



Inletkeeper's Monitor News

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First edition!

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Happy holidays everyone – starting today (December 22nd) we're on the upswing for daylight! It may only be 20 seconds at a time for now, but watch out - it continues to come fast. I want to thank all of the volunteers who came to the office for our holiday appreciation party on December 16th. There was wine, sparkling cider, cheeses, and Two Sisters cookies enjoyed by all - it was great to chat with folks!

This is the first installment of what will be a regular monthly newsletter for Inletkeeper's CEMP program. I hope that this can serve several purposes:

- Data summaries and highlights from around our watersheds
- Technical notes addressing issues and questions about methods, parameters, and equipment
- News and updates from Inletkeeper and CEMP

Let me know if you have ideas or input for the newsletter (including ideas for a name!). I encourage and welcome any contributions from you, including questions to be addressed and pictures!



Lynda Elaine



Neil Wagner

Winter sampling fun in the Anchor River watershed, at sites AR-1034 and AR-1090

Watershed Summaries

I would like to provide you with useful monthly summaries of the baseline data you're collecting in our watersheds. This format will be very much a work in progress! Next month I will have graphs in the lab from each of the sites monitored last month with average values of four parameters (pH, DO, conductivity & turbidity) plotted across time. Hopefully this will help place some of your results in a larger context!

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**The Cook Inlet
Watershed
covers 39,000
square miles**

Field & Lab Notes

- Don't forget to rinse the coliscan EasyGel bottles and put them in the recycling box provided – caps get thrown away!
- Hanna Meters: a source of frustration for many volunteers! Sue & I were in Anchorage last weekend for CEMP training with Dan Bogan at UAA. We talked about the Hanna Meters and Dan shared some very useful information:
 - ⇒ They are particularly fickle if they aren't used very often. The more times they are used and calibrated, the better they will behave. If your streams are frozen, consider calibrating your Hanna Meters regularly anyway.
 - ⇒ The pH values especially tend to *creep* to a final reading. It can be challenging in the cold, but try to wait it out – once you think the reading has stabilized, give it another minute just in case!
 - ⇒ Let me know if you have persistent problems with your meters. Some of them are getting old and may need to be switched out.
- Field protocols may be revised for clarification in the spring for our April training and re-certification. Please read through them each time you sample, especially when we are just sampling monthly. You'd be surprised how many things get forgotten between sampling weekends! If you go in the field with a partner, try having them read through the protocols as you sample and check yourself for how closely you're following along!
- Please double check data sheets when you turn them in and make sure everything is filled out! Temperatures, dates and times, expiration dates for your chemicals, signatures, time and mileage – there have been some missing data along these lines over the last few months and we'd like to keep the database as complete as possible!

Dates to remember:



December 28 is a sampling day!

The Inletkeeper office will be closed from December 24th until January 5th.

Happy Holidays to everyone!



Watershed Summaries (cont. from page 1)

In November volunteers monitored 8 sites:

Anchor River tributary (AR-1040)
 Upper Beaver Creek (AR-1090)
 Diamond Creek tributary (KB-1150)
 Bidarka Creek (KB-210)
 Woodard Creek @ Pratt (KB-150)
 Palmer Creek (KB-356)
 Fritz Creek @ East End Rd (KB-535)
 McNeil Creek @ McNeil Canyon School (KB-545).



Lynda Elaine

Two creeks, Palmer and Bidarka, were frozen solid – thanks to Frank and Karen for checking on them! AR-1040 had positive *E. coli* counts for both the 1- and 5-ml dilutions. Dissolved oxygen values ranged from 8.4 mg/L (AR-1040) to 12.5 mg/L (KB-1150). pH readings from the Hanna meters were between 6.5 (AR-1040) and 7.2 (KB-150). Turbidity readings had a low of 2.84 NTU (KB-150) and a high of 6.24 NTU (AR-1090).

Kyra and Neil noted a large culvert on Hutler Rd., near Beaver Creek (AR-1090). I called the Borough for more information, and was told that it is an Alaska Dept. of Fish & Game fish-friendly culvert that is staged to replace the two culverts off of Bald Mtn. Rd (crossing Beaver Creek) and that it should have gone in this summer. I would guess they'll move on it in the spring.

F.Y.I. Dissolved Oxygen

Dissolved oxygen (DO) is one of the most important indicators of water quality for aquatic life, and is a measure of the total amount of dissolved oxygen gas in the water. It is essential for the basic metabolic processes of animals and plants inhabiting our coastal waters.

Dissolved oxygen is measured in milligrams per liter (mg/l) which equates to parts per million (ppm). When oxygen levels fall below about 3 to 5mg/l, fish and many other marine organisms are stressed and some cannot survive.

Dissolved oxygen is a particularly sensitive constituent because other chemicals present in the water, certain biological processes, and physical factors such as temperature and water clarity exert a major influence on its availability throughout the year.

