Hydrologic data for the Eastland Woolen Mill Superfund Site, Penobscot County, Corinna, Maine, March through June 1999

U.S. GEOLOGICAL SURVEY

Open-File Report 01-212

Prepared in cooperation with the
U.S. Environmental Protection Agency

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By Martha G. Nielsen, Robert W. Dudley, and Camille S. Parrish

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Augusta, Maine
2002

U.S. DEPARTMENT OF THE INTERIOR
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Denver, CO 80225

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CONVERSION FACTORS, AND VERTICAL DATUM

CONVERSION FACTORS

Multiply	By	To Obtain
foot (ft)	0.3048	meter

VERTICAL DATUM

Sea Level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

HYDROLOGIC DATA FOR THE EASTLAND WOOLEN MILL SUPERFUND SITE, PENOBSCOT COUNTY, CORINNA, MAINE, MARCH THROUGH JUNE 1999

ABSTRACT

Hydrologic data were collected at the Eastland Woolen Mill Superfund Site, Corinna, Maine, from March 19, 1999 through June 11, 1999 as part of a study to formulate a geologic characterization and conceptual model of this study area. Data-collection consisted of measurements of water-surface elevations at 7 surface-water sites and 20 wells.

INTRODUCTION

The Eastland Woolen Mill Superfund Site has been designated by the U. S. Environmental Protection Agency (USEPA) as a Superfund site under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The Eastland Woolen Mill Superfund Site, referred to in this report as "the site", is located in Penobscot County, Corinna, Maine (fig. 1).

The Eastland Woolen Mill produced fine woolens and blended dyed fabrics from 1912 until 1996. The mill used a variety of dense non-aqueous phase liquids (chlorinated solvents, primarily chlorobenzenes) that were disposed of or stored at the mill site and surrounding locations. These chemicals have migrated through surficial sediments and into fractured bedrock, contaminating ground water (Acheron, 1994; Harding Lawson Associates, 1999). Studies of contamination at the site began in 1983. The USEPA, the U.S. Army Corps of Engineers, and sub-contractor Harding Lawson Associates assessed the extent of the contamination plume in 2000 and have begun remedial action at the site.

The U.S. Geological Survey (USGS) in cooperation with the USEPA began data-collection activities to provide information on the geohydrologic setting at the site as a basis for designing appropriate remedial actions and supporting studies within the study area. A conceptual ground-water model for the site has been constructed (Mack and Dudley, 2001), and geophysical data collected at the site also has been published (Hansen and others, 2001). As part of the overall goal of providing information on the hydrology at the site, the data network described in this report was established to measure water levels in surface-water bodies and ground-water wells.

Purpose and scope

The purpose of this report is to present hydrologic data collected from March 19, 1999 through June 11, 1999, at the Eastland Woolen Mill Superfund Site in Corinna, Maine. These hydrologic data consist of discrete measurements of water levels at 7 surface-water sites, and both continuous and discrete ground-water-level data in 20 wells.

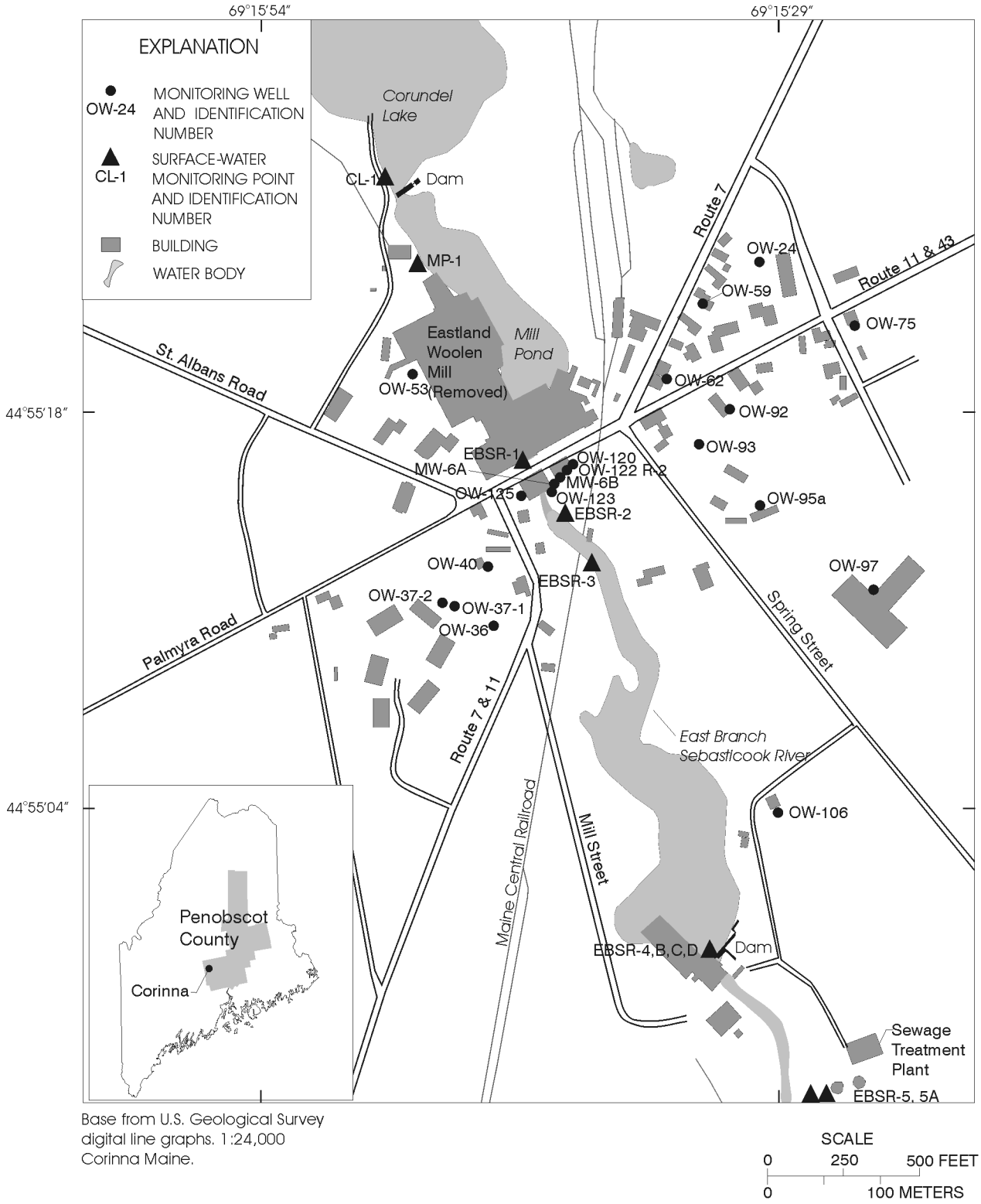

Figure 1. Location of the Eastland Woolen Mill Superfund Site, Corinna, Maine

Description of study area

The town of Corinna, in central Maine, is located in a valley formed by the East Branch of the Sebasticook River (fig. 1), which is a tributary to the Kennebec River. The river is dammed in several places to form a number of ponded areas including Corundel Lake and Mill Pond. The town center and most commercial and residential buildings are in the valley lowlands. The former Eastland Woolen Mill, built directly over the river in the center of town (fig. 1), operated from 1912-1996 and is believed to be the primary source of contamination to the bedrock aquifer adjacent to the river (Harding Lawson Associates, 1999).

