



Alaska Current Developments Fall 2003

Greater Nenana Soil Survey

Dennis Mulligan, NRCS Soil Scientist
Fairbanks Field Office



Fall is rapidly bringing to a close the 2003 mapping season for the "Greater Nenana Soil Survey." Spring 2002 saw the kick off of the "Greater Nenana Soil Survey". This soil survey area covers 462,805 acres. This includes 326,380 acres of the out-of-date "Soil Survey of Goldstream-Nenana Area, Alaska" (1977), and approximately 136,425 acres of new mapping that includes Clear Air Station, Kobe and Browns Court Agricultural areas, portions of Toghoththele Corp. land, and portions of the Minto Flats Wildlife Refuge.

The update is badly needed as the area has a high potential for future development and the existing soil survey does not provide adequate interpretations for current land management needs. The original intent of the earlier survey was to identify suitable lands for agricultural development. It did not address soil properties below 1-meter depth, provide adequate interpretations for non-agricultural uses; nor

adequately address permafrost related soil properties and interpretations. All units were mapped as consociations although obvious variations in soils and associated landforms occur in many map units.

The Greater Nenana Soil Survey area lies southwest of Fairbanks, Alaska and is bisected by the Parks Highway and the Alaska Railroad. It adjoins the soil surveys of the Greater Fairbanks Area to the east; North Star Area to the north, Totchaket Area to the west, and Fort Wainwright Area to the southeast. Lands that have been mapped by the *Exploratory Soil Survey of Alaska* (1:1000000, Order 5) require more detailed information to address current land management needs.

The list of cooperators reflects the complex patchwork of land ownerships, and governmental entities that have an interest in this area. These cooperators include USDA-NRCS, Fairbanks area Soil and Water Conservation District, Tanana Chiefs Conference, Inc., Toghoththele Corporation, City of Nenana, Nenana Native Council, Fairbanks North Star Borough, Denali Borough, University of Alaska Agricultural and Forestry Experiment Station, U.S. Air Force Space Command, along with state agencies including the Division Of Agriculture, Division of Forestry, Division of Land, and Division of Fish and Game.

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National RC&D Conference tours Texas Hill Country

Eric Decker, Southeastern (Juneau) RC&D
Coordinator



NRCS Resource Conservation & Development Area Coordinators, NRCS State Conservationists and RC&D council members from across the country held their annual conference this summer in San Antonio, Texas. Alaska's Southeastern Conference RC&D Coordinator Eric Decker gave a presentation to the membership and NRCS Assistant State Conservationist for Programs, Mark Weatherstone presented a display of RC&D activities and accomplishments throughout Alaska.

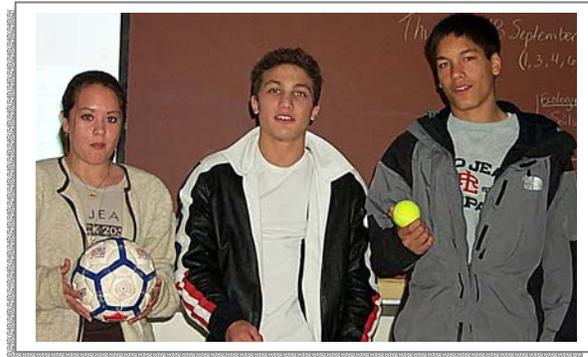
The conference included a field tour of the Texas Hill Country ranch of Joe Cantu, President of the National Association of RC&D Councils.



Colony High School students learn about soils, water

Dennis Moore, Soil Date Quality Specialist

Getting students interested in the science of soils and water is the goal of NRCS Soil Scientist Dennis Moore and Palmer Soil & Water Conservation District Coordinator Catherine Inman when they team up introduce Mat-Su Valley students to new ways of looking at these fascinating elements of nature. Dennis and Catherine recently gave a demonstration to Colony High School science students in Wasilla, Alaska, on soils and water, and their important role in our lives.



In learning about the different sizes of soil particles, students learn about soil porosity, aeration, permeability, water holding capacity, and other soil physical properties.



Dennis and Catherine (left) add water to soil samples while students determine field textures as Colony teacher Christ Hronkin (right) watches.

Fairbanks Soils Poster tells all!

