

2019 Stormwater Outreach Public Education and Involvement APDES Permit No. AKS-052558

MUNICIPALITY OF ANCHORAGE
WATERSHED MANAGEMENT PROGRAM

December 20, 2019





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December 20, 2019

Prepared for: Municipality of Anchorage

Watershed Management Services

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Introduction

Anchorage Waterways Council (AWC) is responsible for the outreach and education parts of the APDES AKS-05258 2015-2020 permit for the Municipality of Anchorage (MOA) and Alaska Department of Transportation and Public Facilities (AKDOT):

- Part 3.6.1 "Public Education and Involvement" annually
- Part 3.6.3 —"APDES Annual Meeting" annually

Public Education and Involvement

AWC promotes public education on stormwater by focusing on a variety of topics that affect water quality. The primary ones are pet waste; waterfowl feeding; invasive plants, the application of fertilizers, herbicides, and pesticides; disposal of green waste; snow melt chemical applications and snow removal; residential vehicle repairs and car washing; hazardous waste and materials; and illegal dumping into storm drains.

Besides these issues, recent concern in Anchorage has been from the effects of homeless camps on local creeks. This was particularly evident during AWC's May 2018 and 2019 Creek Cleanups as well as by observations from creek volunteers and AWC staff. Cleanup teams on Campbell and Chester Creeks are reporting large areas of trash on creek banks as well as human waste. AWC's Cherie Northon and Thom Eley are both committing personal time to work with citizen groups on this problem. Especially disturbing was this summer's persistent heat and the frequent use of creeks, such as Campbell Park, for young and old who are wading, paddling, and even swimming in them. And, as we see the dramatic effects of climate change in Alaska, AWC is now providing information on problems we are and will be seeing in our creeks. On June 29, 2019, AWC tabled at the Anchorage Climate Action Fair where a handout was provided along with a quiz. (See appendix, pp. 9-10).

Outreach is accomplished through a variety of avenues: tabling opportunities and events, social media, e-newsletters, mailings, lectures/presentations, publications, and regular TV/radio/news media. AWC's emphasis has shifted heavily towards social media because of its ability to instantly put a message in front of thousands. AWC's Facebook page's (facebook.com/anchoragewaterways) general posts between October 1, 2018, and September 30, 2019--exclusive of AWC's Scoop - posts reached 117,651 people in Anchorage.

Pet Waste—SCOOP THE POOP (STP)

One of the most important programs geared toward stormwater outreach is a reduction in pet waste that is not picked up, because every creek in the Anchorage "Bowl" - with the exception of Rabbit Creek - has a fecal coliform impairment. Campaigns to get people to pick up their pet waste have been ongoing for years by AWC, and a more concerted effort has been undertaken since working with the MOA on its APDES permit beginning in 2010.

- In Year Four, AWC tabled at:
 - AWC's annual Scoop the Poop Day (4/13/19) at 2 dog parks and the Campbell Creek Estuary Natural Area (CCENA)
 - Friends of Pets' Dog Jog (7/27/19)



Fig. 1 Even youngsters participate in Scoop the Poop Day at Connors Bog, April 13, 2019

- Additionally, information on Scoop the Poop was provided at:
 - Midtown Mall Annual Garden Show (4/20/19)
 - Migratory Bird Day at the Alaska Zoo (5/19/19)
 - o Potter Marsh Day (6/1/19)
 - South Anchorage Farmers Market (8/14/19)

A "poop" quiz was given out at some events, and the turnout for all these events in 2019 was over 5,000. (Appendix p. 12).



Fig. 2 AWC at the South Anchorage Farmers Market on August 17, 2019

- A letter discussing pet waste was sent to several creek neighbors in March 2019. (See appendix, p. 11).
- AWC also devised a new type of carrier bag for pet waste. This was a result of so many people
 complaining about having to carry pet waste bags (or rather having to leave tied bags on the
 ground instead of putting them in the trash). It's designed for joggers and others, and is slowly
 catching on.



Fig. 3 AWC's waterproof/smell proof poop bag carrier is provided with a roll of pet waste bags

- STP Committee meetings are convened by AWC annually to plan for upcoming events, e.g. Scoop the Poop Day.
- Scoop the Poop is on Social media (Facebook). From October 1, 2018, to September 30, 2019, it reached 21,037 people in the Anchorage area. The more relevant posts are boosted to reach a larger Anchorage audience.

Yard Chemicals (Ice melt, fertilizers, pesticides, herbicides)

Other outreach activities include tabling at the Annual Spring Garden Shows and Alaska Botanical Garden events. These events are used to give out information as well as have attendees fill out survey forms that focus on individual gardening practices and preferences. To date, over 350 participants have provided information between 2012 and 2019. The overall trend for fertilizers, pesticides, and herbicides is toward safer chemicals or none at all. During these events, AWC also provides information to educate citizens about not using creeks to dispose of their yard cuttings and dead potted plants.

Mobile Businesses

Currently, we have a campaign underway to spread information to carpet cleaning companies. There have been some recent sightings of cleaning vans emptying wastewater into storm drains. A letter (in appendix, p. 13) was sent to 15 companies.

Invasive Plants

Invasive plants in Anchorage are turning out to be a massive problem with a difficult solution. Because we want to protect waterways, it can be a delicate balance between groups wanting to use pesticides/herbicides for control as opposed to manual removal—which is very time-consuming and not always effective. If these plants, particularly the May Day tree, hadn't been introduced or sold in the first place, it would be a lot easier. During all garden outreach events, AWC provides information and booklets about invasive plants.

In September 2019 there was a push by the Parks Foundation Invasive Plants Coordinator Tim Stallard to have the Parks and Rec Commission grant an exception to AMC 15.75.025¹ that would allow spraying of non-allowed pesticides within the 150' anadromous stream buffer. AWC responded to the meeting with a set of arguments against the exception. According to Steve Rafuse, a Municipal Parks and Rec planner, the resolution was not approved pending additional information and other actions. One of the arguments against granting the exception was that it would conflict with certain duties of the APDES requirements for pesticide testing. A copy of AWC's comments are attached in the appendix, p. 14.

¹ AMC 15.75.025 is an ordinance that provides pesticide-free program restrictions for municipal parks, public lands and properties.

library.municode.com/ak/anchorage/codes/code of ordinances?nodeId=TIT15ENPR CH15.75PECO

Media

AWC generates media stories on radio and TV and in the newspaper:

- Letter to the Editor 2/11/19: "Good poop advice" (Appendix p. 16).
- KTVA news story 4/5/19: "There is no poop fairy, Waterways Council urges owners to pick up" (Appendix pp. 17-18).
- o Letter to the Editor 5/8/19: "Don't feed ducks and geese" (Appendix p. 19).
- KTUU news story 5/9/19: "Homeless camps put Alaska (Anchorage) annual Creek
 Cleanup future in question" (Appendix p. 20).
- KTUU news story 9/20/19: "Little Campbell Creek ran dry this summer, where did it go? (Appendix pp. 20-25).

Newsletters

In 2019, AWC sent out 4 newsletters. The newsletters cover topics on water quality, monitoring, volunteers, and issues. Through our newsletter site, Constant Contact, "opens" run between 150 and 200, and then the newsletter is posted several days on our Facebook site. (See appendix p. 26).

APDES Annual Meeting

Anchorage Waterways made a presentation at the February 27, 2019, APDES Annual Meeting which was on the final animal facilities report, titled "Evaluate Anchorage's Animal Facilities" which was finalized in Year Three.

Summary

During Year Four, AWC continued its existing programs and focus while expanding to some new areas of need: the impacts of plastic pollution, local homeless populations, and climate change on Anchorage creeks. In our regular focus on public outreach, we have found it important to continually evaluate and upgrade what we are working on and how it's presented. In Year Five we will be repeating the Stormwater Education Survey that was given in 2010 and 2014.

APPENDIX



Climate Impacts on Anchorage's Waterways

- **Displacement of cold-water species**. As air temperatures rise, water temperatures do also—particularly in shallow stretches of rivers and surface waters of lakes. Streams and lakes may become unsuitable for cold-water fish but support species that thrive in warmer waters. Some warm-water species are already moving to waters at higher latitudes and altitudes.
- Effects on reproduction. Earlier snowmelt, rising amounts of precipitation that fall as rain rather than snow, and more severe and frequent flooding may affect the reproduction of aquatic species. Some salmon populations have declined as more intense spring floods have washed away salmon eggs laid in stream beds.
- Stress. When stream flow peaks earlier in the spring owing to warmer temperatures, low stream flow begins earlier in the summer and lasts longer in the fall. These changes stress aquatic plants and animals that have adapted to specific low-flow conditions. The survival rates of fish such as salmon and trout are known to diminish when water levels in rivers and streams are dangerously low.
- Climate change and new weather regimes. The results of climate change could be warmer OR colder temperatures with stronger storms, more precipitation, floods, or drought which impact vegetation and habitats.