There are two aquifers in the study area: a surficial till aquifer and a fractured bedrock aquifer. No significant sand and gravel aquifers have been mapped in the study area. The till aquifer is about 20 ft. thick in most places (Harding Lawson Associates, 1999). Throughout most of the study area the water table is in the surficial aquifer. The bedrock aquifer consists of a generally highly-fractured shaley metasediment and siltstone (Osberg and others, 1985; Mack and Dudley, 2001).

Acknowledgments

The authors thank the individuals who assisted with the data-collection, including Jean Firth, Brian Beneski, and Gordon Fuller with the Maine Department of Environmental Protection (MDEP).

HYDROLOGIC DATA

The data-collection network consists of ground-water wells and sites for measuring lake and river water-surface elevations.

Ground-water sites

The ground-water data-collection network consists of 20 observation wells, which include monitoring wells drilled for the study, commercial wells, and residential domestic wells (table 1). Two wells were completed in the surficial till aquifer and the remaining eighteen were drilled into the bedrock aquifer.

The wells are identified with three sets of identifiers: project identifiers, local well numbers, and USGS identification numbers (table 1). The project identifier represents a physical location. For example, observation well 62 (OW-62), is numbered according to the lot number on which the well is located. The project identifiers are used to label the wells on figure 1. The local well identifiers represent the county and well number. The first part of the identifier contains two letters that denote the state and two letters that denote the county in which the well was drilled, a “W” to identify a well and the number indicates how many wells preceded it. For example, ME-PEW 612 represents Maine, Penobscot County, well number 612. USGS identification numbers for wells are based on the grid system of latitude and longitude. Each number consists of 15-digits. The first six digits denote the degrees, minutes, and seconds of latitude; the next seven digits denote degrees, minutes, and seconds of longitude. The last two digits (assigned sequentially) identify wells or other sites within a 1-second grid. These latitude-longitude identification numbers are the primary identifiers in the USGS ground-water site inventory (GWSI) data base.

Table 1. Description of monitoring wells at the Eastland Woolen Mill Superfund Site, Corinna, Maine.
[--. no data; ft, feet]

Local Site Number	Project Identifier	USGS Identifier	Aquifer in which well is completed	Altitude of measuring point (in feet)	Depth of well, in ft	Additional information
ME-PEW 600	OW-36	445510069154101	BEDROCK	242.02	--	Domestic well
ME-PEW 601	OW-40	445512069154101	BEDROCK	237.53	85	Domestic well
ME-PEW 602	OW-125	445515069153901	BEDROCK	229.17	328	Domestic well
ME-PEW 603	OW-59	445522069153101	BEDROCK	236.33	--	Domestic well
ME-PEW 604	OW-62	445519069153301	BEDROCK	231.50	135	Commercial well
ME-PEW 605	OW-24	445524069152701	BEDROCK	239.60	590	Commercial well
ME-PEW 606	OW-92	445518069152901	BEDROCK	234.85	--	Domestic well
ME-PEW 607	OW-106	445504069152601	BEDROCK	228.06	--	Domestic well
ME-PEW 608	OW-123	445515069153802	BEDROCK	220.43	114	Domestic well
ME-PEW 609	OW-37-1	445511069154301	BEDROCK	246.16	280	Community well
ME-PEW 610	OW-37-2	445511069154302	BEDROCK	247.22	200	Community well
ME-PEW 611	OW-122 R-2	445515069153703	BEDROCK	220.00	106	Domestic well
ME-PEW 612	MW-6A	445515069153701	SURFICIAL	221.62	--	Monitoring well
ME-PEW 613	MW-6B	445515069153702	SURFICIAL	221.54	--	Monitoring well
ME-PEW 614	OW-75	445521069152301	BEDROCK	241.45	--	Domestic well
ME-PEW 615	OW-95a	445515069152701	BEDROCK	234.18	110	Commercial well
ME-PEW 616	OW-93	445517069153001	BEDROCK	231.59	--	Domestic well
ME-PEW 617	OW-97	445511069152201	BEDROCK	233.16	544	School well
ME-PEW 618	OW-53	445517069154101	BEDROCK	229.82	--	Domestic well
ME-PEW 620	OW-120	445516069153701	BEDROCK	225.83	98	Domestic well

Table 2. Surface-water site information at the Eastland Woolen Mill Superfund Site, Corinna, Maine.

Site Number	Station ID	Site Name	Altitude of Measuring Point (in feet)	Notes
CL-1	445527069154701	Corundel Lake	231.17	Located by big rock upstream of dam
MP-1	445523069154301	Mill Pond	230.05	Located off edge of first white metal building
EBSR-1	445516069153901	East Branch Sebasticook River	228.96	Over bridge downtown (since removed)
EBSR-2	445515069153801	East Branch Sebasticook River	220.35	--
EBSR-3	445513069153701	East Branch Sebasticook River	222.46	Marked on left bank wall of 2nd tier of bridge abutment
EBSR-4	445459069153001	East Branch Sebasticook River	212.14	Point moved several times due to vandalism and beaver activity.
EBSR-4B	445459069153001	East Branch Sebasticook River	215.06	(See comment for EBSR-4)
EBSR-4C	445459069153002	East Branch Sebasticook River	206.65	(See comment for EBSR-4)
EBSR-4D	445459069153003	East Branch Sebasticook River	208.34	(See comment for EBSR-4)
EBSR-5 (5a)	445452069152701	East Branch Sebasticook River	208.20 (a)202.64	Near water treatment plant

Surface-water sites

The seven surface-water-level measuring points include Corundel Lake, Mill Pond and the East Branch Sebasticook River (fig. 1). They are numbered sequentially beginning with Corundel Lake (CL-1), Mill Pond (MP-1), and proceeding in a downstream direction from East Branch Sebasticook River EBSR-1 to EBSR-5 at the Corinna waste-water treatment plant. The exact location of EBSR-4 changed several times during the course of the study period because of vandalism and beaver activity.

Water-level data

All hydrologic data collected for this study were obtained between March 19 and June 11, 1999. Ground-water and surface-water level data were collected approximately 10 times during the study period (table 3).

Water levels in the twenty wells in the ground-water network were measured using an electric ground-water measuring tape (graduated in tenths of a foot and estimated to hundredths of a foot). Ten of these wells were also instrumented with Telog down-hole data loggers (recording every 15-minutes, and averaged for each day) to provide continuous records of water-level fluctuations. Daily mean water levels in these wells from March 19, 1999 through June 11, 1999 are provided in Appendix 1.

Water-surface elevations were measured periodically using a ruler or tape (graduated in tenths of a foot and estimated to hundredths of a foot) to determine the distance from a known reference point to the water surface.

