

ACWA FY 2016

“Improving Water Quality in Anchorage’s
Waterbodies”

Objective 1, Task 1

Quarter 2, December 31, 2015

Updated June 30, 2016



By

Anchorage Waterways Council

Task 9—Synthesize project results into a final project report

Outreach activities/public response: The ACWA FY 2016 grant was focused on fecal contamination (FC) of waterways but was broader than the typical which merely addresses pet waste. While pet waste is undoubtedly the primary source of FC in Anchorage’s waterbodies (and will be discussed below), another more recent issue has emerged—feeding of waterfowl in certain parts of the Municipality. Feeding waterfowl is not a new activity here or elsewhere in the world, but certain factors have exacerbated its proliferation in particular parts of Anchorage, particularly Cuddy Family Midtown Park (Cuddy Park), which has proven to have an excessive FC load.

The result of humans feeding waterfowl is evident even without testing water quality. Using Cuddy Park as an example, the increased numbers of Canada geese (*Branta canadensis*) during summer months and a larger overwintering population of Mallard ducks (*Anas platyrhynchos*) began to be quite noticeable in 2012. The following photo shows a group of mallards huddling in the only open water in winter near the Fish Creek stormwater outfall into the Cuddy Ponds.



Mallards huddling in the only open space (stormwater outfall from Fish Creek) at Cuddy Pond (C. Northon 2/7/15)

Even before the ADEC RFP came out, the media was working with AWC to get the word out about the issues, but it’s difficult to determine how many people were deterred from this activity. At one point, Cherie Northon stopped to talk to a woman who was broadcasting large amounts of dog food to waterfowl on the north side of the pond. The woman would not listen to anything and started swearing and saying she was being harassed even though the conversation was about potential harm to the birds and the environment.



Some of the estimated 700 overwintering ducks at Cuddy Ponds on 1/16/15 (C. Northon)

Another water quality issue that began to emerge was the sloughing of the pond's banks due to trampling by humans and waterfowl from feeding adjacent to the parking lot off of 40th and Denali. This resulted in large sections of the bank being broken off and landing in the ponds—increasing sedimentation there as well as Fish Creek.



Ducks and Canada Geese at Cuddy Ponds (note bank sloughing) on 7/26/14 (C. Northon)

Anchorage Waterways Council (AWC) began to seek sources of funding to address the problem in 2013, but it wasn't until 2015 that ADEC put out an RFP that specifically focused on the Cuddy issue as well as FC in general. With the awarding of that grant titled, "Improving Water Quality in Anchorage's Waterbodies", for FY 2016 (July 1, 2015 to June 30, 2016), AWC was able to bring together a large group of stakeholders to begin work towards a resolution.

Over 30 stakeholder members represented the following agencies and organizations: U.S. Fish and Wildlife Service; U.S. Department of Agriculture; U.S. Geological Society; Alaska Department of Environmental Conservation; Alaska Department of Natural Resources; Alaska Department of Fish and Game; Municipality of Anchorage's Watershed Management Services, Loussac Library, Parks and Recreation, and Health and Human Services; Bird TLC; HDR Alaska; Earthscape; Rick Sinnott (ADN); and members of the public including AWC board members. AWC organized three Cuddy Park informational walks, led by Dr. Thom Eley (AWC's research biologist), that took place in August and September 2015.

On September 28, 2015, a larger meeting was held at the Loussac Library to allow participants to explain the history of Cuddy Park's creation, the original reason for daylighting Fish Creek at that location (flood control), what had been planned and what resulted, and reasons why things had gone awry (See Appendix for discussions and suggestions). It is interesting to note that the Alaska Department of Fish and Game (ADF&G) has posted the following information on its website¹:

Before the mid-1960s few or no Canada geese nested in the Anchorage Bowl. Geese passed through briefly during spring and fall migration. The number of geese nesting in Anchorage has increased at a rate of 13-14% per year since they established a breeding population.

The main reason for this increase is that we have inadvertently created a goose nesting paradise in Anchorage by combining two habitat features that Canada geese like: mowed lawns and lakes.

So, what changed at Cuddy? Briefly, over the past decade it was turned into a large park with few trees, lots of grass, and water—all the ingredients listed on ADF&G's website that attract geese. Some refer to it as a giant salad bar with liquid refreshments nearby. And that caught the attention of migrating Canada geese. With an increase in the goose, duck and gull population, a common human activity of feeding birds developed. Most people do not realize the inherent damage that feeding wild birds does, many of us grew up feeding ducks, it allows children and adults to mingle "somewhat" safely with wildlife, and most feel that they are helping the birds. It doesn't occur to them that these birds have evolved over thousands of years without the intervention of humans to provide them with food—yet the birds are more than willing to accept what is offered. They learn quickly that what is being tossed at them is food (although I have witnessed some geese and ducks rejecting watermelon), but for the most part they ingest whatever is provided: fresh bread, stale and moldy bakery items, bagels, popcorn, sandwiches, potato chips, cookies, cake, French fries and more. Neither the birds nor most of the feeders realize that the abundant natural foods of grass and aquatic plants supply everything they need to fatten up and prepare for migration and are already there and human feeding is hurting rather than helping.

Besides the result of dependency or habituation as well as a reduction in fear towards humans, there are some nutritional issues. Studies have shown that young Canada geese develop a condition called "Angel Wing" where researchers believe that a faster-than-normal growth of the wing due to increased protein does not allow it to develop properly. The bird's wing will not feather as it should, and subsequently the bird is not able to migrate with its flock. AWC found 2 examples at Cuddy Park in 2015. One of the best examples is shown in the following photo. It is a shame when this happens as the bird is doomed to a death by predation, starvation, or an inability to migrate. Although not going into great detail, this affliction was subtly depicted in the new Cuddy Park signage. Not many people have heard of it, although one of the news reporters who was from Eugene, Oregon, said that there was quite a bit of signage in her hometown that discussed Angel Wing and it definitely made an impact on her. (Hearthier Hintze, personal communication, 7/6/16).

¹ www.adfg.alaska.gov/index.cfm?adfg=livingwithbirds.goosesolutions



Canada goose with Angel Wing, Cuddy Park, 9-1-15 (C. Northon)

The stakeholder meeting in September was very informative because of the variety of issues that occur with large populations of birds in places where there shouldn't be. Many of these were familiar, such as reduced water quality, bank trampling, injuries by aggressive birds, the potential for a rapid spread of disease due to overcrowding, overwintering of increased duck populations, and excessive fecal material on the ground, but one important impact was brought up and had to do with bird strikes and airplanes. Cuddy Park is relatively close to Ted Stevens International Airport and Lake Hood, but some of the ducks that ADF&G were banding as part of a nutrition study had been found all the way in Mat-Su Borough. The USDA Wildlife Services regularly watches for bird congregations and fires cracker shells to keep them clear of airplanes to avoid bird strikes. Their concern was that if the ducks are flying across Cook Inlet to Mat-Su, then they are certainly in the airspace of small and large planes around Anchorage.

While many of these issues are extremely important in the larger scheme, it was made clear to the stakeholders that the emphasis on the project had to focus on water quality because of the funding source. Fortunately, even though it was not a part of the grant, SGS Laboratories in Anchorage volunteered to analyze water samples for AWC at no charge. The first sampling took place on August 5, 2015, at three parts of the Cuddy Pond: the entrance (a stormwater outfall of Fish Creek), mid-pond, and near the outfall adjacent to the children's playground. The numbers of FC for a 100

ml sample of water were astounding. Alaska Water Quality Standards² for secondary recreation contact are: *In a 30-day period, the geometric mean of samples may not exceed 200 FC/100 ml, and not more than 10% of the total samples may exceed 400 FC/100 ml.* The professional analysis results from SGS Laboratories exceeded this amount many times over as shown in the following map.

***E. coli* at Cuddy Pond [Fish Creek], Anchorage, AK, 5 August 2015**

Samples collected by Dr. Thom Eley. Samples analyzed by SGS Laboratory.



Cartography by Dr. Thom Eley, Anchorage Waterways Council

This confirms the suspicions of high FC in the ponds. Other evidence were the many rafts of algae that trapped debris and generally proved unsightly. The walkways were covered with fecal matter as were the handrails of the pedestrian bridges which attracted Glaucous gulls (*Larus hyperboreus*) and Mew gulls (*Larus canus*).

² dec.alaska.gov/commish/regulations/pdfs/18%20AAC%2070.pdf



Cuddy Pond algae encouraged by high nitrogen levels from fecal matter, 9-27-15 (C. Northon)



Grass and pedestrian path with goose feces at Cuddy, 7-5-16 (C. Northon)



Pedestrian bridge with gull feces at Cuddy Park, 7-6-15 (C. Northon)



The problems provided much fodder for inclusion in interpretive signage. In mid-November a small group designated in the ADEC workplan from DNR, ADF&G, MOA Parks and Rec, and AWC met for the first time. Jeanne Swartz from DEC was not able to attend, but was at the next and all the subsequent meetings. The issues and most important points to convey were discussed, and the first draft of the Cuddy sign was unveiled in December 2015. From there, input from these group members helped to shape the final sign which was put into production in spring and four were installed at the park on June 30, 2016.



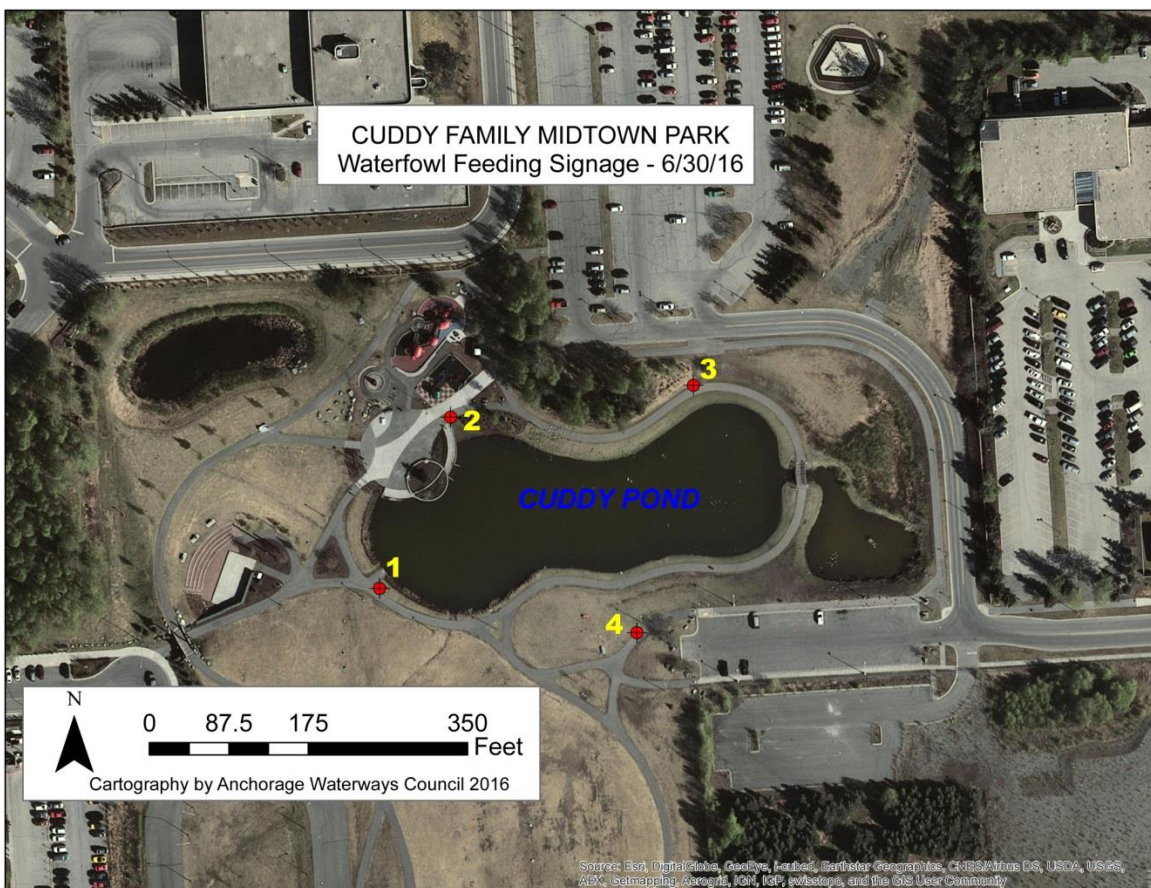
One of the four Cuddy signs installed 6-30-16 by the playground (C. Northon)

Because of the very recent install of the signage, there has not been much feedback, but those who saw the drafts were quite smitten with the colorful and creative design. The goal was not to scold people, because that tends to make one ignore the wording. The design group felt that it was a matter of education as the majority of people feeding the waterfowl probably did not know about the detrimental effects. Many people said they grew up feeding ducks and geese, and they wanted to have their children and grandchildren have the same experience.

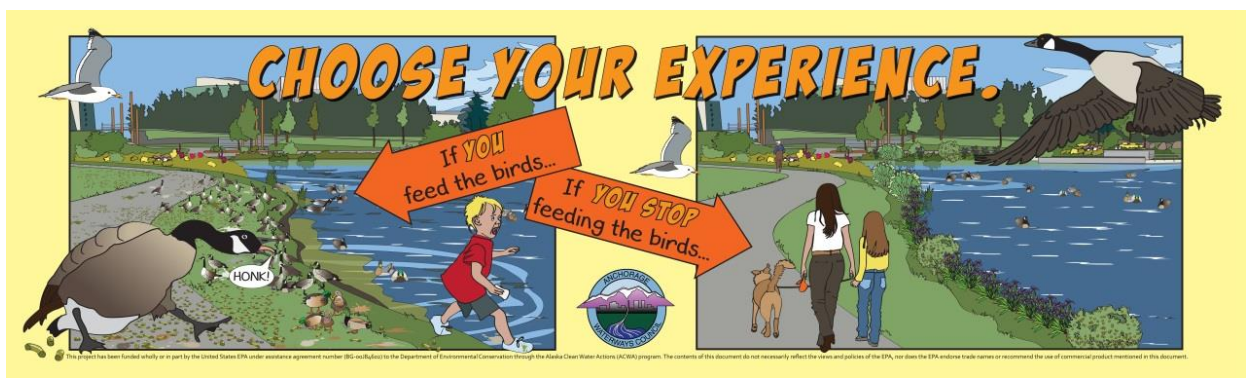
It was also important to keep the sign messages short, and to try and repeat them differently at least 3 times. A spinning wheel at the upper left was added to provide an interactive feel, and the sign was cut around the figures to provide another interesting aspect. DNR's Emily Angel provided the sign working group with a good summary of current thoughts on sign communication (see Appendix).

Evaluate the success of the project: Because the signage was installed on the very last day of the grant, there has not been any time to evaluate the success of the project. Also, the location of the signs was designed to create a new

circulation pattern of park users. Up until July 7, 2016, there was a convenient parking lot adjacent to the heavily trampled area as people would get out of their cars, either stand along the sidewalk as the birds came up to them, or they would walk down the bank (trampling the minimal vegetation) and feed the birds. But on July 7, a group called YEP (Youth Employed in Parks) was all over the affected area fencing it off and replanting it. The new plantings are strategically placed to block access from the parking lot, funnel people to the end of the lot and onto a path where one of the signs (#4 in the map below) has been placed, and to hopefully keep people on the paths. Additionally, the group, which is under the auspices of the Anchorage Park Foundation, is filling in the south shoreline of the pond with plantings and temporary fencing to provide an additional barrier between humans and the birds. Strategic placement of the signs will hopefully slow down much of the feeding, and this will begin to be analyzed in late July 2016.



