

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 633 w/CS Manatee Recovery
SPONSOR(S): Harrington
TIED BILLS: None **IDEN./SIM. BILLS:** SB 1676

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
1) <u>Natural Resources</u>	<u>13 Y, 7 N w/CS</u>	<u>Camechis</u>	<u>Lotspeich</u>
2) _____	_____	_____	_____
3) _____	_____	_____	_____
4) _____	_____	_____	_____
5) _____	_____	_____	_____

SUMMARY ANALYSIS

This bill creates a presumption that existing state manatee protection rules are adequate and additional rules unnecessary in a region of Florida where measurable biological goals established by the Florida Fish and Wildlife Conservation Commission (FWC) are being achieved; however, the presumption does not prevent the FWC from amending existing rules or adopting new manatee protection rules to address "unique" risks or circumstances in a particular area or body of water.

The bill also requires several studies as follows:

- The FWC must implement and administer an "enhanced manatee protection study," which must be "used" by the FWC in its mission to "provide manatees with the maximum protection possible while also allowing maximum recreational use of the state's waterways."
- As part of the enhanced study, the FWC is required to contract with Mote Marine Laboratory to conduct a "Manatee Habitat and Submerged Aquatic Vegetation Assessment" at warm water discharge sites at power plants.
- As part of the enhanced study, the FWC must conduct a "Signage and Boat Speed Assessment" to determine the effectiveness of manatee protection signs and sign placement and to assess boat speed.

In addition, the bill authorizes the FWC to develop and implement the use of genetic tagging to improve its ability to assess the status and health of the manatee population.

Lastly, the bill allows any person to engage in activities prohibited by the Florida Manatee Sanctuary Act, or any rule or ordinance adopted pursuant thereto, if the activity is reasonably necessary in order to "prevent the loss of life or property" due to weather conditions or other reasonably unforeseen circumstances, or in order to render emergency assistance to persons or property. This provision appears to be substantially similar to the comparable Federal Regulation.

The bill appropriates \$325,000 from the Save the Manatee Trust Fund to the FWC for the purpose of contracting with Mote Marine Laboratory to conduct the "Manatee Habitat and Submerged Aquatic Vegetation Assessment," and appropriates \$325,000 from the Marine Resources Conservation Trust Fund to the FWC for the purpose of conducting the "Signage and Boat Speed Assessment."

This document does not reflect the intent or official position of the bill sponsor or House of Representatives.

STORAGE NAME: h0633a.nr.doc
DATE: April 14, 2004

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. DOES THE BILL:

- | | | | |
|--------------------------------------|---|-----------------------------|---|
| 1. Reduce government? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 2. Lower taxes? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 3. Expand individual freedom? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 4. Increase personal responsibility? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| 5. Empower families? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |

For any principle that received a "no" above, please explain:

B. EFFECT OF PROPOSED CHANGES:

GENERAL BACKGROUND

Florida Manatee (West Indian Manatee species)

The manatees found in Florida's rivers, estuaries, and bays are members of the West Indian manatee species and are native to Florida's coastal and riverine waters. Adult manatees typically average 8-10 feet in length and weigh an average of 1,000-1,200 pounds, while the largest manatees may reach 13 feet in length and weigh over 3,500 pounds. Manatees eat a variety of aquatic plants, consuming between 5 to 10% of their body weight in wet vegetation per day, and are often seen near natural or artificial fresh water sources. Gestation lasts approximately 13 months and typically results in the birth of a single calf measuring 3-5 feet in length weighing approximately 65 pounds. Calves remain with their mothers for up to two years. Manatees are warm-blooded and seek refuge from cold temperatures in natural springs or congregate in manmade sources of warm water such as power plants and other industrial facilities with thermal plumes. Results of aerial population surveys conducted by the FWCC are summarized as follows:

Year	Total Florida Manatee Population
1991	1,465
1999	2,353
2000	2,223
2001	3,276
2002	1,796
January 21-22, 2003	3,113

The manatee is listed by both the U.S. Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FWC) as an endangered species, and has been protected in Florida since 1892. Manatees are killed or injured by a variety of human-related causes including collisions with watercraft, being crushed in water control gates and boat locks, and becoming entangled in fishing gear. Manatees also die as a result of exposure to harmful algal blooms such as red tide, the effects of cold water, and disease. Manatee habitat loss or degradation is also of concern, including future changes in artificial warm water refugia upon which many manatees have become dependent.

