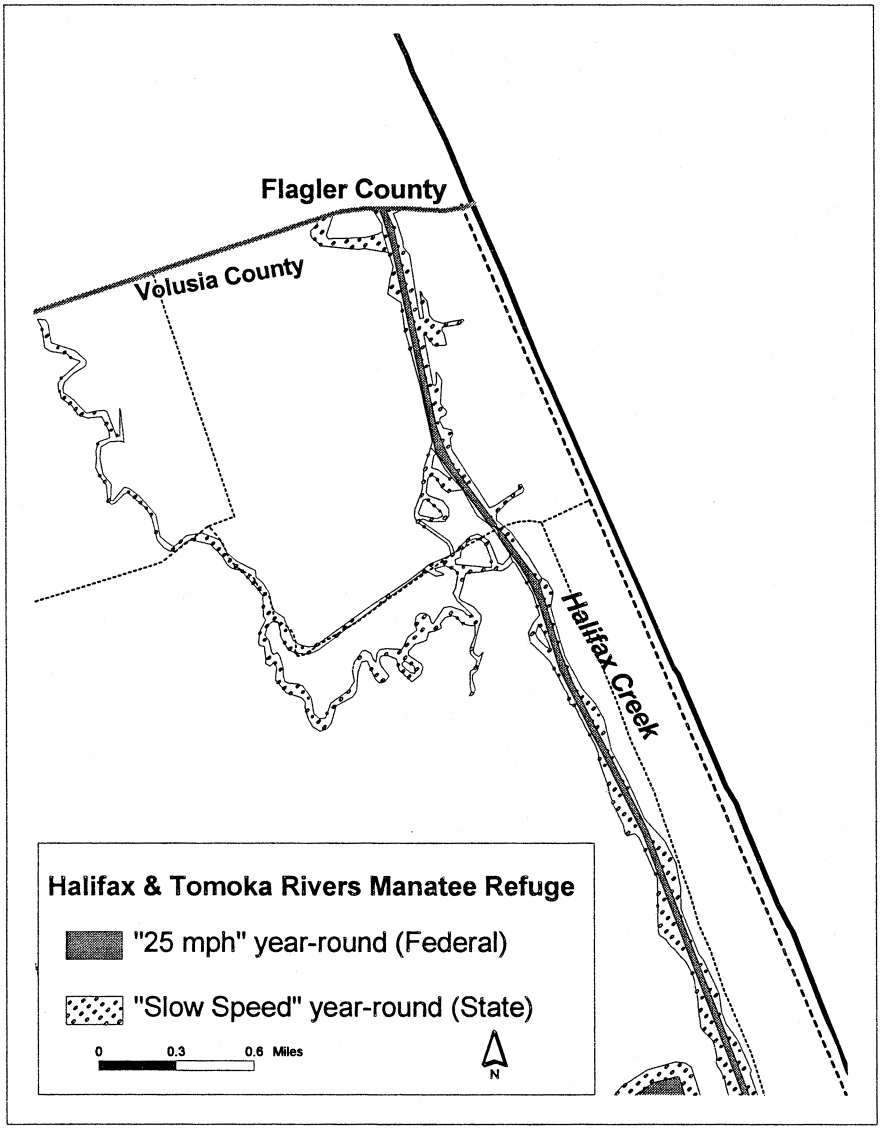
(xi) As marked, in the Intracoastal Waterway and adjacent waters from Redland Canal to the A1A Bridge (New Smyrna Beach, for a distance of approximately 5.3 kilometers (3.3 miles) in length, watercraft are required to proceed at slow speed (channel included), year-round. See map of ''Ponce Inlet Area B'' in paragraph (14) (xii) of this section.

(xii) Nine maps of the Halifax and Tomoka Rivers Manatee Refuge follow:

