



September 10, 2010

Florida Fish and Wildlife Conservation Commission

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Committee Members Flagler County Local Rule Review Committee

On behalf of the Florida Fish and Wildlife Conservation Commission (FWC) and my staff, I would like to thank you for serving on the Local Rule Review Committee (LRRC) for Flagler County. We appreciate the time and effort you spent reviewing information, discussing issues, and preparing recommendations for potential manatee protection zones in Flagler County. The information you provided is a very important component of the FWC's rule-making process.

FWC staff has completed its review of the LRRC report, and prepared the required written response. As detailed in the attached response, staff concurs with four of the nine recommendations supported by a LRRC majority. Of the five instances where staff disagrees with the LRRC majority recommendation, two are cases where staff agrees with the LRRC to add a zone but disagrees on the size of the zone. In two other cases, staff disagrees with the LRRC recommendation to leave all or most of the waterway unregulated, and the final disagreement concerns the length of the seasonal window. In all cases, staff carefully re-evaluated the available information in light of the LRRC recommendation but determined the zones supported by the LRRC would not provide enough protection. The attached document provides information on where, how and why the recommendations differ.

Staff intends to present its recommendations to the FWC Commissioners at their next meeting (December 1-2, 2010, in Weston). The information provided to the Commissioners will include the LRRC report and the FWC staff response. If the Commissioners decide to move forward with a proposal, a Notice of Proposed Rule will be published in early 2011, which will begin the formal rule-making and public review process. As part of this process, staff would conduct at least one public hearing in Flagler County.

In closing, I want to thank you again for serving on the Flagler County LRRC. You have provided an important service, not only to the FWC, but also to Flagler County and its residents and visitors.

Sincerely,

R. Kipp Frohlich, Section Leader
Imperiled Species Management Section

Attachment

FWC staff response to Flagler County Local Rule Review Committee report September 2010

Reasons for reviewing manatee protection needs in Flagler County and methods used

The Florida Fish and Wildlife Conservation Commission (FWC) approved a Manatee Management Plan (MMP) in December 2007 to provide a state framework for conserving and managing manatees in Florida. The MMP is complementary to the federal Florida Manatee Recovery Plan, with both plans describing actions that will ensure the manatee's long-term survival. One of the many tasks called for in the MMP is to evaluate areas that currently have little or no manatee protection regulations to determine if new manatee protection zones are warranted. Flagler County is one of only four Atlantic Coast counties that had never been reviewed for the potential need for manatee protection zones.

The primary reason Flagler County was chosen for review had to do with concerns over increasing risks to manatees associated with the significant growth in coastal development in the county over the last 10+ years and the resultant increases in requests for and construction of boat access facilities (e.g., docks, boat ramps, and marinas, etc.). Flagler County had not previously been an area where boat-related manatee mortality was very common, with only five boat-related deaths recorded in the county in the 28 years between 1974 and 2001, and none before 1990. However, nine boat-related deaths were recorded in the coastal portion of the county between 2002 and 2009. Numerous meetings have been held in recent years between FWC, Flagler County, the U.S. Fish and Wildlife Service, and stakeholders to discuss a variety of manatee concerns related to state and federal approval for additional boat access facilities. As a result of these meetings, Flagler County agreed to consider the development of a Manatee Protection Plan that would, among other things, evaluate policies associated with the siting of future boat access facilities. The FWC agreed to collect new manatee and boat distribution data so that management decisions could be based on more current information. The availability of this new data was an important factor in Flagler County being identified for review now.