Table 3. Discrete water levels measured in wells and at surface-water sites at the Eastland Woolen Mill Superfund Site, Corinna, Maine, from March to June, 1999

[--, no data;<, value is known to be less than value shown]

Local well number (wells only) and EPA number	Water level, in feet above sea level									
	Mar. 19, 1999	Mar. 26, 1999	Apr. 1, 1999	Apr. 13, 1999	Apr. 23, 1999	May 10, 1999	May 14, 1999	May 25, 1999	Jun. 2, 1999	Jun. 11, 1999
GROUND-WATER WELLS										
ME-PEW 600; OW-36	[a]216.47	218.14	217.70	219.30	216.82	211.03	[a]191.12	215.72	204.22	216.00
ME-PEW 601; OW-40	220.09	[a]220.11	220.80	220.43	219.30	219.05	218.45	219.08	218.43	212.29
ME-PEW 602; OW-125	221.25	221.77	221.59	221.19	220.87	220.56	222.56	220.39	223.35	219.92
ME-PEW 603; OW-59	212.57	159.85	216.21	218.10	212.23	212.02	210.38	214.41	216.56	216.33
ME-PEW 604; OW-62	224.57	224.82	225.22	224.78	224.25	223.34	223.73	223.28	222.79	223.40
ME-PEW 605; OW-24	233.97	233.99	234.13	233.95	233.86	233.37	232.80	233.33	232.78	232.27
ME-PEW 606; OW-92	230.19	231.61	231.54	231.20	209.15	204.74	--	207.40	213.00	205.05
ME-PEW 607; OW-106	--	--	220.42	221.31	217.45	216.12	220.31	213.30	217.06	220.46
ME-PEW 608; OW-123	216.61	216.77	216.95	216.81	216.50	216.32	216.12	216.31	216.13	215.22
ME-PEW 609; 0W-37-1	[a]157.71	84.76	124.48	153.06	153.75	111.66	101.60	150.66	144.08	111.76
ME-PEW 610; 0W-37-2	--	57.02	100.14	<95.22	132.97	51.82	<97.22	109.72	60.92	122.62
ME-PEW 611; OW-122 (R2)	215.75	215.80	215.90	215.88	--	215.69	215.65	215.64	215.58	215.40
ME-PEW 612; MW-6A	216.84	216.58	217.12	216.97	216.70	216.61	216.03	215.59	216.44	215.97
ME-PEW 613; MW-6B	215.25	215.84	215.86	215.14	215.33	214.37	214.25	214.28	217.27	215.11
ME-PEW 614; OW-75	235.98	234.39	237.49	236.65	235.78	230.12	235.05	235.41	226.35	235.75
ME-PEW 615; OW-95A	--	--	228.64	227.58	[b]227.24	226.41	226.60	224.93	225.63	227.09
ME-PEW 616; OW-93	197.60	199.08	202.61	201.81	202.44	202.39	196.64	214.91	214.49	212.44
ME-PEW 617; OW-97	232.32	233.17	233.17	233.17	233.17	232.77	232.53	232.80	231.51	232.02
ME-PEW 618; OW-53	--	--	225.67	225.62	--	224.57	224.45	--	224.61	225.31
ME-PEW 620; OW-120	216.43	216.61	216.74	216.61	216.31	216.18	216.06	216.18	216.01	215.52
SURFACE-WATER SITES										
CL-1	228.78	228.38	228.41	228.67	228.44	228.19	228.06	--	227.44	229.11
MP-1	225.73	226.95	226.97	225.55	225.35	224.55	224.55	--	224.15	227.05
EBSR 1	--	216.84	218.46	216.96	217.53	216.61	216.61	216.96	216.55	217.33
EBSR 2	214.91	216.64	215.83	214.96	213.46	214.16	214.05	--	213.90	214.75
EBSR 3	--	215.22	215.36	213.56	212.76	212.71	212.73	212.71	212.65	213.99
EBSR 4	208.86	208.90	209.11	206.94	--	--	--	--	--	--
EBSR 4C	--	--	--	--	--	204.34	204.35	204.25	204.10	206.15
EBSR 4D	--	--	--	--	--	208.10	208.10	--	208.27	209.74
EBSR 5	--	204.16	204.20	203.13	201.95	--	--	--	--	203.03
EBSR 5A	--	--	--	--	--	202.01	201.99	201.99	201.89	--

a - Data for this well is an average of values collected on the given date.
b - Data for this well collected on April 25, 1999

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APPENDIX 1

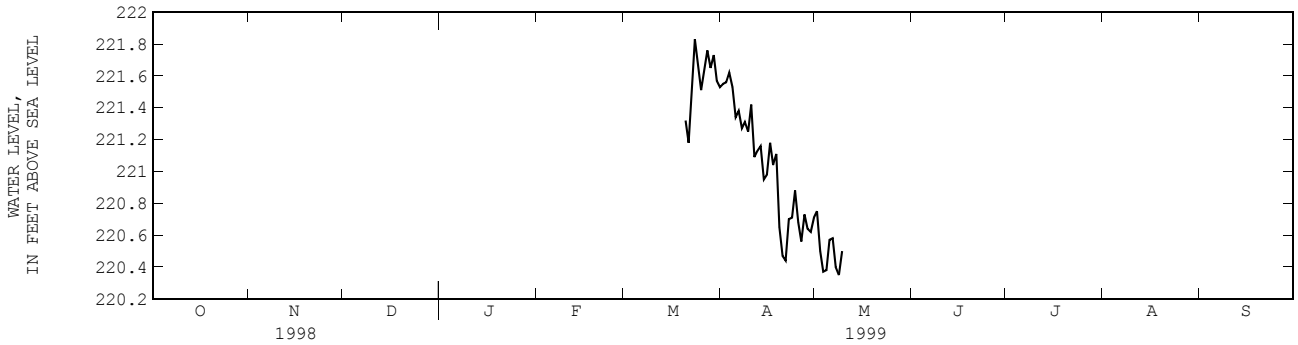
DAILY WATER-LEVEL DATA IN WELLS AT THE EASTLAND WOOLEN MILL SUPERFUND SITE, CORINNA, MAINE, MARCH 19 THROUGH JUNE 11, 1999

445515069153901, Local number ME-PEW 602; OW-125

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	221.55	220.75	---	---	---	---
2	---	---	---	---	---	---	221.56	220.50	---	---	---	---
3	---	---	---	---	---	---	221.62	220.37	---	---	---	---
4	---	---	---	---	---	---	221.53	220.38	---	---	---	---
5	---	---	---	---	---	---	221.34	220.57	---	---	---	---
6	---	---	---	---	---	---	221.38	220.58	---	---	---	---
7	---	---	---	---	---	---	221.27	220.40	---	---	---	---
8	---	---	---	---	---	---	221.31	220.35	---	---	---	---
9	---	---	---	---	---	---	221.25	220.50	---	---	---	---
10	---	---	---	---	---	---	221.42	---	---	---	---	---
11	---	---	---	---	---	---	221.09	---	---	---	---	---
12	---	---	---	---	---	---	221.13	---	---	---	---	---
13	---	---	---	---	---	---	221.16	---	---	---	---	---
14	---	---	---	---	---	---	220.95	---	---	---	---	---
15	---	---	---	---	---	---	220.98	---	---	---	---	---
16	---	---	---	---	---	---	221.18	---	---	---	---	---
17	---	---	---	---	---	---	221.04	---	---	---	---	---
18	---	---	---	---	---	---	221.11	---	---	---	---	---
19	---	---	---	---	---	---	220.65	---	---	---	---	---
20	---	---	---	---	---	221.32	220.47	---	---	---	---	---
21	---	---	---	---	---	221.18	220.44	---	---	---	---	---
22	---	---	---	---	---	221.49	220.70	---	---	---	---	---
23	---	---	---	---	---	221.83	220.71	---	---	---	---	---
24	---	---	---	---	---	221.67	220.88	---	---	---	---	---
25	---	---	---	---	---	221.51	220.68	---	---	---	---	---
26	---	---	---	---	---	221.64	220.56	---	---	---	---	---
27	---	---	---	---	---	221.76	220.73	---	---	---	---	---
28	---	---	---	---	---	221.65	220.64	---	---	---	---	---
29	---	---	---	---	---	221.73	220.62	---	---	---	---	---
30	---	---	---	---	---	221.57	220.71	---	---	---	---	---
31	---	---	---	---	---	221.53	---	---	---	---	---	---
MEAN	---	---	---	---	---	221.57	221.02	220.49	---	---	---	---