The number of manatee deaths from water-related incidents, such as collisions with boats and other watercraft, is documented by the FWCC as follows:

Year¹	Total Manatee Mortalities	Total Manatee Mortalities Due to Watercraft Incidents
1998	231	66
1999	269	82
2000	272	78
2001	325	81
2002	305	95
2003	380	73

Today, state manatee protection rules apply to approximately 298,817 acres of Florida waters.² Additionally, approximately 10,058 acres are designated as federal manatee refuges or sanctuaries. Florida has significantly increased law enforcement in manatee protection areas, has developed measurable biological goals to assist in defining recovery of the manatee population, and has instituted additional public education programs to enhance manatee protection.³

Florida is divided into the following four regions for purposes of analyzing the status and trends of manatee populations:

1. Northwest Region, which includes the rivers along the Big Bend coast;
2. Upper St. Johns River Region, which covers upstream, south of Palatka and includes the Blue Spring warm-water refuge;
3. Atlantic Coast Region, which includes the lower St. Johns River, the east coast, and the Florida Keys;
4. Southwest Region, which covers Tampa Bay southward to Whitewater Bay.

Marine Mammal Protection Act of 1972 (16 U.S.C. §§ 1361-1421h)

The federal Marine Mammal Protection Act (MMPA), enacted in 1972 and reauthorized in 1994, designates manatees as a marine mammal in danger of extinction or depletion due to human activities. The primary purpose of the MMPA is to prohibit the taking of marine mammals except under very limited conditions, such as for purposes of scientific research to enhance the recovery or survival of a species. Portions of the MMPA authorize the unintentional "incidental taking" of marine mammals but only if the taking will have a negligible impact upon the species.

If a person possesses an "incidental take" permit and is found to have violated the terms of the permit, or failed to comply with provisions of the MMPA, the Secretary of the Interior is authorized to withdraw or suspend the permit, which may stop the construction of marinas, docks, boating facilities, or any other structure, including single-family homes.

Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1543)

The federal Endangered Species Act (ESA), enacted in 1973 and amended in 1996, provides that species of fish (including marine mammals), wildlife, and plants that are so depleted they are in danger of or threatened with extinction must be conserved. Section 9 of the ESA provides that it is illegal for

¹ Statistics provided in this table were obtained from the FFWC Marine Mammal Pathobiology Laboratory, <http://floridaconservation.org/manatee/>

² FWCC Position on Proposed Stipulated Order in *Save the Manatee Club, Inc. v. Ballard*, USDC, 1:00CV00076

³ FWCC Position on Proposed Stipulated Order in *Save the Manatee Club, Inc. v. Ballard*, USDC, 1:00CV00076

persons to "take" any species, or violate any regulation protecting any species that are designated as threatened or endangered. Section 10 of the ESA provides for "incidental take" permits in the same manner as the MMPA, and Section 17 of the ESA provides that no provision of the ESA may take precedence over provisions of the MMPA.

ISSUE: MEASURABLE BIOLOGICAL GOALS

CURRENT SITUATION

The Florida Manatee Sanctuary Act (Act), found in s. 370.12(2), F.S., was initially adopted in 1978 and is designed to protect the manatee from injury or harassment and to provide protection from the operation and speed of motorboats. The Act declares that the entire State is a refuge and sanctuary for manatees, and that the protections extended to and authorized by the Act are independent of, and not contingent upon, the manatee status as a state or federal listed species.

In areas of the State specified by the Act, the FWC must adopt rules under Chapter 120, F.S., popularly known as the Administrative Procedure Act (APA), regulating the operation and speed of motorboat traffic only where manatee sightings are frequent and the best available scientific information, as well as other available, relevant, and reliable information, which may include but is not limited to, manatee surveys, observations, available studies of food sources, and water depths, supports the conclusions that manatees inhabit these areas on a regular basis.

The FWC may designate, by rule adopted pursuant to the APA, other portions of state waters where manatees are frequently sighted and the best available scientific information, as well as other available, relevant, and reliable information, which may include but is not limited to, manatee surveys, observations, available studies of food sources, and water depths, supports the conclusion that manatees inhabit such waters periodically. Upon designation of such waters, the FWC must adopt rules pursuant to the APA to regulate motorboat speed and operation which are necessary to protect manatees from harmful collisions with motorboats and from harassment. The FWC may also adopt rules pursuant to the APA to protect manatee habitat, such as seagrass beds, within such waters from destruction by boats or other human activity.

Except for emergency rules adopted under s. 120.54, F.S., all proposed rules of the FWC for which a notice of intended agency action is filed proposing to govern the speed and operation of motorboats for purposes of manatee protection must be submitted to the counties in which the proposed rules will take effect for review by local rule review committees.

In 2002, the Legislature amended Florida's Endangered and Threatened Species Act, s. 372.072, F.S., to require the FWC to work in conjunction with the USFWS to develop, by February 15, 2003, **measurable biological goals** to define manatee recovery. The measurable biological goals must be used by the FWC in its development of management plans or work plans and, "in addition to other criteria," must be used by the FWC when evaluating existing and proposed protection rules and in determining progress in achieving manatee recovery.