It should also be noted that the sign design by Meg Anderson of DNR was used for some other products. An adaptation was made to create a rear sign for People Mover buses, and these began to circulate on 5 buses in June.

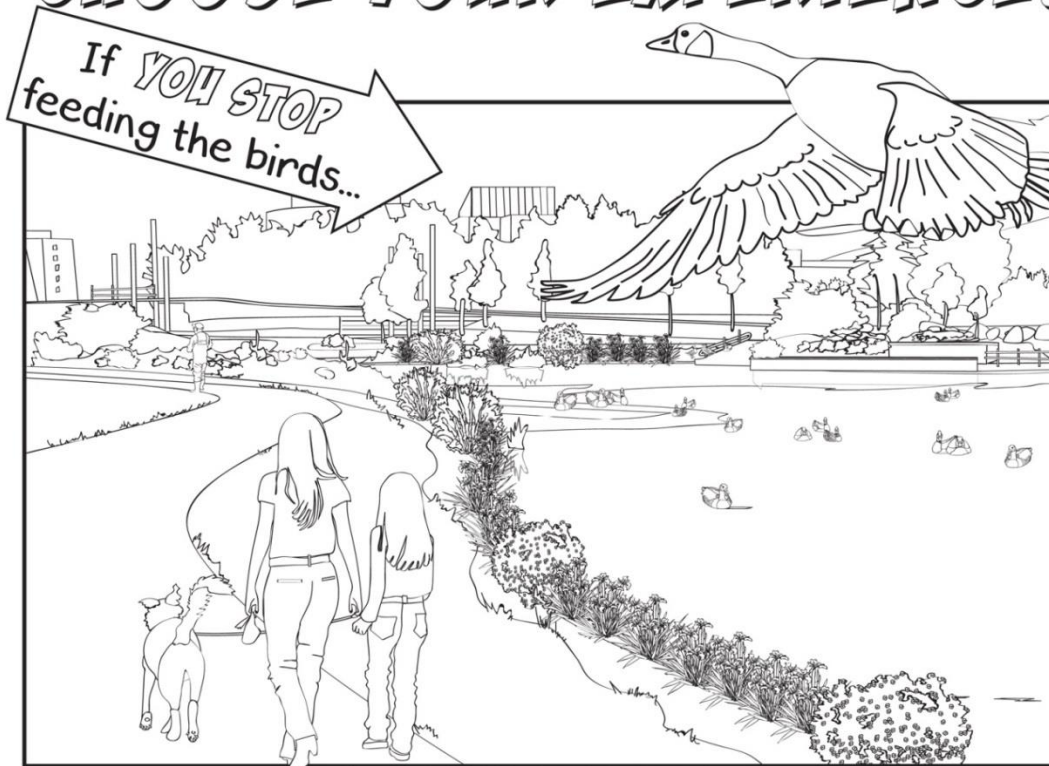


People Mover bus signs (M. Anderson)

An adaptation of the bus signs to create a coloring page. (M. Anderson)



CHOOSE YOUR EXPERIENCE.



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(download at anchoragecreeks.org)

One means of having something to compare for next year is the ability to do monthly sampling and analysis which has been donated by SGS Laboratories gratis. AWC has taken 3 samples since the geese arrived this year and will continue until they depart to see if any patterns emerge. While it may not be entirely clear this year, we hope that next year will show a decrease in FC.

Suggestions for future efforts: It is fairly early to make suggestions for future efforts until we can analyze how the current BMPs are working. It was evident from the beginning that a single approach was not going to be successful. This problem had to be tackled from a multitude of angles and methods and by more than one entity. Besides collaborating with the MOA's Parks and Rec Department, there are other groups who can help spread the word. One of these is from the Loussac Library's youth services coordinator who is going to print and post a copy of the bus sign as well as some of the coloring sheets. AWC will use the coloring sheets in its Creeks as Classrooms program in schools and with summer camps. There are many little fixes that we can apply, but it would seem that the largest flaw in the system is that there are no federal, state, or local regulations about feeding waterfowl. The ONLY exception is one that ADF&G imposes down at Potter Marsh. It is undoubtedly one of those very unpopular regulations that would not be easily passed. And even if one was passed, Anchorage does not have a good track record when it comes to enforcement of issues including pet waste left by dog owners. It's not certain that even if rules on the books were to change as most Anchorage citizens do not have any fear of being cited for a violation. That being the case, it would seem that the best efforts are to continue through education.

BMPs used in various areas of the MOA for protecting water quality: In the Municipality, a variety of BMPs are used which are aimed at protecting water quality. The following will focus specifically on pet (dog) fecal contamination, which was the basis of this grant.

Pet Waste Stations: as of July 1, 2016, there were approximately 130 pet waste stations located and mapped within the Municipality. Several of these were purchased with funding by the Alaska Department of Environmental Conservation (ADEC) through grants in 2014 and 2016. Approximately 160,000 pet waste bags have been purchased in the past 2 years by ADEC grants as well. Considering that the Municipality's Animal Care and Control estimates about 65,000 dogs reside in Anchorage³, it is simple math to see that a lot of bags are needed to pick up pet waste every day. The purchase of many of these items is hampered by extreme shipping costs to Alaska, although there are some companies that are willing to work with purchasers to reduce the freight costs, i.e. Intelligent Products who manufacture Mutt Mitts[®], which are made in the U.S.

Refilling pet waste stations is a task that needs to be done daily or even several times a day by Parks and Rec (P&R) staff to keep them stocked. According to discussions with the P&R staff, it's nearly impossible to predict which parks will be more popular for dogs over a season or in different years, which results in an inability to know where more bags might be needed. P&R staff have been very responsive to requests that AWC staff have made about refilling pet waste stations that are found empty. Another difficulty is that some people are wasteful and will pull a lot of bags out of the dispensers and discard (wanton waste) or keep them. Others, most likely kids, will just vandalize the station and the bags, which costs everyone money. After a certain length of time, pet waste stations that have been repeatedly removed or broken will not be replaced (personal conversation with Ted Johnson, General Foreman of Park Operations).

At some of the more popular locations, usually dog parks, the users often bring in a "bag of bags" (their leftover shopping bags) that is hung on a post or fence for others to use. This helps relieve a problem of an empty pet waste station, but there are other issues, such as the wind catching the bags and blowing them all over an area or inconsiderate people who use the bag to deposit waste and trash in, which spoils all the clean bags. Another interesting phenomenon (that is not unique to Anchorage) is people using the pet waste bags to clean up after their pets, and then tying them up and either leaving them on the ground or hanging them in trees and bushes. There are many theories on why this happens:

³ www.muni.org/Departments/health/Admin/animal_control/Pages/scoop.aspx

- People don't like to carry bags of poop and figure they'll pick it up on their way back (assuming they return that way),
- There is an assumption that bagged poop left on the ground is preferable to unbagged poop,
- Or, someone else will pick it up.

It's probably a combination of these plus some other reasons that haven't been figured out.

AWC attempted an experiment using PVC tubes where people could bring their grocery and shopping bags and recycle them for use by pet owners. Although the purpose of the tubes was clear, it did not seem to catch on as people usually only took the time to hang their bag of bags on a post and ignore stuffing them in the dispenser tube. Two PVC tubes were placed at Connors Bog, and both have now been removed, and two remain at University Lake with mixed success.



PVC Pipe at University Lake Dog Park

Signage: Other BMPs concerning pets and waste pickup are reflective signage that asks pet owners to clean up after their pets. It's unclear how effective these signs are, and it is readily apparent that many people ignore all signage including areas where pets are supposed to be leashed. In looking around on the trails and in parks and the greenbelts there are numerous dogs that are not on leashes that should be. There are confrontations between pet owners with dogs on leashes and dogs off-leash. The solution is enforcement of Title 17 regulations whether it be loose dogs or people leaving pet waste on the ground. It is a well-known fact that the majority of people are not cited. This is a result of Animal Care and Control having to put its limited resources into the more pressing issues such as lost pets, dog bites, etc. (personal communication, Brooke Taylor). It's ironic to have the regulations (as opposed to the lack of regulations regarding the feeding of waterfowl) on the books, but an inability to enforce them.

Rack cards: AWC put up 25 rack card holders on Mutt Mitt stations at the end of the ADEC FY 2014 grant, and upon checking them it regularly it was found that people didn't take them or the rack card holder was vandalized. A better solution would be a large fixed sign possibly with a funny or catchy message. Bus signage was also used for a couple of years, but there is no way to measure compliance.

Tabling: At all tabling activities, there are handouts and "goodies" given to people who pledge to pick up after their pets, but after 5 years it seems like the same crowd is returning and "everyone" always picks up after their pets. The only different venue this past year was at the Sullivan Arena for a "Pet Fair" put on by the Alaska Aces. There was an entirely different crowd and several people contacted AWC afterwards. The goal is to find some new venues to operate in.

Scoop the Poop Day: While many of us approach this with mixed emotions, i.e. are we suggesting that people will come around and pick up my dog's poop if I leave it vs. it being an educational event that illustrates how much poop is really out there, it is probably the latter that prevails. During these events there are many people who join in at the dog park just because they are there. Certainly some people come out because of advertising, but others just seem to get into the spirit of it, which is a good outcome.

Media stories: TV, radio and newspaper stories are always good and they do catch some people. These can be further distilled on Facebook. While there are figures that provide a guestimate of the audience reached, no one ever really knows how the message is taken in. The best aspect is that this is another means of reaching an audience.

And, a broad swath of communication sources is probably the most important point of trying to educate about any form of fecal contamination, whether it be from pets or feeding waterfowl. People take their information in a variety of ways as was shown in our 2014 APDES Watershed Perception Survey⁴.

An analysis of areas with DNA markers for possible sources of fecal contamination: Using DNA markers to identify the sources of fecal contamination is an intriguing form of analysis. It was used on Little Campbell Creek by ARRI (Aquatic Restoration and Research Institute) in 2010 and reported in *Fecal Coliform Bacteria Source Assessment in the Waters of Cottonwood Creek, Wasilla, and Little Campbell Creek, Anchorage*. AWC provided a summary and maps in its Q2 report which are located in the Appendix of this report. The conclusion at the time was that it provided "a small and somewhat inconclusive glimpse at *E. coli* sources that were tracked using DNA markers" [in Little Campbell Creek].

In a recent search for additional information on using DNA markers to determine the source of *E. coli* bacteria, the majority of the literature is 10+ years old. In a 2014 article titled, "Microbial source tracking markers for detection of fecal contamination in environmental waters: relationships between pathogens and human health outcomes"⁵, the

⁴ anchoragecreeks.org/media/publications/2014_APDES_Perception_Survey_Final_2-15_for_website.pdf

⁵ Valerie J. Harwood¹, Christopher Staley^{1,2}, Brian D. Badgley³, Kim Borges⁴ & Asja Korajkic⁵, *FEMS/Microbiology Reviews*, published online on 8/7/2013, at <http://femsre.oxfordjournals.org/content/femsre/38/1/1.full.pdf>

conclusion is that there is a plethora of new MST⁶ assay tests that target sewage and other animal fecal sources, “largely because of several challenges that make finding the ‘perfect’ method elusive.”⁷ Further, the article provides a summary of why the “silver bullet” of DNA testing remains difficult to obtain. In particular and of great interest is their conclusion that there are many markers yet to be determined especially for wild animals, and there are some issues that have been determined with the markers that currently have been identified. Their final statement is that “[t]his review has summarized the current state of the science; however, we anticipate that the field will rapidly evolve to surpass the capabilities presented here”.⁸

In thinking about the limitations noted above which AWC summarized 5 years after the ARRI test, it would appear that the expense and inconclusive results merit a delay in using this form of fecal analysis. Based on the past several years of study that AWC has done in a variety of locations primarily through observation of people, animals, and land use—it would seem, for the moment, that these less expensive methods can be just as effective in certain cases. Cuddy Park is a perfect example of not needing a DNA test to determine that the primary culprit in fecal contamination is the tremendous number of waterfowl that descend upon the park, mostly in summer, with a big draw being the environment (grass and water) and human feeding. Few dogs frequent the park, almost all are leashed, there are a lot of people who are walking the trails for exercise (without pets), and the only other potential high contributor to fecal contamination could be the homeless who have ensconced themselves in certain locations. These factors are all easily viewed and can potentially be dealt with. There are, undoubtedly, some locations where the source of fecal contamination might be less apparent, i.e. septic or sewage leaks or multi-use trails (horses and dogs), but with some logical analysis it is highly likely that the most of these can be linked to the problem—which then can be addressed.

Matrix of Pet Waste Stations Installed FY 2016 from ADEC Grant

Latitude	Longitude	Park, trail or greenbelt name	Date of Station Installation
61.19183	-149.74107	Arnold L. Muldoon Park	Installed 2015
61.19027	-149.94813	Balto Seppala at Milky Way	Installed 2015
61.22658	-149.72562	Centennial Park Campground (1)	Installed 2015
61.17643	-149.80403	Chuck Albrecht Softball Complex	Installed 2015
61.18693	-149.72612	Chugach Foothills	Installed 2015
61.17115	-149.93915	Connors Bog Dog Park	Installed 2016
61.19930	-149.99322	Earthquake Park	Installed 2015
61.11910	-149.76733	Forsythe Park at Rockridge	Installed 2015
61.13788	-149.75168	Hillside Park near multi-use trail	Installed 2015
61.20280	-149.94820	Lynn Ary Park	Installed 2015
61.20408	-149.78854	Russian Jack Springs Park by bridge	Installed 2016
61.10516	-149.77942	Service High School	Installed 2015
61.15319	-149.73785	South Bivouac Trailhead	Installed 2016
61.18555	-149.89732	Springer Park	Installed 2015
61.14870	-149.88474	Taku Lake by Pavilion	Installed 2016
61.20377	-149.89213	Valley of the Moon Trail by 19th Ave Bridge	Installed 2016
61.17761	-149.84999	Waldron Lake by Campbell Creek Bike Trail	Installed 2016

These stations are summarized above, and have individual maps and information sheets as well. Additionally, they are located on the combined Pet Waste Station map dated 7/1/16.

⁶ MST is an abbreviation of Microscale Thermophoresis Technology or the use of temperature gradients and molecule actions

⁷ Ibid. p. 32.

⁸ Ibid. p. 33.

