SNOHOMISH
CONSERVATION DISTRICT
The Nexus

Food and More From Working Fences

Summer 2015
Serving Snohomish County
and Camano Island

By Lois Ruskell, Outreach and Public Relations

How much do you talk with your neighbors – often, sometimes, rarely? Families today are so busy that when they come home from work they often drive into their garages, shut the door, and you may not see them again until they come out to mow on weekends. Other than a neighborhood disaster that instantly brings people together (think earthquake, fire, hailstorm), what could possibly help start friendly conversations and social interactions?

Food, plain and simple. Growing food right in your front yard, or creating an edible buffer or fence between you and your neighbor, is a unique opportunity for conversation, food sharing, and educating adults and children.

Think also how you can live more sustainably, no matter the size of your lot or yard. Edible landscaping is a practical yet fun way to provide your family with fresh, wholesome food, with results you can share with friends and neighbors as well. But food-producing plants can be grown in something besides pots and raised beds.

Cottage gardens like this one at Jennings Memorial Park in Marysville can give you lots of ideas for trellises, vertical gardens and edible fences - like the espaliered fence in the parking lot (photo below).

Interspersing edible plants (both annuals and perennials) in your garden spaces or hedge can get the neighbors curious enough to stop by. You can also go vertical, and incorporate food into your fencing system or along a property line or wall.

Here are some ways to incorporate food plants in your landscaping and maybe even start a tradition of a neighborhood harvest celebration come September.

The Benefits of Edible Fences

Wooden fences require constant maintenance. Concrete block fences are cold, unfriendly, and can crack and fall in an earthquake (speaking from experience). What else can you use? How about a jumble of edibles! Trees, shrubs and other plants that produce fruit, nuts, berries, herbs or rose hips can create a live fence, if you don't need the well-trimmed look. An edible hedge can be made of one single plant, repeated, such as Rugosa rose or blueberries, or a combination of fruit and nut trees, berry-producing shrubs, and bird-loving plants.

While berry-producing shrubs are what most people think of for edible fences, there is an almost endless variety of food-producing plants that will thrive as a fence. If you want to keep animals (pets or wildlife) and kids from traipsing through it, plants like Rugosa rose, gooseberry, and raspberry would work due to their thorns. If you need more privacy, try espaliered (pronounced 's-spall-yeyed') fruit trees or a compost fence with pumpkins, squash and trailing beans planted at its base.

Vegetables and nut trees are other suitable options. Asparagus makes a beautiful edible hedge after its ferns have matured. A thick row of corn and/or sorghum can create summer privacy and provide vegetables. Hazelnut shrubs make attractive edible fences and provide nuts for wildlife and people.

Adding companion, supporting and beneficial plants can attract insects to naturally control pests as well as bees for pollination. Some plants help your fence become more self-reliant. Other plants are soil amenders, providing nitrogen, minerals, and green mulches. Together they create relationships that make a garden ecosystem capable of higher yields of food with less maintenance, little labor from you, and without chemical pesticides or herbicides. With an emphasis on western Washington-hardy perennial plants and microclimates, the need for irrigation can also be drastically reduced.

Planning Your Fence

Ask yourself what you require from your hedge or fence: preferred height and width, keep pets in or wildlife out, a succession of harvests or a one-time harvest, privacy, noise barrier, hide an unsightly view, beauty, attract wildlife or provide for pollinators. Are deciduous species that are devoid of leaves in winter alright, or do you need evergreen varieties that permanently screen a view or add privacy? Think about plants that can produce not only edible fruits, seeds, nuts, or berries, but edible roots or leaves, too.

~ continued on page 2

Inside

Snohomish Conservation District
528 - 91st Ave NE, Ste A
Lake Stevens, WA 98258-2538

Non-Profit Org.
U.S. Postage
PAID
Lake Stevens, WA
Permit No. 26

Food and More From Working Fences ~ *continued*

Consider the mature height of the fence if you want it to block a view. While hedges can be trimmed, most edible fences will look their best, and produce the most, if allowed to grow to their natural height. Instead of using one kind of plant, mix it up. Mixed edible fences provide an interesting variety of shapes, sizes, leaves, flowers, colors and textures. While the plants don't all have to be the exact same size in the fence, it's good to select ones that are similar in growth habits so that no one plant dominates.

Layering Options

You can also create vertical layers (tall to short) with a mix of short trees/tall shrubs, shorter shrubs, tall or vining vegetables, and then perennials, herbs and edible groundcover plants.

Trees

Large trees can shade out a sunny yard and overwhelm a small lot, so consider smaller tree varieties like dwarf apple, crabapple, pear and plum. An occasional fruit tree in a hedge creates some framework, while not completely screening out a view. Then add blueberries, rhubarb, artichoke, bush beans or sunflowers.

Rugosa rose hedge.

Shrubs

Shrubs are a good alternative to large trees, and can also help provide food and habitat for beneficial insects, birds and other wildlife. Possibilities include blueberry, raspberry, currant, cherry, gooseberry, and shrub roses. For native shrubs with bird-loving appeal, try serviceberry, dogwood, evergreen huckleberry and elderberry.

Groundcovers

Think about your companion plants, too. Small edible plants and groundcovers along the outside edge of your edible fence can help keep roots cool, reduce the need for water, and provide a 'living mulch'. Plants that attract pollinators and other beneficial insects can help increase yields. Nitrogen-fixing plants like clover, peas, and other legumes improve the health of nearby plants and reduce the need for synthetic fertilizers. If you need more privacy or wind protection, dense shrubs planted closely together may be necessary.

Grass and Weeds

If the area you choose is now grass, consider covering it with cardboard or a few layers of newspaper to suppress the grass. (Mulching your fence heavily will help reduce the amount of watering needed to get your hedge started, and also keep weeds at bay).

