



# Solar Energy Provides Water to Cows

By Lois Ruskell, Information/Education Coordinator

Once in a great while, all the stars and moons align just right for something truly great to happen. A recent summertime 'alignment' in Snohomish County involved an exciting new technology, money to fund it, a willing landowner, and the expertise to install it.

So what exactly did the alignment of stars and moons create? A solar-powered water pump for livestock. Snohomish Conservation District staff recently installed our first one on Eagle Creek, a small tributary of the South Fork of the Stillaguamish River, near Arlington.

### Many Benefits

The new pump system is expected to provide benefits for people, animals, fish and water. Keeping animals out of creeks, streams and rivers is one of the first and most important things that landowners can do to help reduce water pollution and streambank erosion and protect severely diminished fish populations.

Expectations are high that this new pump system will keep Eagle Creek cleaner, protect the salmon that call it home and, at the same time, provide enough drinking water for 50 cows on an adjacent pasture.

Installing the solar-powered pump system this summer was a coordinated effort. Of primary importance was finding a landowner willing to try the new technology and whose animals had access to a stream. The Beach family of Arlington was already working on their section of Eagle Creek with the help of Bill Blake, Environmental Manager at the City of Arlington.

Because their farm lies within Arlington city limits, City staff had begun restoring the stream channel. This included removing a deteriorating barbed-wire fence, building a new fence, and planting native trees and shrubs along the banks. But how then to water the Beach's small herd of beef cattle?

### Solution From the Sun

Thanks to a small grant and with the help of Department of Ecology's Ralph Svrjcek, Snohomish Conservation District received two solar pump watering systems this past summer. One was to be used permanently on a site where livestock had access to a fish-bearing stream; the second system is to be used as a loaner for people with livestock to try. If landowners find that a solar-powered watering system would work for their farm and their particular type of livestock, the Conservation District can assist with the engineering to install, and in some cases, pay for one of these systems.



The completed solar watering system includes (in the foreground) two 300-gallon troughs and the pipeline to the creek. Background, out of reach of the cows, is the solar-collecting panel.

### The Components

These watering systems consist of a solar panel, one or two water troughs, a pump, all the connections, and a small 12-volt battery. According to District Engineer Paul Smidansky, "There's really not a lot to go wrong with the system. It's pretty basic".

*"Conservation District staff can help landowners develop and install watering systems that will prevent regulatory issues down the road."*

Paul Smidansky

The Eagle Creek system uses two 300-gallon troughs to hold water, with a connecting pipe between them. There are no overflows on this unit — a float valve shuts off the system when the troughs are filled to an adequate level. This dual trough unit serves 50 cows. However, a single 300-gallon trough unit would likely be enough for most landowners, unless you have milk cows or are looking to expand in the future.

The two watering troughs installed on the Beach farm sit on a gravel pad to prevent mud build-up around the troughs, but this isn't required for the loaner system. Something simple, like stall mats, could also work to keep the area around the troughs from getting muddy.

The Eagle Creek system also includes 100 feet of PVC pipe buried underground between the stream and the troughs to keep the pipe from freezing in winter. This isn't required if you use the system for three-season grazing. A flexible hose could also work well in many situations. Ideally, livestock should be off pastures in the winter anyway to allow the grass to rest and prepare for spring growth.

## Fall 2009

Serving Snohomish County  
and Camano Island

## SCD To Host 25th Conservation Plant Sale in March 2010

Snohomish Conservation District will be holding its 25th Annual Plant Sale at the Evergreen State Fairgrounds in Monroe on March 5th and 6th, 2010!

Since 1985, the District has helped homeowners, park districts, garden clubs, tree farmers, and Christmas tree growers acquire a wide variety of trees, shrubs and groundcovers.

Always an eventful week for District staff, there is no end to the stories of misdelivered, frozen and lost trees. One



year our trees from Canada were stuck at the border due to Homeland Security restrictions. Another year, we had to move the entire tree sale (65,000+ plants plus supplies) the night before the sale began when the barn we were using was condemned due to the Nisqually earthquake. Rest assured though, our intrepid staff and volunteers will continue the annual sale next March! If you would like a brochure, sign up at our website, [www.snohomishcd.org](http://www.snohomishcd.org).

