

# Natural Currents

# Spring 2022

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#### 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.

#### Homer Soil & Water Board of Supervisors

- Chris Rainwater -Chair
- Otto Kilcher -Vice Chair
- Jason Ritter
  -Treasurer
- Charlie Trowbridge -Secretary
- Jim Engebretsen -AACD representative

# The Newsletter for Homer Soil v Water Conservation District

In the natural cycle of things, fall is the time of harvest. But Homer soil and Water is not funded from garden harvest, it is funded on grants. Spring is the most intense season for grant writing and early summer is often when we begin to hear if our plans for projects have been funded.

I am pleased to say that our programs continue to be funded well and we are even looking into expanding some of our favorite programs. We will be repairing and improving more trails as well as identifying locations around salmon streams that will need to be repaired around the southern peninsula. We will be working on more properties to improve moose browse. We will be working on invasive species eradication and control around the entire peninsula. We will be able to work with more producers and growers to improve their production, diversity and markets.

#### How cool is that?

Two things make all this possible. First of all is our amazing staff. I'm still not sure how we got so lucky. Please read their brief introductions toward the end of this newsletter. They are a herd of unicorns; tremendously rare and absolutely magic.

The other thing that makes this possible is our partners. Again, how did we get so lucky? Just look at the last page of this newsletter and you will see what I mean. We have the opportunity to work with an array of partners, building trust, building projects and building community.

*Kyra Wagner* District Manager



### Lower Kenai Peninsula COMMUNITY FOOD SYSTEMS ASSET MAPPING WORKSHOP



ZOOM Tuesday, January 25 10:00am - 12:00 pm

What are our community's food systems assets? What tools do we have to leverage greater food security? How do they play into the larger statewide picture?

Back in January we invited local movers and shakers in our food system to help map out the strengths and weaknesses of our food system.

This workshop was part of a state-wide Regional Food Systems Partnership with the Alaska Food Policy Council. The input from this workshop and others like it being conducted all over the state will help to map out priorities for a sustainable food future for Alaska and create the first 10-year statewide food security action plan.

# Homer Soil & Water's Habitat Program



#### **Moose Habitat Enhancement Project**

In partnership with Alaska Department of Fish and Game, Homer Soil and Water Conservation District oversaw the completion of 2 moose browse enhancement projects this last winter. These projects were located within the Anchor River Fritz Creek Critical Habitat Area and totaled 84 acres of willow treated. Homer SWCD will continue to work with ADFnG to identify and implement future habitat enhancement projects in GMU 15C.



#### **Shaded Fuel Break**

Homer Soil and Water Conservation District, in partnership with Alaska Dept. of Fish and Game, Cook Inlet Regional Corporation and Salamatof Native Corporation have overseen the competition of a 5.5-mile long shaded fuel break in the Ridgeway area of Soldotna, Alaska. This project was a small piece of the larger "Sterling Fuel Break" which begins east of the town of Sterling, Alaska and continues to progress west to the Nikiski area. The fuel break not only provides a 300-foot cleared swath of land separating key public infrastructure from thousands of acres of Alaskan backcountry, but it also provides fire managers and wildland firefighters a location to conduct tactical wildland fire operations in the event of an approaching wildfire.





#### Got Land on the Southern Kenai Peninsula? - Become a Cooperator!

Being a "cooperator" is like being a member of your local Conservation District. The Homer Soil and Water Conservation District promotes the wise use of soils, water, and related land resources. By encouraging informed and sustainable use of these resources, the District promotes local environmental quality and economic vitality. <u>Sign up here.</u>

#### Making Sense of Caribou Lake Trail

Over the last 3 years, the NRCS has funded a Homer Soil and Water compilation of information about resource conditions and concerns along Caribou Lake Trail—a popular trail that connects East End Road to Caribou Lake. The goals is to provide information that can help trail users, planners, and managers better understand conditions along the trail, prioritize areas where trail use has caused impacts of concern, and identify potential management practices and remediation methods to help heal damaged areas. To make information easier to consider and think about, and to help with incremental, prioritized planning, much of the information is presented in terms of 12 trail sections, each of which represents a logical management unit in terms of conditions and concerns. Compiled information includes:

- high resolution drone imagery taken in June 2018 of each of the 12 trail sections;
- maps of the trail route, including maps of wetlands, soils, contours, and the state trail easement;
- information about the kinds of wetlands crossed by the trail; and
- recommendations for follow up actions.

#### Guide to compiled information about Caribou Lake Trail (State of Alaska ADL 219905)

Homer Soil and Water Conservation District, 2021

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To access information discussed in this compilation, go to the Files tab on the Facebook page <u>Caribou Lake Trail</u> <u>planning maps and images</u> or use the table on the following page to access the same files on the Homer Soil and Water Conservation District website.



