



Alaska Current Developments Summer 2003

Urban Watersheds Chester Creek Watershed Plan

Michelle Schuman, District Conservationist
Anchorage Field Office



Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our water is the principal measure of how we live on the land.

-Luna Leopold

Alaska has a land area of 586,412 square miles with 55 million acres of inland waters and 47,000 miles of coastline, and a population of about 622,000.

Extensive coastal watersheds provide spawning and rearing habitat for anadromous species such as Pacific salmon and nesting habitat for seabirds. Alaska's size, sparse population, and general inaccessibility help ensure that most watersheds are relatively pristine. The trends in human use, however, are increasing rapidly and localized water pollution is a concern in urban areas such as Anchorage.

Anchorage municipal boundaries stretch more than 50 miles from Portage Glacier to Eklutna,

encompassing 1,955 square miles – about the size of Delaware. Nearly 300,000 people make their home in Anchorage, almost half of the State's population.

As the urban and suburban areas expand in Anchorage, waters are impaired, destroying habitat, and threatening public health locally and down stream. The two leading causes of urban runoff pollution are (1) increased impervious cover resulting in greater runoff and volume and velocity, and (2) increased deposition of pollutants. According to the EPA, more than 80% of Americans live within 10 miles of a polluted river, lake, or coastal water. Among all pollutants afflicting streams and rivers in the U.S., sediment is by far the greatest in terms of volume. But elevated levels of pathogens are the leading cause of impairment to water quality as a result from municipal point sources and urban runoff.

The Municipality of Anchorage recognizes the need to develop strategies to protect and enhance watershed values for flood and erosion control, provide continued recreation and education, enhance and maintain fish and wildlife, and still provide economic values to the community. There are approximately eight defined watersheds within the Anchorage Bowl area, including Chester Creek. The Chester Creek Watershed Plan is the first to be developed for Anchorage and will provide a planning template for the remaining watersheds. The plan will assist the Municipality of Anchorage's National Pollutant discharge Elimination System (NPDES) permit requirements.

The Chester Creek watershed covers approximately 30 square miles originating in the Chugach Mountains extending west to the Knik Arm. The easternmost portion of the watershed remains undisturbed but upon entering developed areas, the creek has been channelized and much of the surrounding wetlands have been filled. The westernmost portion of the watershed consists of

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Westchester lagoon, an artificial pond that flows into Cook Inlet. Chester Creek historically supported runs of silver, pink, and king salmon. The creek now supports a small run of silver salmon.

As Anchorage continues to increase in population, impervious areas have also increased to as high as 64% in some of the drainages. Wetland loss has been as high as 70% and the creek has had higher than acceptable levels of fecal coliform bacteria. In addition to substandard water quality, peak flows are two to three times higher in developed areas of the watershed. The Chester Creek Watershed supports 10 community councils, 30 schools, 60 parks, 900 businesses, 20,000 residential homes, 276 miles of streets, three hospitals, two universities, and one landfill. Once primarily forests, northern peat bogs and floodplain wetlands, the functions and values of the watershed have been impacted by nearly seventy years of development in the Anchorage bowl.

The NRCS Anchorage Field Office was invited to be on the advisory group for the development Chester Creek watershed plan. The AFO has been assisting the Municipality on another project within the Lagoon area to enhance anadromous fish habitat so it is natural that NRCS be involved with the planning effort for the watershed. There is a growing recognition that natural water resources provide a range of benefits to communities well beyond just their potential to support fish. The development of an effective watershed management plan must reflect community priorities and optimize benefits and services derived from local water resources.

The watershed management plan provides the implementation framework which includes management practices, outreach, monitoring, and evaluation activities. Coordination and cooperation among partners are essential for successful implementation of the Chester Creek Watershed Plan. The Anchorage Field Office is confident that the Chester Creek Watershed Plan will be the first of several to be implemented in the Municipality of Anchorage.

**Alaska State Fair
Home Grown Fun!
Aug 21 - Sept 1**

Local Leadership Key to Conservation Success

Paul Coffey, Coordinator
Southeastern RC&D, Craig



NRCS Watershed Planner Samia Savell congratulates Klawock Watershed Council Chair Sam Thomas on the success of the Council in securing funding for watershed restoration projects in the Klawock Watershed in Southeast Alaska. An agreement between the Alaska Southeast Conference RC&D and the Alaska Department of Fish and Game is providing Southeast Sustainable Salmon Fund support.