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# Solar Energy Provides Water ~continued~

Another feature of the unit is that the solar panel sits on a pole cemented into the ground, out of reach of the cows. However, a permanent structure won't be used in the loaner program.

Following construction, there was a brief troubleshooting period. The system is now operating smoothly. During this time, District staff have become even more familiar with techniques for optimum performance.

Landowners should be aware that there are restrictions on animal access to surface water (creeks, rivers and lakes) in the State of Washington. Even though Snohomish County does not have a livestock ordinance, because livestock have the potential to pollute water, landowners can be fined for any pollutants that enter creeks, streams, lakes or rivers.

The Conservation District's farm planners and engineers can assist interested landowners with off-stream watering systems, fencing, and pasture management. District services are free. In some cases, funding is also available for installing fencing and watering systems.



Two tanks are filled with water before cows are allowed into the pasture.



Let the race begin! Curious cows head for the newly filled water troughs.

For more information on various off-stream watering systems, contact a District Planner:

**North County**  
(North of Marysville)  
Tammy Edmonds  
425-335-5634, ext 114  
**South County**  
(South of Marysville)  
Megan O'Brian  
425-335-5634, ext 106  
**Dairy and General**  
Alan Shank  
425-335-5634, ext 120



The collection panel is safely tucked behind a fence.

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## Farms and Forests Will Reap Benefits

The U.S. Department of Agriculture's Natural Resources Conservation Service is now accepting applications for their revamped Conservation Stewardship Program. The first cutoff will be September 30, 2009. This voluntary program is for agricultural and forestry producers to maintain existing conservation activities and adopt additional ones. It provides financial and technical assistance.

Eligible lands include cropland, grassland, prairie, improved pastureland, rangeland, non-industrial private forestland—a new land use for the program—and agricultural land under the jurisdiction of an American Indian Tribe. Individual landowners, legal entities, and American Indian Tribes may all be eligible to apply for assistance.

To apply, use a self-screening checklist to determine whether the new program is suitable for your operation. It is available at Natural Resources Conservation Service field offices and on the Natural Resources Conservation Service web site (see below).

In addition, the process requires applicants to:

- 1.) Have farm records established with the U.S. Department of Agriculture
- 2.) Be the operator of the land
- 3.) Provide evidence that they have control of the land for five years
- 4.) Provide a map of the land showing land use and acreage

Additional information about the Conservation Stewardship Program can be found on their website: [http://www.nrcs.usda.gov/programs/new\\_csp/csp.html](http://www.nrcs.usda.gov/programs/new_csp/csp.html).

Or contact Kelly Counts at the Lake Stevens Ag Service Center, 528 – 91<sup>st</sup> Ave NE, Suite C, Lake Stevens, WA 98258 425-334-2828.



Pastureland and cropland, like this field near Silvana, would be eligible for the new Conservation Stewardship Program.

## Cultivate Success with Two WSU Courses

This fall, current growers and people thinking about becoming agricultural producers can participate in two multi-week courses being offered in North and South King County by Washington State University (WSU). Called 'Cultivating Success', the two programs offer in-depth farm and business training as well as tours.



**Agricultural Entrepreneurship and Business Planning** will take place on Mondays, September 14 through November 23 at Green River Community College in Auburn with one Saturday fieldtrip. The instructors will be Deanna Burnett-Keener, Director of the Green River Community College's Small Business Assistance Center, and Chris Benedict, Agriculture and Natural Resource Extension Educator for WSU Extension. The course offers business planning such as: evaluating resources, planning and research, legal and management strategies, marketing, budgets, and cultivating money resources. For information contact Chris Benedict, 253-798-7028 or email [cbenedict@wsu.edu](mailto:cbenedict@wsu.edu).

**Sustainable Small Acreage Farming and Ranching** will take place on Tuesdays, September 15 through November 17, at Cascadia Community College in Bothell with two Saturday field trips. The instructor will be Dave Muehleisen, Education Director and Farm Manager of 21 Acres. This course gives participants a broad overview of production and marketing options for today's small farm. For information call Andrew Corbin, 425-357-6012 or e-mail [corbina@wsu.edu](mailto:corbina@wsu.edu).

