APPENDIX A
Key Personnel Resumes

Project Manager/Coordinator/Administrator: Jim Mietz and Arvin VanRy

Hydrologist/Designer/On-Site Coordinator: Steve Belz

Construction Manager: Alan Miller

Grazing Management Specialist: Cindy Villa and Tracy Miller

Biologist: Chanda Pettie

Biology Assistant: Maya ter Kuile

Certified Public Accountant: Steve Taylor (resume requested not received)

Bookkeeping Assistant: Carol Gurule

Grant Writer: Tawney Becker

Administrative Assistant: Kristi Heersink (resume requested not received)

Project Assistant: vacant

(719)589-3907, x-124
FAX (719)589-0613
James.mietz@co.usda.gov
2205 State Avenue,
Alamosa, CO 81101-3559

JAMES MIETZ

OBJECTIVE Develop the capacities of the San Luis Valley Resource Conservation & Development Council to a point of self-sustainment.

EXPERIENCE 1990 to present USDA/SLV RC&D Council
Alamosa, CO

COORDINATOR

- Aquaculture industry
- Value-added agriculture seminars & projects
- Composting of waste materials
- GIS development
- Marketing of agricultural crops
- Target marketing for business
- Noxious weed management
- Wildfire mitigation
- Water quality
- Non-profit management
- Alternative energy

1987 to 1990 USDA/N.Jersey RC&D Council
Washington, NJ
COORDINATOR

- Urban forestry
- Developing land use tools for local planning commissions
- Critical area treatment
- Non-profit management

1976 to 1986 USDA/Madison County Soil & Water Conservation District
Morrisville, NY

DISTRICT CONSERVATIONIST

- Conservation Planning
- Soil and water conservation technical assistance
- Soil survey services
- Soil potential ratings
- Conservation tillage

EDUCATION 1974, MS in Forestry S.U.N.Y. College of Environmental Science and Forestry
Syracuse, NY

1968, BS in Forestry Utah State University
Logan, Utah
1964, Graduate NY State Ranger School
Wanakena, NY

PERSONAL

married, 3 grown children
Hunting, running and physical fitness, cross-country skiing, Chairman of fire mitigation committee with the Zapata Homeowners Association, woodworking, sports enthusiast, computers, reading

336 Riverwood Dr.
Alamosa, CO
81101

Ph. 719-580-2521
Email: arvinvan@msn.com

Arvin W. Van Ry

Objective

Project Manager Alamosa River Restoration

Experience

CEO

- 1976- 2007 owned operated Colorado Construction of Alamosa Inc.

Management experience

- Supervised up to 30+ employees
- Managed sub- contractors on multi-million dollar projects
- Completed several projects for local, state and federal governments
- Introduced in area Construction Management
- Managed CM for REC in Monte Vista and Buena Vista
- Managed CM for 4 medical buildings
- Managed CM for 4 truck terminals in Colorado and New Mexico
- Currently scheduling railroad passenger car restoration
- Familiar with Microsoft Project 2000 for scheduling construction sequence

Farmed in Waverly area for 14 years
Managed 150 cow dairy and farmed alfalfa on 640 acres

Education

Graduated high school Lynden Christian School 1964
College Dordt College, emphasis biology and Zoology
Adams State College, business law
3 years CSU agricultural leadership training
Bob Miller construction practices, construction ethics

Interests

Aviation
Practical environmentalism
Fishing
Sporting clays

Profile and Resume
Black Creek Hydrology, LLC

10998 Patterson Ct.
Northglenn, CO 80234
303-920-2664
email sebelz@aol.com

Black Creek Hydrology, LLC is a small consulting firm specializing in stream assessment, hydrology, restoration design, permitting and project implementation. The firm was established as an LLC in 1999 by Steve Belz after providing consultation services on a growing, part-time basis since 1992. Services have been provided to individual land owners, developers, local, state and federal agencies, special districts, fishing clubs, resorts and ranchers as well assisting other consulting firms. Experience on stream restoration projects has been gained primarily in Colorado, Wyoming and New Mexico but work has also been performed in Oregon, Illinois and Alaska.

