



## Alaska Water Level Watch - 2019 Annual Meeting

Location: Geological Material Center, Anchorage, AK  
April 24, 2019 9:00 AM-12:00 PM AKST

### **In-Person Attendees:**

Jacquelyn Overbeck - DNR, DGGGS  
Will Koeppin - Axiom  
Richard Buzard - DNR DGGGS, NOAA  
Jennifer Galbreath - ANTHC  
James Rizzo - TCOON  
Ronnie McPherson - HDR  
Carol Janzen - AOOS  
Nathan Wardwell - JOA Surveys, LLC  
Sally Russell Cox - DCRA, Risk Map  
Wendy Shaw - FEMA Region 10, FIPS  
Crane Johnson - NWS Alaska Pacific River Forecast Center  
Brian Raynes - DNR MLW, Coastal and Riparian Boundary Unit  
Amy Orange-Posma - DNR MLW

### **Online attendees:**

Erik Stromberg - ASTRA, LLC  
Bill Adams - ASTRA, LLC  
Rachel Houser - ASTRA, LLC  
Nic Kinsman - NOAA NGS  
Ann Gibbs - USGS - PCMSC  
Jack Riley - NOAA OCS  
Jeremy Kasper - UAF Oceanographer  
Kate Glover - Alaska Institute for Justice  
Mike Knapp - DOT, Hydraulics Engineer  
Shannon Earl - Onshore/offshore mapping  
Laura Rear McLaughlin - NOAA CO-OPS  
David Schoenmaker - Stillwater Technologies, LLC  
Jihye Park - Oregon State University  
Joannes Westerink - Notre Dame  
Marta Kumle - DNR, AOOS, NOAA  
Anna Wargula - US Naval Academy

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9:00-9:20 **Webinar Instructions & Background** (Jacquelyn Overbeck, Alaska DNR DGGGS)

Note: Any content on the Alaska Water Level Watch Build-Out ArcGIS story map, <http://arcg.is/0qgjDm>, can be edited, please send edits to [nicole.kinsman@noaa.gov](mailto:nicole.kinsman@noaa.gov) and [jacquelyn.overbeck@alaska.gov](mailto:jacquelyn.overbeck@alaska.gov)

This includes, but is not limited to:

- Tidal datum priorities and plans
- Real-time sensors priorities and plans
- Other water level sensor priorities and plans
- Technology 1-page information
- Listing as a partner

#### 9:20-9:50 Introductions

#### 9:50-10:00 Break

10:00-10:30 **Texas Coastal Ocean Observation Network** (TCOON, James Rizzo, Assistant Director of Operations Conrad Blucher Institute for Surveying and Science, Texas A&M University-Corpus Christi)

Please see the presentation posted at <https://aoots.org/alaska-water-level-watch/>

- TCOON is composed of 33 WL stations that fill in gaps between the 5 NWLON stations for the entire coast of Texas.
- Stations and data are developed to meet NOAA NWLON standards and are now served out through the NOAA CO-OPS web platform.
- TCOON employs full time staff to maintain and operate stations as well as provide survey support for other efforts.
- Annual budget of \$3.28 million per year. 100% soft money, contract and grant driven.
- TCOON maintained a deprecated database of stations including real-time data access, modeled water levels, and tidal benchmarks.

#### 10:30-12:00 Strategies Discussion

Consider formalizing Alaska Water Level Watch as a group with charter and steering committee.

- Consensus that the group should be formalized.
- May use structure of the Alaska Ocean Acidification group as an example.
- Follow up will be conducted with the group through email to determine who might be more involved in writing a charter and serving on the steering committee.
- Consider contacting BOEM about any interest in becoming more involved

Brief summary of AOOS/Axiom portal plans and metadata standards underway.

A technical briefing is conducted monthly, if you are interested to attend or participate contact [nicole.kinsman@noaa.gov](mailto:nicole.kinsman@noaa.gov)

Making priorities for tidal datums and water level sensing in the ArcGIS story map:

- The ArcGIS story map is intended to improve communication amongst partners interested in similar locations or with ongoing field activities that could be leveraged.