What is important and what can you do?

- Vegetation.
 - o Retain trees and shrubs that provide canopy over creeks to provide protection from sun.
 - o Eliminate areas of bare soil which allow sediment to run into creeks.
- Stormwater runoff (it goes into our waterways!). NEVER pour anything down a storm drain!
 - Reduce stormwater runoff by increasing pervious surfaces. Install a rain garden.
 - o Direct precipitation runoff onto vegetation. Wash vehicles on grass or gravel.
 - Water your yard carefully to reduce water usage and runoff.
 - o Pick up pet waste and minimize or eliminate yard chemicals.

Muir Glacier, Glacier Bay National Park



For more information: Anchorage Waterways Council, anchoragecreeks.org, 2019.

AWC's Climate Change Quiz – June 19, 2019

- **Question 1.** Global climate change does not just mean temperatures are getting warmer, but some areas may experience colder temperatures. **True False**
- **Question 2.** Water temperature plays a significant role in the kinds and numbers of organisms that we find in our creeks? **True False**
- **Question 3.** Creek water is generally warmer at its headwaters and becomes cooler as it moves downstream. **True False**
- **Question 4.** Sections of creeks that are shaded by trees have the cooler water that our creek critters need. **True False**
- **Question 5.** Warmer water could reduce the numbers and species of fish currently found in Anchorage creeks, and it might allow other species and habitats to invade our waters, which could reduce our native fish. **True False**

Name	Email/phone	

ANCHORAGE WATERWAYS COUNCIL



P.O. Box 241774 ● Anchorage, Alaska 99524-1774 ● 907 272-7335 ● anchoragecreeks.org



March 28, 2019

Hello Creek Neighbors!

It's spring time, and so early! It's also the time when melting snow reveals all those piles of dog poop in yards and parks and along trails. Besides being unsightly, dog poop carries a lot of "bugs" that are not good for humans, their pets, wildlife, and our creeks. Humans and dogs both can pick up giardia and other nasty bacterial infections as well as parasites, like roundworm!

Interesting facts about dog poop:

- It is NOT a fertilizer like cow manure. This is because cows are vegetarians and most dogs are not.
- One gram of dog poop (the weight of a dollar bill) can contain up to 23 million fecal coliform bacteria.
- If left, it can take up to a year to decompose.

Year-round the Anchorage Waterways Council works to educate residents about the problems associated with pet waste, and I am asking your help. Please remember to carry a plastic bag with you to clean up poop when you're out walking, hiking, biking, running, or recreating with your pet(s). It's a simple solution to bag up dog poop, tie it off, and toss it in a trash can.

Along the Campbell Creek trail and at Waldron Lake there are Mutt Mitt stations with bags and trash cans for you to place the bags into. If there's not a trash can, please take the bag home and put it in your own garbage can. There's no need to leave it along the trail where animals get into it.

Finally, it is important to remember that not cleaning up after your pet in public—besides being a health hazard—can result in a \$100 citation by Anchorage Animal Care and Control. And, leaving your yard covered in pet waste can bring a \$250 fine.

Thanks for caring about our waterways so we can enjoy them without worrying about picking up something unpleasant. And, please share this information with the entire family and others.

Thanks!

Isaac Watkins, Board President

the full

ANCHORAGE WATERWAYS COUNCIL'S SCOOP THE POOP PROGRAM

Answer 5 Questions and enter to **WIN** a Rake & Poop Scoop Kit **Circle ALL that apply**

- 1. Approximately how many dogs live in Anchorage?
- a. 7,500
- b. 15,000
- c. 65,000
- 2. Per day, how much poop do they produce?
- a. 24 tons
- b. 48,000 lbs
- c. ¾ lbs per dog
- 3. What happens to poop that is left on the ground?
- a. It's a natural fertilizer
- b. Can spread diseases
- c. Seeps into creeks via rain, overloading water with
- E. coli bacteria
- 4. Who is responsible for cleaning up dog waste?
- a. No one
- b. Anchorage municipal park employees
- c. The owner of the dog(s)
- 5. What is a Mutt Mitt station?
- a. Box for dog mittens
- b. Station with dog treats
- c. Mitts for picking up dog waste

Name/contact:



ANCHORAGE WATERWAYS COUNCIL

P.O. Box 241774 • Anchorage, Alaska 99524-1774 • 907 272-7335 • anchoragecreeks.org

September 30, 2019

TCM Restoration and Cleaning 6132 Nielsen Way Anchorage, AK 99518

Dear TCM,

As a commercial carpet cleaning company, it is important to understand your responsibilities for keeping Anchorage's waterways free of polluted wastewater. We know this can be difficult especially if you are a small business owner. Regardless of size, everyone needs to comply and make sure their employees do as well since we are beginning to receive complaints about some companies discharging wastewater improperly.

Environmental regulations that apply to carpet cleaning companies:

- Wastewater generated from carpet cleaning can contain contaminants from detergents, disinfectants, dirt, and carpet fibers.
- If this wastewater isn't properly handled, these contaminants can be carried directly into local creeks, rivers, lakes, and other surface waters which is harmful to aquatic life.
- The Clean Water Act (CWA) states that no person can discharge "process wastewater" directly into the waters of the United States and doing so can result in a violation from the Municipality.

Some confusion exists because most people don't realize that our storm drains are a direct feed to local waterways. That is, they carry stormwater straight into creeks, rivers, and lakes without any type of treatment. Wastewater that is generated inside buildings does go through the sanitary sewer which is then treated before being discharged into Cook Inlet (Anchorage), Eagle River (Eagle River), and Glacier Creek (Girdwood).

The proper way to dispose of carpet cleaning wastewater is into the sanitary sewer through a sink, toilet or floor drain. It is a violation to empty wastewater into streets and parking lots or directly into a storm drain or waterway. Note that this is not the solution for those on septic systems as the wastewater should be emptied into a drain at your business or into an RV dump at a local gas station.

Please take the necessary steps to inform your employees about this in order to avoid costly fines for violations and to help keep our great water resources clean and healthy. And, please reach out to us is you have any questions.

Sincerely,

Statement from Anchorage Waterways Council on "A resolution regarding the use of herbicides to control Mayday trees in parks and greenbelts" given at the Parks and Recreation Commission meeting on August 8, 2019

By Cherie Northon, Ph.D., Executive Director

Anchorage Waterways Council's 8 board members and I appreciate the opportunity to address this complex issue even though we barely had a week to review and comment on it. Our most critical findings from the resolution presented to the Watershed and Natural Resources Commission are as follows:

- 1. We find this statement to be especially misleading: "WHEREAS, mayday trees are more toxic to humans and moose, if ingested, than the herbicides that have been proposed to control their spread" (p. 1)
 - a. Humans don't typically ingest the leaves or the pits which are poisonous. In fact, the fruit of the mayday tree has and is being used for food: flour, jams, jellies, wine, and even for medicinal purposes. You can find bird cherry flour (organic no less) for sale on Amazon. We perceive this as a scare tactic.
- 2. We find the following statements needing explanation and answers:
 - a. What were the methods used and results of the 2012 treatment of the 40 acres according to the draft Anchorage Invasive Plants Management plan (p. 14)
 - b. Is there information on the effects of the proposed chemicals on children vs. adults?
 - c. Do the chemicals affect other broad leaf plants, e.g. birch, alder and aspen, if they receive direct spray?
 - d. How much glyphosate or other chemicals would be used?
 - e. How often would they be used? Days, weeks, months, years?
 - f. When would they be used? Onset of flowering? Onset of leafing out? Autumn? It is stated in the resolution that environmental exposure of bees to glyphosate is "anticipated to be insignificant because bees are primarily attracted to flowers which are UNLIKELY to be present or come into contact with the herbicide when it is applied." (p. 26). "Anticipated", "significant", and "unlikely" are words that trivialize this potential impact. They are merely an opinion, not a hard fact.
 - g. What will happen to the dead fall after injection or spraying? There doesn't appear to be any discussion about its removal which is a huge concern in terms of wildfires especially since we currently are in a drought.
 - h. What will happen to the bare ground once the mayday trees are removed? Will the areas be replanted with groundcover or be prone to increased erosion? Does the mayday tree resprout when it's been sprayed which means more spraying?
 - Canopy is important as a means of reducing stream temperatures which is especially important in light of recent weather patterns. Our creeks are currently warming quickly due to the long, hot summer. Removing canopy will only exacerbate this.
- 3. The following statements are speculative:
 - a. Researchers noted that leaf litter input COULD become a problem if trees continued to spread and displace native trees.

