

RECORD OF DECISION

PROPOSED RULEMAKING

for

THE INCIDENTAL TAKE OF SMALL NUMBERS OF FLORIDA MANATEES (*Trichechus manatus latirostris*) RESULTING FROM GOVERNMENT PROGRAMS RELATED TO WATERCRAFT OPERATION AND WATERCRAFT ACCESS IN THE STATE OF FLORIDA

I. Introduction

The Department of the Interior (Interior) selects Alternative 1, the No Action Alternative, as described in the March 2003 “Final Environmental Impact Statement Rulemaking for the Incidental Take of Small Numbers of Florida Manatees (*Trichechus manatus latirostris*) Resulting from Government Programs Related to Watercraft Access and Watercraft Operation in the State of Florida.” This determination is made after carefully considering the various analytic methodologies and relevant information, including information received during the public comment period. All of the methodologies we considered raised questions and additional issues since the rule was proposed. These questions and issues prevent us finding that incidental take will have a negligible impact on any of four stocks of Florida manatee. The Marine Mammal Protection Act (MMPA) does not allow us to authorize incidental take unless we are able to find that the total authorized incidental take will have no more than a negligible impact on the species or stock (16 U.S.C. 1371(a)(5)(A)). Alternative 1 is the option that appropriately reflects that we are precluded from making a negligible impact finding as required by statute. Pursuant to 50 C.F.R. section 18.27(d)(4), this constitutes our Negative Findings. This determination has the effect of withdrawing the November 2002 MMPA Proposed Rule to authorize the incidental take of Florida manatees.

Uncertainties about our standards, new information, and analytic methodologies raise questions about our initial assumptions and prevent us from being able to find that incidental take will have a negligible impact on the Upper St. Johns, Northwest, Atlantic, and/or Southwest stocks of Florida manatee. Because we cannot find that incidental take resulting from authorization or regulation of watercraft operation and watercraft access facilities will have a negligible impact on any of the four stocks of Florida manatee under the MMPA, we are unable to authorize incidental take. This inability to meet the statutory condition renders identifying and considering the action alternatives, and discussing the practicability of adopting means to avoid or minimize environmental harm in this Record of Decision (ROD) meaningless (40 C.F.R 1505.2(b) and (c)). The No Action alternative appears to be the environmentally preferred alternative, pursuant to 40 C.F.R. 1505.2(b), although there are few measurable differences in impacts between the alternatives considered in detail, except for some contingent economic impacts in the Atlantic Stock. In the Final Environmental Impact Statement (FEIS), we identified three action alternatives, which analyzed the effects of authorizing incidental take for between one and three of the four stocks. This ROD addresses the factors, including questions about standards, new information, and the statistical uncertainty associated with the proposed and alternative decision-making methodologies, that lead us to select the No Action alternative.

Withdrawal of the proposed rule means that no incidental take of Florida manatees may be authorized under the MMPA.

II. Background

This Record of Decision has been prepared pursuant to section 102(2)(c) of the National Environmental Policy Act (NEPA) for the proposed rulemaking for the incidental, unintentional take of small numbers of Florida manatees (*Trichechus manatus latirostris*) resulting from government activities that authorize or regulate the access and operation of watercraft and watercraft access facilities in the State of Florida. To date, there is no authorization for the incidental, unintentional death, injury, or harassment of Florida manatees caused by these otherwise legal activities. Thus, there is a need to examine the issue of take of Florida manatees and determine whether the incidental, unintentional take of manatees may be authorized.

Under the provisions of the MMPA of 1972 (16 U.S.C. 1361-1407), the Secretary of the Interior may authorize the incidental taking of small numbers of marine mammals resulting from specified activities in a specified geographic area pursuant to Section 101(a)(5)(A) if the Secretary finds, based on the best scientific evidence available, that the total authorized taking for the authorized period will have no more than a negligible impact on the species or stock. Negligible impact is defined as “. . . an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.” (50 C.F.R. 18.27(c)).

If a negligible impact finding is made, specific regulations must be established for the activities that describe permissible methods of taking; means of effecting the least practicable adverse impact on the species and its habitat; and requirements for monitoring and reporting. If the Secretary cannot find that the total taking will have a negligible impact on the species or stock, the Secretary must publish a negative finding in the *Federal Register* along with the basis for such a determination.

