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CONSERVATION DISTRICT
The Nexus

Black Dog Ranch - A Small Farm Makeover

By Shannon Finch, Farm Owner

I contacted the Snohomish Conservation District in March 2012 primarily because I wanted advice about building a track paddock for our horses.

The Conservation District's Earthcorps crew worked for several days clearing 1.2 tons of invasive yellow iris from the Finch farm near Stanwood.

Our five acres near Stanwood includes two unnamed streams, two ponds, and a second-growth cedar forest. The streams are habitat for coastal cutthroat trout and coho salmon. They eventually drain into Pilchuck Creek, which is spawning ground for steelhead trout, endangered bullhead trout and critically endangered Chinook salmon.

Water and Livestock Don't Mix

The water features and forest make this property less than ideal for livestock. When my husband Brian and I bought it in 1997, we had two horses, but the population expanded to include another horse and two elderly donkeys. I hoped a track paddock would give them room to move around naturally while restricting access to the pastures, particularly in the winter when the ground was wet.

I also wanted advice about rehabilitating our ponds. The previous owner created them from the seasonal creek that crosses the lower part of the property. For years the ponds supported all kinds of creatures, including four koi the previous owner raised.

Over time though, the ponds became choked with duckweed and milfoil. The crawdads and minnows disappeared, and then the koi mysteriously died. While it was easy to blame upstream neighbors for pesticide runoff and illegal logging that silted up the ponds, I suspected that we were part of the problem too. Or I should say, our horses and donkeys were part of the problem.

A Resource Drains Away

A horse can produce around 50 pounds of manure a day, and even if we counted the donkeys as one horse, that's a lot of manure. Because our property sits at the bottom of a gradual hill, water naturally drained to the lowest point: the creek and our ponds. Rain runoff passed directly in front of the manure pile. We tried to contain the pile and kept it covered, but during big rains or snowmelt, water would spread to the pile and inevitably take manure with it towards the ponds. I can't tell you how often I was out in the pouring rain shoveling poop to higher ground.

While manure supplies important nutrients like nitrogen and phosphorus for plants, these nutrients in a water body can be too much of a good thing. The water can become highly enriched, creating algae blooms and overgrowth of other aquatic plants. When the algae and plants die, the decomposition process uses up oxygen in the water, suffocating the fish and other organisms. I suspect this is what happened to the koi. And if manure was getting into the ponds, it was likely being carried downstream, too. Runoff from our farm might not be a big deal, but there are hundreds of small farms in the Stillaguamish Watershed. If all of us are creating waste that ends up in the streams and rivers, that's a big impact. We didn't want to be part of this problem.

Searching for Solutions

I first met with District farm planners Brett de Vries and Alan Shank at our farm. We determined that the track paddock wasn't a viable idea because of all the water features on the property, but there were a number of other things we could do for the health of our horses and the environment.

Brett arranged another visit to our farm with fellow planner Megan O'Brian and engineer Kelly Cahill. They walked the property, taking measurements and notes, conferring excitedly amongst themselves. Brett explained that we were doing many things right, and that we could do so much more. Megan outlined the cost-share program and possible grants available to us to make the plan affordable. I was caught up in their enthusiasm, and agreed to implement a farm plan.

The new bins help keep the manure contained and away from streams and wet areas, and easier for the owners to use!

Corral the Poop

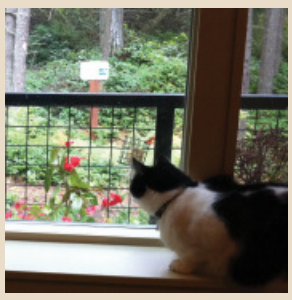
In July 2012 we completed our first project (left): three compost bins to contain the manure and keep it out of the waterway. We also graveled the area in front of the bins to prevent mud buildup. My husband Brian did the work, and he added a jaunty tent cover to keep the piles from getting too

Continued on page 2 ~

Spring 2014

Serving Snohomish County and Camano Island

Need Help With Your Yard Project?



Cost-Sharing Available for Residential Projects

The Snohomish Conservation District is dedicated to helping landowners make projects a reality – from start to finish. Now is the perfect time to begin thinking about ways to enhance your landscape – with rainwater catchment, sustainable landscaping, rain gardens, and more.

If you have always wanted to do something positive for your yard and the environment, but have hesitated due to the cost – let's talk! The Conservation District is offering a new and improved cost-share program for these types of projects, with increased construction support and incentives (up to $1,000).

Contact Kate at 425-335-5634 ext 119, or kate@snohomishcd.org.

Inside

- Soggy Yard Makeover
- Quick Fix for Lawns
- Heirlooms Return
- Compost Options
- New Funding
- Students Go Hands-on
- Make a Rain Barrel
- Events and more

Red Flowering Currant - a favorite of returning hummingbirds in early Spring.

Black Dog Ranch - *continued*

wet.
The bins looked so clean that I didn't want to sully them with manure, but I got over that. It helped when the donkeys started pooping in them on their own. We saw the benefits of the bins immediately: that first winter we had no runoff. No more pushing a heavy wheelbarrow through gloppy mud! No more frantic late night shoveling in the middle of a rainstorm!

Fence Them Out

Our next project was building a sturdier fence around the ponds. The old fence was T-posts and electric tape, and if the power went out, the horses and donkeys could walk right through it (and often did). The weathered tape arced and popped, stressing the horses and requiring constant maintenance. A new fence could only be an improvement. The only catch was that the recommended distance for livestock from a water body was 35 feet, which meant I would have to give up some of my already small pastures. This was the only time during the project that I wavered. In the end I decided it was more important to adequately protect the ponds, and we moved forward with the fence.