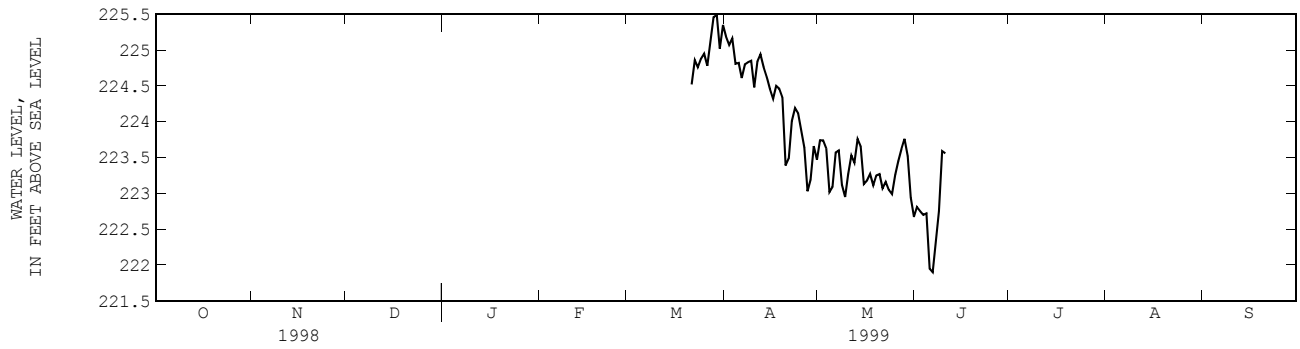
WTR YR 1999 MEAN 221.06



445519069153301, Local number ME-PEW 604; OW-62

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

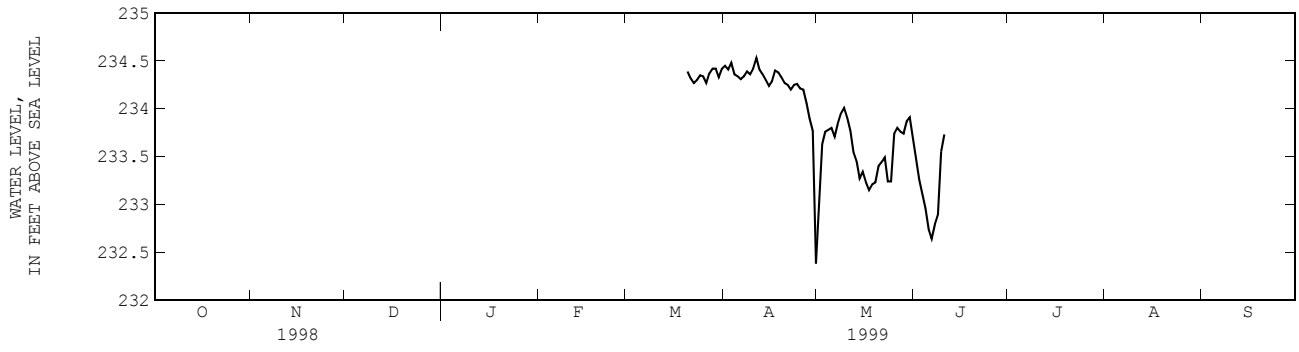
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	225.19	223.74	222.81	---	---	---
2	---	---	---	---	---	---	225.07	223.74	222.75	---	---	---
3	---	---	---	---	---	---	225.16	223.63	222.70	---	---	---
4	---	---	---	---	---	---	224.81	223.02	222.72	---	---	---
5	---	---	---	---	---	---	224.82	223.09	221.95	---	---	---
6	---	---	---	---	---	---	224.61	223.57	221.90	---	---	---
7	---	---	---	---	---	---	224.80	223.60	222.35	---	---	---
8	---	---	---	---	---	---	224.83	223.12	222.75	---	---	---
9	---	---	---	---	---	---	224.85	222.95	223.59	---	---	---
10	---	---	---	---	---	---	224.48	223.27	223.56	---	---	---
11	---	---	---	---	---	---	224.84	223.53	---	---	---	---
12	---	---	---	---	---	---	224.94	223.43	---	---	---	---
13	---	---	---	---	---	---	224.76	223.76	---	---	---	---
14	---	---	---	---	---	---	224.62	223.66	---	---	---	---
15	---	---	---	---	---	---	224.46	223.13	---	---	---	---
16	---	---	---	---	---	---	224.32	223.18	---	---	---	---
17	---	---	---	---	---	---	224.50	223.27	---	---	---	---
18	---	---	---	---	---	---	224.46	223.11	---	---	---	---
19	---	---	---	---	---	---	224.34	223.25	---	---	---	---
20	---	---	---	---	---	---	223.39	223.27	---	---	---	---
21	---	---	---	---	---	224.52	223.49	223.07	---	---	---	---
22	---	---	---	---	---	224.86	224.01	223.16	---	---	---	---
23	---	---	---	---	---	224.76	224.19	223.05	---	---	---	---
24	---	---	---	---	---	224.88	224.12	222.99	---	---	---	---
25	---	---	---	---	---	224.95	223.87	223.26	---	---	---	---
26	---	---	---	---	---	224.78	223.64	223.45	---	---	---	---
27	---	---	---	---	---	225.11	223.03	223.62	---	---	---	---
28	---	---	---	---	---	225.46	223.19	223.76	---	---	---	---
29	---	---	---	---	---	225.49	223.66	223.52	---	---	---	---
30	---	---	---	---	---	225.02	223.47	222.94	---	---	---	---
31	---	---	---	---	---	225.35	---	222.67	---	---	---	---
MEAN	---	---	---	---	---	225.02	224.33	223.32	222.71	---	---	---