Pam Taber, Soil Survey Manuscript Editor

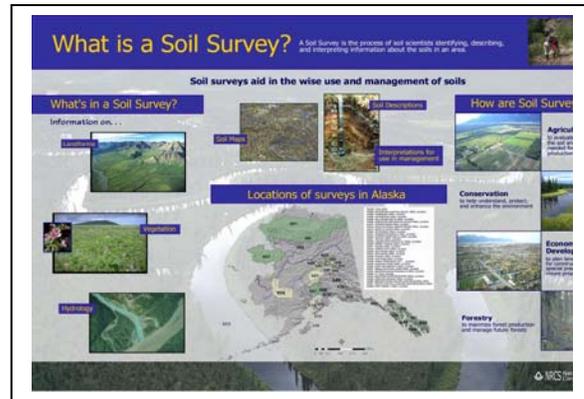
NRCS Fairbanks Soil Scientists Dennis Mulligan and Casey Schroeder created a poster to be used as an educational tool for providing basic soil services to the public. The poster shows the soils around Fairbanks and contains information about each soil type. Even though the poster was made using the names of soils in the Fairbanks area it can be used throughout the Interior of Alaska.

A topographic map was used to draw a schematic diagram from the peak of Ester Dome over Chena Ridge and down to the Tanana River. The area was chosen to show not only this region, but give a general representation of the landscape of Fairbanks and the Interior. A variety of colors and patterns depict bedrock, sand and gravel, peat, permafrost, and wind blown silts.

The soil types found at each landscape position are labeled on the diagram and further described around the outer edge of the poster. A profile of each named soil was enlarged using the colors on the diagram to show the depth variations of the materials composing each soil type. A brief description outlines the soil composition, wetness, permafrost, flooding, and various other properties related to each. Photographs showing landscapes, soil profiles, and parts of the community are also displayed next to the description to provide a visual representation of the areas.

The poster is on display in the Fairbanks Field Office and is used as a visual aide when providing site investigations for landowners and potential homebuyers. It has also been used at the Fairbanks Annual Home Show and other public events to further educate the citizens of Alaska's Interior. For more information about soils in Alaska, visit the NRCS Web site at www.ak.nrcs.usda.gov.

What's a soil survey? New soil survey poster explains

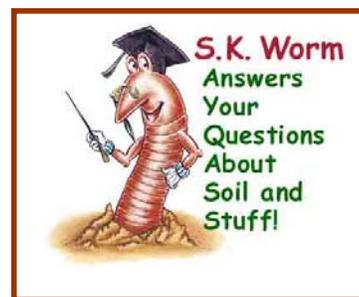


Thanks to the technical, artistic, and graphic skills of NRCS Soil Survey Manuscript Editor Pam TABer, NRCS Alaska now has a new and excellent educational poster telling the story of soil surveys – what they are, why they're done, and the many important ways they are used.

Copies of the poster have been printed in an 11'x17' size, useful for working with the public and landowners on conservation planning and education activities. Please contact Jeanette Colville in the Public Affairs Office if you would like copies of the poster.

A Special Thanks!

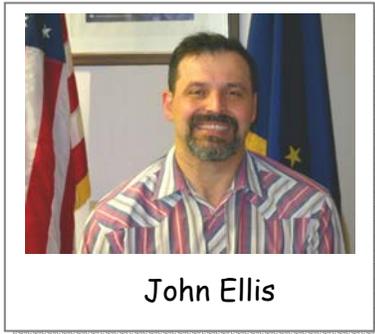
A big thanks to NRCS staff Jim Hazlett and Mitch Michaud for their help in reporting on the Upper Susitna Youth Conservation Corps conservation project last month!



Northern Exposure John Ellis

NRCS Alaska State Contracting Officer

I'm originally a native of the state of Wyoming. I started my federal career in



John Ellis

1985 with a temporary position not to exceed 1 year with the USDA Farmers Home Admini-

stration. I was able to stay with the agency and began working in the area of procurement in 1988.

I was intrigued with the idea of living in Alaska since the age of 12. I moved to Alaska in October 1996, after accepting a position as Contract Specialist for USDA Rural Development. I worked for Rural Development until I accepted the position as contract specialist for USDA Natural Resources Conservation Service.

I think Alaska is a great place to live, work, and play. My hobbies would be anything to do with the outdoors. A few of the activities I enjoy are photography, fishing, hunting, and skiing.

NRCS Alaska Employee Update

Kathy Dickerson, NRCS Human Resources Specialist, Spokane

New on Board

Suzan Farris, Budget Officer, Palmer State Office.

Michael Knutson, Hydraulic Engineer, Palmer State Office.

Cassidee Hall, Student Trainee (Soils), Fairbanks Field Office.

Promotions

Philip Naegele, Assistant State Conservationist (Operations), Palmer State Office..