In 2001, the USFWS issued its "Florida Manatee Recovery Plan, 3rd Revision" (Revision). In this Revision, the USFWS recognized that significant progress has been made towards recovery and that the species may warrant reclassification to threatened status if recovery criteria are met and threats are reduced or removed. Additionally, the USFWS noted that great care was taken in the Revision to provide what the USFWS believes are "objective measurable criteria" which, when met, would result in a determination that the species be removed from the list of threatened and endangered species. These criteria set benchmarks for standard population demographics such as survival and growth rate, that are a means to evaluate the success of conservation measures to reduce or remove existing and long-term threats to recovery.⁴ However, the USFWS noted that the focus should not be on how many manatees there are, but on whether threats to the species' existence are being reduced. Even under

⁴ Florida Manatee Recovery Plan, Third Revision, USFWS FAQ, Oct. 30, 2001, p. 2

the best circumstances, the USFWS concluded that complete recovery of this species is difficult to predict, and resolving long-term threats may take many years.⁵

The population benchmarks established by the USFWS in the Revision are as follows:

- Statistical confidence that the average annual rate of adult manatee survival is 90 percent or greater;
- Statistical confidence that the average annual percentage of adult female manatees accompanied by first or second year calves in winter is 40 percent or greater; and
- Statistical confidence that the average annual rate of population growth is equal to or greater than zero.

The USFWS also noted that population benchmarks should be achieved within a 95 percent level of statistical confidence *in each of the four regions* for a 10-year period of time before the manatee can be reclassified to threatened status at the federal level.

In January 2003, the FWC endorsed the population benchmarks established by the USFWS as the "measurable biological goals" required by s. 370.12 (2), F.S. The FWC noted in the *Save the Manatee Trust Fund 2002-2003 Annual Report*, that the statute required the establishment of measurable biological goals, but that there are many other goals and objectives in the Recovery Plan that are critical to the long-term survival of the species. In particular, the provision of viable habitat components, such as warm water springs, is of major importance.⁶

Attached to this analysis as Appendix A is a document entitled "Status of Manatee Measurable Biological Goals by Regions" dated April 2004 and provided by the FWC. The document indicates that manatee populations in the Northwest and St. Johns Regions of the state are meeting current biological goals, while populations in the Atlantic and Southwest Regions are not.

EFFECT OF PROPOSED CHANGES

This bill amends s. 370.12(2), F.S., to create a presumption that existing state manatee protection rules are adequate and additional rules unnecessary in any of the four regions of Florida where measurable biological goals established by the FWC are being achieved; however, the presumption does not prevent the FWC from amending existing rules or adopting new manatee protection rules to address "unique" risks or circumstances in a particular area or body of water. The term "unique" is not defined by the bill.

According to the FWC, the Northwest and St. Johns Regions of Florida currently meet the measurable biological goals. Therefore, the FWC may not adopt new manatee protection rules or amend existing rules in these regions unless the rules address "unique" risks or circumstances in a particular area or body of water. The Atlantic and Southwest Regions have not achieved the measurable biological goals, therefore, the current level of rulemaking authority provided to the FWC continues to apply in these Regions of the state until the measurable biological goals are achieved.

This bill also amends s. 372.072(6), F.S., to provide that when the FWC evaluates existing and proposed manatee protection rules, the evaluation must describe how the measurable biological goals were "used" in the evaluation.

ISSUE: EMERGENCY ASSISTANCE EXEMPTION

CURRENT SITUATION

Title 50, Part 17, Subpart J of the Code of Federal Regulations contains regulations governing Manatee Protection Areas. Pursuant to 50 C.F.R. §17.105, any person may engage in activities otherwise

⁵ Florida Manatee Recovery Plan, Third Revision, USFWS FAQ, Oct. 30, 2001, p. 2

⁶ *Save the Manatee Trust Fund 2002-2003 Annual Report*, p. 13.

prohibited by Subpart J if the activity is “reasonably necessary to prevent loss of life or property due to weather conditions or other reasonably unforeseen circumstances, or to render necessary assistance to persons or property.”

The Florida Manatee Sanctuary Act does not contain a similar provision applicable to violations of the Manatee Sanctuary Act committed out of “necessity”; however, the United States Supreme Court and the Florida courts have recognized the existence of the common law defense of necessity. The defense of necessity was designed to spare a person from punishment if he or she reasonably believed that criminal action “was necessary to avoid harm more serious than that sought to be prevented by the statute defining the offense.” It remains the law, however, that if there was a reasonable, legal alternative to violating law, the defense of necessity will fail.⁷ The essential elements of the defense of necessity are (1) that the defendant reasonably believed that his action was necessary to avoid an imminent threat of death or serious bodily injury to himself or others, (2) that the defendant did not intentionally or recklessly place himself in a situation in which it would be probable that he would be forced to choose the criminal conduct, (3) that there existed no other adequate means to avoid the threatened harm except the criminal conduct, (4) that the harm sought to be avoided was more egregious than the criminal conduct perpetrated to avoid it, and (5) that the defendant ceased the criminal conduct as soon as the necessity or apparent necessity for it ended.⁸

Section 327.46(1), F.S., authorizes the FWC to adopt rules establishing restricted areas on the waters of the state for any purpose deemed necessary for the safety of the public, including but not limited to, vessel speeds and vessel traffic, where such restrictions are deemed necessary based on boating accidents, visibility, hazardous currents or water levels, vessel traffic congestion, or other navigational hazards. Section 327.46(3), F.S., provides that this section does not apply “in an emergency” or to vessels owned by governmental entities. This section does not, however, relate to the establishment of regulations regarding manatee protection.