All compiled information is publicly available through the "<u>Caribou Lake Trail planning maps and images</u>" <u>Facebook page</u> or via links to Homer Soil and Water's website. The Facebook page allows trail users and interested parties both to readily access compiled information and to share their own information or post questions. Alternatively, the <u>Guide to compiled information about Caribou Lake Trail (State of Alaska ADL</u> <u>219905</u>) describes the key kinds of information and provides links to all information uploaded to both the Facebook page and the Homer Soil and Water website.

#### Upcoming Event: PEST MANAGEMENT SECRETS: A Hands-On Gardening Workshop

Come learn some new techniques for efficient management of common garden pests, like weeds, slugs, and pest insects! This will be an in-person, hands-on workshop where you can see and learn about tools and techniques to effectively manage pests in your garden and encourage natural predators and healthy soil.

Where: Homer, AK Walker Field (6.5 mi East End Rd, first driveway east of the Golf Course)

When: Saturday, May 28: 1-3 PM

#### **Cattle Tracking in the Fox Fiver Flats**

During the 2021 grazing season, three unassuming mixedbreed cows on the Fox River Flats state grazing lease at the head of Kachemak Bay went online via the "Internet of Things," or IoT. (Their data can only be accessed by authorized users.) These three cows were wearing collars with two kinds of GPS tracking devices attached. One device was a small, light gray, direct-to-satellite (DtS) IoT unit that could communicate directly with overhead satellites when pointing skyward; it sent data twice a day accessible via an online app.

The other type of GPS device—a "gateway unit"—sent data via an antenna to a receiver connected to a router; the router was supposed to transfer data to the internet for online retrieval. The gateway system was set up in a remote cabin in the Fox River Flats and was powered by a solar panel connected to batteries.

To find out more about this USDA - NRCS funded project, including what did and didn't work and examples of GPS maps created from the units, check out <u>Field testing of livestock GPS tracking devices – update on units tested and data received 2021 grazing season in the Fox River Flats state grazing lease Progress Report for July through December 2021.</u>





Placing GPS tracking devices on the cows

For Facebook access to information related to the Fox River Flats state grazing lease and to learn about ongoing activ-

ities, check out Homer Soil and Water's FB page called <u>Fox River Flats and Beyond</u>. We'll also be hosting a public Zoom meeting this summer to share a variety of recent activities going on in the Flats and the Valley. Be sure to look for information about the Zoom meeting when we post dates and more information on <u>Fox River Flats and Beyond</u>, the <u>Homer Soil and Water Conservation District</u> Facebook page.



Cattle being herded on the grazing lease grounds at the head of Kachemak Bay

# **Homer Soil & Water's Invasives Corner**

#### News from the Kenai Peninsula Cooperative Invasive Species Management Area (KP-CISMA)

Check out the <u>2021 Annual Report</u> to learn about how the KP-CISMA continues to work together to protect our lands, waters, wildlife, and wellbeings from the harm of invasive species. Many thanks to our major funders: US Fish & Wildlife Service, Copper River Watershed Project, US Forest Service, Alaska Division of Forestry, and Kenai Peninsula Fish Habitat Partnership - for their continued support of the KP-CISMA!

KP-CISMA partners, including HSWCD staff, are gearing up for the 2022 field season and looking forward to spring training opportunities in plant identification, safe handling and use of herbicides, weed-free gravel inspection, and more!





#### **Get Involved!**

Alaska Invasive Species Awareness Week is June 13-19. Follow the KP-CISMA on Facebook to stay up-to-date on local events happening throughout the spring and summer.

#### From the Blog

Reflecting on his own transformative learning process, Natural Resource Specialist Patrick Houlihan talks herbicides and their role as a tool in the proverbial toolbelt of invasive plant management. Here's a teaser:

...you might not be surprised to hear that working with invasive plants involves herbicides. Going into this job, I had some skepticism about using herbicides. But they're one of the many tools laid out in our integrated pest management strategy...As I learned more about safe handling, proper mixing, and judicious application of herbicide...I developed an understanding of the utility of these products – there are times when other strategies (e.g., pulling, digging, smothering) just don't work."

Visit the KP-CISMA website to read the full post.

#### **Invasive Species Team Projects**

**Enjoy wandering the trails at Calvin and Coyle?** HSWCD and Kachemak Heritage Land Trust Saturday, May 21, 10:00 am-2:00 pm will help remove invasive European bird cherry trees from this beloved recreation area and important wildlife habitat. For more information, contact Jen Chauvet at jen@homerswcd.org.