- b. The timing of leaf fall can vary which, in conjunction with rapid breakdown, COULD result in a pulse of organic matter that disappears quickly.
- c. Leaf litter retention can be important to stream ecology and a "trophic mismatch" COULD reduce shredded abundance and affect litter processing in streams dominated by mayday trees.
- d. Another concern is that an increase of mayday trees over native trees COULD reduce the diversity of leaf litter
- e. Also, a shift from alders to mayday trees COULD have direct and indirect effects by decreasing the amount of nitrogen available for nutrient cycling in plants and animals

Obviously, absolutes are not always attainable, but alternatively these statements could be considered in the opposite vein as MAY NOT.

- 4. These actions are considered of great concern:
 - a. The resolution aptly demonstrates that lower Chester Creek is challenged and we would not disagree, however has anyone looked at the effects of adding more chemicals?
 - b. What about the synergistic effects?
 - c. What is learned by transferring the method of adding more pesticide pollution to an already polluted area when we might need to know how this method impacts less polluted areas?
 - d. Why add more to a waterway which we are working to rehabilitate?

5. Unintended consequences:

a. APDES—Municipality of Anchorage and AKDOT hold a joint permit known as the Alaska Pollutant Discharge Elimination System. The goal is to reduce point and non-point pollution to local streams and lakes. In the permit, the Municipality is mandated to test for chemicals such as 2, 4, D in local waters. How can the Municipality work to fulfill these permit requirements if they are sanctioning the use of pesticides adjacent to waterways?

Anchorage Waterways Council supports the wise removal of mayday trees but feels that chemical controls should be used as a last ditch effort only after all other means of control have been exhausted. Even then, the benefits of the chemical control should far outweigh the detriment to the native environment and the situation. If the proposed chemical can escape into the waterways and affect aquatic insects that are food for fish and other species, or affect native vegetation in a similar way it does the targeted vegetation, or harm beneficial terrestrial insects, such as honey bees, and those that "rain" into creeks as fish food--then we cannot support its application. If the existence of the invasive/non-native species is believed to be more harmful than the side effects of the chemical used to eradicate it, then we support a limited trial run with quantitative proof of its benefits outweighing its detriments in an area that is well away from waterways. Until such proof is provided in Anchorage's unique environment, we cannot support a full-scale application effort.

ANCHORAGE DAILY NEWS

Letters to the Editor

Letter: Good poop advice

Author: Cherie Northon | Opinion O Updated: 2 hours ago Published 2 hours ago

Thanks to Mary Cocklin for her letter, "Pick up your own poop," which reminds us that there is no poop fairy to clean up pet waste. Every dog owner is responsible for their own pet's poop, and you could be hit with a \$250 fine if you are cited for not cleaning up after your dog.

Anchorage Waterways Council, which oversees the Scoop the Poop program, greatly appreciates everyone who already picks up after their pets, and although it is particularly generous that Ms. Cocklin and others clean up dog poop that is not theirs, scooping another dog's poop isn't something that anyone should have to do. Why do we need to scoop the poop?

Besides the "eww" factor when you step in it, dog poop can carry parasites and disease-causing viruses and bacteria. Much of this ends up in our creeks whenever there is runoff from rain, breakup, or water from our yards — including washing your car. Poop is washed down through our watersheds and ultimately by way of the thousands of municipal storm drains into our lakes and creeks, without any treatment.

Cleaning up after your pet not only improves our neighborhoods, trails and dog parks, but it also helps keep our waterways where we fish, raft, kayak, canoe, wade and swim healthy. Please do your part! There are more than 150 pet waste stations throughout the municipality that provide bags along trails and in dog parks. Even so, it's always a good idea to carry a couple, because you never know when you or someone else might need one. And, please dispose of the bagged poop properly — this means in the trash and not left on the ground.

- Cherie Northon

Executive Director, Anchorage Waterways Council

Anchorage

Have something on your mind? Send to letters@adn.com or click here to submit via any web browser. Letters under 200 words have the best chance of being published. Writers should disclose any personal or professional connections with the subjects of their letters. Letters are edited for accuracy, clarity and length.

Comments





NEWS

There is no Poop Fairy: Waterways council urges owners to pick up after their dogs

Friday, April 5th 2019, 1:06 PM AKDT

By: Dave Goldman



20

Pets come with responsibility.

"Pick up a bag, carry a bag in your pocket, tie it up, throw it in the trash," said Cherie Northron of the Anchorage Waterways Council at University Lake dog park Thursday.

Like this content? Subscribe to our daily newsletter.

Her message for spring: Scoop the poop to solve with solve addition addition website-tools very lew rum solves addition addition website-tools very lew rum to the poop to solve addition addition addition and the poop to solve addition addition and the poop to solve addition addition and the poop to solve addition an

As the winter yields to spring in Alaska, it's revealing what's been in and under the snow and while many folks do clean up after their dogs at parks and around town, a good number do not. Sometimes it's unintentional.

"We find they're looking at their phones and not watching their dogs. And they're walking the trails but the dogs are off [leash]," Northron said.

When dogs venture into the woods, owners don't know if they've gone or not.

Besides the aesthetics, mismanaged feces is a matter of health. While University Lake isn't a primary source of drinking water for Anchorage residents, it's still a good idea to keep dog waste out of it.

"It impairs the water with fecal coliform which when people go and recreate in canoes, little kids playing in it, they can pick up giardia and other really nasty things," she said.

Saturday, April 13 is the annual Scoop the Poop clean up at University Lake Park and Connors Bog from 11 a.m. to 3 p.m. All are encouraged to come by and help. More information is available at www.anchoragecreeks.org (http://www.anchoragecreeks.org/).

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ANCHORAGE DAILY NEWS

Letters to the Editor

Letter: Don't feed ducks and geese

🖋 Author: Cherie Northon | Opinion 🛛 Updated: 1 day ago 🛗 Published 1 day ago

Even though our weather is trying to decide if it's spring, we know for sure it is when Canada geese return to Anchorage. Their overhead honking is a dead giveaway. Now is a good time to reflect on some important ways to keep them healthy, so they can head back south in the fall.

Geese are grazers, which is why they love to hang out on all the nicely kept green grass fields in town. Primarily herbivores, grass and plants suit them just fine. They do not need anything else — especially processed foods that we humans like. Most everyone has grown up tossing bread to ducks and geese. Although this is a fun childhood pastime, it is not healthy for waterfowl. In fact, in can even cause them to develop poorly so that they can't fly. A condition known as "angel wing" affects their wing structure dramatically, and unfortunately we have been seeing it all too often in geese at Cuddy Pond.

Another problem is that they can become dependent on being fed by humans. Large flocks of ducks are now overwintering at Cuddy Park, which causes excessive amounts of bird poop and crowding in open water areas. The ducks hang around (often in the parking lot) waiting for their next handout from folks with good intentions, but this is not really in their best interest.

It may look like they are starving and unable to fend for themselves, but that's just a trick they use to make us feel sorry for them. Ducks should migrate to other areas — south to Washington, Oregon, Idaho or California — or, if they aren't so inclined, they can overwinter in Kachemak Bay and Prince William Sound. They managed to survive over winters for millennia, but humans are now interfering with that.

The message is not to feed them anything, at any time. When they stay here, congregating in small open areas of water, it's not healthy. They can easily spread avian diseases because of the tight quarters, and, like all animals, they poop a lot, which fouls ("fowls") the water. Tests for fecal coliform bacteria show there are high amounts of bacteria that have the potential to make humans and their pets sick.

Please don't feed them, and ask others not to do so. It's best for them, our waterways and ourselves.

-Cherie Northon

Anchorage Waterways Council

https://www.adn.com/opinions/letters/2019/05/06/letter-dont-feed-ducks-and-geese/

Homeless camps put Alaska annual Creek Cleanup future in question



Annual Creek Clean Up. KTUU

By The Associated Press | Posted: Mon 9:29 PM, May 13, 2019 | Updated: Mon 9:56 PM, May 13, 2019

ANCHORAGE, Alaska (AP) An Alaska environmental cleanup event is considering whether the safety of its volunteers is being put at risk by homeless encampments.