In October 2012, fencing contractor Monte Gerdes and his crew installed 700 feet of wood posts and Equi-Braid rope, which is safer for the horses than wire. The rope is solid enough that even if the power goes out, the horses don't test it. The loss of pasture hasn't been a problem, and the fence needs minimal maintenance, which makes Brian happy.

267 Native Plants in the Ground

On a cold day in February 2013, habitat specialist Kristin Marshall and I staged 267 native trees, shrubs and ground covers—with great names like Nootka rose, Pacific crabapple, cascara, twinberry, snowberry, and kinnikinnick—around the ponds. These plants provide food and shelter for numerous insects, birds and mammals, and as they mature, they will shade the ponds — making them less hospitable to algae. They also create a vegetative buffer to filter any runoff. Originally I was going to do the planting myself, but Kristin helped me come to my senses and contracted with an EarthCorps crew to help with the planting. The crew also removed over a ton—literally—of non-native iris.

Stop the Mud Madness

Mud is an unpleasant reality during our Northwest winters. It's not healthy for the horses and makes manure picking difficult. In September 2013, we began construction of a sacrifice area, also known as a winter confinement area.

Contractor Bill Neal, of All-Ways Construction, and his son began by grading a 50 ft. x 60 ft. area by the barn. They then put down a filter fabric and covered it with six inches of gravel. Brian then fenced the area to match the pond fence. It's sturdy and even if the power goes out, the horses will stay in. Like the compost bins, the sacrifice area looked so clean that I didn't want the horses to poop on it. For the first few weeks, I admit I picked up stray bits of manure by hand; I got over that, too.

The sacrifice area has been an unqualified success. This past winter, even with major downpours, we've had absolutely no mud and any puddles drain very quickly. Cleaning is easy, and my farrier says that my horse's hooves

Above, geo-textile fabric is laid down. Below, crushed rock is then placed over the geo-textile fabric and lastly, fencing can be installed.

are much healthier.
The downside, at least from the horses' point of view, is that they aren't on the grass in the winter. I've had to provide them with some enrichment activities so they wouldn't go mad and tear down the barn. It's a small inconvenience compared to the benefits of a mud-free area and healthier pastures for spring.

We've accomplished a lot in a year and a half, projects we likely wouldn't have done on our own. This has been the best of partnerships. Because the Conservation District is non-regulatory, we never worried that we were going to get "in trouble" with the county or state. The goal was simply to guide us towards best practices that benefitted both the environment and the horses.

We are currently working on a rain garden which will collect and filter water from our roof instead of it draining down into the ponds. I wish there were other projects we could do so we can continue working with the Snohomish

More on Black Dog Ranch

Ranch Tour

May 17, 10 AM - Noon

Stanwood (Victoria Heights near Pilchuck Tree Farm)

This Stanwood farm, belonging to Brian and Shannon Finch, has three horses, two donkeys and just about every example of the practices that will keep your horse's hooves healthy, your manure pile manageable and your pastures green.

The landowner has worked with the Snohomish Conservation District to install compost bins, confinement areas and fencing, revive their pastures and restore their pond. Now they're working on a rain garden. Get ideas for your own summer projects and learn from the experts. You'll also see great examples of how you can provide habitat for wildlife while keeping your own animals happy and healthy. Register online at:

farmtour-stanwood.eventbrite.com

Video Sneak Peek of Ranch

Get a sneak peek at Black Dog Ranch before the farm tour. Check out this short two minute video - you'll meet owner Shannon Finch and hear about her experience working with the Conservation District. You'll also get to see a few of the practices she's put into place, including a pond restoration project, compost bins, and a brand new confinement area.

bit.ly/sfinch

Don't Miss Your Chance to Earn a Sound Horsekeeping Sign in 2014!

Are you happy to have made improvements on your 'place in the country' or are eagerly planning new ones? If so, and if you have horses, you can earn a Sound Horsekeeping sign like this one.

Have you taken steps to improve your pastures, reduce mud, manage the manure and/or provide wildlife habitat? Maybe you've put gutters and downspouts on your barn, built a confinement area, covered your manure pile or taken a soil test. If you've installed at least three recommended practices on your farm or acreage, you are probably eligible for a sign.

Learn More

For more information on the Sound Horsekeeping program, please email Jessica@snohomishcd.org or you can fill out the checklist located here: https://www.surveymonkey.com/s/soundhorse. Remember, you don't have to be doing everything on the checklist to qualify for the sign!

Rain Garden to the Rescue

by Derek Hann, P.E., Conservation District Engineer

Steve and Amy Kiffe, of East Marysville, had a very wet backyard. It included a grass hill that was about ten feet higher than their house. A large housing development sat at the top. Whenever there was a storm, rain from the housing development's roofs and roads would flow down the hill and pool in a flat area between their house and the slope.

This area was so wet it couldn't be walked on in the winter, much less mowed. The Kiffes couldn't get the water to absorb into the native soil or to flow around the house to the street. It just stayed there and made the yard one soggy, marshy mess. Consequently, their yard was unusable most of the year, and it did not look good. So the Kiffes called the Snohomish Conservation District after talking to me at our booth during Everett's Sorticulture 2012 event. They asked me to check out their wet yard and drainage situation, and see if a rain garden would help.

The Kiffe yard in East Marysville was wet, soggy and mostly unusable.

I walked the property with the Kiffes in June 2012 and examined the existing soil, slope and drainage conditions. While not every yard can benefit from a rain garden, I could tell that theirs certainly could. I also asked what they wanted their rain garden to look like. With that information in hand, I went back to the District office and prepared a rain garden plan for them. The plan consisted of a set of drawings, a letter giving them construction advice, a construction checklist, a list of contractors and resources, and a Rain Garden Handbook. The cost of preparing this plan was totally covered by the Snohomish County Assessment; the Kiffes didn't have to pay a thing.