Black Creek Hydrology's variety of work experience on dozens of stream projects has been as simple as the design and installation oversight of a few fishery enhancement structures to as complex as the design and implementation of projects requiring inter-disciplinary and agency coordination or covering many miles of stream channel. Several projects were carried out to mitigate clean water act violations and required extensive cooperation and coordination with the EPA and US Army Corps of Engineers.

Black Creek Hydrology, LLC provides many of the in-house technical services required for project implementation but also networks closely with associates in other environmental, wetland and engineering firms in order to cover all facets of stream restoration projects in today's complex regulatory environment.

Education B.S. Watershed Sciences, Colorado State University, 1983

Projects that Black Creek Hydrology, LLC is presently working on include:
(project involving streams of at least one mile in length are identified with "***")

*** Rio Chama near Chama, NM. Black Creek Hydrology, LLC is presently working on a restoration and fishery enhancement design for a 1.5 mile section of the Rio Chama south of the town of Chama. This section of river is severely degraded and will require substantial bank stabilization, rock habitat installation and some remeandering of the channel. Construction is scheduled for Fall 2006. $450,000 est.

*** Cimmaron River near Montrose, CO. Black Creek Hydrology, LLC prepared a fishery enhancement and river stabilization plan in 2005 for about one mile of the Cimmaron River. Addition design work is underway for an additional three miles of river. The emphasis of this project is the enhancement of habitat under a very limited late-season flow regime. Part of the project was completed during Fall 2005. $500,000 est.

*** Pecos River near Pecos, NM. Black Creek Hydrology, LLC is presently preparing fishery enhancement and channel stabilization design for a one mile reach of the Pecos River.

*** Spring Brook at DuPage County, IL. Black Creek Hydrology, LLC is working to prepare a design for the complete stream and wetland restoration of a presently straightened two mile section of Spring Brook. This project was initiated in 2001 by the establishment of an assessment and monitoring study on a five mile reach of the stream to determine natural geomorphological characteristics of the stream system and to monitor on-going changes to the system as the result of upstream watershed impacts. Construction is slated for Fall 2006. $1,600,000

Other Project Experience

Ferson/Otter Creek near St. Charles, IL. This on-going project was started in 1998 to assess stream conditions on a three mile reach of Otter Creek and Ferson Creek and identify channel characteristics impacted by upstream land use practices in the watershed. Detailed stream flow, profile and cross section survey, channel form, bank erosion and bed and transported sediment information continue to be gathered. As a result of the effort, two channel stabilization projects have been implemented and more comprehensive stream restoration design and plan was prepared and installed during November 2005. $124,000

Indian Creek near Loveland, CO 2005. Designed and provided oversight for the restoration of 1,700 foot reach of Indian Creek at Indian Creek Ranch. $343,000

*** Alamosa River Stream Restoration near Capulin, CO, 2004. Prepared a river restoration design for a five mile reach of the Alamosa River near Capulin and provided oversight for the installation of the first mile during Fall 2004. $385,000

*** Rio Grande River near Creede, CO, 2003. Prepared a river restoration and fishery enhancement design and provided construction oversight for a four mile reach of the Rio Grande River.

Cebolla Creek near Gunnison, CO, 2003. Prepared a channel stabilization design for a fishing club and provided installation oversight. This project will prevent bank failure and migration of a headcut up the stream bed.

Lake Fork of the Gunnison River near Lake City, CO, 2003. Prepared and channel stabilization and diversion modification design for San Juan Ranch Estates to protect a residential access road and remove a diversion structure/dam that was adversely affecting the river function. $375,000

*** Lake Fork of the Gunnison River near Lake City, CO, 2003. Prepared a bank stabilization and fishery enhancement plan for a two mile reach of the Lake Fork for a Hunting and Fishing Club.

De Berard Draw at Sol Vista Ski and Golf Resort, Grand Lake, CO, 2004. Designed and provided construction oversight for the restoration of 500 feet of a creek adjacent to a golf course.