Class size is limited; register now to hold a spot. Cost for the twelve-week course is \$250 per farm or family. Pre-registration required. Both courses will repeat in the Spring, 2010.

To register, contact Karen Luetjen, 206-205-3187, [karen.luetjen@kingcounty.gov](mailto:karen.luetjen@kingcounty.gov).

For more information about Cultivating Success, visit [www.cultivatingsuccess.org](http://www.cultivatingsuccess.org)

# Rain Garden Solves Multiple Problems

Clearwater School, a private school in the Bothell area, recently installed a rain garden to catch and filter water from their parking lot. Previously, a swale had been in that area but it did not function properly and contained standing water, which attracts mosquitos and tends to smell. In addition, stormwater that is not treated or filtered can harm fish and other aquatic life in streams.

Conservation District Engineer Paul Smidansky began working with school staff this past summer to design the new rain garden. Snohomish County Surface Water Management Watershed Steward Peggy Campbell spear-headed the construction funding portion of the project by acquiring a grant for installation. Snohomish Conservation District has funding to construct additional rain gardens and other low impact development projects in limited, grant-funded areas. Contact Paul Smidansky at 425-335-5634, ext. 111 for more information.



Above: The completed rain garden. Log in the foreground is a check dam which helps slow down surface water so it can be absorbed into the amended soil and cleaned naturally.

## Farm Planners See More Alpaca in the County

### True or False:

- 1) There are thousands of alpacas in Washington.
- 2) Many alpacas live in Snohomish County.
- 3) The number of alpacas is growing every year.

The answer to all three questions is yes! Snohomish Conservation District farm planners are seeing more of these gentle grazers when making their farm visits.

Native to Peru, Chile, and Bolivia, alpacas have been in the United States for about 26 years. The U.S. herd grew slowly, but steadily, until three years ago when the National Alpaca Registry recorded its 100,000th animal. Now, just three short years later, the industry is nearing 200,000 alpacas.



Lynne Armstrong with some very young alpacas.

Along with that rise in animals, the alpaca textile industry is becoming more prominent, too. The garment industry--nationally and internationally--is using more and more of the fiber these animals produce. Alpacas are easy animals to keep. They need pasture or hay, water, a nutritional grain, and shelter (although they usually prefer to be outdoors). Alpaca manure can be easily picked up and is supposedly gentle enough as a fertilizer to go right from animal to garden, or even house plants.

If you would like to learn more about alpacas and have a nice outing with kids of any age, save the last weekend in September (Sept. 26-27) for the third annual National Alpaca Farm Day. Hundreds of alpaca farms across the country and right here in Snohomish County open their gates so the public can meet these animals up close and learn all about them.

You can also check the Alpaca Association of Western Washington website (<http://alpacawa.org/>) to find farms near you that you can visit anytime of year with just a phone call.

Contributed by Lynne Armstrong, Secretary of the Alpaca Association of Western Washington (AAWW).

## Here's Help For:

### Stillaguamish Landowners

Need help with managing your pastures or improving wildlife habitat? Snohomish Conservation District currently has grant money to provide free technical assistance to rural homeowners and farmers in the Fish Creek, March Creek and Harvey/Armstrong watersheds. Contact Farm Planner Tammy Edmonds at 425-335-5634 ext. 114 or Habitat Restorationist Ryan Williams 425-335-5634, ext. 116.

### Streamside Residents

Do you live on a creek or stream and want to get paid to keep a buffer on it? The Conservation Reserve Enhancement Program may be for you. This program will pay for 100% of the costs to install and maintain a new buffer, or enhance an existing one, for 10 or 15 years. Buffer widths range from 35 to 180 feet; rental rates range from \$146 to \$386 per acre per year. Contact Ryan Williams at 425-335-5634 ext. 116 if you are interested.



### Bear/Little Bear Creek Residents

Snohomish and King Conservation Districts have partnered to improve water quality in the Little Bear and Bear Creek watersheds. Located in south Snohomish County and north King County, these watersheds are increasingly harmed by urban uses, a large pet population, and small agricultural enterprises. The Conservation Districts, with funding from a Department of Ecology grant, will offer landowners free technical assistance and free farm planning for issues related to agricultural activities, pet waste, septic systems, wells, stormwater, and natural yard care. There are also a limited number of free well tests and free soil tests for landowners with livestock on their property. Contact Megan O'Brian at 425-335-5634, ext. 106 for details.

