

Water Level Data for AWLW

data submission, management, and interactive portal



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(Axiom) + programmatic and
tech teams



ALASKA WATER LEVEL WATCH

EXPLORE WATER LEVEL SENSOR DATA

SEARCH DATASETS

Alaska Water Level Watch is a water level data management system and associated interface to house data from NOAA and the AOOS [Water Level Watch Program](#) in tandem. This system mirrors critical functionality of CO-OPS's [Tides Online](#), yet is designed to accommodate a wide range of observational water level data acquired from external sources through a partnership model. The portal is a complimentary extension of NOAA's authoritative National Water Level Observation Network (NWLON), and is under development in direct collaboration with NOAA staff to ensure consistency and compatibility of data products with downstream tools. Increased access to critical water level observation products (real-time stations, short time series, and high water mark measurements) derived from sites with lower accuracy standards or off-specification installations will help to meet a wide range of maritime applications, water resources management, and scientific research needs.

To submit water level data that you manage to this project:

1. Download and fill out the [station log template](#)
2. Fill out the [dataset submission form](#)
3. If necessary, refer to the [long-form instructions](#)

Please use the 'Feedback' tab in the upper right corner to help improve our services

[Explore map](#) [Catalog](#)



Interactive map

Data Views

Explore highlighted views below. Or, create, save, and share your own custom views.



Featured Source: NOAA CO-OPS Stations



Featured Station: Kotzebue, Alaska



Featured Data View

Water Level Station Information Form v.1.1
Alaska Water Level Watch (AWLW)

0. Form

Prepared by : (Your Name)
Date Prepared : (CCYY-MM-DD)
Report Type : (UPDATE/NEW)
If Update:
Previous Site Log :
Modified/Added Sections :

1. Site Identification of the Water Level Station

Site Name :
State :
Identifiers :
CO-OPS ID :
Other ID :
Water Body Setting : (e.g., INLET)
Approximate Position :
Latitude (N is +) :
Longitude (E is +) :
Projection : (e.g., NAD83)
Date Established :
Additional Information : (multiple lines)

2. Water Level Sensor Information

2.1 Sensor Category : (e.g., RADAR)

Manufacturer and Model :
Serial Number :
Sample Interval (min) :
Sample Avg. Window (sec) :
Mounting Structure :
Date Installed : (CCYY-MM-DDThh:mmZ)
Date Removed : (CCYY-MM-DDThh:mmZ)
Additional Information :

2.x Sensor Category : (Vented or Non-Vented Pressure/Radar/Acoustic/GNSS-R/GNSS Buoy/etc.)

Manufacturer and Model :
Serial Number :
Sample Interval (min) : (1/6/15/60/etc.)
Sample Avg. Window (sec) : (0/60/181/etc.)
Mounting Structure : (Bridge/Seawall/Dock/Bedrock/Anchor/etc.)
Date Installed : (CCYY-MM-DDThh:mmZ)
Date Removed : (CCYY-MM-DDThh:mmZ)
Additional Information : (multiple lines)

3. Sensor Vertical Control

3.x Marker Stamping :
Marker NGS PID :
Marker CO-OPS VM# :
Marker Other Identifier :
Measurement Method : (Static GNSS/RTK/Optical or Digital Level/etc.)
Measurement Date : (CCYY-MM-DDThh:mmZ)
Measurement By :
Ortho Height (NAVD88 m) :
Station Datum Height (m) :
Additional Information : (multiple lines)

4. Local Tidal Datum Establishment



Your information

Your name *

Your answer

Your email *

Your answer

Report Type *

Choose

If this is an update, describe what changed

Your answer

Site Identification

Site Name *

What should this station be called on the website?

Your answer

Latitude *

Degrees north

Your answer

Longitude *

Degrees east

Your answer

- ←
- Instructions for submitting W...
- Terminology
- Data Submission Procedure
- Instructions for Providing you...
- Data Format
 - General Guidelines
- File formats
 - NetCDF guidelines
 - CSV guidelines
- Quality Control Information
 - Example:
- Real-time Dataset Submission
- Historic Dataset Submission
- Station Definition Template In...
- General Notes
 - Date and time formats
 - Latitude and longitude
- Description of Template Sections
 - Section 0. Form
 - Section 1. Site Identification ...
 - Section 2. Water Level Senso...
 - Section 3. Sensor Vertical Co...
 - Section 4. Local Tidal Datum ...
 - Section 5. Station Error Analy...
 - Section 6. Telecommunicatio...
 - Section 7. Collocation Inform...
 - Section 8. Station Point of Co...
 - Section 9. Data Management...

