

US EPA ARCHIVE DOCUMENT

CATALOG DOCUMENTATION  
REGIONAL EMAP DATABASE  
1998-1999 NEW YORK/NEW JERSEY HARBOR SYSTEM  
STATION LOCATION AND VISIT INFORMATION

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1. DATA SET IDENTIFICATION

- 1.1 Title of Catalog document  
Regional EMAP Database  
1998-1999 New York/New Jersey Harbor System  
Station Location and Sampling Visit Information
- 1.2 Author of the Catalog entry  
Melissa Hughes, CSC
- 1.3 Catalog revision date  
May 18, 2004
- 1.4 Data set name  
Station Location (stations.txt) and  
Sampling Visit Information (visits.txt)
- 1.5 Task Group  
Regional Environmental Monitoring and Assessment Program
- 1.6 Data set identification code  
230
- 1.7 Version  
001

### 1.8 Requested Acknowledgment

If you plan to publish these data in any way, EPA requires a standard statement for work it has supported:

"Although the data described in this article have been funded wholly or in part by the U. S. Environmental Protection Agency through its EMAP-Estuaries Program, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement should be inferred."

## 2. INVESTIGATOR INFORMATION

### 2.1 Principal Investigator

Ms. Darvene A. Adams

U.S. Environmental Protection Agency - Region II

### 2.2. Investigation Participant

Ms. Sandi Benyi

U.S. Environmental Protection Agency - ORD/NHEERL/AED

## 3. DATA SET ABSTRACT

### 3.1 Abstract of the Data Set

The Station Location and Sampling Visit data sets provide geographic and visit information on the sites sampled in the New York/New Jersey Harbor region. The latitude and longitude for each station are given, as well as the area represented by a station. The water column depth at the time of sampling is reported. Most stations were selected probabilistically using a stratified random design; other stations were specifically located in a depositional area.

### 3.2 Keywords for the Data Set

sampling sites, latitude, longitude, depth

## 4. OBJECTIVES AND INTRODUCTION

### 4.1 Program Objective

The project was designed to support resource management decisions related to pollution control and remediation throughout the New York/New Jersey (NY/NJ) Harbor and to assist the New York-New Jersey Harbor Estuary Program (HEP) in developing a contaminant monitoring strategy to be included in the Comprehensive Conservation and Management Plan (CCMP) for the NY/NJ Harbor system.

### 4.2 Data Set Objective

To provide accurate station location and visit information for each site visited in the NY/NJ harbor region.

#### 4.3 Data Set Background Discussion

The New York/New Jersey Harbor System Sediment Assessment was based on methods used in the EMAP-Estuaries program. A probability-based sampling design ensured an unbiased estimation of condition and that all areas within the system were potentially subject to sampling. The probability based sampling design also allowed calculation of confidence limits around estimates of condition.

#### 4.4 Summary of Data Set Parameters

Station Location and Sampling Visit data set values were based on the geographic location of the station and other observations recorded at the time of the visit.

### 5. DATA ACQUISITION AND PROCESSING METHODS

#### 5.1 Data Acquisition

##### 5.1.1 Sampling Objective

Accurately locate sampling sites, measure depth of water column

##### 5.1.2 Sample Collection Methods Summary

One hundred and twelve sites were sampled, 28 in each of 4 sub-basins. All stations were sampled in 1998. Grab samples were collected in Newark Bay in 1999. Sites not in a depositional area were selected by randomly placing a grid structure over the study area, selecting 14 grid cells at random from each stratum, and selecting a random location from within the selected cells. Cells were of equal area within strata.

##### 5.1.3 Sampling Start Date

June 1998

July 1999

##### 5.1.4 Sampling End Date

August 1998

July 1999

##### 5.1.5 Platform

Sampling was conducted from an USEPA vessel, the R/V CLEAN WATERS.

##### 5.1.6 Sampling Gear

LORAN-C

Differential-GPS (D-GPS)

Global Positioning System (GPS)

sonar

##### 5.1.7 Manufacturer of Sampling Equipment

NA

#### 5.1.8 Key Variables

The latitude and longitude of the station location were determined at the time of sampling. According to EPA Locational Policy: 1. Latitude is always presented before longitude; 2. Latitude and longitude are recorded as decimal degrees. The specific method, Loran or GPS, of determining the latitude and longitude is also recorded.

#### 5.1.9 Collection Method Calibration

NA

#### 5.1.10 Sample Collection Quality Control

NA

#### 5.1.11 Sample Collection Method Reference

Overton, W.S., D. White and D.L. Stevens. 1990. Design Report for EMAP: Environmental Monitoring and Assessment Program. EPA/600/3-91/053. U.S. Environmental Protection Agency, ORD, Washington, DC.

#### 5.2 Data Preparation and Sample Processing

Not applicable

### 6. DATA MANIPULATIONS

Most values were assigned, based on geographic location.

#### 6.1 Name of new or modified values

NA

#### 6.2 Data Manipulation Description

NA

#### 6.3 Data Manipulation Examples

Not applicable.