My plan included a rain garden that covered about 300 square feet and an eighteen-inch tall compost berm (a natural curb) that stretched along the bottom of their hill. Runoff from the hill would be intercepted by the compost berm and redirected into the rain garden. The rain garden was designed to act as a collection point for all the runoff from the slope and the rest of their yard. It was okay for this rain garden to be wet much of the year, because one of its purposes is to drain a larger area (in this case the Kiffe's yard) to help that area stay dry.

An overflow was designed for the rain garden that joined a piped drainage system used by their existing downspouts. This ensured that any excess water from the rain garden would be redirected to the storm drainage system, instead of creating another pond in their yard.

A new rain garden makes the yard usable and beautiful as well.

The Kiffes decided to have a contractor build the rain garden instead of doing it themselves. During construction late that summer, they learned that the drainage system for their downspouts was quite degraded and almost fully plugged with silt. That meant they also needed to replace their drainage pipe system, and this added to the overall project's cost. The Kiffes said that while they were surprised by the added cost, they were still very glad they had the rain garden built, and the entire system was well worth the money they paid for it.

The rain garden has significantly improved their backyard. The garden stays wet during the winter, but the rest of the yard has been much drier. Their daughter is actually able to play in the yard now and the backyard's aesthetic is wonderful. The whole yard looks like a garden. They've set up a sitting area and love spending time in the yard, where before it was only a nuisance. The property's value has significantly improved, and the damaging effects of standing water on the property have been eliminated.

To find out if a rain garden would be appropriate on your property and have us design it for you, call Kate Riley at 425-335-5634 ext 112, or Derek Hann at 425-335-5635 ext 119. We'd be glad to arrange a visit, walk your property, and develop a free plan to help solve your water-related problems.

The Kiffes made a video of transforming their wet, soggy yard to a new, attractive rain garden that also helps to alleviate a myriad of drainage issues. Watch the video at:

bit.ly/kiffe

Lawns Benefit From a Little TLC

by Kate Riley, Community Engagement Program Manager

Let's admit it: we Americans do like our lawns. We get out there and mow and fertilize them, and in the end they look so lush and green. And they're great places for our kids and pets to romp around on, too. But those lovely green lawns come with a price attached – sometimes it's in the form of our time on weekends, or it's in the form of increasingly high water bills. But another price that we don't often see is the harmful effect that lawns have downstream – in our lakes and rivers, and even in Puget Sound.

Healthy Soil = Healthy Lawns

Turf lawns are one of the biggest contributors to the runoff that causes problems in our watersheds, like algal blooms and loss of fish life. Although the chemicals we use play a role, the real issue is the typical lawn's inability to absorb moisture. Because of their thick, matted roots, and because much of the good topsoil was scraped off during construction, lawns do not allow water to soak in easily – hence the need for a lot of irrigating and fertilizing.

Aerating and Amending are Key

If you want a lush lawn, but want to do it right, consider aerating it and amending it with compost, at least once a year. Late spring is the perfect time to do this, when the soil is moist but not wet. There are two types of aerators – spike and core.

Core aerators are the most effective, and take soil plugs (about the size of a wine cork - see photo below) out of your lawn mechanically. Leave these plugs on your lawn to decompose and provide nutrients, or compost them. Many equipment companies rent aerators for a day. Share one with your neighbors and have a different kind of lawn party!

A lawn plug removed by an aerator. This allows air, water and nutrients to filter down into the root zone. Add compost and worms will do the rest! Photo by Rick Longnecker, Olympia Stream Team.

At this party you won't have to worry about keeping your kids or pets off the lawn after you've finished aerating, unlike you do after applying chemicals. Better yet, put your kids to work in the second step in this process – amending your lawn with compost. Compost will act like a sponge in your lawn's new holes, helping grass roots and the underlying soil absorb nutrients, water and oxygen.

After making two full passes across your lawn with the aerator, take hand or shovelfuls of high-quality compost and broadcast it on your yard, one-fourth to one-half inch deep. Then rake the compost around (most will fall into the new holes), and you're done! You have singlehandedly changed the fate of your yard – from being part of the problem, to being the solution!

Are Heirloom Plants our Future Heroes?

by Donna Gleisner, The Written Edge

Heirloom ~ an antique, birthright, gift, inheritance, legacy

For time immemorial, saving seeds was synonymous with farming. During harvest, farmers and growers hand-selected the best of their corn or wheat or oat crop and saved them to use as seeds for next year's crop. In this way, the best vegetable and fruit plants were continually improved year after year, their seeds often passed down generation after generation, sometimes even traveling cross country or over the ocean with a family or relative to a whole new environment.

Around the turn of 20th century however, plant scientists who studied plant breeding and seed genetics started experimenting with corn (the country's most planted crop at the time) to improve its yield. Little did they know they would basically spark a revolution in agriculture.

Heirloom plants are a treasure for future generations to plant and harvest.

The Hybrid Revolution

The first hybrid corn plant was created in 1924. [A hybrid plant is the offspring of two plants of different breeds, varieties or species, especially as produced via human manipulation for specific genetic characteristics.] By the 1930s, the first hybrid corn seed was on the commercial market. It grew better under drought and dense planting conditions, but farmers weren't interested. However, after major droughts in 1934 and 1936 across the Midwest (the Corn Belt that became part of the devastating Dust Bowl), many farmers switched to hybrid corn and never looked back. By the 1950s, most of the commercial corn grown in the U.S. used hybrid seed.