The Anchorage Daily News reported Saturday that the Anchorage Waterways Council is considering the effects of the makeshift camps on the annual Creek Cleanup event.

The council's executive director says she would consider ceasing the cleanup program entirely in the future due to potential hazards.

Officials say that in the last two years a growing number of homeless camps have created an increasing safety risk as volunteers, including children, have encountered far more human waste and syringes along their cleanup routes than in the past.

The cleanup collects an estimated four to five tons of trash each year from waterways across Alaska's largest city.

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Little Campbell Creek ran dry this summer - where did the water go?



Little Campbell Creek in August, 2017, the first time Dr. Thom Eley said he saw it run dry.

By Lex Treinen | Posted: Thu 6:00 PM, Sep 19, 2019 | Updated: Fri 12:08 PM, Sep 20, 2019

ANCHORAGE (KTUU) - In 2017, Paul Gebauer, a resident of Pacer Drive in South Anchorage, went out for a walk with his dog, finding that the creek that normally passed through his yard was essentially dry.

"One day it was flowing, then it just died," said Gebauer, "I didn't know what caused that."

Gebauer was concerned, not just for his property, which the creek runs through, but also for the health of the river. He said that he saw some trout swimming around the inescapable pools that were left in the stream.

Gebauer called the Anchorage Waterways Council, a research and advocacy group that monitors the health of Anchorage creeks, and got in contact with a Dr. Thom Eley, a researcher there.

"I was like, 'What? I've never heard of that," said Eley. "And so I met up with him at his residence and we walked down to the South Fork and sure enough, it was almost entirely dry."



Paul Gebauer, whose property abuts a section of Little Campbell Creek that ran dry several times over the past few years, describes the flow of the creek.

After doing some investigating, Eley realized that above the Alaska Zoo, water levels looked pretty much normal, below it, there was virtually nothing.

So, where was the water going?

Eley found a suspect. The Anchorage Golf Course, located a few blocks down O'Malley Road, has a water use permit that allows it to draw 112 gallons per minute from the creek.

The source was listed as a water diversion pond on the northwest corner of the Alaska Zoo. Eley thought that would explain the dramatic water difference above and below the diversion pond.

He studied the matter and included his research in a report he says he delivered to several state and local agencies.

The first time that Eley and Gebauer had seen the creek run dry was in 2017. In 2018, a year with normal precipitation, there were no issues.

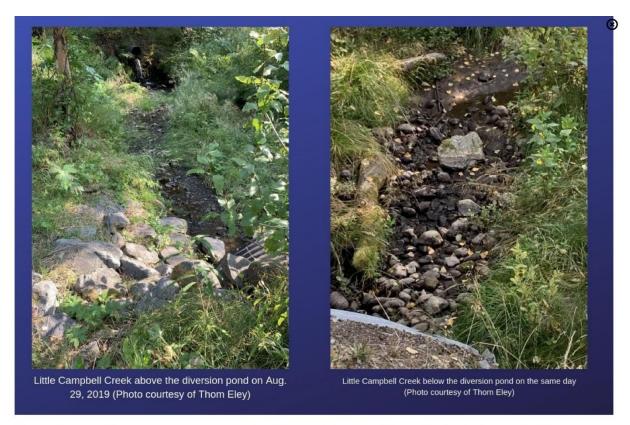
But then the extreme drought of 2019 struck.

Eley made regular visits to the creek to check on it. "I probably checked it four times this summer and it was at least dry twice," he said.

When he went above the diversion pond, he again found it low, but still flowing. He estimated the rate of flow above the pond at about 450 gallons per minute, below the pond, there was essentially nothing.

For the first time ever, Anchorage recorded "extreme drought" for August. With temperature models predicting warmer summers, Eley was particularly concerned.

Despite the low flows he observed, baseline stream flows were measured in 1986, the year the permit was issued to the golf course, at about 1167 cubic feet per second during the summer.



Though there aren't any ongoing measurements of the creek, the permit issued to the Anchorage Golf Course shows that they are required to allow at least 897 gallons per minute (2 cubic feet per second) to flow from the stream, no matter whether or not they are able to retrieve the 212 gallons per minute that they were issued by the permit. If the water flow upstream of the diversion tank falls below that level, the golf course is supposed to stop taking any water.

Rich Sayers, general manager of the Anchorage Golf Course said the golf course was also concerned about low water from the drought this year. He said that after investigating the course's permits earlier this week, he discovered that at some point during creek restoration, the weir regulating water intake into the stream during times of low-flow was removed by official agencies.

"For the first 30 years, that weir was set up so that no water would be diverted until that 2 cubic feet per second was met," said Sayers. "So, the old system did it automatically."

With the new system, nobody is regulating water flow, and there was no mechanism to prevent overdrawing.

Dan Saddler, the communications director for the Department of Natural Resources, says that the department hadn't been given a copy of the Anchorage Waterways Council report until Channel 2 made him aware of it.

The department said that records show the project went through a normal approval process and was in compliance with standards to get the permit back in the 1980s.

DNR also says the golf course is up for a water right which would last in perpetuity. That application for the right has been classified as "under review" since 1986, including during dry years in 2017 and 2019. But, Saddler said that "it won't take another 30 years" to complete.



The department says it is currently "looking at the issue" and that, "The review for a Water Right will remain on hold until the investigation is complete and water use data has been acquired."

That investigation includes an analysis of the flow, the quantity of water diverted, the quantity of water used, and other factors. Alaska Department of Fish and Game is also examining the creek and withdrawal site to assess for salmon habitability.

Sayers of the Anchorage Golf Course says that he was told by regulators that they are going to be examining the diversion tank sometime next week to decide how to proceed.

For advocates like Eley at the Waterways Council, the issue is more than about compliance, it's about making sure that the streams are clean and healthy for salmon in the face of warming temperatures, and potentially less water all around.

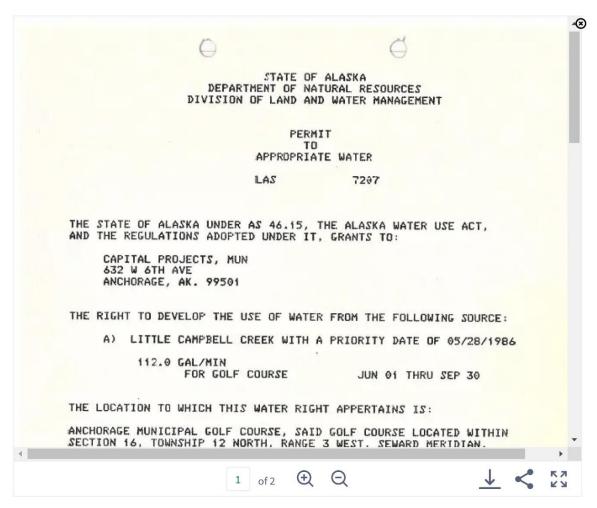
"It's been a big move within the municipality in the past few years, the city project to get the streams cleaned up. In the 80s, some of these streams were considered health hazards, and so the Waterways Council and the municipality have worked for a long time trying to get the streams squared away," he said.

It not only helps the fish, it helps anglers by putting more fish in the river farther downstream. With low and warm water affecting many anadromous streams in Southcentral this year, any extra water will help salmon runs.

It also helps neighbors such as Gebauer, who says a healthy stream is what attracted him to the property in the first place.

"I bought the property about 10 years ago, had a couple kids, it was nice. Who doesn't want a creek in their yard?"

<u>LAS 7207 Permit to Appropriate</u> by on Scribd



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AWC Newsletters



JOIN or RENEW

AWC UPDATE - February 18, 2019 Clean, Healthy Water Takes Work, But It's Worth It!

A message from the Executive Director, Cherie Northon

While rain water and snow look relatively unpolluted when they fall to the ground, the runoff doesn't stay that way as it enters the stormwater sewer system. Anchorage's stormwater runoff is transported through what's known as a Municipal Separate Storm Sewer Systems or MS4s, which is then discharged, untreated, into local water bodies.



Untreated stormwater flowing in South Fork Little Campbell Creek (Collen, 2008)

Anything on the ground--washes down. This includes cigarette butts (considered plastic waste), vehicle fluids, yard waste, ice melt chemicals and traction materials, sediment, and dog poop. All this (and more) makes its way down through the stormwater system

into our creeks and lakes where it pollutes them. Besides being a health issue, this needs to be curbed in order to be in compliance with the <u>Clean Water Act</u> (CWA).



