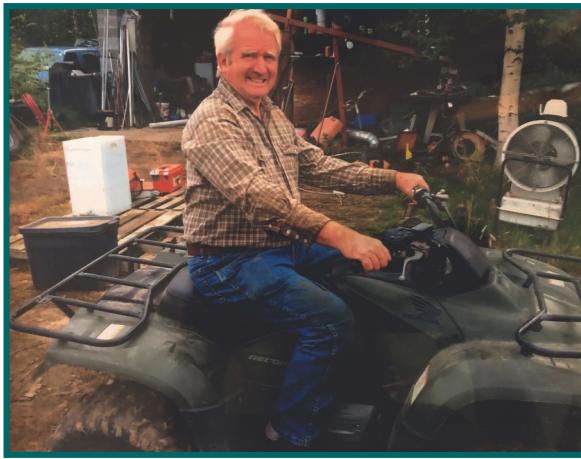


Winter Newsletter



Randy Scharfenberg Memorial

It is with great sadness that FSWCD shares the passing of Randy Scharfenberg, the President of our Board of Directors, and husband to Joni Scharfenberg, our District Coordinator. For more than a decade, Randy provided leadership and support to the District by serving on its board.

With great care for the District and the staff, Randy was a strong influence on the work completed during his tenure, expanding FSWCD's support of local farms and increasing the number of agricultural and educational programs offered to the Interior. Even years before serving FSWCD, he won the award for Cooperator of the Year in the '90s, demonstrating the long-standing passion for agriculture and strong work ethic for which he was well known.



NRCS Program: Opportunity to Protect Wetlands and Farmlands through Conservation Easements

The USDA Natural Resources Conservation Service (NRCS) in Alaska has funding available to help private landowners protect wetlands, grasslands and farmlands from future development. This funding is available through the Agricultural Conservation Easement Program (ACEP), with the next application deadline coming up on Feb. 19, 2021.

ACEP is open to Alaska Native tribes and corporations, state and local governments, and non-governmental organizations that own privately-owned farmlands, wetlands or grasslands. Through ACEP, NRCS provides financial and technical assistance to secure easements for both working agricultural lands and for wetlands.

The program has two components: Agricultural Land Easements (ALE) and Wetland Reserve Easements (WRE).

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Agricultural Land Easements

Under ALE, NRCS provides matching funds to eligible entities to purchase permanent easements that protect the agricultural use and conservation values of the land. An example of an eligible entity is a land trust. ALE easements prevent productive working lands from being converted to non-agricultural uses, keeping the land in agriculture for future generations. They support and maximize protection of land devoted to food and fiber production. Cropland, rangeland, grassland, pastureland and non-industrial private forestland are all eligible for ALE.

"Conservation easements help ensure the long-term viability of agriculture in Alaska... this program is of paramount importance to protect agricultural lands and keep them productive for future generations, as well as protecting critical wetland habitats." ~ Conservationist Alan McBee



Applications will be reviewed in accordance with the new ACEP interim rule and policy. All applicants must ensure their eligibility documentation is current for fiscal year 2021 per the program rules.

Only properly completed and executed applications that are submitted on the appropriate forms and accompanied by all required supporting documentation by February 19th will be considered for funding in fiscal year 2021.

Submit completed applications to: Jackie Kragel, Easement Program Manager. Email: Jackie.Kragel@usda.gov. Phone: (907)761-7716.

To learn more about ACEP and the requirements for submitting a complete application, visit the NRCS Alaska ACEP webpage at [Agricultural Conservation Easement Program](#). For additional information on applying for NRCS conservation programs, visit [www.nrcs.usda.gov/GetStarted](#) or call your local USDA Service Center at (907) 479-3159.



FSWCD Collaborates to Create the AFFECT Community Farm Project

FSWCD's work in local agriculture continues with excitement as we begin the AFFECT Community Farm Project, supported by the Community Foods grant no. 2020-33800-33139 from the USDA National Institute of Food and Agriculture. The project aims to build a more robust local food system in Interior Alaska by growing food year-round in an indoor hydroponics farm and offering job training courses to anyone in the community that is interested in growing their own food or starting their own agricultural business.