445524069152701, Local number ME-PEW 605; OW-24

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

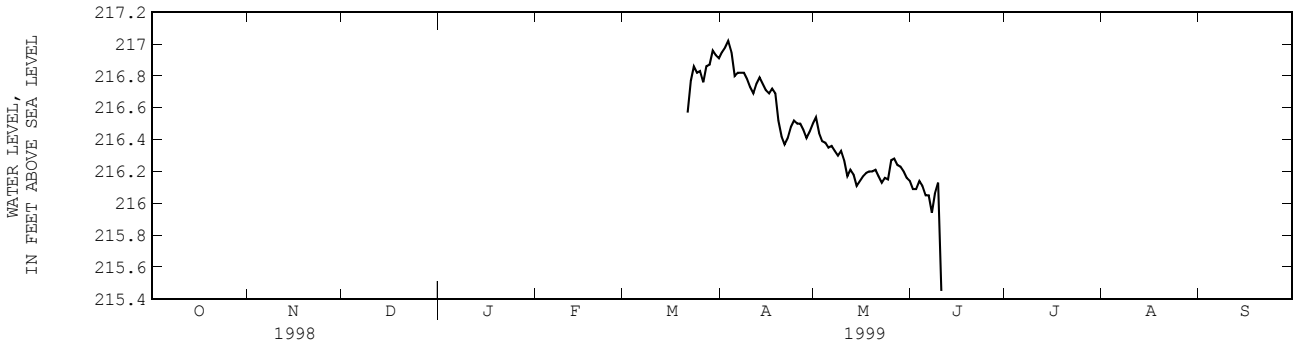
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	234.45	232.97	233.47	---	---	---
2	---	---	---	---	---	---	234.41	233.63	233.26	---	---	---
3	---	---	---	---	---	---	234.48	233.76	233.10	---	---	---
4	---	---	---	---	---	---	234.36	233.78	232.96	---	---	---
5	---	---	---	---	---	---	234.34	233.80	232.74	---	---	---
6	---	---	---	---	---	---	234.31	233.71	232.64	---	---	---
7	---	---	---	---	---	---	234.34	233.84	232.79	---	---	---
8	---	---	---	---	---	---	234.39	233.95	232.89	---	---	---
9	---	---	---	---	---	---	234.36	234.01	233.55	---	---	---
10	---	---	---	---	---	---	234.42	233.91	233.73	---	---	---
11	---	---	---	---	---	---	234.53	233.77	---	---	---	---
12	---	---	---	---	---	---	234.41	233.55	---	---	---	---
13	---	---	---	---	---	---	234.36	233.45	---	---	---	---
14	---	---	---	---	---	---	234.30	233.27	---	---	---	---
15	---	---	---	---	---	---	234.24	233.34	---	---	---	---
16	---	---	---	---	---	---	234.29	233.23	---	---	---	---
17	---	---	---	---	---	---	234.40	233.15	---	---	---	---
18	---	---	---	---	---	---	234.38	233.21	---	---	---	---
19	---	---	---	---	---	---	234.33	233.23	---	---	---	---
20	---	---	---	---	---	234.39	234.27	233.40	---	---	---	---
21	---	---	---	---	---	234.32	234.25	233.44	---	---	---	---
22	---	---	---	---	---	234.27	234.20	233.49	---	---	---	---
23	---	---	---	---	---	234.30	234.25	233.24	---	---	---	---
24	---	---	---	---	---	234.35	234.26	233.24	---	---	---	---
25	---	---	---	---	---	234.34	234.21	233.74	---	---	---	---
26	---	---	---	---	---	234.27	234.20	233.80	---	---	---	---
27	---	---	---	---	---	234.37	234.06	233.76	---	---	---	---
28	---	---	---	---	---	234.42	233.90	233.74	---	---	---	---
29	---	---	---	---	---	234.42	233.77	233.87	---	---	---	---
30	---	---	---	---	---	234.33	232.38	233.91	---	---	---	---
31	---	---	---	---	---	234.42	---	233.69	---	---	---	---
MEAN	---	---	---	---	---	234.35	234.23	233.58	233.11	---	---	---



445515069153802, Local number ME-PEW 608; OW-123

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

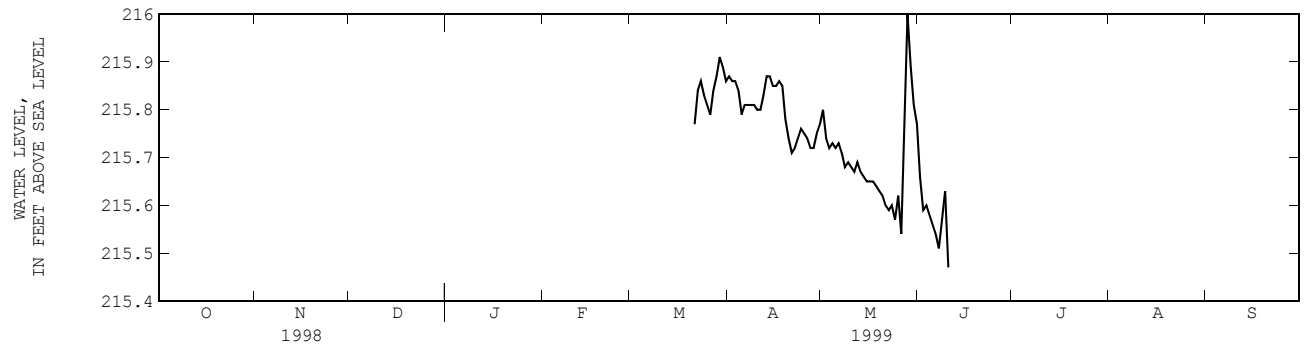
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	216.95	216.54	216.09	---	---	---
2	---	---	---	---	---	---	216.98	216.44	216.09	---	---	---
3	---	---	---	---	---	---	217.02	216.39	216.14	---	---	---
4	---	---	---	---	---	---	216.95	216.38	216.11	---	---	---
5	---	---	---	---	---	---	216.80	216.35	216.05	---	---	---
6	---	---	---	---	---	---	216.82	216.36	216.05	---	---	---
7	---	---	---	---	---	---	216.82	216.33	215.94	---	---	---
8	---	---	---	---	---	---	216.82	216.30	216.06	---	---	---
9	---	---	---	---	---	---	216.78	216.33	216.13	---	---	---
10	---	---	---	---	---	---	216.73	216.27	215.45	---	---	---
11	---	---	---	---	---	---	216.69	216.17	---	---	---	---
12	---	---	---	---	---	---	216.75	216.21	---	---	---	---
13	---	---	---	---	---	---	216.79	216.18	---	---	---	---
14	---	---	---	---	---	---	216.75	216.11	---	---	---	---
15	---	---	---	---	---	---	216.71	216.14	---	---	---	---
16	---	---	---	---	---	---	216.69	216.17	---	---	---	---
17	---	---	---	---	---	---	216.72	216.19	---	---	---	---
18	---	---	---	---	---	---	216.69	216.20	---	---	---	---
19	---	---	---	---	---	---	216.52	216.20	---	---	---	---
20	---	---	---	---	---	---	216.42	216.21	---	---	---	---
21	---	---	---	---	---	216.57	216.37	216.17	---	---	---	---
22	---	---	---	---	---	216.77	216.41	216.13	---	---	---	---
23	---	---	---	---	---	216.86	216.48	216.16	---	---	---	---
24	---	---	---	---	---	216.82	216.52	216.15	---	---	---	---
25	---	---	---	---	---	216.83	216.50	216.27	---	---	---	---
26	---	---	---	---	---	216.76	216.50	216.28	---	---	---	---
27	---	---	---	---	---	216.86	216.46	216.24	---	---	---	---
28	---	---	---	---	---	216.87	216.41	216.23	---	---	---	---
29	---	---	---	---	---	216.96	216.45	216.20	---	---	---	---
30	---	---	---	---	---	216.93	216.50	216.16	---	---	---	---
31	---	---	---	---	---	216.91	---	216.14	---	---	---	---
MEAN	---	---	---	---	---	216.83	216.67	216.25	216.01	---	---	---



