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FROM: CHRIS JANSEN

DATE: 2 October 1998

SUBJECT: Bird Surveys on Oahu and Surrounding Offshore Islands

I have attached subject plan that was prepared by Joan Duffield of ENTRIX on the behalf of Tesoro Hawaii Corporation in cooperation with U.S. Fish and Wildlife and the Hawaii Division of Forestry and Wildlife.

Joan and a team of scientists will begin the monitoring program the week of October 5, 1998.

For those of you who will be on the 0800 (Hawaii Standard Time), Monday, 5 October 1998 conference call, we can discuss concerns and logistics at that time. Joan Duffield will be in Honolulu at that time and will be a party at the conference call.

Please fax your comments to me at (808) 547 3689. I look forward to finalizing our agreement after you have reviewed the attached study plan. I encourage your participation as resource trustees in the field surveys. If you have any questions please call me at 808 547 3242.

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To: Kevin Foster/Beth Flint/Carol Terry/David Smith
From: Joan Duffield
Date: October 2, 1998
Re: Surveys on Oahu and Surrounding Offshore Islands

Based on input from the U.S. Fish and Wildlife and the Hawaii Division of Forestry and Wildlife, the following seabird and coastline surveys are proposed on Oahu and surrounding offshore islands. The purpose of these surveys is to assess the possible extent of oil on seabirds inhabiting Oahu and surrounding offshore islands, as a result of the Tesoro Hose Spill. It is expected that these surveys will begin the week starting October 5th. After these initial surveys are completed, the need to conduct additional surveys will be evaluated in consultation with Tesoro and the trustees' biologists.

Tesoro will provide logistical support for arranging access to the islands, and two biologists, Joan Duffield with ENTRIX and Lance Tanino, a local biologist recommended by Dave Smith. Participation by state and federal biologists is encouraged during all these surveys. It is our understanding that Kevin Foster would like to participate in the survey at the Mokapu Firing Range on the Kanohohe Marine Corps Station, and Dave Smith would like to accompany the survey team to Moku Manu. Joan Duffield will be the point of contact and will be responsible for informing the trustees of the schedule for these surveys.

Coastline Surveys

The coastlines along a number of the State Seabird Sanctuaries and islands off the eastern side of Oahu will be surveyed once to look for any oiled birds and/or carcasses. Additionally, the intertidal and subtidal zones along the coastline will be inspected for any evidence of oil. The coastline surveys will include the following State Seabird Sanctuaries: Mokuauia, Moku Manu, Popoia Island, Mokolua Island (?), Manana and Kaohikaipu; and the following Islands: Mokolii and Kapapa Islands. Access to these islands will be by boat.

Wedge-tailed Shearwater Survey

Due to the foraging habits and daily patterns of wedge-tailed shearwaters, concerns have been raised that the possible extent of oiling on wedge-tailed shearwaters on Oahu has gone undetected. To address this potential issue, a nocturnal survey of adult wedge-tailed shearwaters will be conducted at the Kaena Point Natural Area Reserve. This is the largest colony on Oahu that is easily accessible by land.

The colony at Kaena Point will be surveyed for oiled wedge-tailed shearwaters for one evening from approximately 1900 to 2200. The survey will require capturing adult shearwaters. Adults sitting outside the burrow will be caught by hand. For birds inside the burrow, the adult will be either grabbed by the bill or rump area, depending on the bird's orientation in the burrow, and gently pulled from the burrow. While in the biologist's hand, each bird was examined over its entire body (plumage, feet and bill) for any evidence of oiling. After examining the bird, the bird will be returned to the location where it was captured. In the event that a surveyor collapses a burrow, the burrow will be quickly dug out to rescue any chick that may have been buried. The burrow will then be re-excavated, and if there is a chick, it will be returned to the re-contoured burrow. The total number of birds examined, along with the number of oil birds and the percent of oiling, will be recorded.

Based on the results of the survey, the need to examine other wedge-tailed shearwater colonies around Oahu will be evaluated. If further assessment of the extent of oiling on this species is necessary, these surveys will be conducted at other colonies on Oahu to avoid further disturbance to the birds at Kaena Point.

Red-footed/Brown Booby Survey

The only Oahu offshore island that is a known booby roosting site is Moku Manu. Due to the inaccessibility of the island, access by helicopter will be required. Moku Manu will be surveyed once during the late afternoon and evening hours, as the boobies return to the roosting site. The survey period may warrant staying on the island for the night. Using binoculars, boobies will be visually inspected for any evidence of oil. The total number of boobies observed will be recorded, along the number of birds and percent cover of oil, if present.

Additionally, one survey of the booby colony at the Mokapu Firing Range at the Kaneohe Marine Corps Station on Oahu will be coordinated with Gordon Oliva. The timing of these surveys will be dependent on firing activities at the base, but it is anticipated that these surveys will begin at sunset and continue for approximately three hours.