Instructions for submitting Water Level Data

Terminology	2
Data Submission Procedure	2
Instructions for Providing your Data	3
Data Format	3
General Guidelines	3
File formats	3
NetCDF guidelines	3
CSV guidelines	3
Quality Control Information	4
Real-time Dataset Submission	5
Historic Dataset Submission	5
Station Definition Template Instructions	6
General Notes	6
Date and time formats	6
Latitude and longitude	6
Description of Template Sections	7
Section 0. Form	7
Section 1. Site Identification of the Water Level Station	7
Section 2. Water Level Sensor Information	8
Section 3. Sensor Vertical Control	9
Section 4. Local Tidal Datum Establishment	10
Section 5. Station Error Analysis	11
Section 6. Telecommunication Equipment	12
Section 7. Collocation Information	12
Section 8. Station Point of Contact Information	13
Section 9. Data Management Information	14

1



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Interactive map

Data Views

Explore highlighted views below. Or, create, save, and share your own custom views.



Featured Source: NOAA CO-OPS Stations



Featured Station: Kotzebue, Alaska



Featured Data View

The screenshot shows a web browser window displaying the Alaska Water Level Watch portal. The URL in the address bar is `water-level-watch.portal.aaos.org/#search?type_group=sensor_stations&page=1`. The page features a search bar with the text "Type Sensor..." and a search icon. Below the search bar, there are filters for "Sensor Stations" (1,431), "Affiliates" (12), "Variable Types" (22), and "Data Layers" (1). The main content area displays a list of sensor stations, each with a title, a description, a date range, and a "Last update" timestamp. The first entry is "Nelson Lagoon, Alaska, Water Level" from the Alaska Division of Geological & Geophysical Surveys (AK-DGGS), with data from May 1, 2019, to Apr 28, 2020. The second entry is "Seldovia Deep Water Quality" from the Kachemak Bay National Estuarine Research Reserve (KBNERR), with data from Jan 1, 2004, to Apr 28, 2020. The third entry is "MF BRADLEY R NR HOMER AK" from the USGS National Water Information System (NWIS), with data from May 5, 2015, to Apr 28, 2020. The fourth entry is "STANEY C NR KLAWOCK AK" from the USGS National Water Information System (NWIS), with data from May 5, 2015, to Apr 28, 2020. Each entry includes a small map icon and buttons for "Sensors" and "Downloads". On the right side of the page, there are sections for "Tags" (Tier A: 265, Tier C: 6), "Variable Types" (Air Temperature: 54, Barometric Pressure: 27, Battery: 26, Chlorophyll: 4, Conductivity: 7, Oxygen Concentration: 10, Oxygen Saturation: 6, Precipitation: 44, Salinity: 7, Sea Water Pressure: 1), and "Affiliates" (Alaska Department of Natural Resources (AK-DNR): 1, Alaska Division of Geological & Geophysical Surveys (AK-DGGS): 3).

Alaska Water Level Watch

Search Type Sensor... X 1-10 of 1,431 results

[Sensor Stations](#) 1,431 [Affiliates](#) 12 [Variable Types](#) 22 [Data Layers](#) 1 [Advanced](#)

Alaska Division of Geological & Geophysical Surveys (AK-DGGS)

Nelson Lagoon, Alaska, Water Level

May 1, 2019 12:00 (GMT-0800) to Apr 28, 2020 15:00 (GMT-0800)
Last update: Apr 28, 2020 15:19 (GMT-0800)

This Stillwater Technologies iGauge began collecting data on May 10, 2019. It was installed on a wood post pier by the UAF Arctic Coastal Geoscience Lab, but no benchmarks were used to survey the site. Richard Buzard computed tidal datums relative to station datum, which are available in the following: [Station Definition Form] (https://researchworkspace.com/files/6357425/NELSONLAGOON_AWLW_STATION_LOG-JacquelynOverbeck.txt)

[Sensors](#) 1 [Sources](#) 2 [Downloads](#) 0

Kachemak Bay National Estuarine Research Reserve (KBNERR)

Seldovia Deep Water Quality

Jan 1, 2004 00:00 (GMT-0900) to Apr 28, 2020 14:45 (GMT-0800)
Last update: Apr 28, 2020 15:23 (GMT-0800)