The FWC adopted rule 68D-23.112(5)(a), F.A.C., to extend the exemption created in s. 327.46(3), F.S., to all speed limits and other operational restrictions posted on regulatory markers, including markers erected for the purpose of manatee protection; however, the statutes do not appear to provide the FWC with authority to extend this exemption through administrative rulemaking to violations of the Florida Manatee Sanctuary Act or regulations adopted pursuant thereto.

EFFECT OF PROPOSED CHANGES

The bill amends s. 370.12(2), F.S., to permit any person to engage in activities prohibited by the Florida Manatee Sanctuary Act, or any rule or ordinance adopted pursuant thereto, if the activity is reasonably necessary in order to “prevent the loss of life or property” due to weather conditions or other reasonably unforeseen circumstances, or in order to render emergency assistance to persons or property. This provision is consistent with the Federal Regulation cited above; however, this bill allows a person to render “emergency assistance” while the Federal Regulation allows a person to render “necessary assistance.”

ISSUE: ENHANCED STUDY, SEAGRASS, WARM WATER REFUGES, GENETIC TAGGING

CURRENT SITUATION

Seagrasses

Seagrasses are flowering plants that live underwater but produce oxygen. Seagrass can be found throughout the coastal areas of the state, but are most abundant from Tarpon Springs northward to Apalachee Bay. The nearshore waters of Florida are estimated to contain over 2,000,000 acres of

⁷ *U.S. v. Oakland Cannabis Buyers' Co-op.*, 532 U.S. 483, 121 S. Ct. 1711, 149 L. Ed. 2d 722 (2001); *Hunt v. State*, 753 So.2d 609, 613 (Fla. 5th DCA 2000).

⁸ *Bozeman v. State*, 714 So. 2d 570, 572 (Fla. 1st DCA 1998).

seagrass⁹ that, among other things, serve as a primary food source for manatees and serve as nursery areas for many forms of marine life such as shrimp and crabs. Each adult manatee eats between 5 to 10 percent of its body weight in vegetation per day. Seagrass beds damaged by boat hulls and propellers take many years to recover, but seagrass beds used by manatees as a forage area recover very quickly.¹⁰

Although seagrass is not directly cultivated, its economic impact can be measured through industries that rely on this habitat to survive, such as commercial and recreational fisheries and nature and wildlife tourism. Since most of Florida's fishery species (an estimated 70%) spend at least part of their life cycle within seagrass communities, seagrasses are vital to the survival of these fishing industries. Some commercial fishery species dependent on seagrasses include the pink shrimp, lobster, and stone crab, the combined annual value of which is an estimated \$49 million in Monroe County alone. Coastal recreation in the Florida Keys brings in an estimated \$500 million annually, a great deal of which is dependent on recreational fisheries, diving, and viewing. Florida's Department of Environmental Protection has estimated that each acre of seagrass has an estimated value of approximately \$20,500 per year, which gives Florida's seagrasses an annual economic benefit of \$55.4 billion.¹¹

Warm Water Refuges

Manatees prefer water temperatures above 68° F, and water temperatures below that range can cause loss of body heat and poor digestion which lead to "cold stress" or death.¹² During the winter months, water temperatures can fall below the thermal minimum. As a result, manatees seek warm water sources. These can be natural sources such as springs, but in Florida, large numbers of manatees congregate at the artificial warm water areas created by power plant outfalls. Research conducted by the FWC indicates that manatees return to the same site year after year, and that manatees travel from one power plant to another during the winter.

According to the FWC, "the presence of power plants have permitted manatees to spend the winter in areas like Brevard County and Tampa Bay, which are considered to be north of their historical range. Manatees that winter this far north are much more reliant on these refugia for survival than those manatees using a power plant in south Florida."¹³ Areas of concern regarding the creation and continued use of artificial warm water refugia include what happens to manatees when power plants fail or are closed, and water quality and vegetation affected by water contaminants associated with industrial discharges.