The Klawock Watershed Council was approved for \$30,000 for each of the next two years contingent upon incremental progress in implementing watershed restoration projects. The watershed restoration work will benefit the City of Klawock and the various fishery user groups on the west coast of Prince of Wales Island, with a portion of the watershed being used as a municipal water source. The first restoration efforts will be in a drainage that is the largest producer of Sockeye Salmon in the area. Long range restoration efforts will ensure clean water for the community of Klawock and enhancement the Sockeye population in the Klawock Watershed for use by commercial, sport, and subsistence user groups. Grassroots partnerships key to the successful development and implementation of this effort include the Southeast Seiners Association and the Alaska Trollers Association. □

Northern Exposure Arlene Davis Rosenkrans

Copper Valley Resource Conservation & Development Area Coordinator

I first came to Alaska in the summers of 1976 and '77 to be a work leader at the Kenai Lake Youth Conservation Corps program.



After completing my studies in natural resources at Humboldt State University in northern California, I moved to Alaska and began work as a soil scientist for the U.S. Forest Service. I spent many summers doing field work on the Kenai Peninsula, Prince William Sound, interior and southeast Alaska, participating in inventory and forest research projects.

In the late 1980's, my husband Danny and I served in the Peace Corps in Kenya, East Africa. As an agroforestry extensionist, I worked with tree nurseries and community farms, woodfuel conserving stoves, and on a spinning and knitting project. After returning, we started a family, and Danny took a job with the Wrangell St. Elias National Park as a geologist which brought us to the Copper Valley.

While raising three young children, I owned a sewing business and remained active in community service, teaching singing to elementary students, helping establish a meal program at local schools, directing the community recycling project, and writing a cookbook for the Kenny Lake PTO.

I became the first coordinator for the newly established NRCS Copper Valley Resource Conservation and Development program area in August of 2002.

Good-bye & Good Luck! Cal Miller & Dave Swanson Retire

Yvonne Magnuson, State Office Executive Assistant

A retirement picnic was held Thursday, June 26 at Kincaid Park, Anchorage, for Calvin Miller,



Dave Swanson, left, Cal Miller

Assistant State Conservationist (Operations) and Dave Swanson, Rangeland Management Specialist. Over forty guests attended including Calvin and Pat Miller, Dave and Nancy Swanson, Ted Freeman, retired NRCS Alaska Deputy State Conservationist, Ed Grey, retired NRCS Civil Engineer, and his wife, Tillie, Bill Daley, retired NRCS Alaska Deputy State Conservationist, Burt Clifford, retired NRCS Alaska State Conservationist, and his wife, Eleanor. Other guests included Tom Gray, President, Reindeer Herders Association based in Nome, and representing all of the herders in Northwest Alaska.



NRCS Alaska Welcomes New Faces

Kathy Dickerson, Human Resources Assistant

- Thomas Lance, Resource Conservationist, Kodiak
- Brian Bourdon, Community Planner, Nome
- Matthew Bowser, Biological Science Technician, Kenai
- Cory Cole, Soils, Fairbanks
- Ryan Dermody, Soils, Delta Junction
- Donald Kierstead, Soils, Homer
- Lucas Henry, Student Trainee, Engineering, Fairbanks
- George Hitz, Soils, Delta Junction
- Michelle McGee, Soils, Delta, Junction
- Heather Oleson, Career Intern Biologist, Nome
- Logan Sanders, Biological Science Technician, Homer
- Stephanie Schmit, Soils, Fairbanks
- Margaret Spahn, Soils, Kenai
- J. Allen White, Mat-Su RC&D Coordinator
- Phil Naegele, Assistant State Conservationist, Operations
- Thomas Lance, Resource Conservationist, Kodiak Field Office.
- John Ellis, Contract Officer, Alaska State Office
- Steve Becker, Bethel RC&D Coordinator

Protecting America Farm Lands Conservation Partners Host Farm Land Trust Conference



How can Alaskans protect local farmlands for future generations? That was the topic of the recent field conference hosted by local Soil & Water Conservation Districts in the Mat-Su and Upper Susitna Valley with representatives from the American Farmland Trust and the Alaska Great Land Trust on hand to talk about issues and options available to landowners. Meetings were held in Palmer, Wasilla, and Trapper Creek with members of the Palmer, Wasilla, and Upper Susitna Soil & Water Conservation Districts, and farmers and ranchers on the issue of urban development of farmlands and options available under the USDA Farm and Ranchland Protection Program to preserve land from nonagricultural development.

