



PACIFIC WHALE FOUNDATION

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My name is Greg Kaufman; I am president and founder of Pacific Whale Foundation, headquartered in Maui. I have studied humpback whales throughout the North and South Pacific for nearly 30 years and have authored three books and dozens of scientific and popular articles on whales. I have participated in several international and national workshops and meetings on the impacts and effects of high-speed ferries and vessels on whales.

On behalf of Pacific Whale Foundation's more than 250,000 members and supporters and our 150 Maui-based employees, I appear here today to speak in favor of SB1276. In addition, I will be submitting, electronically, copies of petitions containing signatures of 20,469 individuals asking that an EIS be undertaken for the Hawaii Superferry.

While we have many concerns regarding the socio-economic impacts the Hawaii Superferry (HSF) will have on Hawaii in general and Maui in particular, I would like to speak to the impending increased jeopardy to humpback whales posed by the HSF.

Fatal collisions with ships have become a leading threat to whale survival. Ship strikes are on the rise, due to a combination of increasing coastal ship traffic, smaller crew size, bigger vessels and faster speeds. Deafening underwater noise levels from vessels prevents whales from hearing their impending approach.

Most collisions occur in coastal waters with high concentrations of whales and vessels. Whales become more vulnerable in feeding, nursing, calving, and mating grounds where they spend more time on the surface of the sea

A review of worldwide collisions between whales and ferries carried out by Weinrich (2004) noted that out of 24 reported collisions, eleven were with fast ferries (i.e. traveling at greater than 30 knots). Additionally, the probability of a collision causing fatal or serious injury to the struck whale becomes more likely as speed increases. Whales struck at speeds greater than 13 knots were more likely to sustain fatal injuries, while whales struck at speeds less than 13 knots were more likely to survive (Laist et al. 2001, Jensen and Silber 2003).

Fast ferries have reportedly killed or injured whales in Maine, Washington, British Columbia, Spain, New Caledonia, the Sea of Japan, the English Channel and the Mediterranean. In France and Italy, more than one in ten whale strandings has been attributed to ship strikes, many from speeding ferries. Between France and Corsica, a ferry hits at least one whale per year.

In April 2006, an unidentified whale was struck and almost certainly killed by a high-speed ferry near Kagoshima Bay, Japan. More than 40 of the ferry's passengers were taken to hospital and at least 12 were reported to be in a serious condition. Virtually all of the ferry's 103 passengers were injured in some way.

Humpback whales are present in Hawaiian waters from early October until late June. About 60% of the North Pacific stock (some 8,000 – 10,000 whales) migrates each year to Hawaii to mate, calve and nurse their young.

Humpback whales are an endangered species and afforded federal and state protection. Needless to say, no matter where a humpback whale is encountered, whether it is off Diamond Head, or en route to Kahului, Kawaihae or Nawiliwili harbors, humpbacks remain endangered and protected.

The HSF is a high-speed vessel unlike any other ever to ply Hawaiian waters. At 350 feet in length with a 78 foot beam and carving a draft at over 11 feet this vessel single-handedly poses a formidable threat to Hawaiian marine life, and in particular endangered humpback whale.

Proponents of HSF have spun a wildly exaggerated tale of how they will attempt to prevent whale strikes and collisions. HSF states they will operate at a maximum of 25 knots in waters less than 100 fathoms, waters they say are relatively void of humpback whales. However, recent data, (Mobley et al., 2004) shows distribution of humpbacks whales off Kauai to be about 50% in 100-fathom waters and 50% in 1000 fathoms of water.

In fact one of the most remarkable whale strikes ever recorded happened off Maui in 2003 involving a fisherman thrown from his vessel in the very area the HSF will commute through. Incidentally he was traveling about 10 knots at the time of collision. This collision, like several since, occurred in waters greater than 100 fathoms in depth.

The sheer size and bulk of the HSF, with its bridge tending towards the back of the boat, means that visibility close to the bow of the vessel is more likely to be limited. The long reaction time needed to change course means that the boat may be unable to avoid striking a whale – it may, quite literally, be stuck on a ‘collision course’. In 93% of collisions examined by Laist et al. (2001), whales were either not seen beforehand, or were seen too late to be avoided.

In the Canary Islands where high-speed ferries (like HSF) operate routinely at speeds of 35- 45 knots, operators there report the need to detect whales at least 2.5 km (1.5 miles) in advance to avoid a strike. In other words, they need over 1.5 minutes advance warning to change course to avoid collision.

Last year in Hawaii there were six reported humpback whales strikes. This year, there have been one reported and two detected whale strikes. In all reported cases, the whales ‘appeared’ or surfaced in the path of the vessel too late to detect. These operators all had moments, not minutes to react. So much for the HSF’s supposed ability to maintain a course and heading 500 yards away from a ‘detected’ whale.

HSF claims they will employ the use of high tech gizmos like forward-looking collision avoidance sonar and x-band radar. However, at the Jan. 12, 2006 Hawaiian Islands Humpback Whale Sanctuary Advisory Council meeting, co-owner Terry White announced HSF ordered their first ship without forward looking collision avoidance sonar or x band radar.

Laist et al. (2001) reported the bigger and faster the vessel, the more lethal the collision. Over 89 percent of lethal or severe injuries were inflicted by fast ferries and ocean-going vessels (over 80 m in length) traveling in the excess of 13 knots.