### 7. DATA DESCRIPTION

#### 7.1 Description of Parameters

##### 7.1.1 Station Location

	Parameter		Data		Parameter
#	Name	Type	Len	Format	Label
1	STATION	Char	10	\$10	Station identifier
2	STA_AREA	Num	8	7.5	Segment area (sq km)
3	STA_LAT	Num	8	10.6	Latitude (decimal degrees)
4	STA_LNG	Num	8	11.6	Longitude (-decimal degrees)
5	SYSTEM	Char	50	\$50	Large water body system

## 7.1.2 Station Visit

Parameter		Data	Parameter		
#	Name	Type	Len	Format	Label
1	STATION	Char	10	\$10	Station identifier
2	DATE	Num	8	DATE7.	Date of sample collection
3	ESTUARY	Char	10	\$10	Small water body
4	STRATA	Char	10	\$10	Design strata
5	AREA	Num	8	6.3	Statistical area of station (km2)
6	TRASH	Char	1	\$1	Trash present (Y/N)

## 7.1.6 Precision to which values are reported

The precision is indicated by the attribute format reported under 7.1

## 7.1.7 Minimum value in data set

Latitude decimal degrees      40.426  
Longitude decimal degrees    -74.298  
Station depth                    2.0

## 7.1.8 Maximum value in Data Set

Latitude decimal degrees      40.867  
Longitude decimal degrees    -73.759  
Station depth                    25.3

## 7.2 Data Record Example

## 7.2.1 Column Names for Example Records

## 7.2.1.1 Station Location

STATION,LATITUDE,LONGITUDE,DEPTH,SYSTEM

## 7.2.1.2 Sampling Visit

STATION,DATE,ESTUARY,STRATA,AREA,TRASH

## 7.2.2 Example Data Records

## 7.2.2.1 Station Location

STATION,LATITUDE,LONGITUDE,DEPTH,SYSTEM

JB008,40.6409,-73.8162,8.8,New York/New Jersey Harbor

JB018,40.6096,-73.786,13.4,New York/New Jersey Harbor

JB026,40.6034,-73.842,5.8,New York/New Jersey Harbor

## 7.2.2.2 Sampling Visit

STATION,DATE,ESTUARY,STRATA,AREA,TRASH

JB008,8/4/98,Jamaica Bay, ,47.46,N

JB018,8/5/98,Jamaica Bay, ,47.46,N

JB026,8/7/98,Jamaica Bay, ,47.46,N

## 8. GEOGRAPHIC AND SPATIAL INFORMATION

## 8.1 Minimum Longitude

-74 Degrees 17.4 Minutes 48.00 Decimal Seconds

## 8.2 Maximum Longitude

-73 Degrees 45 Minutes 0.54 Decimal Seconds

### 8.3 Minimum Latitude

40 Degrees 25.2 Minutes 36.00 Decimal Seconds

### 8.4 Maximum Latitude

40 Degrees 51.6 Minutes 42.00 Decimal Seconds

### 8.5 Name of area or region

New York/New Jersey Harbor System

Four sub-basins were sampled in the New York/New Jersey Harbor, including: Upper Harbor, Newark Bay, Lower Harbor (includes Raritan and Sandy Hook Bays) and Jamaica Bay. For purposes of this study, the region includes the lower portions of the Hudson, Passaic, Harlem, Hackensack and Raritan Rivers, upstream to a near-bottom salinity of 15 ppt, the East River to Long Island Sound and Lower Harbor to the Atlantic Ocean.

## 9. QUALITY CONTROL AND QUALITY ASSURANCE

### 9.1 Data Quality Objectives

NA

### 9.2 Data Quality Assurance Procedures

NA

## 10. DATA ACCESS

### 10.1 Data Access Procedures

Data can be downloaded from the WWW server.

### 10.2 Data Access Restrictions

Data can only be accessed from the WWW server.

### 10.3 Data Access Contact Persons

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### 10.4 Data Set Format

Comma delimited

### 10.5 Information Concerning Anonymous FTP

Data cannot be accessed via ftp.

### 10.6 Information Concerning WWW

Data can be downloaded from the WWW servers.

### 10.7 EMAP CD-ROM Containing the Data Set

Data are not available on CD-ROM

# 11. REFERENCES

Adams, D. 1998. Quality Assurance Project Plan for Environmental Monitoring, "A 5-year Revisit of Sediment Quality in the NY/NJ Harbor." U.S. Environmental Protection Agency, Region 2, Edison, NJ.

Adams, Darvene and Sandra Benyi. 2003. Final Report: Sediment Quality of the NY/NJ Harbor System - A 5-Year Revisit. EPA/902-R-03-002. USEPA-Region 2, Division of Science and Assessment. Edison, NJ. December, 2003.

Reifsteck, D.M., C.J. Strobels and D.J. Keith. 1993. Environmental Monitoring and Assessment Program - Near Coastal Component: 1993 Virginian Province Field Operations and Safety Manual. U.S. EPA NHEERL-AED. Narragansett, RI.

USEPA, 1989. Draft EPA Locational Data Policy. U. S. EPA, Washington, D. C.

# 12. TABLE OF ACRONYMS

# 13. PERSONNEL INFORMATION

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