

## MARINE MAMMAL COMMISSION

19 August 2015

Ms. Jolie Harrison, Chief Permits and Conservation Division Office of Protected Resources National Marine Fisheries Service 1315 East-West Highway Silver Spring, Maryland 20910

> Re: Permit Application No. 19590 (Terrie Williams, Ph.D., University of California Santa Cruz)

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the above-referenced permit application with regard to the goals, policies, and requirements of the Marine Mammal Protection Act (the MMPA). Dr. Williams is seeking authorization to conduct research activities on marine mammals during a five-year period—permit 13602 authorized the same activities.

Dr. Williams is requesting authorization to conduct research on various species of cetaceans and pinnipeds that either are held in captivity permanently or during rehabilitation on an opportunistic basis (see the Take Tables). The purpose of the proposed research is to investigate and compare the energetic and cardiovascular responses and diving physiology of marine mammals. The research activities could occur during training sessions or routine husbandry procedures. Dr. Williams would conduct typically no more than one 20-minute test session per day on each animal. Procedures could include conducting metabolic chamber and ultrasound measurements, administering Evan's blue dye and deuterium oxide, collecting blood samples, and determining body temperature and heart rate. A subset of those procedures could be conducted on bottlenose dolphin calves—all other procedures would be conducted only on juveniles and adults of the various species. Dr. Williams would not conduct the procedures on pregnant animals.

Samples<sup>1</sup> from up to 140 cetaceans and 140 pinnipeds could be imported or exported for analyses. Dr. Williams requests authorization for up to 1 cetacean and 1 pinniped mortality<sup>2</sup> per year for the permanently captive animals and up to 10 cetaceans or pinnipeds per year for the animals undergoing rehabilitation due to their compromised health status. Necropsies would be conducted on all animals that die.

<sup>&</sup>lt;sup>1</sup> Including whiskers, muscle, skull/brain, eyes, and heart.

<sup>&</sup>lt;sup>2</sup> Including both unintentional and via euthanasia, for humaneness purposes.

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To minimize effects of the research activities, Dr. Williams has developed protocols and sampling methodologies that include less invasive sampling and sampling during voluntary behaviors. The captive facility at the University of California Santa Cruz holds a license issued by the U.S. Department of Agriculture (USDA), and its Institutional Care and Use Committee has reviewed and approved the research protocols. In addition, studies involving captive animals could occur at numerous facilities that also are licensed by USDA or would occur via collaborative agreements with the Association of Zoos and Aquariums and/or the Alliance of Marine Mammal Parks and Aquariums.

<u>The Commission</u> believes that the proposed activities are consistent with the purposes and policies of the MMPA and therefore <u>recommends</u> that NMFS issue the permit, as requested. Kindly contact me if you have any questions concerning the Commission's recommendation.

Sincerely,

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Rebecca J. Lent, Ph.D. Executive Director