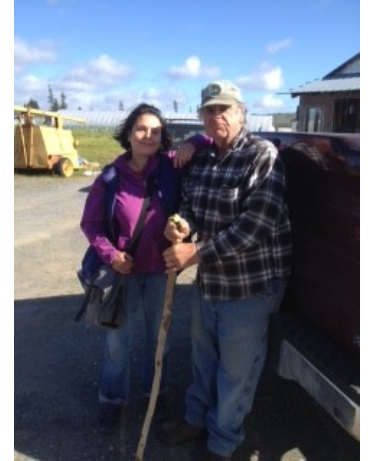




# Natural Currents

## Board of Supervisors

- Chris Rainwater  
Chair
- Otto Kilcher  
Vice Chair
- Genarita Grobarek  
Treasurer
- Tim Alzheimer  
Secretary
- Jim Engebretsen



## A Word on Soils

From Brad Casar

This spring as your soil is thawing out, strangely early, you might want to think about taking a soil test. Whether you have a small garden, acres of hayfield, or are a commercial vegetable producer, it's good to test your soil at least once every 2-3 years. Maybe you used some fish waste from the fillet stations, or your neighbors weedy horse manure. A soil test will tell you what got out of those imported materials. Come on by and drop them off anytime.

Here at Homer Soil & Water we love our soil, and we want you to feel free to come in and chat about all your wildest soil questions. Soil structure for foundations, liming hay fields, stormwater drainageways, or no till vegetable production. We will do our best to point you in the right direction for using all the great resources out there, or maybe you'll catch Chris Rainwater in the office for some insight into your question and a good story.

### Our Mission:

To provide education and leadership in the conservation and sustainable use of soil and water-related resources through cooperative programs that protect, restore and improve our environment.

Our office contains a wealth of information for land owners and managers Visit Us Anytime at  
432 E. Pioneer Ave



### In This Issue:

- Soil Health Publishing Study
- Anchor River Meeting
- Our Events
- Snow Surveying around Homer
- Season's Anchor River Update
- News "From the Ag Side"
  - \* AK Food Festival
  - \* Food Systems Update
  - \* Hospital Connects with Local Growers
- Our Cooperative Weed Management Area
- #SoilYourUndies
- Meet the Staff

## Soil Health Study Publishing Soon— With Plans for Extension

The three-year soil health study in co-operation with NRCS and four local producers has completed its originally planned phase in the last growing season, and in the fall and winter months soil samples from the whole project were examined. The samples, taken from control and test plots at each farm, were measured for bulk density and aggregate stability by our staff and were then combined with nutrient content results from an external lab.

The purpose of the health study is to analyze not only the nutrient and physical soil conditions of each farm over time, but also to note the differences that can occur with altered management practices--in this case, a reduced tilling method and cover cropping.

Reduced tilling is a soil conservation practice in which overly disturbing or turning over the soil is avoided, and instead, smaller amounts of tilling or using a less intrusive tool like a broad fork to prepare beds is used. This is known to effect better water infiltration, encourage soil micro-biota, and improve biological fertility. In our study this was implemented on a relative basis: whatever tilling method the farm usually used, the reduced tilling test plot was less tilled than the rest of their farm. In practice, this varied from using a broad fork or tilther on a normally rototilled farm to extremely minimal tilling with a tilther for seed beds on a farm that was already practicing reduced tilling methods.

Cover cropping is also useful in soil conservation, as it can maintain soil moisture, prevent erosion, contribute organic matter, and in the case of some species, replenish nitrogen concentrations. In this study, participants used the same mix of oats, peas, tillage radish, and buckwheat. This was broadcast at a point when there was at least 6 weeks left of growing season to establish strong cover and root development.

In a new plan to obtain more data, two of the four participants in the study will continue with the study for an additional year. The results from the formerly scheduled three year study will be published soon, and an additional report will arise from next year's results, so keep your eyes peeled if you want to read up on how these conservation methods affect our local soils.



Burning organic matter from soil samples to measure remaining sand weight



Wet sieving soil samples



### Anchor River Community Public Meeting

On April 9, 2019 Homer Soil and Water Conservation District hosted a public information meeting at the Anchor River Inn. Ten agencies and organizations shared information about projects planned on the Anchor River for summer 2019. Among these was Homer Soil and Water's streambank revegetation demonstration project slated for two sites in Silverking Campground. Videos of each presentation are being digitized, edited, and uploaded to a playlist on Youtube. The playlist can be found by searching on YouTube for "Anchor River April 9 2019."