Stormwater outfall from C St. to Chester Creek (Northon, 2012)



Stormwater outfall with high sediment load from a construction project at 52nd and Lake Otis flowing into Campbell Creek (Northon, 2007)

In the United States, there are approximately 7,000 MS4s, and the Municipality of Anchorage (MOA) is one of them. Anchorage's MS4 discharges stormwater into more than 30 waterways and wetlands within the Municipality. The CWA requires that pollutant discharges to surface waters be authorized under a national permit. In Alaska, this permit is overseen by the Department of Environmental Conservation (DEC), and is known as the Alaska Pollutant Discharge Elimination System or APDES for short. There is a lot more to it, and if you are interested you can view the current permit <a href="https://example.com/herested/memory.co

Since 2010, AWC has worked with the MOA on their APDES permit compliance. Most of what we do involves public education and outreach on watershed issues, such as

cleaning up pet waste through our "Scoop the Poop" program. We will be devoting this newsletter and others to ways that we can help to reduce pollutants that end up in our waterways.

Anchorage's Polluted Waterways

Between 2004 and 2006, DEC completed TMDLs (Total Maximum Daily Load) analyses for several waterbodies in Anchorage: Ship Creek; Chester Creek, Westchester Lagoon and University Lake; Campbell Creek and Campbell Lake; Little Campbell Creek; Fish Creek; Furrow Creek; Little Rabbit Creek; Little Survival Creek; and Lake Hood. All of these waterbodies are on the state's "impaired waters" list for fecal coliform (FC) bacteria except for Lake Hood, which is impaired for improper dissolved oxygen levels.

TMDLs establish the maximum amount of a pollutant allowed in a waterbody while still meeting water quality standards, and serve as the starting point or planning tool for restoring water quality. An interactive map with these waterways and their TMDLs can be found here.

As noted, waterbodies in seven Anchorage watersheds are impaired by FC bacteria. Although FC bacteria are not necessarily dangerous to humans, their presence in streams and lakes indicates that the water is contaminated with fecal waste from warmblooded animals (humans, dogs, and wildlife). FC are considered "indicator organisms", so when we have results above accepted levels from testing, it's akin to the "canary in the coal mine" because of increased risks to human health. Drinking or coming in contact with water that is contaminated with fecal waste can make you sick because of the other bacteria, viruses, and pathogens which may be present.



Example of plated water showing bacteria colonies from Micrology®. The blue/purple colonies are *E. coli*, and the pink are "other" bacterias. AWC's water monitors collect 5 ml. water samples, plate them, and then count the colonies after 24 hours incubation.

What does being on the "Impaired Waters" list mean?

There are established Water Quality Standards (WQS) that are set to protect the health of humans and other critters. Alaska's WQS address several issues. Some of them are

important parameters for our anadromous and resident fish including pH, temperature, dissolved oxygen, and turbidity, while others are geared more toward human health. While it has not been found (so far) that bacteria are detrimental to all organisms, such as fish, they can make humans and dogs sick. Giardiasis, a protozoan parasite, is a problem for both dogs and humans. Dogs who contract it are most likely to have done so by drinking water that has been contaminated with feces, which is the same cause of infection in humans. WQS need to be maintained or attained because they are important to a broad spectrum of living things and their habitats.

When a waterbody does not meet one or more WQS, it is listed as "impaired". Once it achieves that status, it means that changes must be made to remove it; these are not always easy and they can take quite some time.

The "allowable" level of bacteria colonies in water varies by the activity. The following table is a summary of these standards.

Water Supply - drinking, culinary, & food processing	Over a 30-day period, the geometric mean may NOT exceed 20 FC/100 ml.
The state of the s	Over a 30-day period, the geometric mean may NOT exceed 126 <i>E. coli</i> colony forming units/100 ml.
	Over a 30-day period, the geometric mean many NOT exceed 200 FC/ml.

Thus, an impaired waterway means that it has exceeded these levels of bacteria. It is our goal to reduce the levels, but it's not easy and we need help.

Has it always been this way?

Concern about local waterways and pollution began to gain traction in the early '80s. That doesn't mean that creeks and lakes were not polluted until then, it's just that little attention was being paid. In July 1981, five "significant surface water systems" (Ship, Campbell, Little Campbell, Fish, and Chester creeks) were tested using physical, chemical, and microbiological water quality parameters. These were augmented by two years of data from the Municipality for Campbell, Little Campbell, and Chester Creeks. The results were a big wake-up call. ADN reporter Craig Medred reported in an article dated 11/30/84 that three of the streams, Chester, Little Campbell, and Fish, along with Campbell Lake were "seriously polluted with what appears to be human and animal waste". Chester Creek had readings that exceeded the state standard by 120 times with over 2,400 FC/100 ml!

The report went on to say, "[due] to extremely high fecal coliform levels detected in Chester Creek, Fish Creek, Little Campbell Creek, and Campbell Lake, it is recommended that signs be posted along public areas advising of the potential health hazard to deter public contact, especially [by] children."



Sign on Campbell Creek warning about polluted water (ca. 1975)

Campbell Creek "Classic" - A Victim

No doubt many of you are familiar with the well-loved Campbell Creek "Classic" raft, canoe, and kayak fun race that spanned 16 years in the '70s and early '80s. Sadly, it met its demise from concerns about the hazards to participants from untreated sewage in the creek. Despite the loss of a popular water activity, it's fortunate that polluted water was now being recognized as detrimental to human health. In January 1985 the "Classic" was ended (although an attempt was made to hold it at Goose Lake--it never regained its momentum).

Campbell Creek "Classic" during its heyday - June 1973



Pollution ends annual race in city creek

Campbell Creek Classic off

By CRAIG MEDRED Daily News reporter

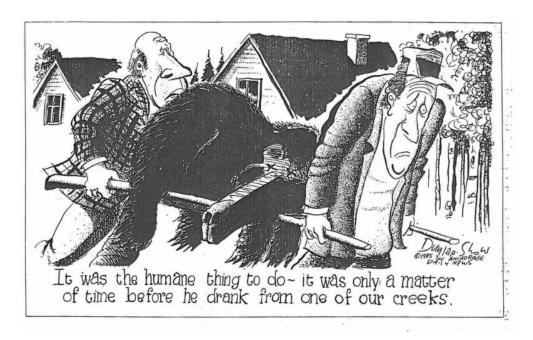
Anchorage Daily News, January 17, 1985

And from then on, there was no shortage of publicity...

Some great cartoons speak to the problems emerging, such as these from long-time ADN cartoonist Peter Dunlap-Shohl.

Cartoons from the Anchorage Daily News - 1985







But there is good news as well. In 1984, a movement began to address Anchorage's "bubbling creeks". Much of the impetus for this began with Anchorage's then-mayor Tony Knowles and his public health director, Dr. Rodman Wilson. A Waterways Technical Advisory Committee was established and one outcome was signage posted along creeks warning of unsafe water.

That same year was AWC's first annual Creek Cleanup. Archives reveal that 200 people headed out to various creeks where some of the more interesting things removed include: car parts, sofas, a stove, picnic tables, tires, false teeth, and a dead dog. Now, 35 years later there are still some interesting finds.

This discussion began in regard to pollutants that run into our creeks by way of storm drains which, after 3 decades of attention, remains a problem. As we work to clean up our waterways, there is much more that needs to be done. Removing trash through our Annual Creek Cleanups is a start, but attention and care are necessary year-round. It would be best if litter never found its way there, but that's probably not realistic. However, the mere fact that trash is so visible might work in its favor for reduction.

On the other hand, the presence of FC in our waters is not anything visible, but it is harmful. The following photos show the different problems that AWC is confronting in Anchorage's creeks.



Trash in North Fork Chester Creek by Sitka Park (Northon, 2012)



North Fork Little Campbell Creek at Meadow Park, a monitoring site where E. coli readings were 560 colonies/100 ml. on July 10, 2011 (Vermillion, 2011)



Signage warning of polluted water on Sylvia Dr., Riviera Terrace trailer park (Northon, 2011)

AWC has been testing for FC in local waterways since 1998. We are grateful for the several hundred volunteer water monitors and funding from donors over the past 20 years who have made this program possible.

And, an exciting development is that we now have grant funding from DEC to analyze our data which makes it all the more useful in approaching the problem areas and working to address the concerns in the TMDLs.





Monitor Kaerin Stevens at Campbell Creek and New Seward (Northon, 2010)

Having clean, healthy waterways takes work. Much of this could be eliminated by a few simple actions, such as putting litter in its place and scooping your dog's poop. Other ways include participating on AWC's Annual Creek Cleanup and by becoming a member of AWC. It's well worth it.

Other Ways to Help Our Creeks!