<u>Weed-Free Programs</u> The invasives team recently attended a weed-free training in Palmer, where they brushed up on invasive plants identification and learned the ins and outs of inspecting gravel, forage, and mulch for invasive plants. Alaska's Weed Free certification programs offer forage and gravel producers a way to ensure their products meet national standards to reduce the spread of the most harmful invasive plants. Learn more about Alaska's Weed Free certification program on the <u>Alaska Plant Materials Center's website</u>."



# Ag Corner: The Waiting Game

By Monica Kopp, HSWCD Agriculture Program Coordinator As our days become noticeably longer, bare patches of ground grow more each day, and the

cranes and shorebirds return from their long winter away, surely all of you gardeners are itching to get your hands in the dirt and start planting. I myself put the plastic back on my high tunnel April 7, and have been allowing the extra solar heat to whittle away at the snow for the last three weeks. Now it is almost gone, and the crop residue left in the garden last fall is showing its remains - lettuce wilted into the soil and radishes as goopy blobs that look like washed-up sea creatures. I pick one up and rip it open - it is literally crawling with life. Little insects move about, devouring this mushy treat. It is delighting to see the decomposition that happens over the course of the winter.

This time of year can be excruciating - the sun is rapidly returning and you can feel summer's urgency coming, but at the same time all that anticipated momentum is painfully postponed by the gushy thawing ground and melting snow. A common theme in spring for garden enthusiasts is to always feel like you are behind schedule. The most ambitious and seasoned gardeners post photos of their beautiful starts lined up under grow lights and along windows in February and March, and people who haven't started seeds yet think they're hopelessly behind. You are not behind. Winter was so long. It feels like summer might flash by in an instant. But it won't. We will still have a healthy 92 days of (hopefully) frost-free weather. Leah Wagner of Foundroot, a small seed company in Haines, is my favorite procrastination-cheerleader. Every year she posts reminders that you are not too late to be planting things in mid June or even July. For reference, this is her last planting date for a few key crops:

Cabbage: 6/2 Broccoli: 6/9 Beets: 6/14 Carrots: 7/13 Radishes: 8/2

There is a good reason to wait. Insect pollinators and predators are still just waking up after spending the winter nestled under your leaf mulch, dead grass, and crop residue. Disturbing it now could harm these beneficial allies in your garden. Best to let that frost thaw, allow the soil to warm, and do your tilling and planting when things have woken up and dried out. Not only could you harm the beneficial critters living in your soil, tilling wet soil can also damage the structure of aggregates in your soil - the nice cohesive clumps of soil that create pore spaces that allow air and water to percolate through the soil and feed the life that is throughout it.



Photos by Monica Kopp

So what can you do now to satiate that itchy green thumb? Take some time to do some assessment in your garden and think about what you can do this year to improve your soil. Take a walk (or even crawl - I highly recommend hands and knees when assessing soil!) and do some observing. Pull out some old roots and take a close look. Are there earthworms taking shelter there? Can you find their larvae - the tiny white baby worms?

If you didn't get to it this fall, this is your last call to get a soil sample in and have it analyzed before you plant. We're experiencing a pretty speedy turnaround time these days - 15 days or less. Samples ship out on Friday at 4pm, so get it in before then for the best results.

Once the soil thaws enough, it's a great idea to use a broadfork to aerate the soil and break up any compaction from the winter's snow load. Did you know we have a broakfork available to loan out to cooperators? Give us a call and schedule a time to borrow it to see the benefits yourself! How do you know if your soil is dry enough to till? Take up a handful and give it a squeeze - if it drips, it's too wet. If not, you're good to go.

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Have you figured cover crops into your garden plan? For shorter-season crops, you can easily fit in a 6-8 week cover crop before or after those plantings to help cycle nutrients in your soil and contribute organic matter. One great plan would be to plant an early crop of salad greens, lettuce, or radishes and follow with a buckwheat, field pea, and oat mix that you then allow to winter-kill in the fall. Crop rotation is important too - it's particularly important from a pest management standpoint, but also from a nutrient cycling standpoint as well. Refraining from growing plants in the same family for three years breaks the life cycle of pests like the cabbage root maggot (and using crop rotation in conjunction with row cover is a very effective strategy for those beasts). It is also beneficial to alternate growing a heavy feeding crop like broccoli or tomato with light feeders like baby greens, carrots, or peas.