Arlene Rosenkrans, Resource Conservation & Development Coordinator, Glennallen.

Yvonne Magnuson, Executive Assistant, Palmer State Office.

Summer Hire Employees and Detailees

Ryan Dermody, Don Kierstead, Margaret Spahn, Matthew Bowser, Cory Cole, Stephanie Schmit, Michelle McGee and Logan Sanders.

Grassland Reserve Program



The Grassland Reserve Program is a voluntary program that helps landowners and operators restore and protect grassland, including rangeland, and pastureland, and certain other lands that are threatened by conversion to other land uses, including urbanization and agricultural production. Restoring and protecting grasslands contributes positively to the economy of many regions, provides biodiversity of plant and animal populations, and improves environmental quality.

“Grasslands provide critical ecological benefits and play a key role in environmental quality, as well as contribute to the economics of many rural areas. This volunteer program helps protect valuable grasslands from conversion to other land uses, thus helping to ensure this national resource is available to future generations.”

Ann Veneman, Secretary
U.S. Department of Agriculture

Best science provides best service

Rob Sampson, NRCS Alaska State Engineer
Published in Tech News, October 2003



NRCS technical teams merge expertise to develop flood plain studies which help villages like Unalakleet plan for the future.

Alaska is a land of extremes, with elevations ranging from sea level to over 20,000 feet, annual precipitation ranging from 6 to more than 200 inches, active tectonics, glaciers, and permafrost. These highly variable physical conditions create a host of technical challenges. NRCS Alaska has a skilled staff who is well-versed in understanding northern technical issues. Due to the wide variety and complexity of the challenges found in the Great Land, NRCS Alaska often finds the need for additional technical expertise, and this valuable assistance is provided by members of the National Science and Technology Consortium.

The Native Village of Unalakleet was experiencing damage from flooding and turned to NRCS Alaska for assistance in understanding flood elevations and providing possible solutions to moderate flooding impacts. Alaska NRCS staff, along with hydrology and modeling assistance from the National Water Management Center, completed a detailed floodplain study for the Village. The study included the impacts from high seas that occur during fall storms. "This study shows us the risks from flooding if we implement various flood control projects. The study allows us to complete our long-range plans," said Art Ivanoff, Village Environmental Coordinator.

A detailed look at the Delta-Clearwater River project was recently conducted by specialists in geology and soil mechanics from the National Design, Construction and Soil Mechanics Center, as well as water resources planning from the National Water Management Center. The Delta-Clearwater project will provide flooding protection for agricultural land and minimize sediment input into the Delta-Clearwater River. The Delta-Clearwater River is a spring-fed, non glacial stream known for its Coho Salmon spawning and trophy Grayling fishery. The technical specialists provided NRCS Alaska with excellent insight into the complexity of water and sediment movement in and over the glacial outwash fan where the project is located.

As a result of the technical team's report, NRCS Alaska assembled a planning group to revisit the Delta-Clearwater treatment alternatives in light of the new technical analysis and information. The planning group included specialists in landscape architecture and forest ecology from the Watershed Sciences Institute assisting NRCS Alaska staff and the local project sponsors. The planning group reexamined the resource issues, alternative treatments and the impact of these treatments. A report describing all the alternatives considered, the cost of these alternatives, and the environmental impacts will be made available to the sponsors in the next few months.

NRCS Alaska is proud of the broad and varied technical service we provide our customers. We know that in a state as wonderfully complex as Alaska, there are always new technical challenges. By bringing in expertise from the National Science and Technology Consortium as it is needed, NRCS Alaska extends its capabilities and assures delivery of the highest technical quality products to their clients.

Bush Alaska Youth Farm Crew works with their hands to build for the future

Norm Stadem, Interior Rivers RC&D Coordinator



The Interior Rivers Resource Conservation and Development Council has nominated The Kuskokwim Native Association Youth Farm Crew to the Pacific Rim Regional Association of Resource Conservation and Development Councils for the Outstanding Youth Involvement Award.

Council President Travis Pate said, “Diana Lehman, the Kuskokwim Native Association Education and Training Director, provides the leadership to the Youth Farm Crew, and it is obvious from the project description, submitted by Ms. Lehman, that this project meets all four of the elements of the award evaluation criteria. The power of this project is that it is future oriented. The youth are heavily involved in the community as role models and mentors to other youth, in teaching community responsibility by working with elder programs, and in expanding their awareness of opportunities beyond the borders of the regional subsistence culture. The KNA Farm is an important element in the Area Plan.”