Pick, Click, Give! Thank you to all who contribute to AWC and other non-profits. Please consider any amount to:



Or <u>link</u> your **Fred Meyer** rewards card to Anchorage Waterways Council (GK663).

Use Amazon Smile when you make purchases. This <u>link</u> will take you right there!

Volunteer

There are many ways to help AWC as a volunteer. We have fantastic volunteers who donate hundreds of hours annually to monitor our creeks each month, a thousand

people take to the creeks every May to pull tons of trash out during our Annual Creek Cleanup, and many of you are "eyes on the creek"--reporting things that are disturbing--and we do our best to respond or help people find the right place to "complain". Consider becoming an AWC board member! AWC is a 501 (c) 3 non-profit and memberships and donations (monetary or items) are tax deductible.

AWC Membership--Renew or Join!

Being a member of AWC means that you care passionately about the well-being of your own environment. We work to keep the waterways clean, clear, and of value to all. From clean water and recreation to creating a general feeling of well-being, our waterways need protecting for our own benefit, as well as for the countless other species that rely on them. Adding your name to our membership means we can make a stronger stand when it comes to the issues that can affect us all--use your vote and become a member today!

It's easy, you can go online to <u>anchoragecreeks.org</u> and click the "**JOIN NOW**" button, to join, renew or donate, or click the "**Join or Renew Now**" button at the top and bottom of this email. We are now set up to do recurring payments as well! This can be as simple as \$5 or \$10 a month, but it adds up BIG for us.

If you have a question about your membership and when it expires, please contact us at awc@anchoragecreeks.org. If you know someone who wants to help support our great waterways, please forward this email to them, or if you want to provide a gift membership--contact us. Does your employer have a volunteer match program? Thanks to all for your continuing support and especially to our sponsors and volunteers who watch the waterways, monitor the creeks, and help this great organization--the ONLY one in Anchorage dedicated to protecting our creeks, wetlands, and watersheds.

Reminder: Like AND Follow us on **Facebook** at "<u>Anchorage Waterways Council</u>" and "<u>Scoop the Poop Anchorage</u>".

JOIN or RENEW

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JOIN or RENEW NOW

AWC UPDATE 3-26-19:

A message from the Executive Director, Cherie Northon

It looks like spring and breakup are here simultaneously. As we all too well know, breakup means cleanup. AWC already has our two major cleanup events planned: Scoop the Poop Day and our 35th Annual Creek Cleanup. It is also time to celebrate spring with the Midtown Mall Garden Show and AWC's Annual Meeting.

With the beginning of Creek Cleanup in 1984, many of you have participated in this great event over the years, and it's encouraging to hear from those who cleaned up when they were young and are now doing so with their own children and grandchildren. This is a great legacy of stewardship.

Below you will find links for signing up to clean a section of creek or lake. There is also information on our Scoop the Poop Day, where we raise awareness about the need for cleaning up after our pets EVERY DAY.

Plan on attending the Midtown Mall Spring Flower and Garden Show on April 20th to get a jump on spring! And finally, our Annual Meeting, on April 23rd, will have updates on creek habitat improvements.

SAVE THE DATES!

"Scoop the Poop" Day Saturday, April 13, 11 am to 3 pm

For the past several years, volunteers have devoted part of a Saturday during April's "Earth Month" to show their care and appreciation for the privilege of having dog parks in Anchorage. This year it will be held on April 13 at University Lake and Connors Bog. Buckets, bags, gloves, and gardening tools will be provided.

Let's not forget that every day is a Scoop the Poop day, because approximately 20 TONS of pet waste are deposited in Anchorage daily! If it is not cleaned up, it eventually washes down into our creeks and lakes and pollutes them with fecal coliform bacteria. This impairs water quality and can make pets and humans ill. Show your support and come on out and demonstrate that you care for your dog parks.



Mo and Jasper doing their part!

Midtown Mall Annual Spring Flower and Garden Show

Saturday, April 20, 10 am - 5 pm

Midtown Mall (formerly Sears Mall)

Stop by and visit the AWC table. Take a short survey and be entered into a drawing for great gifts. Find out about rain gardens!



Restoration and Rehabilitation: What it Means for our Creeks Tuesday, April 23, 6 pm - 8 pm Resolution Brewing Co. 3024 Mountain View Drive

Please join us for presentations on recent projects to improve aquatic habitat in local creeks. Find out what has been done and how we assess if there is improvement.

Free appetizers will be provided and Resolution beer on tap will be available for purchase at our informative, fun, and relaxing evening. *Note: age restrictions apply, anyone under 21 must be accompanied by a parent.*

35th Annual AWC Creek Cleanup Thursday, May 9 through Monday, May 13

Now is the time to plan and sign up for this year's Creek Cleanup. Our long-standing tradition to get winter's trash out of our lakes and creeks will run for 5 days again this year. Individuals, families and teams are urged to sign up soon. First, check the list of available <u>locations</u>. Next, sign up <u>here</u> so we know when and where you will be cleaning and how much you will need for supplies. Bags, gloves, first aid kits, hand wipes, directions, maps, etc. will be ready for pick up by May 5. Check our <u>website</u> for current information.



THANK YOU!

AWC is especially grateful for its members, volunteers, and the many sponsors who provide support for Creek Cleanup and other events as well as our grants and contract partners. All this great work would not happen without you.

A FEW THINGS YOU CAN DO TO HELP AWC

Our largest single annual donation comes from <u>Pick, Click, Give.</u>
People choosing to donate a part of their Permanent Fund dividend can help a variety of non-profits out. **Anchorage Waterways Council** has been a recipient for the past 5 years, and we are very appreciative of Alaskans' generosity.

The deadline to file for Pick, Click, Give is coming up--March 31! But remember you can add or adjust your donations through August 31. Thank you for your donations to make our creeks healthy!



Many of you have linked your **Fred Meyer** rewards card to Anchorage Waterways Council and it means that we receive quarterly donations from your shopping. If you haven't linked to AWC, we would love to have you. These donations help us fund our programs. Our Fred Meyer number is 88984. This is a win-win situation for everyone. To renew or sign up, go to <u>Fred Meyer Rewards</u> and follow the directions. On that page you can click on their link to sign up. Thank you to all who have in the past, who renew, and who will sign up for the first time.

Amazon Smile also donates a portion of Amazon purchases to various charities. This link will give you information on what they do and how to sign up.

How can you help AWC maintain healthier creeks?

Volunteer

There are many ways to help AWC as a volunteer. We have fantastic volunteers who donate hundreds of hours annually to monitor our creeks each month, hundreds of participants take to the creeks every May to pull tons of trash out during our Annual Creek Cleanup, and many of you are "eyes on the creek"--reporting things that are disturbing--and we do our best to respond or help people find the right place to get the problem addressed. Consider becoming an AWC board member!

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organization--the ONLY one in Anchorage dedicated to protecting our creeks, wetlands, and watersheds.

Reminder: Like and Follow us on **Facebook** at "Anchorage Waterways Council" and "Scoop the Poop Anchorage".

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AWC UPDATE 5-23-19:

A message from the Executive Director, Cherie Northon

Anchorage Waterways Council LOVES its volunteers! We could only accomplish a minute percent of what we do if no one stepped up to help us care for Anchorage's creeks and lakes.

Our 35th Annual Creek Cleanup is a perfect example of hundreds of people coming together over 5 days to remove tons of trash from local waterways. Thom Eley, our research biologist and education director, has penned a summary of recent cleanups that follows.

During our April Scoop the Poop Day, over 100 people were at University Lake and Connors Bog shoveling up pet waste from the winter. It was a beautiful and warm day, and these folks showed how much they care for local off-leash areas. Let's all do our part and SCOOP the POOP there and everywhere!

Also in April, UAA Conservation Biology students again made the rounds to AWC's 20 monofilament recycling bins to collect fishing line from them and to report back to us about necessary repairs. This saves us an incredible amount of time for a program that is not currently funded. We are making repairs and replacements this month.

While these events are more visible, there are many other volunteers working who aren't easily seen. We have had over 300

water quality monitors for the past 20 years who have logged thousands of hours taking samples in our creeks. Currently we have only three monitors testing Rabbit Creek, South Fork Chester Creek, and Eagle River. Our goal is to expand the monitoring program by adding 7 more, so if you're interested let us know. You can go here to see what it entails.

Anyone can play an important role in helping our creeks by keeping an eye on them. If there is something that doesn't seem right, we have an online reporting <u>form</u>. Some problems we can resolve, and others we will direct the problem to the right agency. Pictures are a great benefit, and can be emailed to <u>awc@anchoragecreeks.org</u>.