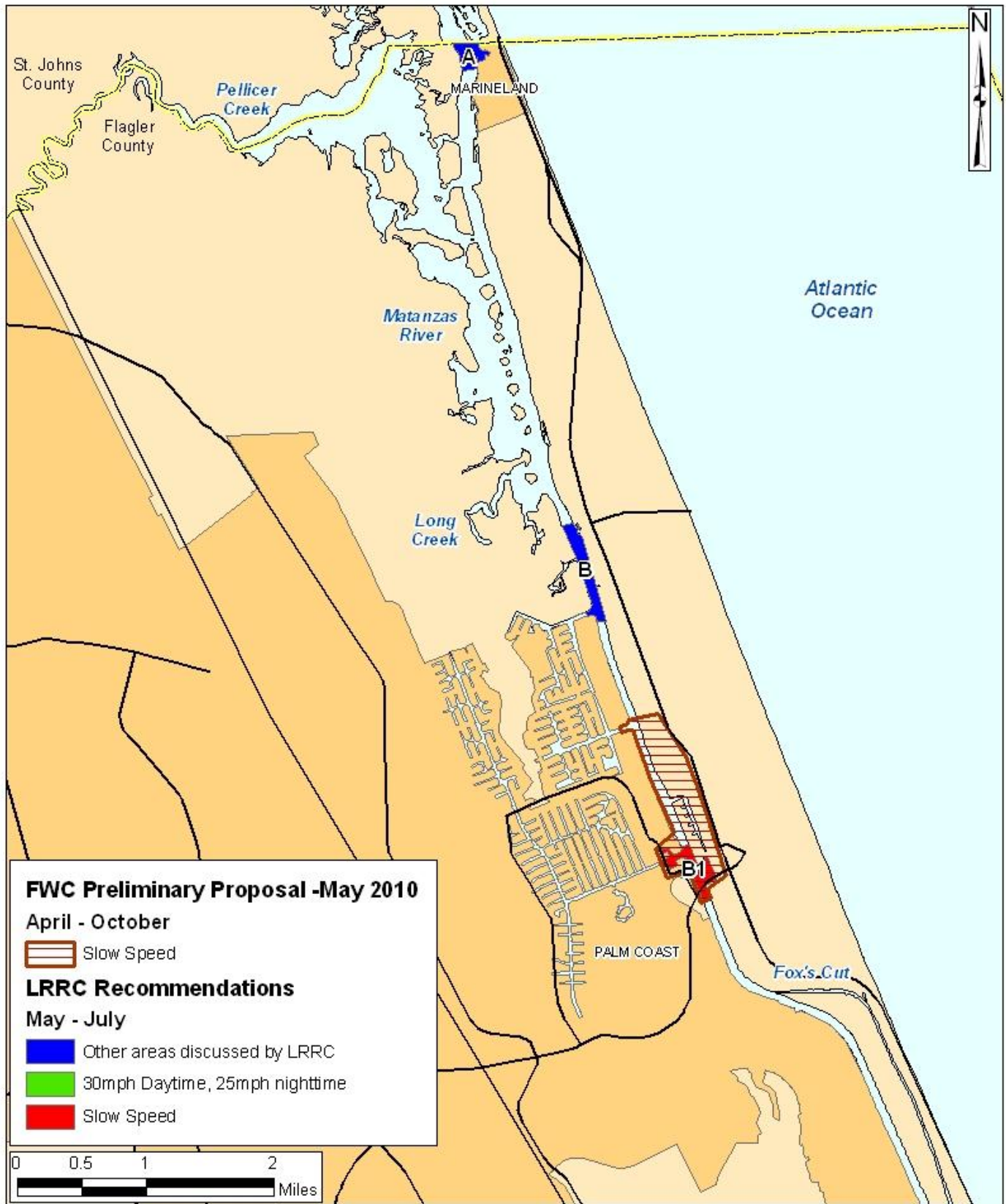
When FWC staff performed its analyses and assessments, the greatest emphasis was placed on where manatees were seen during recent surveys and where there was high spatial overlap between manatee use and boat use (referred to as coincidence analysis) – because these data are critical factors in determining where manatees are most at risk of being struck by boats. Other factors and data were also considered, such as water depth, habitat availability, locations of boat access facilities and marked channels, sign-posting considerations, and issues related to overall zone complexity and the ease with which boaters would be able to understand the zones. Although FWC staff also considered mortality data and the specific recovery locations of boat-related deaths, staff did not place a high degree of significance on the carcass recovery locations because of the inability in most cases to know the relationship between where a manatee was struck by a boat and where it was recovered. Carcass recoveries also do not provide any information on the potential for sub-lethal injuries, which is an important consideration when assessing risk. In contrast, during its deliberations on the potential need for manatee protection zones, the Flagler County Local Rule Review Committee (LRRC) used the recovery locations of boat-related manatee deaths as a highly significant determinant of where a zone may be needed, with much less significance placed on manatee use or the results of the coincidence analysis. This apparent difference in approach had a substantial effect on where an LRRC majority believed zones may be needed as compared to the FWC staff assessment. The discussions of individual areas on the following pages provide information on where, how, and why the recommendations differ.

Summary of review process and Local Rule Review Committee (LRRC) recommendations

Based on an assessment of current manatee use patterns, the results of the coincidence analysis (i.e., the overlap between manatees and boats), and other factors, FWC staff identified five areas where new manatee protection zones may be warranted (and requested LRRC input for three other areas). All of the areas FWC staff identified as potentially needing zones had relatively high manatee use and/or exhibited relatively high manatee-boat coincidence. FWC staff coordinated with County staff to gather information on how the waterways have been used historically. FWC staff also coordinated with law enforcement personnel to consider potential sign posting and enforcement/compliance issues. Over the years, a number of individuals have contacted FWC with suggestions or requests for zones in specific areas. These requests were considered by FWC staff during its review and also included in the information submitted to the LRRC. FWC staff notified Flagler County in March 2010 that the need for new manatee protection zones was being considered and the County Commission formed a LRRC on May 3, 2010 to review the preliminary rule recommendations.