Palmer SWCD Chair Wayne Bouwens said, “Our concern for protecting farmland is becoming urgent as the Mat-Su Valley rapidly grows. The Palmer District is eager to support the Natural Resources Conservation Service in making the Farm and Ranchland Protection Program a practical option for area landowners.” The USDA Farm and Ranchland Protection Program provides matching funds with private land trusts for purchasing conservation easements for eligible landowners. For more information about this USDA Farm Bill program visit the USDA website at: www.nrcs.usda.gov. For information from your local Soil & Water Conservation Districts call 907/745-1441.

NRCS Web Modernization Alaska's new web site goes live

Pam Taber, Soil Survey Manuscript Editor

If you've gone to the Alaska NRCS web site recently you've noticed we have a new look, a result of NRCS's Web Modernization plan designed to provide easier use and navigation, enable customers to easily find information, and comply with the American with Disabilities Act and Section 508 of the Rehabilitation Act, which require equal access to information technology products for people with disabilities.

NRCS Web Modernization includes:

- Phase I – Changes to the NRCS national home page
- Phase II – Changes to state, center, region, and institute web sites
- Phase III – NRCS intranet

Phase I was completed when the new national home page was launched in April 2002. The new site organizes content by subject rather than by NRCS organization structure, provides an improved look and feel, integrates the USDA search engine, and improves accessibility.

The goal of Phase II was a consistent visual identity in all NRCS web pages and compliance with Section 508 requirements. Now all NRCS web sites use the same template that is used on the national home page, which will improve accessibility, customer usability, and provide cohesive links. Using the same design, navigation structure, and file structure on all of its sites gives the NRCS web presence a consistent look and feel.

NRCS Chief Bruce Knight designated Phase II as a top NRCS priority, with implementation to be completed by March 31, 2003. Although the time frame for completion of the new site was short, Alaska's site was approved and published by the deadline. As of the end of June almost all of the 77 NRCS web sites have been updated. What's next? Development of an NRCS Intranet.

Congratulations, Pam, Yvonne and Dennis!



NRCS State Conservationist Shirley Gammon presents Soil Survey Editor Pam Taber with a Certificate of Appreciation "For Outstanding Effort in Developing Alaska's Webpage," the first in the nation certified to new NRCS national standards.



Congratulations to NRCS State Office Executive Assistant Yvonne Magnuson (left) and to Soil Data Quality Specialist Dennis Moore "For Outstanding Effort to Develop and Maintain a Recycling Program in the NRCS State Office." NRCS State Conservationist Shirley Gammon presented Pam, Yvonne and Dennis with NRCS Alaska Gortex jackets.

Taking Conservation Planning to Urban Neighbors

Vicki Trytten, Anchorage SWCD Director



Anchorage SWCD Director Vicki Trytten (right) presents a Conservation Planning workshop to Anchorage Hillside landowners. NRCS Anchorage Field Office Technical Specialists assisted in the presentation and in the lively question and answer follow-up session.

The Anchorage Soil and Water Conservation District had a great “Right to Farm” meeting recently at O’Malley’s on the Green on the Hillside in Anchorage. It was a very informative meeting that came from community area requests to know more about the Anchorage Soil and Water Conservation District and about how conservation plans work to protect their traditional urban farming practices, and in fact, their properties! More than fifty people turned out for the meeting. Anchorage Field Office District Conservationist Michelle Schuman and Anchorage Soil Scientist Crystal Leonetti provided conservation planning information and engaged in a great question and answer dialogue with the attendees.

Anchorage District Chairman Larry Traw, speaking of the progress in generating community interest in conservation partnership building told the group, “The district is now

where I’ve always wanted it to be, where we can help the residents of Anchorage.” NRCS State Conservationist Shirley Gammon expressed her satisfaction with the positive response from all attending. “This is definitely something to not only repeat, but to host in other areas throughout the state.”

Point MacKenzie dairy farmer and Anchorage SWCD Director Vicki Trytten said, “There are so many landowners who don’t know the Anchorage District even exists. Meetings like this need to be held more often to continue to inform people of the role the District plays in helping them not only saving their ‘right to practice farming,’ but with any conservation issue that may come along. As we assist one land owner, the news spreads by word of mouth of the happy customer, or as they talk with others about grassroots issues, they may say, “I know who can help you - contact the Anchorage Soil & Water Conservation District. They helped us, and they can help you!”

This is the way to grow the Anchorage District. ... by good accomplishments and promotion directly from the people. Our job is to stay out there. Stay visible. And stay focused!