Think about what you can do, and take action. If someone leaves dog poop, kindly offer them a bag. Gather up litter when you're walking. It truly makes a difference.

35th Annual Creek Cleanup

Nearly 1,000 highly motivated and enthusiastic volunteers have just collected ~5 tons during AWC's 35th Annual Creek Cleanup. A heartfelt thank you to those who participated--your support is essential and you always come through. The weather wasn't optimal, but the crews persevered. Trash was disposed by the dedicated trash-hauling volunteers as well as by MOA Parks and Recreation staff when bags were left in Municipal Parks and greenbelts. MOA Solid Waste Services allowed teams to leave trash at the Central Transfer Station at no cost. We want to thank Parks and Recreation and Solid Waste Services for their help.



Team GCI's haul from Taku Lake and Campbell Creek placed at a Parks and Rec trash can and (and Mutt Mitt) station

This year as well as last, the cleanup crews also mapped the locations of homeless camps, and the camp problem appears to be spreading farther every year. The MOA contends that there are about 1,000 homeless folks out there (0.3% of our population). If you use the percentages from similar size cities as Anchorage, the estimate could be about 3,000 (1% of our population). We tell our crews not to clean up homeless camps as there are a number of laws and regulations covering what can be done and when.

Because of this issue, Executive Director Cherie Northon and I have been visiting camps on the banks of Campbell Creek and they are appalling. It's a wonder that we don't have more trash in the creeks as the ground around the camps is covered in it. It's easy to spot trash of all sorts including human feces, toilet paper, and used syringes. These items are another reason crews shouldn't attempt to clean up trash from the homeless as they can be extremely dangerous. Some of the illicit drugs out there could literally kill you just by getting them on your skin. Fortunately there is equipment

for these cleanups, such as needle-proof gloves (a pricey \$100.00/pair), but AWC cannot afford to buy them for volunteers.

Over the summer, AWC's board will be discussing the safety and liability issues associated with Creek Cleanup, and, considering all the dangerous things being found along our creeks.

Just a warning to all which should be passed on to the kiddos who play in the greenbelts, parks, wooded areas, and even on their school playgrounds, do not pick anything however interesting it looks--it could kill you.



Remains of a homeless camp along Campbell Creek. Campbell Creek is just fifty feet beyond the trees.

On Sunday, May 19, I was working at Migratory Bird Day festivities at the Alaska Zoo which focused on the devastation of plastics to birds, fish, and other wildlife. A visitor asked me why we don't have a big celebration after Creek Cleanup like we used to have. In

2015, AWC went to a new model for Creek Cleanup. Instead of a one-day couple of hours Saturday cleanup, we decided that a 5-day cleanup is better for several good reasons. The first is based on feedback from the cleaners. Five days allows more people to participate where they can fit it in, and this flexibility has resulted in many more teams signing up. Several businesses and agencies give their employees paid time off to clean creeks--I'll vote for that any day! Creek stretches are mapped and teams can pick an assigned area so that we can have better coverage. Ultimately, a longer period is being spent cleaning as opposed to when everyone needed to be back at the park by 11:00 for a celebration. While everyone loves a party, particularly in a great park, cleaning up creeks is our true goal.



"Lucky the Duck" - he is lucky because the soda pop rings and the lure were removed from him. We'd rather Lucky never be caught up in these things.

Additionally, I was asked what sorts of thing have been found during Creek Cleanup. Well, the list of the weird and strange is long. Over the years the volunteers have found a crocheted afghan, stuffed toys, radios, trash cans, bowling balls, boxing gloves,

punching bags, underwear, computers, a bench seat from a truck, a truck canopy, Trump signs, car batteries, plywood, a coconut, raft parts and paddles, shoes, syringes, LOTS of plastic, metal sheets requiring a forklift to be removed, bagged dog poop, 5-gallon buckets, tarps, pieces of metal, a Barbie Dream Car, used oil filters, Bic lighters, aluminum cans, tires, styrofoam, vacuums and brooms, grocery carts, bikes, golf clubs, fishing rods and reels, couches, mattresses (those puppies are heavy when they are water soaked), pallets, refrigerators, a car, two-dead ducks with one banded, a brown bear skin, and a shotgun (APD determined it was loaded and the safety was off).



Bear skin, bicycle parts, afghan and cigarette butt holder from 2013 Creek Cleanup

"Why do people dump trash in creeks?" Search this question on Google and you will find thousands of inquiries but not much in the way of answers--lazy people, no respect for creeks or anything to do with the environment, but nothing definitive. Fear not, we aren't alone. Trash in creeks, bays, rivers, waterways of all sorts, and the oceans is a GLOBAL PROBLEM. In some "Third World Countries," there are so many people in urban areas with no room for dumps, trash is just thrown in the nearest convenient place. Here in Anchorage though, we do have trash disposal options--people just need to use them!

California's San Mateo County is also battling trash dumped in creeks, and they have tried education campaigns. One of their brochures states:

Dumping trash and organic waste creates serious problems. It's a nuisance.

It costs taxpayers money to remove. It can be a hazard during floods.

It can become a breeding place for rodents and mosquitoes. It creates pollutants which are a threat to our groundwater and the plant and animal communities living in our creeks and beyond.

As they say in the Navy, "Keep the Faith" creekers. Keeping the Faith means to continue to believe in, trust, or support someone or something when it is difficult to do so (Merriam-Webster [a dictionary]). We still have a difficult road ahead of us with trash in creeks.

Have a great summer, and remember Sergeant Phil Esterhaus's (Hill Street Blues) great quote, "Hey, let's be careful out there" - stay safe and have fun!

---Thom Eley



Team 574-EVER at Little Campbell Creek



Team Halo on Chester Creek



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People choosing to donate a part of their Permanent Fund dividend can help a variety of non-profits out. **Anchorage Waterways Council** has been a recipient for the past 5 years, and we are very appreciative of Alaskans' generosity.

The deadline to file for Pick, Click, Give is past, but remember you can still donate up to August 31. Thank you for your donations to make our creeks healthy!



Many of you have linked your **Fred Meyer** rewards card to Anchorage Waterways Council and it means that we receive quarterly donations from your shopping. If you haven't linked to AWC, we would love to have you. These donations help us fund our programs. Our Fred Meyer number is 88984. This is a win-win situation for everyone. To renew or sign up, go to <u>Fred Meyer Rewards</u> and follow the directions. On that page you can click on their link to sign up. Thank you to all who have in the past, who renew, and who will sign up for the first time.

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How can you help AWC maintain healthier creeks?

Volunteer - Monitoring Program

AWC is looking to expand its water monitoring program. If you can spare an hour and a half each month to visit a local creek site and take samples--please contact us at awc@anchoragecreeks.org.

AWC Membership--Renew or Join!

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It's easy, you can go online at www.anchoragecreeks.org and click the "Join or Renew Now" button, to join, renew or donate, or click the "Join or Renew Now" button at the top of this email. We are now set up to do recurring payments as well! This can be as simple as \$5 or \$10 a month, but it adds up BIG for us. If you have a question about your membership and when it expires, please contact us at awc@anchoragecreeks.org. If you know someone who wants to help support our great waterways, please forward this email to them, or if you want to provide a gift membership--contact us. Does your employer have a volunteer match program? Thanks to all for your continuing support and especially to our sponsors and volunteers who watch the waterways, monitor the creeks, and help this great organization--the ONLY one in Anchorage dedicated to protecting our creeks, wetlands, and watersheds.

Reminder: Like and Follow us on **Facebook** at "Anchorage Waterways Council" and "Scoop the Poop Anchorage".

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Anchorage Waterways Council

awc@anchoragecreeks.org http://www.anchoragecreeks.org (907) 272-7335



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JOIN or RENEW NOW

AWC UPDATE 8-1-19:

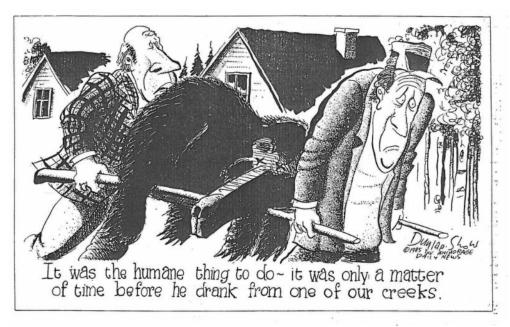
A message from the Executive Director, Cherie Northon

Twenty years ago, AWC board member Bob Shipley grabbed a water sample from Campbell Creek, and thus began a long-term commitment by AWC to test local waterbodies in order to assess their health and work towards improving them.