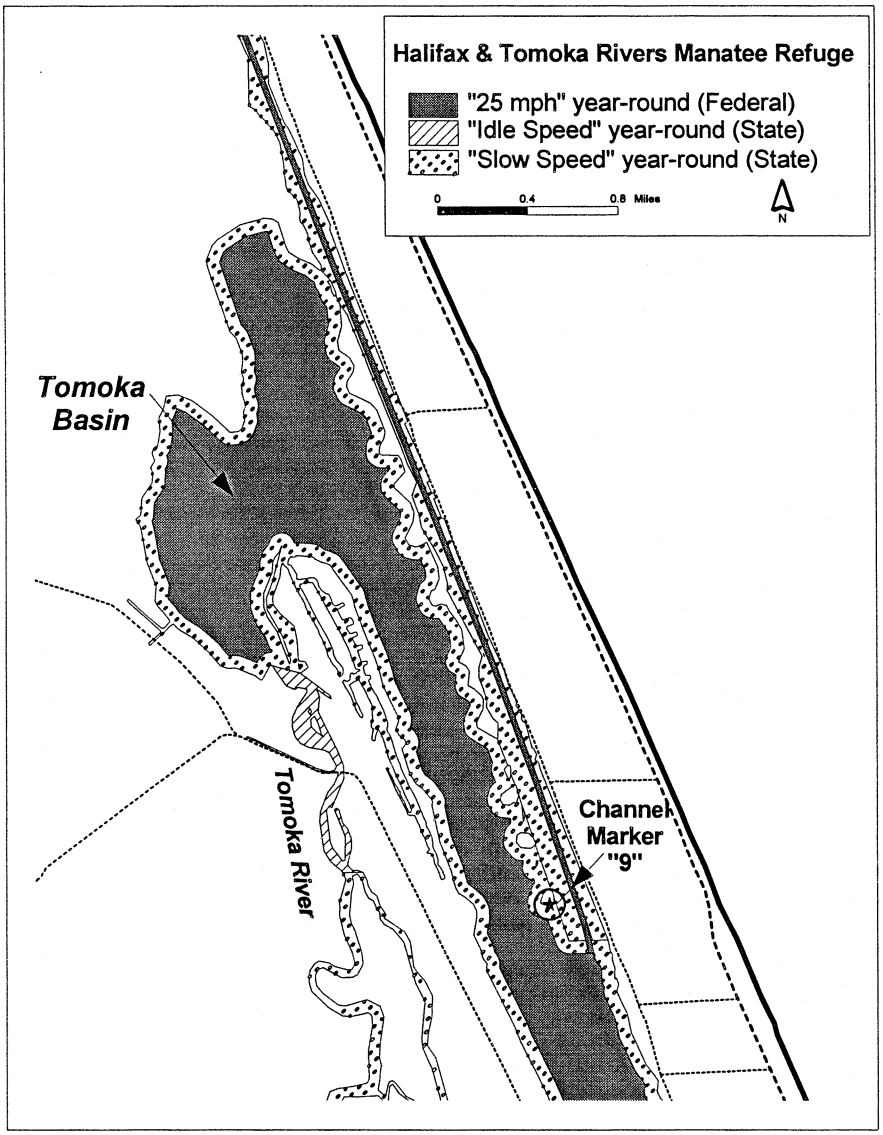
BILLING CODE 4310–55–P



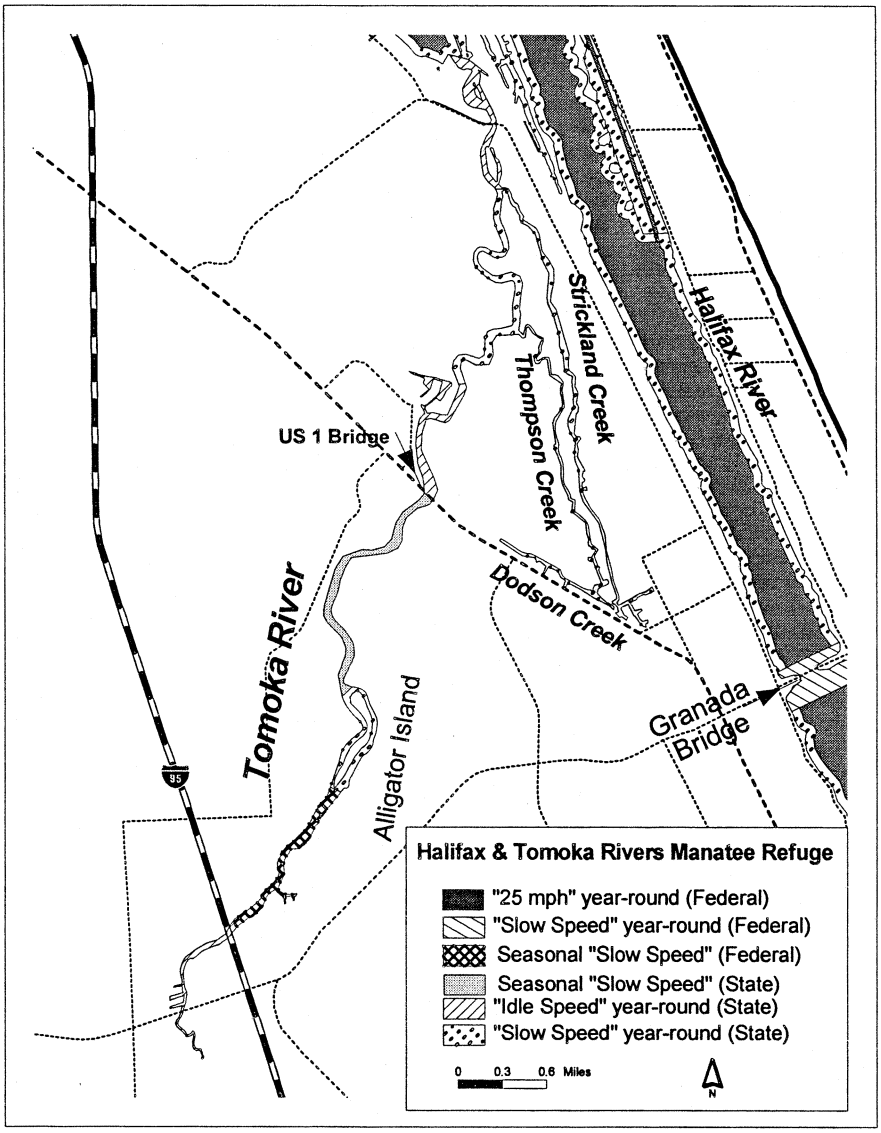