NRCS Soil Conservationist Crystal Leonetti, left, and O’Malley Community Council Chair Ryan Stencil explain the process and benefits of preparing a conservation plan for sustainable management of the natural resources on small parcels of private property.

Fort Greely Soil Survey Update

Trudy Pink, Soil Survey Project Leader

The Fort Greely Soil Survey is underway and so far running smoothly. We are attempting to complete the field work for western Ft. Greely. The weather has cooperated for the most part except for a few days of low cloud ceilings, flooding and even snow!! We are working in the southern half of Fort Greely, in the foothills of the Alaska Range.

The crew consists of Ryan Dermody, a soil scientist from Iowa on detail, and George Hitz, biotech, from Oregon. George worked on the Greely Soil Survey last year; apparently he didn't learn his lesson and is back for more punishment this summer. The final member of my crew is Michelle McGee, biotech. Michelle is working on her PhD in geology at UAF.

The first two weeks of the field season were spent training the crew in helicopter, bear and shotgun safety. I also introduced the crew to soils they might encounter in the field. These included Entisols, Inceptisols, and everyone's favorite, Gelisols. We also spent some time learning the local vegetation. Other training included tussock walking, how to exit a helicopter gracefully in knee high tussocks, and permafrost chopping.

We officially started our field season on June 18. We have successfully completed 30 sites out of 66. We also have a few days scheduled for lab sampling. We plan to use the permafrost auger to give us a better understanding of the soils in the areas where the permafrost has beaten our conventional methods of digging.



Let's play the water cycle game! A fun way to learn about Mother Nature

Meg Mueller, Kenai Resource Conservationist

Kenai Field Office staff and Kenai Soil & Water Conservation District staff recently participated in the Kenai River Fest, an annual event held by the Kenai Watershed Forum that attracts families from all over the peninsula to participate in water quality and wildlife protection oriented activities. The players of the Water Cycle Game were honorary water molecules that started in the ocean and had to roll their way into the clouds with a large cardboard die. Office staff cheered the players through Kenai Lake, the Kenai River, Skilak Lake, being swallowed by a moose, or being evaporated into or rained down from the clouds, to mention a few destinations.

The "molecules" and their parents learned the relative abundance and importance of compartments in the water cycle right here on the Kenai Peninsula. Players learned that being tied up in glaciers, ground water, or an ocean are real fates...not just a stop in the game. The kids won when they completed the cycle by returning to the ocean, and received a Kenai Soil & Water Conservation District pencil for their effort.

For information about the set-up of the game contact Meg Mueller or NRCS State Forester Mitch Michaud at 907/283-8732.

Field Work in Western Alaska

Karin Sonnen, Homer Field Office Range Conservationist

St. Paul Island - This June, NRCS District Conservationist Mark Kinney and Range Specialist Karin Sonnen assisted in a workshop and Coordinated Resource Management meeting on St. Paul Island to review their management plan and provide information on the island's soils and rangeland. The recently completed St Paul Island Soil Survey was reviewed with discussions on the island's ecological sites, along with a presentation on reindeer husbandry and health, given by UAF Reindeer Research Program Director, Dr. Greg Finstad.

Also in attendance was NRCS Regional Conservationist for the Western States, Pearlie Reed, and NRCS Alaska State Conservationist Shirley Gammon. They were able to see first hand the challenges of working in the remote parts of Alaska, as well as the good work that has been done and the abundant opportunities available for conservation in the future.

We will continue our work on St Paul Island, having an annual CRMP meeting to address the issues spelled out in their plan as well as new issues that may arise from year to year.

Seward Peninsula - This July NRCS District Conservationist in Nome, Heather Oleson, and Range Specialist Karin Sonnen spent a week in bush Alaska working in cooperation with the BLM, assessing the range condition of two reindeer herder's permit areas.

Although the herders do not currently have reindeer herds due to the influx of caribou into the areas in the mid 1980s, they are both planning to have reindeer in the next one to three years. The work that NRCS and BLM has done will help them know where good winter feeding areas are and what areas need more rest so they can be utilized in the future. In the mid to late 1980s, migrating caribou began using these areas in the fall and winter, and in doing so, swept up the small reindeer herds with them. However, their migration patterns appear to have once again changed, as caribou have not been to

these areas in the last five to six years. The caribou have left their impacts on the lichen communities, however, which are an important winter feed for both caribou and reindeer.



Alaska State Conservationist Shirley Gammon and West Region Conservationist Pearlie Reed tour reindeer rangeland on St. Paul Island.

