

areas include the Florida Power and Light Company's Fort Myers Power Plant and Matlacha Pass, upstream and downstream (respectively) of the proposed refuge. The power plant is a major winter refuge for manatees. On January 6, 2001, 434 manatees were observed wintering in this region (FWCC: FMRI Aerial Survey Database, 2003).

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

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

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

Presently, there are State-designated, manatee speed zones throughout most of Lee County. Seasonal speed zones were established in the Caloosahatchee and Orange rivers around the Fort Myers power plant in 1979 (68C-22.005 FAC). Additional speed zones were

established in the Caloosahatchee River downstream of the power plant in November 1989 (68C-22.005 FAC). Speed zones were established countywide in November 1999 (68C-22.005 FAC). The majority of these zones include shoreline buffers that provide protection in nearshore areas frequented by manatees. All zones were to be posted with the appropriate signage by July 2001 (68C-22.004 and 68C-22.005 FAC). Compliance with speed zones in the Caloosahatchee averaged only 57 percent (FWCC, 2002).

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

We believe the measures in this proposed regulation will improve manatee protection and are necessary to prevent the take of at least one manatee by harassment, injury, and/or mortality by extending coverage to currently unprotected areas used by manatees. The increased width of the shoreline buffers downstream of the Caloosahatchee Bridge will provide a greater margin of safety for manatees in this important manatee area.

Lower St. Johns River Manatee Refuge

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

a. From Reddie Point upstream to the Main Street Bridge, a distance of approximately 11.6 km (or 7.2 miles), slow speed, year-round, outside the navigation channel and not more than 40 km per hour (25 mph) in the channel (from Channel Marker "81" to the Main Street Bridge, the channel is defined as the line of sight extending west from Channel Markers "81" and "82" to the center span of the Main Street Bridge);

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

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

Manatee presence has been documented in this area through aerial surveys, photo-identification studies, telemetry studies, and a carcass salvage program. Manatees occur throughout the proposed manatee protection area; the extent of use varies by habitat type and time of year (White *et al.*, 2002). Telemetry and aerial survey data indicate that peak numbers occur between March and June with heaviest use along the St. Johns River shorelines upstream of the Fuller Warren Bridge and along the southeast shoreline of Doctors Lake. The latter appears to correlate with the highest quality feeding habitat. Recent studies demonstrate little use during the December through February period (White *et al.*, 2002). While there were warm water discharges (*i.e.*, power plant and industrial effluents) located within the area of the proposed refuge, these man-made attractants no longer exist.

Vessel speeds are currently restricted throughout the proposed manatee protection area. In 1989, boating restricted areas were adopted by Duval County and established by the State of Florida for portions of the St. Johns River. These include a bank-to-bank, slow-speed zone between the Florida East Coast Railroad Bridge and the Main Street Bridge and a "slow down/minimum wake when flashing" zone