If the neighboring property owner uses chemicals, any airborne chemicals carried on the wind may harm your edible fence. Plant a grassy buffer to protect your plants, and your beneficial insects, from chemical drift. Better yet, talk to your neighbor about your edible fence and find out if they would be willing to find an alternative to spraying.

Planting and Maintaining Your Food Fence

Planting an Edible Fence From Scratch

Although you may only want one row of plants in your fence, two or three rows work much better, especially if the rows are staggered. Some plants don't do well with only a single row or two. Sweet corn will blow over in the wind and needs three rows or more to be effective. Choose your spot with this in mind, so your plants have plenty of room at full height and width. Remember that some species need more than one variety to pollinate, too.

A bee visits a purple coneflower for pollen.

Plan for Pollinators

Not only will your living fence attract pollinators like bees and butterflies, they will also help you by increasing the yield of edible fruits, possibly by as much as 30 percent. Pollinator plants, known as insectary plants, are a key element of a sustainable system.

Maintaining Your Fence

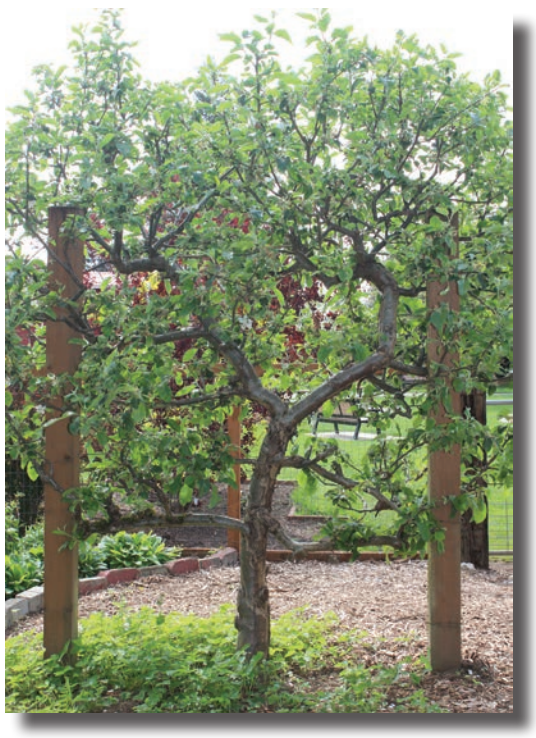
To maintain a healthy, diverse and productive fence, plan on selectively thinning every five to ten years. Weeds should be managed by hand or mechanically, if possible. Heavy mulching can also help keep weeds down in the early years while your hedge is becoming established.

A Belgian fence, another form of espalier, supported by a wood structure and heavily mulched.

Many Fence Styles to Choose From

Espaliered Fences

Espaliered fences are commonly made with dwarf fruit trees planted between fence posts. Branches are selectively picked and attached to horizontal wires to form a very narrow vertical fence; the other branches are pruned out. This arrangement gives the fruit more light and air to develop, and makes them easier to pick. You can experiment with the framework, and get creative to add more decorative interest to your landscaping and property.



Espaliered fruit tree at Jennings Memorial Park in Marysville.

Espaliered fences are ideal for narrow side yards, along walls, and corner lots where a house is often exposed to a side street. You can often find classes from local nurseries on espaliered fruit tree fences. Dwarf or miniature varieties of apple, pear, peach, plum, and cherry trees do well in this situation.

Working Fences and Arbors

At Jennings Memorial Park in Marysville, the WSU Extension Master Garden uses many different fences, arbors, and vertical trellises that can be incorporated into a property line or along the edge of a garden. Vertical gardening also works well for those who have difficulty bending and kneeling.

Continued on page 3

More examples of different fencing structures and vertical gardening possibilities at Jennings.

Fences ~ *continued*

Dual Purpose Fences

A compost fences offers a creative alternative to a compost bin. Use tree branches, pine boughs, leathery leaves, and other hard-to-decompose items. Exposure to wind, rain and sun help these items break down faster, and you simply keep adding new material to the top. You can incorporate colorful branches, flowers or weeds too, which will give it even more visual interest. Or green it up by planting rhubarb or climbing peas or beans along the bottom of the fence.

A compost fence with visual interest and texture from various layers of twigs and leaves.

A closeup of the fence.

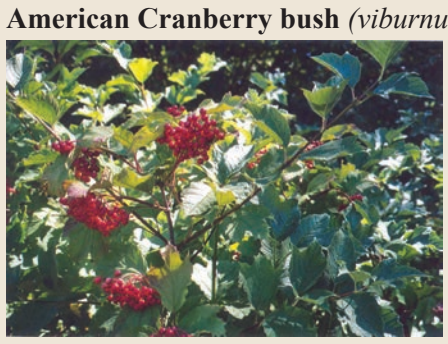
A compost fence along the gardens at Sleeping Lady Resort in Leavenworth has table grapes hiding the fence, while providing a source of food for the resort.

This compost fence surrounds the front yard of a home on Whidbey Island, near Penn Cove. In the summer, it often sports a colorful flower layer, which gives it more visual impact.

Edible Shrub Possibilities

All shrubs below are deciduous and grow best in full sun and on well-drained soil, unless otherwise stated.

American Cranberry bush *(viburnum trilobum)*



American cranberry is a 6- to 10-foot tall shrub that produces white flowers in spring and bright red fruit in late summer. The fruit is good in jams and is an excellent wildlife food. This sprawling shrub is best used as an informal hedge.

Blueberry *(vaccinium ssp.)* - Blueberries make a great edible fence and are colorful in the fall as well. They need a well-drained, acidic soil with the pH below 5 and can be planted near other acid-loving shrubs. Select varieties that are highbush (5 to 6 feet tall) or half-high (1 to 4 feet tall), depending on your location.

