



August 5, 2016

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Committee Members Collier 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 Collier County. We appreciate the time and effort you spent reviewing information, discussing issues, and preparing recommendations on potential changes to the existing FWC manatee protection zones. 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 the LRRC majority (or unanimous) position in 17 cases and with the LRRC minority position rather than the majority position in five cases. Staff agrees partially with the LRRC in three cases and does not agree with either LRRC position in three other cases. A detailed discussion of each area is provided in the response. The LRRC recommendations will be very helpful as staff prepares our recommended revisions to the rule.

Staff plans to present recommendations for proposed rule changes to the FWC commissioners at the November 2016 meeting in St. Petersburg. The information provided to the commissioners will include the LRRC report and the FWC staff response. If the commissioners decide to move forward with proposed rule changes, a Notice of Proposed Rule will be published soon after the November meeting. Publication of the rule notice will begin the formal rule making and public review process. As part of this process, staff will conduct at least one public hearing in Collier County. Information on this issue will be maintained on the FWC website at:

<http://myfwc.com/wildlifehabitats/managed/manatee/rulemaking/>

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

Sincerely,

Carol A. Knox, Section Leader
Imperiled Species Management Section

Enclosure

FWC staff response to Collier County Local Rule Review Committee report
August 2016

Reasons for reviewing the Collier County manatee protection rule and methods used

The FWC Manatee Management Plan (MMP) provides 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 review existing manatee protection zones based on the most current data to determine if modifications are warranted. The FWC rule for Collier County is identified for review in the MMP primarily because it is one of the older rules and new manatee and boating data have both been collected in recent years in anticipation of a review. In addition, in 2014 the city of Naples petitioned the FWC to amend the rule in order to add protection in the Moorings Bay system.

The first state zones in the county, addressing only the Port of the Islands / Faka Union Canal area, were adopted in 1983 and amended in 1987. A rule addressing manatee protection needs throughout the county was adopted in 1990, and amended in 1997 based in part on recommendations included in the Manatee Protection Plan developed by Collier County and approved by the state in 1995. A comprehensive review of manatee protection needs in the county has not been performed since the countywide rule was last amended almost 20 years ago. There are existing local zones in a few locations as well as some federal regulations that apply in the 10,000 Islands area; most of these zones exist for boating safety purposes or for resource protection purposes other than manatee protection.

The number of people living in Collier County has increased considerably since zones were first established. U.S. Census data indicate the total population more than doubled between 1990 and 2014, growing from 152,099 in 1990 to an estimated population of 348,777 in 2014. The number of registered vessels in Collier County also has increased over this period but not by as much as the overall population. The number of vessels registered in the county increased by over 7,700 between 1993 and 2015 (from 14,781 to 22,536). (The increase was close to 10,500 vessels at its peak but the number declined between 2006 and 2011, likely because of issues related to the economic downturn, before slowly increasing the last few years.) These figures do not account for vessels registered in other areas that are brought in and used by visitors and seasonal residents. Even so, this information suggests that manatees continue to face risks on area waterways as a consequence of boat operation.

Summary of review process and FWC response to Local Rule Review Committee recommendations

As part of the review process, FWC staff has had multiple meetings with staff from the County and the city of Naples as well as the FWC Division of Law Enforcement (DLE) and others. Information on existing local zones was provided by the County and DLE, and Everglades National Park provided information on manatee protection zones within the park. Staff held a public meeting on March 7, 2016, in Naples to gather input on local views and concerns. Over the years numerous individuals have contacted FWC with suggestions for areas that may need new or modified protection and these areas were examined as part of the review process as well.

In early 2016 FWC staff completed a discussion and summary of the primary data and analyses for use during the review (**Manatee Data Review and Summary for Collier County**). Based on the data review and a preliminary assessment of issues raised by others, FWC staff determined that some changes to the rule might be warranted. As required by statute, FWC staff then formally notified Collier County in February 2016 that potential changes to the rule were being considered and in March the County formed a 10-member Local Rule Review Committee (LRRC).

On March 25, 2016, the LRRC held its first meeting and FWC staff provided and discussed the data review document and another document (**Preliminary Identification of Areas for LRRC Review**) that described some potential rule changes and why they were identified. Much of the information in this response document is taken directly from the documents given to the LRRC. At least two options were described for each identified area, with the first option being to take no action and thus leave the area treated the way it is in the existing rule. The LRRC was asked to review the options for each area and provide recommendations as to what changes, if any, it believed should be proposed. The LRRC also was asked to identify any other potential changes it believed should be proposed. The LRRC met seven times through late May and submitted its report on May 24, 2016. FWC staff attended every meeting in person or by teleconference. The LRRC report and other information, including the documents FWC provided, are available on the

County website (<http://www.colliergov.net/your-government/divisions-a-e/environmental-services/manatee-protection/local-rule-review-manatee-protection-committee>). In its report, the LRRC provided recommendations for each of the areas identified by FWC staff. The LRRC also identified two additional changes for consideration. **Figure 70** depicts the locations of the site-specific areas addressed in the LRRC report. Prior to preparing this response to the LRRC report, FWC staff conducted an on-water tour with law enforcement officers of most of the county north of the 10,000 Islands area and also held a public workshop on July 14, 2016, in Naples to provide an additional opportunity for interested parties to ask questions and provide input.

The existing zones encompass approximately 33,340 acres (64.8% of the 51,459 acres of inshore water in Collier County that is accessible to manatees); however, less than 40% of the zoned area (12,714 acres; 24.7% of inshore waters) requires boat speeds at or below Slow Speed. The remaining roughly 62% of zoned area allows boat speeds of 20 mph or higher, with most of the area that is not covered at all by the existing rule being the portion of the 10,000 Islands area that is within Everglades National Park.

FWC staff concurs with the LRRC majority (or unanimous) position in 17 cases and with the LRRC minority position rather than the majority position in five cases. Staff agrees partially with the LRRC in three cases and does not agree with either LRRC position in three other cases. A detailed area-by-area discussion is included on the following pages. **Figure 70** shows the locations of the site-specific areas reviewed during the LRRC process, with the area identifications shown on the map corresponding to the area-by-area discussions. **Figures 71-75** show the FWC staff response for each area.

List of Figures

(See data summary document for Figures 1-64)

(See preliminary identification of areas document for Figures 65-69)

Figure 70 Overview of site-specific areas reviewed during the LRRC process

Figure 71 FWC staff response to LRRC recommendations; North Region

Figure 72 FWC staff response to LRRC recommendations; Central Region

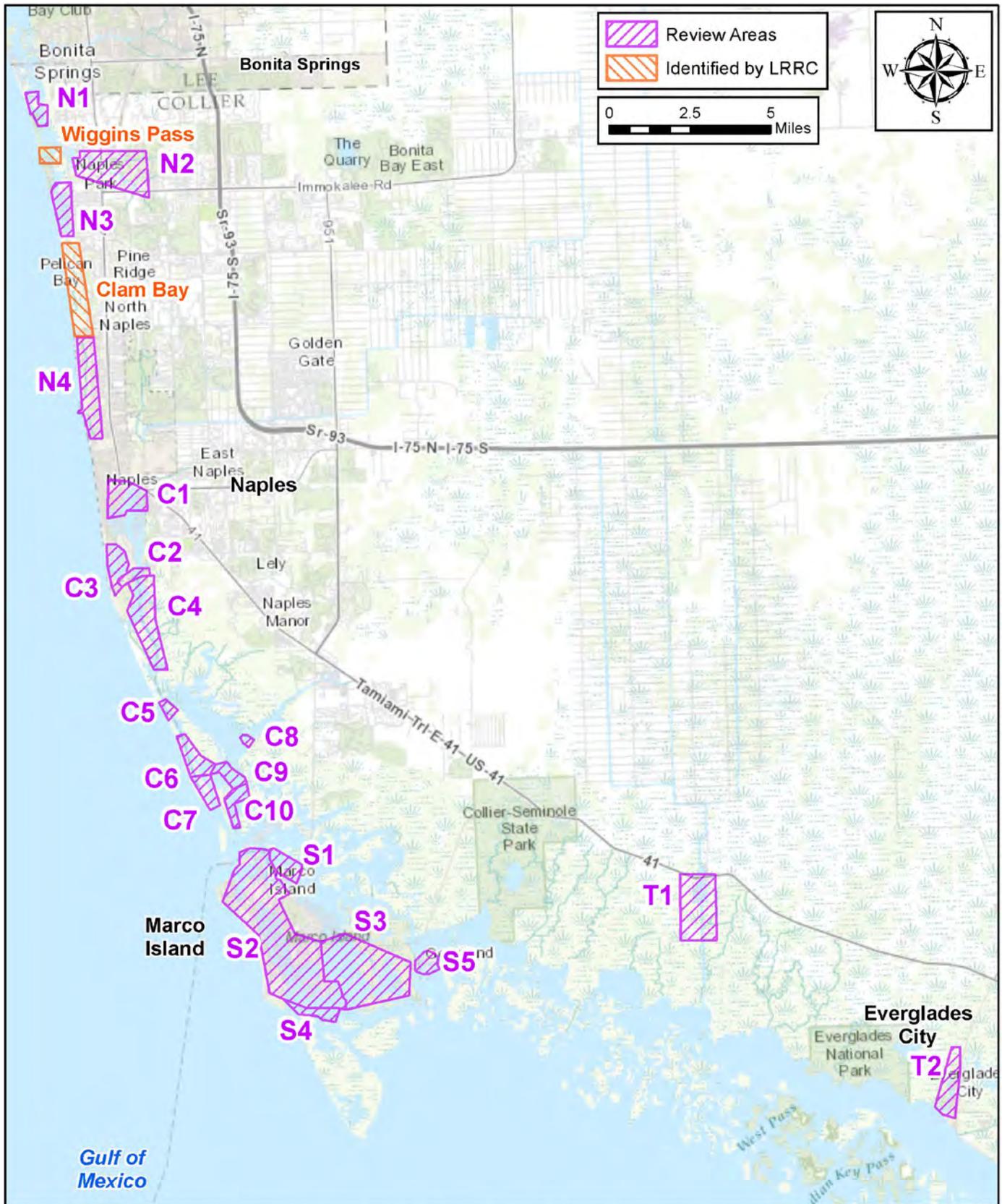
Figure 73 FWC staff response to LRRC recommendations; South Region

Figure 74 FWC staff response to LRRC recommendations; 10,000 Islands (West)

Figure 75 FWC staff response to LRRC recommendations; 10,000 Islands (East)

Appendix

Maps of existing FWC manatee protection zones in Collier County



Overview of site-specific areas reviewed during the LRRC process
 Collier County (July 2016)

Florida Fish & Wildlife Conservation Commission
 Division of Habitat and Species Conservation
 Imperiled Species Management Section
 620 South Meridian Street, Mail Station 6A
 Tallahassee, FL 32399-1600
 Tel: 850-922-4330 Fax: 850-922-4338

Figure 70

Area-by-area discussion of LRRC recommendations and FWC staff response:

Site-specific areas identified by FWC staff or the LRRC as potentially warranting a change are discussed below. Figures showing the locations of the site-specific areas are included for each region. As used in the descriptions of the existing zones and potential changes: “30/20” means a zone that allows speeds up to 30 mph in marked channels but requires speeds of 20 mph or less in all other areas; “30/SS” means a zone that allows speeds up to 30 mph in marked channels but requires Slow Speed or less in all other areas.