HSF ignores this important finding and states they will endeavor to operate at 25 knots or less in waters less than 100 fathoms, and at a speed of at least 35 knots elsewhere. Their justification – “other vessels are doing similar speeds”. Who? Inter-island barges travel at speeds of 12 - 18 knots. Incoming cargo ships travel at speeds of 20 knots or less. We recently polled the top five cruise ship companies regularly traversing Hawaiian waters and found they are doing an average

of 15 knots or less. No other vessel of HSF's size or magnitude is traveling at such a high rate of speed in the presence of an endangered species.

The math is not in HSF's favor. Assuming a travel speed of 35 knots and encountering a whale at 500 yards, with the whale swimming 1-3 knots towards the vessel, the reaction time to collision is 2.38 seconds. Traveling at the same speed and detecting the whale at 100 yards, HSF has *minus* 9.67 seconds to react – they will hit a whale before they even see it from about 500 yards or less.

Despite claims that HSF has received some quasi-governmental endorsement from the Hawaiian Islands Humpback Whale Sanctuary Advisory Council (a body that can only make recommendations and not set policy) for its whale speed policy, one need only look to a 2007 joint Hawaii publication entitled “Humpback Whales: a Boating and Ocean Use Guide for Safety and Conservation” published by NOAA, DLNR, Hawaiian Island Humpback Whale National Marine Sanctuary and the National Marine Sanctuary Foundation to find a contradictory, yet official, statement:

“NOAA recommends boaters slow down when whales are present. Research indicates that collision injuries are less frequent and less severe when vessels travel at 13 knots or less.”

The HSF claims to have a “low swept” area underneath the water line helping reduce chances of whale strikes. They fail to mention the over 10 foot-wide bow wings piercing beneath the water's surface presenting a wide target for collision. In fact, Dr. James Mead of the Smithsonian Institute has claimed that bulbous bows and bow wings of today's modern vessels have posed the single greatest threat to marine mammals, and have resulted in increased collisions since their introduction.

HSF touts the lack of propellers as some major achievement in strike reduction. They neglect to reveal injuries resulting from ship strikes on cetaceans may be broadly classified into two forms: blunt trauma injures and propeller wounds (Laist et al., 2001). Blunt impact trauma often results in massive bruising and fractures of heavy bones such as skulls, jaws, or vertebrae. The majority of whale deaths are from blunt trauma injury and not from propeller wounds.

HSF also fails to mention the massive engines and turbines required to propel their high-speed ferry using water jets, which generate deafening underwater noise during transit. This vessel emits more low-frequency noise than current vessel designs owing to their need for greater speed and propulsive power. Existing data suggest that anthropogenic noise leads to an increase in cetacean mortalities from entanglement in fishing nets, collisions with vessels, and mass stranding events, most likely as a result of auditory damage, or masking of important acoustic signals. Simply stated: a deaf whale is a dead whale.

Humpback whales are an endangered species and the Federal Endangered Species Act and the Marine Mammal Protection Act afford them protection. Under section 7(a)(1) of the Endangered Species Act (ESA), Federal agencies are directed to utilize their authorities to carry out programs for the conservation of endangered species.

Under section 7(a)(2) of the ESA, each Federal agency shall, in consultation with the Secretary of Commerce, insure that any action they authorize, **fund**, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat.

Section 7 Consultation ensures a Biological Assessment is made to determine whether the proposed federal action will result in jeopardy/no jeopardy to listed species or destruction or adverse modification/no destruction or adverse modification to designated critical habitats.

In fulfilling these requirements, each agency must use the best scientific and commercial data available.

HSF's self-created Whale Avoidance Policy fails to rely on sound science and does not employ the best scientific and commercial data available.

HSF will operate from a ferry terminal facility in Honolulu built with the help of the U.S. Department of Transportation, a federal agency.

HSF will operate from Kahului harbor, a facility improved for its use in consultation with the Army Corp of Engineers, a federal agency.

HSF has received Title XI federal loan guarantee for nearly \$140 million from the Department of Transportation Maritime Administration, a federal agency.

HSF has accepted and expended these federally guaranteed funds.

Federal law requires section 7 Consultation, but nobody seems to be calling for it.

We recommend SB1276 be amended to request NOAA Fisheries Office of Protected Resources initiate a ESA Section 7 Consultation immediately. The Office of Protected Resources must ensure Reasonable and Prudent Measures are put in place to minimize impacts from Federal agency actions – actions which have put the Superferry in business.

Without a comprehensive EIS, and a federal Biological Assessment and a Biological Opinion on how best to protect humpback whales from the Superferry, we will further endanger the lives of a protected species, and blatantly set a dangerous precedent by relieving the Superferry of any responsibility for complying with the clear provisions of the Endangered Species Act.

The HSF poses a clear and present threat to Hawaii's endangered humpback whales. Should HSF be allowed to operate when humpback whales are present it will not be a matter of 'if' a collision will occur, only 'when'. We urge you to pass SB1276 to protect Hawaii's endangered humpback whales, our state marine mammal and precious resource.

Thank you.

Gregory Dean Kaufman
President and Founder
PACIFIC WHALE FOUNDATION