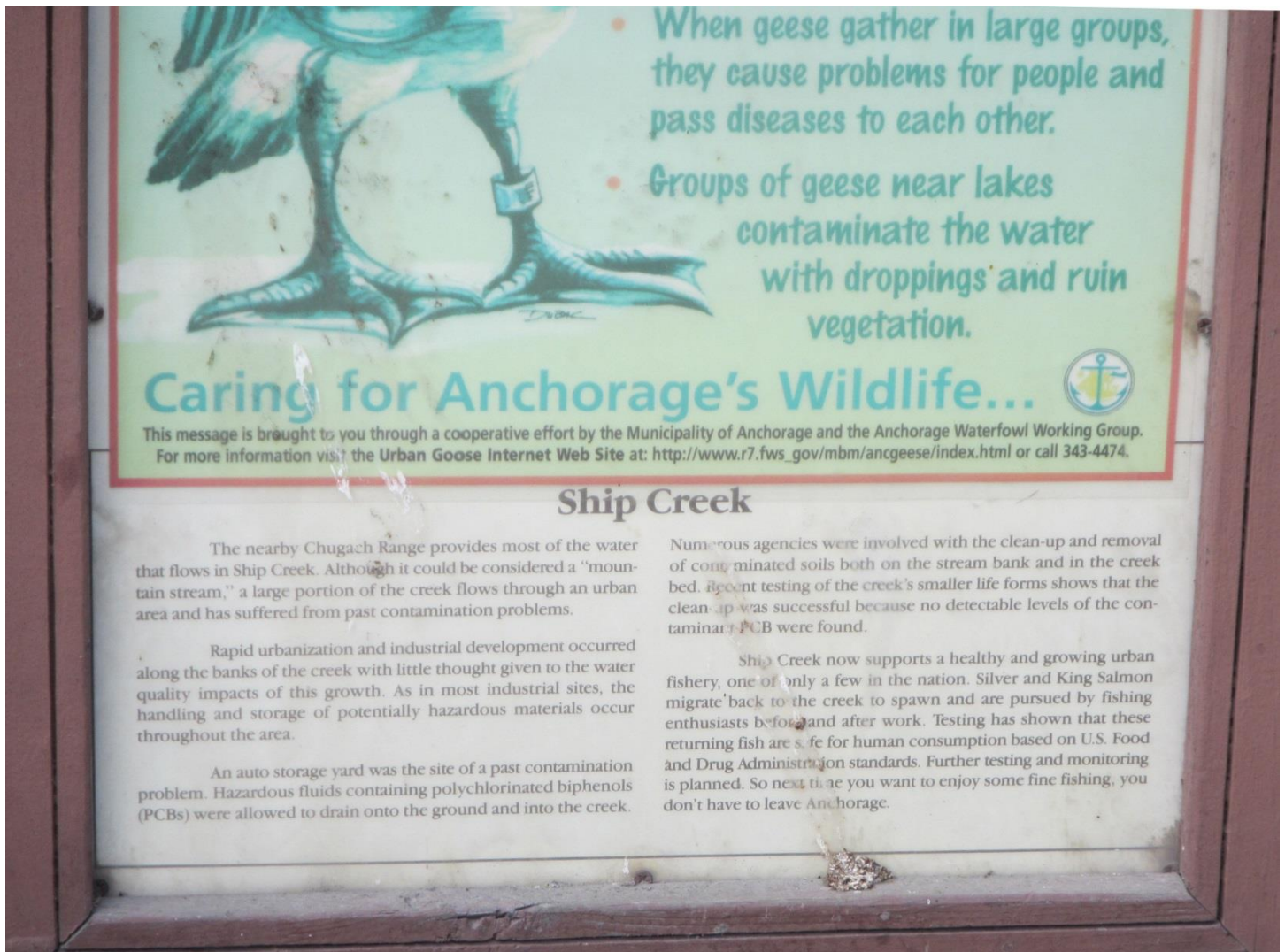
The following two stations have been added to the inventory. The Valley of the Moon Dog Park pet waste station was provided by the MOA, and the Waldron Lake Parking Lot pet waste station was transferred to the MOA when the Boys and Girls Club sold their property to the MOA.

Latitude	Longitude	Park, trail or greenbelt name	Date of Station Installation
61.20509	-149.89203	Valley of the Moon Dog Park	Installed 2016 by MOA
61.17889	-149.85209	Waldron Lake Park by Parking Lot	Transferred to MOA 12/31/15 from BGC

BMPs and outreach efforts specifically directed at high concentration waterfowl feeding areas: There have been a variety of BMPs and outreach efforts aimed at people who feed waterfowl—primarily at Cuddy Park. The most common has been signage. In the beginning of this project AWC looked at existing signage in Anchorage. There was some that had been done in the late 1990s by the Anchorage Waterfowl Working Group. It appears that the group disbanded around 2002.



Sign at Ship Creek from the Anchorage Waterfowl Working Group, 7/14/15 (C. Northon)



Close-up of text on sign, (C. Northon)

The message is focused on geese (in large groups) causing problems for people and passing disease to each other. It also states that their droppings can contaminate the water near lakes, of which Ship Creek is not, and ruin vegetation.

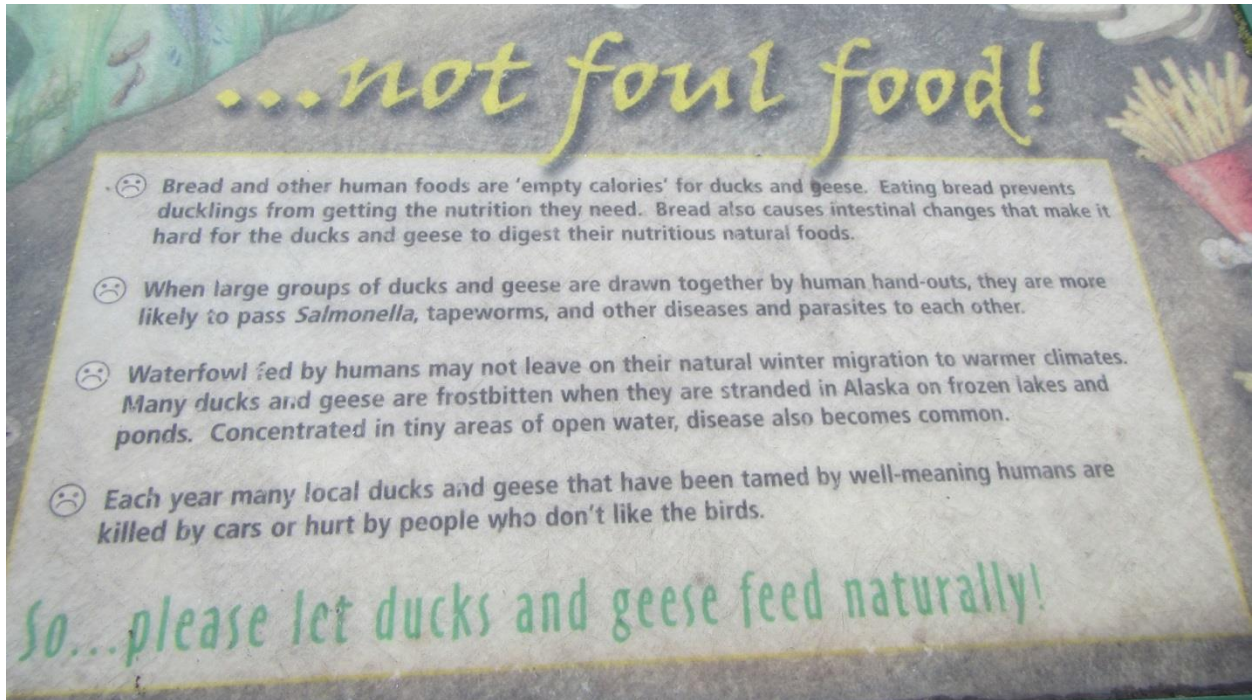
Another more informational sign was found at the Westchester Lagoon Waterfowl Sanctuary, which has attracted waterfowl and people who feed them. In August 2015 during a visit, an adult male and female were feeding ducks and geese an Angel Food cake that they had purchased at Walmart. There is a sign adjacent to where they were feeding with a variety of messages on it.

- **Mower Mouths:** Canada Geese have bills specially designed to cut the (word not legible) young grasses that are their favorite food.
- **Bottoms Up:** Mallards often 'tip up' to reach down for the tender plants growing in shallow water. They are *dabbling ducks* which also strain insect larvae, seeds, and other nutrient-rich goodies from the water.
- **Power of Protein:** Ducklings must have lots of protein-rich insects to fuel their fast-growing bodies. Female ducks also require a diet of protein-rich invertebrate foods for egg production.
- **Watching is more fun than feeding:** How many kinds of birds do you see? What are the birds eating? How are the birds getting their food?



Westchester Lagoon Sanctuary sign, 8/26/15 (C. Northon)

And perhaps the most important part of the sign is shown in the following photo:



Westchester Lagoon Sanctuary sign, 8/26/15 (C. Northon)

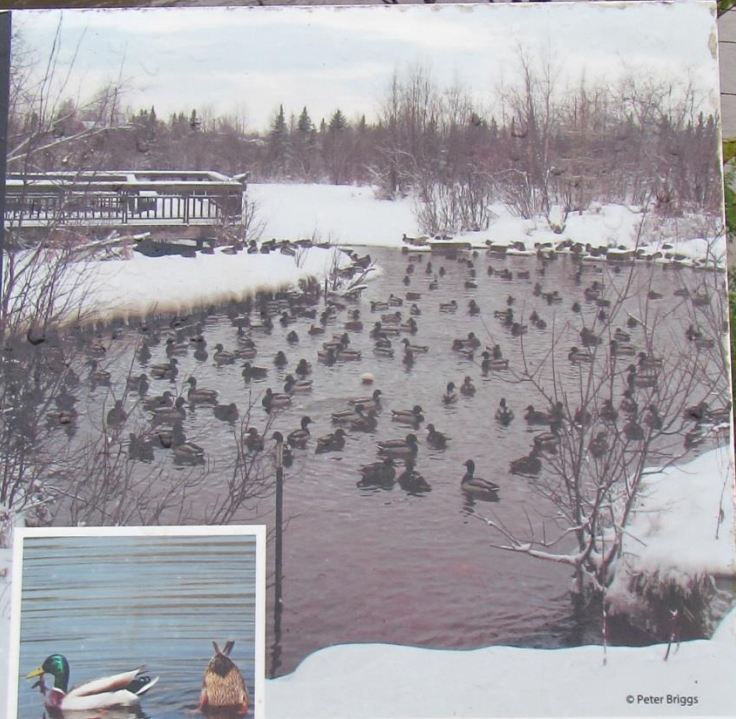
All the issues are listed on the sign along with lots of other useful information, but unfortunately these, as are many signs, are ignored.

Following is a relatively new sign at Northwood Park that focuses on the Overwintering aspect. It's interesting to read the message that really states the reason for the pond being "open" in winter is a stormwater outfall. This sign does not discuss feeding and almost makes the reader feel like they have to help the poor birds who find themselves in a pond that might freeze up. It does pose some interesting questions about how people and birds deal with cold, but there is nothing there that speaks to not feeding the poor "freezing" ducks. This is probably not the best type of sign to display and may even encourage feeding—especially in winter.



C6

OVERWINTERING



© Peter Briggs

© Wojciech Ujda | iStockphoto.com

What animals do you see here in the winter? Should they be here? Changes in natural systems often have far-reaching effects. In this case, the warmer water from the stormwater pipe prevents the pond from freezing over entirely. For birds like ducks, this makes a habitat that might not otherwise be available during the winter. While they would usually fly south for the winter, the climate in this park has changed enough that they can stay here. If a winter is particularly cold and the water does freeze over, this leaves the ducks unable to find open water. Without open water, they may not survive since they aren't adapted to our winters without the protection of a special habitat like warmer, open water.

EXERCISE: Where would you live if you didn't have a coat? Somewhere warm would be nice. What do you do if a winter is especially cold? Since animals can't go inside or buy warmer clothing, how do you think they deal with the extremes of climate?



Northwood Park sign, 9/12/15 (C. Northon)

Meanwhile, at Cuddy Park, the ultimate in recent waterfowl feeding and foul water and grounds, there was an old, almost unintelligible sign if you entered the park from the library side, and more recently a simple “Please Do Not Feed Birds” sign appeared in 2015. It looks official, has an Anchorage Municipal Code number, which when you look up the citation it states, *[i]t is strictly prohibited to feed birds or use any object or device to attract birds on airport property*. While I have pointed this out to Parks and Rec, the response was that “probably the wrong sign got grabbed and put up”. It is more likely that this looks “official” and appears to have an enforceable code, but it only applies to birds at the airport. It is doubtful that many people bother to:

- Look at the sign (except for the recent graffiti)
- Be deterred by the sign
- Consult Anchorage’s Municipal Codes to see what the statute really is.



Signs posted by the Municipality at Cuddy Park, 7/8/16 (C. Northon)

And, as can be seen in the following picture, no one puts much credence in what the feeding sign says.



Man feeding geese adjacent to the Do Not Feed the Birds sign, 8/26/15 (C. Northon)

This illustrates a couple of the problems that anyone is faced with trying to curb waterfowl feeding in the MOA. First, there are no federal, state, or local rules or regulations that prohibit feeding waterfowl. Second, even if there were, Anchorage is not known for enforcement of many issues. This appears to be due to the fact that a triage approach has to be taken. The most pressing or dangerous issues need to be addressed first. It's not likely that an animal control officer can spend time strolling around Cuddy Park looking for people feeding the waterfowl when there are loose and possibly dangerous pets, animal bites and attacks, etc. that have a higher importance rank. This is understandable, but the Municipality still has other permits and regulations that it has to follow, such as its APDES (Alaska Pollutant Discharge Elimination System) permit that is issued by ADEC. There are numerous examples of discharges that are considered to be pollutants when entering the waters of the United States. If they⁹:

- Contain any substances that are in amounts sufficient to be unsightly or deleterious or which produce color, odor, or other conditions to such a degree as to create a nuisance;
- Contain any substance or combination of substances in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants or humans;
- Contain any substances or combination of substances that will cause or contribute to the growth of aquatic plants or algae to such degree as to create a nuisance, be unsightly, or otherwise impair the designated use; or
- Cause or contribute to an exceedance of other applicable water quality standards (WQS).

On the light side of these examples, the mere presence of excessive waterfowl fecal material that has washed into Cuddy Pond and created large algae blooms would meet the above standards.



Main part of Cuddy Pond showing algae, waterfowl waste, and trash, 8/4/15 (C. Northon)

⁹ APDES Permit Number AKS052558 issued to the Municipality of Anchorage and the Alaska Department of Transportation and Public Facilities, p. 8 of 42.



One of the main paths around Cuddy Pond littered with goose feces, 8/4/15 (C. Northon)

As discussed in an earlier section, this waste is washed into the pond (really Fish Creek) by lawn watering and rain, and has caused the fecal coliform levels in the ponds to exceed the States WQS by twenty to forty times. The fact that children, adults and pets are playing in and near the water makes it extremely unsafe and unhealthy for them.



Adults and children on the ramp that enters Cuddy Ponds, 8/4/2015 (C. Northon)



This fellow was letting his elderly dog drink from the pond, 8/4/15 (C. Northon)

The group developing the signage wanted a means of identifying the problems—in fact, educating those who read the signage—about the problems associated with feeding waterfowl while not making them feel bad about what they were doing. As noted, most everyone has fed waterfowl at one point in their life, and the negative consequences were not part of the action. Although some earlier signage in the MOA attempted to provide some explanations to deter people, they obviously are not 100% effective. Actually, nothing is going to cause all waterfowl feeding to cease, but the goal is to reduce it as much as possible.

The best solution that resulted is a substantial colorful sign that is simple, has a cartoonish feel, is short on words, and has an interactive component (the spinning orange wheel). It is becoming commonly understood that most people today want their information short (i.e. sound bites), fast, and attention grabbing or they will move onto something else. This is way that the new Cuddy signs were formulated. There are no more than 5 messages to be conveyed, and they are repeated in different ways at least 3 times.



One of the 4 signs placed at Cuddy Park on 6/30/16 (C. Northon)

The working group realized that it would take more than signage to turn the tide. Along with the 4 signs, there was the bus campaign described above, there are Facebook posts, news stories, and the coloring sheet. In addition, ADEC worked with MOA Parks and Rec to alter the landscape. On July 6 and 7, 2016, a group of Youth Employed in Parks (YEP) took on a huge project of fencing off and planting dozens of shrubs and trees to redirect park users away from trampled grounds and onto paths which have been fenced off to allow the birds and humans less access to each other. It is very apparent that the “business-as-usual” drive up and park and feed the ducks from the 40th Ave. entrance is no longer.