North Region: Lee County line to Doctors Pass / Moorings Bay (Figure 71)

N1: Little Hickory Bay Central

Existing Zones: The central section of the bay is a 30/20 zone pursuant to the existing FWC rule. There is a 30/SS zone immediately to the south and another 30/SS zone in the northern section of the bay near Bonita Beach Road.

LRRC Position: The LRRC majority position (8 votes) supported Option 2 of the FWC preliminary proposal: Change the narrow section (between markers 5 and 18) to a shore-to-shore Slow Speed zone. The LRRC minority position (1 vote) supported a change but with the change only to the section between markers 10 and 18.

Other Information: This area is the location of one of the three boat-related deaths recorded in the county where the responsible vessel is known and also the location of one of the four reported collisions that are not associated with a known manatee death. The very narrow width of this section of the waterway likely increases risks. (Note: A boat-related death attributed to acute injuries was recorded in June 2016 about a quarter-mile north of this area; it is not known where the actual collision occurred.)

FWC Staff Response: Concur with LRRC minority position to change the narrow section between markers 10 and 18 to a Slow Speed zone (0.8 linear miles of channel). Staff does not support a change for the section between markers 5 and 10 because discussions with law enforcement officers as well as an on-water site inspection revealed that the controlling water depth in this section can be insufficient to allow some boats to safely navigate the area at Slow Speed during low tides and other lower water conditions. While available information supports the LRRC majority position, the potential to create conditions that negatively affect safe navigation overrides the benefits that Slow Speed would provide for manatees in this location.

30/20 Zone in Little Hickory Bay

Existing Zones: As noted above, the central section of the bay is a 30/20 zone pursuant to the existing FWC rule; the southern portion of this zone is within Area N1 (see above) but the zone extends farther to the north. There is a marked channel running through this zone. There is a 30/SS zone immediately to the north in the section of the bay near Bonita Beach Road and another 30/SS zone to the south leading toward Wiggins Pass.

LRRC Position: After discussing the 30/20 zones in the 10,000 Islands area (see p. 15 of this document), the LRRC voted to take the same position for the other 30/20 zones in other parts of the county. The LRRC majority position (7 votes) supported taking no action and leaving the existing zones in place. The LRRC minority position (2 votes) supported changing the 30/20 zones to 30/SS in those areas that have marked channels and leaving the existing zones in place in the areas without marked channels.

Other Information: This is the only county that has 30/20 zones. Many boaters likely operate at similar speeds whether they are in or out of a channel in these zones. Boating studies conducted throughout the state have consistently found that a large proportion of boats are operated at speeds at or below 30 mph even when there are no speed limits. Enforcement of numerical speed limits creates logistical issues because of the need for officers to be equipped with, and trained to use, radar guns and for the radar guns to be maintained and re-calibrated on a regular basis.

FWC Staff Response: Concur with LRRC majority position to leave the existing 30/20 zone in place. Staff does not believe the available information supports the need to change the out-of-channel area to Slow Speed, as

recommended by the LRRC minority position, given the relatively low number of higher speed boats and the amount of manatee use documented in the area that would be affected. Removing the 30/20 zone in its entirety would not reduce the number of regulatory markers that need to be maintained.

N2: Cocohatchee River

Existing Zones: Most of the river (going upstream from a little east of Marina Bay and Island Marina) is a 30/20 zone pursuant to the existing FWC rule. There is a shore-to-shore Slow Speed zone on the lower section of the river (to the west) and the inshore portion of Wiggins Pass. There also is a local Idle Speed zone on the section of the river in the general vicinity of Vanderbilt Drive and extending into the Wiggins Pass area.

LRRC Position: Unanimous support (with two abstentions) for Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place.

Other Information: All but one of the manatees observed in this area during aerial surveys were seen west of US 41. Three manatees fitted with telemetry tags had a small number of locations recorded in the river and all locations were west of US 41. With the exception of one canoe/kayak that was seen east of US 41, all of the boats observed in this area during aerial surveys were seen west of US 41. Portions of the river are very shallow, making it difficult for some boats to navigate at Slow Speed during low tides and other lower water conditions.

FWC Staff Response: Concur with LRRC position for the section of the river west of US 41: leave the existing 30/20 zone in place. Due to the absence of a marked channel, the regulatory markers in this area currently only reference the 20 mph limit. Staff disagrees with the LRRC position for the section east of US 41 and instead supports removing the 30/20 zone and leaving the area without an FWC zone. Staff does not believe the available information supports the need for a zone in this section of the river given the limited amount of manatee use and boating use documented in the area. Unlike some of the other areas with 30/20 zones (e.g., Little Hickory Bay), manatees do not travel through this area on their way to or from other areas. Removing the zone would likely have very little effect on how boats are operated on this section of the river.

Additional Area Identified by the LRRC: Wiggins Pass Area

Existing Zones: This area is a shore-to-shore Slow Speed zone pursuant to the existing FWC rule. The Slow Speed zone continues to the south into Water Turkey Bay and to the east into the Cocohatchee River. There also is a local Idle Speed zone in a portion of the pass, extending east to the vicinity of Vanderbilt Drive. The local zone does not extend as far west in the pass or as far east in the river as the existing FWC Slow Speed zone.

LRRC Position: The LRRC majority position (7 votes) supported changing the area to an Idle Speed zone, with the zone extending farther west than the existing Slow Speed zone and as far east as the intersection of the pass with the marked channels leading to Little Hickory Bay and Water Turkey Bay. The LRRC minority position (2 votes) supported taking no action and leaving the existing zone in place. This area was not identified in the FWC preliminary proposal.

Other Information: Wiggins Pass is a very dynamic inlet with constantly shifting shoals. The marked entrance channel is currently partially blocked by a shoal, thus requiring most boats to operate north of the marked channel.

FWC Staff Response: Concur with LRRC minority position to leave the existing Slow Speed zone in place. Staff does not believe the available information supports the need to change this area to Idle Speed, as recommended by the LRRC majority position. Slow Speed often provides boaters with better vessel control, especially in inlets and passes where tidal currents and other factors can make safe navigation more difficult. In addition, Idle Speed zones provide only marginally more manatee protection than Slow Speed zones but the impact on boater travel time can be significant given that for many boats Idle Speed can be less than half of the speed allowed in a Slow Speed zone. For these reasons, Slow Speed is used much more frequently than Idle Speed in existing FWC manatee protection rules throughout Florida. Much of the discussion about this area concerned confusion caused by how the existing zones are marked, with some of the regulatory markers referencing the Slow Speed zone and others referencing the local Idle Speed zone. It would be more appropriate to rectify this confusion by correcting the

inaccurate markers. The existing local Idle Speed zone was established for boating safety purposes rather than manatee protection. If there is a boating safety reason to expand the size of the Idle Speed zone, this should be done through the local ordinance process.

N3: Vanderbilt Lagoon

Existing Zones: This area is a shore-to-shore Slow Speed zone pursuant to the existing FWC rule. The Slow Speed zone continues into Water Turkey Bay and Wiggins Pass to the north. There also is a local Idle Speed zone in the area south of Water Turkey Bay.

LRRC Position: The LRRC majority position (8 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place. The LRRC minority position (1 vote) supported changing the area to an Idle Speed zone.

Other Information: Documented manatee use from aerial surveys was relatively low. One manatee fitted with a telemetry tag had locations recorded in the area over a 4-month period in 2002.

FWC Staff Response: Concur with LRRC majority position to leave the existing Slow Speed zone in place. Staff does not believe the available information supports the need to change this area to Idle Speed, as recommended by the LRRC minority position (see discussion for the Wiggins Pass area, above, for more information regarding Idle Speed versus Slow Speed). There is value in maintaining the existing zone given manatees are known to periodically use this area and the risk of manatee-boat collisions is higher than in some other areas due to the amount of boat use documented in the system and the level of boat use that would be expected given the 400+ single family docks and multiple other boating facilities that line this almost completely developed residential area.

Additional Area Identified by the LRRC: Clam Bay System

Existing Zones: There are no zones in this area pursuant to the existing FWC rule. A local Idle Speed zone may have existed in all or part of this area in the past but no local zones currently exist.

LRRC Position: The LRRC majority position (7 votes) supported adding an Idle Speed zone in this entire system. The LRRC minority position (2 votes) did not support a zone for manatee protection purposes but did support the need for a Slow Speed zone for boating safety purposes. This area was not identified in the FWC preliminary proposal.

Other Information: Clam Pass is a small and very dynamic inlet with constantly shifting shoals and adjacent sand beaches. The pass occasionally closes, thereby blocking all manatee and boat access between the Gulf and the interior bay system. The pass currently is open but there is no marked channel leading in from the Gulf and only very shallow draft boats can navigate through the pass due to the shoals and shallow water in general. There are currently no marked channels in the system, although there is a marked paddling trail for canoes and kayaks. Other than from private docks in the Seagate community, the only boating access in the system is from Clam Pass Park in the southeastern end of Outer Clam Bay. Non-motorized boats can be launched from a small ramp at the park but no motorized boats are allowed to be launched. Due to the nature of Clam Pass and the generally shallow water depths throughout the system, neither FWC nor Collier County law enforcement regularly patrol in this area. Documented manatee use from aerial surveys was relatively low, with all manatees observed in Outer Clam Bay or the waterway running between this area and Clam Pass. One manatee fitted with a telemetry tag had locations recorded in Outer Clam Bay over a 5-day period in 2002. No manatee use was documented in Inner Clam Bay or Upper Clam Bay although users of this system have reported seeing manatees in these areas.

FWC Staff Response: Concur with LRRC minority position to not add an FWC manatee protection zone. A zone would be difficult to enforce given the access issues discussed above. Staff also does not believe the available information supports the need for an FWC Idle Speed zone, as recommended by the LRRC majority position, or an FWC Slow Speed zone (see discussion for the Wiggins Pass area, above, for information regarding Idle Speed versus Slow Speed). Although adding a zone would provide some protection, the need for a zone appears to be low given that documented manatee use is limited in the lower portion of the system, no use has been documented in

the upper part of the system, and only one dead manatee has ever been recovered in the system (in 1996 of an undetermined cause). Documented boat use from aerial surveys was low. Only two motorized boats operating above Slow Speed were observed in the area (one personal watercraft and one small motorboat) while one other small motorboat was observed anchored near the mouth of Clam Pass. Except for two barges that were seen on the same day, the only other boats observed in the system were 28 kayaks/canoes. The Seagate residential community at the south end of Outer Clam Bay (70-80 single family residential lots) does contribute motorized boat traffic into the system and participants in the LRRC process supplied multiple photographs documenting boats (mostly personal watercraft) operating at higher speeds in Outer Clam Bay. There is strong disagreement among the recreational users of this system as to what level of protection is most appropriate. Residents of the Seagate community who participated in the LRRC process are strongly opposed to the establishment of a Slow Speed or Idle Speed zone. Other users of the system who participated in the LRRC process, including residents of the Pelican Bay community, are strongly in favor of making the entire system an Idle Speed zone to protect the estuarine system and its wildlife. Given this dichotomy of disparate opinions, staff believes the best course of action is to leave this area out of the FWC rule so as to provide time for the local community to deliberate and consider options. If local residents can arrive at a viable solution, Collier County could implement this through the local ordinance process.

