Vera Vanderyacht Thistle Tells Her Story:
Thanks in part to CREP their farm on the Nooksack River’s middle fork will stay in the family

In 1948 Vera Vander Yacht and her husband Ken moved their children from their 40-acre farm on the Huntley Road in Dewey Valley to a 147-acre farm on Mosquito Lake Road in Welcome Valley. Ken felt the move would provide more opportunities for their children and for farming. They had a small herd of purebred Guernseys and every day the family shipped 8 cans of milk to Darigold, but when different handling methods became required for shipping milk they switched to raising beef cattle. The cattle thrived in the pasture area by the river which was in the local area that they picked up on bids. They also built a sawmill for custom cutting and planing lumber and a shake mill for turning cedar into shakes. Ken and their oldest son, Duane, also selectively logged some of the timber on their own place and they used some of the large cedars they salvaged from gravel bars to build homes on their property.

The Welcome Valley farm proved to be a good place to raise a family, with Canyon Lake Creek, Carlson Creek and the Nooksack River growing plenty of nourishing feed.

With no milking to do, Ken and their sons, Dennis and Duane, started logging. Most of the logging they did was in the local area that they picked up on bids. They also built a sawmill for custom cutting and planing lumber and a shake mill for turning cedar into shakes. Ken and their oldest son, Duane, also selectively logged some of the timber on their own place and they used some of the large cedars they salvaged from gravel bars to build homes on their property.

The Welcome Valley farm proved to be a good place to raise a family, with Canyon Lake Creek, Carlson Creek and the Nooksack River growing plenty of nourishing feed.

DROUGHT RELIEF
Cash for Water: Innovative Program Will Permit the Transferring and Leasing of Water Rights

On March 14, 2001 Governor Locke authorized Washington Department of Ecology (Ecology) to declare a statewide drought emergency due to low anticipated stream flows and expected hardship that some water users will experience. Many of us have heard the ominous statistics:

* Precipitation and snow-pack levels show that this year is among the five driest winters in the past 100 years.
* Bellingham’s rainfall between October and February was just 60 percent of average.
* Snow pack in the mountains that stores water and melts into the Nooksack River Basin is less than 60 percent of the 40-year average.

What does this mean for Whatcom County?

Many water users in Whatcom County get their water from the ground. The lack of rain and snow during the winter months means that our ground water supplies are not being replenished at a normal rate. The reduced ground water levels can result in reduced pumping capacity or wells going dry. And since much of the flow instreams comes from ground water, especially in the summer when there is less precipitation, the reduced groundwater levels mean that less water will enter streams.

Ecology is required by law to regulate and manage water uses that have

CONTINUED ON PAGE 3

During a drought lower than usual water levels such as those now occurring in the Nooksack River can cause higher than usual temperatures (a stress factor for fish) and scarcer instream cover.
Got Flies? Got Mud? Got Manure?

Get Solutions For Your Horse Farm!

Do you want to learn how to compost your horse manure instead of creating Mount Manure behind your barn? Are you interested in learning how to prevent flies naturally, without the use of chemicals? Would you like to learn techniques for reducing, even eliminating, mud?

A mountain of manure, a muddy paddock, and a cloud of flies are often thought to go hand-in-hand with the average horse farm, but they don’t have to! Now’s your chance to:

- Compost your manure in time for the growing season and put it to use
- Get rid of mud and keep it from coming back next year
- Prevent flies before they become a problem this summer
- Learn how to manage your pasture areas and make them more productive

Join us to learn how you can protect your horse’s health by managing mud, manure, pasture areas, and flies.

Managing Manure and Mud
TUE., MAY 8 • 6:30-9:00 P.M.  Laurel Grange Hall: 6172 Guide Meridian

A good manure management system can make your place healthier for horses, reduce the insect population, and reduce the amount of mud on your farm. Come learn about composting horse manure, other manure management options and the many ways you can reduce mud on your farm.

Pasture Management and Fly Prevention
TUE. MAY 15 • 6:30-9:00 P.M.  Laurel Grange Hall: 6172 Guide Meridian

In this class we will cover the basic techniques for good pasture management including how grasses grow, creating a winter paddock, rotational grazing and managing small, grassy areas. We’ll also talk about ways to prevent flies naturally and how to keep them from becoming a problem this summer.

Farm Tour
SAT., MAY 19 • 10:00-NOON

This guided tour of a small horse farm in Bellingham will give you a first-hand look at different options for managing your horse farm. Examples of techniques to be highlighted include a composting system, mudless paddocks, and wildlife enhancement practices. Sharon Hoofnagle, DVM will join us to talk about these farm management issues and how they benefit horse health.