Barrier of planting and fencing along the parking lot where feeding previously took place, 7/7/16 (T. Eley)



Thom Eley speaking to the YEP group about what their work was hoped to accomplish, 7/8/16 (C. Northon)

POSTSCRIPT

Although this report should end as of June 30, 2016, because of the late sign install, there are a few comments that have occurred in the first week of July. One was on July 8, when Thom Eley was speaking to the YEP group at Cuddy Park. Five women who frequent the park to walk the paths for exercise thanked the group for their work to help clean up the park—especially since their walking area was regularly heavily covered with bird feces. Another comment was from an AWC Facebook post of the news story on the signage by Maryellen Lambert (July 9), “Thank you for your efforts. Cuddy has been a disgusting cesspool for years. I hope the feeding stops. Cheney Lake is getting worse. The ducks literally walk up to me when I am there, and there is scattered food on the banks. Can we get some signs up there, too?” The next months should provide some interesting and telling information on these outreach efforts.

APPENDIX

Communication Trends and Interpretive Media (by Emily Angel, DNR, 1/13/16)

Everything that we do in interpretive writing and design is driven by what's happening in the rest of the communications world. There is no denying that social media, and especially micro-blogging sites such as Twitter, are fine-tuning the public's taste for what they want to see and read. It's amazing how using the full 140 characters allowed on these sites borders on too much information. Studies are showing that people rarely finish reading a website article and will actually "share" an article before they read it in its entirety. It's safe to say that people aren't really reading so much as scanning.

Chartbeat, a company that analyzes how people use websites, discovered that most will read about 50% of text, but they will see almost all content on video and photo. What would someone miss if they only read 50% of what you wrote?

First, let's think about the biggest barriers to people's attention, so that we can think about how to overcome them.

- **Lack of focus** – we are so connected to everyone and everything that we are constantly splitting our attention
- **Too many choices** – there are so many other fun and engaging things to do than read an interpretive panel like go for a walk, use the phone, watch the kids play, feed the birds, or study the birds.
- **Technology is draining** – I don't know about you, but it's kind of exhausting trying to keep up with technology. Sure, it makes some of my life simpler, but because of that, I've added more things to do in my life.
- **Information and interruption overload** – This goes back to being so well connected to the world. There is so much out there to read and do that things become a little fuzzy and it's hard to decide what is worth my time.

So, with all of this getting in our way, how do you grab and hold people's attention? Well, you make it relevant, meaningful, and enjoyable.

"This whole idea of an attention span is, I think, a misnomer. People have infinite attention if you are entertaining them." - Jerry Seinfeld

Briefly, because we are all busy people, think about your last twelve months. What stands out to you? It's highly likely that the things that stand out were the things that made you feel emotions—anger, contempt, fear, disgust, happiness, sadness, surprise.

To make things relevant and meaningful, **include a universal concept or two**. Universal concepts are concepts that everyone can relate to, but they may relate to the concept in different ways. Some examples are hunger, change, family, courage and so on. Including a strong universal concept provides the opportunity for a person to connect and feel emotions.

Make it short and sweet and provide for different learning styles, if possible. Interpretive displays are competing with every single phone call, text message, schedule conflict, weather event,

Rather than lecture people by using negative language, **get the point across with a positive tone** that is engaging. A lecture is an unwanted intrusion in most outdoor recreation experiences. Simply stated, it competes with the

“youniverse.” We could tell people “Don’t feed the birds” or we could lead them to their own conclusion that they shouldn’t do it. It’s more meaningful to a person when they’ve discovered it themselves. Criticism is hard to swallow for many people, so soften the blow if possible.

Because people skim or are distracted by other things in life, make sure there are opportunities to grab important pieces of information that are visually attractive. *Sameness is easy to ignore, so interpretive displays should strive to be eye-catching and unique.* Every aspect of the display has the chance to grab someone’s attention from the graphics, to the text, to color choice, shape of the panel. As soon as people discover the first unknown, they move on to the next unknown and keep going.

Include a variety of techniques that are appropriate for the audience. In this case, we are dealing with all walks of life, so it’s best to choose successful techniques for a diverse audience. Catchy graphics, succinct captions or taglines, humor, anthropomorphism/personification, quotes, stories, and tactile elements are just a few examples.



Cuddy Park and Ponds Waterfowl Issue Stakeholders' Meeting AGENDA*

Monday, September 28, 1 pm – 4 pm

Innovation Lab (4th Floor), Loussac Library

Anchorage Waterways Council (AWC), convener

1 pm-1:10 pm	Welcome, sign-in, and introductions
1:10 pm-1:30 pm	Brief overview of the situation (Cherie Northon/Thom Eley--AWC) <ul style="list-style-type: none">• Feeding ducks and geese• Increasing numbers of birds (ducks, geese and gulls) in summer• Increasing numbers of overwintering ducks• Excessive fecal coliform counts in ponds (part of Fish Creek)• Eutrophication• Bank trampling and sloughing
1:30 pm – 1:40 pm	Impetus and funding for this meeting and subsequent work (Jeanne Swartz—DEC)
1:40 pm – 2 pm	History of Cuddy Park's development (Dwayne Adams—EarthscapeAlaska)
2:00 pm – 2:10 pm	Brief break
2:10 pm – 2:20 pm	Current research: (Mike Petrula—ADF&G)
2:20 pm – 2:50 pm	Issues from other stakeholders – “Open Mic”
2:50 pm – 3:00 pm	Brief break
3:00 pm – 3:45 pm	Suggestions, solutions and ideas
3:45 pm – 4:00 pm	Wrap-up and future directions

* subject to change or rearrangement of time

Here are ideas I have had ideas in mind over the years as I have seen this park get loved to death. I'll toss them out and see what people think. My ideas all center on making it more difficult for the birds to get to the people and visa versa. Make the interaction more difficult and unpleasant from both sides and it will start to abate.

1. I think I would start with a temporary construction fence 10 feet back (or at the edge of the bike path) from the water and signs indicating that the area is closed for revegetation efforts. That will start to separate the ducks and geese from the people and make it more difficult for birds to access the parking lot and trail surface.
2. Install Coir Logs and willow layering similar to the ones we just put in around the new ponds at Muldoon and Chester Creek. These grow up fast and will provide an almost instant barrier at the water edge. These would also stabilize the bank and stop the wave action erosion that is taking place along the south side. Willow shoots have to be harvested in the spring and kept refrigerated so you have to plan ahead on this one. This is mostly had work and could make a good volunteer project.
3. Back the willows up with Dwayne's ideas for Potentilla and Roses intermixed with alder and cottonwood plantings. Have to be careful of plants that can be drowned out as the area can get inundated up to 4 feet during large storm events. Although these events are rare we had one yesterday.
4. Do a little research into water quality and depth requirements of emergent vegetation and adjust the near shore environment to get that vegetation started. If constant traffic is a problem we could fence the shelf off temporarily to get things started. The seed stocks are already in the pond we just need to provide the proper environment.. The accessory pond to the NW is a good example of what it could look like. There is currently a 10 foot wide shelf directly off shore around most of the pond and it may be slightly too deep or there may be pH or other water quality issues.
5. If more money is available I would enlarge and move the forebay pond north to lessen the slopes on the south side and then plant the slopes with native plants to get stability, lessen access, and create a natural barrier. This forebay pond is where the dissolved iron precipitates out of the ground water as it is oxygenated and changes valance. This would also be a good spot for a floating aeration fountain if that becomes necessary. At minimum the south slope should be stabilized with a short stacked rip rap wall to stop the erosion at the water's edge.
6. Install a set of concrete steps between the parking area and the bridge so this area would begin to revegetate. As part of this, there should be a low permanent fence installed along the north side of the parking lot that would prevent most folks from just walking directly down the slope and force them to the steps or the trail to the west.

Bill Spencer P.E

Direct (907) 644-2087 Cell (907) 306-0077

Brief History of Midtown Park by Dwayne Adams (Earthscape Alaska), 1/25/16

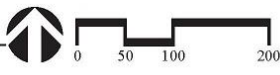
- Origins of Midtown Park “concept” go back to early 1980s with the West Anchorage Park Plan, a strong advocate being Lori Schanche, Art Geuss, Helen Nienhueser and others
- In late 1990s a number of people advocated for establishment of a park at the current location which was a fill site on peat and served as a snow dump (Chris Beck, Elise Huggins, Tamas Deak, Mike Mense, Helen Nienheuser, others). At this point the “park” was limited to the single parcel immediately south of the Post Office, and north of the 40th avenue route. A first iteration of park improvements was developed on this site.
- In the early 1990’s, a formal park working group was established by the Midtown Park and Trail Subcommittee of the Parks and Recreation Commission,
- Working with then Mayor Mystrom, and with the generous support of the Cuddy Family, the parcel south of 40th, in what is now the SW quadrant of the park, was purchased and added to the park
- In a complicated rezone, park advocates worked with JL Properties and Mayor Begich, to support a rezone of the 10 acre parcel fronting Denali Street, a parcel at one point intended for Ted Stevens archives. This process resulted in funding from JL dedicated to improving the park (but no land) in exchange to dropping opposition to the rezone.
- “Gang of Four” (Beck, Huggins, Deak, Mense) developed a preliminary plan and received approval from the Urban Design Commission, Parks Commission, and Planning and Zoning Commission for an early phase
- They received some funding from the Cuddy family, MOA, and donations from Home Depot for first installation that included amphitheater, bridge, initial pathway, and play equipment. Most significantly, BP identified the Park as it’s volunteer project of the year (from competing sites around the nation). “BP Classic 2001” resulted in roughly \$1 million in in-kind services, materials and direct labor to set the on-site backbone for later park development, most importantly to ensure that future vacation of 40th Avenue was secured.
- A group began advocating for inclusion of a skating oval which met stiff resistance from some due to the large-scale impact the proposed siting would have on the overall park plan.
- A New York City consultant, Project for Public Spaces, oversaw a public process for consideration of the future of Cuddy Family Park with specific interest as to whether a skating oval could be incorporated as a complementary element to other park elements.
- A second effort overseen by Land Design North began planning and design of a fuller buildout
- An advisory group convened including a broad spectrum of mid-town property interests and park interests
- The advisory group oversaw creation of a draft plan to include the new “Betti’s Garden, a playground, reconfigured paths, and the skating oval.
- MOA needed space for a flood control project that would address Spenard area flooding. Specifically 11.5 acre-feet of water storage was needed to absorb flood flows at high water periods
- Cuddy Family Midtown Park, together with an area south of the Loussac Library, was the preferred alternative site for the storage. Storage was a lower cost alternative to replacing dozens of culverts for the run of Fish Creek west of the park all the way to Knik Arm, and had the secondary benefit of creating funding for an array of costly Midtown Park improvements
- HDR Engineering and MOA approached Land Design North about the possibility of combining the park effort with the flood control project
- Bill Spencer made a presentation to the advisory group which agreed that the park project could incorporate the flood control project, with the addition of space to the east of the park to do so
- The water control project included:
 - Additional acreage added to the park for the pond
 - A forebay to collect sand, some silt, and grit
 - Storage area in the main pond body
 - An overflow area to operate as a reserve for extreme flood flows
 - Area was reserved north of the fore bay pond to accept snow storage from the library parking lots. This caused the fore bay to be pushed up closely against the south side with the resultant steep slopes. This

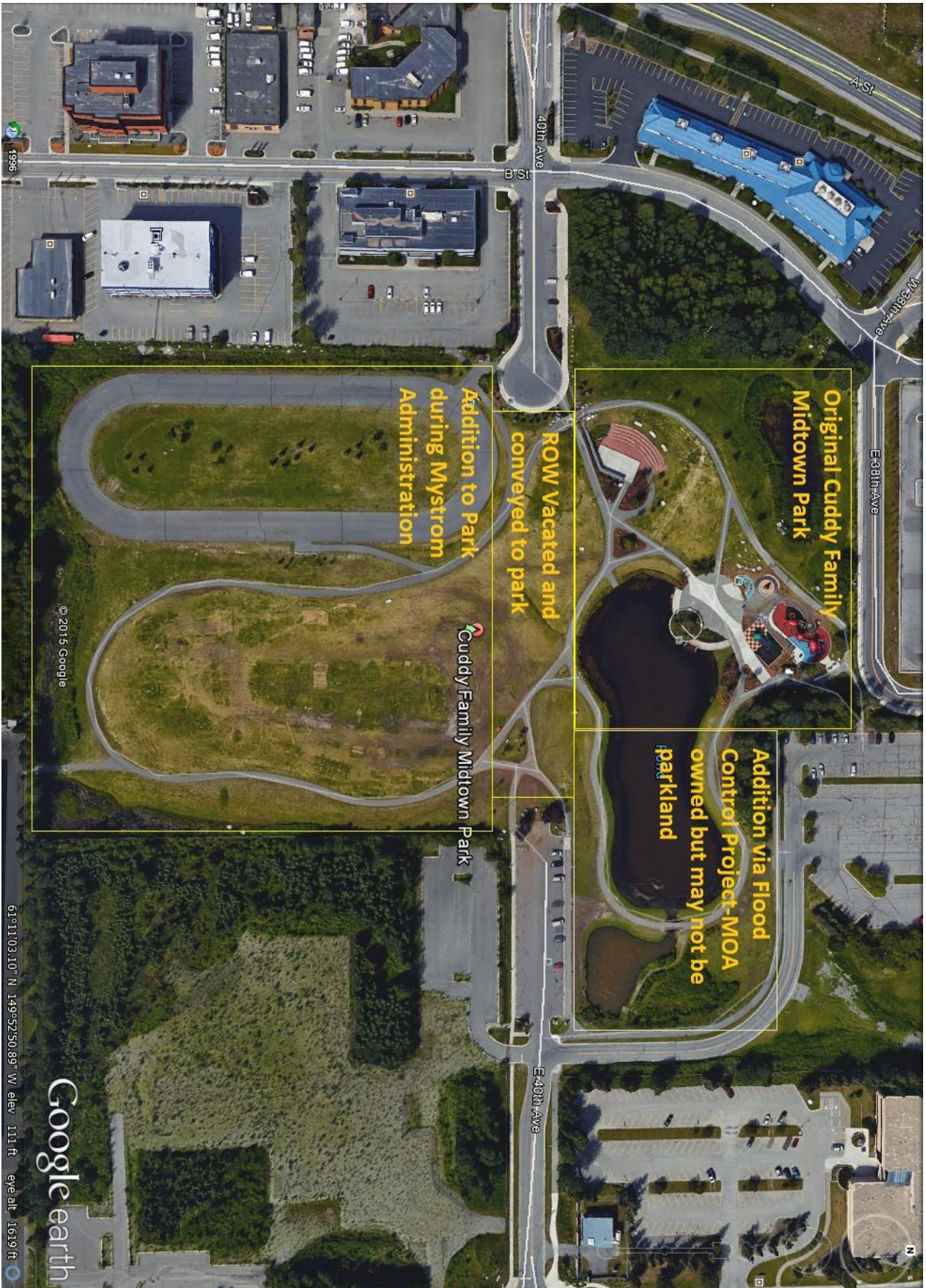
snow storage area has never been used because the library found the area north of their access road to be more convenient.