Fast-forward another century to the year 2000, and it was uncommon to find any gardener who saved seed. In the last hundred years, farmers and gardeners have become widely dependent on seed companies. Today the seed industry is so concentrated that just five large multinational corporations control 75 percent of the world's vegetable seed market. They add and drop vegetable varieties according to their financial interests. Many of today's plant varieties have only one commercial source. If they are dropped, they will disappear and you won't be able to get them – unless you save seed.

Luckily for our future, interest in heirloom gardening and saving seeds has been making a valiant comeback, much like a tried and true perennial. The trend of growing heirloom plants has been increasing in popularity in North America and Europe in recent decades.

What Makes a Plant an "Heirloom"?

This is where things get a bit 'muddy'. Some say a plant must be more than 100 years old to be an heirloom, others say 50 years old. Still others prefer the year 1945, which marked the end of World War II, increased mechanization on farms, and the broad introduction of hybrid seeds. Yet other say it's the year 1951, when the use of hybrid varieties by farmers was quite widespread throughout the country.

Another more literal definition of an heirloom plant is "a cultivated variety (or cultivar for short) that has been nurtured, selected and handed down from one family member to another for many generations". Additionally, there is another category that could be classified as "commercial heirlooms", cultivars that were introduced many generations ago and were of such merit that they've been saved, maintained and handed down – even if the seed company went out of business or dropped the seed line. In fact, many old commercial releases were actually family heirlooms that a seed company obtained and introduced.

Regardless of a person's specific interpretation, most authorities agree that heirlooms, by definition, must be open-pollinated (pollinated by insects, birds, wind or other natural means). They may also be open pollinated varieties that were bred and stabilized using classic breeding practices such as grafting and cutting. It is generally agreed that no genetically modified organisms can be considered an heirloom plant.

Why Save Heirloom Seeds

Without the ongoing growing and storage of heirloom plants, seed companies and research facilities will control most seed distribution. Most, if not all, hybrid plants – if regrown – will not be the same as the original hybrid plant, thus ensuring the dependency on seed distributors for future crops.

Small farmers and home gardeners are interested in plants that are easy to care for, are fresh, taste great, are interesting or unusual, and might fill a local niche. Commercial plant breeders and seed companies, on the other hand, are focused on perfect appearance, consistency, harder fruits and vegetables that can hold up during long-distance shipping, uniform ripening, and the ability to be stored for long periods of time. This means that only a few varieties of each type of a hybrid crop are grown.

The large corporations that control the seed trade today bought out scores of small and regional seed companies over time, and then dropped many regional specialty plants. They're mainly interested in varieties with widespread adaptability. If you want varieties and strains best adapted to your specific climate conditions, you can only get them by saving your own seed. Over several generations, seeds can develop very specific adaptability to the conditions at your location.

Typically, heirloom plants have adapted over time to whatever climate and soil they have grown in. Due to their genetics, they are often resistant to local pests, diseases and extremes of weather, and can more quickly recover from extreme changes than hybrid plants can. Each time we save a seed variety, we have another chance to feed ourselves in a world of changing climate, resistant and mutating pests and diseases, and shrinking land and water resources.

Enter the Plant Savers

In 1975, a non-profit organization called Seed Savers Exchange was formed to save culturally diverse heirloom and heritage agricultural and garden plants from the brink of extinction by collecting, growing, and sharing heirloom seeds and plants. They produce an annual Seed Savers Exchange Yearbook (online and in print) that lists thousands of vegetable and fruit varieties for sale from across the country, thanks to a network of farmers and gardeners, and now includes flowers and herbs as well.

Their 2013 catalog offered 12,495 unique varieties. Many Seed Saver Exchange members have recovered crop varieties of historical importance that directly tie into the notion of terroir ("a taste of place"). The Exchange also hosts a monthly educational webinar. Find out more at: http://www.seedsavers.org.

Hand in hand with that organization is "The Ark of Taste", a project of Slow Food International. Slow Food was created to counteract fast food and fast life, the disappearance of local food traditions, and people's dwindling interest in the food they eat, where it comes from, how it tastes and how our food choices affect the rest of the world.

The Ark of Taste was founded in 1996 to highlight the world's extraordinary heritage of small-scale cultural and historical food traditions. It's an international catalog of more than 1,500 food products at risk of going extinct – everything from fruits and vegetables to animal breeds to sweet and cured meats and fish to cheeses and artisan breads to tree syrups and vinegars. The Ark invites everyone to take action by growing and eating these products, thus ensuring they'll continue to exist, be valued and used. Find out more at: http://www.slowfoodfoundation.com.

A Sampling of Sensational Saved Seeds

To take you back in history and tempt your taste buds, below are six vegetable varieties showcasing the uniqueness and richness of heirloom foods (excerpted with permission from a Nov. 2013 Seed Savers Exchange blog post by Renata Christen):

Sibley squash *(Cucurbita maxima)*

Originally introduced by Hiram Sibley & Co. in 1887, the Sibley squash is a perfect example of what happened to thousands of old varieties at the advent of hybrids – the erosion of genetic diversity and subsequent closure, by the thousands, of seed companies. Grown by an elderly woman in Iowa for over 50 years, its flavor becomes richer after the New Year – don't eat until then, if you can help it!

Early Blood Turnip beet *(Beta vulgaris)*

One of the oldest known heirloom beets still in cultivation, introduced in America around 1820 and a parent of the Detroit Dark Red beet – Slow Food USA states that "the dark red flesh remains flavorful, tender and juicy even when the beets grow large". Eaten raw the beet has an apple-like, slightly

Continued on next page ~

astringent flavor with a rich, earthy finish. The beet is good both boiled and baked and the leaves are an excellent cooked green. It is a superb winter storage variety, keeping well in root cellar storage for eight months or more. Variable rate of maturity may make this beet less desirable for commercial harvest (and this may explain its disappearance from seed catalogs in the latter 20th century); however this characteristic is a plus for the small farmer and home gardener." Flavorful greens, too.