It is no secret that Anchorage in the 70s and 80s was a time of rapid expansion, and, as a result, not a lot of care was given to the impact on local waterways from development. News stories from this time are rife with concerns about pollution, especially in local creeks. The well-loved Campbell Creek Classic--a race of varying watercraft--was actually shut down due to extreme pollution and worry for the health of participants. Fish and Game even stopped stocking creeks due to the potential of fishermen getting sick from contact with creek water. The culprit was raw sewage, and other Anchorage streams were not immune to the problem.



A 1985 cartoon from the *Anchorage Daily News* by Peter Dunlap-Shohl.



And another 1985 cartoon by Dunlap-Shohl.

AWC was founded in 1984 as an all volunteer organization. Its signature event, Creek Cleanup, also began that year. In 1999, water quality monitoring was ushered in as an established program called CEMP or Citizens' Environmental Monitoring Program. Over the past two decades, AWC has trained over 150 monitors who have spent thousands of hours collecting data at 31 sites. The

primary tests include pH, turbidity, dissolved oxygen, temperature, and fecal coliform.

In 2018, the Alaska Department of Environmental Conservation (ADEC) awarded AWC a grant to review the data records for Chester and Little Campbell Creeks and enter them into a webbased water quality data management system. With the data consolidated into a single location, there are several ways that it can be analyzed including on GIS maps.

The final grant report in June 2018 resulted in this <u>document</u> that can be found on our website. It outlines some of the findings from the analysis, a few of which were unexpected.

In early 2019, AWC was awarded a second grant by DEC to compile the data from Ship, Campbell, Fish, Furrow, Rabbit, Little Rabbit, and Little Survival Creeks. This will be available in 2020. Stay tuned for the results!

And now, find out why we have been so fortunate to have so many monitors over the past 20 years.

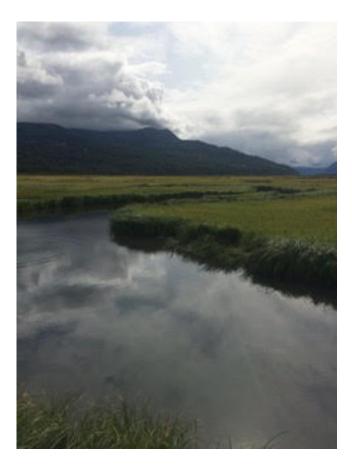
Words From a Long Time Monitor - Margie MacNeille

I've been monitoring water quality for years and years now--I was trained by Terri Lomax in 2005. I've seen a lot of changes both at AWC and in the testing process itself, let's call it "streamlining". What hasn't changed are the rewards. First, the water monitoring data (CEMP) is and will be critical to maintaining creek water quality in Anchorage, especially as we head into a period of rapid change. While checking water quality is an important community function, and, in my view, should be a government function, that's not happening. We volunteers have to "mind the store" so the data is there when it's needed.

Monthly monitoring has been an excellent way to connect myself to the environment of my creek sites. I began monitoring at the 'pristine' Campbell Creek site, by the dogsled bridge off the Stuckagain road. What a pleasure, a privilege, to see, year after year, the ice recede, vegetation spring up, sand bars emerge and disappear, and the dippers frolic in the creek. Once, I arrived at the bridge site only to find the bridge had vanished, though the next month a new bridge appeared. Because of the bear presence, I usually enticed someone else to be my bear sentry. Bugs discouraged sentries from returning, however. I never did see a bear. I do have an abiding attachment to that lovely section of the creek.



Margie's site in July 2010 at mile 10 of Campbell Creek.



Upstream of Margie's site in July 2019 near the mouth of Rabbit Creek

After years in the serene woods, I shifted to the Potter Marsh site, just off the older boardwalk where Rabbit Creek runs through the culverts under the Seward Highway. Different birds, different plants, more fish, more noise- but still the same amazing seasonal shifts are visible. At this site, you can see the Chugach front range and down Turnagain Arm as well. Most rewarding is the people watching. Everyone in Anchorage comes to the boardwalk, even those, young and old, who can barely walk. Kids and adults are curious about the testing. Visitors tell me about the water quality in their hometowns. Along with cars and people, there is always wildlife: moose, muskrats, swallows, waterfowl, eagles--lots of action. And then there was the incident of the gun... A pistol was clearly visible in the pool under the boardwalk, causing considerable shock and alarm to everyone who saw it. In the end, it turned out to be a water pistol, all the fuss for naught. Again, I

have learned about and connected to a location in Anchorage that I might seldom visit.

So here's the pitch to you prospective water monitors- Do you think someone should be keeping tabs on the water in our creeks? Do you like the idea of visiting a creekside spot once a month year-round (but lack the discipline to do it on your own, like me)? Can you squeeze about an hour a month out of your schedule? Will you reliably send your report in monthly? Then this is for you. The testing process is simple (now) and you can choose your companions (if any) so the company is good. Give Cherie a call (907 272-7335) if you are interested.



Karyn Stephens, long time monitor on Campbell Creek at Brayton.

What does a water quality monitor do?

A typical sampling by one of AWC's monitors is relatively easy. After a short training in our procedures, the monitor is assigned his or her own site. Sites are chosen based on certain criteria, such as safety, accessibility, and value to the program. This <u>link</u> will take you to an interactive map that shows all of the sites that have been monitored to date. Monitoring director Thom Eley does annual field checks in areas that are of significant concern in terms of water quality, and they are rechecked before assigning a monitor.

With the burgeoning problem of illegal encampments primarily along Chester and Campbell Creeks, safety is always the top priority. These camps are littered with trash, syringes, and human waste which all contribute to a degradation of the health of our creeks. This situation also means that getting water quality data on these areas is of great importance for public safety.

Monitors are provided with nitrile gloves along with their monitoring kit and incubator. The kit includes tests for pH, dissolved oxygen, turbidity, temperature, and fecal coliform. The latter uses the Coliscan® method which incubates for 24 hours--after which the monitor counts the bacteria colonies. All the data are reported on forms that are submitted along with 3 photos of the site.



A fecal coliform test using Coliscan taken at the Coyote Trail Bridge in Far North Bicentennial Park on 7/25/19.

The sites are visited once a month even in winter although testing cannot be achieved after freeze-up. Even so, it is important to have data that includes when the site is frozen especially in light of climate change.

AWC is looking to expand its water monitoring program. If you can spare an hour and a half each month to visit a local creek site and take samples--please contact us at awc@anchoragecreeks.org.

How is AWC's monitoring program funded?

Initially, the Department of Environmental Conservation (DEC) provided funding to state watershed groups to support volunteer monitoring programs. That ended in 2003 when DEC Commissioner Ernesta Ballard (2002-2004) decided that the money coming from the EPA's Section 319 funds for states to address non-point source pollution was not being well-spent by watershed groups who had volunteer monitors. Considering the costs for an environmental firm's technicians to collect samples, some of which require lab analysis at a hefty sum per test, there is no doubt that volunteer programs can cover a much broader swath of waterways at a much lower cost.

Since then, AWC has scrambled to find funding for the program. ConocoPhillips provided some grant funding that helped after the initial cuts, but since 2009 it has been a struggle. Over time, we have had some wonderful donations from private individuals for which we are extremely grateful.

Above, Margie mentioned "streamlining" the program. In 2016, in order to keep the program viable there was a change in the monitoring protocol. We are all familiar with the extreme costs of

shipping items from the lower '48, and the monitoring program was greatly impacted by this. Many of the chemicals and reagents are considered "hazardous" and have to be shipped 2-day, which often resulted in shipping costs that were more than the item. And, there was equipment, e.g. Hanna Meters that provided measurements on pH, conductivity, and total dissolved solids, that was costly at \$150/meter, required buffers for calibration, and had a life span of only 12-18 months. AWC's board (many who are professionals in the environmental consulting world) worked to find less expensive alternatives that still provide an acceptable result.

In doing so, the lower costs have meant the program continued and did not have data gaps in locations where baseline monitoring of 5 years was underway. All of this could not have happened without the dedication of the individual monitors and the financial support of individuals who care about the health of local creeks.

Coming full circle.

As noted above, DEC is now funding us with Section 319 money to use our monitoring data for assessing the health of our waterways. It's very fortuitous that AWC persisted in the face of funding cuts to continue the monitoring program as all that data is what DEC now wants for analysis.

I guess Ms. Ballard wasn't such a visionary after all.

A FEW THINGS YOU CAN DO TO HELP AWC

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