- With the addition of the flood project and land to the east, the advisory group added parking access from the east.
- A new master plan was developed and approved by the advisory group, the Parks Commission, the Urban Design Commission, and the Planning and Zoning Commission. In particular, the plan called for a “natural edge” recognizing that lawn and water attract waterfowl, in particular geese.
- The park was developed roughly along the lines of the current physical layout with the future additions planned for:
 - A “Literary Walk” that would connect to the Loussac Library, roughly from Betti’s Garden to the library fountain
 - A Park restaurant/administrative building
- As part of the design, and in pursuit of creation of the “natural edge, LDN researched how other places have dealt with waterfowl and talked with biologists at HDR and determined that the natural edge should include:
 - Incorporation of both emergent and woody material
 - The upland margin needed dense woody material that was difficult for geese to penetrate
- The plan incorporated a vegetated edge
- The project had budgetary challenges
- Several items were eliminated:
 - Seating and lighting for the skating oval were removed
 - A playground was removed from the construction effort
 - All excavation from the ponds was kept on site to build a sloping lawn instead of a flat lawn
 - Planting budget was trimmed to a bare minimum with focus on the garden
 - Only a minimal amount of plantings were maintained at the pond edge-enough to deter geese at the proximity where most of the people would be
- It was hoped that upstream seed sources would vegetate the edge of the pond eventually
 - This has happened at the reserve pond
 - This has not happened at the main pond or forebay



CUDDY FAMILY MIDTOWN PARK
 MASTER PLAN JANUARY 6, 2006





Rick & Lisa <sinfamak@gmail.com>

Tue, Mar 29, 2016 at 10:51 PM

To: "Spencer, Bill" <Bill.Spencer@hdrinc.com>

Cc: "Korosei, Tom J." <KoroseiTJ@ci.anchorage.ak.us>, Dwayne Adams <wdadams@earthscapealaska.com>, Cherie Northon <cherie@anchoragecreeks.org>, "beechurchll@acsalaska.net" <beechurchll@acsalaska.net>, "Freemon, Melinda L." <FreemonML@ci.anchorage.ak.us>, "Griffith, Shelley A" <GriffithSA@ci.anchorage.ak.us>, "Morris, Stephen S." <MorrisSS@ci.anchorage.ak.us>, Barbara Brown <holdthisthought@gmail.com>, Beth Nordlund <Beth@anchorageparkfoundation.org>, Beth Pattinson <beth_pattinson@fws.gov>, Bob Shipley <reship@gci.net>, "Nicolai, Elizabeth L." <NicolaiEL@ci.anchorage.ak.us>, "Emily S Angel (DNR)" <emily.angel@alaska.gov>, Frank Clemens <ak.birder.frank@gmail.com>, Guy Runco <office@birdtlc.net>, "Watkins, Isaac E." <Isaac.Watkins@hdrinc.com>, Jason L - APHIS Kottsick <Jason.L.Kottsick@aphis.usda.gov>, "Jeanne M Swartz (DEC)" <jeanne.swartz@alaska.gov>, "Durand, Joshua A." <DurandJA@ci.anchorage.ak.us>, "Bischofberger, Kristi L." <BischofbergerKL@ci.anchorage.ak.us>, "lwpowell1@juno.com" <lwpowell1@juno.com>, Marc W - APHIS Pratt <Marc.W.Pratt@aphis.usda.gov>, "Margaret R Anderson (DNR)" <meg.anderson@alaska.gov>, Marilyn Houser <lostinspace@matnet.com>, "Patel, Vikram B." <PatelVB@ci.anchorage.ak.us>, "Michael J Petrula (DFG)" <mike.petrula@alaska.gov>, Natalie Marie Wagner <natalie.m.wagner@gmail.com>, "Douglas, Sherri S." <DouglasSS@ci.anchorage.ak.us>, Spencer R - APHIS Nelsen <Spencer.R.Nelsen@aphis.usda.gov>, "Streadbeck, Brandon A - APHIS" <Brandon.A.Streadbeck@aphis.usda.gov>, Tamara Zeller <tamara_zeller@fws.gov>, "Johnson, Ted R." <JohnsonTR@ci.anchorage.ak.us>, Thom Eley <thom@anchoragecreeks.org>, "Van Hemert, Caroline" <cvanhemert@usgs.gov>

I seem to be getting these emails so I'll put my two cents in. Anything that can be trampled by people -- like irises -- isn't going to survive well enough to buffer the ponds from people in such a well-used area. Unless it's an invasive species, and we don't want to go there.

As far as the brush idea, nothing will keep the ducks in the pond as long as people are still feeding them. I wouldn't be surprised to see ducks negotiate 100 feet of brush to get to cracked corn or bread crusts. And, of course, they can fly over the brush if they want. Geese will also walk through the brush surrounded the ponds. Canada geese eat grass, when they aren't eating popcorn or other human foods, so they must leave the lake to feed, and they either can't fly due to the molt in mid-summer, or they won't leave their flightless young, so that means they'll find paths through the brush.

The only way to control the mess at Cuddy Park is to control the people feeding the waterfowl.

Rick Sinnott

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ADN Letter to the Editor (Northon)

**ACWA FY 2016 Objective 1, Task 1 Deliverable by Anchorage Waterways Council
Quarter 2, Dec. 31, 2015**

Task 1: Collaborate with the MOA to document BMPs currently being implemented to reduce fecal coliform bacteria pollution from stormwater in the Campbell Creek watershed (Campbell Creek, Little Campbell Creek, and Campbell Lake).

Description: The Anchorage Waterways Council (AWC) will collaborate with the MOA Watershed Management Services (MOA) to review what BMPs have been implemented for the period of 2010-2015 that were specifically aimed at reduction of fecal coliform bacteria in stormwater through implementation of the joint MOA and the Department of Transportation and Public Facilities (DOT&PF) Alaska Pollution Discharge Elimination System (APDES) permit AKS-05258 for education and outreach. The AWC will consolidate the activity information, evaluate success of activities, and identify gaps in the BMP implementation.

The AWC will provide the analysis results to the MOA and the DEC.

Overview: This task will address not only the BMPs in the Campbell Creek watershed, but also activities and events in the Municipality that may not have occurred directly in the Campbell Creek watershed but reached citizens beyond in other watersheds.

In 2010 the AWC was awarded a 5 year contract with the MOA to conduct education and outreach within the Municipality that addressed a variety of stormwater issues. These are all detailed in annual reports to the MOA's Watershed Management Services. This report summarizes those activities that pertain to the reduction of fecal coliform in the various watersheds of the Municipality with special emphasis on the Campbell Creek watershed. It is organized by year, and summarized at the end with comments about successes and gaps.

Because the initial 5 year contract between the MOA and AWC was not finalized until late in 2010, it was decided that the primary focus of that short period before year 2 would be to repeat a watershed perception survey that had been completed in 2005. This survey was repeated again in 2014 for comparison.

Explanation of BMPs and outreach from 2010 to 2015

Year 1—November 2010 to January 2011

The actions during this 3 month period, as noted, were to re-do a watershed perception survey.

Year 2—February 2011 to January 2012

In early 2011, AWC was able to resurrect the former Scoop the Poop (STP) Committee which included representatives from:

- AWC
- MOA Parks and Rec
- Anchorage Animal Care and Control
- MOA Watershed Management Services
- UAF Cooperative Extension
- BLM Campbell Tract
- ADF&G
- ADEC
- Alaska SPCA
- Friends of Pets
- Alyeska Canine Trainers
- Anchorage Unleashed
- Alaska Kennel Club
- Mike Lewis, ADN dog blog

The group met three times to develop a calendar of events for the upcoming year where pet waste and Scoop the Poop brochures, waste bags, and other items could be given out at a tabling or if a cleanup was held. During this period, AWC covered the following events:

- Pet New Year, Alaska Mill & Feed, 2/5/11
- BLM Trail Days, CCSC, 2/12/11 (Campbell Creek watershed)
- Fur Rony Mutt Show, Alyeska Canine Trainers, 2/27/11
- APDES Annual Meeting (for Year 1), 3/22/11
- Annual Garden Show, Sears Mall, 4/16/11
- Scoop-the-Poop Day (Earth Day), University Dog Park and Connors Bog, 4/23/11
- Ad hoc Scoop-the-Poop Day, Storck Park and the C St. Athletic Fields, 4/30/11
- Salmon Release, Potter Marsh, 5/6/11
- Creek Cleanup, Valley of the Moon Park, 5/14/11
- Neighborhood USA (NUSA), Egan Center, (Watershed presentation) 5/20/11
- Walk for Mojo, APU Campus, 6/5/11
- Alaska Botanical Garden Show, ABG, 6/11-12/11
- Dog Jog (Friends of Pets), East High School, 7/23/11
- Pet Day at the Spenard Farmers' Market, Spenard Farmers' Market, 8/6/11

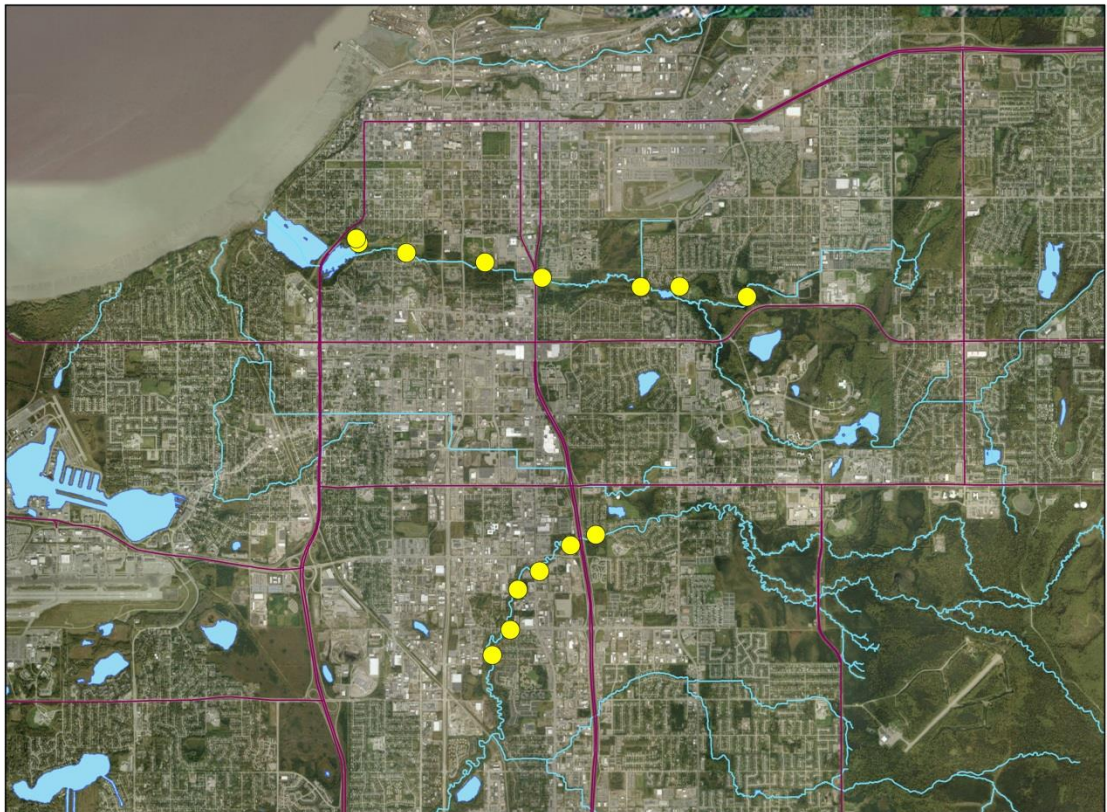
The STP Committee also worked to determine some appropriate signage to be placed at various locations to encourage pick up of pet waste. A variety of sign styles were looked at, but fortunately the MOA Parks and Rec Department had already purchased several reflective signs that they provided to us at no charge as long as we put them up. The following is an example of the signage that was placed on or near Mutt Mitt stations and locations where excessive pet waste had been found.



MOA Parks and Rec signs that are being added throughout the Municipality

As of December 2011, 14 of these signs had been placed along various trails adjacent to Campbell (6) and Chester Creeks (8). The following map depicts their locations. The upper group is along Chester Creek and the lower group is along Campbell Creek.

Pet Waste Ordinance Signs 12-18-11



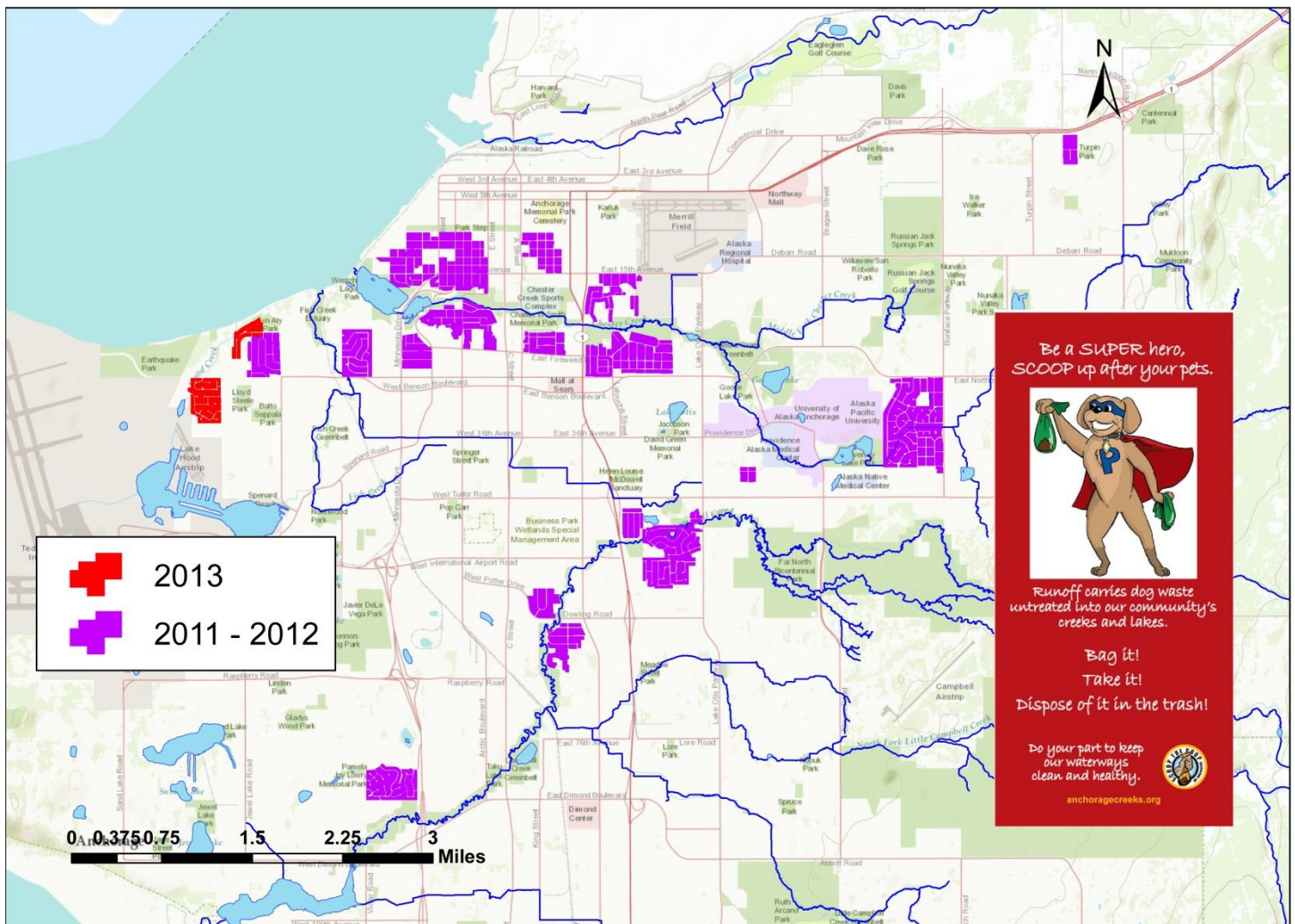
Another task of the STP Committee was to start getting educational materials out to various locations. Initially the existing brochure (in Appendix) was printed and distributed to a variety of stationary locations (in Appendix) by

committee members. Most people at the locations were receptive, but over time it was clear that it would take continual monitoring by the group to keep the brochures supplied (those receiving the brochures rarely took the opportunity to contact us for more—apparently they felt they were doing us a favor so there wasn't a lot of buy-in). Initially this program was a good idea, but other solutions were worked on and replaced this. One recurring conclusion by the committee was that, in general, most people don't care to read wordy documents such as the trifold brochure.