445515069153703, Local number ME-PEW 611; OW-122

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	215.87	215.80	215.66	---	---	---
2	---	---	---	---	---	---	215.86	215.74	215.59	---	---	---
3	---	---	---	---	---	---	215.86	215.72	215.60	---	---	---
4	---	---	---	---	---	---	215.84	215.73	215.58	---	---	---
5	---	---	---	---	---	---	215.79	215.72	215.56	---	---	---
6	---	---	---	---	---	---	215.81	215.73	215.54	---	---	---
7	---	---	---	---	---	---	215.81	215.71	215.51	---	---	---
8	---	---	---	---	---	---	215.81	215.68	215.57	---	---	---
9	---	---	---	---	---	---	215.81	215.69	215.63	---	---	---
10	---	---	---	---	---	---	215.80	215.68	215.47	---	---	---
11	---	---	---	---	---	---	215.80	215.67	---	---	---	---
12	---	---	---	---	---	---	215.83	215.69	---	---	---	---
13	---	---	---	---	---	---	215.87	215.67	---	---	---	---
14	---	---	---	---	---	---	215.87	215.66	---	---	---	---
15	---	---	---	---	---	---	215.85	215.65	---	---	---	---
16	---	---	---	---	---	---	215.85	215.65	---	---	---	---
17	---	---	---	---	---	---	215.86	215.65	---	---	---	---
18	---	---	---	---	---	---	215.85	215.64	---	---	---	---
19	---	---	---	---	---	---	215.78	215.63	---	---	---	---
20	---	---	---	---	---	---	215.74	215.62	---	---	---	---
21	---	---	---	---	---	215.77	215.71	215.60	---	---	---	---
22	---	---	---	---	---	215.84	215.72	215.59	---	---	---	---
23	---	---	---	---	---	215.86	215.74	215.60	---	---	---	---
24	---	---	---	---	---	215.83	215.76	215.57	---	---	---	---
25	---	---	---	---	---	215.81	215.75	215.62	---	---	---	---
26	---	---	---	---	---	215.79	215.74	215.54	---	---	---	---
27	---	---	---	---	---	215.84	215.72	215.74	---	---	---	---
28	---	---	---	---	---	215.87	215.72	216.00	---	---	---	---
29	---	---	---	---	---	215.91	215.75	215.89	---	---	---	---
30	---	---	---	---	---	215.89	215.77	215.81	---	---	---	---
31	---	---	---	---	---	215.86	---	215.77	---	---	---	---
MEAN	---	---	---	---	---	215.84	215.80	215.69	215.57	---	---	---

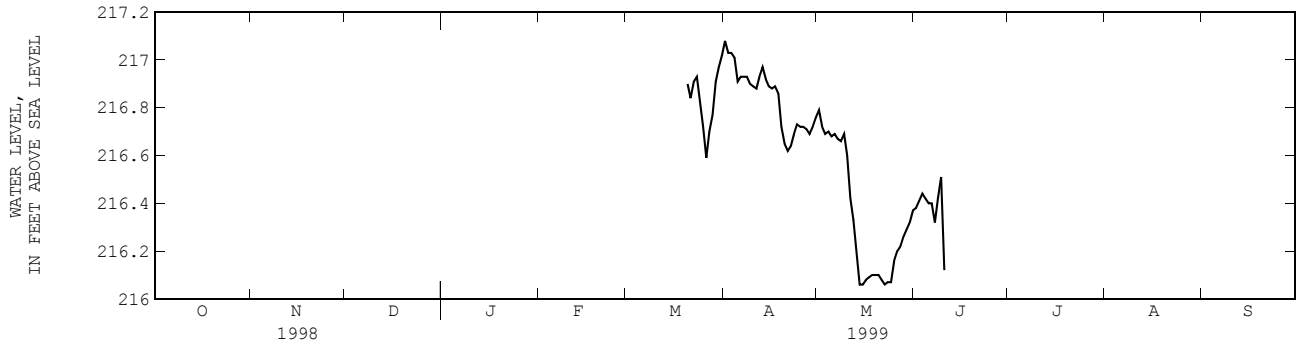


445515069153701, Local number ME-PEW 612; MW-6A

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	217.08	216.79	216.38	---	---	---
2	---	---	---	---	---	---	217.03	216.72	216.41	---	---	---
3	---	---	---	---	---	---	217.03	216.69	216.44	---	---	---
4	---	---	---	---	---	---	217.01	216.70	216.42	---	---	---
5	---	---	---	---	---	---	216.91	216.68	216.40	---	---	---
6	---	---	---	---	---	---	216.93	216.69	216.40	---	---	---
7	---	---	---	---	---	---	216.93	216.67	216.32	---	---	---
8	---	---	---	---	---	---	216.93	216.66	216.42	---	---	---
9	---	---	---	---	---	---	216.90	216.69	216.51	---	---	---
10	---	---	---	---	---	---	216.89	216.60	216.12	---	---	---
11	---	---	---	---	---	---	216.88	216.42	---	---	---	---
12	---	---	---	---	---	---	216.93	216.33	---	---	---	---
13	---	---	---	---	---	---	216.97	216.20	---	---	---	---
14	---	---	---	---	---	---	216.92	216.06	---	---	---	---
15	---	---	---	---	---	---	216.89	216.06	---	---	---	---
16	---	---	---	---	---	---	216.88	216.08	---	---	---	---
17	---	---	---	---	---	---	216.89	216.09	---	---	---	---
18	---	---	---	---	---	---	216.86	216.10	---	---	---	---
19	---	---	---	---	---	---	216.72	216.10	---	---	---	---
20	---	---	---	---	---	216.90	216.65	216.10	---	---	---	---
21	---	---	---	---	---	216.84	216.62	216.08	---	---	---	---
22	---	---	---	---	---	216.91	216.64	216.06	---	---	---	---
23	---	---	---	---	---	216.93	216.69	216.07	---	---	---	---
24	---	---	---	---	---	216.82	216.73	216.07	---	---	---	---
25	---	---	---	---	---	216.72	216.72	216.16	---	---	---	---
26	---	---	---	---	---	216.59	216.72	216.20	---	---	---	---
27	---	---	---	---	---	216.70	216.71	216.22	---	---	---	---
28	---	---	---	---	---	216.77	216.69	216.26	---	---	---	---
29	---	---	---	---	---	216.91	216.72	216.29	---	---	---	---
30	---	---	---	---	---	216.97	216.76	216.32	---	---	---	---
31	---	---	---	---	---	217.02	---	216.37	---	---	---	---
MEAN	---	---	---	---	---	216.84	216.84	216.34	216.38	---	---	---