To register, call Washington State University / Whatcom County Cooperative Extension at 676-6736 or e-mail whatcom@wsu.edu

Sponsored by WSU/Whatcom County Cooperative Extension and Horses for Clean Water. Funded in part through a cooperative agreement with the National Oceanic and Atmospheric Administration.

WHATCOM CONSERVATION DISTRICT – Mission Statement: the Whatcom Conservation District promotes conservation education and provides technical assistance to foster a healthy relationship between the environment and people.
Vera Thistle continued from page 1

on the borders. The two boys enjoyed fishing and hunting and were in Future Farmers of America at Mt. Baker High School. The four girls, Diane, Debora, Dori and Delinda enjoyed hiking and camping and were in Camp Fire Girls and 4 H Clubs. Vera explained, “Our children appreciated nature and were taught to respect and preserve the environment.” Vera’s family came from town each weekend to pick berries and harvest mushrooms. The property became the meeting and gathering place for the entire extended family. As Ken and Vera grew older they decided that the property should be deeded into smaller parcels for each of their six children.

Ken was trying to find the time to retire when he was diagnosed with cancer. After surgery, chemotherapy and radiation he passed away in 1981. Six years later Vera remarried Cliff Thistle. Vera and Cliff decided that it was time to carry out their plans to deed the property to her children. It took months to go through all the permit applications, lawyers, and endless planning to develop the short plats where all her children, except one, are currently living.

A few years ago Cliff and Vera decided to form a family corporation so that the land would stay with the family when Vera is gone. The corporation is called Wildfern, simply because, as Vera puts it “there are so many wild ferns on our land”. Knowing that the children have a strong attachment to the land made the corporation important to Vera.

Vera heard about CREP from a family friend who has a farm in the Van Zandt area. Vera’s friend has been enrolled in CREP for a year and is very pleased with the benefits. As Vera learned more about CREP she realized that it fit into her plans for Wildfern. CREP is leasing portions of Wildfern property along the streams and beaver ponds for a 15-year contract. CREP will restore the stream banks with native trees while bringing the corporation some income.

Vera feels CREP is a worthwhile program that serves two purposes for Wildfern, Inc. So far, she would recommend it to anyone who wants to save both the salmon and the environment, and in Vera’s case, to preserve her family heritage.

**The Washington State CREP (Conservation Reserve Enhancement Program) assists with the recovery of salmon species that have been listed as threatened or endangered under the Endangered Species Act by paying landowners to establish forested riparian buffers along rivers and streams. Forested riparian buffers are comprised of a diverse stand of native trees and shrubs that are representative of a relatively undisturbed stand of mature forest.**

Drought cont. from page 1

an effect on stream flows. Instream flows are the minimum flows or water levels needed to sustain habitat, recreational activities, and/or aesthetic value in rivers and streams. Instream flows for many areas of the state, including the Nooksack, were set by regulation between 1976 and 1986. Once adopted, an instream flow rule acquires a priority date similar to that associated with a water right. Water rights issued after adoption of the instream flow rule are subject to the requirements of the instream flow rule. This means the right to use water can be legally interrupted for these “junior” water right holders (i.e. holders of water rights issued after establishment of instream flow rules) if stream flow drops to the levels protected in the rule.

The interruption of water rights may affect a small number of Whatcom County farmers this summer. One way Ecology is helping individuals and communities cope with drought is through temporary transfers of water rights. Throughout the state, the Department of Agriculture and the state Conservation Commission are looking for farmers who need water or who could help other farmers. Ecology will negotiate the temporary water right leases.

The state Conservation Commission has asked Conservation Districts to facilitate the transfer of water rights by forwarding names of surface water users interested in temporarily leasing away part or all of a water right. The goal of transfers is to provide water instreams and rivers for fish, provide water to communities, and keep farm crops from dying. Money from a state Drought Preparedness Account is available to buy and lease water.

We can all do our part to conserve water today and lessen the effects of limited water supplies this summer. Any of the websites listed below contain basic conservation tips that make sense. Conserving water saves money and protects a valuable natural resource.

In response to the drought status, the Department of Ecology has developed a Water Resources Homepage at [www.ecy.wa.gov/programs/wr/drought/droughthome.html](http://www.ecy.wa.gov/programs/wr/drought/droughthome.html) and a toll-free drought hotline (800-468-0261) to address questions and provide weekly updates to citizens. The homepage offers links to USDA Natural Resource Conservation Service stream flow forecasts and precipitation and snowpack data, as well as U.S. Geological Survey data on hydrologic conditions.