In accordance with a January 2001 settlement agreement, a final determination must be made and submitted to the *Federal Register* on or before May 5, 2003. Beginning in January 2001, the Service held a series of meetings with the affected agencies to discuss the scope of government activities and incidental take rulemaking. At the Manatee Population Ecology and Management Workshop in April 2002, the Service discussed the issue of incidental take rulemaking with scientists and managers involved in manatee research and conservation. On June 10, 2002, the Service published a notice in the *Federal Register* announcing our intent to prepare an EIS to evaluate the effects on manatees of a rulemaking to authorize incidental take; public comments were solicited. On November 14, 2002, the Service published a proposed rule and notice of availability for the Draft EIS announcing the commencement of the public comment period in the *Federal Register*. We proposed findings of negligible impact for three of the four stocks, but found that incidental take was having more than a negligible effect on the Southwest Stock. In

December 2002, the Service conducted seven public hearings throughout Florida.

In response to these notices, meetings, and public hearings, more than 8,000 written comments were received. The majority of these comments related to manatee population issues; NEPA, ESA, and MMPA concerns; recommendations regarding the proposed determination of negligible impact under the MMPA; identification of information needs believed necessary to adequately address issues of concern; as well as socioeconomic and public involvement concerns. The Service refined the Incidental Take Model, an analytic tool; examined and fully considered all comments submitted by the public; and released a Final Environmental Impact Statement (FEIS) on March 26, 2003, with a Notice of Availability published in the *Federal Register* on April 4, 2003.

We identified four distinct stocks of the Florida manatee, which we call the Upper St. Johns River (USJ), the Northwest (NW), the Atlantic, and the Southwest (SW) stocks. In addition to the No Action Alternative, we evaluated a range of action alternatives in the FEIS that included a range of findings of negligible impact for between one (USJ) to three stocks (USJ, NW, and Atlantic). The FEIS presented information, including new information, as well as a comparison of results from different methodologies for determining negligible impact. The FEIS also identified areas of uncertainty in each of the various methodologies, pertinent information needs, and presented criticisms of each methodology and of our population benchmark criteria.

III. *Relevant Factors Considered*

Standards and Assumptions

Some of the standards and assumptions that support our proposed rule have been questioned. These include criteria for quantifying negligible impact, and assumptions related to the Optimum Sustainable Population and the status of each stock (including population growth rate).

We based our negligible impact determination criteria on estimates of population parameters relative to demographic, or population benchmarks. We said that to be negligible, authorized incidental take should not exceed a five percent probability of delaying a stock's time to reach its Optimum Sustainable Population (OSP) by no more than 10 percent. OSP is defined in the MMPA as "the number of animals which will result in the maximum productivity of the population or species, keeping in mind the optimum carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element" (16 U.S.C. 1362).

The specific probability and delay values were selected based on standards used by other agencies for other types of regulations under the MMPA, and because the 95 percent probability is frequently used in statistical decision-making. We are currently considering whether this is an appropriate standard for incidental take caused by watercraft.

We also assumed that if historical population levels were sufficiently high relative to carrying capacity, continued growth at the benchmark rates would result in population levels that are within or near OSP. This assumption played a role in our conclusions that for the Northwest and

Upper St. John's stocks, current levels of watercraft related take are not currently delaying the time to reach OSP, and for the Atlantic stock, current levels of watercraft related take are mitigatable.

Information developed during the rule-making process, but not available until after the DEIS and proposed rule were published and made available, call into question some of the assumptions upon which our analysis was based. One of the uncertainties raised by the new information is that all four stocks may be further from OSP, and growing at a slower rate than we originally thought. In short, new information challenges the verity of the assumptions that we built into our negligible impact criteria.

We are also reconsidering the use of the recruitment benchmark because we have no data that allow us to generate confidence intervals for the percent of females with first and second year calves, which undermines our current ability to evaluate the status of the stocks against this benchmark.

In summary, some of the assumptions relied upon in our negligible impact criteria and standards have been called into question. Key among these are:

- the assumption that achievement of demographic benchmarks developed through an Endangered Species Act recovery plan will result in a population that is within or near the range of OSP;
- the recruitment benchmark, which is complicated by gaps in our understanding of the percent of females with first and second year calves;
- the biological implications of our assumptions about the linkage between (1) stock status, and (2) population benchmarks;
- the significance of various probabilities of delaying the time to reaching OSP; and,
- the time it takes to reach OSP.

New Information

We gained significant information about manatee populations and trends after the DEIS was made available to the public. Some fundamental questions about our understanding occurred as a result of collecting the information necessary to refine the Incidental Take Model. The most important new information included new estimates of watercraft related mortality, age-related survivorship, trends in carrying capacity, and demographic trends in the Atlantic Stock.

New information about carcass recovery suggests that rates vary significantly by stock, which challenges our estimates of watercraft related mortality in all four stocks. Manatee carcass recovery rate is our leading indicator of the fraction of mortality due to watercraft. The carcass recovery rate (the fraction of dead manatees recovered by the carcass salvage program) plays a role in the calculation of negligible impact, because it serves as the link between the numbers of *observed* and *actual* watercraft-related mortalities. The fraction of mortality due to watercraft also can be used to calculate the survival rate in the absence of take, hence the degree to which take-reduction could improve the population growth rate. Both of these quantities have only

recently been estimated from Florida Marine Research Institute data, and a peer review of the analysis has not been conducted. Further, only a point estimate for recovery rate in each region is available, which means that we do not yet have an expression for the uncertainty in that rate.