This led to the design and printing of a single-sided rack card that was both for stationary locations and for placing on the front door handle of residences (with a rubber band) in areas where complaints about excess pet waste emanated. The rack card is a friendly reminder and less confrontational when approaching people and locations that have been pointed out as being particularly problematic. An example of the rack card is in the Appendix.

The following map shows the placement of these rack cards at residences in 2011, 2011 and 2013. The two primary areas are along Chester Creek and Campbell Creek.

Scoop the Poop Door Hangers (N~4,700), 2011-2013



By the end of 2011, the STP Committee also began to confirm locations of current Mutt Mitt Pet Waste stations with the help of a committee member who worked at MOA Parks and Rec. Unfortunately, their inventory, it turned out, was very out of date and only depicted about half the stations (this was corrected by AWC in 2014 when working on the FY 2014 ACWA Grant).

Another item which was created as a give-away for signing a “Scoop the Poop Pledge” at tabling events were printed bandanas (dark blue and dark green) for dogs. An example follows below. Approximately 1,000 were printed and given away in the next couple of years, and as of 2015 they are out of stock.



LOGO enlarged

Besides the bandanas, AWC commissioned a local graphic artist (Lee Post) to create a character to be used on rack cards, brochures, bus signs, and even bumper stickers. He is representative of “Super Dog”, and was used in many of the STP products.



Scoop the Poop buttons (directly below) and engraved carabiners were also passed out at a variety of events to those who pledged to pick up pet waste.



One event that was debated at each year’s meetings was whether or not to hold a “Scoop the Poop” day at a couple of dog parks, typically University Lake and Connors Bog. These discussions focused on whether the one-day cleanup implied that there were people willing to come out and clean up after those who don’t pick up, and conversely it might illustrate how much waste was actually left after winter and spur people to be more diligent. In the end, the committee decided to have “Scoop the Poop” day at these areas and other locations for educational purposes (and to clean up). Several hundred people showed up to help at each year’s event, and giveaways and refreshments were provided. It was a good way to educate people in any case.

Be the Solution to
POO-llution

University Lake Connor's Bog

Super Scoopers Unite...

SCOOP the POOP Day!
Saturday, April 18, 11-3!

WHY? Because we all want clean parks and healthy waterways.

All equipment will be provided

Free Thank you gifts.

DETAILS at:
anchoragecreeks.org
or email awc@anchoragecreeks.org

This is an example of the temporary poster signage that was printed, laminated, and placed at cleanup locations prior to the annual events.

One of the suggestions by the EPA to get stormwater messages out is to use “windshield surveys”¹. These are basically inexpensive ways to conduct a watershed (or smaller area) visual survey. It can be done one time, or the surveyor(s) can return for more comparative information. AWC chose to use a confined neighborhood that borders Campbell Creek which is known as the Bancroft Subdivision. It is comprised of approximately 100 homes—most of which were built in the 1960s, and it is located just east of Brayton and the New Seward, south of Tudor, and north of Campbell Creek. This neighborhood was selected for several reasons:

1. Dr. Northon has lived in the neighborhood, watched Campbell Creek, which is to the south, and the area for 10 years so knew a great deal about her neighbors’ habits.
2. She walks it nearly every day with her dogs, so changes were easily identified.
3. It has a good mixture of households in terms of age, ethnicity, professionals, families, and retirees.
4. It is confined to 6 streets (Chirikof, Shelikof, Rakof, Pavalof, Kupreanof, and Becharof) and abuts the Campbell Creek Greenbelt.



¹ <http://water.epa.gov/type/rsl/monitoring/vms30.cfm>

One important component of this survey was to gather baseline data, which was completed visually during summer 2011. Each address had an information sheet, which was placed in a binder. Photos of the houses, comments, and any pertinent information were added to the address sheets. This allowed easy comparison for noting changes (both positive and negative especially as the seasons changed). In July 2011, a newsletter titled the “Bancroft Bugler” was created by AWC and sent to each residence. This continued on a quarterly basis (see Appendix for all four) for one year. Advice about how to reduce runoff pollution into Campbell Creek (and Fish Creek which actually abuts the Campbell Creek watershed about halfway between the north and south boundaries of the subdivision) was included in each newsletter as well as a focus on animal waste disposal.

Year 3—February 2012 to January 2013

The STP Committee continued strong in 2012 and met twice, which was important because of the excessive amount of pet waste that was emerging during spring especially in dog parks, trails, and on sidewalks. Not only was AWC’s phone ringing off the hook with complaints and letters to the editor were being written regularly, but the media also realized the issue was going to be a good story. Jill Burke, a reporter for the *Alaska Dispatch News* (ADN) did a story on April 30, 2012, titled “After record-breaking snows, poop popsicles melting across Anchorage” (see Appendix) which provided a good summary of the problems with pet waste, and two weeks later ADN reporter Sean Doogan followed with “Snows of Alaska winter melt and reveal tons of unscooped dog poop” (see Appendix).

Unfortunately, the Annual Scoop the Poop Day was on April 21, 2012, just slightly before all the melt began. While hundreds turned out again to clean up at University Lake, Connors Bog, and the South Anchorage Sports Complex, much of the pet waste was still frozen in snow or to the ground which made its removal difficult. A second Scoop the Poop Day was held on September 10 at University Lake.

The tabling opportunities for 2012 included:

- Hogs and Dogs, Harley-Davidson, 1/28/12
- Pet New Year, Alaska Mill and Feed, 2/4/12
- Fur Ronly Mutt Show, Alyeska Canine Trainers, 2/26/12
- APDES Compliance Annual Meeting, BP Energy Center, 3/29/12
- Alaska Botanical Garden Fair, Alaska Botanical Gardens, 6/16-17/12
- Pawstice (Blessing of the Animals), Ruth Arcand Park, 6/23/12 (Campbell Creek watershed)
- Friends of Pets (FOP) Dog Jog, East High School, 7/28/12
- Pet Day at the Spenard Market, Spenard Farmers’ Market 8/4/12
- AWC Annual Meeting, BP Energy Center, 10/10/12
- In addition, 12 presentations were made to students at various venues (school and camps) regarding pet waste including several sessions at Mears Middle School in the Campbell Creek watershed.

A new giveaway item was added to the tablings, an LED flashlight.



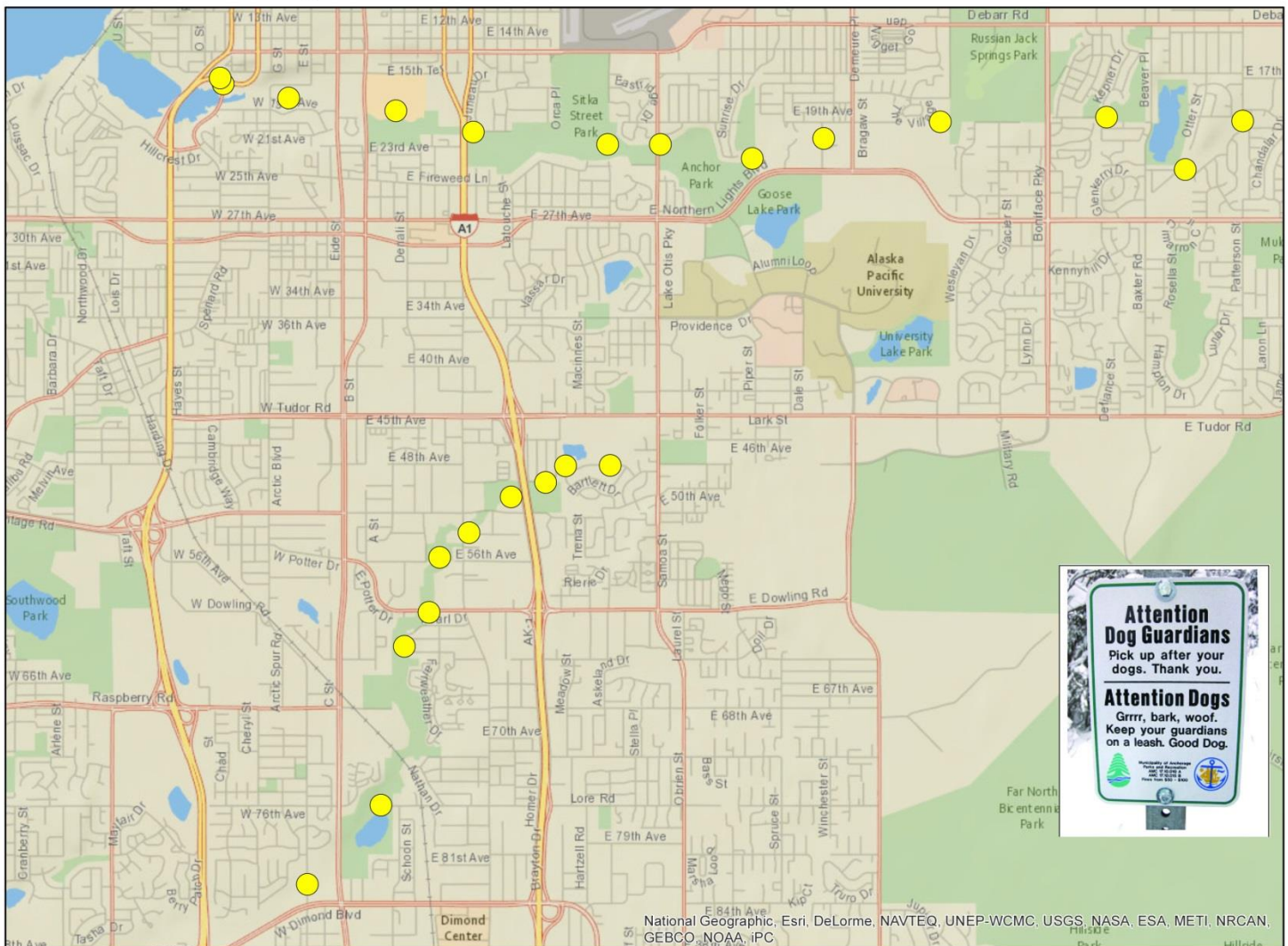
LED Flashlight

Anecdotal evidence from tabling events suggests there is a heightened understanding about picking up pet waste, although the overall amount that remains is still massive.

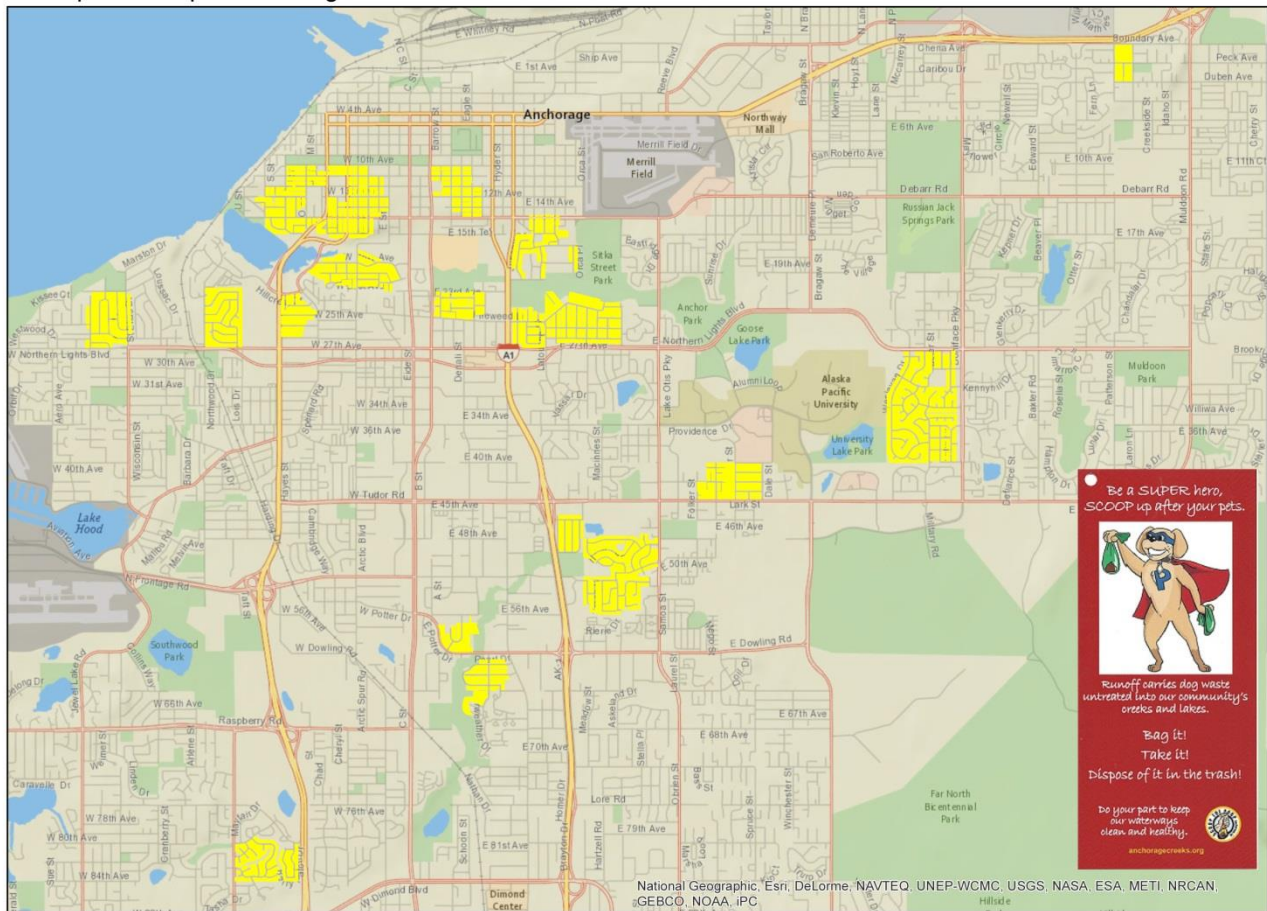
In the September-October 2012 issue of the Anchorage Convention and Visitors Bureau bimonthly newsletter, AWC created a one-page ad titled “Protecting our Waterways and Watersheds is Good for Business and the Economy” which was distributed to over 1,600 business members (see Appendix). Among the suggestions listed is “cleaning up trash, cigarette butts, and animal waste”.

Nine more reflective signs were placed along creek trails, 4 along Campbell Creek and 5 along Chester Creek. Their distribution is depicted on the following map. (The upper row is Chester, the lower row is Campbell.)

Pet Waste Ordinance Signs 12/22/12



In addition, the total number of STP door hangers put out in 2011 and 2012 reached 4,410. A map of their distribution follows. These were primarily in the Chester Creek and Campbell Creek watersheds but also included Fish Creek.