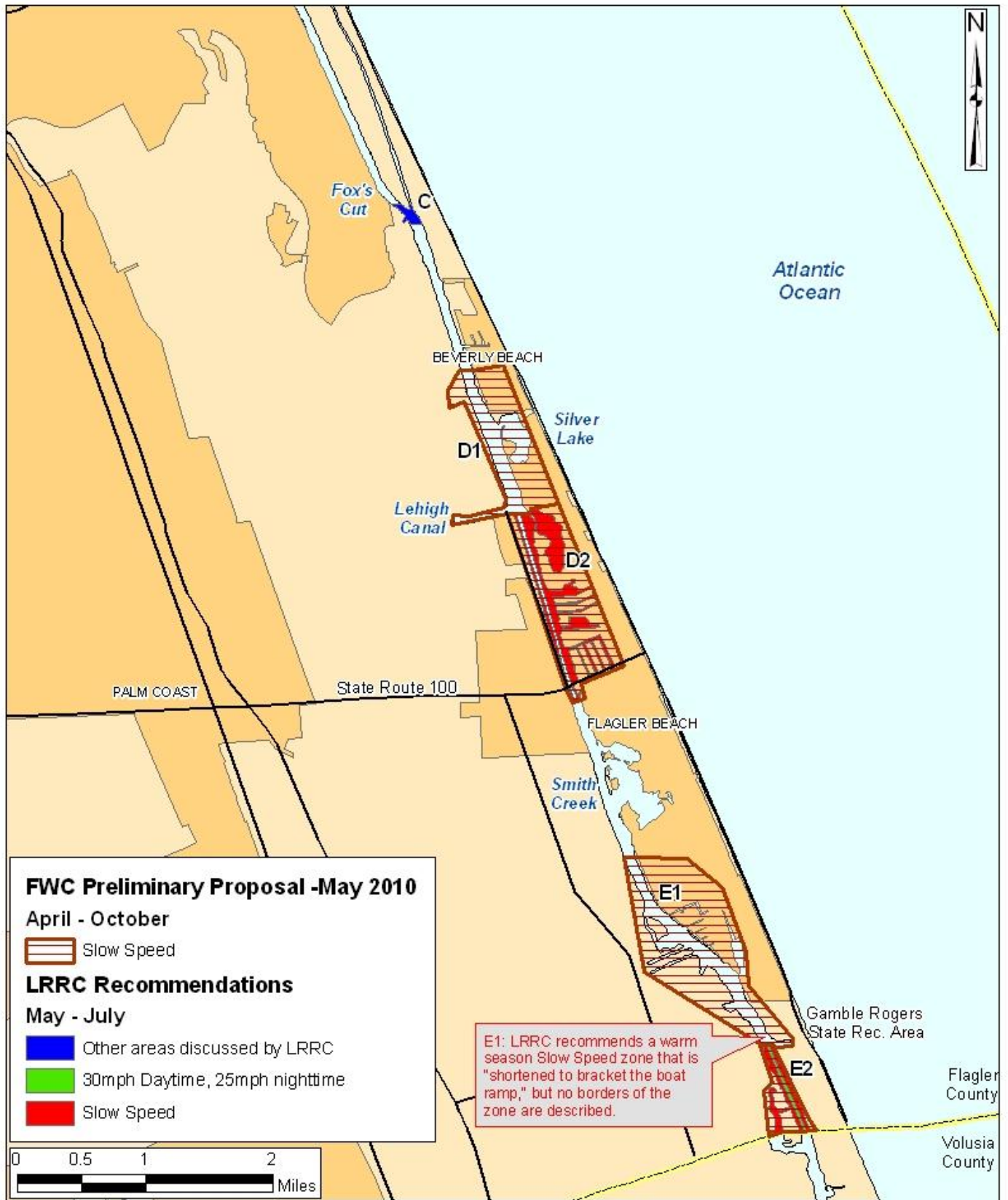
On May 24, 2010, FWC staff provided the LRRC with data and documents summarizing and discussing the analyses staff performed and the five potential areas where new (or modified) zones might be warranted. Staff requested the LRRC review these potential changes and provide recommendations on these areas as well as any other potential changes the LRRC believed should be made. **Figures 1A & 1B** show the areas identified by FWC staff in May and the areas the LRRC discussed in their recommendation document. (The area identifications shown on the maps correspond to the area-by-area discussions that follow.) The LRRC met seven times through July 2010. In its final report, which was delivered to FWC staff on July 21, 2010, the LRRC provided comments or recommendations on 11 areas or issues, including all five areas identified by FWC staff.

In total, FWC staff concurs with the LRRC majority position in four cases and disagrees with five, while the remaining two topics of concern require no response from FWC staff. A more detailed area-by-area discussion is included on the following pages. The information given in **Table 1** summarizes the FWC staff response to the issues included in the LRRC report. **Figures 2-4** show the zone changes FWC staff recommends including in a Notice of Proposed Rule for public review and comment.



**Figure 1A: Areas Identified or Discussed by LRRC Recommendation
 Flagler County: North County**

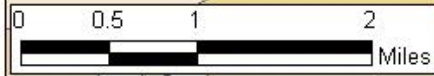
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FWC Preliminary Proposal - May 2010
 April - October
 [Orange hatched box] Slow Speed

LRRC Recommendations
 May - July
 [Blue box] Other areas discussed by LRRC
 [Green box] 30mph Daytime, 25mph nighttime
 [Red box] Slow Speed

E1: LRRC recommends a warm season Slow Speed zone that is "shortened to bracket the boat ramp," but no borders of the zone are described.



**Figure 1B: Areas Identified or Discussed by LRRC Recommendation
 Flagler County: South County**

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Discussion of LRRC recommendations and FWC staff response:

A. Marineland

This area was identified not as a result of FWC data analysis but because we were aware that citizens from this area had requested speed zones. The majority of LRRC members (7 votes) did not support speed zones in this area. The LRRC did point out that upon the future redevelopment of the Marineland marina, “FWC will be petitioned for a slow, minimum wake zone based on boating safety needs.” A minority opinion (1 vote) supported a Slow Speed zone outside the channel because there “was evidence of a high coincidence of manatees in the area during the warm season.”

Staff **agrees with the LRRC majority opinion** because overall manatee use in this area was moderate to low. The elevated manatee use and “evidence of high coincidence” referenced by the minority opinion was caused by a single large group of sixteen manatees that was seen travelling through the area.

B. Northern Palm Coast

FWC did not provide a specific recommendation for this area but did request that the LRRC review it and provide input. The LRRC voted unanimously to not recommend speed zones in this area.

Staff **agrees with the LRRC recommendation**.

B1. Palm Coast (near the Dunes Hammock Bridge)

The FWC preliminary staff recommendation was to add a warm season Slow Speed zone from 300 feet south of the Dunes Hammock Bridge to just north of the central Palm Coast residential canal, a distance of 1.5 miles.

The LRRC majority opinion (7 votes) was to add a warm season Slow Speed zone from 300 feet south of the Dunes Hammock Bridge to 100 feet north of the southern Palm Coast residential canal. This zone is approximately 1 mile shorter than the FWC preliminary staff recommendation. The report states that “[m]ost members felt that the southern entry to the canal system is most often used because most manatees are seen in the south canals. This is where the protection should exist. Members also note that, although there are a significant number of deaths recorded from this area, they are mostly not watercraft related.” There were three minority opinions: accept the FWC recommendation (1 vote), apply the speed zones to weekends only (1 vote), and place a ¼ mile slow speed zone at the mouth of each of the three entrances to the Palm Coast canals (1 vote).