## Soil & Water Events:

What has HSWCD been up to?

### **November 12<sup>th</sup>-15<sup>th</sup>—2018 CNIPM Statewide Invasives Conference**

HSWCD organized and presented at the conference held at Land's End Resort. HSWCD's Katherine Schake spoke about our Cooperative Weed Management Area, and our Board of Supervisors Chair, Chris Rainwater, spoke on the invasives of Homer hayfields. There was a free workshop on invasive weed identification and we co-hosted an invasives discovery lab for the public in partnership with Kachemak Bay National Estuarine Research Reserve.

### **January 12<sup>th</sup>—Women in Ag Follow-up Meeting: Improving Farm Financial Fitness**

Participants outlined their farm successes, goals, and action plans, discussed peer support structures, and watched a planning video. An intro to the free Fearless Farm Finances online course

### **January 31<sup>st</sup>—High Tunnels 101**

Free workshop about the NRCS high tunnel program, ways to make your own tunnels, and things to consider when building a high tunnel, such as irrigation, ventilation, drainage, and more.

### **February 27<sup>th</sup>—Coffee Table-KBBI Homer public radio**

A talk between KBBI's Aaron Bolton, Farmer's Market and Food Hub director Robbi Mixon, and HSWCD's Kyra and Nicole about Alaskan food security, access to local foods, and how season-extending high tunnels have aided in the area's agricultural boom in the last decade. Listen now! Available on KBBI's webpage.

### **March 8-9<sup>th</sup>—Alaska Food Festival and Conference**

The Alaska Food Policy Council and the Alaska Farmers Market Association partnered for the 4th semi-annual Alaska Food Festival & Conference. See page 7.

### **April 9—Anchor River Community Public Meeting**

\*See Pg. 2

### **April 17<sup>th</sup>—Keep Alaska Wild & Free from Invasive Species!**

An Invasive Species Workshop with the Kenai Peninsula-CWMA at the Cook Inlet Aquaculture building in Kenai, 40610 Kalifornsky Beach Rd. Free to public. See page 9.

### **April 18<sup>th</sup>—Know Your Soils Workshop**

A group discussion about getting to know your soils in the library conference room. Topics included organic matter, structure and drainage, and maintaining healthy, nutritious soil.

### **June 7<sup>th</sup>—Anchor River Streambank Workshop \*Upcoming!\***

An installation and workshop for "brush layering" and other restoration methods to save our local streambanks. See page 5.

*Keep your eye out for more events by flier, on Facebook, and by subscribing to our monthly Ag Updates E-Newsletter (instructions pg. 7)*



## Rest in peace, Jan Flora

Our tough-as-nails, smart-as-a-whip, ever-dedicated-to-Alaskan-ag little lady, Jan Flora, passed away recently. Jan will be greatly missed here at Homer Soil & Water and throughout the community.





## Snow Surveying Around Homer

One of Homer SWCD's responsibilities is assisting the NRCS with Snow Survey in our area. The Snow Survey program was developed in the western United States and Alaska to be able to more accurately predict snow melt and help manage reservoirs, and this is still their main utility. Recreational snow-users also make use of the data automatically generated by SNOTEL stations, as the information is publicly available.

There are seven SNOTEL stations in the Homer area with instruments that take near real-time readings and transmit them hourly. These include four sites near Bradley Lake (Kachemak Creek, Middle Fork Bradley, Nuka Glacier, and Port Graham), one across the bay (Port Graham), one at McNeil Canyon, and one at the Anchor River Divide (see dark blue dots on map). These sites typically include a precipitation gauge with a wind shield, a snow depth sensor, and a snow pillow

filled with antifreeze that gives a snow water equivalent (SWE) reading as snow weighs down the pad and forces antifreeze into a gauge. These sites are visited twice a winter to check the accuracy of these readings, during which HSWCD staff aid the NRCS.

The other snow survey sites called "Snow Courses" have permanent snow measurement markers around which five readings of depth and density are taken to obtain an accurate reading of 'snow water equivalency' for each site. These sites are visited to get manual readings 3-5 times during each snow season. Of this kind, there are three stations in town: one at the Demonstration Forest, one on the bluff (Bridge Creek), and one in the Eagle Lake area.