Beaver Dam pepper *(Capsicum annuum)*

Brought to Beaver Dam, Wisconsin in 1912 by the Hussli Family – Hungarian immigrants – 'Beaver Dam' makes a darned fine goulash and is highly versatile (used in sandwiches, stuffed with cheese, baked, stir-fried, pickled and canned). The fruit's sweet and spicy flavor has become the darling of restaurateurs everywhere, showcasing how near-extinct varieties can be revived through reintroduction into popular imagination.

Tennis Ball lettuce *(Latuca sativa)*

A favorite of Thomas Jefferson, the coolest use for Tennis Ball is pickling in a salt brine solution; doing so ensures the lettuce can be tapped in the dead of winter for a much needed "greens" boost (which was particularly appealing for pre-refrigeration era families). Can be used as a side dish.

Aunt Molly's ground cherry *(Physalis pruinosa)*

Perhaps more aptly described as a fruity tomatillo than a low-growing stone fruit, these ground cherries bear marble-sized golden fruits surrounded by inedible papery husks.

Aunt Molly's originates from Poland and is revered for its high pectin content (perfect for sugarless preserves). It's a sweet treat for all ages, especially because of its versatility as one of the most natural "pre-packaged" snacks commercially available.

Hidatsa Shield Figure bean *(Phaseolus vulgaris)*

The Hidatsa American Indians existed once upon a time along the Missouri River Valley of North Dakota. This bean was planted traditionally in a "three sisters" configuration (the three sisters being corn, beans and squash).

The Hidatsa people were devastated by small pox in the mid-1800s, and this bean exists today as a small part of their ancestral legacy. These beans have a pole habit and were introduced to the Ark in 2005. They make an excellent soup.

Parts of this article and some photos are used courtesy of the Seed Saver Exchange.

Plant Extravaganza a Huge Success!

The 2014 Conservation Plant Sale and Extravaganza were a huge success judging by the happy smiles and giggling folks in Monroe on Saturday, March 1st.

In case you missed it, we not only distributed over 500 pre-orders and helped customers pick out native plants, we also hosted a booth area with fun activities for the whole family ~ everything from getting a photo with fun costumes, to painting with leaves, and classes on making essential oils.

Check out more photos from the sale on our Facebook page at

https://www.facebook.com/snohomishcd

Thanks to our hearty volunteers, staff and crews for helping make the sale a resounding success!

District Honors People Making Positive Change

For more than twenty years, the Snohomish Conservation District has been honoring our partners, volunteers, landowners, staff and supervisors for their committment to improving and protecting resources and helping to make positive changes in our communities. Here are the 2013 winners to be honored on Tuesday, March 25 at our Annual Awards Reception at Legion Hall, American Legion Park, Everett, from 3:30 - 6 P M.

Gold Award
Cooperator of the Year
Werkhoven Dairy, Inc, Monroe
Jim and Andy Werkhoven

Silver Awards
Commercial Farm
Williams Farms LLC, Stanwood

Small Farm
Meaty Acre Farm, Granite Falls
Ben and Heidi Dubose

Community Conservation
Richard McAdams, Everett

Wildlife
Babs Luedke, Monroe

Woods Creek Nursery, Monroe
Sharon Ronsse

Bronze Awards
Pilar Galup, Camano Island

Sound Forest
Normanna Park/Sons of Norway, Arlington
Chris Berg, manager

Sound Education
Sue Idso, Mukilteo Elementary, Mukilteo

Partnership Awards
Ralph Sverjek, Bellevue
WA Department of Ecology
Northwest Region

Nichole Embertson, PhD, Lynden
Whatcom Conservation District

Eric Fritch, Snohomish
Chinook Farms/Chinook Lumber

Partnership Awards - cont.
Val Streeter, Tulalip
Tulalip Tribes Natural and
Cultural Resources Department

Kevin Farrell, Olympia
Washington Conservation Corps

Maria Foster Hicks, Lake Stevens
Foster Press

Volunteer of the Year
Bill and Lisa Pierce, Arlington
Soaring Swallow Farm

Lifetime Achievement Awards
Two former District Supervisors were recognized for their long-term volunteer efforts to help direct the Snohomish Conservation District
Duane Weston, Arlington
Wiard Groeneveld, Monroe

Employee of the Year
To be announced

Special Award
Pioneer Award from BIAS
The Conservation District's financial software firm, BIAS, awarded Julie Allen, SCD Grants Administrator, a Pioneer Award in Spokane in February for her dedication to helping the staff at BIAS assess the software and making it more usable for their clients. The District is happy to recognize Julie for this honor.

Creating Compost Five Different Ways

By Melissa Kearney, Snohomish Conservation District Intern

When some people hear the word "composting" they think they'll need to set aside a large space to compost in, or that they'll have an unsightly, perhaps smelly, pile of rotting food in their garden or yard. You will be glad to know this is simply not the case. There are in fact many different and fun ways to compost.

Compost material can be any dead or decaying organic matter. Plants, leaves and food scraps are the most commonly used materials for "do-it-yourself" compost, because they break down the best in smaller 'systems' with little or no heat.

The benefits of compost are many – it helps retain moisture and nutrients in sandy soil, improves drainage and aeration in clay soils, ensures plants have the nutrients they need, and improves soil structure. Making your own compost also helps the environment by reducing the amount of waste (that is really re-usable material) that would otherwise be buried in landfills.

Choose Your Composting Method

In choosing the composting method that best fits your needs, considerations may include space, cost, time, convenience, the 'yuck factor', and what you want as an end result. You can compost your unwanted organic matter in a wide variety of ways – from composting fences, raised mounds or worm bins to trenches and sheet composting. These five very different techniques are explained below.