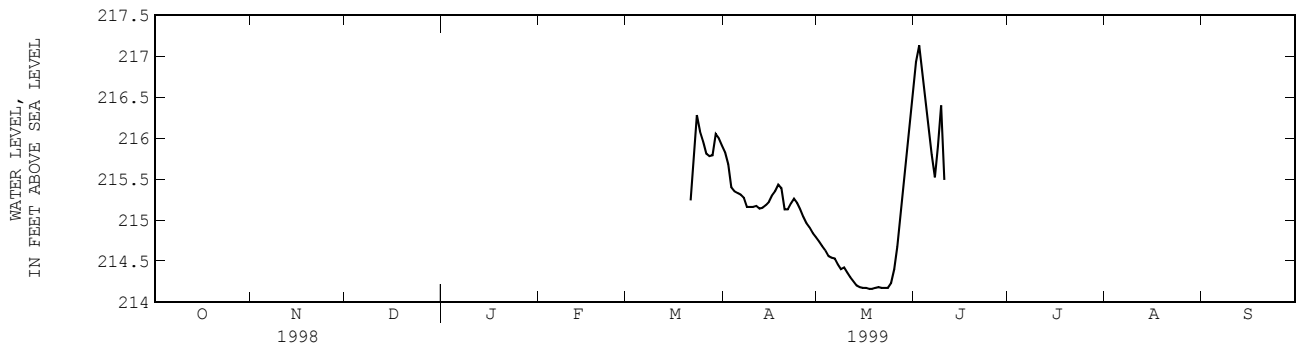
WTR YR 1999 MEAN 216.60



445515069153702, Local number ME-PEW 613; MW-6B

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	215.83	214.74	216.93	---	---	---
2	---	---	---	---	---	---	215.68	214.68	217.13	---	---	---
3	---	---	---	---	---	---	215.40	214.63	216.80	---	---	---
4	---	---	---	---	---	---	215.35	214.56	216.48	---	---	---
5	---	---	---	---	---	---	215.33	214.54	216.14	---	---	---
6	---	---	---	---	---	---	215.31	214.53	215.80	---	---	---
7	---	---	---	---	---	---	215.27	214.46	215.52	---	---	---
8	---	---	---	---	---	---	215.16	214.40	215.90	---	---	---
9	---	---	---	---	---	---	215.16	214.42	216.40	---	---	---
10	---	---	---	---	---	---	215.16	214.36	215.49	---	---	---
11	---	---	---	---	---	---	215.17	214.30	---	---	---	---
12	---	---	---	---	---	---	215.14	214.25	---	---	---	---
13	---	---	---	---	---	---	215.15	214.20	---	---	---	---
14	---	---	---	---	---	---	215.18	214.18	---	---	---	---
15	---	---	---	---	---	---	215.22	214.17	---	---	---	---
16	---	---	---	---	---	---	215.30	214.17	---	---	---	---
17	---	---	---	---	---	---	215.35	214.16	---	---	---	---
18	---	---	---	---	---	---	215.43	214.16	---	---	---	---
19	---	---	---	---	---	---	215.39	214.17	---	---	---	---
20	---	---	---	---	---	---	215.13	214.18	---	---	---	---
21	---	---	---	---	---	215.24	215.13	214.17	---	---	---	---
22	---	---	---	---	---	215.82	215.20	214.17	---	---	---	---
23	---	---	---	---	---	216.28	215.26	214.17	---	---	---	---
24	---	---	---	---	---	216.08	215.21	214.23	---	---	---	---
25	---	---	---	---	---	215.96	215.13	214.40	---	---	---	---
26	---	---	---	---	---	215.81	215.04	214.67	---	---	---	---
27	---	---	---	---	---	215.78	214.96	215.06	---	---	---	---
28	---	---	---	---	---	215.79	214.91	215.43	---	---	---	---
29	---	---	---	---	---	216.05	214.84	215.80	---	---	---	---
30	---	---	---	---	---	216.00	214.79	216.20	---	---	---	---
31	---	---	---	---	---	215.91	---	216.58	---	---	---	---
MEAN	---	---	---	---	---	215.88	215.22	214.59	216.26	---	---	---

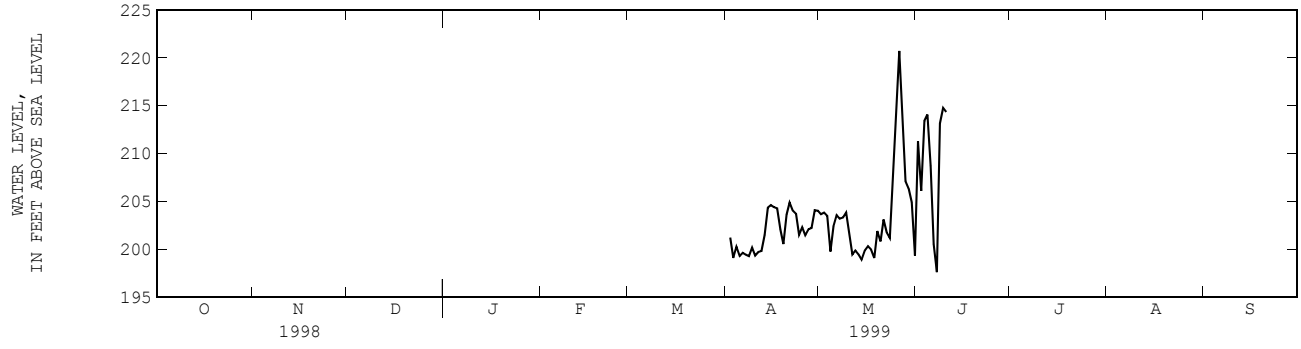


445517069153001, Local number ME-PEW 616; OW-93

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	203.64	211.29	---	---	---
2	---	---	---	---	---	---	201.20	203.82	206.09	---	---	---
3	---	---	---	---	---	---	199.08	203.48	213.40	---	---	---
4	---	---	---	---	---	---	200.24	199.75	214.07	---	---	---
5	---	---	---	---	---	---	199.30	202.37	208.72	---	---	---
6	---	---	---	---	---	---	199.61	203.55	200.52	---	---	---
7	---	---	---	---	---	---	199.41	203.18	197.58	---	---	---
8	---	---	---	---	---	---	199.26	203.29	213.16	---	---	---
9	---	---	---	---	---	---	200.16	203.83	214.78	---	---	---
10	---	---	---	---	---	---	199.33	201.81	214.34	---	---	---
11	---	---	---	---	---	---	199.70	199.42	---	---	---	---
12	---	---	---	---	---	---	199.80	199.84	---	---	---	---
13	---	---	---	---	---	---	201.48	199.42	---	---	---	---
14	---	---	---	---	---	---	204.33	198.89	---	---	---	---
15	---	---	---	---	---	---	204.60	199.84	---	---	---	---
16	---	---	---	---	---	---	204.39	200.30	---	---	---	---
17	---	---	---	---	---	---	204.27	199.97	---	---	---	---
18	---	---	---	---	---	---	202.08	199.08	---	---	---	---
19	---	---	---	---	---	---	200.54	201.89	---	---	---	---
20	---	---	---	---	---	---	203.62	200.80	---	---	---	---
21	---	---	---	---	---	---	204.89	203.09	---	---	---	---
22	---	---	---	---	---	---	204.03	201.72	---	---	---	---
23	---	---	---	---	---	---	203.70	201.16	---	---	---	---
24	---	---	---	---	---	---	201.48	208.11	---	---	---	---
25	---	---	---	---	---	---	202.29	215.43	---	---	---	---
26	---	---	---	---	---	---	201.46	220.74	---	---	---	---
27	---	---	---	---	---	---	202.08	214.45	---	---	---	---
28	---	---	---	---	---	---	202.21	207.12	---	---	---	---
29	---	---	---	---	---	---	204.07	206.33	---	---	---	---
30	---	---	---	---	---	---	204.01	204.90	---	---	---	---
31	---	---	---	---	---	---	---	199.32	---	---	---	---
MEAN	---	---	---	---	---	---	201.81	203.57	209.39	---	---	---

