



Swanson Creek Natural Resource Damage Assessment - January 2002

# Waterfowl Mortality Study

NOAA, the U.S. Fish and Wildlife Service (USFWS), and the Maryland Departments of Natural Resources (MDNR) and Environment (MDE) are conducting a natural resource damage assessment (NRDA) for the April 2000 Pepco pipeline spill in Swanson Creek near Benedict, Maryland. This effort involves identifying and restoring resources and services injured by the oil, and is being done with the cooperation of the responsible parties, Pepco and ST Services. Below is summary information about a recently completed waterfowl mortality study.



*Ruddy ducks were most impacted by the April 2000 pipeline oil spill in Southern Maryland.*

## Study Methodology

The study objective was to estimate the number of birds, primarily waterfowl, that died as a result of the oil spill. Estimates of mortality were based on observations of the size of the local populations, the proportion of individuals observed and estimated to be oiled, and the number of retrieved carcasses. This information, in conjunction with the literature on the oiling impacts on birds, was used to estimate total bird mortality resulting from the spill.

## Results

In the days following the spill, the USFWS organized wildlife survey teams to document wildlife impacts and use within the spill zone. These surveys indi-

cated that over 1000 migratory and resident birds were present in the impacted areas, including ruddy ducks, grebes, buffleheads, cormorants, osprey, great blue herons, and bald eagles. Roughly 60 dead birds were recovered during the spill. Many more birds were observed to be oiled but were too active to be retrieved. It is known that some portion of these living, oiled animals eventually die and, furthermore, that many dead animals were not recovered.

Based on observations on the location and presence of waterfowl and the oil, between 400 and 500 birds, mostly ruddy ducks, were estimated to have died as a result of the spill. The trustees also estimate that the oil affected the reproduction of ducks and that roughly 400 ruddy duck young or hatchlings were not born.

## Investigators

The survey was developed and directed by the USFWS. Field surveys were conducted by USFWS, MDNR, MDE, the Maryland Furbearers Association, and volunteers. Aerial surveys were conducted by MDNR. Integration of the data and quantification of injury is being performed by scientists representing NOAA, USFWS, MDNR, and Pepco.

Full reports available on website

[www.darp.noaa.gov/neregion/chalkpt.htm](http://www.darp.noaa.gov/neregion/chalkpt.htm)

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