Tomichi Creek near Gunnison, CO. 2003. Prepared a river restoration design for a one half mile reach of Tomichi Creek and provided installation oversight.

Pikes Peak Highway, CO. Black Creek Hydrology, LLC is working with a team to set up and install a 15-year study to monitor the effectiveness and validate response to related mitigation practices on the Pikes Peak highway. One facet of this study is the examination of sediment contribution to the stream systems derived from impacts to the mountain watersheds by roads and runoff diversions and by natural sources. Data is being collected on both the sediment sources and stream characteristics of impacted and non-impacted sites in order to identify changes in stream morphology in response to mitigation practices and BMP effectiveness.

South Cedar Creek near Saratoga, WY. 2002. Provided construction oversight for silt removal and installation of rock and rootwad fishery habitat improvements and stream channel stabilization structures on one half mile of South Cedar Creek.

Otter Creek near St. Charles, IL. 2002. Provided construction oversight for the installation of rock and rootwad bank stabilization structures on a local demonstration project funded by the EPA and NRCS.

Ohio Creek near Gunnison, CO. 2002. Designed and provided construction oversight for the stabilization and fishery habitat improvement of a one thousand-foot reach of Ohio Creek.

Spring Brook at DuPage County, IL, 2002. Surveyed, collected data and prepared a conceptual design for a three-mile reach of a stream for the DuPage County Forest Preserve District.

*** Trout Creek, near Creede, CO, 2001. Designed, obtained permits and provided construction oversight for restoration of 1.75 miles feet of stream channel that was braided and actively eroding due to historic land use practices.

*** Shallow Creek, near Creede, CO, 2001. Designed, obtained permits and provided construction oversight of the fishery enhancement of a one-mile reach of stream for an Orvis endorsed fishing ranch. Owner had previously worked on the channel but the efforts were failing and needed to be reconstructed

Rio Chama near Chama, NM, 2001. Designed, obtained permits and provided construction oversight for restoration and habitat enhancement on a 1500-foot reach of the Rio Chama. Project incorporated large boulder vane and cross vane structures for bank and bed protection.

Lake Fork of the Gunnison River near Lake City, CO, 2001. Designed, obtained permits and provided construction oversight for a channel stabilization and fishery enhancement project for a 2300-foot reach of the Lake Fork for a Hunting and Fishing Club.

Ketchikan Creek, Ketchikan, AK, 2001. Performed data collection and salmon habitat improvement design for Greystone Environmental Consultants, LLC in for a FERC re-licensing project.

Galisteo River, NM, 2001. Assisted Williams and Associates in data collection, analysis and design for the restoration of a 1,400-foot reach of the Galisteo River.

East River near Crested Butte, CO, 2001. Provided assessment information and mitigation and restoration recommendations to a developer for the mitigation of a 404 violation on a one half-mile reach of river. Assisted with restoration mitigation efforts.

Amber Creek, Thornton, CO, 2001. Prepared a stream and wetland restoration design for a 1000-foot reach small stream through a proposed urban housing development.

*** South Cedar Creek near Saratoga, WY, 2001. Prepared a stream restoration and fishery enhancement design and obtained permits for one-mile reach of stream channel.

Copper Mountain Ski Area Environmental Impact Assessment, CO, 2001. Assisted Williams and Associates in the analysis of potential impacts to streams from proposed increased ski area snowmaking.

Trout Creek and Shallow Creek, near Creede, CO, 2001. Prepared stream restoration and fishery enhancement designs for nearly three miles of channel on two stream systems that have been impacted by historic grazing activity and channel realignment. Construction is scheduled for summer 2001.

Cochetopa Creek, Los Pinos Creek and Powderhorn Creek near Gunnison CO, 2000. Prepared stream restoration and fishery enhancement designs for three small streams.

Indian Creek near Loveland, CO, 2000. Prepared a stream and wetland restoration design for a 1500-foot reach of stream in the Indian Creek Ranch development. Design was prepared and submitted to the EPA as a mitigation design for a Clean Water Act violation.