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Upper Susitna Valley Conservation Corps youth learn by doing

Dennis Moore, State Soil Data Quality Specialist

Jim Hazlett, Mitch Michaud, Dennis Moore, and Bob Smith had the privilege of spending two days with some outstanding young men and women from the Upper Susitna Valley. Each year the Upper Susitna Soil Conservation District sponsors the Upper Susitna Youth Conservation Corps. The intent is to expose high school students from the Upper Susitna Valley to a wide variety of potential career opportunities in resource conservation. By utilizing the Conservation Corps as a workforce the district is able to efficiently put conservation measures on the ground.

On the first day Jim and Dennis met and trained the students at the district's office. Training consisted of the information available in and the proper use of the Matanuska-Susitna Soil Survey. Many of the students looked up the soils information for the area where they live to determine the soil's suitability for home site development. Other students were interested in areas where soils might be appropriate for recreational or commercial development. The students spent part of their work day digging holes, learning how to estimate field textures, locating themselves on aerial maps, and observing the variation in soil properties found around the district office and Susitna River. A few students learned the importance of properly preparing for a day bush whacking through devils club and wild rose, the hard way.

On the second day the group met at the district's experimental farm where Mitch shared his forestry expertise with the Conservation Corps as well as expanding Bob and Jim's perspectives. Mitch explained how the computation of tree height and tree diameter is used to determine the board feet of lumber in a standing tree. The importance of proper species selection was also emphasized. Next the appropriate methods of determining the number of trees in a given area were discussed. This information was then used to estimate the value of the trees in the area as a source of lumber.



The Upper Su Soil & Water Conservation District Youth Corps gets hands-on experience while putting conservation practices to work where they're needed.

Once this was done the other values gained from trees, such as wildlife habitation and protection, aesthetics, and temperature control applications, were explored and discussed, setting the stage for the remainder of the day's activities—tree planting. The Conservation Corps members were shown how to calculate the spacing of seedlings to permit proper growth, maximize available space, and still allow for equipment movement during care and harvesting operations.

The time spent helping the Conservation Corps better understand the importance of the soil capabilities and the plant communities in their area increases their respect for these resources, which helps them make better conservation related decisions. The exposure to NRCS personnel expands their perception of careers available in natural resource conservation, perhaps starting them down their own career paths. These are, after all, our future decision makers.



Let's Talk About About Soils

Campbell Creek Science Center
Outdoor Week Science Workshop

The Annual BLM Outdoor Week held each year in May hosts a science field workshop for hundreds of Anchorage fifth and sixth grade students. NRCS soil scientist Dennis Moore and NRCS student trainee Jim Hazlett participated, hosting a field station where they made twenty presentations on the wonders of soils. "The students reflected upon their earlier years of playing in sand boxes and making mud pies," said Dennis. "These young teenaged students confessed that soil wasn't the most important item in their life and that they thought soil was very boring..." Dennis then challenged them to think of things that they use in everyday life that doesn't come directly or indirectly from soil (not counting the sun, moon, and other heavenly bodies).

"After desperately trying to think of something, the students finally realized," said Dennis, "that everything we use in everyday life does indeed come directly or indirectly from soil." A demonstration was given by Dennis and Jim on how very little soil humans have in relationship to the earth's surface, to produce all the food, fiber, and building products we use. "The students also learned about soil loss from human construction development, wind erosion, and water erosion. The students were educated on maintaining natural soil production, soil texture, five soil forming factors, and how each factor affects soil development. Dennis also talked with the students about what it's like to be a soil scientist and the opportunities that they might find some day working with the Natural Resources Conservation Service.

Earth Team Volunteer Jason Mercer "Enjoys the challenge of balancing human interest and environmental importance."



Crystal Leonetti, Soil Conservationist in the Anchorage Field Office, introduces Jason Mercer, NRCS Earth Team Volunteer to the ways that NRCS technical specialists help private landowners develop conservation plans for improving the sustainability of their natural resources. Jason leaves soon for college but plans to return to work with NRCS as a student volunteer next summer.

"Jason is an incredible addition to the Anchorage Field Office," Crystal says. "He's been learning everything from big game forage to anadromous stream restoration through field visits, meetings, and in-office assignments. He is intrigued by the connection between natural resource conservation and private landowners.

"Jason is so excited in fact, that he comes to the office in his spare time to read through some of the field office bookshelf items, including the General Manual! Because Jason is a student and a volunteer, I'm ecstatic that he's spending more than twenty hours a week with us at the Anchorage Field Office. We hope to have him join us as a student trainee next summer."