1. Fences that Decompose

Composting fences work best if you have many tree branches (with or without leaves), plant trimmings, dry straw and/or tall stalks, and aren't too worried about having finished compost to use later. These fences can be as tall and long as you like. They're also wonderful for blocking eyesores in your garden or creating instant privacy somewhere on your property.

Composting fences involve sinking two posts two feet into the ground and stapling wired mesh between the posts on both sides (welded wire mesh sheets work best for preventing bulges in your fence line). Then you simply layer branches, shrub prunings, and/or plant trimmings inside the long thin wired mesh enclosure. Some of these can look quite artistic and natural when filled.

The various plant layers will slowly decompose over time, and they'll effectively block an unattractive view for a while. To keep the fence 'alive', just keep adding more material. Grass, leaves and weeds will decompose too quickly to be used with this technique.

Above and below - compost fences can be decorative and functional!

2. Mounds that Grow Gardens

Hugelkultur, the German word for "mound culture", is a raised garden bed (about six feet long by three feet tall) filled with branches and rotten wood, covered by several inches of compost and soil, with a layer of mulch over that. Similar to composting fences, this technique works well with large branches and tree trunks, but you can also add leaves, twigs and food scraps to a Hugelkultur.

As the layers of wood decompose, they do several things for you:

1) They act like a sponge, holding and releasing water slowly, reducing your need to irrigate a Hugelkultur very often.
2) They release nutrients, enriching the soil, feeding plants and creating many air pockets for plant roots, so there's no need to fertilize.
3) During the first few years, the composting process also generates heat, creating a slightly longer growing season.

Hugelkultur is an easy care way to grow food – especially pumpkins, blueberries and evergreen huckleberries, to name a few. Here in the Northwest, it's best to water the bed and let it sit and "cure" for several months before you plant anything.

Food and yard wastes being added to a hugelkultur trench. Plants will grow on top later.

3. Turbocharge your Composting with Worms

Worm, or vermi-composting bins, are an excellent way to get rid of food waste in your home, and are an easy, interactive project for kids to get involved in.

Healthy worms compost food waste and make more worms - and they work 24/7 for you!

Worm bins are also ideal for people living in apartments who still want to help the environment by not throwing away recyclable material. Plus there are many cheap, easy and efficient ways to create a worm bin. You can use plastic totes, build your own wooden bin or purchase any number of wooden or plastic bins from local suppliers.

After micro-organisms have partially broken down the food you put in a worm bin, worms suck it through their mouths (they have no teeth or digestive fluids) and the food particles are ground down into tinier pieces in their stomach. Microbes in the worms intestines finish the digestion process and what's left gets excreted as "castings". Adding this valuable worm manure to your soil increases organic nutrients and improves water retention, aeration and microbial activity. It also helps reduce diseases in plants and promotes plant growth.

To build a worm bin you'll need a container, bedding (such as shredded newspaper or cardboard, dry leaves, aged straw), food scraps and then of course, worms. It's important to allow your worm bin to establish itself before adding worms. It's also important to use the correct kind of worms, because not all worms work effectively as composters. The most common species used, that's also widely available for purchase, is the red wiggler.

4. Trench That Food Waste

The trench style of composting is an efficient way to recycle food waste so it's out of sight and out of mind. This involves a one-time action and you're done! No other steps required – it does not need to be managed.

If you're already growing plants or vegetables in rows and you have space between them, you can use this technique. Trench composting involves digging a trench between rows, filling it with compostable materials and covering it back up with soil. As the organic matter buried in the trenches decomposes, nutrients become readily available for plants in the rows nearby. Slow-release fertilizing was never easier.

5. Compost the 'Italian Way'

Sheet composting, otherwise known as lasagna composting or sheet mulching, is a cold composting method that's perfect for converting your lawn or a neglected area to vegetable beds, improving the soil and soil structure, and recycling organic material. See the 2013 Fall Nexus at http://www.betterground.org/resources-2/the-nexus/ for more on lasagna composting.

With this method, high carbon and high nitrogen materials are alternatively layered directly on top of your soil or lawn. High carbon materials include dry leaves, woody plant trimmings, paper products, straw and sawdust (think brown woody stuff). High nitrogen materials include kitchen scraps, coffee grounds, grass clippings and leafy plant trimmings (think green growing stuff). Other nitrogen-rich sources are hair, fur and feathers. Although sheet composting works best if started in the fall and planted in the spring, it can be started as materials are available. So you see, composting isn't so daunting after all. You just need to find the method that suits you best, gather your resources and get started on it. For more information visit www.betterground.org.

Grants Awarded to Help Landowners and Local Streams

by Kristin Marshall, Habitat Restoration Specialist

Do you hear the fish jumping for joy? Kids splashing in the creek? Families laughing as they shovel into the sand after clams? Well, hopefully these sounds and sights will become more common in the future – if you're near Woods Creek, Church Creek or South Skagit Flats.

The ink is still drying on three grant agreements awarded to Snohomish Conservation District by the Washington State Department of Ecology. These grants will provide essential funding over the next two and a half years so the District can help landowners in the Woods Creek (near Monroe) and Church Creek (near Stanwood) watersheds, and the South Skagit Flats (roughly the area north of Stanwood to the Snohomish County line between Skagit Bay and I-5).

Cost-share funding is now available to eligible streamside property owners who want to better manage and contain livestock manure and reduce mud in their pastures by using compost bins and heavy use (sacrifice) areas. This funding will also help eligible streamside landowners plant native trees and shrubs along streams and build fences to keep livestock away from streams. All of these actions will help make Woods Creek, Church Creek and South Skagit Flats safer to play, swim, fish and clam in.