McCoy Creek near La Grande, OR. 2000. Performed a design review and field inspection for the Umatilla Indian Tribe of a 1.5-mile stream restoration plan prepared by the NRCS.

Otter Creek, IL, 2000. Prepared a bank stabilization and wetland water supply design for section of Otter Creek near St. Charles, IL. Construction is scheduled for Fall 2001

Lower Colorado River National Wildlife Refuge Complex, CA 2000. Assisted Williams and Associates, LLC in preparing a Water Management Plan for four USFWS wildlife refuges in Arizona.

*** Lake Fork of the Gunnison River near Lake City, CO, 1999. Designed and implemented the restoration of a one-mile reach of the river. River had been historically straightened. Meander pattern was re-established, channel was stabilized and riparian wetland areas were created.

*** Rio Chama near Chama, NM, 1999. Prepared a geomorphological assessment for a ranch on a six-mile reach of the Rio Chama. Report included identification of problem

reaches, fishery enhancement potential, preliminary design recommendations and strategies for obtaining the greatest return on fishery enhancement investments.

*** Eagle Ranch Development, Eagle, CO, 1999. Designed and provided construction oversight for the restoration of three and one half miles of small streams through a new housing development and golf course. Design was prepared to stabilize existing streams, create new channels for streams obliterated by historic agricultural practices and create four acres of riparian wetland for impact mitigation.

Cache la Poudre River near Windsor, CO, 1999. Prepared a restoration design and provided construction oversight for a one thousand foot reach of the Poudre River. Design was prepared to stabilize banks and create a riparian wetland to mitigate a Clean Water Act violation.

South Platte River near Sterling, CO, 1999. Designed and provided construction oversight for the restoration of a two hundred-foot reach of the South Platte River for Logan County. Limitations on construction material availability dictated that revetment be constructed almost entirely of rootwads and logs.

Niver Creek, Thornton, CO, 1998. Prepared a stream and wetland restoration design and provided construction oversight for a small stream through an urban housing development.

Ferson/Otter Creek, IL, 1998. Performed a geomorphological assessment on two miles of stream and prepared restoration designs for a bank failure and a wetland irrigation diversion.

Upper San Juan River TMDL Study, CO 1997. Collected field data for Wildland Hydrology, LLC as part of an EPA funded TMDL/geomorphological study.

Beaver Creek, Black Hills National Forest, Bear Lodge District, WY, 1996. Performed a watershed condition and stream channel assessment. Prepared channel restoration designs and provided land use management recommendations.

San Juan River near Pagosa Springs, CO, 1995. Designed and supervised the restoration of a one thousand-foot reach of the San Juan River near Pagosa Springs, CO to mitigate a Clean Water Act violation. Activities included cooperation with the Environmental Protection Agency to develop an acceptable design for river restoration.

Technical Assistance to Wildland Hydrology Consultants, Pagosa Springs, CO. 1988 to 1996. Assisted Mr. David Rosgen with data analysis and technical assistance in the preparation of the book Applied River Morphology.

Ogden Creek Evaluation and Stabilization Design Study, WY, 1994. Prepared a stream channel and watershed assessment, restoration design and management recommendations for the Black Hills National Forest, Bear Lodge District, WY.

Strawberry River Restoration Project, UT, 1993. Provided consultation, field evaluation and preliminary channel stabilization designs to Bingham Engineering, Salt Lake City, UT.

Maggie Creek Channel Restoration, NV, 1993. Provided technical assistance to Wildland Hydrology Consultants, Pagosa Springs, CO.