N4: Doctors Pass / Moorings Bay

Existing Zones: There are no zones in this area pursuant to the existing FWC rule. A local Idle Speed boating safety zone had existed throughout this area since at least 1994 but the zone was ruled to be null and void in 2014 because it was part of a citywide ordinance that was invalidated on procedural grounds. The city of Naples adopted a boating safety ordinance in 2016 that re-establishes Idle Speed zones in the vicinity of several bridges and a fueling dock in Moorings Bay.

LRRC Position: The LRRC majority position (8 votes) supported Option 2 of the FWC preliminary proposal: Add a Slow Speed zone. The LRRC minority position (1 vote) did not support a zone for manatee protection purposes but did support the need for a zone for boating safety purposes.

Other Information: Documented manatee use from aerial surveys was relatively low although users of this system reported frequently seeing manatees throughout the system. Two manatees fitted with telemetry tags each had a single location recorded in the system in 2001 or 2002. In 2014, the city of Naples petitioned the FWC to add a zone in this system to replace the local zone that was invalidated.

FWC Staff Response: Concur with LRRC majority position to add a Slow Speed zone. Although documented manatee use was relatively low, staff supports a zone in this area because manatees are known to periodically use this area and the risk of manatee-boat collisions is higher than in some other areas due to the amount of boat use documented in the system and the level of boat use that would be expected given the 300+ single family docks and numerous condominiums and other boating facilities that line this almost completely developed residential area. Many more boats were observed in this area during aerial surveys than were seen in the Clam Bay system (see above) and in contrast to that system most of the observed boats (over 90%) were motorized. Unlike the Clam Bay system, there is virtually unanimous support for adding a zone to this system.

Central Region: Naples area south to Johnson Bay (Figure 72)

C1: Naples Bay North

Existing Zones: This section of the bay is an Idle Speed zone pursuant to the existing FWC rule while the section to the south is a 30/SS zone and the Gordon River to the north is a Slow Speed zone. There is a local Idle Speed zone on the section of the Gordon River immediately north of US 41. Prior to the citywide ordinance being invalidated in 2014, there was a local Slow Speed zone on weekends and holidays throughout most of the bay.

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place.

Other Information: Documented manatee use from aerial surveys was low. Three manatees fitted with telemetry tags each had a small number of locations recorded in this area or in the Gordon River.

FWC Staff Response: Disagree with LRRC position to leave the existing Idle Speed zone in place. The primary reason given for the LRRC position was this area “*is very congested due to the number of marinas and the public boat ramp.*” Staff believes there is value in having a FWC manatee protection zone in this area but that the available information does not support the need to retain the Idle Speed zone (see discussion for the Wiggins Pass area on p. 5 for more information regarding Idle Speed versus Slow Speed). Although documented manatee use was low in this area, staff believes a Slow Speed zone is appropriate because manatees are known to periodically use this area (and also travel through here on the way to and from the Gordon River) and the amount of boat use documented in the system is significant. The level of boat use generated by the 150-200 single family docks and numerous condominiums and other public marinas and private boating facilities that line this heavily developed area present risks to manatees. If there is a boating safety reason to have an Idle Speed zone in all or part of this area, this should be done through the local ordinance process.

C2: Naples Bay South

Existing Zones: This section of the bay is a 30/SS zone pursuant to the existing FWC rule. There is an Idle Speed zone to the west (Area C3) and the 30/SS zone continues to the north in Naples Bay and into Dollar Bay to the south (Area C4). Prior to the citywide ordinance being invalidated in 2014, there was a local Slow Speed zone on weekends and holidays throughout most of Naples Bay.

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place.

Other Information: Documented manatee use from aerial surveys was relatively low; spatial overlap with higher speed boats was high, mainly due to the density of fast boats.

FWC Staff Response: Concur with LRRC position to leave the existing 30/SS zone in place.

C3: Gordon Pass

Existing Zones: The section of the pass between markers 7 and 10, including the Port Royal canal system to the north, is an Idle Speed zone pursuant to the existing FWC rule while the area to the east (Area C2) is a 30/SS zone; there are no FWC zones west of marker 7.

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place.

Other Information: Documented manatee use from aerial surveys was relatively low.

FWC Staff Response: Disagree with LRRC position to leave the existing Idle Speed zone in place. The primary reason given for the LRRC position was the existing zone “*provides adequate protection for the manatees and area boaters are accustomed to going idle through the area...*” Staff believes there is value in having a FWC manatee protection zone in this area but that the available information does not support the need to retain the Idle Speed zone (see discussion for the Wiggins Pass area on p. 5 for more information regarding Idle Speed versus Slow Speed). Although documented manatee use was relatively low in this area, staff believes a Slow Speed zone is appropriate because manatees are known to travel in and out of Gordon Pass and given the amount of boat use documented in the system and the level of boat use that would be expected because Gordon Pass is the primary outlet to the Gulf of Mexico from the Naples area. Regarding the Port Royal Canal system, the available information does not support this area being any more important to manatees than other canal systems throughout the county, most of which currently are, or are recommended to be, Slow Speed zones.

C4: Dollar Bay

Existing Zones: This bay is a 30/SS zone pursuant to the existing FWC rule. There is a 30/SS zone to the north in Naples Bay (Area C2) and The Narrows, immediately to the south, is a shore-to-shore Slow Speed zone between markers 52 and 47.

LRRC Position: The LRRC majority position (8 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place. The LRRC minority position (2 votes) supported Option 2 of the FWC preliminary proposal: Change all or part of the existing zone to a shore-to-shore Slow Speed zone.

Other Information: Documented manatee use from aerial surveys was moderate; spatial overlap with higher speed boats was moderate to high.

FWC Staff Response: Concur with LRRC majority position to leave the existing 30/SS zone in place. Staff does not believe the available information supports the need to change the in-channel area to Slow Speed, as recommended by the LRRC minority position. The primary reason given for the LRRC minority position was a Slow Speed zone “*would provide greater protection of the manatees as well as a food source, the documented continuous seagrass beds.*” Although the stated reasons are true, they are true for any location with seagrass that manatees use. The available information does not support this area being any more important than many other locations throughout the county that have the same 30/SS designation.

C5: Halloway Island North

Existing Zones: This area is a 30/SS zone pursuant to the existing FWC rule. The Narrows, immediately to the north, is a shore-to-shore Slow Speed zone between markers 52 and 47. Rookery Bay, to the east, is a 30/20 zone.

LRRC Position: The LRRC majority position (9 votes) supported a variation of Option 2 of the FWC preliminary proposal: Change the section between markers 47 and 44 to a shore-to-shore Slow Speed zone (but leave the existing zone in place south of marker 44). The LRRC minority position (1 vote) supported the majority position but felt the change should only be made if the existing zone immediately to the north was shortened.

Other Information: Documented manatee use from aerial surveys was moderate; spatial overlap with higher speed boats was relatively high.

FWC Staff Response: Concur with LRRC majority position to change the section between markers 47 and 44 to a shore-to-shore Slow Speed zone (0.3 linear miles of channel). The primary reason given for the LRRC minority position to reduce the existing Slow Speed zone in The Narrows to the north was there was “*not a high enough manatee-boat spatial overlap to warrant the existing zone.*” Staff believes the available information supports the existing zone in The Narrows. The relatively low level of manatee-boat spatial overlap was partially the result of the southern half of this area not being covered by the recent manatee aerial surveys. Other aerial survey efforts (by Rookery Bay staff in 2001-06) documented use in this area and telemetry data also confirm that manatees travel through The Narrows. It also is worth noting that documented boat use in this area was high and included many higher speed boats despite the existing Slow Speed zone.

C6: Halloway Island South

Existing Zones: The area containing the main channel is a 30/SS zone pursuant to the existing FWC rule; there are no FWC zones in the areas leading to Hurricane Pass on the east and west sides of Little Marco Island. The 30/SS zone continues to the north and to the east (Area C9).

LRRC Position: The LRRC majority position (9 votes) supported a variation of Option 2 of the FWC preliminary proposal: Change the section between markers 31/30A and 27A/28 to a shore-to-shore Slow Speed zone (but leave the existing zone in place north of marker 31 and east of marker 28). The LRRC minority position (1 vote) supported the majority position but felt the change should only be made to the section between markers 28A and 28.

Other Information: Documented manatee use from aerial surveys was high; spatial overlap with higher speed boats was very high. The spatial overlap during the warm season was the highest of any of the site-specific areas that were evaluated. Five boat-related manatee deaths have been recorded in this area since 2007. All five were recovered within a roughly 0.75-mile section north and east of Little Marco Island, with four of the deaths attributed to acute injuries.

FWC Staff Response: Concur with LRRC majority position to change the section between markers 31 and 27A to a shore-to-shore Slow Speed zone (0.6 linear miles of channel). Staff also considered the merits of including more of the waterway to the north (to the vicinity of marker 36); however, staff supports leaving this area as is since the waterway in this section is wider than in the area supported by the LRRC majority position.

C7: Little Marco Island

Existing Zones: There are no FWC zones in this area. There is a local Idle Speed zone in the southern end of the area, in and around Hurricane Pass and the southern end of Keewaydin Island.

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the area without an FWC zone.

Other Information: Documented manatee use from aerial surveys was low to moderate; spatial overlap with higher speed boats was moderate to high.

FWC Staff Response: Concur with LRRC position to not add an FWC manatee protection zone.

C8: Hall Bay North

Existing Zones: This area is a 30/SS zone pursuant to the existing FWC rule.

LRRC Position: Unanimous support for Option 2 of the FWC preliminary proposal: Change the narrow section to a shore-to-shore Slow Speed zone.

Other Information: Documented manatee use from aerial surveys was moderate; spatial overlap with higher speed boats was low to moderate. Risk is higher in this section of the creek because it is much narrower than other sections. This narrow section currently is marked as a Slow Speed zone but there does not appear to be any existing rule or local ordinance that establishes a valid zone.

FWC Staff Response: Concur with LRRC position to change the narrow section to a Slow Speed zone (0.3 linear miles of channel).

C9: Johnson Bay North

Existing Zones: This area is a 30/SS zone pursuant to the existing FWC rule. The 30/SS zone extends to the west (Area C6) and to the south (Area C10).

LRRC Position: The LRRC majority position (7 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place. The LRRC minority position (3 votes) supported Option 2 of the FWC preliminary proposal: Change all or part of the existing zone to a shore-to-shore Slow Speed zone.

Other Information: Documented manatee use from aerial surveys was relatively high; spatial overlap with higher speed boats was very high.

FWC Staff Response: Concur with LRRC majority position to leave the existing 30/SS zone in place. As noted by the LRRC, this channel is the primary navigation route between Naples and the Marco Island area and changing the in-channel area to Slow Speed would have a significant effect on boaters given the amount of channel that

would be affected (1.1 miles, plus another 1.5 miles in Area C10). The argument for making a change of this magnitude would be stronger if the available information indicated that risks to manatees had increased in this area. However, as was stated in the identification of areas document given to the LRRC, the available information suggests the boat-related risks manatees face at the countywide level have not changed significantly and that large scale changes to the existing zones do not appear to be needed to address changes in risk. It is important to note that, contrary to a statement made in the LRRC minority position, there is sufficient water depth outside of the marked channel under normal conditions to allow manatees to travel and feed outside of the channel. So while it is true that manatees often do use the same channels as boats, manatees are not confined to the channel in this area.