One of the joys of life, helping children discover nature and wildlife.

For qualified projects, a field crew is available to help landowners clear blackberry thickets and other non-native weeds along their streamside property, re-plant streambanks with native trees and shrubs, and install fencing as needed. The District will also host a series of workshops in these areas during the next two years to help landowners learn how they can best deal with common land management issues. The goal of these grants is to reduce pollution in Woods Creek, Church Creek, and south Skagit Bay. Parts of Woods Creek get 'summer fever' every year, where the water temperature is too high for fish and other aquatic life to survive. When we get a fever, we can still breathe. But when a creek or river gets a 'fever' (any temperature above 61 degrees F), the amount of oxygen in the water decreases, so fish and other water creatures struggle to breathe and stay alive.

If that weren't enough bad news, during certain times of the year the amount of fecal coliform bacteria in Woods Creek (bacteria found in the poop of warm-blooded animals including humans, dogs, and farm animals) is so high the creek is considered unsafe for humans to swim in, drink, or pursue other recreational activities.

Church Creek and Skagit Bay have the same problem with fecal coliform bacteria; during certain times of the year, bacteria levels are high enough that the creek and bay are considered unsafe for swimming, drinking, and digging and eating shellfish. During the summer, levels of dissolved oxygen in parts of Church Creek are too low for fish and other aquatic critters to survive. In other words, they suffocate to death.

The good news is that over the past several years, many creeks and rivers in Snohomish County have gotten cleaner and cooler thanks to the hard work of many property owners, on-the-ground get-'er-done organizations, and funders. The grants awarded to the District will help Snohomish County residents continue to make progress toward cleaning up local streams, rivers, Port Susan and Skagit bays, and Puget Sound — making these waters safer for humans, and cooler and healthier for the fish and other creatures that call them home.

By the end of 2016, we estimate that landowners in the three project areas will have planted about 30 acres of native trees along streams, built several thousand feet of fences to keep livestock away from streams, and will have installed other best management practices on farms that keep bacteria and other pollutants out of the water. In addition to the landowners who volunteer to complete these cost-share projects, several local partners will provide additional funding and labor, including the City of Stanwood, Snohomish County Surface Water Management, Washington Conservation Corps, Sound Salmon Solutions, and the Clean Water District Advisory Board (and its rate-payers). To find out more about cost-share for streamside landowners in the Woods Creek, Church Creek and Skagit Flat areas, contact Cindy Dittbrenner or Kristin Marshall at 425-335-5634 ext 4, or email habitat@snohomishcd.org.

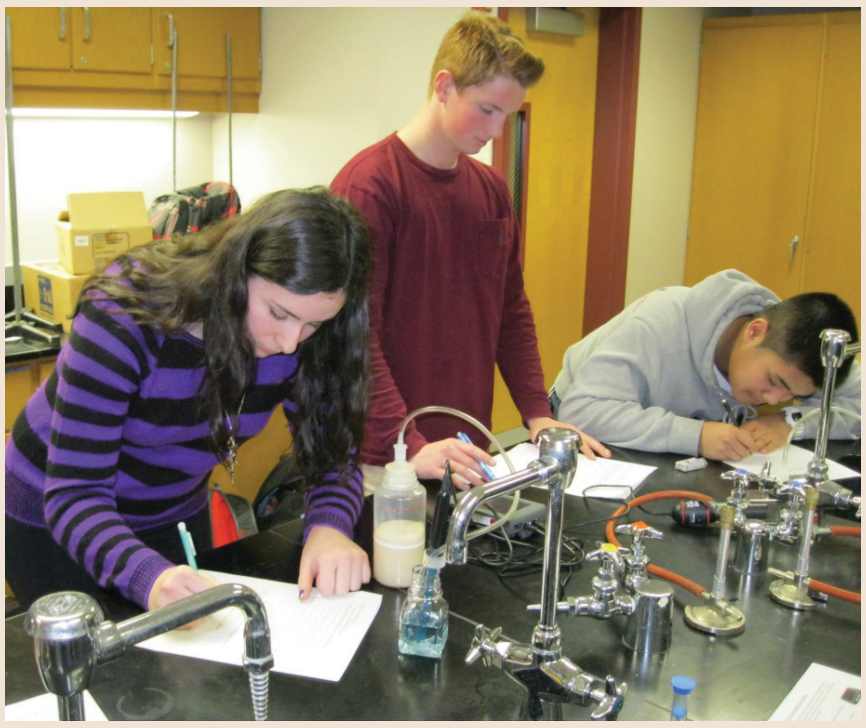
Jackson High Students Learn About Oceans

By Roger Kelley, SCD Educator

Yeast. Sugar. Water. These ingredients could have been used to bake bread, but as Mill Creek's Jackson High chemistry students recently found out, they can also simulate ocean acidification, a current and future environmental problem.

Ocean acidification is a decrease in an ocean's pH, caused primarily by the ocean's absorbing excess carbon dioxide from the atmosphere and by pollutants in stormwater runoff landing in the ocean. Although the world's oceans have always absorbed carbon dioxide, the students learned that the amount emitted into the atmosphere has increased to the point where the oceans can no longer absorb it without lowering the ocean's pH. (pH is a measure of a substance's acidity or alkalinity.)

As the pH of the ocean decreases, its acidity increases. This reduces the availability of calcium carbonate required by the oysters, clams, and mussels important to Washington's economy. It also harms overlooked marine organisms including coccolithophores, a tiny algae that depends on calcium carbonate to survive, and a critical food source at the base of the ocean food chain.



Along with lectures, students had the opportunity to conduct lab experiments on the impact of pH changes on seawater and marine life.