It's a lot to think about, so don't get too hung up on the details. Know you're not alone, and if you need help, just give us a call! Happy spring! - Monica

# Ag Program Highlights

## **Berry Shrub Propagation Workshop—IN PERSON!**

On Saturday, April 16th, 2022, HSWCD hosted an in-person workshop, led by experienced local berry shrub propagator Matt Iverson. Nearly 50 people attended to learn how to take cuttings from existing and established plants and grow them into beautiful berry patches..



Matt showed us how to select, trim and store cuttings, and how to care for them until it's time to grow roots. These techniques also work well for other native and ornamental shrubs! We began at Kenai Peninsula College's Kachemak Bay Campus on Pioneer Ave. in Homer, and then moved to a nearby berry patch for demonstrations. It was a blast!



# 2022 KNOW YOUR LAND series of talks

In case you missed any of this year's KNOW YOUR LAND Talks, it's not too late to catch up with the recordings. Simply email nicole@homerswcd.org to request a link to the recording of your choice:

- The Ins and Outs of Soil Sampling
- Spruce Beetles and Your Wood Pile
- High Tunnels 101
- Drip Irrigation Workshop

- How to Start Your First Garden Pt 1: Where and When to Plant
- How to Start Your First Garden Pt 2: Breaking Ground
- Know What you Grow: The Scoop on Invasive Plants

# Homer Grown radio show season 3 is HERE!

Season #3 kicked off with an episode featuring growers who have been supplying all the rest of us with gardening supplies for decades. Jeanne MacArthur- who has grown the starts you find at Wagon Wheel Garden and Pet for 40 years. And Al Poindexter - owner/ operator of Anchor Point Greenhouse and the man behind the locally made Fishy Peat and Alaska Earth potting soils.

Airs Saturdays at 11:00am on KBBI AM 890 or stream it <u>online</u>. All shows are available after broadcast on the KBBI AM 890 <u>website</u> or on their <u>podcast</u>.



#### Homer Green Infrastructure Stormwater Management

Synopsis of recent work by Patrick Houlihan

In February I had some fun winter field work, with City of Homer employees and Engineer, Geoff Coble, in a wetland along Kachemak Drive. There was a lot of snow and a lot of hungry moose around to keep us on our cold and snowshoed toes! That is until we postholed or tripped pulling the sleds of tools into the 20 sites in the area generally between Kachemak Drive and the Airport. Conditions were tough at times, but it was a good and helpful crew working well together.

When I heard about the project it seemed obvious "on the surface" that a wetland with a large capacity to absorb and slow water flow would already be part of stormwater runoff.



Mike Petit from City of Homer Public Works pulls a load of tools toward a site

I knew it ecologically and intrinsically made sense. However the project is about integrating the hardened (piped) stormwater runoff with the natural absorption of the peat that has built up over thousands of years.

My work consisted of manually drilling 20 shallow test wells beneath the snow. Each was hand drilled using a piece of steel pipe, 5 inches across, and four feet long, with handles on top and a hole saw welded on as a cutting edge at the bottom. After cutting into the spongy peat filled layer, a metal wedge was inserted down the pipe to



Engineer Geoff Coble reaches into a hole to extract a peat core

Soon, flumes will be installed in a few locations to measure flow in drainage ditches. All of this will contribute to better understanding how water is moving through the wetland, and how much water volume as runoff might be absorbed from the surrounding area. The goal is to slow down the flow, and reduce direct discharge along Mud Bay. This will reduce erosion and work with nature as Homer grows. You can learn much more about the City of Homer Green Infrastructure Stormwater Master Plan here:

https://www.arcgis.com/apps/MapJournal/ index.html? appid=2f427e99603a4c61979f5b4e64462096

hold the core in place while we pulled up on the welded handles on each side. (see photo). Invariably we found water beneath the snow, and some impressive flows into each test well, somewhat surprising since the snowpack and air were frozen. I assumed the ground beneath was just ice, not moving water. There was a frozen ground layer but also active water flow in this subnivean world. Monitoring of the water depth in the wells, (which consist of a 2' length of slotted PVC pipe), will occur throughout the seasons.

The cores of peat and soil we collected from each hole were subsampled and weighed, then measured for volume, dried and reweighed so percent water content could be determined. The samples were then systematically burned in a kiln to determine ash weight, to separate vegetative content from mineral soil weights.



It was hard, hand work to break through a frozen layer and here fit a well in place

#### **Anchor River Updates**

#### Enjoy an Anchor River Photo Journal of Activities in the Silverking Campground and Ma Walli Day Use Area, September 2020—December 2021

By Devony Lehner, HSWCD Habitat Program Specialist

With <u>Alaska Clean Water Actions (ACWA) program</u> funding from the Alaska Department of Environmental Conservation, <u>Homer Soil and Water Conservation District</u> is working to improve conditions for both people and juvenile salmon in the Silverking area of the Anchor River State Recreation Area. For those interested in what's been going on, the District has compiled an annotated photo journal to document conditions and activities from September 2020 through December 2021 in this area. Click <u>HERE</u> to open or download that photo journal.

