DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NONPOINT SOURCE POLLUTION PROGRAM
ACWA NPS WATER QUALITY GRANT
FY 2006 PROGRESS REPORT

PROJECT #: ACWA-06-14
PROJECT TITLE: Upper Susitna SWCD ATV Impact Planning on Montana Creek
GRANT AMOUNT: $ 20,000
MATCH REQUIRED: $ 13,333
GRANT AGREEMENT PERFORMANCE PERIOD: July 27, 2005 - June 30, 2006

Report Date July 31, 2006

Description and Purpose: Several streams in the upper Susitna Valley have been identified as high and medium ACWA priority waters, partially due to ATV impacts. Based on past and ongoing ACWA assessments and monitoring, this project will focus on Montana Creek to identify specific locations for hardening ATV crossings, locating ATV bridges or possible trail relocation. This project will also identify and implement appropriate outreach campaigns to reduce ATV impacts at Montana Creek.

Reporting Requirements:

- Quarterly Reports: Quarterly progress, financial, and MBE/WBE reports will be submitted for the periods ending **September 30, 2005**, **December 31, 2005 and March 31, 2006.** Reports are due 15 days after these dates and are considered late if received more than 20 days after these dates. A final progress, financial, MBE/WBE reports, and all required deliverables are due **July 31, 2006, and are considered late if received after August 5, 2006**. All reports will be submitted in written and electronic formats requested by DEC.

- Monitoring Data Entry: In addition to a written project report, any water quality monitoring data collected by the project will be entered into STORET or provided to DEC in accordance with guidance and templates at: http://www.state.ak.us/dec/water/wqsar/storetdocumentation.htm. The guidance and templates show the layout required for STORET compatible files and detail the valid values for various fields used in STORET (e.g. characteristics, analytic procedures, HUCs, etc). The data will be provided to DEC electronically via email, CD, diskette, or via an FTP website (to be determined). Alternate options for data entry are a) the use of the DASLER-X MS Access application or, b) a custom application that will produce STORET compatible text files in accordance with the guidance at the website listed above. The DASLER-X application and training in its use will be provided to the Grantee by ADEC or its representative before December 31, 2005. All data collected by Dec 31, 2005 will be furnished to DEC by March 31, 2006, and all data collected by the project will be furnished to DEC by July 31, 2006.

- Project Photographs. At least 3 electronic photograph(s) of the project will be submitted in a format suitable for publishing to the web. These photos will represent all of the following: the

problem the project addresses, the project in progress, and the environmental benefit of the project. At least one of these photos must be submitted with the first quarterly report; the remainder will be submitted with the final report or sooner if available. Each photo will be at least 800 x 600 pixels in size and in JPEG format or other format acceptable to the department. Included will be background information on what the photo represents and when and where it was taken. If possible, the information will be in the photo's file name, such as "Fish_Ck_samplesite1_iron_floc_101603". Alternatively, it may be provided with a caption that states the date, location, and describes the subject: for example "MCV-023X.JPG. Taken 10-3-02, Ditch along south side of Alaska Highway that empties into Fish Creek: Note channelization."

- Final Report Evaluating Project Accomplishments and Benefits:
  A final report will be produced that evaluates and describes the project accomplishments and their environmental benefit and a plan of action for impacted areas. The accomplishments will identify motor vehicle crossing impacts, recreational fishing and hunting impacts and a plan of action for restoration of impacted areas with GPS way points, size of impacted stream in feet and photos and public education. Environmental benefits will be determined by 15 miles of stream reviewed with documented current environmental condition. Public awareness campaign accomplishments will identify the number of individuals who received information regarding minimal impact to streams and signage placed at trailheads or high impact areas.

- Deliverables: (at least 1 electronic and 3 hard copies of each)
  In addition to submitting the information identified in the reporting requirements, the following products will be delivered to the Department. All written products will be submitted to the department in both hard copy and electronic format.

