

## Chalk Point Oil Spill

Natural Resource Damage Assessment

May 2001

### Study Summary - Injuries to Recreational Use

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Immediately following the April 2000 Pepco pipeline oil spill near Benedict, Maryland, the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service (USFWS), the Maryland Department of Natural Resources (MDNR), and the Maryland Department of the Environment (MDE) began conducting a natural resource damage assessment (NRDA). The NRDA includes several studies to identify and quantify injuries caused by the oil spill to natural resources and the services those resources provide. This fact sheet summarizes the results of the recently completed lost recreational use valuation report.

#### Study objective

The study objective was to estimate the economic value of lost recreational services caused by the Chalk Point oil spill. The term "value of lost recreational services" refers to a reduction in the monetary value of recreational services provided by the affected natural resources. It is made up of two components: the value of lost recreational trips (or recreational occasions) due to the spill and the value of reduced enjoyment for trips that were taken to the spill impact zone despite the effects of the oil.

#### Methodology overview

To estimate the value of the lost recreational trips, the investigators first estimated the level of recreational activity that would have occurred in the spill impact zone during the 2000 recreational season (April through September) but for the spill and subtracted from it the estimated number of trips actually taken. The result was then multiplied by the estimated average dollar value of a typical (unaffected by the oil spill) recreational trip to the Patuxent River to arrive at a dollar amount for this component of the total loss. For the second component, the estimated number of trips actually taken to the spill zone during 2000 was multiplied by the reduction in the monetary value of a recreational trip taken under degraded conditions. The two components were then added together to provide an estimate of the total value of lost recreational services. Data used in the estimation process were obtained from a variety of sources, including: helicopter surveys of recreational use in the spill impact zone during 2000; meteorological records from the Patuxent River Naval Air Station; recreational use records from Golden Beach, a residential community located in the spill zone; per trip recreational use values from the economics literature; an on-site survey of recreational users of the Patuxent River during the 2000 season.

#### Results

Based on the methodology described above, the estimate of total lost recreational use damages is \$453,499. This figure includes a value for the estimated reduction in the number of recreational trips taken because of the spill, as well as a value for the estimated reduction in enjoyment for recreational trips that were taken in the spill zone in 2000.



An estimated 12,704 fewer recreational trips were taken to the spill zone in 2000. These lost trips resulted from decisions by some recreationists to not take as many trips to the spill zone in 2000 as they would have absent the spill. The total value of the lost trips is estimated to be \$343,010. The data used in the analysis indicate that these losses began immediately after the spill and continued through early August.

Loss of enjoyment was associated with all 112,359 recreational trips estimated to have been taken in the spill zone during the 2000 season. The loss of enjoyment began with the first recreational trips taken after spill and declined over the course of the season. The total dollar value of the diminished enjoyment associated with these trips is estimated to be \$110,485.

## Investigators

The study was implemented jointly by NOAA, USFWS, MDNR, MDE, and Pepco and ST Services.

## For further information

Contact the following individual or refer to the web site listed below for more information.

**NOAA**

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

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This summary is meant to provide only an overview of this study. Further information on NRDA studies can be found in the Chalk Point Administrative Record located at following sites:

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30383 Three Notch Road  
Charlotte Hall, MD  
(301) 290-0946  
1-800-685-1266  
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Mon. - Fri. 9 am to 5 pm

Calvert Industrial Park  
230 Bugeye Square  
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Information Resource Center  
MD Dept. of Natural Resources  
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