WSU College of Agriculture has developed a statewide drought website at [http://drought.wsu.edu](http://drought.wsu.edu) with information about crops, irrigation, livestock, and information about home and garden water conservation. In addition, WSU Cooperative Extension has a comprehensive Whatcom County water conservation website that includes links to local agriculture, environment and community issues at [http://whatcom.wsu.edu/environ/water/conservation.htm](http://whatcom.wsu.edu/environ/water/conservation.htm).
AGRONOMY NOTES:

Whatcom CONSERVATION NEWS Profiles 3 Local Graziers

With the exception of dairy cows, most of the livestock in Whatcom County spend more time on pasture than they do in the barn, and the dairy cows in many local herds spend their share of time in the field too. Because of this, an understanding of the principles of pasture management that promote optimum forage productivity is fundamental to the economic health of the farm, the biological health of livestock and the health of the surrounding environment. In this article Whatcom CONSERVATION NEWS asked 3 local farmers, each managing a different type of livestock, to describe some of the things they've done to improve forage productivity on their farms.

Dairy

Windy Willow Farm

Bill and Jackie DeGroot operate a dairy, which they call Windy Willow Farm, on the Aldrich Road in North Bellingham. Pasture provides the majority of their 100 head herd's feed through the 7 month grazing season. Bill observes that when the grazing season begins two good things begin to happen: “My labor costs go down because pasture provides my cows with a situation where they self-feed and apply their own manure. And my milk production goes up because pasture is such a high quality feed. This year there were 1,000 more pounds of milk in my tank right after the cows were turned out on grass.”

PASTURE ROTATION: Bill maintains 28 separate fields, and the cows are on any one field for no more than 24 hours.

FORAGE MANAGEMENT: Bill’s favorite forage is a combination of perennial rye and white clover. Instead of working fields up prior to replanting he over seeds the rye into standing forage at a rate of about 5 pounds per acre shortly before he turns the cows out (generally the first part of April). This way the cows themselves become an agent in sowing the grass because as they graze the field their hooves firm the contact between seed and soil. Bill has planted fescue on some of his wetter ground and has some beautiful stands to show for it, but he says the cows much prefer the rye. He also notes that they don’t care that much for meadow foxtail either, which shows up in a few wet spots.

WATER: Instead of providing water in every field, Bill keeps nose pumps (self serving diaphragm pumps) at a couple of strategic locations. The source for this water is a tributary to Deer Creek that is fed by Larrabee Springs, located on North Bellingham Golf Course.

WISH LIST: A water source, either tank or nose pump, for the cattle in every field, and improved access lanes between fields and buildings so the cows don’t have to walk through mud as they make their way way between fields and the milk parlor.

Beef

Don Hrutfiord

Don Hrutfiord, a retired Skagit Valley College auto mechanics instructor, raises 20 to 30 head of beef cattle on the Blaine area farm he grew up on, which lies not far from where Dakota Creek enters Drayton Harbor. Don’s white faced cows, which are mostly polled Herefords, currently include brood cows and yearling calves. His 20 plus acres, which mostly lie on poorly drained ground, provide his herd with all the feed they need during the grazing season. During the winter Don feeds the 80 or so tons of hay he cuts from neighboring fields. Several years ago Don started rotationally grazing his fields – as opposed to continuous grazing which he practiced for years – and noticed immediate improvements in both the way his grass began growing and the added weight gain by his cows. Due in part to his love for operating and restoring farm equipment (both old and new), Don also continues to experiment with ways of improving forage growth by mechanical means, such as soil aeration.

PASTURE ROTATION: Don has established 10 fields across his farm that all provide about the same amount of feed - enough for 2 to 3 days depending on the time of year. Due to differences in forage growth some of the better fields are only about an acre and a half, while others that are less productive run closer to 3 acres.

FORAGE MANAGEMENT: During the winter the cattle are fed at an old poultry barn where Don stores his
hay. The deep layer of wood chips that Don spreads at this site reduces mud, helps keep the cattle drier (which reduces their feed requirements) and absorbs manure. Cattle have winter access to 2 of the 10 fields, but they use them sparingly. The heavy, poorly drained soils are subject to soil compaction and the last couple of years Don has been using an aerator to improve conditions for plant growth. Don says, “It looks like a whole bunch of mole hills after the aerator is run across a field”. He left check strips next to where he ran the aerator and noticed a definite improvement in the treated area.