In collaboration with Yukon Farms, Information Insights, Alaska 4-H, and the Fairbanks Community Food Bank, FSWCD will offer conventional and hydroponic farm training, food & nutrition classes, and volunteer opportunities that are free and open to the public. An indoor

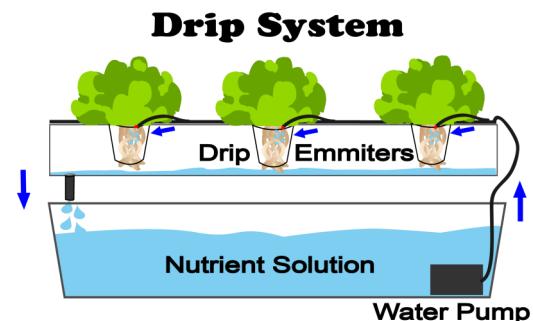
Wetland Reserve Easements

Under WRE, NRCS provides matching funds for the purchase of 30-year or permanent easements and for wetland restoration activities. These easements restore and enhance wetlands and improve habitat for a variety of fish, migratory birds and other wildlife. WRE projects also improve water quality, reduce flood damage, and encourage outdoor education and recreation. Eligible lands include farmed or converted wetlands that can be successfully and cost-effectively restored.

hydroponic farm located in the South Cushman area will provide a year-round source of greens and vegetables that will be sold locally and donated to the food bank's Food Is Medicine program.

Contact Melissa Sikes at 907-479-1213 x5 or AFFECT-farm@gmail.com for more information.

A simple diagram of a hydroponic drip system:



In collaboration with the Georgeson Botanical Garden, FSWCD brings you:

The Pollinator Art Gallery

Summer 2021

We have a new pollinator project in the works! Our resident artist Renee Nowicki is currently drawing colored pencil illustrations of local pollinators that will be on display at the Georgeson Botanical Garden this summer. Each artwork will be printed onto 24" x 36" weatherproof signs so visitors can get an up close and personal look at every insect—learn about their names, habitats, and defining characteristics. These signs will be placed around the garden where you'll find each species—it's a fun wildlife scavenger hunt for the whole family! Can you find all the pollinators?

Below are 3 finished drawings—keep reading for more information on how you can receive an exclusive pollinator art print and support this project!



Canadian Tiger Swallowtail
Papilio canadensis
(puh·pill·ee·oh – can·uh·den·sis)

The Canadian Tiger Swallowtail is Fairbanks' most common swallowtail butterfly. They can be found at the Georgeson Botanical Garden sipping on crab apple flowers, lilac shrubs, and other flowering plants.



Flower Fly
Parasyrphus tarsatus
(pair·uh·sir·fuss – tar·sat·us)

Flower Flies are common wasp mimicking flies. They are easily mistaken for yellow jackets, but they lack both a stinger and venom. Flower flies are efficient pollinators and important pest control—flower fly larvae are voracious aphid predators, while adults drink nectar and eat pollen for energy.



Red-disked Alpine (♂)
Erebia discoidalis
(er·ree·bee·ya – diss·coy·dal·iss)

The Red-disked Alpine is a dark chocolate colored butterfly with subtle smoky-grey coloration along wing edges. Most of the species in the genus *Erebia* have dark brown-black wings—the dark color helps to keep these butterflies warm, as it absorbs more solar radiation than light colors.

This project needs public donations – if you are interested in supporting native pollinator education, please consider donating any amount or purchasing a “Tier Bundle”. If you purchase one of these bundles, you get extra perks! You can receive a custom Thank You card featuring the artist’s work, an 8.5”x11” pollinator print, or a sign can be installed in your name.

Donations and Tier Bundles can be purchased at <https://www.fairbankssoilwater.org/pollinators.htm>.

On-Farm Pesticide Grant: learn safe, at-home application techniques



If you've gardened or farmed in Interior Alaska and know about growing in the lower 48, you also know that one benefit to our **long, dark, cold** winters is the near lack of pests in our growing spaces. Not many insects or disease causing nuisances can survive our winters. Think of the Colorado Potato Beetle as a "Cheechako" Potato Beetle.

Because of our low pest pressure, not many farms or gardens find themselves needing to use pesticides (most of these fall into the categories of [insecticides](#), [fungicides](#) or [herbicides](#)). Some farms do use them and FSWCD is here to help in any way that we can! We've received a pesticide use grant through our federal partner, the Natural Resource Conservation

Service. Through this grant we've hosted a Pesticide Safety Workshop at the Annual Peony Conference, and are now looking for farmer partners to expand upon our work.

The NRCS offers many technical and financial opportunities to qualified farms, including practices that involve pesticide handling and application. The basis of this work is to ensure agrichemicals are used appropriately and safely in order to protect ourselves, wildlife, and other natural resources.