As the ocean acidifies, the decreased volume of these algae means less food for higher organisms such as copepods and krill. Which in turn means less food for salmon, sea lions, whales, and countless numbers of other ocean species. It can even reduce food for seabirds. Other organisms harmed by ocean acidification include coral reefs, which help filter marine water and provide habitat for 25 percent of all marine life.

Students simulated ocean acidification by activating yeast with sugar and warm water, and capturing the carbon dioxide created by yeast respiration. The carbon dioxide was directed into a container of saltwater and an air chamber and the changes in pH and carbon dioxide concentrations were recorded for twenty minutes.

As predicted, students saw the pH of the saltwater decrease as the carbon dioxide concentration increased. "Few students were aware of this global issue," chemistry teacher Eliazbeth Burns said. "Mr. Kelley's presentation and the highly interactive lab experience were effective tools to teach students about the impact of dissolved carbon dioxide on the pH of seawater and marine life."

In 2009 the academies of science from seventy nations agreed that changes caused by ocean acidification are irreversible for many thousands of years, and the biological consequences could last much longer. The solutions encompass everything from burning less fossil fuel to reducing the amount of lawn fertilizer and developing new, research-based ideas. They require the commitment of individuals, industries, governments and a continued emphasis on scientific research and education.

The ocean acidification class is free to Snohomish County high schools and is taught by Snohomish Conservation District staff. The District is one of the first organizations in the state to offer an ocean acidification class to high school students. The class is based on a similar class from the University of Hawaii's Center for Microbial Oceanography: Research and Education (C-MORE). For more information about the District's education programs contact Roger Kelley at roger@snohomishcd.org.

Upcoming Events

Tips for Healthy Hooves

Saturday, April 5, 1 PM - 4 PM
Stillaguamish Grange Hall, Stanwood
The quality of your horse's hooves is a reflection of genetics and the care you provide. While you may not be able to change your horse's genetics, strategies are available to maximize its potential. Join Alayne Blickle of Horses for Clean Water and natural balance farrier, Roy Williamson, to explore a variety of actions you can take to improve the health of your horse's hooves, including: pasture and mud management, nutrition, exercise and hoof care to keep you horse happy and healthy.
Free! Register online at: hoof-tips.eventbrite.com

Earth Day at Camano Plaza

Saturday, April 19, 10 AM - 4 PM
Camano Plaza parking lot, Camano Island
Join your friends and family at the Camano Plaza Saturday, April 19 for free plants, demonstrations, kids activities and more. Posters created by 5th grade students at Utsalady Elementary to celebrate Earth Day will be on display in several Plaza shops.
Free. Bring your friends!

Sustainable Gardening

Saturday, April 26, 10:30 AM - 12:30 PM
Community Chalet at Camaloch, Camano Island
Are you interested in native plants for wildlife, or less toxic lawn and garden products for children and pets? Learn how your landscape can be beautiful, ecological, and save you money and time.
Free! Register at: camanoisland.eventbrite.com

Holistic Approach to Manure Management

Coming Saturday, September 13
Learn about composting, safely reducing your deworming program and what 'natural options' are available. Instructors are Alayne Blickle and Dr. Julie Eihl.
Free! Register online at: holistic-manure.eventbrite.com

Have you heard about our sold-out rain barrel classes?

Want to build your own at home? Now you can!

Parts kit for your new rain barrel.

The Snohomish Conservation District has rain barrel kits for sale for $35 (assembly required). Each kit includes a blue hard plastic barrel as well as the plumbing parts needed to create a functional collection system.

And of course, we are always available for free, on-site technical assistance if you need further support.

Or, check out our how-to installation video at: http://www.betterground.org/gallery/build-rain-barrel/. Start collecting that northwest rain that our spring and summer gardens love!

If you would like to order a rain barrel kit, please contact Ryan Leigh, rleigh@snohomishcd.org, 425-335-5634 ext 112.

New District Faces You May See Out and About

Melissa Kearney

Melissa Kearney joins the District team from Ireland. Her co-workers have fallen in love with her soft voice and lovely Irish accent and soon we hope to introduce her to "pot-lucks". She's heard the term, and knows food is involved! We've advised her to get in line before Monte, our manager, and a resolute fan of potlucks.

Melissa is a graduate of the University College, Dublin, Ireland. She graduated in September 2013 with a Bachelor of Science degree in Zoology.

Melissa moved to Snohomish last October and is currently completing an internship here at the Snohomish Conservation District. She is still trying to figure out our roads, food, and especially our post office.

Ryan Leigh

Ryan Leigh, aka 'the other Ryan', is a new addition to our Community Conservation Team. He has already been out in the field quite a lot and works on rain barrel classes, rain gardens and urban/residential issues.

Ryan is a registered Landscape Architect who will be working with the Conservation team on projects ranging from residential storm water improvements to programs targeting Low Impact Development.

Ryan graduated from the University of Idaho in 1999 with a Bachelors of Art degree in Landscape Architecture. He has worked for private residential landscape design/build companies as well. Ryan has also designed plans incorporating LEED certification, Seattle Green Factor, green roofs on commercial buildings, as well as bio-infiltration swales.

Contact Ryan at: rleigh@snohomishcd.org or 425-335-5634, ext 112.

Kathryn Wells

Kathryn Wells joined the District recently as a Community Outreach Specialist to help organize workshops and events in Snohomish County and on Camano Island.

Kathryn is passionate about learning and sharing information about our natural resources with others, and believes in a positive, hopeful approach to conserving our land, water, air, and natural areas.

Kathryn holds a Bachelors of Science degree in Natural Resources from New York's Cornell University. She recently graduated from the Backyard Wildlife Habitat program through the National Wildlife Federation. Along with her husband Ken, she enjoys birding, gardening, volunteering for local organizations, and planting native plants all over their property on Camano Island.

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