Florida has 8 primary and 4 secondary industrial warm water manatee refuges. Florida Power & Light operates 5 of the primary sites while Progress Energy of Florida, the Tampa Electric Company (TECO) and Reliant Energy operate the other 3 primary sites. Secondary sites are operated by Progress Energy, the City of Vero Beach, the Ft. Pierce Utilities Authority, and TECO.¹⁴

Florida Marine Research Institute (FMRI)¹⁵

Section 20.331(4)(d), F.S., establishes the FMRI within the FWC and specifies the mission of the FMRI as follows¹⁶:

⁹ http://floridamarine.org/features/view_article.asp?id=2564

¹⁰ "Manatee Life", Columbus Zoo & Aquarium, www.colszoo.org/animalareas/shores/manatee_coast/manateelife/life-eating.html

¹¹ http://floridamarine.org/features/view_article.asp?id=20720

¹² [Why are Warm Water Refuges Important to Manatees?](http://floridaconservation.org/psm/habitat/importancewarmwater.htm),

<http://floridaconservation.org/psm/habitat/importancewarmwater.htm>

¹³ [Summary of Artificial Warm Water Refugia Issues](http://floridaconservation.org/psm/habitat/warmwat.htm), <http://floridaconservation.org/psm/habitat/warmwat.htm>, pgs. 1-2

¹⁴ Industrial Warm-Water Manatee Refuges Map created by the FWC Bureau of Protected Species Management, April 2004.

¹⁵ [Programs of the Florida Marine Research Institute 2002-2003](#), FWC, pgs. 34-37

¹⁶ s. 20.331, F.S.

- Serve as the primary source of research and technical information and expertise on the status of Florida's saltwater resources;
- Monitor the status and health of saltwater habitat, marine life, and wildlife;
- Develop and implement restoration techniques for marine habitat and enhancement of saltwater plant and animal populations;
- Respond and provide critical technical support for marine catastrophes including oil spills, ship groundings, major marine species die-offs, hazardous spills, and natural disaster;
- Identify and monitor marine toxic red tides and their impacts, and provide technical support for state and local public health concerns; and
- Provide state and local governments with estuarine, marine, coastal technical information and research results.

FMRI operates a total of 13 locations across Florida and is responsible for assessing the condition of marine resources throughout 8000 miles of shoreline and 15,200 square miles of state waters. Over the years, FMRI has expanded its geographic presence by gradually building a network of field labs strategically located on or near major estuarine or coastal water bodies. According to the FWC, no other resource agency, university, nonprofit or private institution is as geographically well-represented as FMRI. The FWC asserts that this network of field labs creates economies of scale that allow FMRI to conduct regionally focused studies in an extremely cost effective manner.¹⁷ Since 1949, FMRI has produced over 1350 scientific publications, 250 of these in the last five years. In a three-year period from 2001 to 2003, 119 peer-reviewed manuscripts have been published in scientific journals.¹⁸

The Endangered & Threatened Species Section of the FMRI is responsible for aerial surveys that monitor manatee populations, abundance and distribution; carcass recovery and necropsy to determine age, life history, and causes of death; manatee rescue and rehabilitation; manatee ecology and migration studies, and implementing studies that help characterize the human impacts to manatees, primarily those relating to compliance with boating laws, and boater demography. Program partners include Mote Marine Laboratory, the University of Florida's College of Veterinary Medicine, the USFWS, and the United States Geological Survey Sirenia Project.

Total appropriations for FMRI in fiscal year 2003-2004 are \$30,904,853. According to the FWC, in FY 2003-2004, FMRI is outsourcing approximately \$6 million, or 20 percent, of its total budget. The FMRI does not accept grants or contracts from any industry or group regulated by government entities.

Mote Marine Laboratory

The Mote Marine Laboratory ("Mote Marine") is located in Sarasota, Florida, and is an independent, nonprofit research organization that focuses on marine science. Of the \$9.4 million Mote Marine received in research funding in 2002, almost 23 percent was provided by the state, 27 percent was provided by the federal government, and the balance was provided by unidentified sources. Mote Marine participates in cooperative ventures with many partners, one of which is the FWC.

Mote Marine has been involved in manatee research and conservation activities since 1985. The Center for Marine Mammal and Sea Turtle Research at Mote Marine operates the Manatee Research Program. Projects include aerial surveys to document habitat use patterns and seasonal distribution, photographic identification using scars from boat strikes to identify individual manatees, telemetry research involving manatee tagging to follow movements and identify habits, and waterways management research to assess compliance with regulatory zones and the overall effectiveness of enforcement activities.¹⁹ Mote Marine also studies the effects of red tide on manatees.

¹⁷ FWC Legislative Bill Analysis, p. 2.

¹⁸ FWC Legislative Bill Analysis, p. 2.