New information about carrying capacity suggests that it may decline over the next three to 60 years, which would affect density-dependent life history and management functions of the Florida manatee. The limiting factor for the carrying capacity of each stock is warm water refugia. Each stock of Florida manatees is variably dependent on natural and artificial warm water refugia, such as springs, sewerage outfalls, and power plant discharges. Preliminary information presented in the incidental take model, but not yet peer reviewed, suggests that a reduction in total warm water carrying capacity is possible, if not likely, in the near future. This would suggest that OSP will change over time. Our implicit assumption of a stable OSP is challenged by this information. This in turn, has implications for our interpretation of total population estimates, and our assumption that none of the stocks were severely depleted based on the demographic, or population benchmarks.

We also are considering how information gaps may affect our ability to make a negligible impact determination for Florida manatee. The most important information gap is our limited understanding of density-dependent effects on manatees.

Methodologies

Questions have been raised about the analytic methods we proposed to use to determine negligible impacts. We stated that to be negligible, authorized incidental take must be reasonably certain not to significantly delay the time to reach OSP. Reasonable certainty was defined in quantitative terms as 95 percent, and significant delay was quantified as extending the time needed to reach OSP by 11 percent or greater. We also said that the final determination may be informed by an Incidental Take Model (which was presented in the DEIS, or a refined version, included in the FEIS as Appendix I). Comments received during the comment period included suggestions for two alternative methodologies, the Potential Biological Removal (PBR) level, and a method which we characterize as the Fraction of Excess Growth (FEG) method.

The PBR for each species or stock of marine mammal is calculated as part of the Stock Assessment required under section 117 of the MMPA, and is defined as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its OSP. PBR is typically used for determinations for the purpose of regulating commercial fishing activities under the MMPA, but is not used by Interior for analyzing incidental take for activities other than commercial fishing.

The FEG method assumes that negligible impact includes both a delay in time to reach OSP and a percent of annual growth harvested through incidental take functions. As suggested, this method concludes that any incidental take that delays the time to reach OSP by 10 percent or more, or that harvests 10 percent or more of annual growth rate, exceeds negligible levels.

The Incidental Take Model is based on a model developed by USGS and presented at the April, 2002, Manatee Population Ecology and Management Workshop. The model projects population trends for each of the four manatee stocks based on repeated simulations that incorporate environmental and demographic variability, as well as varying levels of human-related take. In the proposed rule, we stated that the initial model used the best available science, and that the Manatee Population Ecology and Management Workshop attendees believed that it was the most suitable model for use in the negligible impact determination. However, the Incidental Take Model currently projects populations trends, including the negligible impact criteria, in 20-year increments, which exceeds the five-year increments required in the MMPA. This approach is currently being assessed.

The qualitative assessment methodology used the initial results of the April 2002, version of the Incidental Take Model, and was described in detail in the proposed rule. This analytic methodology was applied to make the proposed findings.

IV. Finding

I have reviewed the Final Environmental Impact Statement and other relevant information contained in the Administrative Record in reaching a decision for this proposed rulemaking. Based on this review, Interior selects Alternative 1, the No Action Alternative, as described in the March 2003 “Final Environmental Impact Statement Rulemaking for the Incidental Take of Small Numbers of Florida Manatees (*Trichechus manatus latirostris*) resulting from Government Programs Related to Watercraft Access and Watercraft Operation in the State of Florida.” This determination is made after carefully considering the various analytic methodologies and relevant information received during the public comment period. Questions about the methodologies, standards, and information, as discussed above, prevent me from finding that incidental take will have a negligible impact, as required by the Marine Mammal Protection Act (MMPA), on any of the four stocks of Florida manatee.

Therefore, I conclude I am unable to find that incidental take from the specified activities will have no more than a negligible impact on the four stocks. Alternative 1, the No Action alternative, is the selected alternative that appropriately reflects that we are precluded from making negligible impact findings, as required by the standards for the MMPA and 50 C.F.R. 18.27. Consistent with this finding, we will also withdraw the November 2002 MMPA Proposed Rule for the Incidental Take of Small Number of Florida Manatees. A Notice of Availability of this Record of Decision will be published in the *Federal Register*. I conclude that this Record of Decision is in compliance with all relevant Federal laws, regulations, and Executive Orders.

Signed this 5th day of May, 2003,

Assistant Secretary for Fish and Wildlife and Parks