Prickly Shrubs *(rubus ssp.)* - Blackberries and raspberries make excellent thorny-barrier shrubs. They can also be trained to grow along a fence in a narrow bed since their growth habit is so vertical. For an informal barrier hedge, select spreading types such as red raspberries and blackberries — their suckers will quickly fill in blank areas. For a more contained fence, plant black raspberries (they only sucker from around the crown and are less invasive). Grow everbearing red raspberries like 'Heritage' if you prefer harvesting more than once.

Bush Plums *(prunus ssp.)* - Sometimes called cherry-plums, Nanking cherries, or sand cherries, these small-fruited shrubs grow about 6 to 10 feet tall, have showy white flowers and 1/2-inch-diameter tart fruits. The fruit is best used in jams and jellies. Sand cherries make good coastal plants because they can tolerate salt spray and sandy soil.

Currants and Gooseberries *(ribes ssp.)* - White, red, and black currants make excellent foundation plants, and can be grouped to block an unsightly object, or grown into informal hedges. Plus grow attractive and delicious fruits. Red and white currants are best used as juices or eaten fresh, while black currants are best used in jams and preserves. Black currants are the alternate host to a deadly disease (blister rust) of the white pine tree. So if you have white pines growing near your property, grow disease-resistant black currant varieties such as 'Consort'. Gooseberries grow to 3 to 4 feet tall and have thorny branches. They produce tasty one-inch-long fruits for fresh eating, pies and jams.

Hazelnut *(corylus ssp.)* - Hazelnut is an 8- to 12-foot-tall shrub that is hardy, has beautiful fall foliage, and produces sweet-flavored edible nuts. Use them for baking, as a snack, or throw some in a salad.

Rugosa Rose *(rosa rugosa)* This species rose is very hardy and can grow to 8 feet tall. It produces edible, fragrant, white, pink, or red flowers in spring and red or orange rose hips in late summer. The hips are high in vitamin C and best eaten raw, in teas or in jams. Thorny branches make it an excellent barrier plant, especially since new shoots arise from root suckers. This is another good seaside plant.

Tall vegetables –Tall vegetables such as asparagus, sweet corn, millet, and sorghum can be grown as a summer screen too. Select old fashioned or tall varieties of corn, millet and sorghum, and plant in multi-row blocks to ensure the screen stays erect all summer. If you only plant a row or two, the summer winds may blow them over.

Asparagus fence at nycgarden.blogspot.com

While asparagus is a perennial, it takes three years to produce edible spears, but it can last many more years as a permanent planting. By summer, the ferns will be tall enough to provide a visual block when propped up with fencing.

Horse Farm Takes a Lighter Approach

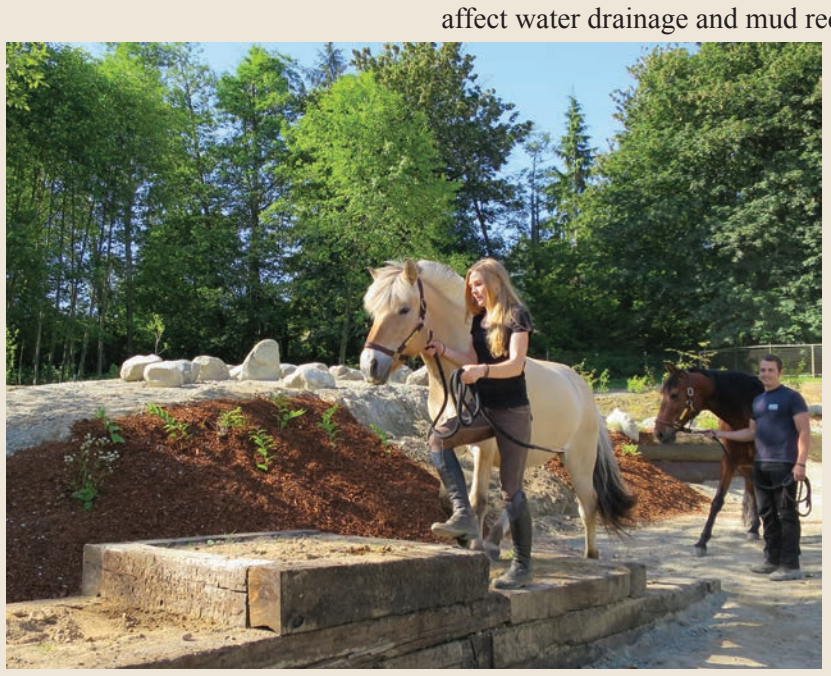
By Alayne Blickle, Director of Horses for Clean Water

Kelly and Dan Munro in front of the nearly-completed water feature portion of the trail course.

Kelly and Dan Munro, owners of Grateful Pine Farm, purchased a 17-acre commercial horse property in Snohomish. Recently, I interviewed Kelly to get to know a little more about her, her approach to managing land for horses, and her new commercial horse boarding/training facility.

Q: Tell me how long you've been in horses, what kind of riding you do.
Munro: I've been riding for 20 plus years and have been a horse owner, farm owner, and worked at numerous equestrian facilities during that time. I'm a dressage rider, trail rider, and also breed and train Norwegian Fjord horses. My philosophy is to build flexibility, strength, and confidence in the horse through gentle, varied exercises and clear, correct riding so they can happily pursue any activity in partnership with their rider.

Q: Why did you want to move from your Monroe property to this one?
Munro: I wanted more riding facilities. At our previous property, the only reasonable site for a full-sized arena contained two healthy, mature cedar trees that we could not bring ourselves to cut down. This Snohomish property had previously been cleared, so we weren't as dramatically changing the land as we would have been in Monroe. This feels like a spot we can improve upon rather than take existing trees and tear up the land.