WISH LIST: Like Bill DeGroot, Don would like an improved access lane between his fields and the barn. He is also considering composting manure from some of the horse stables that are becoming fairly numerous in the Blaine area and applying it to his fields, which have become nutrient poor in the decades that have passed since his father’s chicken farm was located there.

HORSES
Larry & Shelley Davis

Larry and Shelley Davis keep 4 adult horses on their Bay Road farm which includes about 6 acres of pasture and hay ground. Except for a little grain, all the feed the horses consume including hay is raised on the farm, and due to an abundance of grass that resulted from last summer’s ample rainfall they even sold 5 or 6 tons. Larry is a horse shoer (farrier) by trade so he gets to see a lot of horses feet. One thing he feels quite strongly about is that the hoof health of horses could be greatly improved by simple improvements in the management of the pastures and lots where horses are maintained. Larry says, “If you could keep their feet dry for 6 hours a day 90% of their hoof problems could be avoided.”

PASTURE ROTATION: The horses are rotated between 6 pastures that each provide enough feed for 5 days or more. Grazing only begins on the field on the wettest ground in midsummer after 1 or 2 cuttings of hay are taken off.

FORAGE MANAGEMENT: Meadow foxtail is the dominant grass in wetter areas, while bentgrass and red fescue prevail on drier sites. These grasses might not work well for milk cows but they seem just fine for horses. Right after the horses have grazed a paddock Larry clips it to reduce the height of any grass the horses may have left. He finds that clipping provides at least 2 benefits. The first is that forage regrowth that occurs after clipping is more nutritious and palatable than what would have been left if he hadn’t clipped. The second is that when he moved on the place Canada thistle covered his fields, but with regular clipping it has now been almost completely eliminated without having to use any herbicides.

FEEDING MANAGEMENT: Larry and Shelley closely monitor when and how much their horses eat because in their words, “Too little feed is better than too much.” Larry has been called out on too many farms where horses were foudningering and had to be put down due to too much lush green grass early in the spring. Perhaps it’s concerns about foudnering that keeps many who raise horses, either consciously or unconsciously, from doing a better job of managing their fields. Either way they set themselves up for purchases what they could grow themselves, and some of the other health problems that plague horses (such as sore feet) which result from muddy, poorly managed fields.

These are some of the things Larry and Shelley do to avoid diet related problems:
* Horses are given some hay and grain before they are turned out on pasture so their bellies aren’t empty. This way they have less of a tendency to gorge themselves on lush green grass.
* At the beginning of the grazing season horses are turned out for short periods (2 to 4 hours) and as their digestive systems begin adjusting to fresh grass the grazing period is gradually lengthened.
* In addition to the pastures they also maintain a couple of smaller paddocks that are used more for exercise than eating. Larry refers to one of these paddocks as a “sacrifice area”. It is pretty much devoid of plant growth but it gives horses a place to exercise when it’s wet without tearing up the fields. The other paddock is his “diet pen”. There is some grass in this one but it’s kept short enough to make the horses really work to get it. Horses go there when they start putting on too much weight and it also makes a good field to start them grazing in the spring.

WISH LIST: A roof for their compost bins: Larry and Shelly just began composting and noticed that when the piles became drenched with rain they cooled down and stopped fermenting very quickly. They are also looking at some ways to improve aeration in their compost bins.
Drought and Fish: What You Can Do To Help

Several fish stocks will be returning to our local rivers from the saltwater and migrating upstream to spawn this summer when the effects of a drought will be most dramatic on water levels and temperature. Other fish are year-round residents who are dependent upon cold, clean water. During a drought thermal stress, lower oxygen, scarcer instream cover, and increases in concentrations of pollutants are factors that may impact any of these stocks. Lower stream flows can also mean slower intergravel flow in reds, which incubating eggs are dependent upon to bring oxygen rich water in, and to carry away their metabolic waste products.

South Fork Nooksack spring chinook is the fish species perhaps most vulnerable to drought effects. Spring chinook are generally mainstem spawners, spawning from mid-August to late September. A lack of riparian canopy as well as in-stream cover characterizes much of the river’s available spawning reaches, which are often wide and shallow. When water levels are low, the river’s temperature is even more susceptible to change. These factors can contribute to higher than usual water temperatures during summertime drought conditions in these areas. The South Fork lacks a glacial source such as that which feeds the North Fork. Water temperatures in the South Fork have been at or above lethal levels for salmonids (fish in the Family Salmonidae) during the summer when fish are migrating upstream to spawn. Salmonid mortality can occur at sustained temperatures of >23°-29°C.