¹⁹ Mote Marine Laboratory, Research Projects, <http://www.mote.org/research/cmmstr/mer/tempage2.htm>

Save the Manatee Trust Fund

The Save the Manatee Trust Fund serves as the repository for 100 percent of the proceeds from the sale of the Save the Manatee License plate. In the years since its creation, more than 525,000 license plates have been sold generating over \$31 million in revenue. However, revenue generated from the sale of the specialty license plate has decreased from \$2.8 million in 1993 to \$1.7 million in 2003.²⁰ The trust fund also receives \$1 from the fee paid by each vessel required to be registered in the state.

In fiscal year 2002-2003, the Save the Manatee Trust Fund received \$3.7 million in revenues, and distributed \$1.2 million to the Bureau of Protected Species Management ("BPSM") at the FWC for education and information, signage, rule development, manatee protection plans, habitat protection, planning, and permitting. The FMRI received \$1.7 million for manatee program research expenses, and the FWC's Division of Law Enforcement received \$372,875. Mote Marine Laboratory received \$325,000 for research conducted in partnership with the FMRI.²¹

EFFECT OF PROPOSED CHANGES

This bill creates s. 370.1202, F.S., which requires the FWC to implement and administer an enhanced manatee protection study designed to increase knowledge of the factors that determine the size and distribution of the manatee populations in state waters. The bill requires the FWC to "use" the enhanced study in its mission to provide manatees with the maximum protection possible while allowing maximum recreational use of the state's waterways. The bill does not, however, specify how the FWC must "use" the study to carry out the mission established in this bill.

The bill specifies that the goal of the enhanced study is to collect data that will enable resource managers as well as state and local policymakers, in consultation with the public, to develop and implement sound science-based policies to improve manatee habitat, establish manatee protection zones, and maximize the size of safe boating areas for recreational use of state waters without endangering the manatee population.

The FWC is authorized to develop and implement the use of genetic tagging to improve its ability to assess the status, health, and reproductive capacity of the manatee population, estimate annual survival rates through mark recapture studies, determine migration patterns, and determine maternity and paternity. The development and use of genetic tagging may be done in cooperation with federal agencies or other entities, such as genetic laboratories at schools within the state university system.

As part of the enhanced manatee protection study, the bill requires the FWC to contract with Mote Marine Laboratory to conduct a "Manatee Habitat and Submerged Aquatic Vegetation Assessment" that specifically considers:

- Manatee populations that congregate in the warm water discharge sites at power plants in the state and the potential risks for disease resulting from increased congregation of manatees at these sites.
- Development of research, monitoring, and submerged aquatic vegetation restoration priorities for manatee habitat in and near the warm water discharge sites at power plants in the state.
- The potential impacts on manatees and manatee habitat if power plants that provide warm water discharge sites where manatees congregate are closed, including how closure will affect the size and health of submerged aquatic vegetation areas.

The bill requires Mote Marine Laboratory to submit an interim report to the Governor, the President of the Senate, the Speaker of the House of Representatives, and the FWC by September 1, 2006, detailing the progress of the assessment. The final report, due to the Governor, the President of the Senate, the Speaker of the House of Representatives, and the FWC by January 1, 2007, must detail

²⁰ <http://www.hsmv.state.fl.us/specialtytags/Manatee.html>

²¹ [Save the Manatee Trust Fund Annual Report 2002-2003](#), FWC, pg. 5

the results of the assessment and include recommendations for protection of manatee habitat in warm water discharge sites at power plants in the state.

The bill requires the FWC to ensure that funds allocated to implement the "Manatee Habitat and Submerged Aquatic Vegetation Assessment" are expended in a manner that is consistent with the requirements of this bill. The FWC may require an annual audit of the expenditures made by Mote Marine. Copies of any audit must be provided to the appropriate substantive and appropriations committees of the Senate and the House of Representatives as they become available.

The bill appropriates \$325,000 from the Save the Manatee Trust Fund to the FWC for fiscal year 2004-2005 for the purpose of contracting with Mote Marine for the "Manatee Habitat and Submerged Aquatic Vegetation Assessment."

ISSUE: SIGNAGE

CURRENT SITUATION

There are two types of manatee signs: regulatory signs and educational signs. Manatee regulatory signs are coordinated by FWC's Division of Law Enforcement and are official U.S. Coast Guard and FWC approved speed zone or navigational signs posted on waterways. These signs have a rule and permit number listed on the sign and may not be installed by a private citizen. Educational signs are non-regulatory and informational in nature. Marinas and boat ramps are typically required by state and federal regulatory agencies to install and maintain these types of signs.

Manatee protection zones are marked by 3' x 4' or 5' x 7' regulatory signs that have an orange circle in the center and an orange border in addition to the regulatory information. The rule number is shown in the lower right-hand corner and the permit number is shown in the lower left-hand corner. No specific numerical speed is assigned to an Idle Speed (minimum speed that will maintain steerage) or Slow Speed (speed at which vessel proceeds when it is fully off plane and fully settled in the water) signs.