Staff agrees with the recommendation to add a warm season shore-to-shore Slow Speed zone in this area, but **disagrees with the LRRC majority’s proposed zone boundaries**. We have revised our initial preliminary proposal and now recommend that the warm season Slow Speed zone extend from 300 feet south of the Dunes Hammock Bridge to 300 feet north of the canal entrance associated with the Harbor Village Marina development, a distance of 0.9 miles.

Staff agrees with the LRRC that manatees seem to be accessing the southern Palm Coast residential canal more than the other two canals. However, based on the manatee data and the presence of the canal system associated with the Harbor Village Marina development (on the east side), staff believes the northern terminus of the zone should be approximately 0.4 miles north of what was recommended by a LRRC majority. This proposed boundary is approximately 0.6 miles shorter than

the area initially identified in May. Because the city of Palm Coast currently regulates the canal system at Slow Speed, staff agrees with the LRRC majority that no additional protection is needed in the canal system.

C. Fox's Cut (near Herschel King Park Boat Ramp)

FWC did not provide a specific recommendation for this area, but did request that the LRRC review it and provide input. The LRRC majority opinion (7 votes) did not recommend speed zones in this area. One minority opinion supported adding "Caution Manatee" signs at the north and south entrances to Fox's Cut (1 vote) and another minority opinion supported adding zones on weekends only (1 vote).

Staff **agrees with the LRRC majority opinion** because overall manatee use in this area was moderate to low, especially as compared to areas farther south in the county. The suggested "manatee caution signs" are not regulatory and are therefore not an issue that needs to be resolved as part of this review. If these signs, or other education measures, are thought to be worthwhile, they could be pursued at the local, state, or federal level regardless of what actions are taken to establish new regulatory zones.

D1. Smith Creek North of Lehigh Canal

The FWC preliminary staff recommendation was to add a warm season Slow Speed zone extending from the southern edge of Lehigh Canal to just north of Silver Lake Marina, a distance of 1.2 miles.

The LRRC majority opinion (6 votes) was to leave this portion of the waterway unregulated. The report indicates that the LRRC members came to this conclusion "because there was no watercraft-related manatee mortality data in the area and the potential negative impact that a speed zone in this area would have on Sea Ray Boats." The LRRC minority opinion (3 votes) supported the FWC preliminary staff recommendation.

Staff **disagrees with the LRRC majority opinion** to not add a zone because this area had high manatee use as well as high manatee-boat coincidence (approximately three times the county average) and moderate to high manatee-"fast boat" coincidence (approximately twice the county average). The LRRC majority opinion relied heavily upon the lack of watercraft-related manatee mortality in the area but, as discussed in the introductory section of this response (p. 1-2), staff does not agree with the amount of emphasis the LRRC placed on the presence or absence of carcass recoveries. Although staff acknowledges this zone could have an impact on Sea Ray, staff does not believe the potential impacts to Sea Ray outweigh the reduced risks the zone would provide. Based on information provided by Sea Ray, approximately 6 boats are tested per week. Staff does not agree with the logic of not reducing the risks created by the majority of boats so as to avoid potential impacts on the relatively small number of boat testing trips by Sea Ray. Plus, as staff noted to the LRRC as well as Sea Ray during the LRRC meetings, FWC has the ability to issue a permit to Sea Ray to allow continued testing even if a zone is created. Although the specifics would have to be worked out later, the likelihood of Sea Ray being able to obtain a permit is high given Sea Ray's testing operations were already in place before any zones were established. Overall, staff believes the available data demonstrate substantial risk to manatees despite only one boat-related manatee carcass having been recovered within the general area. For these reasons, staff reaffirms its preliminary assessment in support of a warm season shore-to-shore Slow Speed zone in this area.

D2. Smith Creek between Lehigh Canal and the State Route 100 Bridge

The FWC preliminary staff recommendation was to add a warm season Slow Speed zone extending from the southern edge of Lehigh Canal to 300 feet south of the State Route 100 Bridge, a distance of 1.5 miles.

The LRRC majority opinion (8 votes) was to leave the marked channel unregulated while regulating the waterway outside of the channel at Slow Speed during the warm season. The report indicates that the LRRC members came to this conclusion “because no watercraft-related manatee mortality data in this area and there already exists a “Boater Safety Zone” in the vicinity of the S.R. 100 Bridge.” Also, “it would cause more congestion just north of the proposed zone...resulting in a boating hazard... [and] creating high coincidence for boats on plane and manatees in that area.” The LRRC minority opinion (1 vote) supported the FWC preliminary staff recommendation.

Staff **disagrees with the LRRC majority recommendation** to add a channel exempt zone in this area because it would effectively leave the entire waterway unregulated, because this section of the Intracoastal Waterway is narrow with very little to distinguish between what is “in channel” versus “out of channel”. Staff believes this area warrants a shore-to-shore Slow Speed zone because the area had high manatee use as well as moderate to high manatee-boat coincidence (approximately twice the county average) and manatee-“fast boat” coincidence (approximately twice the county average). Based on the number of perinatal deaths recovered in this area, this portion of Flagler County, like the Palm Coast residential canals, is likely a calving and/or resting area for mother and calf pairs. As with Area D1 (above), the LRRC majority opinion relied heavily upon the lack of watercraft-related manatee mortality in the area but, as discussed in the introductory section of this response (p. 1-2), staff does not agree with the amount of emphasis the LRRC placed on the presence or absence of carcass recoveries. Of the 26 boat-related manatee deaths that have been witnessed and/or reported by the boat operator (statewide, between 1974 and 2009), one occurred within Flagler County waters. This manatee-boat collision occurred in 2007 and the responsible boat was being operated on plane in this general area. The manatee carcass was recovered approximately 1 kilometer south of the original reported collision location. Staff believes the available data demonstrate substantial risk to manatees despite no boat-related manatee carcasses having been recovered within the general area. For these reasons, staff reaffirms its preliminary assessment in support of a warm season shore-to-shore Slow Speed zone in this area.