C10: Johnson Bay Central

Existing Zones: This area is a 30/SS zone pursuant to the existing FWC rule. The 30/SS zone extends to the north (Area C9), to the south toward Capri Pass, and to the southeast into other parts of Johnson Bay.

LRRC Position: The LRRC majority position (8 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place. The LRRC minority position (2 votes) supported Option 2 of the FWC preliminary proposal: Change all or part of the existing zone to a shore-to-shore Slow Speed zone.

Other Information: Documented manatee use from aerial surveys was relatively high; spatial overlap with higher speed boats was very high.

FWC Staff Response: Concur with LRRC majority position to leave the existing 30/SS zone in place. The basis for the staff position for this area is the same as for Area C9, above.

30/20 Zones in the Central Region

Existing Zones: Several areas in the Central Region have 30/20 zones pursuant to the existing FWC rule, including Rookery Bay and McIlvane Bay. There currently are no marked channels in either of these areas.

LRRC Position: After discussing the 30/20 zones in the 10,000 Islands area (see p. 15 of this document), the LRRC voted to take the same position for the other 30/20 zones in other parts of the county. The LRRC majority position (7 votes) supported taking no action and leaving the existing zones in place. The LRRC minority position (2 votes) supported changing the 30/20 zones to 30/SS in those areas that have marked channels and leaving the existing zones in place in the areas without marked channels. Because there are no marked channels in these 30/20 zones, the minority position for these areas is the same as the majority position.

Other Information: This is the only county that has 30/20 zones. Many boaters likely operate at similar speeds whether they are in or out of a channel in these zones. Boating studies conducted throughout the state have consistently found that a large proportion of boats are operated at speeds at or below 30 mph even when there are no speed limits. Enforcement of numerical speed limits creates logistical issues because of the need for officers to be equipped with, and trained to use, radar guns and for the radar guns to be maintained and re-calibrated on a regular basis.

FWC Staff Response: Concur with LRRC majority position for Rookery Bay: leave the existing 30/20 zone in place. Staff disagrees with the LRRC position for McIlvane Bay and instead supports removing the 30/20 zone and leaving the area without an FWC zone. Due to the absence of marked channels, the regulatory markers in both areas currently only reference the 20 mph limit. Staff supports removing the 30/20 zone in McIlvane Bay because of the very limited amount of manatee use and boating use documented in the bay and the fact that unlike some of the other areas with 30/20 zones (e.g., Rookery Bay) manatees do not travel through this bay on their way to or from other areas. Removing the zone would likely have very little effect on how boats are operated in the bay.

South Region: Marco Island area south to Cape Romano and Goodland Bay (Figure 73)

S1: Marco River North

Existing Zones: This area is a 30/SS zone pursuant to the existing FWC rule, including all waters in the marked channel within 300 feet of the SR 951 Bridge. The 30/SS zone continues on the south side of SR 951. There is an Idle Speed zone west of this area leading to Big Marco Pass, including the interior bays and canals of Marco Island (Area S2).

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place.

Other Information: Documented manatee use from aerial surveys was very high, as was the spatial overlap with higher speed boats; however, most of the documented manatee use occurred in the northern portion of the area, in the Slow Speed portion of the exiting zone, while most of the documented higher speed boat activity occurred in or near the main channel in the southern portion of the area. The one manatee that was tracked using a GPS telemetry tag used this area over a 2-day period and he also spent his time in the northern portion of the area. Given the existing zones and the manatee and boat use patterns, the risks to manatees in this area may not be as high as the spatial overlap analysis suggests.

FWC Staff Response: Concur with LRRC position to leave the existing 30/SS zone in place.

S2: Marco Island Interior

Existing Zones: Most of Big Marco Pass and the interior canals and waterways in Marco, including Collier Bay, is an Idle Speed zone pursuant to the existing FWC rule. The areas to the east of Big Marco Pass (Area S1) and in Caxambas Pass to the south (Area S4) are 30/SS zones, while Barfield Bay (Area S3) is a 30/20 zone.

LRRC Position: Unanimous support for a variation of Option 2 of the FWC preliminary proposal: Change the existing Idle Speed zone to a Slow Speed zone only in the marked channel within the Marco River (leaving the existing Idle Speed zone in place outside the channel and in the rest of the areas).

Other Information: Documented manatee use from aerial surveys was moderate to high, with the highest use in Caxambas Bay and Collier Bay; spatial overlap with higher speed boats was moderate.

FWC Staff Response: Concur with LRRC position to change the Idle Speed zone to Slow Speed in the marked channel within the Marco River and leaving the existing Idle Speed zone in the Marco Island canals. The available information supports the need to retain the Idle Speed zone in the Marco Island canals. Documented manatee use was relatively high in several of the canals, many are used as secondary warm-water sites by manatees in the winter. Because of this, staff agrees with the LRRC position and believes an Idle Speed zone is more appropriate in the remaining areas outside the Marco River channel.

S3: Barfield Bay

Existing Zones: Most of this bay, Blue Hill Bay, and Blue Hill Creek is a 30/20 zone pursuant to the existing FWC rule. There currently are no marked channels in these areas. The area immediately to the west (Area S2) is an Idle Speed zone and the area to the east (leading to Goodland and Coon Key Pass) is a 30/SS zone.

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place.

Other Information: Documented manatee use from aerial surveys was moderate but only the western and southern portions of Barfield Bay were surveyed during the recent surveys; spatial overlap with higher speed boats was essentially zero because the only higher speed boats that were observed were located just to the west of this area (in Area C2).

FWC Staff Response: Concur with LRRC position to leave the existing 30/20 zone in place. Due to the absence of marked channels, the regulatory markers in this area currently only reference the 20 mph limit. Staff also considered the merits of adding a Slow Speed zone in the southwest portion of Barfield Bay given that 22 manatees were observed in this area during the recent aerial surveys; however, documented boat use was low and there are no residential docks or other boating facilities in this immediate area so the risks to manatees appear to be relatively low.

S4: Caxambas Bay

Existing Zones: This area is a 30/SS zone pursuant to the existing FWC rule. There is an Idle Speed zone to the north (Area S2) and the 30/SS zone extends to the south, approximately 0.8 miles farther to the west to near marker 5, and approximately one mile farther to the east to marker 3. There is a partially marked channel running through this portion of the bay; there also are marked channels running through the Idle Speed zone to the north and immediately north of Kice Island, running between Caxambas Pass and Snook Hole Channel.

LRRC Position: Unanimous support for Option 1 of the FWC preliminary proposal: Take no action and leave the area without an FWC zone.

Other Information: Documented manatee use from aerial surveys was relatively high; spatial overlap with higher speed boats was moderate to high.

FWC Staff Response: Concur with LRRC position to leave the existing 30/SS zone in place. The argument for including the roughly 1.5 miles of channel as part of the Slow Speed zone would be stronger if the available information indicated that risks to manatees had increased in this area or in the county as a whole. However, as was stated in the identification of areas document given to the LRRC, the available information suggests the boat-related risks manatees face at the countywide level have not changed significantly and that large scale changes to the existing zones do not appear to be needed to address changes in risk.

S5: Goodland

Existing Zones: The immediate vicinity of Goodland, including the internal basins and canals, is an Idle Speed zone pursuant to the existing FWC rule while the rest of Goodland Bay is a Slow Speed zone, including the canals on either side of San Marco Road (CR 92). There is a 30/SS zone to the south that extends to just south of marker 3 in Coon Key Pass.

LRRC Position: The LRRC majority position (9 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place. The LRRC minority position (1 vote) supported Option 2 of the FWC preliminary proposal: Change the existing Idle Speed zone to a Slow Speed zone.

Other Information: This area was not surveyed during the recent surveys.

FWC Staff Response: Concur with LRRC minority position to change the Idle Speed zone to Slow Speed. Staff does not believe the available information supports the need to retain the Idle Speed zone (see discussion for the Wiggins Pass area on p. 5 for more information regarding Idle Speed versus Slow Speed). If there is a boating safety reason to have an Idle Speed zone in this area, this should be done through the local ordinance process.

30/20 Zones in the South Region

Existing Zones: Several areas in the South Region have 30/20 zones pursuant to the existing FWC rule, including Barfield Bay, Unknown Bay, and Upper Addison Bay. There currently are no marked channels in these areas.

LRRC Position: Barfield Bay and adjacent waters were discussed separately (see discussion for S3, above). After discussing the 30/20 zones in the 10,000 Islands area (see p. 15 of this document), the LRRC voted to take the same position for the other 30/20 zones in other parts of the county. The LRRC majority position (7 votes)

supported taking no action and leaving the existing zones in place. The LRRC minority position (2 votes) supported changing the 30/20 zones to 30/SS in those areas that have marked channels and leaving the existing zones in place in the areas without marked channels. Because there are no marked channels in these 30/20 zones, the minority position for these areas is the same as the majority position.

Other Information: This is the only county that has 30/20 zones. Many boaters likely operate at similar speeds whether they are in or out of a channel in these zones. Boating studies conducted throughout the state have consistently found that a large proportion of boats are operated at speeds at or below 30 mph even when there are no speed limits. Enforcement of numerical speed limits creates logistical issues because of the need for officers to be equipped with, and trained to use, radar guns and for the radar guns to be maintained and re-calibrated on a regular basis.

FWC Staff Response: Disagree with LRRC position to leave the existing 30/20 zones in place in Unknown Bay and Upper Addison Bay. Instead, staff supports removing the 30/20 zones and leaving the areas without an FWC zone. Due to the absence of marked channels, the regulatory markers in both areas currently only reference the 20 mph limit. Staff supports removing these 30/20 zones because of the limited amount of boating use documented in the bays and the fact that unlike some of the other areas with 30/20 zones (e.g., Barfield Bay) manatees do not travel through these bays on their way to or from other areas. Removing the zones would likely have very little effect on how boats are operated in the bays.

10,000 Islands: South of Cape Romano and Goodland Bay area to Monroe County line (Figures 74-75)

T1: Port of the Islands

Existing Zones: The Port of the Islands area is an Idle Speed zone pursuant to the existing FWC rule while the rest of Faka Union Canal is a Slow Speed zone.

LRRC Position: Unanimous support for a variation of Option 2 of the FWC preliminary proposal: Add a zone in the new waterway feature west of the canal to exclude all boaters.

Other Information: This area has long been a major aggregation area for manatees, especially during the winter, because the fresh water that flows over the weir north of US41 overlays the warmer saline water available in the basins (the layering of fresh water over the more dense saline water creates a thermocline that maintains the warmer water several feet below the surface and this warmer layer of water is used by manatees during cold periods in the winter). Ongoing projects associated with Everglades restoration are anticipated to alter the current flow of fresh water into the system. In addition, a new waterway feature is being created just south of Port of the Islands, on the west side of the canal, as part of the restoration work. This feature is designed to provide a new warm water area for manatees to use given the reduced availability of warm water in the basins that is expected after restoration work is completed.

FWC Staff Response: Concur with LRRC position to add a zone in the new waterway feature, with the zone designated as No Entry so as to exclude all public access by water and with provisions included in the rule to allow access to the area as needed by researchers and staff of the agencies that will be managing the overall site.