The Youth Farm Crew project is also about outreach and team building. The crew works and studies together and often finds it necessary to resolve conflicts between themselves and with their supervisors. “The requirements of the project fosters maturity and contributes to leadership development,” said Ms. Lehman. “The

youngsters learn to share responsibility and they cooperatively share credit for the success of their project. The Kuskokwim Native Association Youth Farm Crew project is an excellent example of a future oriented program that is creating responsible citizens and leaders for our society.”



Cabbages, potatoes, lettuce, cauliflower, broccoli and more, all grown by the Kuskokwim Native Association’s Youth Crew on the KNA farm in Aniak.

Alaska State Fair 2003

Congratulations and thanks to all NRCS and Alaska State Conservation District folks who represented NRCS and AACD at this year’s State Fair, where more than 312,500 folks from around the state and from across the nation came together in Palmer, Alaska.



New Frontiers of Development Helping the City of Whittier

Michelle Schuman, Anchorage Field Office District Conservationist

The City of Whittier, a small community located an hour's drive from Anchorage, is a jump off point for Alaska's spectacular Prince William Sound, with road access restricted to a railroad tunnel beneath the Chugach Mountain Range.

The NRCS Anchorage Field Office is helping the City of Whittier's Planning Task Force develop a comprehensive watershed and community economic development plan by opening the doors to new partnerships with NRCS technical specialists, and with NRCS Resource Conservation and Development Area community planners from the Kenai Peninsula who can bring a new level of expertise to the City Task Force group in their groundbreaking initiative.

Community leaders are addressing the abundant opportunities for tourism and wilderness destination development in one of Alaska's most unique and scenic areas accessible on Alaska's extremely limited road system.

Alaska Snow, Water & Climate Services Update

Rick McClure, Hydrologist

The Natural Resources Conservation Service Snow, Water & Climate Services provides assistance to various federal, state and private entities. A new SNOTEL site was installed at Upper Tsaina River about three miles northeast of the Worthington Glacier snow course. The site was installed in cooperation with the Alaska Department of Transportation and Public Facilities avalanche staff. It will give them hourly near real time climate information for determining when they need to shoot down avalanches before natural releases occur and block the highway.

NRCS Hydrologic Technician Dan Kenney has been very busy getting sites upgraded and one



Snow Survey Hydro-tech Dan Kenney at the newly completed Upper Tsaina River SNOTEL site at Thompson Pass.

new site installed this past summer. Dan and Don Huffman, from the National Water and Climate Center, made the trip to Barter Island/Kaktovik and re-

established a precipitation gauge that had not had a record since 1998. The gauge is shielded with a Nipher shield. Don also established two more SCAN (Soil Climate Analysis) sites, one at Tok and the other at Nenana, both will be reporting hourly data on the web site www.ambcs.org.

NRCS Statistical Assistant Catherine Avery spent the summer working on Annual Data Summaries, and we should get 2000 through 2002 published this fall. Dana Kuiper from the National Water and Climate Center made a trip up in early September to give Catherine training in getting around the databases and computers at the Climate Center.

With the installation of one new SNOTEL site and two new SCAN sites, there are currently 34 sites sending information to the web site ambcs.org. The snow course total to be measured this coming winter is 207. With snow coming down the mountains, have a good winter.

Bringing Communities Together

Samia Savell, Watershed Coordinator
Juneau Field Office

“Never doubt that a small group of thoughtful committed citizens can change the world. Indeed, it is the only thing that ever has.”
– Margaret Mead

At least once each month, business owners, a construction contractor, a university professor, federal agency representatives, and a consultant gather in the NRCS Juneau Field Office conference room to discuss issues that affect their quality of life. Issues that in turn, affect the local economy, community development, and environment. Their discussions focus on the Mendenhall River watershed, but reflect the needs and desires of many Southeast Alaska communities—developing a strong economy while protecting natural resources.

The Mendenhall Watershed Partnership is one of the five watershed councils in Southeast Alaska that is receiving both financial and technical assistance through the Community Watershed Project (CWP). The project is administered by the Southeast Alaska RC&D Council, Southeast Conference, with the technical support of RC&D Coordinators Eric Decker and Paul Coffey, Samia Savell in the Juneau Field Office, representatives from several state and federal agencies, and a representative of the Central Council Tlingit and Haida Indian Tribes of Alaska. Over a year ago, Southeast Conference entered into a cooperative agreement with the Alaska Department of Fish and Game to administer \$700,000 of Southeast Sustainable Salmon Fund monies for development of watershed councils in the region.