E1. Smith Creek near Gamble Rogers State Recreation Area

The FWC preliminary staff recommendation was to add a warm season Slow Speed zone extending from the Gamble Rogers State Recreation Area boat launch basin northward in Smith Creek for a distance of about 1.8 miles.

The LRRC majority opinion (5 votes) was to add a warm season Slow Speed zone “to bracket the boat ramp at Gamble Rogers State Park.” The report indicates that “the majority requested that the zone be shortened because the manatee mortality data seemed to be clustered around the boat ramp...” and “...[i]f the slow speed zone concentrates fast boats to a smaller area here, then the boating safety issues arise and the fast boat COIN values similarly increase.” The LRRC minority opinion (4 votes) supported the FWC preliminary staff recommendation.

Staff **disagrees with the LRRC majority on the boundaries of the proposed zone.** Staff originally identified this area because it had high manatee use as well as moderate to high manatee-boat coincidence (approximately twice the county average) and high manatee-“fast boat” coincidence

(approximately three times the county average). Although the manatee carcass recovery data is not a primary reason staff identified this as an area of interest, it is important to note that nine of the fourteen watercraft-related mortalities recovered in Flagler County were recovered in this section of waterway. Of the four recovered carcasses that were assessed for “acute” versus “chronic” injuries, three were assessed as acute deaths, which indicates these manatee-boat collisions likely occurred in relatively close proximity to the carcass recovery locations. Although the LRRC majority supported a smaller zone in this area, no boundaries were described, so it was not clear how large of a zone was supported. The nearest watercraft-related mortality to the ramp is approximately 0.5 miles north of the basin and the majority of them are approximately 1 mile or more north of the basin. Also, the LRRC majority recommendation is unclear because it supported a zone that “brackets” the boat ramp, but the word “bracket” suggests the zone would extend an equal distance both north and south from the boat basin, which would then overlap with the LRRC’s E2 recommendation. There is no information to suggest the watercraft-related manatee deaths in this general area were from vessels launched from the Gamble Rogers State Recreation Area boat launch. While this is certainly possible, it is equally likely the responsible vessels were simply transiting through the area. Because of these issues, FWC staff does not believe a zone that “bracket[s] the boat ramp” would be adequate. Rather, staff agrees with the LRRC minority opinion and reaffirms its assessment in support of the warm season shore-to-shore Slow Speed zone described in the preliminary staff recommendation.

E2. Smith Creek South of Gamble Rogers State Recreation Area to the Volusia County Line

The FWC preliminary staff recommendation was to modify the existing year round 30mph daylight, 25mph nighttime in channel, Slow Speed outside of channel to a warm season shore-to-shore Slow Speed zone starting at the Gamble Rogers State Recreation Area boat launch extending southward to the Volusia County Line, a distance of approximately 0.75 miles.

The LRRC majority opinion (5 votes) was to modify the existing zone to be warm season 30mph daylight, 25 mph nighttime in channel, Slow Speed outside of channel speed zone because “[t]his area has no reported watercraft-related deaths and, as such, does not warrant a ‘slow speed’ designation. Boaters travelling northward from Volusia County are already subject to a numerical restriction... and are further restricted to ‘slow speed out of channel.’” The LRRC minority opinion (4 votes) supported the FWC preliminary staff recommendation.

Staff **agrees with the LRRC majority opinion, but with a minor modification.** Although staff does not agree with the amount of emphasis the LRRC placed on the absence of carcass recoveries, staff does concur with the LRRC majority opinion to make the zone warm season-only and also retain a numeric limit in the ICW channel. The only difference between the LRRC majority opinion and the modified staff recommendation is staff recommends changing the numeric limit to be 25 MPH during all times of day (to stay consistent with the existing numeric limit in the Federal zone that extends southward from the Volusia County line). A reasonable argument in support of the LRRC minority position can also be made; however, staff believes this roughly 0.75 mile stretch of ICW is similar to the adjoining 4+ miles of waterway in Volusia County, which currently has a 25 MPH limit in the ICW channel, and that it would not be practical to make this entire section a shore-to-shore Slow Speed zone.

Seasonal Window

The FWC preliminary staff recommendation was for the warm season zones to apply April 1st through October 31st.

The LRRC majority opinion (6 votes) modified the warm season to May 1st through July 31st because “the data shows that May, June, and July are when there is a high probability of manatee-watercraft incidents.” One LRRC minority opinion (1 vote) thought “the probability [of manatee-watercraft incidents] extends through September,” and proposed a May 1st through September 30th warm season. The other minority opinion (1 vote) agreed with the FWC preliminary staff recommendation.

Staff **disagrees with the LRRC majority opinion**. It is clear the LRRC majority used May – July because eleven of the fourteen watercraft-related deaths have occurred during this time period. Staff, however, places more significance on sightings of live manatees when evaluating potential seasonal windows. Based on the manatee aerial survey data, manatee use is highest from April in to September. Because the heaviest portion of the summer boating season extends through Labor Day, staff recommends that this major boating period be included in the designated warm season. To simplify signs, FWC Law Enforcement recommended using full months to designate seasonal windows (as opposed to a mid-month date) so staff recommends a warm season of April through September.