T2: Barron River

Existing Zones: The Barron River west of SR29 is an Idle Speed zone pursuant to the existing FWC rule. The area east of SR29 is a 30/20 zone while the area in Chokoloskee Bay adjacent to the mouth of the Barron River is a Slow Speed zone. There is a local Idle Speed zone overlaying all of the FWC Idle Speed zone and including some additional areas east of SR29.

LRRC Position: The LRRC majority position (7 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zone in place. The LRRC minority position (2 votes) supported Option 2 of the FWC preliminary proposal: Change the existing Idle Speed zone to a Slow Speed zone.

Other Information: This area was not surveyed during the recent surveys.

FWC Staff Response: Concur with LRRC minority position to change the Idle Speed zone to Slow Speed. Staff does not believe the available information supports the need to retain the Idle Speed zone (see discussion for the Wiggins Pass area on p. 5 for more information regarding Idle Speed versus Slow Speed). This change would have no effect on the water because of the overlapping and larger local Idle Speed zone.

30/20 Zones in 10,000 Islands

Existing Zones: There are 30/20 zones throughout most of the 10,000 Islands area (east of Goodland Bay and north of Monroe County) pursuant to the existing FWC rule. There currently are marked channels in three areas: in the Blackwater River and Blackwater Bay area; in Faka Union Bay and running out to the open waters of the Gulf, and; in Chokoloskee Bay and running out to the open waters of the Gulf. There are more restrictive zones in the Faka Union Canal / Port of the Islands area and the immediate vicinity of Everglades City (see above). The FWC zones do not extend into Everglades National Park. There are federal manatee protection zones established by Everglades National Park in the general vicinity of Chokoloskee. The federal zones are a combination of Slow Speed and 30 mph zones that align with and serve to extend the existing FWC zones in this small portion of the park.

LRRC Position: The LRRC majority position (7 votes) supported Option 1 of the FWC preliminary proposal: Take no action and leave the existing zones in place. The LRRC minority position (2 votes) supported changing the 30/20 zones to 30/SS in those areas that have marked channels and leaving the existing zones in place in the areas without marked channels. The LRRC took this same position as it relates to the existing 30/20 zones in other parts of the county (e.g., Little Hickory Bay, Rookery Bay, McIlvane Bay, etc.)

Other Information: This is the only county that has 30/20 zones. Many boaters likely operate at similar speeds whether they are in or out of a channel in these zones. Boating studies conducted throughout the state have consistently found that a large proportion of boats are operated at speeds at or below 30 mph even when there are no speed limits. Enforcement of numerical speed limits creates logistical issues because of the need for officers to be equipped with, and trained to use, radar guns and for the radar guns to be maintained and re-calibrated on a regular basis.

FWC Staff Response: Concur with LRRC majority position to leave the existing 30/20 zones in place. Staff does not believe the available information supports the need to change the out-of-channel area to Slow Speed in those locations that have marked channels, as recommended by the LRRC minority position. This change would also be difficult to post on the water due to the need to mark the outer locations where the Slow Speed out-of-channel ends and the remaining 30/20 zones resume. Due to the absence of marked channels in most of the area, the vast majority of the 10,000 Islands area has a 20 mph limit. Given how the existing zones are marked, removing the 30/20 zone in its entirety would not reduce the number of regulatory markers that need to be maintained.

Other Issues:

Permits for commercial fishing and professional fishing guide activities

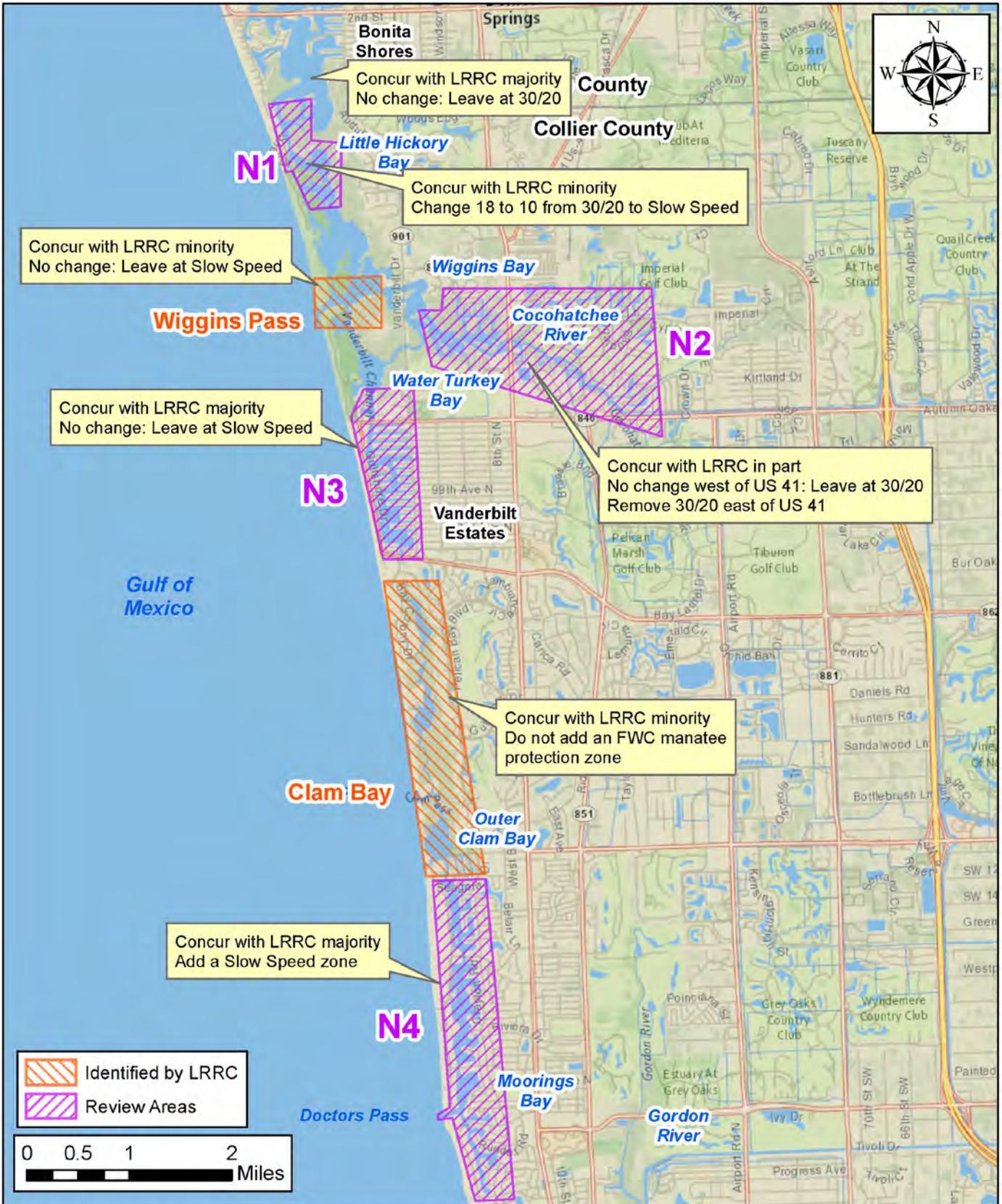
Existing Situation: The existing rule allows for permits to be issued for these activities. Currently there are 41 active permits, nine that cover commercial fishing activities, 31 that cover guiding activities, and one that covers both. All existing permits allow higher speeds in Johnson Bay, Tarpon Bay, portions of the Marco River, Bear Point Cove, Addison Bay, and Goodland Bay. Existing commercial fishing permits (but not guiding permits) also allow higher speeds in Henderson Creek, Hall Bay, and a portion of Caxambas Bay.

LRRC Position: Unanimous support (with one abstention) to not make any changes to the permits.

Other Information: The FWC Manatee Management Plan (MMP), approved in 2007, recommends permits only be available for commercial fishers while actively setting nets (i.e., not for other commercial fishing activities or any guiding activities). As stated in the MMP, this change would improve enforcement capabilities, enhance overall

compliance, and eliminate a source of confusion and contention. State, federal, and local law enforcement have been consistently opposed to these permits in general and to the guiding permits in particular. Enforcement of zones is more difficult when certain vessels can proceed on plane while most others must maintain Slow Speed. Officers have indicated that other boaters are less likely to comply with posted regulations when they see permitted vessels traveling faster through Slow Speed zones. In many cases, the boaters with permits cannot be visibly distinguished from other boaters in the area. This is especially true for guiding since the vessels used by guides are often identical to recreational vessels that are being operated in the same areas for the exact same purpose. The USFWS does not support these permits and federal manatee regulations do not allow similar authorizations. Permits have been limited to just net-setting in other recent rules (Pinellas, Sarasota, Lee, Manatee).

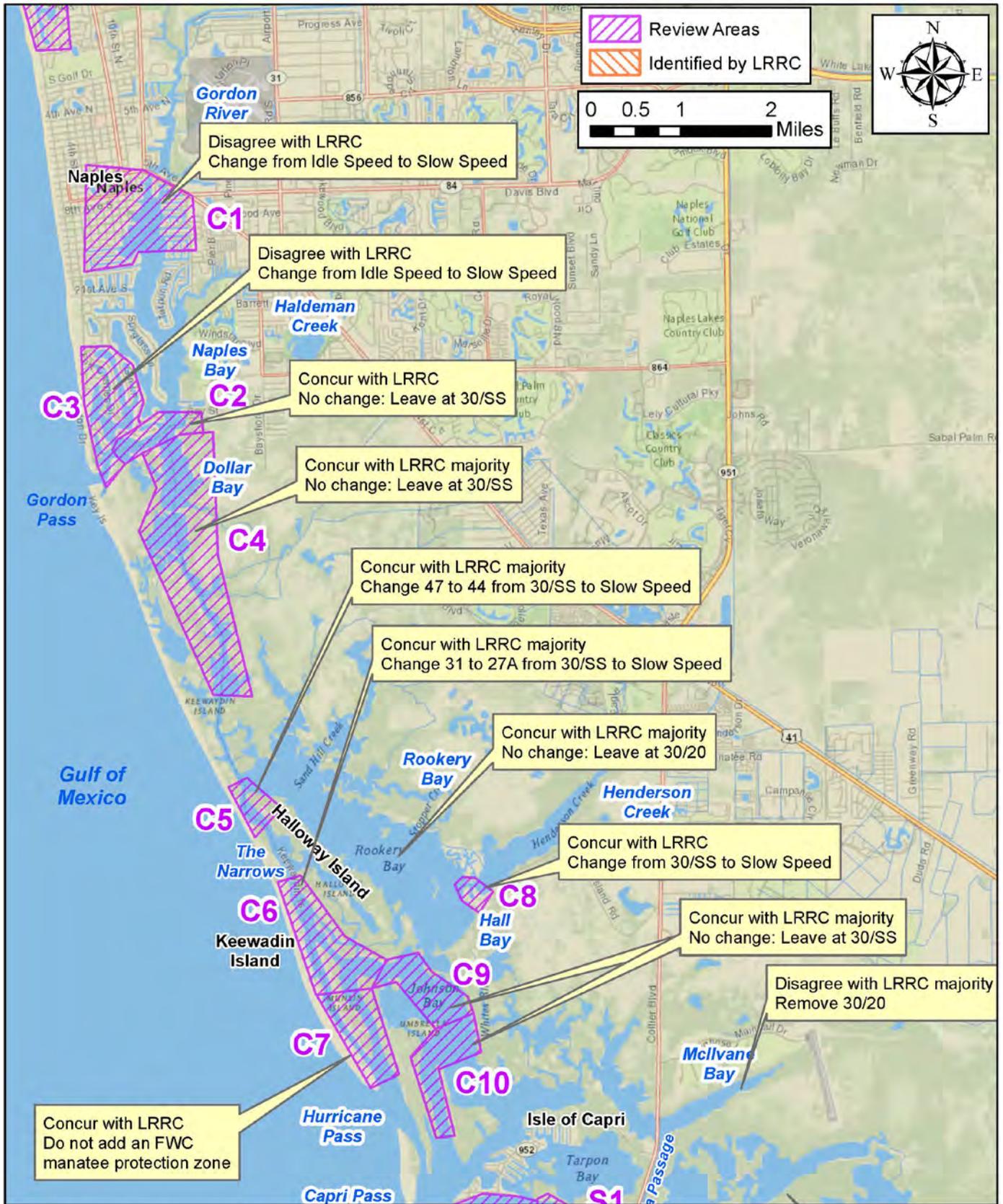
FWC Staff Response: Disagree with LRRC position to not make any changes to the permits. At this time, staff supports making the permits available for commercial net-setting purposes as recommended in the MMP and has been done in other recent rules. Collier County currently is the only county on the Gulf coast of Florida with active guiding permits. Several fishing guides participated in the latter stages of the LRRC process and expressed support for the continued availability of permits for guides. Staff will continue to review the issues surrounding the continued issuance of fishing guide permits in Collier County and will attempt to obtain additional input from the guides in order to better assess the impact this change could have and to evaluate all possible options including retaining fishing guide permits.