## Mud-Free Blankets

by Pam Grudin, SCD Program Assistant

A friend who keeps her pony at our farm remarked recently that she was glad she didn't have to pay \$50 to \$80 to have her pony's mud-encrusted blankets cleaned. I hadn't really thought about that expense and realized afterwards that I hadn't cleaned mine in several years, either. Previously, we had both boarded our horses at a stable where blankets had to be cleaned every spring at great expense. Why was it so different now?

### No Mud Holes

When I told my husband I wanted to get back into horses he said, "I don't want a mud hole in the yard". So I did some research and found Snohomish Conservation District and Horses for Clean Water. I called the District and got all the information I needed about building a sacrifice area, setting-up and using a compost bin, engineering barn gutters, and fencing that would keep horses out of the creek on our property. The best part was all that information and assistance was absolutely free! We went to work implementing the recommended best management practices and VOILA ~ NO mud!

### Creating a Sacrifice Area

One of the first things our District farm planner recommended was creating a 'sacrifice area'. This is an area that we let the horses use while our pastures are resting, thus allowing the pastures to produce better grass and fewer weeds. We give up, or sacrifice, this area.



Pam and her horse Clancy.

In spring, when we need to limit the horses' time on all that lush pasture, we close the gate and keep them in the sacrifice area. In summer, when we have to mow, the horses are confined here for a short time. When fall rains start, winter confinement begins, and lasts until spring. This sacrifice area saves our pastures from overgrazing, soil compaction, and mud problems.

As my husband and I drive around the County, we see many 'mud holes in yards'. I wish I could just stop and talk with folks about the value of their local conservation district. These best management practices save us in a number of ways, not just the savings we get by not needing to have our blankets cleaned.

# Upcoming Events

## Puget Sound Birdfest

September 12, 10 AM - 4 PM

All things related to birds and conservation at the Edmonds Library, 650 Main St, Edmonds. Festival website: [www.pugetsoundbirdfest.org](http://www.pugetsoundbirdfest.org).

## Harvest Jubilee

September 19, 8 AM - 10 PM

Highlights agriculture past and present with farm tours, dances, hay rides, animals and more. Booths at the Skagit Farmers Supply store, 8815-272nd Street NW, Stanwood. Website: <http://harvestjubilee.org>

## Bryant Farm Tour

September 26, 10 AM and 1 PM

Come see the transformation of this former dairy into a modern cattle and horse farm. Alayne Blicke, Horses for Clean Water, will highlight what to look for if you're buying a new farm, including rotational grazing, concrete manure bins, watering facilities and well-defined sacrifice areas. Register at [workshops@snohomishcd.org](mailto:workshops@snohomishcd.org), or call Pam at 425-335-5634, ext. 123. Pre-register to receive a map and directions. Lunch is optional and can be purchased for \$5. During lunch, Alayne will cover preparing your farm for Fall.

## Fall Septic Sense

October 17, 10 AM - Noon

Stanwood PUD Building, 9124-271st St NW, Stanwood

Teri King, from the University of Washington SeaGrant program, will give a lively presentation on the do's and don'ts of home septic system care. Learn about septic system types, how they operate, and how to protect them from damage as well as extend their life. Register at [workshops@snohomishcd.org](mailto:workshops@snohomishcd.org) or call Pam at 425-335-5634, ext. 123.

## Focus on Farming

November 5, 2009, at the Tulalip Resort and Casino, Marysville

An Agriculture Land Use and Policy Summit will be held November 4 at the same location. To learn more, visit: [http://www1.co.snohomish.wa.us/County\\_Services/Focus\\_on\\_Farming/](http://www1.co.snohomish.wa.us/County_Services/Focus_on_Farming/).

## Northwest Ag Business Center Classes

The Center has classes on Hard Cider Making, Wine Viticulture, Poultry Processing, Transitioning to Value-Added Products and more. Also, check out the Whatcom County farm tour. Go to: <http://www.agbizcenter.org/home>.