References For Black Creek Hydrology, LLC

Company Name: St. Charles Park District
Business Address: 8 North Ave, St. Charles, IL 60174
Name of Contact: Ms. Mary Ochsenschlager
Title of Contact: Assistant Superintendent of Parks
Telephone Number: 630-584-1885 ext. 425
Description of Work: Design and construction oversight of stream stabilization and habitat improvements on Otter Creek
Date of Work: November 2005
Relevance of Work: Stream stabilization and habitat improvement

Company Name: DuPage County Forest Preserve District
Business Address: P.O. Box 5000, Wheaton , IL 60189
Name of Contact: Ms. Leslie Berns
Title of Contact: Natural Resource Supervisor
Telephone Number: 630-933-7671
Description of Work: Design of stream restoration of Spring Brook
Date of Work: 2002-Present
Relevance of Work: Steam restoration and habitat improvement

Company Name: Butte Rock Ranch
Business Address: P.O. Box 182 Cimarron, CO 81220
Name of Contact: Mr. Mike Richard
Title of Contact: Ranch Manager
Telephone Number: 956-763-6912
Description of Work: Design and construction oversight of stream stabilization and fishery enhancements on the Cimarron River
Date of Work: 2005
Relevance of Work: Fishery enhancement and stream stabilization

Company Name: Lake City Ranches, Ltd
Business Address: 6353 State Hwy 19N Athens, TX 75752
Name of Contact: Mr. Don Cardin
Title of Contact: General Manager
Telephone Number: 903-675-9104
Description of Work: Design and construction of stream stabilization and habitat improvements on the Lake Fork of the Gunnison River, CO and Rio Chama, NM
Date of Work: 1999, 2005
Relevance of Work: River restoration and habitat improvement

Company Name: Alamosa River Watershed Restoration Foundation
Business Address: 20758 Country Road 10, La Jara, CO 81140
Name of Contact: Mr. Alan Miller
Title of Contact: Coordinator
Telephone Number: 719-274-5430
Description of Work: Design and construction oversight of stream restoration, water diversions and habitat improvements on the Alamosa River
Date of Work: 2004

Relevance of Work: River stabilization and habitat improvement

Company Name: San Juan Ranch Estates
Business Address: P.O. Box 342 Lake city, CO 81235
Name of Contact: Mr. Jeff Merrill
Title of Contact: Manager
Telephone Number: 970-944- 2024
Description of Work: Design and construction oversight of stream stabilization, water diversion and habitat improvements on the Lake Fork of the Gunnison River
Date of Work: 2003
Relevance of Work: River stabilization and habitat improvement

Company Name: Lake Fork Hunting and Fishing Club
Business Address: Rt4, Box 5, Lake City, CO 81235
Name of Contact: Charlie Colopy
Title of Contact: Manager
Telephone Number: 970-944-2211
Description of Work: Design and construction oversight of stream stabilization and fishery enhancements on the Lake Fork of the Gunnison River
Date of Work: 2003
Relevance of Work: Fishery enhancement and stream stabilization

Company Name: Broadacres Ranch
Business Address: 25671 West Hwy 149, Creede, CO 81130
Name of Contact: Dave Marlin
Title of Contact: Ranch Manager
Telephone Number: 719-658-2291
Description of Work: Design and construction oversight of stream stabilization and habitat improvements on Trout Creek and Shallow Creek
Date of Work: 2001
Relevance of Work: Stream restoration and habitat improvement

Cynthia A. Villa

625 Cherry Street,
Del Norte, Colorado 81132
Home: (719) 657-2886
Work: (719) 852-5114 x302
Email: cynthia.villa@co.usda.gov

Social Security Number: xxxxxxxxx
Country of Citizenship: United States of America
Veteran's Preference: No
Highest Grade: GS-9
Contact Current Supervisor: Yes

VACANCY INFORMATION

Announcement Number: CO-06-012
Position Title, Series-Grade: Multi-County Rangeland Management Specialist, GS-454-11

WORK EXPERIENCE

USDA-Natural Resources Conservation Service **Dates Employed: 2/2004-Present**
0881 N. Highway 285 Salary: $xxxxx/year
Monte Vista, CO 81144 Hours per Week: 40