Site photographs	September 30, 2005
Impacted sites priority list	December 31, 2005
Draft Action Plan	March 31, 2006
Final Action Plan	with final report
Outreach Plan	December 31, 2005
Draft Outreach materials	March 31, 2006
Final Outreach materials	with final report
Photos posted outreach materials	with final report

Grantee Project Manager
Kristie May Renfrew, District Manager
Upper Susitna Soil & Water Conservation District
HC 89 Box 8461
Talkeetna, AK 99676
(907) 733-7923
Email: usswcd@mtaonline.net

DEC Project Manager
Laura Eldred, Environmental Specialist
Department of Environmental Conservation

555 Cordova Street
Anchorage, AK 99501
(907) 269-1065; Fax 269-7508
Email: laura_eldred@dec.state.ak.us

ATV IMPACT PLANNING ON MONTANA CREEK
ACWA-06-04
Project Progress Report

This report is being submitted to satisfy the reporting requirements as specified in the grant agreement for this project. Accompanying this progress report is a financial report that details how funds were expended during this reporting period. The financial report demonstrates that all funds were spent and sufficient match was obtained to satisfy the match requirement. The expenditure details on the grant funds and match requirement are provided as part of the financial report. All funds were spent as shown on the proposed budget with these exceptions: None

The line item change(s) were below the 10% limit on changes, and is reflected in the financial report. No line item changes.

Below is a summary of the work tasks: showing the work-plan's objectives, tasks, completion schedule, description, and products followed by the progress report on each objective and task. An overall evaluation of the project's progress concludes this report.

OBJECTIVE 1: Develop an action plan that prioritizes ATV crossing needs on the lower 8 miles of Montana Creek and the Middle Fork portion impacted by Luthman Trail users.

TASK 1: Identify and prioritize sites for ATV & motor vehicle crossings and provide options for alleviating problems associated with the crossings.

Start and end date: July 15, 2005 – June 30, 2006

Description: Based upon past studies of Montana Creek ATV impacts as well as coordinating with current water quality and habitat studies being conducted on Montana Creek, work with agency partners and others (DEC, DNR, NRCS, USFWS, MSB, ARRI) to conduct site visits, evaluate crossing impacts, and develop a plan of action for restoration options. The action plan will include a prioritization of restoration site needs with photos, plans for how to restore or harden each site, cost estimates and will include a map with GPS coordinates of sites. The USSWCD will prepare the action plan.

Product: photos of impacted sites; prioritization of sites; action plan
Submittal Date: site photos with 1st Quarterly report; list of prioritized sites with 2nd quarterly report; draft action plan with 3rd quarterly report; final action plan with final report

Final Report and Action Plan for TASK 1

The CD with photos and classification of ATV crossings of Montana Creek and of streams entering Montana Creek has been revised for easier reading of data obtained. The six photos shown at the end of the CD are photos taken from the this web site:

http://sv.gina.alaska.edu/ and shows the complete study area. Segment One thorough Segment Six starts from the Yoder Road Bridge and goes upstream to the Falls of the Middle Fork of Montana Creek. Segment Seven starts at the downstream side of the Yoder Road Bridge and goes to the Parks Highway Bridge over Montana Creek at MP 96.5. Segment Eight starts at the downstream side of the Parks Highway Bridge and goes to where the mouth of Montana Creek enters the Susitna River and then follows along the east side of the Susitna until the waters from Montana Creek and the Susitna River mix, somewhat more than 1/4th mile. Each water and wetland crossing was classified as to the amount of damage caused by ATV traffic using a scale of "Trail Impact Classes" on page 12 devised byKevinMeyer in a publication called "An Introduction to the MANAGEMENT OF DEGRADED OHV TRAILS IN WET UNSTABLE ENVIRONMENTS" published by the National Park Service in February 2002. In the accompanying CD one can click on a photo, see a description of the crossing and its classification. The field work data and photos were from observations made from the Falls of the Middle Fork of Montana Creek to the mouth where it enters the Susitna River in the summer and fall of 2005. One small portion of Segment Seven that had not been completed in the fall was surveyed by flying over it in the spring of 2006 (the portion from Michelle St. to about two miles above the Parks Highway Bridge). This portion showed no active ATV crossings. The terms All Terrain Vehicle (ATV) and Off-Highway Vehicle (OHF) in this study are use interchangeably.