# 7 Tips for Fall

by Bobbi Lindemulder, Lead Farm Planner

We're quickly running out of time to prepare barns, fields and paddocks for fall rains and the winter ahead. Here's a checklist to help you prepare your farm.

- ❖ The fall pasture-seeding window is coming up, usually mid September to mid October. General pasture mixes, which contain orchard grass, ryegrass and tall fescue, work well. Remember to create a good seedbed by dragging or harrowing first. Soil tests are very important!
- ❖ Liming can occur at any time, but many people schedule it to coincide with pulling their animals off pastures in the fall. Agricultural lime or dolomite lime are commonly applied. Use a soil test to determine how much is needed.
- ❖ Order hogfuel or other footing material BEFORE the ground gets saturated or you risk the delivery truck getting stuck.
- ❖ Un-controlled roof water creates most of the mud issues around livestock areas. Diverting water away from barns and into an area where it can filter into the ground slowly is optimal. Installing gutters, downspouts, and underground outlets now will alleviate mud problems later. Clean existing gutters.
- ❖ Order hay now and fill your barn with your winter feed supply. There are many great local hay sources. Know what you're buying, ask if it's been tested for nutrient content, and look for hay that is clean, smells good, and has come from a field with desirable grasses and few, if any, weeds.
- ❖ Empty compost bins before the ground gets saturated. Spread compost during the growing season, 1/4 inch at a time, and generally no more than 3- 4 inches per year. Composted manure, rather than fresh, is preferred.

- ❖ Finally, check and replace light bulbs! Heading to the barn when it's dark and rainy is just no fun. Good lighting helps improve safety and chore efficiency. High-efficiency light bulbs or motion lights are especially good.



If you'd like a free farm assessment to learn how to prepare your farm for fall and winter, call the District at 425-335-5634, ext. 4.

SCD 4

# County Inspections To Include Agriculture

You may be seeing some County vehicles driving slowly through your neighborhood if you live in central or south Snohomish County. Snohomish County Surface Water Management staff will be inspecting commercial animal handling facilities located in Snohomish County from now until December 2011.



These no-charge inspections will include technical assistance to help business owners reduce stormwater pollution. The inspections are required through a permit issued to Snohomish County by the State Department of Ecology as part of the Federal Clean Water Act. King, Pierce, Clark and Snohomish counties, as well as the cities of Seattle and Tacoma, are all participating.

Inspecting commercial animal handling facilities is only part of an overall program to inspect most commercial and industrial facilities, multi-family residences, condos and mobile home parks within the county. The main focus is to keep stormwater clean by eliminating pollutants that run off into roadside ditches, streams, rivers, and lakes, and that could ultimately harm Puget Sound.

Commercial animal handling areas, which are required to be inspected, include riding arenas, kennels, veterinary offices, and sites that board animals. Not included are any sites currently under the Department of Agriculture's jurisdiction, such as dairies or slaughter yards.

Through a partnership with Snohomish County, Snohomish Conservation District farm planners will be offering property owners free technical assistance and farm planning advice to address any concerns that County staff find during inspections.

For more information about the program, call Jon Schmidt, Business Inspection Program Supervisor, at Snohomish County Surface Water Management Division, 425-388-3464. General information about stormwater programs can be found at the Department of Ecology stormwater website at <http://www.ecy.wa.gov/programs/wq/stormwater/index.html>.

# District Welcomes Tammy

Snohomish Conservation District welcomed new small farm planner Tammy Edmonds this summer. Tammy is working with farmers and rural residents in the Stillaguamish Watershed in North Snohomish County. She can help landowners with technical assistance, soils information, cost share requests and farm planning.

Tammy was previously employed as a sales and customer service representative with Monsanto Dairy Business. She also has experience in marketing and public relations. She received her MS in Dairy Management from Washington State University and her BS in Animal Science and Dairy Food Science from the University of Vermont.

Tammy and her husband Joel own a small farm in the Silvana area. They have four children: AJ, Dallas, Jackie and Noah. Tammy can be contacted at [tammy@snohomishcd.org](mailto:tammy@snohomishcd.org) or by calling 425-335-5634, ext. 114.



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