WTR YR 1999 MEAN 203.67

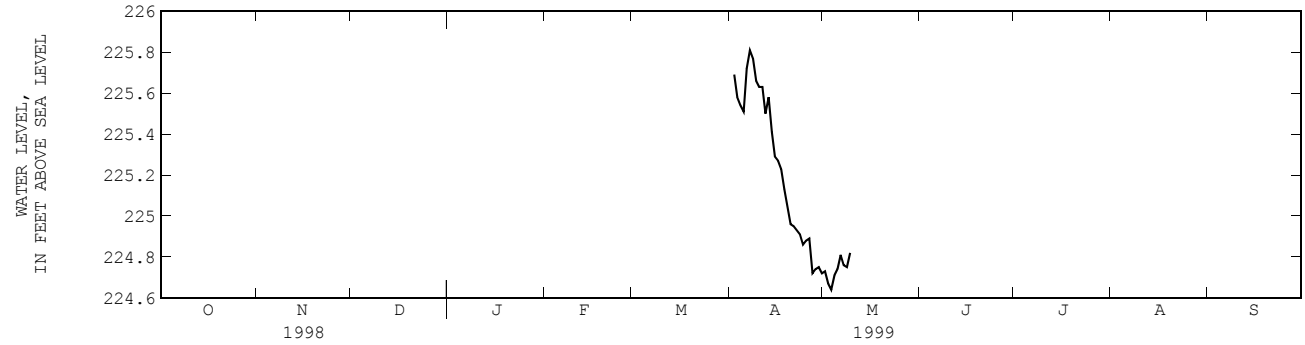


445517069154101, Local number ME-PEW 618; OW-53

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	224.73	---	---	---	---
2	---	---	---	---	---	---	225.69	224.67	---	---	---	---
3	---	---	---	---	---	---	225.58	224.64	---	---	---	---
4	---	---	---	---	---	---	225.54	224.71	---	---	---	---
5	---	---	---	---	---	---	225.51	224.74	---	---	---	---
6	---	---	---	---	---	---	225.72	224.81	---	---	---	---
7	---	---	---	---	---	---	225.81	224.76	---	---	---	---
8	---	---	---	---	---	---	225.77	224.75	---	---	---	---
9	---	---	---	---	---	---	225.66	224.82	---	---	---	---
10	---	---	---	---	---	---	225.63	---	---	---	---	---
11	---	---	---	---	---	---	225.63	---	---	---	---	---
12	---	---	---	---	---	---	225.50	---	---	---	---	---
13	---	---	---	---	---	---	225.58	---	---	---	---	---
14	---	---	---	---	---	---	225.41	---	---	---	---	---
15	---	---	---	---	---	---	225.29	---	---	---	---	---
16	---	---	---	---	---	---	225.27	---	---	---	---	---
17	---	---	---	---	---	---	225.23	---	---	---	---	---
18	---	---	---	---	---	---	225.13	---	---	---	---	---
19	---	---	---	---	---	---	225.05	---	---	---	---	---
20	---	---	---	---	---	---	224.96	---	---	---	---	---
21	---	---	---	---	---	---	224.95	---	---	---	---	---
22	---	---	---	---	---	---	224.93	---	---	---	---	---
23	---	---	---	---	---	---	224.91	---	---	---	---	---
24	---	---	---	---	---	---	224.86	---	---	---	---	---
25	---	---	---	---	---	---	224.88	---	---	---	---	---
26	---	---	---	---	---	---	224.89	---	---	---	---	---
27	---	---	---	---	---	---	224.72	---	---	---	---	---
28	---	---	---	---	---	---	224.74	---	---	---	---	---
29	---	---	---	---	---	---	224.75	---	---	---	---	---
30	---	---	---	---	---	---	224.72	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	225.25	224.74	---	---	---	---

WTR YR 1999 MEAN 225.13

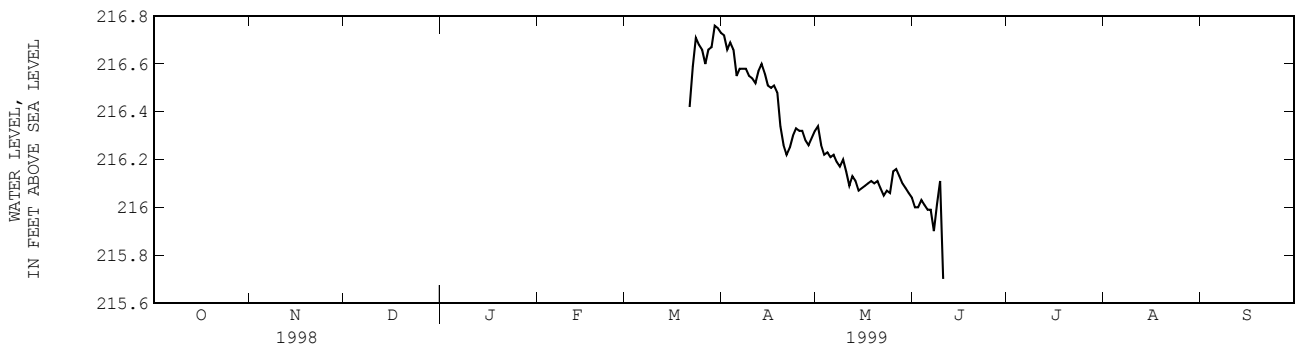


445516069153701, Local number ME-PEW 620; OW-120

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	216.72	216.34	216.00	---	---	---
2	---	---	---	---	---	---	216.66	216.26	216.00	---	---	---
3	---	---	---	---	---	---	216.69	216.22	216.03	---	---	---
4	---	---	---	---	---	---	216.66	216.23	216.01	---	---	---
5	---	---	---	---	---	---	216.55	216.21	215.99	---	---	---
6	---	---	---	---	---	---	216.58	216.22	215.99	---	---	---
7	---	---	---	---	---	---	216.58	216.19	215.90	---	---	---
8	---	---	---	---	---	---	216.58	216.17	216.01	---	---	---
9	---	---	---	---	---	---	216.55	216.20	216.11	---	---	---
10	---	---	---	---	---	---	216.54	216.15	215.70	---	---	---
11	---	---	---	---	---	---	216.52	216.09	---	---	---	---
12	---	---	---	---	---	---	216.57	216.13	---	---	---	---
13	---	---	---	---	---	---	216.60	216.11	---	---	---	---
14	---	---	---	---	---	---	216.56	216.07	---	---	---	---
15	---	---	---	---	---	---	216.51	216.08	---	---	---	---
16	---	---	---	---	---	---	216.50	216.09	---	---	---	---
17	---	---	---	---	---	---	216.51	216.10	---	---	---	---
18	---	---	---	---	---	---	216.48	216.11	---	---	---	---
19	---	---	---	---	---	---	216.34	216.10	---	---	---	---
20	---	---	---	---	---	---	216.26	216.11	---	---	---	---
21	---	---	---	---	---	216.42	216.22	216.08	---	---	---	---
22	---	---	---	---	---	216.59	216.25	216.05	---	---	---	---
23	---	---	---	---	---	216.71	216.30	216.07	---	---	---	---
24	---	---	---	---	---	216.68	216.33	216.06	---	---	---	---
25	---	---	---	---	---	216.66	216.32	216.15	---	---	---	---
26	---	---	---	---	---	216.60	216.32	216.16	---	---	---	---
27	---	---	---	---	---	216.66	216.28	216.13	---	---	---	---
28	---	---	---	---	---	216.67	216.26	216.10	---	---	---	---
29	---	---	---	---	---	216.76	216.29	216.08	---	---	---	---
30	---	---	---	---	---	216.75	216.32	216.06	---	---	---	---
31	---	---	---	---	---	216.73	---	216.04	---	---	---	---
MEAN	---	---	---	---	---	216.66	216.46	216.13	215.97	---	---	---

WTR YR 1999 MEAN 216.30



District Chief
Maine District
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Water Resources Division
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Nielsen, M.G., Dudley, R.W., and Parrish, C.S.—HYDROLOGIC DATA FOR THE EASTLAND WOOLEN MILL SUPERFUND SITE, PENOBSCOT COUNTY, CORINNA, MAINE, MARCH THROUGH JUNE 1999—U.S. Geological Survey Open-File Report 01–212

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