Low water levels equate with higher stress for migrating fish because of warmer temperatures, less oxygen, and because instream cover becomes more difficult to find at a time when they are not feeding. Conservation of energy becomes more important than ever for migrating fish, enabling them to reach spawning grounds and successfully spawn. A significant disturbance factor in the South Fork during summer can be recreationists. Historically, the river was deep, with house-sized pools, and large wood which provided cover and which helped to maintain depth and channel stability. Because of accelerated erosion and other factors in recent history, such as the removal of large wood from the river and streambanks (see Vol.10, No. 1, Whatcom Conservation News cover story), deep pools and good cover are scarce. This means that upstream migrating fish, which are using their last available resources to swim upstream, may be energetically compromised if harassed or if holding areas are otherwise occupied.

Other salmonids migrating up local rivers during the warmest time of the year include anadromous native char (bull trout and Dolly Varden); Mainstem/South Fork fall chum; Nooksack pink salmon; coastal cutthroat in the Nooksack, Sumas, and Samish Rivers, and Nooksack fall chinook (an introduced stock from the Green River). Rearing juvenile fish are extremely prone to risks associated with drought. In any normal summer it is common to see juvenile salmonids swimming forlorningly in small, isolated pools in the South Fork Nooksack River floodplain, at the mercy of the summer sun, as well as to a myriad of predators. This effect may be magnified during a drought. Maintenance or re-establishment of streamside vegetation is essential for controlling stream temperatures and providing cover, to protect these fish against thermal stress and predation.

WHAT CAN YOU DO?

* Observe spawning fish from a dis-

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**Upcoming Events & Opportunities**

**Whatcom Conservation District Board of Supervisors Election:** Unless the current law is over turned or modified, one position on our Board of Supervisors will be filled in next fall’s general election. This represents a significant change because this is the first time candidates for the District Board have had to run in the general election. All candidates must file an application to run for this position with the Whatcom County Auditor’s Office during the last week of July (July 23rd-27th). For more information please call the District office.

**Portage Bay Shellfish District Open House:** Friday, May 4, 3 - 7 PM, Laurel Grange Hall, 6172 Guide Meridian • The Nooksack River nearshore shellfish area is closed to shellfish harvesting. Join the Citizen’s Committee for a free informational poster session which will provide an overview of the cooperative efforts in the Nooksack watershed to improve water quality and restore shellfish harvesting in Portage Bay.

**6th Grade Forest Conservation Tour** • April 30th-May 3rd • In its 43rd year, over 1200 6th graders attend this outdoor learning event.

**State High School Envirothon Competition** • May 7-8th, 2001 • The annual Washington State envirothon will be held at Tall Timber Ranch in Leavenworth, WA. The Mt Baker team that placed second at the regional contest will represent Whatcom County at state. Good luck you guys!!

**W.S.U. Do-It-Yourself Drip Irrigation System Workshop** to be held at Bloedel-Donovan Park Pavilion on Saturday, June 2, 9:00 am - 11:00 am.

**Northwest Washington Fair** • Mid August • Whatcom Conservation District and the Nooksack Salmon Enhancement Association will play host to an interactive fair booth. This year’s theme is agriculture, fish and water issues. If you are interested in assisting with this year’s booth, please call the WCD.

**Farmers Market Information booth** • August & September • This is becoming an annual event for the WCD. Our education and information booth is always a big hit for market shoppers. Last summer they enjoyed learning about locally produced food and took home some free composted dairy manure.

**Bertrand Creek Stream Team** volunteer training series is set to begin in August. If you are interested in learning how to become a stream steward then this FREE class series is for you. Call Beth or Andrea at 354 2035 x114.
Drought & Fish continued from page 6

tance, especially when floating the river.
* Remember that young salmon, trout, and char also may share your favorite riverside places, and leave them be.
* Leave salmon carcasses in the river.
* Remember that fragile eggs may be in riverbed gravel at any time of year.
* Get involved with local groups such as Nooksack Salmon Enhancement Association (phone: 715-0283) and Whatcom Conservation District in doing seasonal stream re-vegetation projects.
* Be aware of local fish issues, and make conscious choices about where and how you live. Be aware of the effects your actions have on your surrounding environment. Practice good land stewardship and protect streams on your land.
* Support conservation initiatives that protect aquatic habitat.