Halifax & Tomoka Rivers Manatee Refuge



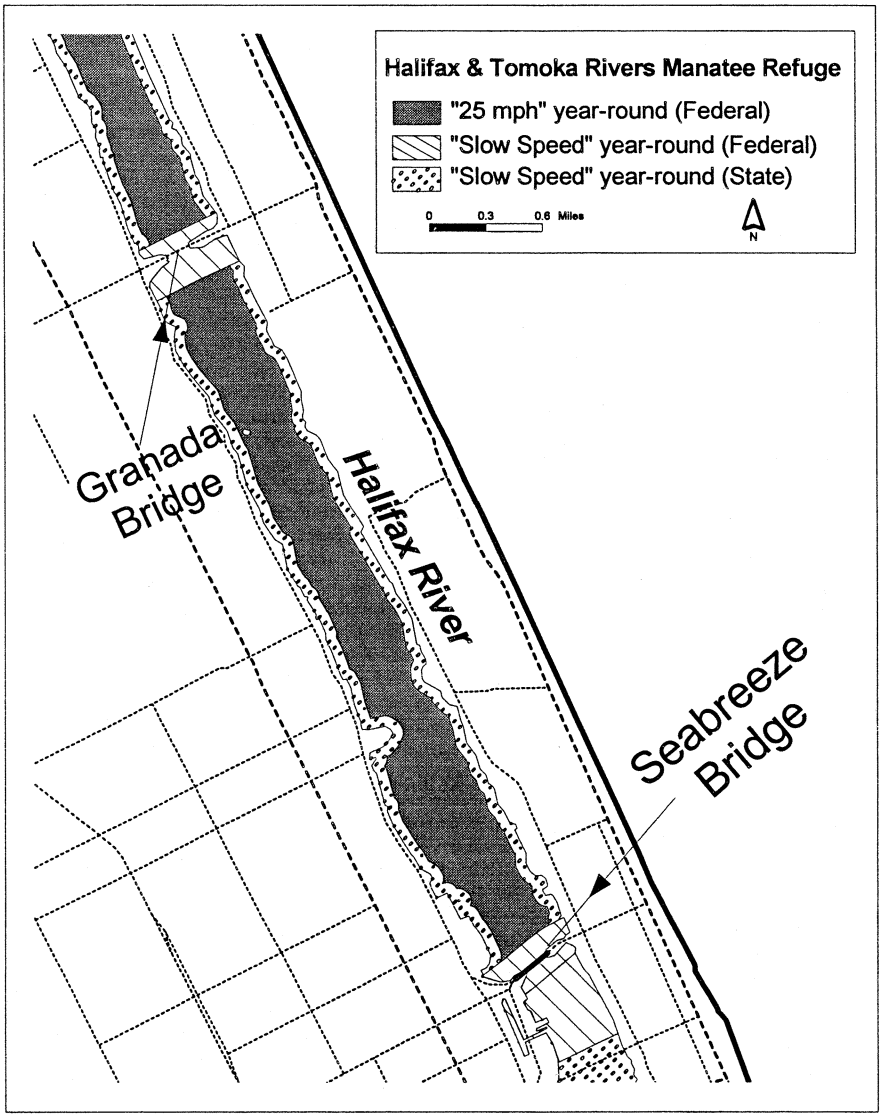
Halifax Creek



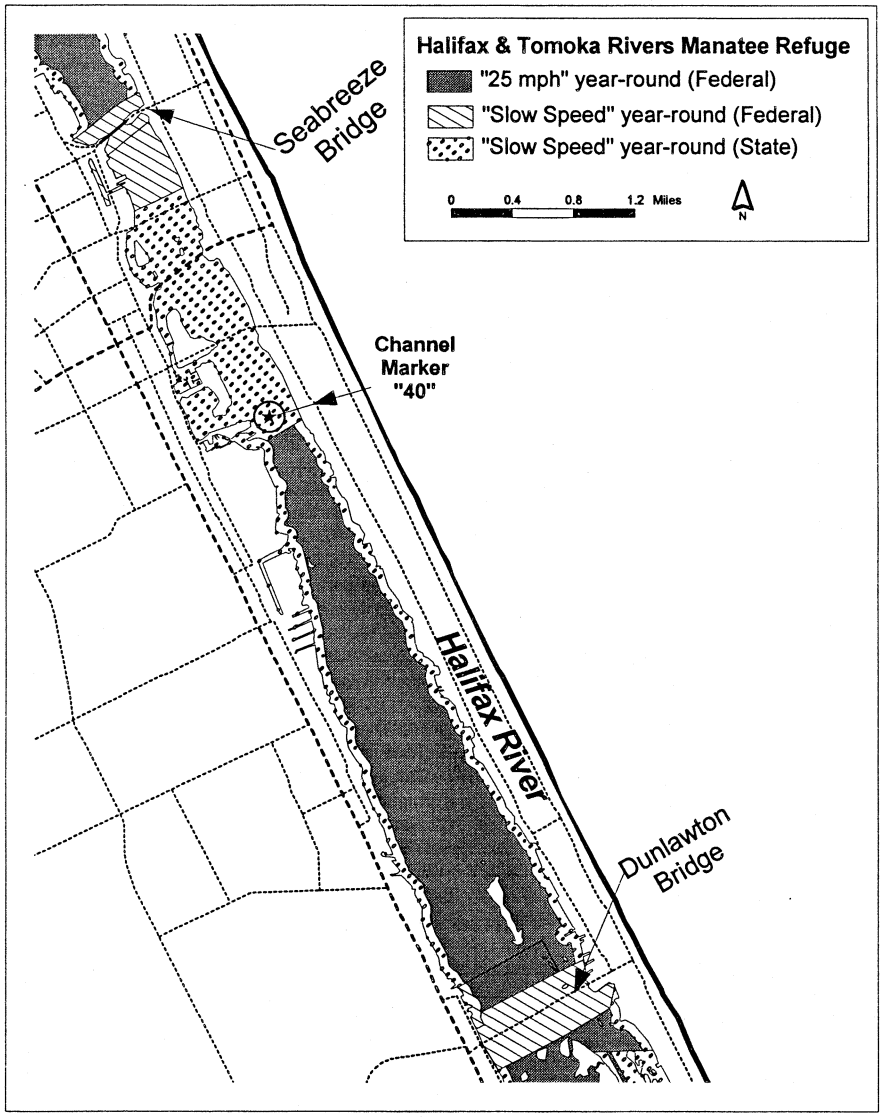