Targeting Pet-Friendly establishments:

A new poop campaign this year was aimed at pet-friendly establishments. During 2012 Anchorage had over 35 hotels, motels, B&Bs, and RV parks that accept pets. Two of the pet-friendly locations are in the Campbell Creek watershed (Super 8 Anchorage and the Parkwood Inn). Many establishments were surveyed by phone, and their solutions for handling pet waste varied from having an on-site “relief” location complete with bags and trash cans to telling guests to take their pet up the street to a vacant lot. AWC developed a letter (see Appendix) and included our STP brochure to introduce these businesses to services we can provide in terms of guidance as well as letting them know that their guest’s actions could result in a \$100 violation. One manager from The Hotel Group that oversees several properties in Anchorage actually contacted AWC before the letter was sent out. Frustrated with the amount of animal waste left on the hotel grounds (he is also a pet owner), he wanted some advice and help on how to work with guests. AWC consulted with him.



Extended Stay Suites on Old Seward and 34th showing pet waste station.

The caretaker of the Alpine Apartments (approximately 400 units in 6 buildings covering roughly 10 acres in the Campbell Creek watershed) was interviewed in April. Dogs are allowed in all units, and 8 waste pickup stations were installed two years ago. From their perspective, the addition of the waste pickup units has reduced the overall amount of poop left on the ground, and they estimate that about 60% of the pet owners pick up after their pets. Maintenance time for their yard crews to clean up after those who don't pick up is estimated to be about 20 hours a week. They are currently researching other ways to encourage compliance such as a \$25 fine or even eviction. Video cameras were suggested as a solution, but the cost in time to monitor the footage could be more than the money now spent to clean up the property.



Pet waste station at the Alpine Apartments, 5215 Mockingbird Dr.

AWC decided to enter the social media realm and created a Facebook page called “Scoop the Poop Anchorage”. It is regularly monitored, articles are posted, and replies are returned.

The last aspect of outreach in 2012 was the creation of a People Mover Bus sign that was displayed on five buses for seven weeks beginning in September. AWC held a contest where the first person to notice the bus sign and contact us won a goodie bag. Ironically it was a member of our STP Committee.

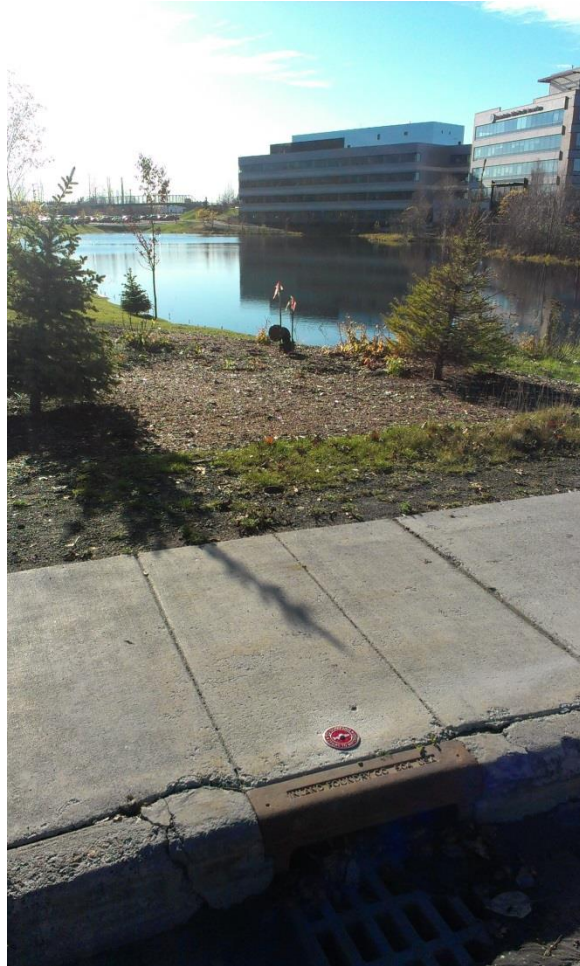


It is also at this time, fall 2012, that AWC began to work on a new situation of fecal coliform contamination at Cuddy Park where folks are feeding the ducks. A news story was done by KTVA (channel

11), and it was to be the beginning of many more. A copy of the article by Lauren Maxwell, “Hand-Fed Ducks Not Flying South for Winter” is in the Appendix.

Once AWC program, known as “Creeks as Classrooms”, worked with a teacher in Girdwood’s K-8 school and a short video was produced for a wetlands contest (vimeo.com/groups/wetlandslivevideo). The class won the contest, and an excerpt was made that is a 27 second PSA that can be seen on the AWC website at anchoragecreeks.org/pages/scoopthepoop_about.php.

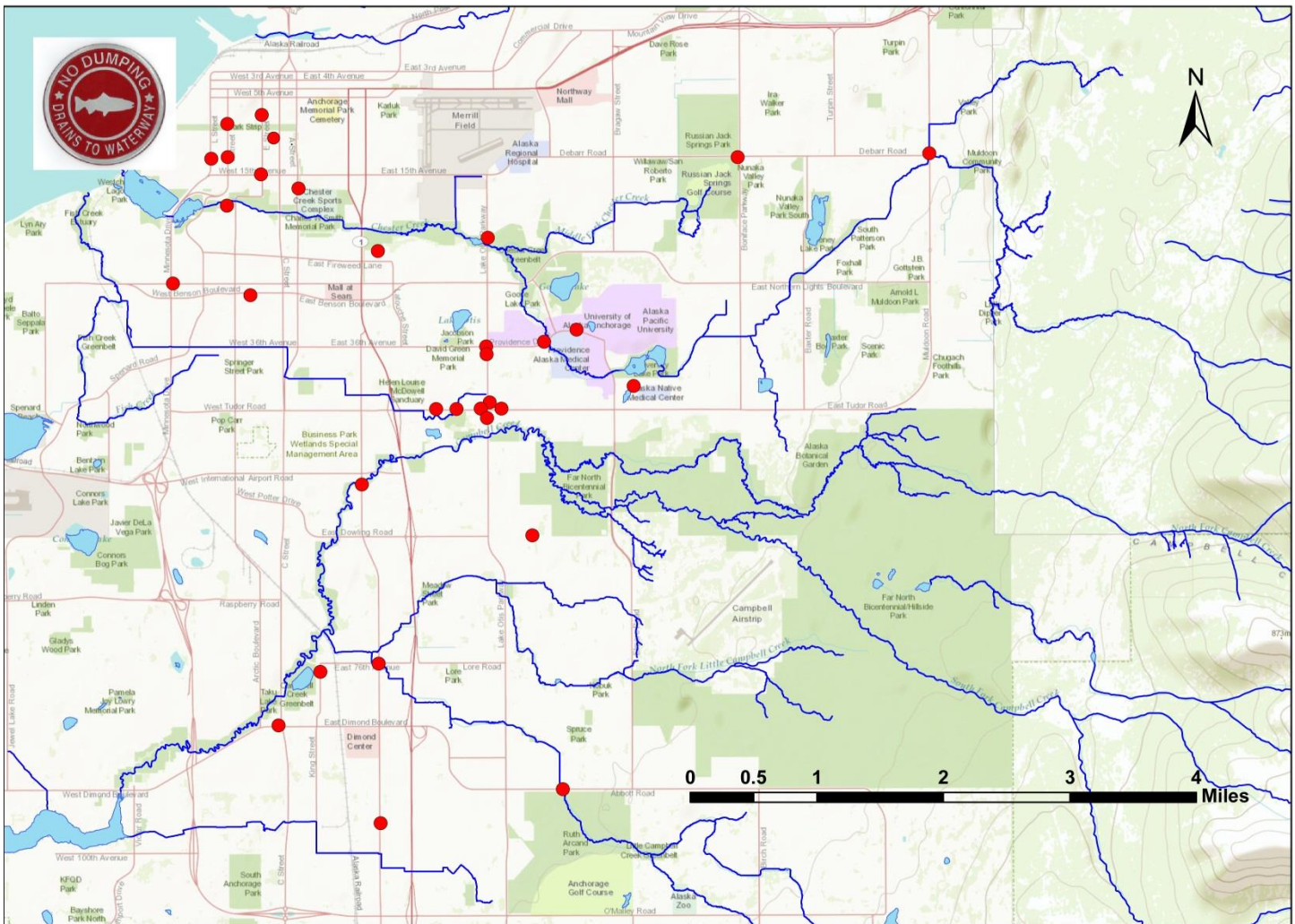
During year 3 another BMP was introduced to the stormwater education program—placing “Drains to Waterway” medallions by storm drains. Stenciling had not proven to work for a variety of reasons, so medallions were purchased and recessed with epoxy directly above storm drains. Initially about 20 were installed throughout the Municipality for this period and an additional 12 were installed the next year. Their locations are in high foot traffic areas, at bus stops, etc.



Storm drain medallion by the Alaska Native Hospital

The following map shows their locations by the end of 2013. Seven are in the Campbell Creek watershed.

Storm Drain Markers (N=32), December 1, 2013



Year 4—February 2013 to January 2014

The Scoop the Poop Committee met 4 times in 2013 and discussed the regular issues along with formulating a plan for more external coverage. A media firm consulted with us, but costs were the stumbling blocks to do PSAs and other media promotions. Regardless, many regular activities continued and new ones were started.

Tabling events included:

- Hogs and Dogs, The House of Harley, 1/26/13
- Pet New Year, Alaska Mill and Feed, 2/2/13
- Fur Rony Mutt Show, Alyeska Canine Trainers, 2/24/13
- AWC Creek Cleanup, Cuddy Park, 5/18/13
- Pawstice, Ruth Arcand Park, 6/29/13, (Campbell Creek watershed)
- Dog Jog, Service High (Friends of Pets), 7/27/13, (Campbell Creek watershed)
- Pet Day at Spenard Farmers Market, Spenard Farmers Market, 8/3/13
- Dog Daze of Summer, Downtown Partnership, 8/17/13

Two Scoop the Poop Day events were held on May 4 at Connors Bog and University Lake. In addition, BLM organized a Scoop the Poop Day with AWC at Campbell Tract on May 6 to clean pet waste from their

trails. A private individual donated funds which were matched by her company to do 30 additional hours of pet waste cleanup at Connors Bog.

A presentation on the problems of pet waste was made to a 3rd grade class at Aquarian Charter School on April 22, 2014, at the request of the teacher. The students were great, asked good questions, and were fascinated by the plastic poop that we took in to “share”.

AWC wrote an Anchorage Park Foundation Challenge Grant to fund two Mutt Mitt Pet Waste stations. Matched by labor and donations from Campbell Park Community Council members, they were purchased and installed on the Campbell Creek bike trail near Shelikof and one near Waldron Lake on the Boys and Girls Club property. The match provided by the citizens allowed the additional purchase of two waste stations that were placed at Old Hermit Park and Arnold L. Muldoon Park.

It was during this period that AWC wrote and was awarded an ACWA 2014 grant from ADEC to develop an inventory and evaluation of the 100+ pet waste stations presumably located in Anchorage’s seven primary watersheds. Between July 1 and December 31, 2013, stations were located (or confirmed as missing), coordinates and photographs were taken, the locations were mapped in a GIS, the condition of the station and surrounding area was evaluated, and recommendations made regarding several parameters.

The deliverables on the ACWA 2014 grant, titled “Evaluate Scoop-the-Poop Stations in Anchorage” included:

- Compiling a current list of existing pet waste stations in the Municipality of Anchorage and on BLM lands, obtaining their geographic coordinates, and creating a GIS map that shows their locations and observations about their status.
- Photos of the existing waste stations were also obtained. Information sheets on each station including an individual location map were completed.
- An overall map with all the stations was completed in GIS. Data sets were provided to DEC.
- AWC’s Scoop-the-Poop website page was updated to reflect all the waste stations (see http://anchoragecreeks.org/pages/scoopthepoop_about.php).
- Field observations during summer and winter were made, pet owners were surveyed, and other information was gathered in order to devise the need for placement of new stations.
- Correlations between *E. coli* data from 3 years of AWC’s monitoring program (2011, 2012, and 2013) were made with the location of pet waste stations (see Appendix).
- Different pet waste stations were reviewed and an order was placed for 16 stations and 80,000 bags which were provided to the Municipality’s Parks and Rec Department.
- After evaluation, the 16 new stations were installed by the Parks and Rec Department based on AWC recommendations (see Appendix).
- An educational rack card (see Appendix) was developed and printed that, while similar to the one used for hanging on residences, lists fines for not cleaning up. Twenty-five rack card holders were installed at various locations to hold the cards of which 8 are in the Campbell Creek watershed. A map depicting the rack card holder locations was created (see Appendix). The card holders were checked and refilled twice. Many were vandalized or removed, and it does not seem to have been an effective tool.
- Lastly, a matrix was created of potential locations for new pet waste stations (which were achieved during the start of the FY 2016 ACWA grant).

Two new items were created during this year. One is a Scoop the Poop bumper sticker that is based on the design used for People Mover buses (example following). Two thousand of them were printed and they are given away at tabling events for Scoop the Poop (see Appendix).



The other item was a rack card entitled, “How to Live with a Creek” (see Appendix). While it has a variety of suggestions for being a good creek neighbor, at the very bottom is a bullet item regarding pet waste. Nearly 200 were distributed to key residential locations along Campbell and Chester Creeks. The remainders are being used in tabling events. The existing bus signage from the previous year was again placed on 5 People Mover buses for 16 weeks.

Year 5—February 2014 to September 2015 (due to various issues, the APDES 5th year was extended through September 2015)

The Scoop the Poop Committee met once in 2014 to plan the upcoming year including Scoop the Poop Day.