The FWC has approved two types of permanent manatee signs that may be required by permit or lease: educational signs which are non-regulatory in nature, and awareness signs. Sign site plans must be approved by the BPSM in the FWC. Applicants must be notified within 30 days after receipt of the sign placement proposal only if the signs and locations are unacceptable. Any applicant who has not received a response from the FWC within the 30-day period can assume that the sign site plan is approved.²²

EFFECT OF PROPOSED CHANGES

As part of the enhanced manatee protection study, the bill creates s. 370.1202(3), F.S., to require the FWC to conduct a "Signage and Boat Speed Assessment" to evaluate the effectiveness of manatee protection signs and sign placement and to assess boat speeds. The FWC must evaluate existing data on manatee mortality before and after existing manatee protection zones were established, boater compliance with and comprehension of regulatory signs and buoys, changes in boating traffic patterns, and manatee distribution and behavior. The FWC must provide recommendations on innovative marker designs that are in compliance with the federal aids to navigation system. The "Signage and Boat Speed Assessment" must address:

- The effectiveness of signs and buoys to warn boaters of manatee slow-speed zones with a goal of developing federally approved standards for marking manatee protection zones.
- Determining where buoys may be used in place of pilings for boating safety purposes.
- An evaluation of higher speed travel corridors in manatee zones to determine the most effective speed to balance safe boating, recreational use, vessel operating characteristics, and manatee protection.

²² "Regulatory Sign Posting on Manatee Protection Zones", FWC, <http://floridaconservation.org/psm/signs/signsreg.htm>

The FWC must complete its "Signage and Boat Speed Assessment" by January 1, 2007, and submit a report of its findings to the Governor, the President of the Senate, and the Speaker of the House of Representatives by February 1, 2007. The report must detail the results of the assessment, including specific recommendations for developing state and local policies relating to the appropriate placement of signs, including innovative markers in manatee slow-speed zones.

In fiscal year 2004-2005, the bill appropriates \$325,000 from fuel taxes transferred to the Marine Resources Conservation Trust Fund to the FWC to conduct the "Signage and Boat Speed Assessment."

C. SECTION DIRECTORY:

- Section 1. Amends s. 370.12(2), F.S., regarding measurable biological goals.
- Section 2. Creates s. 370.1202, F.S., requiring an enhanced manatee protection study, including the Manatee Habitat and Submerged Aquatic Vegetation Assessment and the Signage and Boat Speed Assessment.
- Section 3. Amends s. 372.072(6), F.S., regarding measurable biological goals.
- Section 4. Provides a \$325,000 appropriation to the FWC from the Save the Manatee Trust Fund for the purpose of contracting with Mote Marine Laboratory to conduct the Manatee Habitat and Submerged Aquatic Vegetation Assessment and provides a \$325,000 to the FWC from the Marine Resources Conservation Trust Fund to conduct the Signage and Boat Speed Assessment.
- Section 5. Provides an effective date.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

- 1. Revenues: None.
- 2. Expenditures:

This bill appropriates \$325,000 from the Save the Manatee Trust Fund to the FWC for fiscal year 2004-2005 for the purpose of contracting with Mote Marine Laboratory for the "Manatee Habitat and Submerged Aquatic Vegetation Assessment."

In fiscal year 2002-2003, the FWC's Save the Manatee Trust Fund received \$3.8 million in revenue and spent just under \$4 million, which included some general revenue transferred to the fund to cover the shortfall, on the following:

- Mote Marine Laboratory - \$325,000
- Advisory Council on Environmental Education - \$133,084
- FWC Division of Law Enforcement - \$372,875
- FWC - Bureau of Protection Species Management - \$1,155,999
- FWC - FMRI Manatee Program - \$1,682,979

Additional appropriations from the Save the Manatee Trust Fund will require that the FWC realign agency programs funded from the trust fund.

In fiscal year 2004-2005, the bill appropriates \$325,000 from fuel taxes transferred to the Marine Resources Conservation Trust Fund to the FWC to conduct the "Signage and Boat Speed Assessment."

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

- 1. Revenues: None.

2. Expenditures: None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Mote Marine Laboratory, a nonprofit organization, will receive \$325,000 from the FWC to perform the "Manatee Habitat and Submerged Aquatic Vegetation Assessment."

D. FISCAL COMMENTS: None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable because this bill does not appear to: require the counties or cities to spend funds or take an action requiring the expenditure of funds; reduce the authority that cities or counties have to raise revenues in the aggregate; or reduce the percentage of a state tax shared with cities or counties.

2. Other: None.

B. RULE-MAKING AUTHORITY: The bill appears to restrict the FWC's rulemaking authority by establishing a presumption that FWC rules are adequate and additional rules unnecessary in a region where the measurable biological goals adopted by the FWC are being achieved. However, the FWC may amend existing rules or adopt new rules to address "unique" risks or circumstances in a particular area or body of water. The bill does not provide a definition of the term "unique", therefore, the types of issues that would be considered "unique" are not apparent.