Kelly takes a Norwegian Fjord up a new stair obstacle, Dan awaits a turn.

Q: Can you describe your new property?
Munro: The property is on a bench below Lord Hill Regional Park. It's surrounded by trees although much of the property itself was cleared years ago. It has an unnamed tributary of French Creek running along its side and views of the valley, the Cascades and Mount Baker. It's mostly pasture now, without enough cross fencing, which is something we're working on changing because it's been overgrazed – which is not good for horses nor for environmental health. For riding we have a lighted outdoor arena (80 feet x 200 feet) and a 20 x 40 meter indoor arena, a round pen and wooded trails around the perimeter. We're in the process of setting up a new, half-acre mountain trail park, which is exciting! There are 25 stalls in the main barn and each horse has individual or group daily outdoor turnout. There are also ten outdoor horse cottages — cute shelters with free choice paddocks. The whole place can board a total of 35 – plus there's a private six-stall barn which we use for our own personal horses.

Q: What are your overall goals for managing the property?
Munro: We want to set up our operation so it's easy for our staff and optimal for our horses. I like to call it being "horse centric," so that everything we do is contributing positively to the horse's health and experience. I believe quality turnout time is one of the most important things for horses, so we want to create really healthy, enjoyable turnout spaces for each horse that are usable year-round.

The property is set up to accommodate about 40 horses, but that's a lot of horses even on 17 acres so we have to redo cross-fencing so pastures and paddocks don't become dirt and dust in summer and mud in the winter. I want to increase vegetation on the property, both with the grass pastures and native plantings in non-horse areas. All this will create more wildlife habitat, a better appearance and hold the soil in place. Commercial horse properties that get used long term tend to get beat up, both the land and facilities, so restoring, improving, and repairing are a big part of what we'll be doing.

Q: What do you want to do with the turnout paddocks?
Munro: We currently have pastures and paddocks of all sizes and none of them are setup to be rested. We rotate horses between the larger and smaller ones for fairness, but even the large fields become overgrazed with horses on them every day. I'd like to redo fencing so all paddocks are uniform size. Each horse's turnout area will be split into two parts: the front will be a track paddock with a rain garden in the center. Our product, Lighthoof, will be used in the highest traffic areas to prevent mud. The back half of each turnout will be seeded with pasture grass. We'll keep horses off these grass areas while they're getting established and during the winter so overall the grass can regrow.

Q: Rain gardens are a smart way to deal with an age-old nemesis on horse properties — too much water and MUD! They can help reduce flooding and erosion, filter polluted runoff, recharge groundwater, provide wildlife habitat and as an attractive, low-cost landscaping feature. How big will your rain gardens be?
Munro: The rain gardens will be 70 to 80 feet long and about six feet wide. A track paddock will go along the outside of each garden. The Snohomish Conservation District sent out their rain garden expert, Derek Hann, who is helping with plant choice and design — we are so excited to work with them! We're looking forward to seeing how things will work and what the power of the rain gardens will be — how they will affect water drainage and mud reduction.

Q: What is your Mountain Trail Park?
Munro: This is a discipline I didn't know much about; it's called Mountain Trail Challenge, the International Mountain Trail Challenge Association. (IMTCA) recently formed. There's been a lot of interest lately from riders of all disciplines and there's no course in this area. Personally, I think it will be a huge benefit for my young horses and my dressage horses to cross-train and engage their minds and bodies in new ways. It's a half-acre that's been sculpted into terrain, mountains, a stream crossing, banks and hills. It's fully landscaped so you feel like you're on a mini-trail ride in the mountains. It's much more rugged than a regular, local ride so it challenges the horse mentally and physically. Ours will pre-open to our boarders this summer and next year for people to come ride it once they've had a safety check with one of our trainers. We'll also offer clinics, lessons and shows.

Q: Tell me about Lighthoof equine mud management system*.
Munro: Lighthoof is a large, flexible plastic panel that confines and supports gravel in a series of little pockets to create a base that horses can't sink into. It's crucial for stabilizing the ground in high-traffic horse areas and protecting our gravel investment. It's part of our company's philosophy to do more than just sell a product that fixes mud; we want to use education and innovation to help people create a holistic solution for their farm that benefits their horses and the environment.

The Lighthoof system in place (above) and being laid out in a paddock (below).

See page 8 for details on a July tour of this farm.

Also, check our Flickr page for more great photos at bit.ly/pinefarm.

*(*Lighthoof is a product sold by the Munros, however, the District does not promote this or any other footing material, and offers this information to help inform and educate horse owners on available options.)*

Goodbye Lawn, Hello Garden

By Jessica Paige, Community Outreach Specialist

This Lake Stevens front yard is productive as well as beautiful, and the homeowner doesn't have to mow this hill!

The Snohomish Conservation District is proud to announce the launch of our new 'Lawns to Lettuce' program! The goals of this latest effort are to encourage landowners to convert a portion of their lawn to growing edibles, and to highlight landowners who've already done so. Through Lawns to Lettuce, we'll be promoting practices that build healthy soil, decrease surface water runoff, protect pollinators, minimize pesticide use, and conserve precious water.

Fresher Food for your Family

Many of us like to have some lawn on our property, but there are often opportunities to reduce its size and get something more out of that space. If you're going to put time and energy into growing something, why not make it something delicious and nutritious to eat? Food grown in your own garden almost always tastes better than what's at the grocery store. Plus research shows that the fresher produce is, the more nutrients and vitamins it contains.

Growing your own food is also a great hands-on learning experience for all ages. While most of us are able to only grow a small portion of the food we eat, having a garden can help us appreciate how long and hard farmers work to grow the crops that feed us all.

Why Does it Matter?