Tomoka River Basin



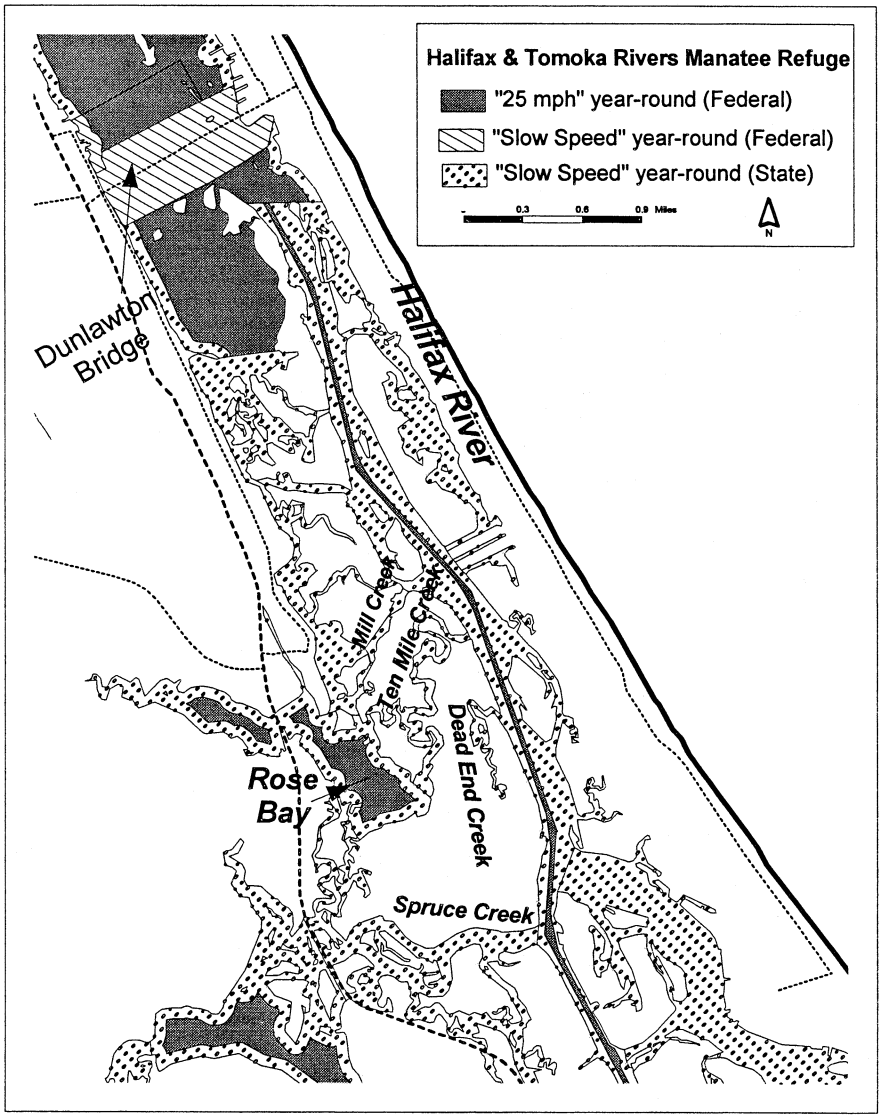
Tomoka River



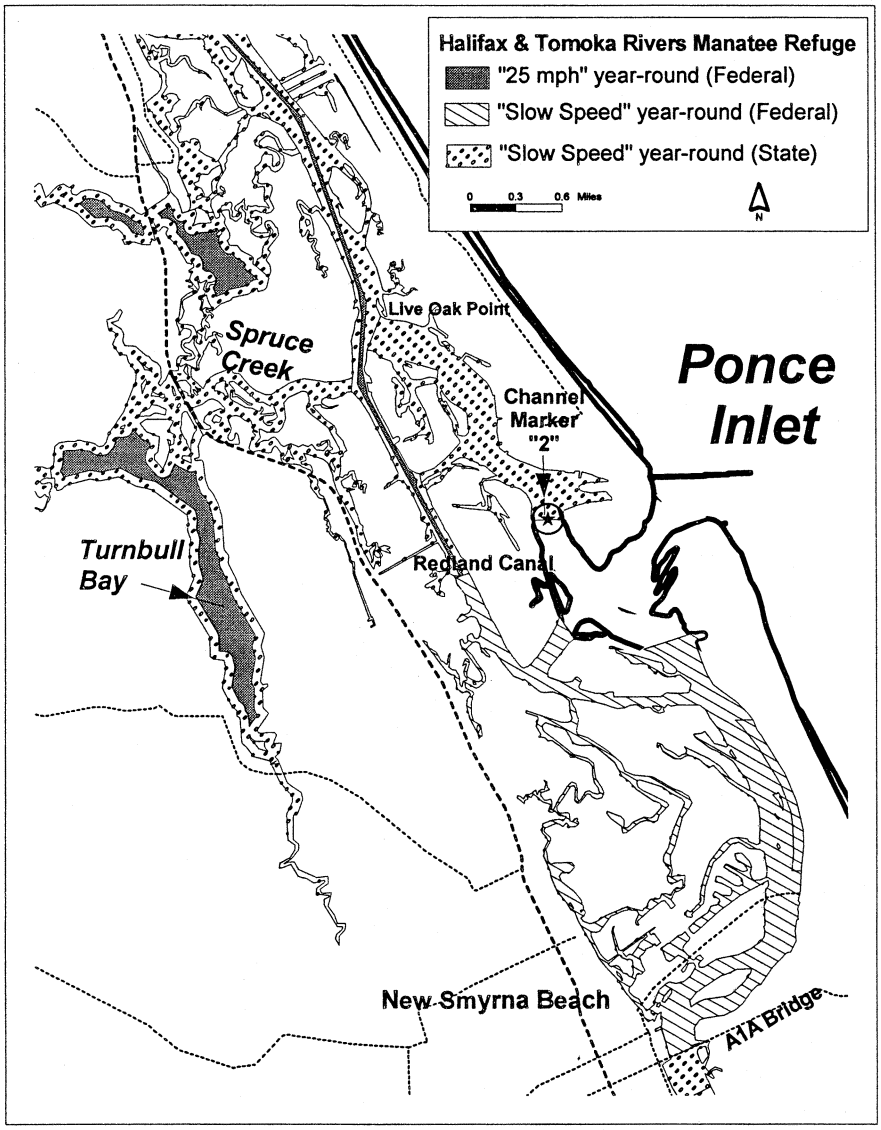