Boater Education

The LRRC recommended that FWC pursue the possibility of posting additional Boater Education signage at county access points to increase boaters’ awareness of manatees.

FWC staff appreciates the LRRC’s recommendation for additional boater educational signage and boater awareness. The suggested signs are not regulatory and are therefore not an issue that needs to be resolved as part of this review. If these signs, or other education measures, are thought to be worthwhile, they could be pursued at the local, state, or federal level regardless of what actions are taken to establish new regulatory zones. Currently, all six boating access points in Flagler County should have a manatee education and awareness sign displayed. FWC is always looking to improve the manatee education and outreach programs and would appreciate any additional suggestions.

“Other Manatee Protection Actions”

The LRRC recommended a variety of other “pro-active manatee protection possibilities” that they believed would “provide safer... areas for anchored fishermen as well as manatee.” These recommendations include making the channel narrower, dredging the “out of channel” areas to a depth of six feet, and the installation of additional channel markers

FWC staff appreciates these recommendations from the LRRC; however, these suggestions are not issues that need to be resolved as part of this review. Also, some of these suggestions may not be practical or possible. The Intracoastal Waterway is a Federal channel that is maintained at a minimum width and depth for safe navigation. As a result, making this channel narrower is not a possibility. Authorization for the suggested dredging is usually only approved for navigational issues. Also, such dredging may not protect manatees and may have additional environmental impacts to the waterway. Finally, FWC staff, in conjunction with the United States Coast Guard, will consider the possibility of installing additional channel markers, if they are necessary for navigational issues.

Table 1

Comparison of September 2010 FWC Staff Recommendations and LRRC Majority Recommendations for Flagler County

Area	LRRC Recommendation	Accepted?	Comments
A. Marineland	Unregulated	Yes	Staff agrees with the LRRC majority opinion because overall manatee use in this area was moderate to low.
B. Northern Palm Coast	Unregulated	Yes	Staff agrees with the LRRC majority opinion because overall manatee use in this area was moderate to low.
B1. Palm Coast (near the Dunes Hammock Bridge)	Slow Speed from 300 feet south of Dunes Hammock Bridge to 100 feet north of	No (boundaries)	Staff now recommends a warm season Slow Speed zone extend from 300 feet south of the Dunes Hammock Bridge to 300 feet north of the canal entrance associated with the Harbor Village Marina development, a distance of 0.9 miles.
C. Fox's Cut (near Herschel King Park Boat Ramp)	Unregulated	Yes	Staff agrees with the LRRC majority opinion because overall manatee use in this area was moderate to low.
D1. Smith Creek North of Lehigh Canal	Unregulated	No	Staff disagrees because this area had high manatee use as well as high manatee-boat coincidence (approximately 3x the county average) and moderate to high manatee-“fast boat” coincidence (approximately 2x the county average). Staff reaffirms its original recommendation, in agreement with LRRC minority, to support a warm season Slow Speed zone in this area.
D2. Smith Creek between Lehigh Canal and the State Route 100 Bridge	Warm Season Slow Speed outside of channel, channel exempt (unregulated)	No	This area has high manatee use, moderate to high manatee-boat coincidence and manatee-“fast boat” coincidence (both approximately 2x the county average). It is also likely a calving and/or resting area for mother and calf pairs. Staff reaffirms its original proposal, in agreement with LRRC minority, to support a warm season Slow Speed zone in this area.
E1. Smith Creek near Gamble Rogers State Recreation Area	Warm Season shore-to-shore Slow Speed zone “to bracket the boat ramp at Gamble Rogers State Park.”	No (boundaries)	Staff reaffirms its original recommendation, in agreement with LRRC minority, to add a warm season Slow Speed zone extending from the Gamble Rogers State Recreation Area boat launch basin northward in Smith Creek by about 1.8 miles.
E2. Smith Creek South of the Gamble Rogers State Recreation Area to the Volusia County Line	Warm Season 30mph daylight, 25 mph nighttime in channel, slow speed outside of channel	Yes (mostly)	Staff agrees with the LRRC majority opinion, but with a minor modification. Staff recommends changing the existing 30 mph daytime, 25 mph nighttime “in channel” zone to 25 mph to stay consistent with Federal zone that extends southward from the Volusia County line and reduce boater confusion from an overly complicated sign.
Seasonal Window	May 1st - July 31st	No	Staff agrees with the minority opinion and recommends a warm season of April through September, as supported by the manatee aerial survey data.
Boater Education	Install additional awareness signs at boater access points	N/A	The suggested signs are not regulatory and are therefore not an issue that needs to be resolved as part of this review.
"Other Manatee Protection Actions"	Make channel more narrow	N/A	Making this channel narrower is not a possibility because the Intracoastal Waterway is Federally maintained at a minimum width and depth for safe navigation.
	Dredge "out of channel" areas to 6 feet	N/A	Dredging may not protect manatees and may have additional environmental impacts to the waterway. Also, dredging is usually only approved for navigational issues.
	Install additional channel markers	N/A	The installation of additional channel markers may be considered, if they are necessary for navigational issues.