We will work with farms to assess their pesticide use and safety protocols, as well as work with any farm that would like to develop a more comprehensive pesticide application plan. If you'd like more information on this program, please contact Brian at brian.fswcd@gmail.com.

Web Soil Surveys: Do you know what your soil needs?



Brian Atkinson samples soil with BLM near Tonsina.

FSWCD doesn't just help with the soil health in your garden or on your farm, we also help more generally with soil identifications and soil surveys! What is a soil survey you ask? This October we assisted the Bureau of Land Management with an ecological survey to the north of Thompson Pass, near Tonsina. These soil and plant surveys are conducted on many of our Nation's public lands and they help to identify and map our natural resources.

One place that you can explore the output generated from such surveys is the NRCS soil survey website. Go to <https://websoilsurvey.sc.egov.usda.gov> to find the soil that you are located on or nearly any soil in the United States. This information can be used for ecological and environmental purposes, identifying sites with good construction materials, soils

that are good for buildings with certain types of foundations or septic systems, or our favorite use, identifying soils for their agricultural potential!

Not all soils are the same, and if you've lived in Fairbanks for any amount of time you know this. Soils that are down low in black spruce forests tend to be poorly drained with permafrost underlain.

South facing slopes with birch or aspen may have discontinuous permafrost and well drained soils, making them better candidates for buildings and agricultural productivity. Even on very small scales our soils can change drastically, which can influence where you decide to put the cabin, peony or hay field.

If you want to find out more about soils or Web Soil Survey, contact Brian at brian.fswcd@gmail.com.

Tree Sale 2021

Thanks to everyone for participating in the 2020 Tree Sale survey. It's helped us identify where we can improve, and helped us select new tree and shrub species that you would like us to sell in 2021.

As a reminder, we thoroughly vet each plant species to avoid selling any known invasive species (plants like Bird Vetch that have the potential to escape and take over natural landscapes). We have a whole department working tirelessly on combating invasive plants, so we don't want to inadvertently introduce any others and create more work for them! This means, sadly, no Siberian Pea Shrub or Choke-cherry, but we try to offer alternatives to these plants as best as we can.

We are waiting on more information to decide on whether or not an in-person event can be safely held such as in year's past. As of right now, we anticipate that we will be relying on a Pre-Sale and Pick-Up only event, similar to 2020.

In 2021 we have a wide selection of new and familiar plants available, that will be available for purchase starting in February. If you'd like to be added to the tree sale notification list, or have any other questions, please contact Brian at brian.fswcd@gmail.com



Just like last year, we will ensure the public's safety with pre-orders and pickup-only sales.

- **American Plum**
- Birch**
- Golden Currant**
- Honeyberry**
- Iris**
- Manchurian Apricot**
- **Manchurian Pear**
- Mock orange**
- Nanking Cherry**
- Peony**
- Red Raspberry, Latham Raspberry, Sweet Anne**

- Red Osier Dogwood**
- *Scotch Pine**
- *Sea Buckthorn**
- Serviceberry**
- Siberian Crabapple**
- *Siberian Elm**
- Siberian Larch**
- Silverberry**
- Strawberry**
- *White Lilac**
- White spruce**

*New listing

****Plum and Pear were low stock in 2020, both are well stocked for 2021 sale**

USDA Zone Hardiness

Zone hardiness is an indication of a plant's specific ability to survive in a given climatic zone. Fairbanks' zone ranges from 1a – 3b, the coldest anywhere in the United States.

Unfortunately, we have to source most of our inventory from lower 48 nurseries. While we try and select from the coldest nurseries there, we cannot guarantee the survival of any of our plants. Lower 48 plants can be exposed to extremely cold temperatures, rivaling Fairbanks' lows, but their accustomed seasonal length and number of growing days can leave them vulnerable once transplanted in Fairbanks as well.





Invasives: 2020 Elodea Progress

During the 2020 season, the Fairbanks Soil and Water Conservation District (FSWCD) invasive species team worked on elodea eradication efforts in 6 water bodies in Interior Alaska. FSWCD and its state and federal partners completed herbicide treatments and monitoring activity to eradicate invasive elodea in Chena Slough, Totchaket Slough, Chena Lake, Bathing Beauty Pond, Birch Lake, and Hot Springs Slough in Manley. Elodea has been almost completely eliminated in Totchaket Slough and Chena Slough, which have been treated for 3 and 4 years respectively.