FWC staff response to LRRC recommendations (July 2016)
Collier County; North Region

Florida Fish & Wildlife Conservation Commission
Division of Habitat and Species Conservation
Impaired Species Management Section
620 South Meridian Street, Mail Station 6A
Tallahassee, FL 32399-1600
Tel: 850-922-4330 Fax: 850-922-4338

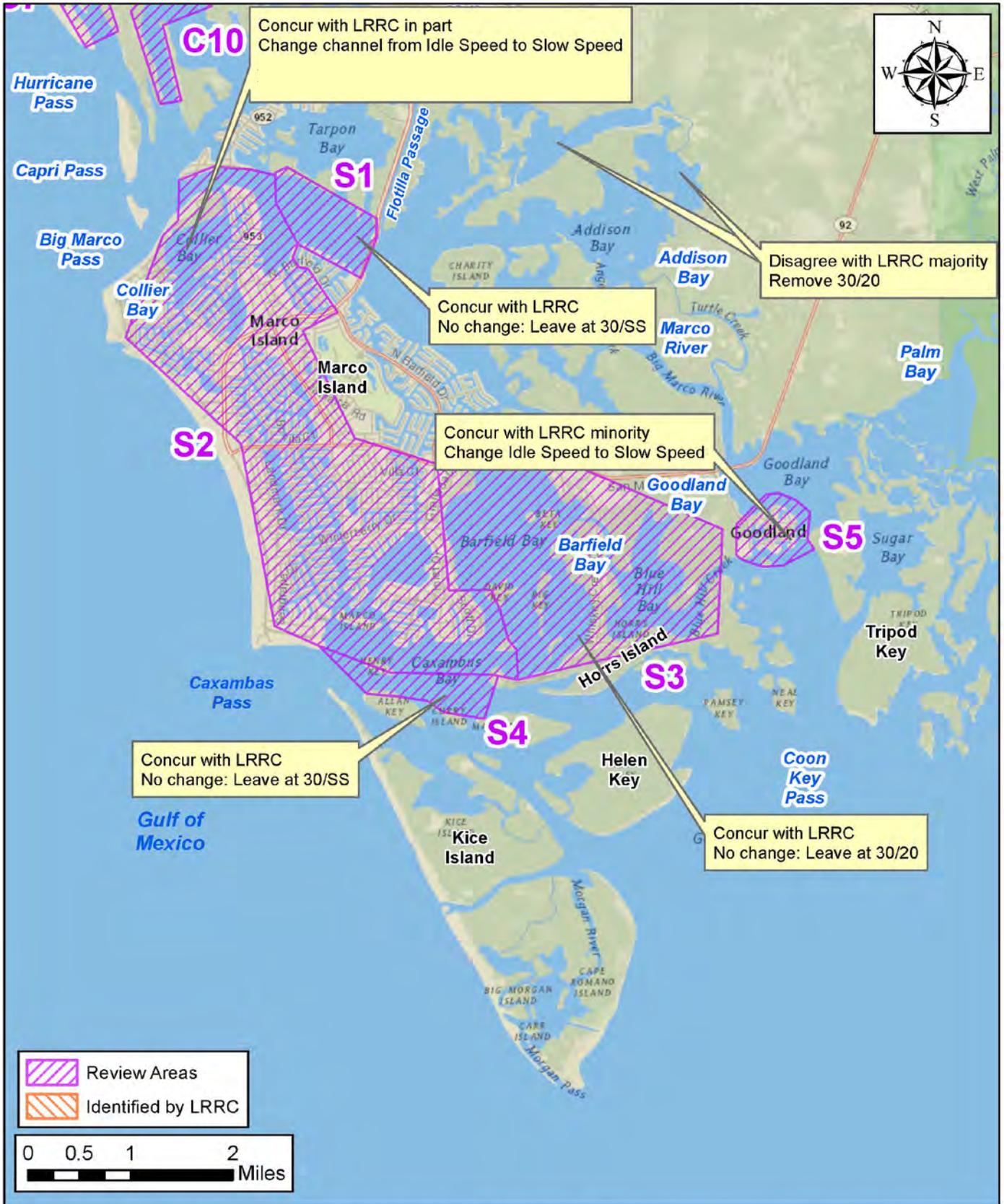
Figure 71



FWC staff response to LRRC recommendations (July 2016)
 Collier County; Central Region (Naples)

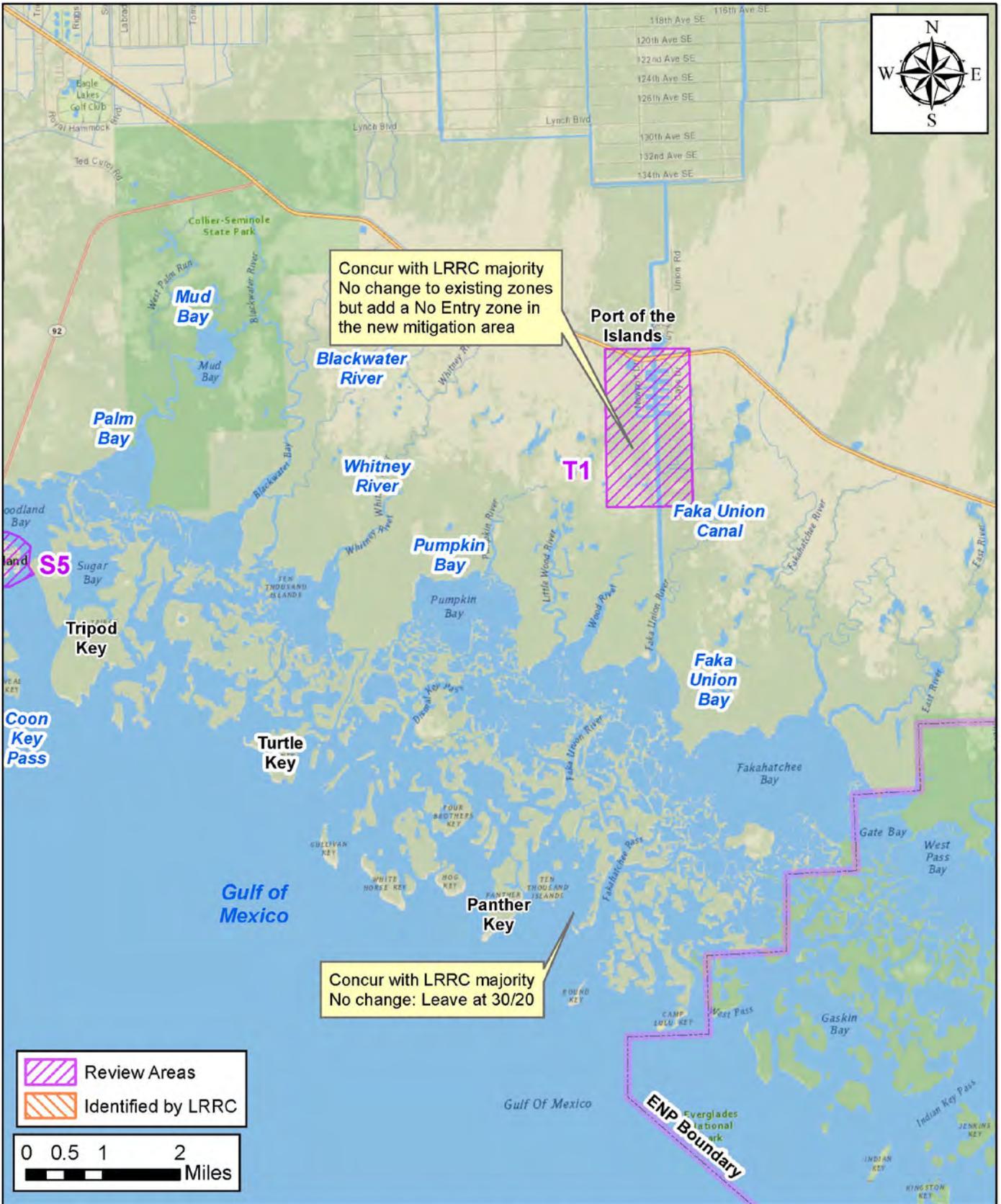
Florida Fish & Wildlife Conservation Commission
 Division of Habitat and Species Conservation
 Imperiled Species Management Section
 620 South Meridian Street, Mail Station 6A
 Tallahassee, FL 32399-1600
 Tel: 850-922-4330 Fax: 850-922-4338

Figure 72



FWC staff response to LRRC recommendations (July 2016)
Collier County; South Region (Marco Island)