Lawn care is often resource-intensive, meaning it can gobble up a large amount of water, fertilizer and anti-weed/pest chemicals. Believe it or not, lawns are THE largest irrigated crop in the United States offering no nutritional gain. According to the Natural Resources Conservation Service, lawn irrigation accounts for almost half of the water used by homeowners in the United States! Lawns are also a significant source of water pollution from the runoff of fertilizer and toxic chemicals. The U.S. Fish and Wildlife Service estimates that homeowners use up to ten times more chemical pesticides per acre on their lawns than farmers use on crops.

See page 8 for information on a Lawns to Lettuce tour

We Want to Hear from YOU!

Have you replaced a portion of your lawn with edibles? Maybe you've built a raised garden bed, planted fruit trees, torn up some sod, sheet mulched, built a lasagna garden or something else.

We want to hear your 'Lawns to Lettuce' story AND see your photos!

If so, we want to know. We'll be sharing some of these photos on our Facebook page to help encourage and teach other landowners by showing them what's possible.

Let us know about your yard project and send your photos to jessica@snohomishcd.org or call 425-377-7015.

These productive yards can be grazed all summer.

New Staff Join Us

Cayley Allen

Cayley joins our team with a background in agriculture from growing up on her family's Stillaguamish Valley farm. She's been involved with a variety of enterprises including equine, beef cattle, animal nutrition, crops and forestry. She holds an Associates Degree from Everett Community College and has experience with marketing and design.

Cayley will support the outreach program for community conservation, agriculture and habitat restoration projects throughout Snohomish County and Camano Island. She looks forward to working with Stillaguamish and French Creek residents.

Bobby Butler

Bobby is a graduate from Washington State University with a degree in organic agriculture. He spent last summer running a Consumer Supported Agriculture enterprise at Open Gate Farm on Camano Island for Jon and Elaine Stevens.

Bobby will focus on the soil test program, the rain barrel program and water quality sampling. You may see him out delivering rain barrels this summer.

Jessica Kinney

Jessica holds a Bachelors Degree in History and Anthropology from the University of Washington and has done informal education work for the Burke Museum, Girl Scouts of Western Washington, the Museum of History and Industry, and the Wheat Week program. She'll be the District's primary youth educator.

Natasha Huestis

Natasha is a UW student working with the SR 530 (Oso) Recovery Project through Washington State University. She is studying biology and leaning towards neurobiology as a degree. She'll be helping with community outreach and learning all the District does this summer. Natasha loves to rock climb, mountaineer, and be crafty. She has summited Mt. Baker and got to Disappointment Cleaver on Mt. Rainier.

Carson Moscoso

Carson is a Snohomish County native and has a Bachelors Degree in Biology from Linfield College in Oregon. He recently returned here to work as the Washington Conservation Corps Individual Placement with the King County Department of Natural Resources and Parks. He's now a Habitat Technician with the District. Carson has also spent time working for the Oregon Department of Fish and Wildlife and the Chicago Botanic Garden.

Before You Buy that 'Perfect' Horse Place…

by Alayne Blickle, Director of Horses for Clean Water

So, you've finally decided to do it! You're going to buy that horse property in the country you've always dreamed about.

You, your family and your horses will at last be under 'one roof'. You're looking forward to the joy of waking up each morning and looking out the window at your horses in their paddocks, waiting for breakfast. If you work from home, you'll be able to pause between tasks to gaze out at your equine buddies happily grazing away in grassy pastures. You'll be able to carefully monitor their weight, look after their health on a daily basis and keep their stall as clean as a whistle. Riding will be handier since you're 'right there'. Perhaps you're even hoping to save a little money on expenses as you'll be doing things yourself now. And besides, didn't your partner always want to drive a tractor?

While all of this may be true, there's another side to consider. Having your horse at home means you will be totally responsible for your horse's well being; no one else will be keeping an eye on your horse. While riding may be easier to do some days, what about when it's cold, rainy and there's no covered or lighted arena? What will it be like when your riding buddies aren't there to encourage or accompany you?

Of course, there will be vacations and other times when you'll want or need to be away. Do you have someone in mind who can adequately care for your horses? And as far as saving money goes—after you consider the time and cost of buying the property, building and/or repairing fences, and the cost of adding arenas, barns, shelters, equipment and hay storage . . . well, it may all be looking a little less thrifty.

If you remain undaunted and this sounds more like fun than a warning to you—then read on! Below are detailed horse-specific guidelines to assist you in the decision-making process of finding the best horse place for you and your pals.

Natural Features

There are two broad general categories to pay close attention to when looking for a good horse property—natural features and man-made features. Both can tell you a great deal about a property and its horse-keeping potential, good and bad, if you know what to look for and can interpret what you're seeing.

Pastures may look healthy, but check the soils anyway.

#1. Pay Attention to the Dirt

In considering the natural features of a horse property, start at the ground level and work your way up. What kinds of soils exist on the property is the most important element to understand before buying a place for your horse. Unfortunately, it's usually one of the last things we think about. Paying attention to the dirt under your feet is essential—since you're going to be *farming* (or ranching) now, you need to *think* like a farmer or rancher. And a good farmer knows his or her soil.

While you won't be growing a crop per se, you will be growing grass and caring for horses, both of which depend on the right kind of soil. Loamy, organic soils are best for growing lush green pastures. Gravely, well-drained soils are better suited for buildings and confinement areas because they will create the least amount of mud problems. Check with the Snohomish Conservation District by calling a farm planner (425-335-5634, ext. 5) or go online to the USDA Natural Resources Conservation Service's Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm). Either option will get you on-the-ground soil-specific information. Knowing which kind of soil exists where on the property you're investigating will help you decide where to locate barns, paddocks, pastures or a house.

There are lots of things to consider when buying a farm or horse property. Do your homework, walk the property, talk with neighbors, and go into a new farm purchase as an informed consumer.