Anyone with an interest in the snowpack of their area can access the data from both SNOTEL sites and Snow Courses at <https://www.wcc.nrcs.usda.gov/snow>.





# Anchor River Slated for Streambank Revegetation Demonstration

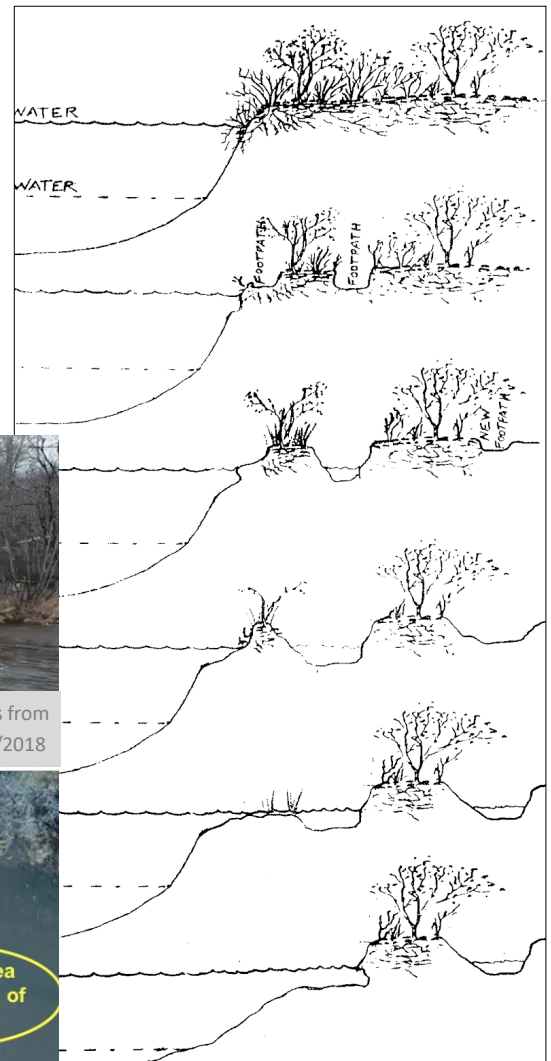
By Devony Lehner



Over the last year, Homer Soil and Water has tracked erosion of Anchor River streambanks below the Old Sterling Highway Bridge. The goal is to understand river processes and identify ways to slow erosion and improve habitat for juvenile salmon. The area of most interest is known as “the Picnic Hole,” which is accessed from Cuffel Ditton Road. Erosion there is caused by a back eddy down-stream of a gabion installed in 1978 and by foot traffic along the top and down the face of the bank. At left is a photo of the Picnic Hole area from 2002, and below is a photo from

2018. You can see how much the bank has eroded in 16 years.

The drawing and photo show how streambanks recede in response to foot traffic. De-vegetated and compacted footpaths are more vulnerable to erosion. Erosion along footpaths gradually “unzips” sections of streambank, which then collapse into the river. Receding streambanks eliminate salmon habitat and cause stream channels to become wider, which in turn makes them shallower. Shallower water warms faster, and warming temperatures in the Anchor River cause stress on salmon—particularly juveniles (Continued on pg.6).



How streambanks erode along footpaths, causing the stream to become wider and shallower.



(Continued from pg.5)

The Picnic Hole area is a challenging situation for streambank stabilization. This summer, HSWCD will try out bank stabilizing techniques in two less challenging sites in Silverking Campground. These will show how well soil bioengineering plantings—common along the Kenai River—might work on the Anchor. The picture and diagram below show “brush layering,” one of the techniques to be tried. Soil “lifts” wrapped in geotextile replace eroded bank, and willow cuttings are sandwiched between them to provide streamside vegetation. Spruce tree revetments are used to protect the toe of the healing streambank. As the photo below shows, brush layering can be used to repair and stabilize even relatively tall and steep eroding streambanks.