Watershed councils help bring communities together to address resource management issues. Successful watershed management begins when stakeholders take the lead in determining problem areas within their watershed and identifying opportunities for balancing resource needs with economic development. Through the CWP, Southeast Conference is helping to fulfill its mission: *To help develop strong economies,*



Alan Heese, Juneau Airport manager; Dave Hanna, business owner and contractor; and Bruce Bigelow, USGS hydrologist take a break during work on the Duck Creek restoration project in the Mendenhall Valley.

healthy communities, and a quality environment in Southeast Alaska.

Because of the CWP, there are three new councils in addition to the two existing organizations in the region. The Taiya Inlet Watershed Council in Skagway, Takshanuk Watershed Council in Haines, and the Yakutat Salmon Board are new to the region, while the Klawock Watershed Council on Prince of Wales Island and the Mendenhall Watershed Partnership in Juneau have been in existence for some time. Each of these councils is working within their respective communities to identify watershed management and restoration priorities.

By this time next year, there will likely be at least one additional watershed council in Southeast Alaska. The CWP will hopefully bring more communities together to discuss priority resource issues, encouraging economic vitality while protecting the environment.

Invasive Plants Action Committee attacks weeds

Rachel Morse, Alaska Soil & Water Conservation District Coordinator; Samia Savell, NRCS Watershed Planner, Juneau Field Office

On any late spring or mid summer afternoon you might be lucky to spot them. Distinguished by their bright orange caps and bent posture, they occupy hillsides, ravines and landscaped parking lots in Juneau...or more simply anywhere a weed can grow. They are members of the Juneau Invasive Plants Action (JIPA) committee, a dedicated group of volunteers, natural resources agency staff and plant enthusiasts. This group formed late last spring in response to the detection of a garlic mustard, *Allaria petiolata*, infestation in downtown Juneau, but are working to address potential threats to wildlife and fish habitat caused by invasive plant species. "With early detection and quick action, we can eradicate new species as they appear," says Tom Heutte with the Forest Service Forest Health Protection Program.

The Alaska Soil and Water Conservation District has partnered with the U.S. Forest Service Division of State and Private Forestry and the NRCS Juneau Field Office to formalize JIPA as a group and develop a Cooperative Weed Management Area (CWMA) consistent with the boundaries of the City and Borough of Juneau (CBJ). Originally an ad-hoc workgroup of agency staff, volunteers and plant enthusiasts, JIPA has developed a Memorandum of Understanding that will unite signatories in the effort to eradicate and control invasive plants. Working together would mean having a consistent set of protocols to follow in order to prevent weeds from spreading to other areas.

Several volunteer plant pulling and invasive surveying events were held this spring and summer, and a meeting with private landowners whose properties are affected by garlic mustard was held at the Governor's Mansion on July 23. To further the effort, the Alaska SWCD and NRCS will continue to work with private landowners in a conservation planning process that will address the control and eradication of garlic mustard and



Volunteers remove garlic mustard from a right-of-way in downtown Juneau.

other invasive plants. "Weeds do not respect property boundaries or fences," says Samia Savell of the NRCS Juneau Field Office. "Getting landowners to agree on a series of practices across ownership is a way to address the problem and ensures that available resources are used effectively."

These efforts put Juneau at the forefront of invasive plant issues in Alaska. Although such organizations are common in the Lower 48, the Juneau CWMA will be the first of its kind in the state. Weeds have been extremely detrimental to ecological and economic interests in other states. While most CWMA in the Lower 48 are reacting to these events, Alaskan CWMA can take a proactive approach.

So next time you have the chance to scan Juneau for bright orange caps also keep an eye out for lime green sacks--special weed bags provided by Cooperative Extension's Invasive Plants Program for state grounds crews to keep weeds isolated from other yard waste that is mulched. The bags will be collected by JIPA members and burned at the local incinerator. Since spring of this year, Arrow Refuse has donated incineration services for over 800 pounds of weeds pulled by JIPA volunteers and the Southeast Alaska Guidance Association. This is just another example of how cooperation can work on the Weed Last Frontier.



NRCS - Out & About

Samia Savell, Watershed Planner, NRCS Juneau Field Office

Klawock Watershed Council and guests met this summer to discuss development of a restoration master plan for the Klawock watershed.



Where's Paul? NRCS Craig Field Office Coordinator Paul Coffey takes a walk on the wild side while doing a preliminary assessment of the Linkum Creek watershed in Kasaan on Prince of Wales Island this summer.



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