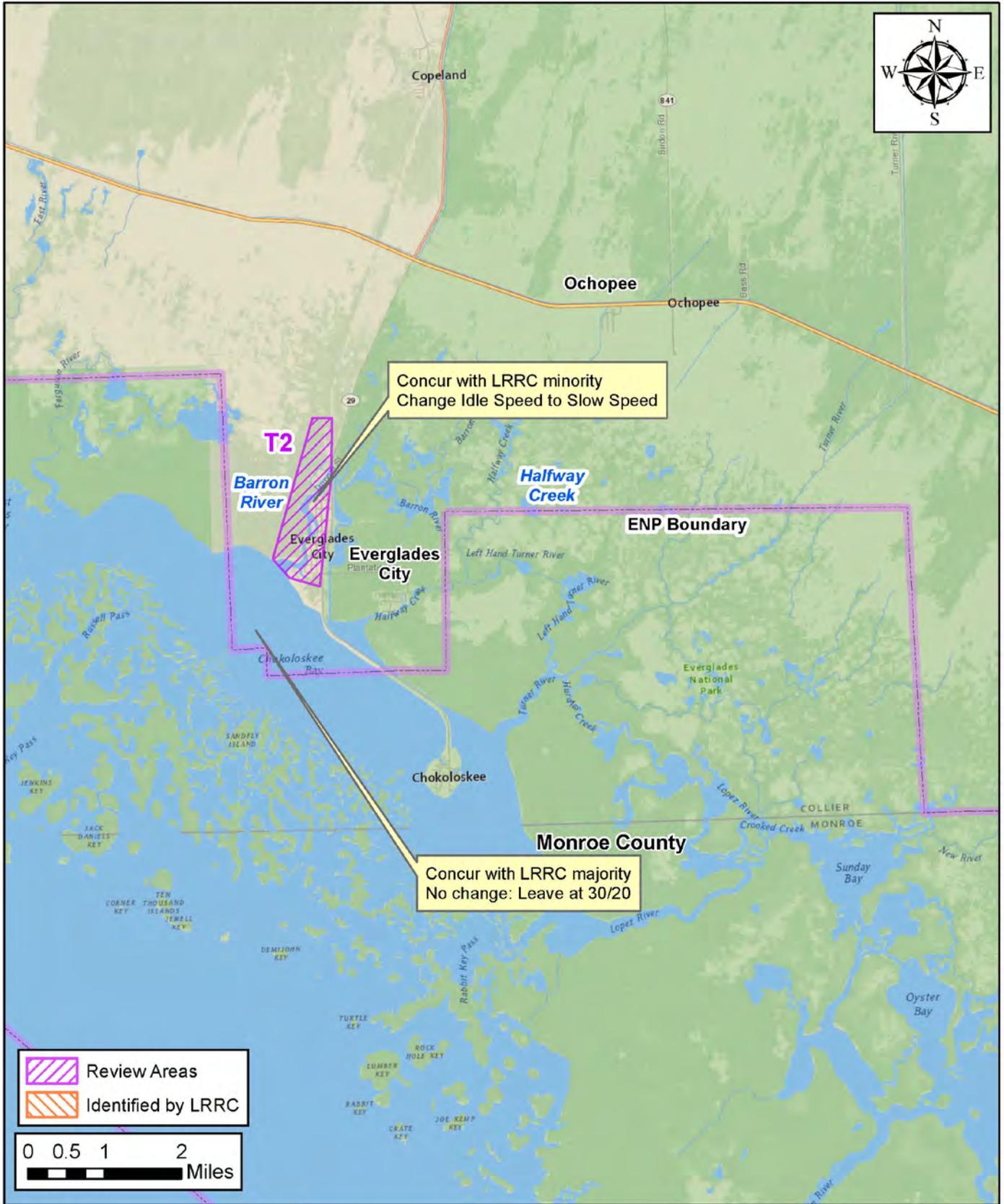
Florida Fish & Wildlife Conservation Commission
Division of Habitat and Species Conservation
Imperiled Species Management Section
620 South Meridian Street, Mail Station 6A
Tallahassee, FL 32399-1600
Tel: 850-922-4330 Fax: 850-922-4338



FWC staff response to LRRC recommendations (July 2016)
Collier County; 10,000 Islands (West)

Florida Fish & Wildlife Conservation Commission
Division of Habitat and Species Conservation
Imperiled Species Management Section
620 South Meridian Street, Mail Station 6A
Tallahassee, FL 32399-1600
Tel: 850-922-4330 Fax: 850-922-4338

Figure 74



FWC staff response to LRRC recommendations (July 2016)
 Collier County; 10,000 Islands (East)

Florida Fish & Wildlife Conservation Commission
 Division of Habitat and Species Conservation
 Imperiled Species Management Section
 620 South Meridian Street, Mail Station 6A
 Tallahassee, FL 32399-1600
 Tel: 850-922-4330 Fax: 650-922-4338

Figure 75
 - 21 -

Appendix

Maps of existing FWC manatee protection zones in Collier County

1 of 8



COLLIER COUNTY MANATEE PROTECTION ZONES

68C-22.023 F.A.C

Last Amended May 1997

For information please call or write to:
Fish and Wildlife Conservation Commission
Division of Habitat and Species Conservation
Imperiled Species Management Section
620 South Meridian Street - Mail Station 6A
Tallahassee, FL 32399-1600
PHONE (850) 922-4330 FAX (850) 922-4338

These maps show ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.

ZONE TYPE LEGEND

-  IDLE SPEED (CHANNEL INCLUDED)
-  SLOW SPEED (CHANNEL INCLUDED)
-  30 MPH IN CHANNEL,
SLOW SPEED OUTSIDE
CHANNEL
-  30 MPH IN CHANNEL,
20 MPH OUTSIDE
CHANNEL, ALL YEAR

Date Printed: February 11, 2003



LEE COUNTY
COLLIER COUNTY

68C-22.023(1)(d)1.
30 MPH IN CHANNEL,
SLOW SPEED OUTSIDE
OF CHANNEL ALL YEAR

68C-22.023(1)(e)1.
30 MPH IN CHANNEL,
20 MPH OUTSIDE
OF CHANNEL ALL YEAR

BONITA
SHORES

LITTLE
HICKORY
BAY

68C-22.023(1)(d)2.
30 MPH IN CHANNEL,
SLOW SPEED OUTSIDE
OF CHANNEL ALL YEAR

WIGGINS
ISLAND

WIGGINS BAY

US 41

68C-22.023(1)(e)2.
30 MPH IN CHANNEL,
20 MPH OUTSIDE
OF CHANNEL ALL YEAR

WIGGINS PASS

COCO HATCHEE
RIVER

GULF
OF
MEXICO

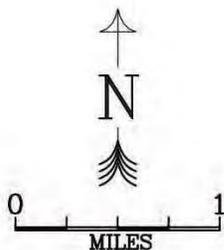
WATER
TURKEY
BAY

68C-22.023(1)(c)1.
SLOW SPEED ALL YEAR
CHANNEL INCLUDED

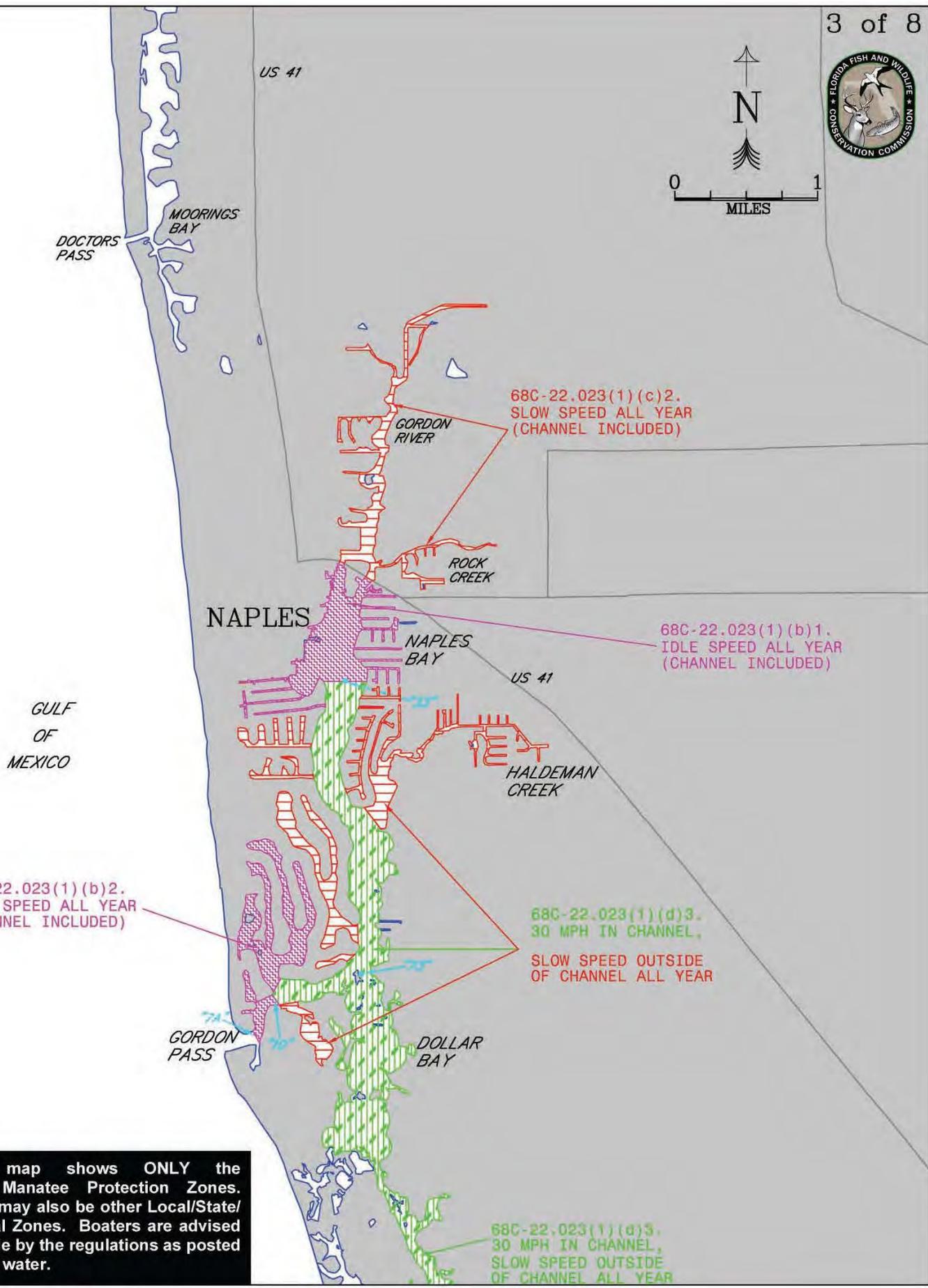
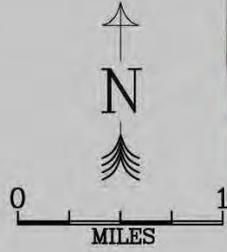
VANDERBILT
SHORES