After study and analysis of the data obtained from field work in the fall of 2005 and spring of 2006 of the Middle Fork to the falls and lower 8 miles of Montana Creek the following areas were ascertained to be of highest priority: 1) the area ½ mile above and ½ mile below Yoder Road Bridge 2) the area ½ mile above the Parks Highway Bridge at MP 96.5 to the mouth of Montana Creek where it joins the Susitna River and downstream of the mouth about ¼ mile where both waters mix together 3) the rest of Montana Creek in the study area

Priority 1

The area around Yoder Road Bridge is not being used primarily as transit trails to other destinations but mainly a place to recreate with ATVs with the attendant destruction of habitat for anadromous and resident fish populations and degradation of water quality.
The following action plan is recommended for Priority 1:

-Closure of the area to ATV use by blocking roadways to the creek
-Having only one parking lot for access to hikers and fisherman
-Some day use facilities as picnic tables and approved metal firepits
-Sanitary facilities at the parking lot
-Signage and kiosks to educate users on the salmons' habitat needs and how incorrect use of ATVs can affect fish reproduction and water quality
-Hardening of sites around culverts leading to the South Fork of Montana Creek
-Bridging of the South Fork in two locations for hikers (where presently felled cottonwood trees serve as bridges) on Luthman trail
-Realignment of parts of Luthman trail to more stable ground

-Signage showing maps of trails and directing ATVs to other areas away from Montana Creek
-Restoration of degraded riparian areas to restore habitat for fish and wildlife
-Patrol of area by DNR or other state agencies to monitor and enforce rules to keep this habitat healthy, productive and sustainable for anadromous and resident fish populations
-Education: presentations at schools, community councils and churches, Public Service Announcements and newspaper articles

<u>HOWEVER,</u> because almost all the land by which the public gains access to Montana Creek is privately owned by either CIRI or the Montana Creek Native Association the above recommendations must be approved by them before they can be implemented. There is a portion of State land that borders Montana Creek east of the Yoder Rd. Bridge and south of the road that presently is not being used for access and could be looked into for some of the above recommendations. Also on Luthman Trail after it passes thorough CIRI and Montana Creek Native Association land it traverses State land to the end of the trail at the Middle Fork Falls.
Because some of the field work was done in the spring of 2006 and after I had entered my data into the CD for reference as to Impact Classes I did not enter five or six photos that showed ATV impact above Yoder Road Bridge on the north west side. These photos are accessible at the Upper Susitna Soil and Conservation District office.

<u>Priority 2</u>

The area around the mouth of Montana Creek on the Susitna River to ½ mile above the Parks Highway Bridge (MP 96.5) is the prime King Salmon fishery in the Mat-Su Borough. It is easily accessible by walking from the road parking lot and parking lot in the campground run by lessees for the State of Ak. The following action plan is recommended for Priority 2:

-ATV access limited to parking lots
-No ATVs thorough the two culverts that go underneath the railroad tracks
-Signage and kiosks illustrating salmon and resident fish life cycles and damage caused to habitat by ATV use
-Restoration of degraded riparian areas to improve fish and wildlife habitat

-Patrol of area by DNR or other state agencies to monitor and enforce rules to uphold keeping this habitat healthy, productive and sustainable for anadromous and resident fish populations
-Education: presentations at schools, community councils and churches, Public Service Announcements and newspaper articles

<u>Priority 3</u>

Generally in the section between the Middle Fork Falls and ½ mile above Yoder Road Bridge and starting about ½ mile below Yoder Road Bridge to the Parks Highway Bridg at MP 96.5 there seems to be little ATV activity. Some crossings were identified, documented and photographed but seem to be seldom used presently.
The following action plan is recommended for Priority 3:

-Continue monitoring of these sections of Montana Creek for changes in

ATV traffic
-Signage at crossings illustrating salmon and resident fishes life cycle and damage caused to habitat by ATV use
-Patrols on regular basis by Fish and Game personnel to ascertain ATV use
-Over flights on a yearly basis to monitor ATV(OHV) activity and any disruption of Montana Creek and its riparian zone

OBJECTIVE 2: Conduct a public awareness campaign for trail crossings on Montana Creek

TASK 2: Identify the most effective means and message for outreach and conduct a public awareness campaign outlining crossing locations and techniques for minimal impact to the stream.