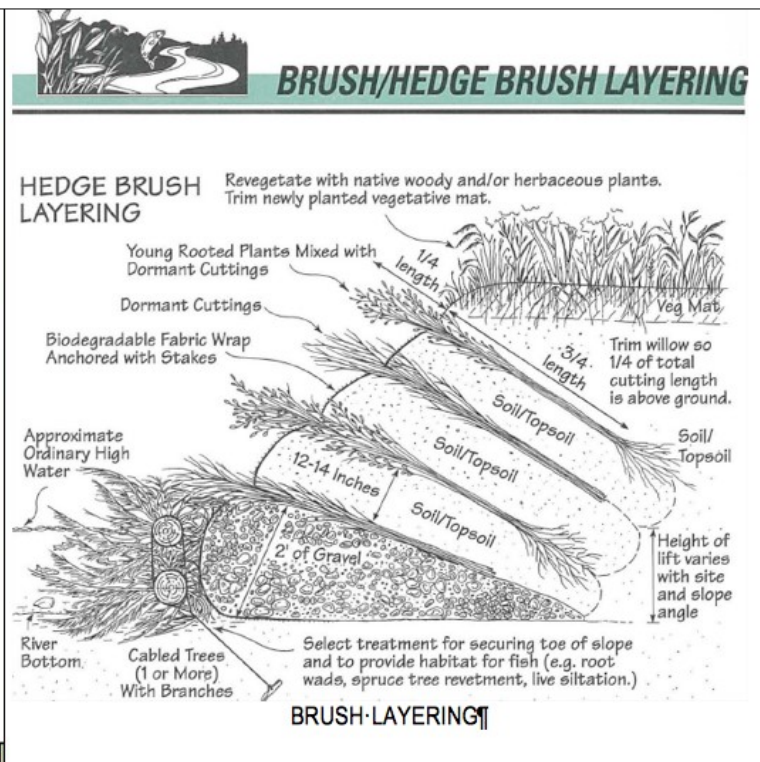
The public is invited to learn more about these techniques and help with installation in a free 1-day workshop scheduled June 7 in Anchor Point. For more information, contact Homer Soil and Water. In addition, Homer Soil and Water maintains a Facebook page called “Anchor River Updates” ([www.facebook.com/groups/181853742641179/](https://www.facebook.com/groups/181853742641179/)). HSWCD and its partners—like ADF&G, Alaska State Parks, Kenai Watershed Forum, Kachemak Bay National Estuarine Research Reserve, and Cook Inletkeeper—use Anchor River Updates to post information about their activities on the river. Information about Anchor River activities planned for this summer was presented by these and other organizations at a public community meeting in Anchor Point on April 9. Find out more on the “Anchor River Updates” Facebook page, or see “Anchor River Community Public Meeting” on page 2.



Streambanks eroding along footpaths in the Picnic Hole area of the Anchor River.



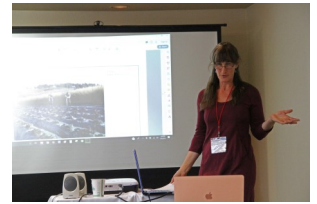
BRUSH LAYERING with cabled spruce trees to protect toe







## From The Ag Side



### Homer Ag Takes Center Stage at 2019 Alaska Food Festival & Conference

The Homer team had a grand time at the AFFC Conference held on the Kenai Peninsula for the first time at Land's End Resort. HSWCD staff and Board members enjoyed helping out behind the scenes, networking and, of course, the great variety of speakers and presentations on all things Ag and food in Alaska.

Local ag professionals and chefs also got in on the action. Presentations were given by Carey Restino (Homer Hilltop Farm), Donna Rae Faulkner (Oceanside Farms), Emily Garrity (Twitter Creek Gardens), Paul Castellani (Will Grow Farm), Robbi Mixon (Homer Farmers Market and Alaska Food Hub) and Lori Jenkins (Synergy Gardens). They shared what they've learned as growers and market managers in the Homer area on topics such as managing volunteers and the down to the dirt reality of farming, to farmers markets as business incubators, Food Hubs and (continued ...)



### Heidi Chay Wins Food Hero Award!

Yep, you read that right. Heidi Chay, District manager of Kenai Soil & Water Conservation District— and good friend to HSWCD— was one of three recipients of this year's **Alaska Food Hero Award**. She was awarded in the good company of fellow recipients Tim Meyer of Meyer's Farm in Bethel and Lia Heifetz of Barnacle Foods and Grow Southeast. We're so proud of her.