The FSWCD team conducted early detection surveys for elodea in high-risk lakes, floatponds,

Colin Mckenzie takes a selfie near the Manley Hot Springs slough bridge.



and sloughs near Fairbanks, Nenana, Manley, and Delta Junction. As a result, they detected three new elodea infestations in Harding Lake, Piledriver Slough, and Chisholm Lake. All of these water bodies are in the vicinity of known elodea infestations that are currently being treated. Treatment plans for the new infestations are currently being developed.

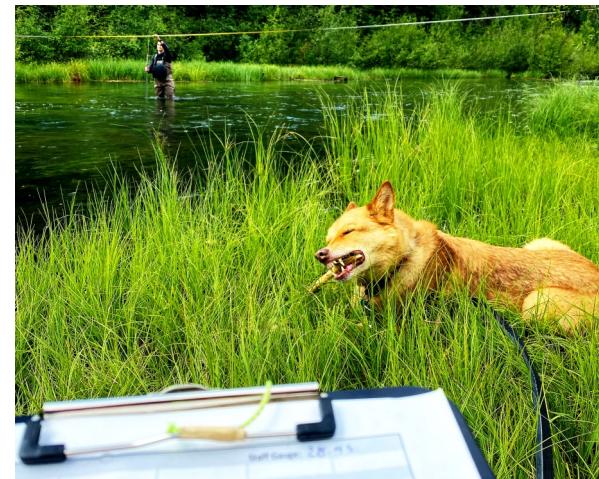


Aditi Shenoy uses a modified potato gun to treat the slough with herbicide pellets.

2020 outreach events were put on hold due to Covid 19 but FSWCD still achieved some outreach objectives through community engagement and sign installation. Over 30 “Clean, Drain, Dry” signs were installed at public use areas along popular water bodies in the Interior as well as signs specifically designated for elodea infested sites.



Kyla Rhode measures the rate of water flow in the Chena River slough.



Kota, Colin’s senior dog, keeps the technicians’ company while they collect data in the field.

2021 is shaping up to be a busy and productive season for the invasive species team, and they are looking forward to getting back into the field!



Fairbanks Youth for Habitat 2020 Season

In 2020, the Fairbanks Soil and Water Conservation District (FSWCD) took on the 11th season of the Fairbanks Youth for Habitat (FYH) Program. This year, 8 students participated in the Beginner Corps, while 13 participated in the Advanced Corps. The 21 participants worked hard to accomplish as many program goals as possible, though 2020 had significant challenges including cold temperatures, above average rainfall, flood-



Groups of 7th and 8th graders spent part of their summer working in the Beginner Corps crews; they learned from multiple natural resource professionals, assisted in long term research projects, and worked on green infrastructure projects. As part of their minnow monitoring efforts, 931 native fish species were trapped and identified, including one chinook salmon! These students will join FSWCD again in Summer 2021 as Advanced Corps crew members, where they will take on bigger restoration projects, seeing them through from conception to completion.

Our Advanced Corps crews, now in 9th and 10th grade, returned from the 2019 season to complete two larger scale projects; both Advanced Corps crews undertook significant riparian restoration projects along the Chena River. Com-

pletion of these projects required designing, planning, budgeting, and finally, performing the labor as a team. Both crews rose above many challenges and completed their projects to the best of their abilities, improving riparian habitat for salmon species, and providing critical stabilization for heavily used areas of riverbank. In total, about 420 feet of riverbank was restored and improved this season.



Overall, we are so proud of the work our crews were able to complete this summer, given the unprecedented challenges they faced. Participants this year maintained their focus, determination, and good humor, and used these talents to produce high quality work that will benefit our community and ecology for years to come.



ing, and the COVID-19 pandemic. Despite these pressures, the crews worked exceptionally hard to improve community spaces, collaborated with local partners, contributed to research, learned from resource professionals, and engaged with their local environment.



Transitions: Alaskan Soils to Wisconsin Farms

I've been lucky enough to work with many of you over the past few years, whether it was through our soil testing program, tree sale, or farm demonstration projects. This spring I'll be returning to Wisconsin to help on the family farm.

This wasn't an easy decision by any means, I've come to view Fairbanks as my home and my FSWCD cohorts as family. Ironically, this has somewhat inspired me to return back to farming, as I've come to more fully appreciate my own role in the stewardship of the family farm while in Fairbanks.