If buildings already exist, soil information can tell you if the current locations are suitable (i.e. will paddock areas always have a mud problem because the soil is mucky, or will the pastures never be very productive because the soil there is too rocky?) Having the right soils in the right places for your specific needs will make life much easier for you and your horses as time goes by.

#2. What Plants Can Tell You

Understanding what plants are growing on the property will give you other important information about the place. Different kinds of vegetation tend to grow in specific areas. For example, if you see sedges, rushes and hardhack growing in a pasture, this indicates the pasture is wet, maybe even too wet to have horses on it—possibly until the very end of summer.

Believe it or not, many barns and paddock structures are unwisely placed in low, wetland soils and areas. These places have tell-tale wetland plants growing all around them, such as skunk cabbage and cattails—and that's no place for a pasture or livestock. Contact the Conservation District at 425-335-5634 ext. 5 for a list of Western Washington native plants, trees and shrubs as well as the type of soils and conditions the plants prefer to grow in. Use this to glean ideas on how different parts of the property can be best used if it is to become a useful, manageable horse place.

#3. Don't Ignore Topography or Drainage

Topography and drainage are too often overlooked, yet reveal vital characteristics you need to be aware of. If at all possible, visit your prospective place during the rainy season, and especially during a rainstorm, to watch how and WHERE rainwater runs. Does it all roll off that hill behind the barn right down into the confinement areas? Or does it gently drain into the pastures and paddocks away from buildings? During the winter months is there a creek running through the middle of the paddocks? Or have paddocks been located in a high, well-drained place? How water flows across a piece of property is an invaluable key to understanding how you'll need to set-up and manage your horses and farm.

#4. Any Water-Related Regulations

It's also important to inventory all natural water features such as creeks, wetlands and ponds. While these may be aesthetically pleasing and wonderful wildlife areas, there are important laws that protect them. In many cases, you'll be required to fence off creeks, wetlands and water bodies, possibly by as much as 150 feet. Local zoning and environmental regulations are becoming increasingly restrictive; learn about what you can and cannot do before you buy.

Contact Snohomish County's Planning and Development at: http://snohomishcountywa.gov/201/Planning-Development-Services or a conservation district resource planner at resource-planner@snohomishcd.org.

Other possible changes might be removing trees for pastures or building structures. While sometimes it may be necessary to remove a hazard tree close to a structure, it's also smart to consider the ramifications of logging. A mature Douglas fir tree 'drinks' about 250 gallons of water a day. So removing healthy, mature fir trees may create more surface water runoff (since those trees are no longer there soaking up all that water).

~ continued on page 7

Your downslope neighbors may not appreciate the increased runoff, and it could negatively affect your property as well. Plus, soils that have supported trees need careful reworking to become productive for a pasture since soil pH and microbes are different for each ecosystem. For more help on this, contact the WA Department of Natural Resources.

This small Mukilteo farm owner was very pro-active communicating with his neighbors about his farm practices, and felt his neighbors supported his efforts to keep the fly population down and manure properly contained.

Man-made Features

#1. Buildings and Fences

Now it's time to look at man-made features such as buildings, arenas and fences. If this is a non-horse place that you'll retrofit into a horse-safe facility, make note of what it will take to make it equine-suitable. Are existing pasture shelters appropriate and in good shape? Are shelters free of rough edges and metal corners? Those can be very dangerous and seriously injure a horse (or human!). Plus horses can easily kick through metal siding.

Are stalls large enough with high enough ceilings? A horse stall should be 12 feet by 12 feet (10 feet by 10 feet for a small horse or pony). Walls should be strong, smooth, free of projections and at least eight feet high. The walls should also extend to the ground so a horse can't get its legs caught under it when lying down. Does the potential horse housing have appropriate flooring and footing? Because concrete and wood floors are slick and hard, they should not be used in horse stalls or shelters. Is there horse-safe fencing and is it in good shape? Look carefully at the changes you'll need to make and what it will cost, both monetarily and time-wise. The more details you write down now (and photos you take), the easier it will be to compare properties when it's decision time.

#2. Managing Pastures and Manure

A few of the basic practices to think about for your new property are how you will manage your pastures and your horses' manure. Maintaining healthy pastures and planning for regular manure disposal are essential aspects of proper horse care. An average 1,000-pound horse produces about 50 pounds of manure per day (about one cubic foot per day.) Include bedding and that increases to two cubic feet per day. Efficient options for manure include using it as compost (with the help of a compost bin) in your pastures, garden or lawn, haul it away or have someone else take it and use.

In addition, most pastures simply can't survive overgrazing or constant trampling during the winter months. This means you'll need a sacrifice area or paddock to keep your horses during that time. A sacrifice area is a small enclosure (such as a corral, run or pen) meant to be your horse's outdoor living quarters. Horses should be kept in the sacrifice area during winter and early spring when soils are soggy and plants are dormant, as well as in summer before pastures become overgrazed. This space is also useful for separating or confining horses, and to keep horses from becoming overweight. For information or help with managing your pasture, manure and sacrifice areas, contact the Conservation District at 425-335-5634.

#3. A Home for Hay

Another requirement of your new property will be a sound storage area for hay. Nutritional recommendations for a horse are to receive two percent of its body weight in hay (or forage) per day. For the average 1,000-pound horse with moderate exercise, that will be about 20 pounds of hay per day or about 600 pounds of hay per month. Since hay is usually sold by the ton (2,000 pounds), one ton of hay will last about three and one-third months per average-sized horse. A clean, dry and convenient area—free of rodents—is necessary for storing hay and may also be appropriate for tack, bedding, feed and simple equipment.