"Each conference, the Alaska Food Policy Council recognizes individuals and organizations with the Award. Selection is based on work they have been involved with over the past 18 months. Awardees demonstrate a substantial impact on Alaska's food system, transform an aspect of their community's food system, and make a difference for Alaska's prosperity, health and self-reliance. "– AFPC

For more on the 2019 Alaska Food Heroes visit <https://www.akfoodpolicycouncil.org/akfoodheroes>

### Food Systems Study Update

HSWCD is in the final stages of crafting our Food Systems Study for the Southern Kenai Peninsula. We are incorporating data from the 2017 U.S. Ag Census that just came out in April. It will be made available for anyone interested. Stay tuned for release dates.



Conference photos by Charles Bingham

### Ag Updates

**Want to stay connected to all the Ag Happenings on the southern Kenai Peninsula?**

HSWCD sends out a monthly Email newsletter featuring all the Ag related meetings, trainings and networking events that we hear are coming to our communities. To be included simply write to [nicole@homerswcd.org](mailto:nicole@homerswcd.org) and we'll get you on the list.



## Alaska Food Festival & Conference continued...

(Contd...) establishing locally grown food in off the road places like Kodiak.

Local chefs Carrie and Sharon from Two Sisters demonstrated making sourdough bread, Kristen and Mandy Dixon demo-ed a couscous dish and Jeff Lockwood shared the finer points of making pork sausage. And, of course, Chef Chris of Land's End kept the crowd happy all weekend (living up to the challenge of preparing pollack noodles that were donated by ASMI). HSWCD's Kyra and Nicole presented on takeaways from our Food Systems Study, and Cook Inletkeeper's Carly Weir and Sue Mauger spoke on the interconnectedness of ecological resilience and agriculture.

It truly was a meeting of the minds and the Kenai Peninsula community participated in a big way. We offer gratitude to all who shared and listened at this fantastic event.

## Other Ag Happenings of Note:

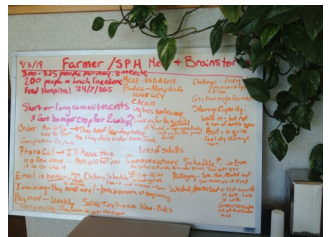


- Homer Soil & Water hosted a networking event before our Farm Film & Food Night between Justin Smith, produce manager of Save U More in Homer, and local farmers interested in selling to the store. Justin shared his vision of offering more from local farms and featuring it in a big, splashy local produce display. Farmers got to hash out the details with him on how to make that happen.

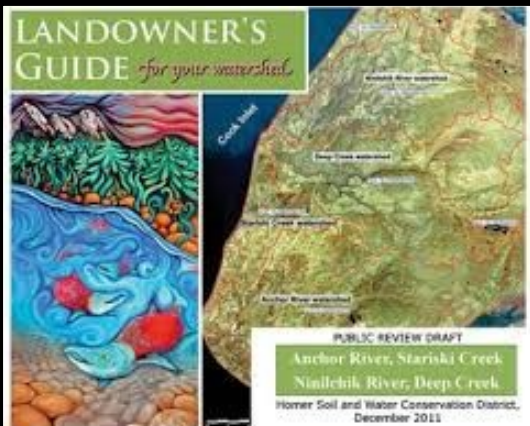


Get to Know Your Soils Workshop

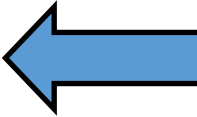
- HSWCD hosted a similar Meet & Brainstorm with farmers and South Peninsula Hospital's Dietary Services staff. SPH has some creative ideas for incorporating local foods—veggies, fruits, meats, fish and more— in what they prepare daily for more than 300 hospital staff and patients. They were very pleased to be able to pool ideas together with local farmers and to get the ball rolling on bringing the delicious, nutritious local food into their kitchen.



SPH/Farmers Meet & Brainstorm



Visit our website  
for a peek at this  
beauty!