Start and end date: July 15, 2005 – June 1, 2006

Description: Identify the most effective means and message for outreach and conduct a public awareness campaign outlining crossing locations and techniques for minimal impact to the stream. Options include a kiosk or signage at trailheads, posting information in the bulletin boards at local campgrounds, posting information at community gathering areas in the Upper Susitna area, presenting information at local community meetings and at ATV user group meetings. Materials will be developed by the USSWCD with input from the resource agency team.

Product: outreach plan; copies of outreach materials developed; photos of posted information; copy of any presentation materials
Submittal Date: outreach plan with 2nd quarterly report; draft copies of outreach material with 3rd quarter report; final copies of materials developed, presentation materials and photos of posted information with final report

Progress Report on Task 2:

Outreach goals achieved:

NEWSPAPERS (Talkeetna Times) One article about ATV concerns. (see printed copy of article in 3rd Quarterly Report).

RADIO (KTNA) Five Enhanced Public Service Announcements completed with four volunteers and being run on the local radio station KTNA thorough August. They are being run once a day for six days a week. (See printed copies of Scripts in 3rd Quarter Report).

POSTER and SPEECH CONTEST put on by the national Association of Soil and Water Conservation Districts. 59 students in both Trapper Creek and Talkeetna schools participated. The theme was Water Wise. One student got fourth place in the State in her category and one received a first prize at the State level and her poster will go on to be judged at a national meeting in October.

EARTH DAY At the USSWCD booth a continuous loop of a Alaska Fish and Game CD named "Off-Road Vehicle Crossings: Upper Susitna River".

It showed damage from ATV use and also gave possible solutions. During the day many people(approximately 40 to 50) stopped to view the loop and look at the hard copy beside the lap-top computer and screen.

FLYERS were copied from an Alaska Dept. of Fish and Game publication showing a red circle with a red line diagonally thorough it inside which an ATV(OHV) is being driven thorough a stream (see final report packet). The message on it states, PLEASE NOT IN STREAMS and also states the State statute that this activity is violating. These flyers were distributed to Post Offices, stores, libraries and other places where the public can see them. The flyers were printed on Write in Rain paper and were put up in these locations with number of flyers posted in parenthesis: D and S Refuse Service (1), Moore's Hardware (2), Tesoro Gas Station (1), Montana Creek both at Yoder Rd Bridge area and the campgrounds around the Parks Highway bridge (26), Camp Caswell (11), Sheep Creek Lodge and Sheep Creek access area (11), Watering Hole (1), Matsu RV Park (2), Goose Creek (12), Rabideux Creek fishing area (8), Talkeetna Post Office (4), Trapper Creek Trading Post (1), Trapper Creek Inn (1), Sunshine Restaurant (1), Trapper Creek Library (1), Talkeetna Library (1), Arctic Cat Snowmachine Store (1).

Additional project information:

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Report Overall Project Evaluation and Summary:

Because of the unique circumstances of this Grant's final action plan as stated in the 3rd Quarterly Report (March 31, 2006) the final report for OBJECTIVE 1 is not as complete as I would have liked, however, the recommendations made for all of Montana Creek (Priortiy 1, 2 and 3) are based on several factors:

FIRST, the literature I have read as to the deleterious effects of ATV(OHV) use on wetlands, riparian zones and streams are well documented. Kevin G. Meyer's National Park Service publication "Managing Degraded Off-Highway Vehicle Trails in Wet, Unstable and Sensitive Environments" was used extensively in this report. This publication was very helpful in pulling together much information on the physical nature of ATV(OHV) effects on differing trail and soil conditions encountered. I made use of his "Trail Impact Classification" system in assessing trail crossings of Montana Creek, wetlands and feeder streams to Montana Creek. The portion of the booklet entitled "Trail Management—Responding to Trail Degradation" is a concise but informative narrative of remediation techniques applied to degraded ATV(OHV) trails. When the time and money become available to do remediation his design and cost estimates will be very helpful. His References list (essentially a bibliography and personal communications) will be a good source for more specific information on design criteria and cost for specified trail segments slated for remediation. I also obtained a draft publication put out by Denali Park and Preserve written by Patricia Loomis and Robert Lieberman titled "Biological Impacts of