UPPER
CLAM
BAY

INNER
CLAM
BAY



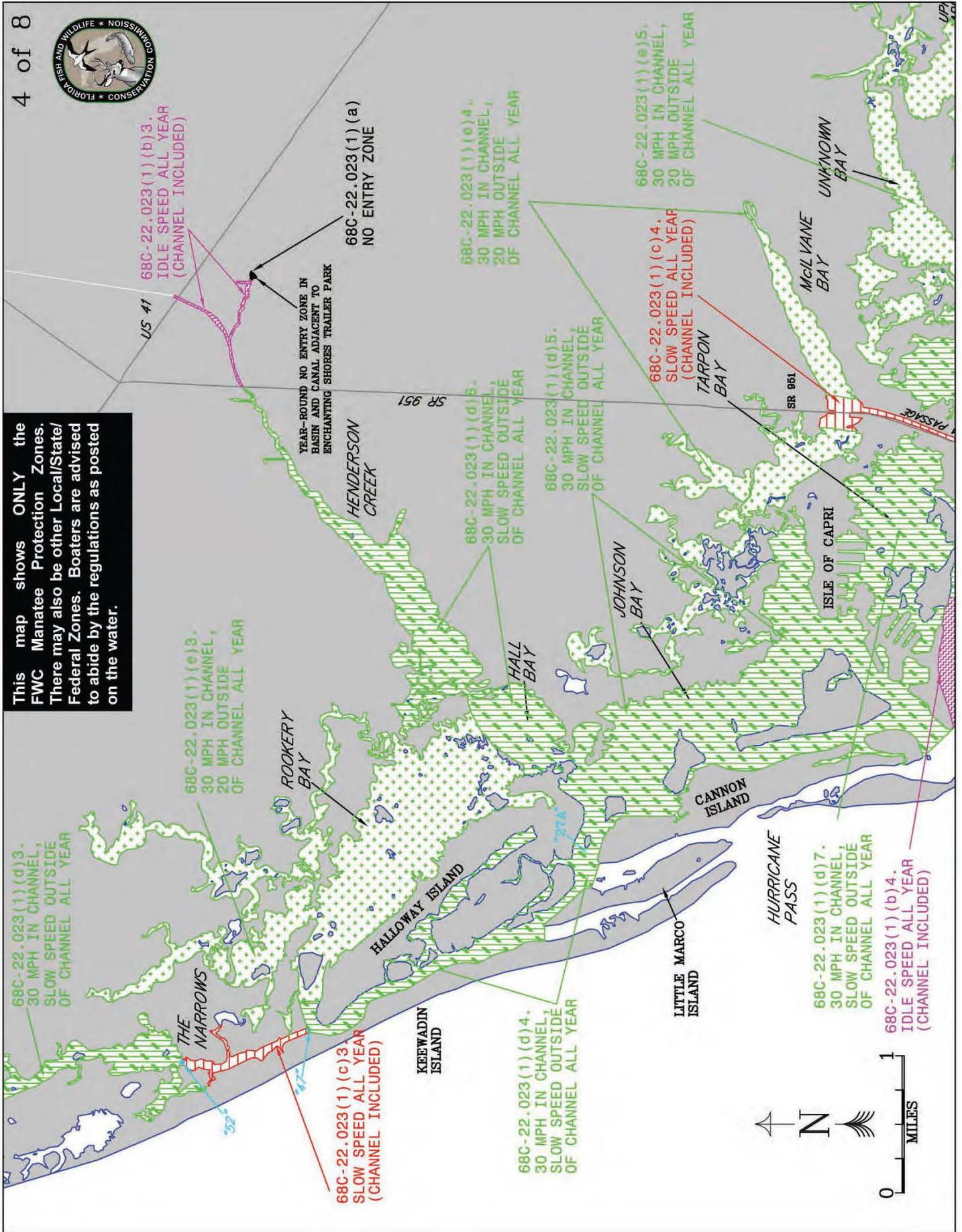
This map shows ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.

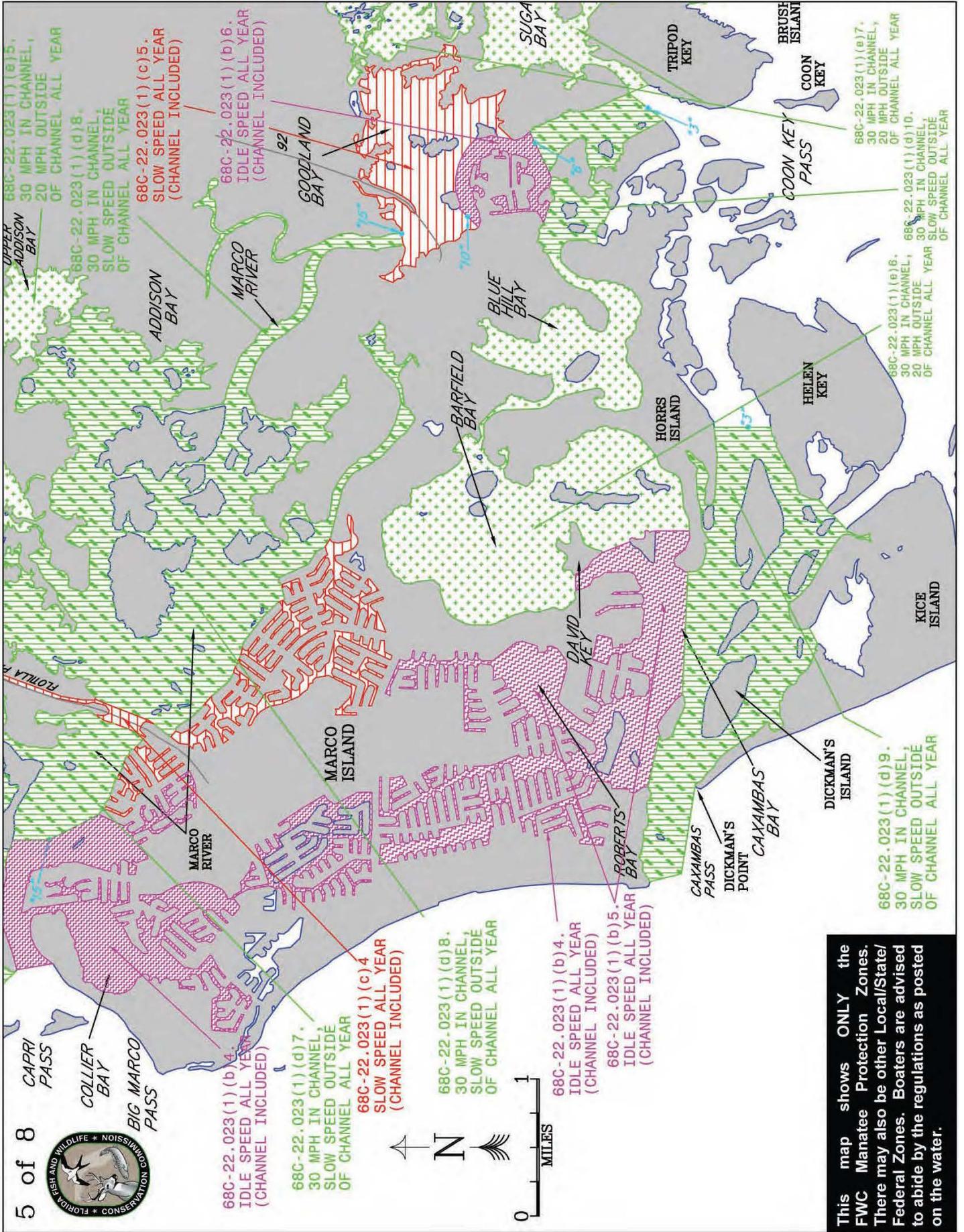


This map shows ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.



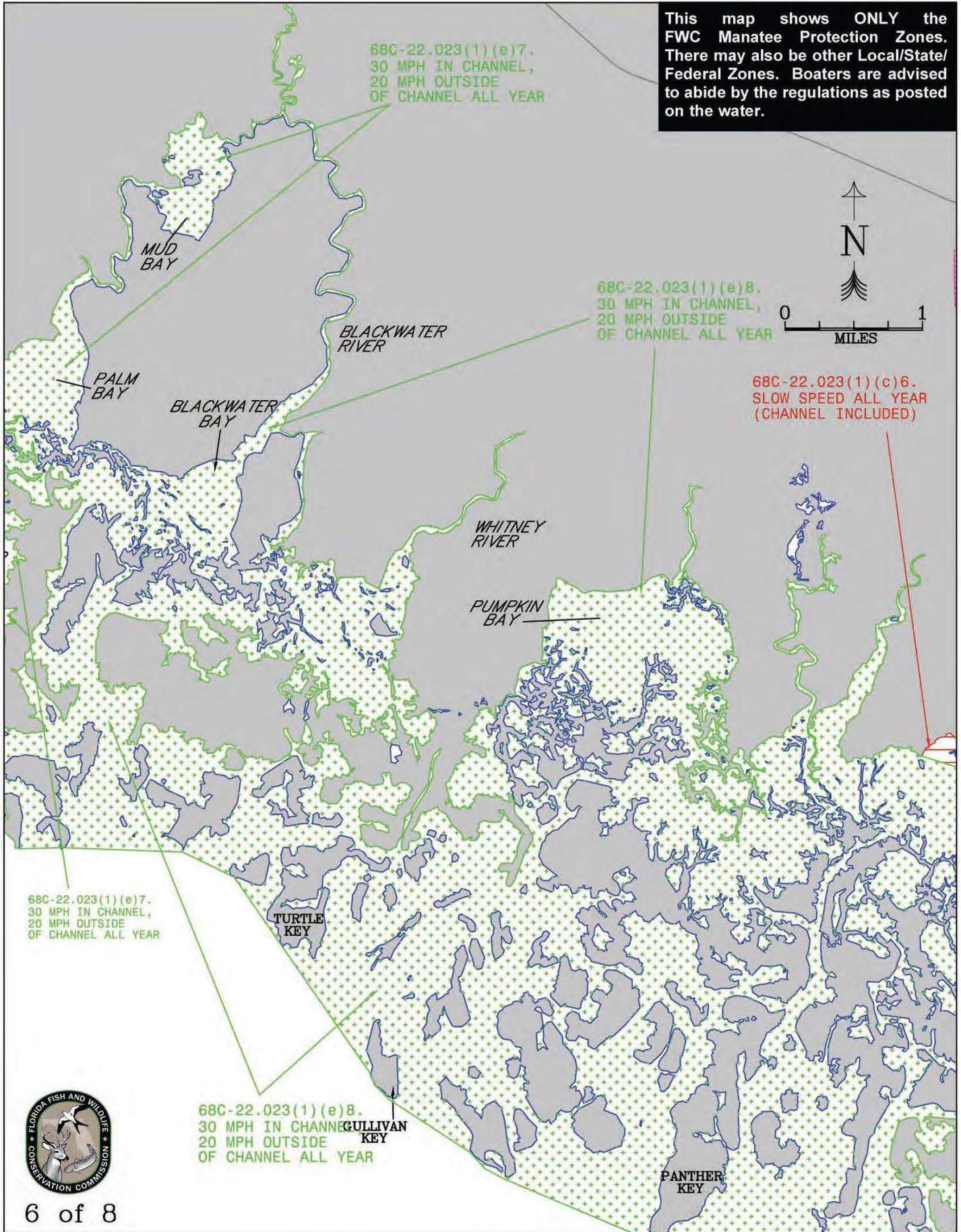
This map shows ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.





This map shows ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.

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This map shows ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.

68C-22.023(1)(a)8.
30 MPH IN CHANNEL,
20 MPH OUTSIDE
OF CHANNEL ALL YEAR

68C-22.023(1)(b)7.
IDLE SPEED ALL YEAR
(CHANNEL INCLUDED)

68C-22.023(1)(c)6.
SLOW SPEED ALL YEAR
(CHANNEL INCLUDED)

68C-22.023(1)(a)8.
30 MPH IN CHANNEL,
20 MPH OUTSIDE
OF CHANNEL ALL YEAR

ROUND
KEY
68C-22.023(1)(e)8.
30 MPH IN CHANNEL,
20 MPH OUTSIDE
OF CHANNEL ALL YEAR

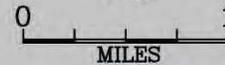
US 41

FAKA
UNION
CANAL

FAKA
UNION
BAY

ENP
BOUNDARY

PANTHER
KEY





This map shows ONLY the FWC Manatee Protection Zones. There may also be other Local/State/Federal Zones. Boaters are advised to abide by the regulations as posted on the water.