- Pre-defined priorities developed from the consensus of a large group can be used for applications for funding opportunities or for when money becomes available.

### **Tidal Datums**

Plans for 2019, not shown or requiring an update on the ArcGIS story map:

- USACE has contracted the collection at Emmonak.
- USACE is considering publishing a datum at Elim (from 2011).
- Alaska Silver Jackets proposed Kotlik short term station for tidal datum, and should know in September whether or not the project will be funded.
- DOT is considering a 3-month station at Shishmaref for local tidal datum establishment; HDR would serve as prime contractor if the work proceeds
- NPS did work in Kukak Bay and Gull Island. Year long dataset collected to NOAA standards, unsure of whether these stations will be published.
- NOAA Office of Coast survey is planning several sites with exact locations TBD in next two weeks
- Known opportunities that are not plans yet - plan to establish local tidal datums in SE AK to determine MHW on Forest Service lands
- Tidal Benchmark Priorities List - a hit-list where official tidal datums exist but do not have a GPS observation to tie it to land
- SE AK VDATUM Beta Product scheduled to launch this summer
- Jeremy Kasper – about 20 sensors planned for placement in Beaufort Sea this summer

### **Real-time Sensors**

Plans for 2019, not shown or requiring an update on the ArcGIS story map:

- Add POC attribute to pop-ups on the dynamic map
- Alaska Pacific River Forecast Center conducted work to have APRFC iGage available commercially through Stillwater Technologies, LLC. These sensors are now available and have been utilized by DGGS.
- Can we identify sites along the coast ideal for technologies using elevation data and parameters for success?
- Sensor Opportunities
  - ASTRA from Seward is now equipped for remote siting
- Site Opportunities
  - Ann Gibbs - Kaktovik Barter Island station - crew visiting in September (and/or possibly June) to work on ARGUS camera, may be good for oblique sensors. Or another igage could be installed at the outfall pipe.
  - Jeremy Kasper - Foggy Island Bay - possible area for an oblique sensor.
  - AAHPA - interest in instrumenting many locations.
  - Carol-HF radar sites will have power, and may be good for oblique sensors.
- Staff Opportunities (will be field deployed)
  - UT El Paso - could assist with water level sensor at Utqiagvik this summer
- Install plans

- Gull Island - will hopefully be repaired.
- Kukak will be removed - it was only logging internally.
- DGGGS sites should be listed as Stillwater iGage or Judd gauge to be installed by DGGGS. Tununak and Naknek will be installed with Judd sensors, Kwigillingok and Nelson Lagoon will be installed with Stillwater iGage. Dillingham will be re-installed with a Stillwater iRadar.
- iRadar in Kotzebue put up last year, iGage in Deering. Challenges from winter, will have to see about getting them up and running again.
- WL sensor on barge on Kuskokwim River as a possible pilot project in partnership with private sector
- NOAA plans to reinstall Port Moller NWLON, tentatively in 2020.

Priorities:

*Please send in your priorities to [nicole.kinsman@noaa.gov](mailto:nicole.kinsman@noaa.gov) and [jacquelyn.overbeck@alaska.gov](mailto:jacquelyn.overbeck@alaska.gov)*

ArcGIS Story Map as a new way to send in updates, keep track of what everyone is doing.

Feedback:

- This is a great tool.
- Publicly available (so our meeting got us familiar with how to use it, now we can go back and continue to use it).
- Can this be incorporated into SeaSketch (NOAA's tool)? We have added tidal datum gaps to it. Laura Rear McLaughlin has followed up with Ashley Chappell about this to see if possible.
- Can the data be downloaded? There is a way to download this data. It is easiest if you have ArcGIS Online account. Otherwise, we can make the link available via ArcGIS Online Services. Or you can email requesting the data.