## What is a Cooperative Weed Management Area?

Homer Soil and Water originally founded the Kenai Peninsula Cooperative Weed Management Area (CWMA) in 2003 in partnership with the U.S. Forest Service, and actively coordinate it. Today there are over 12 active members of the CWMA, including non-profits, tribal organizations, and governmental organizations. A volunteer organization, we have been guided by a Strategic Plan since 2007 to prevent the introduction and manage the spread of non-native, invasive weeds across the Kenai Peninsula on both private and public lands. The CWMA maintains a priority invasive plant list based on a plant's noxious weed rating (the potential to cause environmental and economic harm, coupled with reproductive/ propagative aggressiveness), and the likelihood the plant will arrive on the peninsula. By monitoring and detecting invasive plants early along the roadways, waterways and trails, we can rapidly respond to eradicate infestations before they harm salmon and wildlife habitat.

The strength of the CWMA is in our ability to share resources quickly. For instance, when a new infestation of *Elodea* (a highly destructive aquatic plant spread by floatplanes throughout Alaska) is detected, partners contribute boats and personnel for surveys, collaborate on applying for necessary permits, team-up on outreach and education to the public, and brainstorm the most efficient and effective way to contain the infestation

and manage the risk of spread to other lakes.

While there are depths of institutional knowledge within the CWMA (i.e. what did and didn't work in the past), this partnership has also developed two written management plans to guide future decision making around two particularly aggressive species of invasive plants that directly threaten salmon habitat: Reed Canary Grass (*Phalaris arundinacea*) and *Elodea* (various species). Interested? Check out the *Reed Canary Grass Spatial Watershed Strategic Plan* and the *Integrated Pest Management Plan for Eradication of Elodea* on the CWMA website, both of which are being revised in 2019. Learn more at: [www.kenaiweeds.org](http://www.kenaiweeds.org)

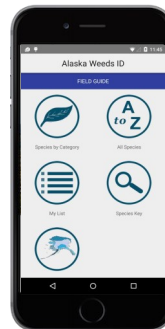


### Fight Invasives with a New App

- ◇ Includes interactive key to ID invasive species by plant features
- ◇ Pictures and descriptions of invasive weeds
- ◇ Easy reporting that captures your location and allows you to submit photos

Download Today!

<https://apps.bugwood.org/aps/alaska>



Conservation Districts work as a grassroots form of local governance authorized under state law. They create bridges between individual cooperators (landowners committed to sustainable use of the natural resources they manage) and other partners, including non-governmental organizations and all levels of government. The aim is to combine and coordinate resources to achieve shared conservation goals. The District model was established in the 1930s by Congress as a way to promote coordinated conservation approaches to healing soils during the "Dust Bowl" of the 1930s.

**Join as a cooperator!** It is similar to membership in your favorite group. Being a cooperator says that you use good practices on your land (like the ones demonstrated in the Soil Health Study) but it also gets you the benefits of a voice at the District level through your vote or your presence on our board.

# Hey Homer!

## It's time to #SoilYourUndies... in the name of soil conservation

*Do your own fun soil science experiment to see how healthy your soil is and share your experience with Homer SWCD.*

Anyone can investigate biological activity in farm fields or backyard gardens. Bury a pair of 100 percent white cotton underwear in topsoil for about two months and then check the level of decomposition. If there's not much left of the underwear you have good biological activity, which indicates healthy soil. These same soil organisms can break down plant materials in much the same way.

### To make a good on-farm comparison:

- Test similar soil types under different rotations and tillage management
- Keep track of each pair by writing an identifying number on the waistband
- Be sure to bury all underwear being compared on the same day and for the same amount of time



### WHAT YOU'LL NEED

- A pair of white 100% cotton briefs (no dyes or polyester blends)
- Shovel
- Marker flag

- 1) Dig a narrow trench and bury the underwear in the top six inches of soil
- 2) Mark the place with a flag so you'll be able to find it again
- 3) Leave the underwear buried for about two months
- 4) Dig it up carefully and wash it in a bucket of water to remove the soil
- 5) Bring in your soiled undies for a photo and half off your fall soil sample



**HOMER SOIL & WATER  
CONSERVATION DISTRICT**

**HomerSWCD.ORG**

**907-235-8177 x5**

**432 E. Pioneer Ave.  
Homer, AK 99603**



# Meet The Staff



**Kyra Wagner, District Manager**

Kyra has moved from years of experience as a general community volunteer extraordinaire to the lead juggling acrobat in the office. In charge of accounting, grant writing and other general management, she loves seeing who the next person will be who walks through the door and what the latest issue may be.