[Sensors](#) 1 [Sources](#) 2 [Downloads](#) 0

USGS National Water Information System (NWIS)

MF BRADLEY R NR HOMER AK

May 5, 2015 03:45 (GMT-0800) to Apr 28, 2020 14:30 (GMT-0800)

[Sensors](#) 4 [Downloads](#) 0

USGS National Water Information System (NWIS)

STANEY C NR KLAWOCK AK

May 5, 2015 04:15 (GMT-0800) to Apr 28, 2020 14:30 (GMT-0800)

[Sensors](#) 4 [Downloads](#) 0

USGS National Water Information System (NWIS)

Tags

Tier A 265
Tier C 6

Variable Types

Air Temperature 54
Barometric Pressure 27
Battery 26
Chlorophyll 4
Conductivity 7
Oxygen Concentration 10
Oxygen Saturation 6
Precipitation 44
Salinity 7
Sea Water Pressure 1

Affiliates

Alaska Department of Natural Resources (AK-DNR) 1
Alaska Division of Geological & Geophysical Surveys (AK-DGGS) 3

water-level-watch.portal.aaos.org

The screenshot displays the Alaska Water Level Watch portal interface. At the top, the browser address bar shows the URL `water-level-watch.portal.aaos.org/#map`. The main header includes the site name "Alaska Water Level Watch" and navigation options like "Catalog", "Map", "Data views", "Settings", "Share", "Help", and "Feedback".

The central map shows the state of Alaska with numerous white hexagonal markers representing sensor stations. A legend on the right side, titled "Alaska Water Level Sensors", indicates that "Recent Water Level data not available." It includes filters for "Variable types" (set to "Water Level (250)"), "Sources" (set to "All"), and "Platform" (set to "All"). A search bar is also present with the text "Search available sensor stations".

In the bottom-left corner, a detailed data panel for "Naknek, AK" is visible. It features a line graph showing "Water Level" data from July 15, 2019, to April 28, 2020. The y-axis represents water level in feet, ranging from 1 to 25. The graph shows a clear tidal oscillation. Below the graph, there are links for "Downloads", "Station", "Sensor", "QC/QARTOD Data", "Source", and "QC Information".

At the bottom of the interface, there are controls for "Data", "Time", and "Depth".

Alaska Water Level Watch

Sensor Stations 1,431 | Affiliates 12 | Variable Types 22 | Data Layers 1

Alaska Ocean Observing System (AOOS)

Naknek, AK

Data | Inventory | More information

Water Level

Chart | Time series | Autoscale | Time bin: all | Auto

ft Local station datum

Time

Jul 15, 2019 | Oct, 2019 | 2020 | Apr 28, 2020

Downloads | Sensor | QC/QARTOD Data | Source | Legend

Location	58.7321,-156.9833
Temporal Coverage	Jul 15, 2019 09:48 (GMT-0800) - Apr 28, 2020 12:12 (GMT-0800)
Platform	Fixed
Web site	https://aaos.org/alaska-water-level-watch/
Metadata	ERDDAP station page
URN	naknek-ak

Affiliations

Alaska Ocean Observing System (AOOS) Station site	Sponsor, Owner
JOA Surveys, LLC Web site	Publisher

The screenshot displays the Alaska Water Level Watch portal interface. At the top, the browser address bar shows the URL: `water-level-watch.portal.aaos.org/#metadata/103385/station/info`. The page header includes the Alaska Water Level Watch logo and navigation links: Catalog, Map, Data views, Settings, Share, Help, and Feedback. Below the header, a navigation bar shows counts for Sensor Stations (1,431), Affiliates (12), Variable Types (22), and Data Layers (1).

The main content area is titled "Alaska Ocean Observing System (AOOS) Naknek, AK". It features a satellite map of the Naknek area with a white star marking the station location. To the right of the map are tabs for Data, Inventory, and More information. Below the map is a "Station Definition Form" section containing the following text:

JOA Surveys collected 90 days of data at Naknek for NOAA's Office of Coast Survey beginning on July 15, 2019. The station package and data has been submitted to CO-OPS and will be published and accessible through tidesandcurrents.noaa.gov. Instead of removing the equipment, the Alaska Ocean Observing System provided funding to harden the station and continue reporting data.