Halifax River A



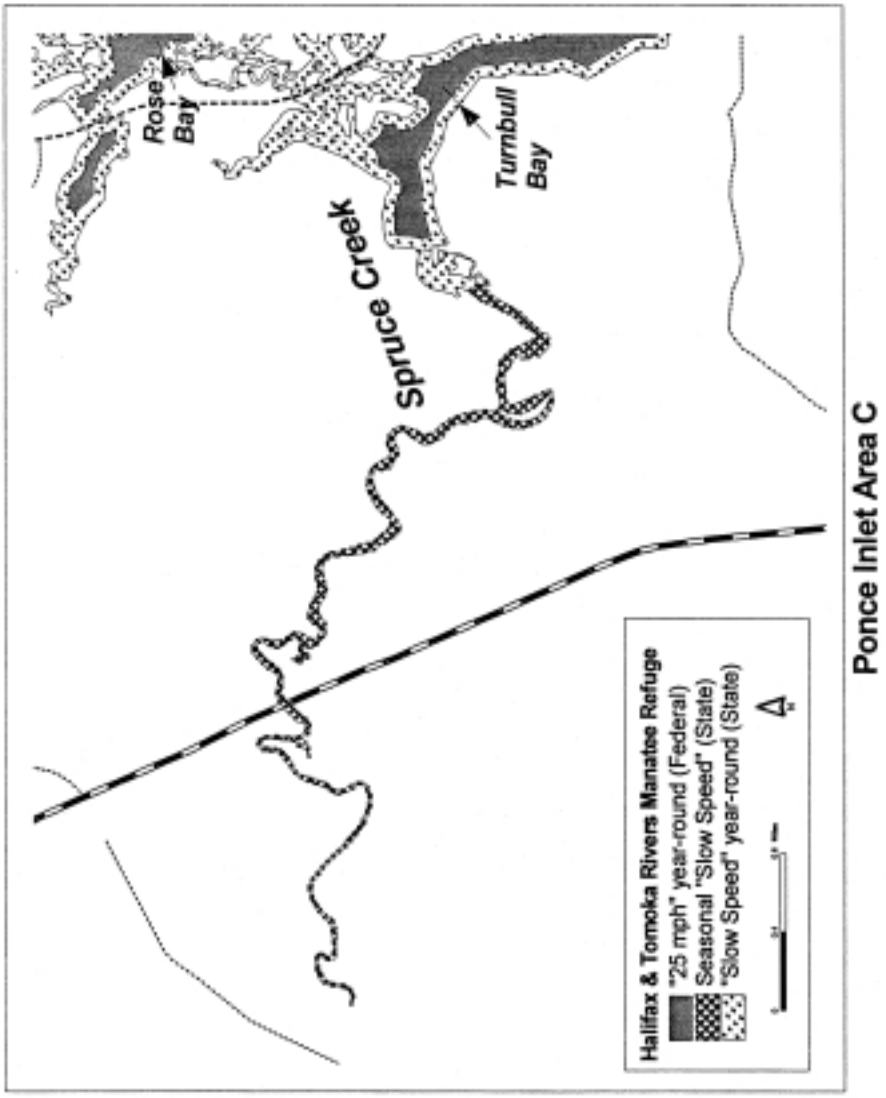
Halifax River B



Ponce Inlet Area A



Ponce Inlet Area B



Dated: July 29, 2003.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 03–19913 Filed 8–5–03; 8:45 am]

BILLING CODE 4310–55–C