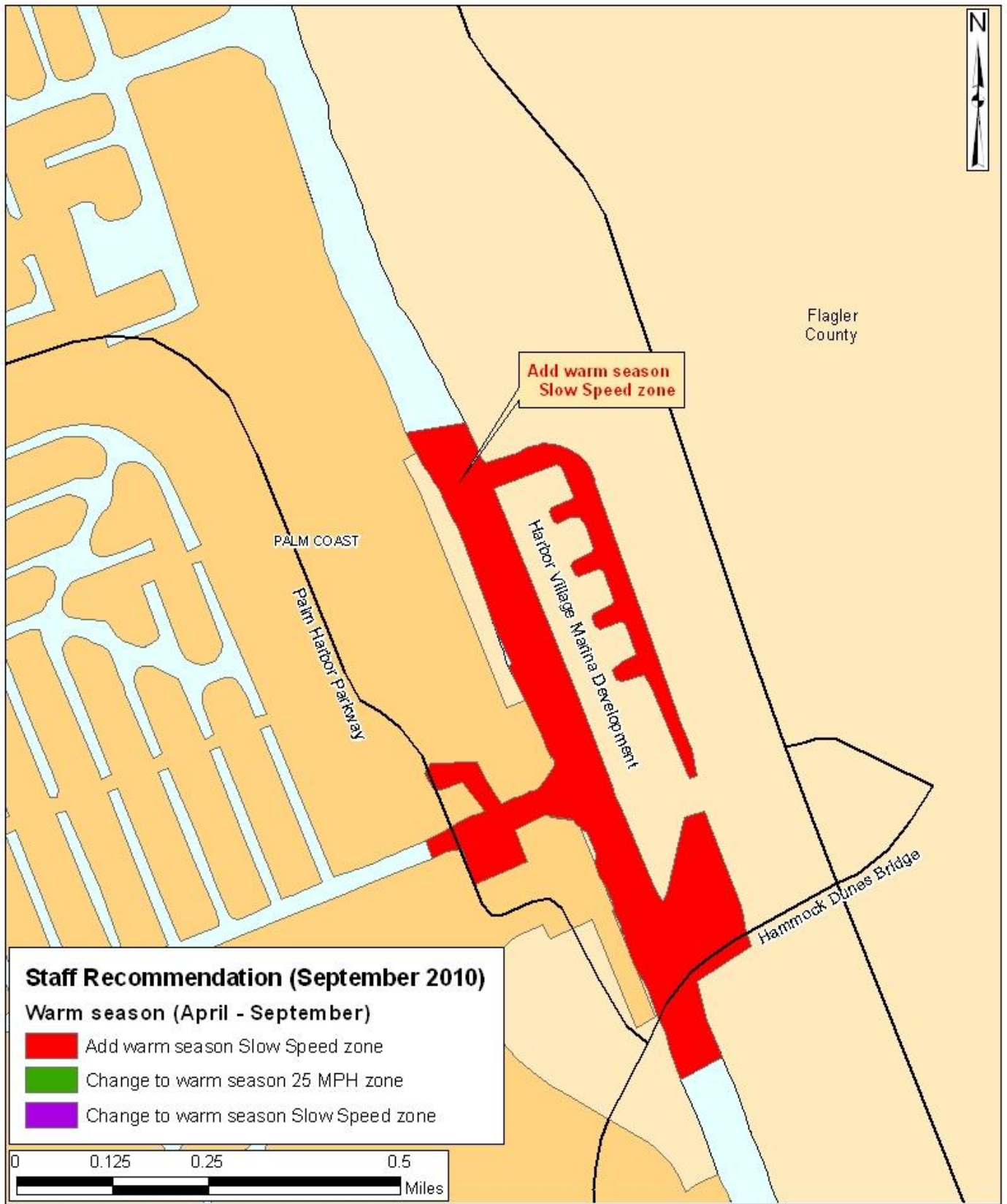


Figure 2: Staff recommendation for Flagler County Manatee Protection Zones September 2010

Florida Fish & Wildlife Conservation Commission
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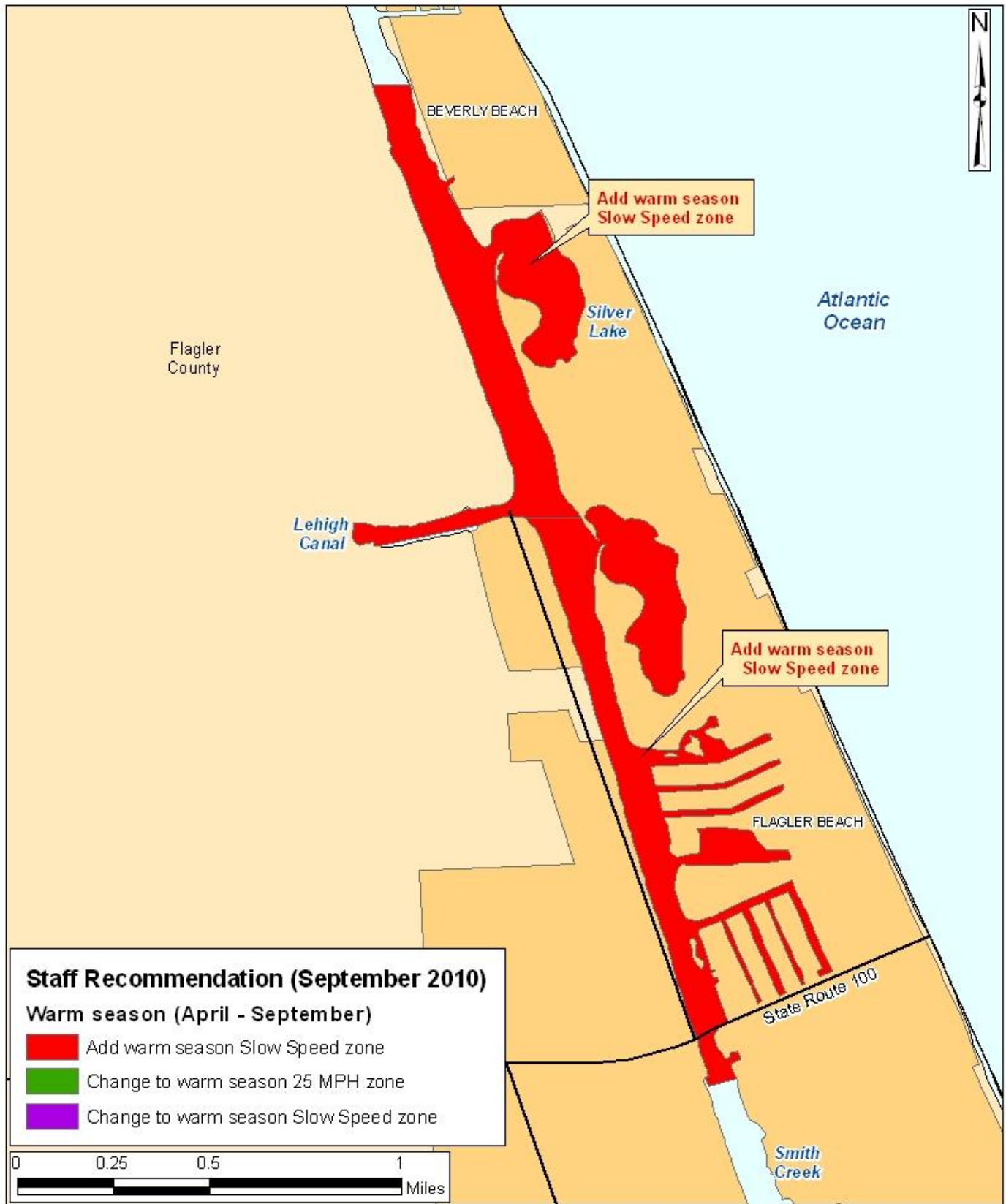