Tabling events in 2014 included:

- Hogs and Dogs, The House of Harley, 1/25/14
- Pet New Year, Alaska Mill and Feed, 2/1/14
- Salmon Release, Potter Marsh, 5/9/14
- AWC Creek Cleanup, Cuddy Park, 5/17/14
- Pawstice, Ruth Arcand Park, 6/28/14, (Campbell Creek watershed)
- Dog Jog, Service High (Friends of Pets), 7/26/14, (Campbell Creek watershed)
- Pet Day at Spenard Farmers Market , Spenard Farmers Market, 8/2/14
- Dog Daze of Summer, Downtown Partnership, 8/16/14
- Harvest Festival, Alaska Botanical Garden, 9/6/14

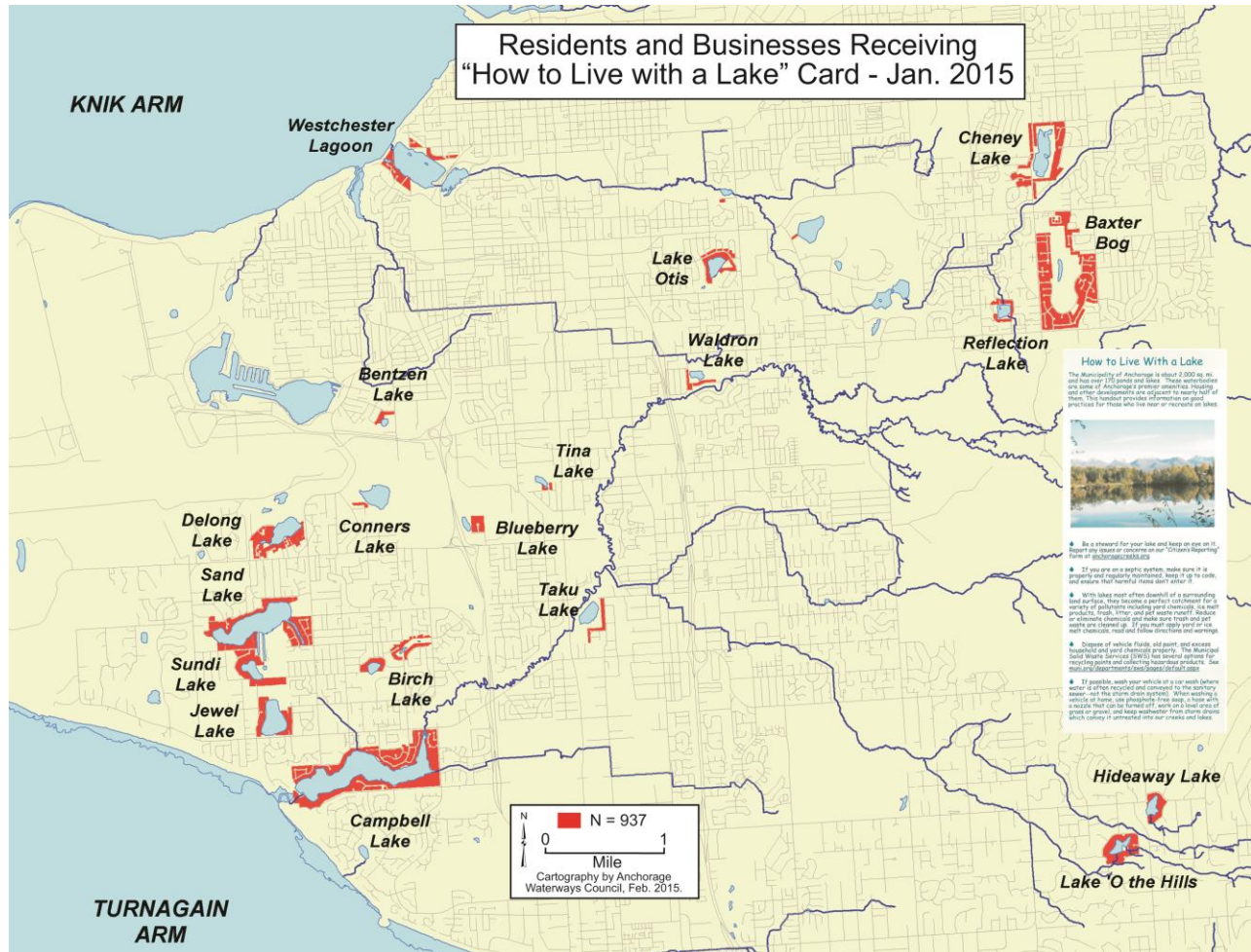
Two Scoop the Poop Day events were held again at University Lake Dog Park and Connors Bog. This year the STP Committee decided to honor a local 80+ year old woman, Tish Kippenham, who singlehandedly makes it her mission to clean up after others at Connors Bog. Donations from the STP Committee members were collected and presented to Ms. Kippenham along with a proclamation signed by Mayor Sullivan (see Appendix). Even a media report by Sean Doogan made its way to the *Alaska Dispatch (ADN)* (see Appendix).

Three other stories that focused on animal pet waste were in the local media that year. A story by then-KTVA reporter, Charlo Greene, was aired on January 22, 2014. It can still be found at www.ktva.com/you-have-poop-on-your-shoes/ and a written transcript is in the Appendix. A public radio spot by Dave Waldron aired on March 3, 2014, and a Letter to the Editor by Cherie Northon was printed in the *ADN* on April 3, 2014 (both in the Appendix). Additionally, we’ve enlisted support from Gardener Jeff Lowenfels who writes the *ADN* gardening column to remind people to pick up poop in their yards when needed.

In 2014 a volunteer from the Alaska SPCA who is a graphic designer redid the existing Scoop the Poop brochure. A sleeker look prevailed, and current committee members were updated (see Appendix).

While tablings at Alaska Botanical Garden events usually focus on invasive species and the use of yard chemicals, the AWC always has information about pet waste. Several years ago a “Poop Pyramid” was developed as a poster, and in 2014 it was updated (see Appendix). Its original size is 11 x 17 and it attracts many visitors just by the incredible numbers involving pet waste that are illustrated on it.

Another new rack card, “How to Live with a Lake” was developed in early 2015 that addresses the problems of runoff for people living near lakes. AWC had received several complaints by residents around different lakes regarding treatment of vegetation, yard chemicals, and even one person who took his two dogs out on the ice for them to poop (without cleaning up). Besides the usual suggestions, pet waste issues were discussed. AWC did a mailing of over 900 cards to lakeside residents as depicted on the following map. Several lakes in the Campbell Creek watershed (Sand, Sundi, Jewel, Tina, Blueberry, Taku, Birch, and Campbell) received the cards.



Tabling events in 2015 (through September 30) included:

- Pet New Year, Alaska Mill and Feed, 2/7/15
- Pawstice, Ruth Arcand Park, 6/28/15, (Campbell Creek watershed)
- Bark in the Park/Canine Frisbee Championship, 7/12/15
- Dog Jog (FOP), Service High, 7/25/15, (Campbell Creek watershed)

An emphasis continued on our quest to deal with people feeding the waterfowl at Cuddy Park. In 2014 there was one story done by Alaska Public Radio on July 25 titled “Fecal Bacteria Contaminates Many Anchorage Waterways” (see Appendix), KTVA’s Lauren Maxwell did a news story on August 5 titled “Midtown park has dirty water” (see Appendix), Rick Sinnott had the cover in the Alaska Dispatch’s “We

Alaskans” on September 14 titled “Fowl play” (see Appendix), AWC’s Thom Eley had a letter to the editor published on Dec. 31 titled “Feeding wild waterfowl creates hazards, disease” (see Appendix), and it was followed by Cherie Northon’s letter to the editor on January 22, 2015, titled “Resist the urge to feed the ducks”.

Summary, Conclusions, and Thoughts about the Last Five Years of the APDES Permit and Moving Forward

Following is a summary of some of the items that occurred during the first five years of APDES Permit AKS-05258.

Tablings (February 2011 through September 30, 2015):

- 41 in the Municipality excluding Campbell Creek watershed
- 15 in the Campbell Creek watershed

Attendance ranged between 100 and 800 per event.

Scoop the Poop days (February 2011 through September 30, 2015):

- 7 Scoop the Poop days were held

Door hangers left on residences (2011-2013):

- 4,700 placed by AWC staff but additional ones were provided to proactive residents to distribute

Windshield Survey at the Bancroft Subdivision (2011-2012):

- 100 residences were provided information 4 times

Pet Waste Ordinance signs placed:

- 13 in the Chester Creek watershed
- 10 in the Campbell Creek watershed

Storm Drain Medallions placed:

- 25 in the Municipality excluding Campbell Creek watershed
- 7 in the Campbell Creek watershed

Mutt Mitt stations installed:

- 14 new Mutt Mitt stations installed in the Municipality
- 7 new Mutt Mitt stations installed in the Campbell Creek watershed
- All Mutt Mitt stations mapped for the MOA Parks and Rec Department and also placed on the AWC website “Scoop the Poop” page

Publicity:

- 6 stories in the *ADN*
- 3 TV news stories
- 2 public radio stories

PSA

- Girdwood School's 27 second "How to Use a Mutt Mitt Bag to Scoop the Poop" at anchoragecreeks.org/pages/scoopthepoop_about.php

The first 5 years of this project included idealism, disappointment, an appropriate learning curve, adaptation, retooling, successes, and some things that did not bear repeating. Despite none of the local creeks have been removed from their impaired water status, AWC continues to plug away in a variety of venues to a wide range of people using several techniques to control pet waste. This type of education has to be approached broadly as people have different ways of receiving and processing information, and with care and balance so as not to frighten away the users of our creeks and lakes, but, at the same time, instilling in them the need to take personal responsibility to improve the situation involving fecal coliform as it impacts all of us.

In our interactions with people at tabling events—especially those that are pet-focused—nearly everyone you speak to “always” cleans up after their pets. If this is the case, then they are not the audience we need. However, field observations by AWC staff have shown that even the most diligent of those who would claim that they always clean up may be people who are not aware that their dogs are leaving poop piles that are missed. One situation that particularly influences this has to do with dogs that are off-leash. Granted, off-leash experiences are very important to some pet owners, but when watching dogs that are not constantly by their owner's side (as on a leash) many situations come to light.

If an owner is jogging, riding, or skiing, then the pet is probably off exploring and out of sight (either several feet ahead or behind). When the urge strikes, the dog will poop and the owner never even sees it. We have seen other cases when the pet owner was either on a cell phone or talking with other “walkers”. Their attention is not on the dogs which are out exploring and doing what dogs do.

Another situation that has been observed is when people arrive at dog parks or trail heads and they are getting their gear together and the dog is excited and running around (off leash)—it is usually within a few minutes that the urge to poop strikes. In the meantime the owner is getting ready, pulling kids out of car seats, etc. and never notices what has happened, and it never even occurs to them that their dog may have pooped. This is clearly a difficult situation for convincing the owner that their actions probably contribute to a pet waste problem. The most common answer is, “MY dog didn't poop there”.

Another situation that has recently come to light is that over the past 5 years, with some exceptions, our tabling activities have been geared mostly to dog events, and it is common that we see many of the same faces over and over. In December 2015, AWC had the opportunity to table at 2 ACES' hockey games with some other pet groups (mainly veterinarians and adoption folks). This brought in an entirely new audience to hear the “message” (and it didn't hurt that the opportunity to win a \$25 gift certificate to Moose's Tooth was a hook). Over 200 people stopped by our table, and so many had no clue about pet waste as a problem—the audience was entirely different from who we normally saw. Based on this experience, AWC is going to try and find other opportunities to table in addition to the “usual” pet events.

Tri-fold brochures and rack cards appeal to a certain small segment of the population. If they are freestanding and available to pick up, it doesn't seem that people take advantage. It would probably be better for them to be handed out, mailed out, placed on door knobs, or provided in an information packet

when a person is getting a new or adopted dog (i.e. AKSPCA and MOA Animal Care and Control). We know that one of our rack cards that was mailed, "How to Live with a Lake", elicited phone calls to us usually about other lake issues. The fact that we received calls demonstrates that some people read them.

Another potential audience would be some of the businesses that provide yard cleanup services—especially poop cleanup. A quick Google search showed at least three in Anchorage: *Do Do No More*, *Scooper Trooper*, and *Alaska Pet and Yard Services*. It could help expand their business by using some of our information about the detrimental effects of pet waste. In addition, there are undoubtedly many yard landscaping companies that might be willing to give their clients information about the problems of pet waste that is left in yards. It is interesting to note that AWC does receive calls and complaints about neighbor's yards where pet waste has gotten out of control, and we refer these to the MOA's Animal Care and Control office. But, as with many agencies, there may be regulations on the books, but money for enforcement is often in short supply. Loose dogs or dog bites take precedence.

There are several citizens who take it upon themselves to police up their neighbors. One is Peter Eberhardt who lives down on Atwood and used to be in charge of the Muni bus signage program. I have mailed him hangers and bumper stickers that he hands out to people who let their pets poop in a vacant lot by his house. (He has actually hopped on his bike and chased them down!) There are probably plenty of people out there who are "poop ambassadors" that we'll never know about. Several people say they always carry extra bags and if someone seems to "forget" to pick up poop, they will offer them a bag. It's usually non-confrontational, although some people have been known to refuse the bags. One fellow even told us it was the MOA's job!

AWC does have an online reporting form (anonymous) and, as noted above, we often receive phone calls from distraught neighbors about pet waste. In February 2014, a mother who walked her children up 68th Ave. (by Little Campbell Creek) to Kasuun Elementary needed help in curtailing dog poop on the sidewalk where they and other families walked. I altered the bumper sticker sign, laminated it, and sent her 30 signs to place on stop signs and light poles and other places along the route. On Mar. 31, 2014, she wrote, "Hi Cherie ! The signs are still up (We taped them on pretty good with clear packing tape on to the light posts!) and they seem to be working pretty well, no new piles , anyway ! I will keep you posted :) Alice".



Using positive reinforcement never hurts. BLM has two business-size cards printed that they tie a dog biscuit to and hand out to people on their trails. One says “thank you”—positive reinforcement for picking up pet waste—and the other is a slightly sharp reminder to pick up pet waste. I can’t recall if there’s a dog bone attached to the latter, but the point is to reward good behavior.

Two different housing developments (one by Weidner called “Terrace on the Lake” and one at “Lake O’ the Hills”) contacted AWC recently for some brochures and rack cards for their residents. I think AWC needs to be more pro-active and seek out these developments and offer our services in advance. There is an easily accessible list of properties managed by Property Management Services Inc. (PMSI), and there are other companies where we will make a more concerted effort to contact.

As mentioned above, we will plan on contacting Scoop the Poop companies to see if our literature can help them with their businesses—maybe have an informal partnership.

Another ad hoc approach that AWC has experimented with and will probably continue is the use of PVC pipes for holding pet waste bags (from grocery stores) that are contributed by pet owners. Often at dog parks and other high-use areas, pet owners bring in a bag of bags and hang it on a fence or some other convenient location. This is due to the fact that if a Mutt Mitt dispenser is there, they often can be emptied quickly and left that way until a MOA Parks and Rec staff refills them. In some cases, like Valley of the Moon Park which has turned into an unofficial dog park, there is no Mutt Mitt station. It’s good that people leave bags there for others to use, but they often blow around and create a litter problem. A solution for this was found in Seward last summer. It was a home-made PVC pipe with a top cap and cut-outs which encourage people to recycle their grocery bags for pet waste. AWC has 4 prototypes (two at Connors Lake and two at University Lake), and it not only reduces fly-away bags but also fills a gap when a dispenser is empty or doesn’t exist.



Another aspect of this might include working with local stores that recycle bags so volunteers can retrieve extra bags and use them for these PVC dispensers. Walmart and Fred Meyer are two stores that might be good candidates.

Direction over the next 5 years—following is a list of some activities that AWC will continue or pursue:

1. Devise a list of homeowner/condominium associations and large apartment complexes as well as property owners and make contact about providing information on pet waste materials and ideas.
2. Contact poop cleanup companies about partnering to encourage pet waste services.
3. Diversify tabling and event participation.
4. Continue Scoop the Poop (Earth Day) events.
5. Review locations for the remainder of the pet waste ordinance signs. Consider new ones.
6. Finish putting out the rest of the storm drain medallions.
7. Keep up the publicity (ADN, TV, radio).
8. Continue the Scoop the Poop committee meetings once or twice a year.
9. Find sources of information packets for pet literature, i.e. AKSPCA, MOA Animal Care and Control.
10. Increase presence on social media, i.e. Facebook’s “Scoop the Poop Anchorage” page.
11. AWC will be evaluating animal facilities in the MOA during the next APDES permit period, and issues or recommendations involving them will be addressed.
12. Investigate complaints and resolution regarding pet waste from the ceremonial Iditarod start and the 3 days of Fur Rondy Sprint racing downtown and along city trails (especially by creeks).
13. Continue working to resolve human feeding of waterfowl at Cuddy and other parks.
14. Review what other cities are doing in their Scoop the Poop campaigns.
15. Add Scoop the Poop information when working in schools through our Creeks as Classrooms program. In a year AWC works with over 5,000 Anchorage School District students and summer campers.
16. Work with the Municipality’s Watershed Management Services to review locations of raingardens and possible locations for new ones (waiting on updated GIS files from the MOA—for 3rd quarter).