Off-Road Vehicles in Alaska: a Literature Review". It gives an excellent list of published literature pertaining to ATV(OHV) use and their impact on the biological environment. Besides the bibliography listed in the draft, the draft itself has a very good overview discussion of the effects that have been observed on vegetation and wildlife by ATV(OHV) use. Other specific literature read for this study was a draft report from Alaska Department of Fish and Game, Habitat and Restoration Division entitled "Upper Susitna ATV Stream Crossing Locations" by Jeffrey C. Davis and David Ryland. Also used was the "Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes—Southcentral Region, Effective January 15, 2005" by J. Johnson, Ed Weiss and Scott Maclean published by Alaska Department of Fish and Game identifying Montana Creek as an important salmon stream.

SECONDLY, the Mat-Su Borough is one of the fastest growing parts of the state (Borough and State statistics) this growth is impacting many of the resources in the Borough not the least of these the recreational, fishing and hunting that we have here in the Upper Susitna Watershed. We are also impacted by not only the Borough residents but more and more by tourists and week-enders from Anchorage. This population growth is manifesting itself in more and more motorized traffic to access remote areas that once were mainly walk-in areas or only accessible by streams and rivers. From personal observation I have seen snowmachine use grow by leaps and bounds in the past five or six years. Also in the last three or four years I have seen more ATV(OHV) coming up the highway on trailers and pickups to be used to access remote sites in the summer months. Unfortunately, because there is no protective layer of snow on the ground when most ATV(OHV) use occurs the damage they inflict on wetlands and streams is more severe and can last for decades. What we can do to prevent this is an open question. The recommendations in this final report would help address the problem.

THIRD, when I over flew Montana Creek in on May 19th looking to document riparian damage done to parts of Montana Creek below Yoder Road Bridge I also overflew the Yoder Road Bridge area and got a good birdseye view of ATV impact that I had documented in my on the ground fieldwork. The pilot then took me north and west to the southern border of Denali State Park and wanted to show me what is occurring there. We flew over that area and could see where ATV(OHV)s had been going from state and private land into the park. He stated that over the years of flying over this area he has seen an increase of this trail making into Denali State Park and is quite concerned about its effect on wildlife in the area if it increases at the rate it is so doing. This flight illustrates the ease and efficiency that overflights can be used for keeping an eye on critical habitat and riparian areas along streams in the Upper Susitna Watershed.

I believe that the recommendations for an action plan that have been made in this proposal are reasonable and IF implemented can help us to continue to have a healthy and sustainable environment for all residents in the Upper Susitna Watershed.

ADDENDUM:

In Priority 3 above it was mentioned to do yearly overflights of Montana Creek. This spring we saw the value in this procedure. In early May a resident kayaked down Montana Creek from the Yoder Road Bridge and encountered much debris that looked like it had been pushed into the creek by a bull dozer or machinery of some sort. He reported this to the Upper Susitna Soil and Water Conservation District which, then, with the help of a volunteer pilot, the Water Quality Monitor Coordinator was able to photograph the riparian area under question and did, indeed, find that someone had cleared land and pushed portions of it into the creek, probably last fall. The State of Alaska Division of Habitat and Permitting was called in where presently an investigation is ongoing. This overflying of an area to be monitored seems to be an easy, efficient and economical way to keep up a yearly observation schedule on the Montana Creek Watershed. Photos of this overflight are available from the USSWCD.

<u>Water Quality Monitoring Data</u>

One of the concerns that I have had for sometime is that all data for the four streams (Talkeetna River, Birch Creek, Montana Creek and Trapper Creek) we have been monitoring for the past four and a half years are only accessible here at the Upper Susitna Soil and Water Conservation District office in hard copy and floppy discs. Fortunately in the past several months I had help from the State DEC office. Dianne Denson, Analyst/Programmer – STORET Coordinator, came down to the Wasilla Soil and Water Conservation District and our office to help the Coordinators with getting our data into the STORET system that the State has for this information. Dianne was here on the 29th of March and helped set up an Excel Spreadsheet with the criteria that we measure in our program. By the 10th of June I was able to enter all our data from the eight monitoring sites on the four streams into the spread sheet and e-mail it to Juneau where she received our information and it is on file for use by interested parties.

Submitted by
Rick Ernst
USSWCD
Watershed Health Coordinator