Figure 3: Staff recommendation for Flagler County Manatee Protection Zones September 2010

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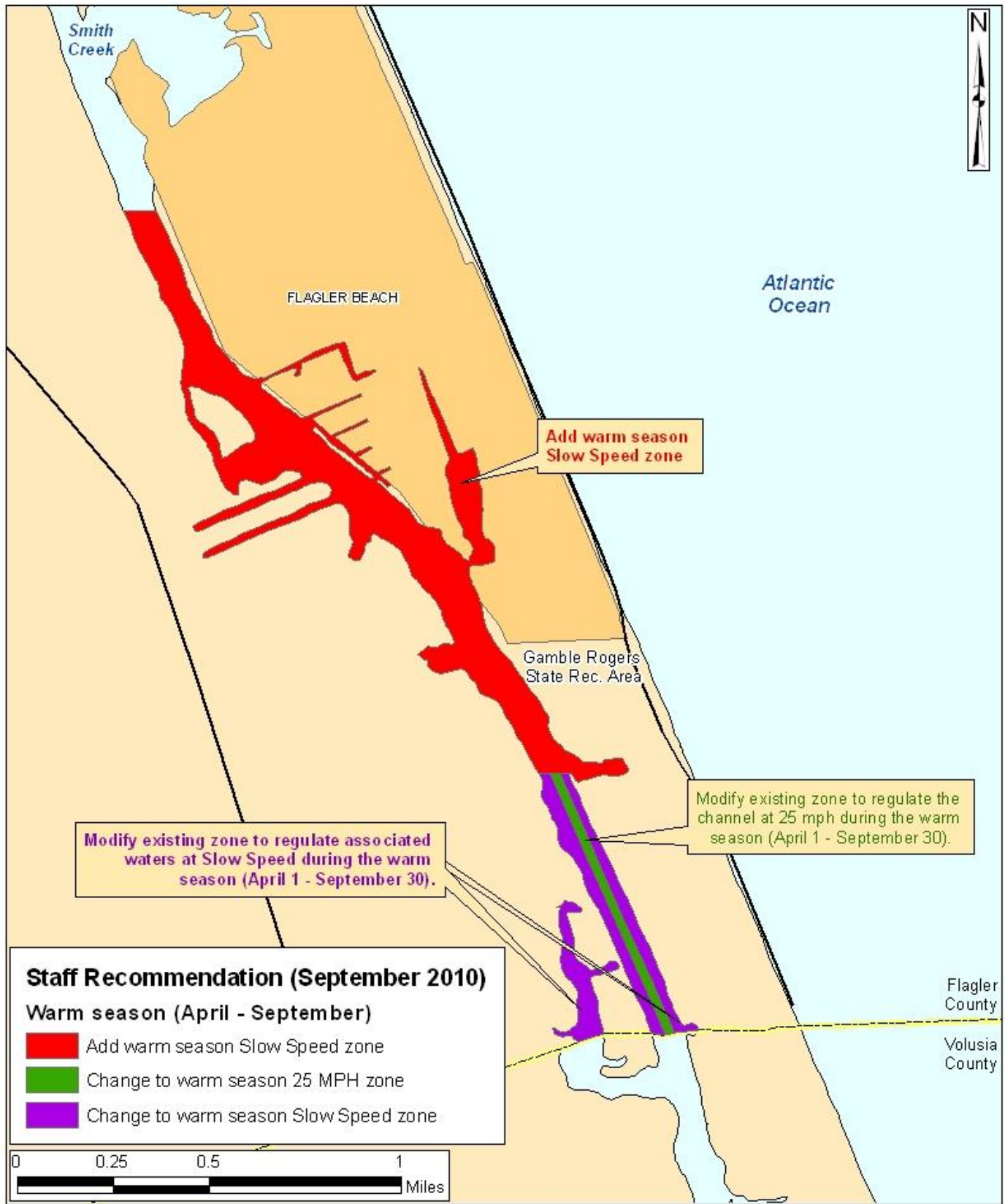


Figure 4: Staff recommendation for Flagler County Manatee Protection Zones September 2010

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