Here's a little background: Two streambank sitesidentified as revegetation Site 1 and Site 2 in the photo journal—were revegetated in June 2019 through a previous ACWA partnership. The goal was to observe whether appropriate plantings on Anchor River streambanks could survive the flooding, icing, and other processes typical of the river. As it turns out, they can-and, in fact, visitors walking on the river's edge and scrambling down its banks cause more damage to riverbank plants and soils than natural river processes. These visitor impacts—which occur during the growing season when plants are most vulnerable—can damage or eliminate habitats right along the river's edge that are needed by juvenile salmon that rear in the lower Anchor River below the Old Sterling Highway bridge. Erosion caused by trampling and plant loss also reduces water quality.



After learning that revegetated areas on streambanks **could** survive river processes (as shown in the photo journal), additional efforts were undertaken to improve streambank conditions and protect riverbanks. And more efforts are planned for this summer. One approach is to offer anglers and other visitors platforms and stairs from which to enjoy the river without causing damage to streamside plants. In 2021, two platforms were installed in the Ma Walli Rock Day Use Area—one connected to stairs into the river and the other at revegetation Site 2 (see photos at right and below). In addition, a simple rope barrier with educational signage was strung along sections of the river to see if this discouraged streamside trampling (also shown at right). Activities like these are documented in the photo journal. Plans for additional streambank improvements are now being developed, including installation of "spruce tree revetments," willow and cottonwood plantings, and additional signage and fencing.

Plans for additional streambank improvements are now being developed, including installation of "spruce tree revetments," willow and cottonwood plantings, and additional signage and fencing. For more information as it becomes available, check the <u>Anchor River Updates Facebook page</u>.



August 2021 – Visitors enjoying the viewing platforms at revegetation Site 2. The platform and stairs are visible at far left of 2nd photo.

# **Meet The Staff**



#### Kyra Wagner, District Manager kyra@homerswcd.org

Kyra has now been with the district for six years. After years of experience as a general community volunteer she is now 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 in and what the latest issue may be.

#### **Agriculture Program**



#### Monica Kopp, Agriculture Program Coordinator monica@homerswcd.org

Monica was originally hired for our NRCS Soil Survey field work because of her excellent background in botany and soils. But then we discovered her passion for agriculture and her dedication to the soil of her own new farm. Now she does soil nutrient recommendations and leads our cover crop trials.

#### Nicole Arevalo, Outreach Coordinator & Food Systems Analyst nicole@homerswcd.org

Nicole was hired in 2018 to conduct the Food Systems Study for the southern peninsula, bringing 18 years work experience in food service and a BA in Anthropology. Since then, she's been our Ag outreach person, Ag in the Classroom coordinator and does other projects to help our local food system thrive.

#### **Invasive Species Program**



Katherine is our Invasive Species Manager. She has guided hikes in Denali NP, managed remote-sensing mapping projects, a statewide salmon data synthesis, and coordinated the Mat-Su Salmon Science Symposium. In her spare time, Katherine is a new mom and maintains a passion for botany and birding.



#### Jen Chauvet, Natural Resources Specialist jen@homerswcd.org

After two decades of work as a park ranger, naturalist, and environmental educator, Jen joined the HSWCD invasive species team in the fall of 2021, where she focuses much of her time on invasive species outreach and education. In her spare time, you can find Jen tending her modest garden, purposely getting lost in nature, and chasing her rowdy dogs down the beach.

#### Casey Greenstein, Invasive Species Specialist casey@homerswcd.org

Casey has her own private business addressing invasive weeds and soil contaminants but has joined the ranks at Homer Soil and Water to bring her expertise to the invasives program.

#### Patrick Houlihan, Invasives Program Field Coordinator patrick@homerswcd.org

For just over a year Patrick has loved working with HSWCD as Invasives Program Field Coordinator., He also still works with Alaska Department of Fish and Game where he has enjoyed all kinds of salmon and habitat related fieldwork for over 20 seasons.

#### Land Management



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.

#### Matthew James, Forester mattjames@homerswcd.org

Matt was hired in June of 2020 as a Forester. He works closely with the ADF&G to complete moose habitat restoration projects on the Kenai Peninsula as well as working on trails issues. Matt is a long time Homer resident and has recently finished up a 25-year career of wildland firefighting with the Division of Forestry.



# A huge thank you to all our partners!