#4. Vehicle and Emergency Access

Another key consideration is accessibility. Are the gates wide enough for delivery trucks? Can emergency vehicles get into the place and to the horses? How close is the nearest fire department, and what will they use for a water supply? Occasionally rural properties have to supply their own water if there is a fire. This means having quick access to a farm pond or other backup emergency water supply. Investigating access and the water supply now rather than in the "heat of the moment" will make your life much easier and safer.

#5. The Neighborhood – Will You and Your Horses Fit In?

Take a good look around your potential new neighborhood. Is it already a horse-friendly community, and will they accept new horse neighbors? Or are the condo owners next door going to worry about the manure pile to-be? Will you be able to mitigate things like dust and noise? Non-horse neighbors may not be as tolerant of things (like odors and flies) as we horse people think they should be.

Now is a good time to consider what the neighbors might think, before they complain. Better yet, engage them in the process as this horse owner (photo above) did. Most will appreciate your efforts, and their pasture views!

How easily will you be able to ride at your new location? Will you have an arena or a round pen? If you plan to build an arena, have you researched the costs and permits? Building a suitable outdoor area with good footing and drainage can be costly, requires enough room for that purpose, and could possibly trigger building permits. Accessibility to riding trails and covered arenas is another point to consider. Are there suitable equestrian trails nearby? Be SURE there are public trails that allow horse use — don't just take a well-meaning neighbor's word for it. Often times so-called 'community trails' are on private property which are soon developed. Other trails may be limited to certain types of recreational uses (foot, bicycle) that don't include horses. Many wonderful horse properties are completely locked in by houses or busy highways. In these cases, you'll need a truck and trailer to transport you and your horse to riding areas. Remember, time with your horses and riding is probably one of the main reasons why you are looking for a horse property. Make sure your dream place improves riding time for you, instead of making it more difficult to accomplish.

#6. Drinkable Water and Sewage Disposal

If the horse property is in a rural area, chances are there'll be a well and septic system on site. Identify these structures and note their placement relative to other structures. Wellheads should have a buffer (at least 100 feet of grass or vegetation) around them, with no potential contaminant close by – such as a manure or compost pile, confinement areas, garage, chemical storage area or other potential source of runoff. Locate the septic and drain field, as well as the reserve drain field (the area identified as a backup in case of drain field failure). Septic drain fields should be located in areas without any high traffic—no roads, driveways, confinement areas, pastures or gardens should be located over them. Lawn or shallow-rooted plants are the only plants recommended over a drain field. Placing heavy structures on a field or compacting the soils puts a drain field at a high risk of failing. Visit Snohomish Health District at http://www.snohd.org/Septic/Septic-Wastewater for information.

#7. More Acreage Might Not Be the Answer

The size of the property is another important consideration. Bigger is not necessarily better for a useful horse property. Horses can be kept on small pieces of land, such as one or two acres, and there are many fine examples around. However, the smaller the land is, the more intensively you'll need to manage it so it doesn't turn into a total mud and manure mess. If you want enough land to provide pasture time for your horses, you'll probably want at least an acre per horse. Small pastures of one acre or less can be successfully managed IF you follow good pasture management techniques, don't allow horses on pasture during winter when the grass is dormant and soils are soggy, and never allow pastures to be grazed below three inches. Think realistically about how you will manage the operation before you purchase any property.

#8. Is This Place Zoned for Horses?

Zoning, ordinances and community covenants are a final point. Don't rely solely on the word of others. Fully research county, city or local regulations yourself. Be sure to check zoning and building codes and talk with staff if your plans include building structures. Make sure it will be possible to build your dream place. And check on any ordinances limiting horses in your area as well as the number of horses allowed per acre. There may also be laws that govern the placement of manure storage facilities. Doing this homework up front will save you lots of money, time and frustration later on.

With these helpful tips in mind, you're prepared to embark on your search for that perfect horse place. Good luck and good horse-keeping to you!

To learn more about what to watch for when buying a new farm, see page 8 for details on a July tour of a recently purchased farm (highlighted on page 4) .

Alayne Blickle is the creator/director of Horses for Clean Water. It offers educational materials, courses and individual consultations on caring for and managing horse facilities with an emphasis on environmentally-friendly techniques. For more, visit www.horsesforcleanwater.com or contact Alayne at Alayne@horsesforcleanwater.com.

Upcoming Events

Farm Tours and Workshops
Designing Your Horse Property

Wednesday, July 15, 6:30-9pm, Free
Snohomish (Lord Hill area)
Address will be sent upon registration

Are you new to owning horse property, or dreaming about moving your boarded horse to your own place? Join Alayne Blickle, Director of Horses for Clean Water, to learn how to set up and manage horse property based on your land and your horse's needs. We'll begin with a presentation on caring for your horse and its home. Next, we'll tour a recently purchased Snohomish horse property that's being renovated. See changes the owner is making so paddocks will be mud-free and farm chores run efficiently. Get insight into the costs and needs of properly managing land for horses. **BONUS:** Check out an amazing trail course designed by Mark Bolender. Take home track paddock plans that include rain gardens (developed by the farm owners to replace existing turnouts).

Register for this free class at *farmtour-snohomish.eventbrite.com*

Lawns to Lettuce Workshop

Saturday, July 18, 10am to Noon, Free
Camano Island
Address will be sent upon registration

If you are interested in growing your own food and learning how to convert some of your lawn to vegetables and fruit production, join Jon Stevens and the Snohomish Conservation District on a tour of Open Gate Farm. You'll learn easy techniques for creating a garden bed without having to remove sod or spray chemicals. Jon will also cover how to build healthy soil, conserve water, reduce the need for pesticides and more.

Jon Stevens, Open Gate Farm, surveys his artichokes.

Register for this class/tour online at *lawnstolettuce.eventbrite.com.*

Forest Health Workshop

Tuesday, June 23, 6:30 - 8:30pm
Crystal Lake Tree Farm, Woodinville

Forest owners will want to take advantage of this workshop. As tree farmers know, trees get sick, too. Root diseases are frequently the culprits, but foliar diseases are also having an impact in our area.