The current data feed is raw telemetered data, and it will not be pushed to CO-OPS. Verification of the data, including filling telemetry gaps, recalculation of water density, recalculation of benchmark elevations, recalculation of tidal datums, etc. will happen on an annual basis.

Below the text is a metadata table:

Location	58.7321,-156.9833
Temporal Coverage	Jul 15, 2019 09:48 (GMT-0800) - Apr 28, 2020 12:12 (GMT-0800)
Platform	Fixed
Web site	https://aaos.org/alaska-water-level-watch/
Metadata	ERDDAP station page
URN	naknek-ak

Below the table is an "Affiliations" section:

Alaska Ocean Observing System (AOOS) Station site	Sponsor, Owner
JOA Surveys, LLC Web site	Publisher



The screenshot displays the Alaska Water Level Watch portal interface. At the top, the browser address bar shows the URL `water-level-watch.portal.aaos.org/#metadata/15/sensor_source/inventory`. The page header includes the Alaska Water Level Watch logo and navigation links for Catalog, Map, Data views, Settings, Share, Help, and Feedback. Below the header, there are filters for Sensor Stations (589), Affiliates (1), Variable Types (1), and Data Layers (1).

Alaska Ocean Observing System (AOOS)

The main content area features a map of Alaska on the left and a data visualization panel on the right. The map includes a search icon, a 300 km scale bar, and a 200 ms scale bar. The data panel shows a legend for data quality (Not evaluated, Pass, Suspect, Fail) and visualization options (Data quality, Variable, Water Level, Platform). Four water level data series are displayed as bar charts:

- Kotzebue, Alaska, Water Level
- Naknek, AK
- Seward Marine Center ASTRA GPS Water Level
- Seward Sealife Center ASTRA GPS Water Level

The time range for the data is set from April 3, 2017, to April 28, 2020. A contact information box on the left provides the following details:

- Web site: <http://www.aaos.org/>
- Contact: dugan@aaos.org
- Sector: IOOS RA
- Address: 1007 W. Third Avenue, Suite 100, Anchorage, AK 99501, USA

The screenshot displays the Alaska Water Level Watch portal interface. At the top, the browser address bar shows the URL `water-level-watch.portal.aos.org/#default-data/default`. The page header includes the Alaska Water Level Watch logo and navigation links for Catalog, Map, Data Views, Settings, Share, Help, and Feedback.

★ Comparing ASTRA and CO-OPS in Seward

From March 2017 to July 2018, AOOs tested two ASTRA water level sensors installed at the Alaska Sealife Center and the Seward Marine Sensor. Because these were a new technology, they were stationed to be able to compare their measurements with that of the Seward CO-OPS station. This dataview shows all three water level sensors on the comparison graph.

The main content area features a satellite map of Seward, Alaska, with three sensor locations marked: 1 (CO-OPS), 2 (ASTRA at Sealife Center), and 3 (ASTRA at Marine Sensor). Below the map is a "Comparison chart" showing water level data from March 2017 to July 2018. The chart compares three data series: CO-OPS (blue), ASTRA at Sealife Center (orange), and ASTRA at Marine Sensor (green). The y-axis represents water level in feet MLLW, ranging from 2 to 11. The x-axis shows time from Mar 26, 2017, to Jul 10, 2018.

On the right side, there are two "Saved charts" sections:

- 1 Water Level**: NOAA Center for Operational Oceanographic Products and Services (CO-OPS) Seward. This chart shows historical data from Jul 31, 1977, to Apr 28, 2020. The y-axis ranges from -7 to 17 feet MLLW. It includes controls for Chart, Time series, Autoscale, and Time bin (set to seasons).
- 2 Water Level**: Alaska Ocean Observing System (AOOS) Seward Sealife Center ASTRA GPS Water Level. This chart shows data from Apr 4, 2017, to Jun 30, 2018. The y-axis ranges from -6 to 13 feet MLLW. It includes controls for Chart, Time series, Autoscale, and Time bin (set to weeks).

At the bottom left, a list of data series is provided:

- 2 Alaska Ocean Observing System (AOOS) Seward Marine Center ASTRA GPS Water Level (Time bin: Days)
- 2 Alaska Ocean Observing System (AOOS) Seward Sealife Center ASTRA GPS Water Level (Time bin: Days)
- 1 NOAA Center for Operational Oceanographic Products and Services (CO-OPS) Seward (Time bin: Days)