Section 20.331(6)(c), F.S., requires the Commission to follow the provisions of the APA when adopting rules in the performance of its statutory duties or responsibilities. The statutory duties listed in that provision include "research and management responsibilities for marine species listed as endangered, threatened, or of special concern, including...manatees." In 2003, the Florida Supreme Court upheld this provision concluding that it does not usurp the constitutional authority of the FWC to regulate marine life. Caribbean Conservation Corporation, Inc., v. FWCC, 838 So.2d 492 (Fla. 2003).

Section 372.072(6), F.S., requires the FWC to "develop measurable biological goals that define manatee recovery" and use the goals in the development of management plans or work plans, when evaluating existing and proposed rules, and in determining progress in manatee recovery. It appears that s. 20.331(6)(c), F.S., requires the FWC to develop those measurable biological goals by adopting rules in accordance with the APA. In January 2003, the Commission approved measurable biological goals at a meeting of the Commission held in Ft. Myers, Florida; however, the FWC has not formally adopted a rule pursuant to the APA to formally those measurable biological goals as applicable throughout the State.

C. DRAFTING ISSUES OR OTHER COMMENTS: None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On April 13, 2004, the House Committee on Natural Resources adopted a strike-all amendment to HB 633. The amendment substantially revised the bill to include the following additional provisions:

- The FWC must implement and administer an "enhanced manatee protection study," which must be "used" by the FWC in its mission to "provide manatees with the maximum protection possible while also allowing maximum recreational use of the state's waterways."

- As part of the enhanced study, the FWC is required to contract with Mote Marine Laboratory to conduct a "Manatee Habitat and Submerged Aquatic Vegetation Assessment" at warm water discharge sites at power plants.
- As part of the enhanced study, the FWC must conduct a "Signage and Boat Speed Assessment" to determine the effectiveness of manatee protection signs and sign placement and assess boat speed.
- The FWC is authorized to develop and implement the use of genetic tagging to improve its ability to assess the status and health of the manatee population.
- The amendment allows any person to engage in activities prohibited by the Florida Manatee Sanctuary Act, or any rule or ordinance adopted pursuant thereto, if the activity is reasonably necessary in order to "prevent the loss of life or property" due to weather conditions or other reasonably unforeseen circumstances, or in order to render emergency assistance to persons or property. This provision appears to be substantially similar to the comparable Federal Regulation.
- The amendment appropriates \$325,000 from the Save the Manatee Trust Fund to the FWC for the purpose of contracting with Mote Marine Laboratory to conduct the "Manatee Habitat and Submerged Aquatic Vegetation Assessment," and appropriates \$325,000 from the Marine Resources Conservation Trust Fund to the FWC for the purpose of conducting the "Signage and Boat Speed Assessment."

Lastly, the amendment revised the provision in HB 633 regarding the presumption that existing state manatee protection rules are adequate and additional rules unnecessary in a region of Florida where measurable biological goals established by the FWC are being achieved. The amendment provides that the presumption does not prevent the FWC from amending existing rules or adopting new manatee protection rules to address "unique" risks or circumstances in a particular area or body of water, whereas the original language in HB 633 provided that the presumption does not prevent the FWC from amending existing rules or adopting new rules to address issues that are "unique" to a particular region.

APPENDIX A

STATUS OF MANATEE MEASURABLE BIOLOGICAL GOALS BY REGION

APRIL 2004

Manatee MBG Criteria	Northwest	St. Johns	Atlantic	Southwest
a. Survival greater than 90% meets goal				
Upper statistical confidence limit	97.8	99.0	95.0	93.2
Mean estimate	97.0*	95.5	94.0	90.3
Lower statistical confidence limit	96.0	93.4	92.7	86.2
[Data from C. A. Langtimm et al, in press, Marine Mammal Science]				
b. Reproduction greater than 40% of females with calves meets goal (statistical confidence not calculated)				
	49.3	52.8	38.2	45.9
[Data from M. Runge et al., in press, Marine Mammal Science]				
c. Population growth greater than 0 meets goal				
Upper statistical confidence limit	5.6	8.1	2.9	2.4
Mean estimate	3.7	6.2	1.0	minus 1.1
Lower statistical confidence limit	1.6	3.7	minus 1.2	minus 5.4
[Data from M. Runge et al., in press, Marine Mammal Science]				
Meets current overall goal	YES	YES	NO	NO

- a. statistical confidence that the average annual rate of adult manatee survival is 90% or greater;
- b. statistical confidence that the average annual percentage of adult female manatees accompanied by first or second year calves in winter is 40% or greater; and
- c. statistical confidence that the average annual rate of population growth is equal to or greater than zero.

* for the years 1996-2000 only, average mean estimate for the past 10 years is 95.6% (no confidence interval calculated).