Typical root and needle diseases.

In this outdoor field workshop, WA Department of Natural Resources forest pathologist Amy Ramsey will lead a tour through an area heavily harmed by three common diseases: Swiss needle cast, rhabdocline, and laminated root rot. She will talk about identification, impacts, and management options.

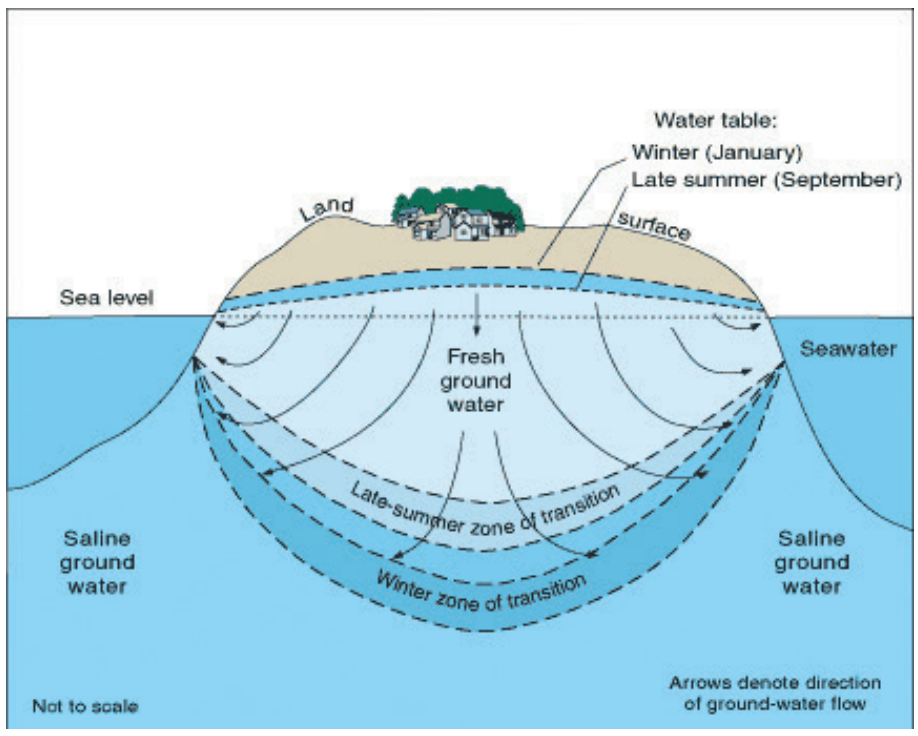
Cost is $7 pre-registration/$10 at the event (for individuals) and $10 pre-registration/$15 at event for couples from the same household/ownership.

Pre-register online at:
http://forestry.wsu.edu/nps/events/forest-health/. You can also pre-register by mail (must be received by 6/22). For more information, contact Lauren Grand at 425-357-6023 or lauren.grand@wsu.edu.

Learn About Camano Island's Groundwater and Aquifers

The Snohomish Conservation District will co-host an evening presentation on Camano Island's aquifers by Doug Kelly, Island County Hydrogeologist, on Wednesday, July 29 from 6 to 8pm at the Camano Center, 606 Arrowhead Road, Camano Island.

Drinkable water is critically important to the residents of Island County. Most Whidbey Island residents and all Camano Island residents rely on groundwater. Groundwater is Island County's main water source. As such, groundwater quantity and quality are closely monitored. The availability of safe drinking water is an issue that guides Island County's growth, development, and resource protection measures.



Generalized flow pattern of an homogeneous island aquifer. Source: www.usgs.com

Islands in marine waters pose unique challenges for managing groundwater. All of Island County's groundwater aquifers are recharged only by rainfall soaking into the ground. Due to the rain-shadow effect of the Olympic Mountains, areas of Island County vary in precipitation from 17 to 40 inches annually. Some of the county's aquifers (such as those at or below sea level near the shorelines) are connected to the saltwater of Puget Sound. Portions of these aquifers may contain saltwater. Seawater intrusion—the movement of marine saltwater into freshwater aquifers—is a serious issue in some areas of the county.

Doug Kelly will be on Camano Island to offer a dynamic presentation on groundwater resources and seawater intrusion. He makes a complex topic understandable with simple animated graphics and amazing maps. Participants will learn about the function of our aquifers, the risks to our water resources (such as contamination and over use), details regarding local groundwater availability, and how agencies work to protect water resources.

Island County Public Health staff will also be at the presentation to share findings from a recent surface water quality survey of the Triangle Cove Watershed. Local conservation groups will be available for attendees to meet and learn about volunteer opportunities and resources on Camano Island. Call Kathryn at 425-377-7024 for more information. The event is free, but please register at ***http://camanowater.eventbrite.com***.

Sponsored by Snohomish Conservation District and Island County Public Health and funded wholly or in part by the US Environmental Protection Agency under assistance agreement PC-00J32601 to Washington Department of Health.

Snohomish Conservation District

Board of Supervisors
Mark Craven, Chair
Adam Farnham, Vice-chair
Karl Hereth
Steve Van Valkenburg
Jeff Ellingsen
Associate Members
Duane Weston
District Manager
Monte Marti

Phone 425-335-5634
FAX 425-335-5024
Contact: Lois Ruskell
lois@snohomishcd.org
425-377-7020
Editing: Donna Gleisner
The Written Edge
425-923-7110
www.snohomishcd.org

The NEXUS is published quarterly and distributed free of charge to residents of the District. Funding provided by Snohomish County Surface Water Management, Washington Department of Ecology, and the Washington State Conservation Commission.