**Devony Lehner, Natural Resources Specialist**

Devony is the queen of Web Soil Survey, NRCS programs, and all the resources needed to make wise decisions on your land. With nothing more than the purest intent to inform each and every landowner on the Peninsula of these resources, Devony is OUR greatest resource and institutional memory bank.



**Brad Casar, Natural Resources Technician**

Brad is our soils guy. If you have questions about soils he's the man to talk to. He holds a B.S. in international soil and crop sciences and international development, and is active in doing outreach to our community of growers and land managers on the southern Kenai Peninsula.



**Charlotte Crowder, Biological Technician**

Charlotte works with the NRCS Soil Survey team on their mapping projects as well as helping S&W process soil health study samples. As a botanist, she gets friendly with flowers, measures tree girths and rings, and records vegetation coverage at survey sites. And she really likes a nice afternoon tea.



**Nicole Arevalo, Food Systems Analyst**

Nicole was hired last spring to conduct a Food Systems Study for the Homer and Anchor Point areas. A local foods buff, she holds a B.S. in anthropology from UAA and brings 18 years work experience in the food service industry ...and a little bit of time helping pick weeds and harvest vegetables at local farms.



**Katherine Schake, Natural Resources Specialist**

Katherine is our Invasive Plant Coordinator. She has guided hikes in Denali NP, managed mischief such as remote-sensing mapping projects, a statewide salmon data synthesis, and coordinated a Mat-Su Salmon Science Symposium. In her spare time, Katherine guides in Iceland, maintaining a passion for botany and birding.



**Kris Nichols, Natural Resources Technician**

Kris makes nutrient recommendations for producers in the high tunnel program. He has an M.S. in soil science and moved to Homer last summer with his wife Joanna and son Nolan, and spent the last 10 years working for the Ag Research Service in Fort Collins, CO. His hobbies include hiking, biking, running, and camping in the great outdoors.

**You are Invited to Attend our Board of Supervisors Meetings– Come See What's happening in the District**

The HSWCD Board of Supervisors meets on the second Wednesday of the month at 5:00 pm. Meetings are held in the NRCS conference room next door to our office at 432 E. Pioneer Ave. in downtown Homer, AK.

## Got Email?

You are receiving this newsletter because you are a District Cooperator and we want to keep our Cooperators informed. There is so much happening in our office regarding

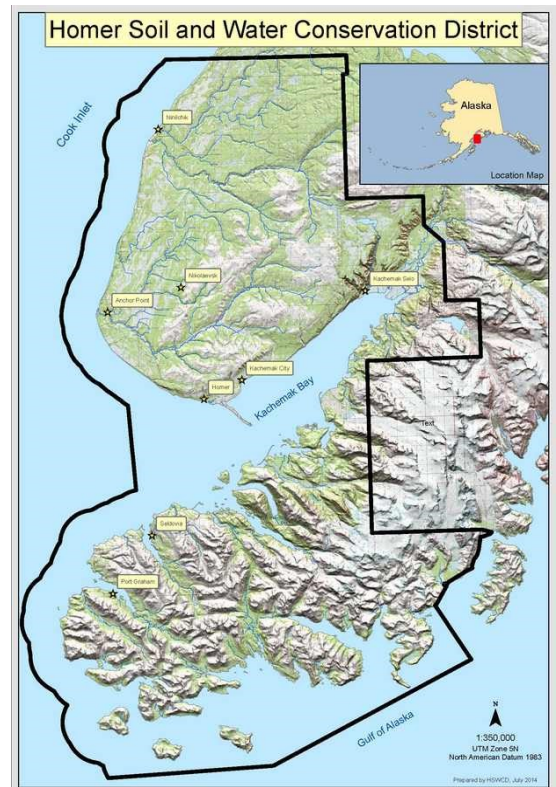
- Trails and Outdoor Education
- Invasive Weed Management
- Agriculture and Local Food
- Habitat Conservation

that would be great to put in our newsletters, but it would be a lot cheaper and waste a lot less paper if we emailed them rather than snail-mailed them. Then we could send out newsletters easier and more often, keeping you better informed! So....

**PLEASE SEND US YOUR EMAIL ADDRESS!**

Write us today at [info@HomerSWCD.org](mailto:info@HomerSWCD.org) and we will put you on our new newsletter list.

In partnership with USDA-NRCS, the HSWCD is an Equal Opportunity Provider and Employer



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