RANGE MANAGEMENT SPECIALIST, GS-9, MAY 2005-PRESENT
SOIL CONSERVATIONIST, GS-9, FEBRUARY 2004-MAY 2005

- Assist with Monte Vista Field Office [MVFO] management and administrative activities including: furnishing local program objectives to landowners and methods of installation of conservation and management practices; gathering and assembling data for planning, developing, and implementing resource management applications and conservation plans, and producing contracts on range and agricultural lands for Rio Grande, Mineral, and Hinsdale Counties using ArcGIS, Toolkit, and Protracts computer software programs; implementation, management, maintenance, and monitoring of conservation plans and management practices; and personnel management
- Proficient with the following NRCS conservation programs: Coordinated Resource Management Plan [CRMP], Conservation Security Program [CSP], Environmental Quality Incentive Program [EQIP], Ground and Surface Water Conservation Program [GSWCP], Wildlife Habitat Incentive Program [WHIP]
- Experience with the following NRCS conservation programs: Farm and Ranch Protection Program [FRPP], Grassland Reserve Program [GRP], and Wetland Reserve Program [WRP]
- Experience with the following Colorado Division of Wildlife [CDOW] conservation programs: Cooperative Habitat Improvement Program [CHIP], Habitat Partnership Program [HPP], and Ranching for Wildlife
- MVFO representative at Bureau of Land Management [BLM] and United States Forest Service [USFS] allotment meetings with ranches involved in CRMP including: Corset Ranch, Davie Ranch, Dugan Ranch, Fuchs Ranch, McNeil Ranch, Myers Creek Grazing Association, and Two Creek Ranches
- Assist wildlife biologist with field inventories, meetings with landowners, appraisers, and surveyors for WRP applications and/or monitoring easements
- MVFO representative and vegetation lead within national NRCS group working with Willow Creek Reclamation Committee in Creede, Mineral County, CO
- Assist in development of Ecological Site Descriptions [ESDs], in conjunction with State Office

(Supervisor: Cindy Crist, District Conservationist, Phone: 719-852-5114 ext. 303)

Accomplishments

- Assisted in development of rangeland ESDs for San Luis Valley
- Assisted in development of Ecological Reference Worksheets for CSP San Luis and Saguache Watersheds
- Conducted rangeland assessment portion at four CSP workshops for agricultural producers
- Conducted four rangeland health assessments and evaluations for CSP applicants for Alamosa and Monte Vista Field Offices
- Conducted range inventory and authored baseline inventory and present condition report including grazing management for McNeil Ranch GRP, Rio Grande County
- Conducted range inventory and authored baseline inventory and present condition report for Spring Creek Ranch FRPP, Archuleta County
- Conducted range inventory and grazing management plan alternatives for Two Creek Ranches
- Productively worked with USFS, BLM, CDOW, and State Land Board officials on CRMP on five allotments in Conejos, Rio Grande, and Saguache Counties
- Successfully co-authored grant for Embargo Creek Allotment spring development through CDOW's Habitat Partnership Program
- Assisted in spring development on Embargo Creek Allotment
- Productively worked with USFS and BLM range managers in range readiness for Embargo Creek, Myers Creek, Rock Creek, and Sawlog Allotments
- Assisted in Willow Creek revegetation seeding trials and windbreak plantings
- Successfully co-authored grant for Sargent School District "Field of Dreams" Baseball Field and Park
- Assisted Center FO with grazing management plan on Orient Land Trust's Everson Ranch
- Assisted Center FO in range inventory on Lovato Ranch
- Assisted San Luis FO with baseline inventory and final report for Carpenter Ranch, Costilla County
- Trained San Luis FO Range Specialist in performing baseline inventories
- Conducted vegetation inventory and generated plant species list for Willow Creek Reclamation Committee
- Assisted Rio Grande Conservation District and Saguache BLM Office in plant identification
- Conducted range inventory for State Land Stewardship Plan on Dugan Ranch
- Led plant identification field trip for middle school children at Beaver Creek Natural Resource Camp
- Conducted presentation on baseline inventories and present condition reports for natural resource professionals and landowners at Rio Grande Headwaters Land Trust's Easement Workshop
- Conducted presentation on range ecology and vegetation for Sustainable Agriculture class for Colorado College at Two Creek Ranches
- Acted as judge for Regional Science Fair at Adams State College
- Assisted wildlife biologist with field inventory on four WRP applications
- Produced photo monitoring protocol for vegetation monitoring of 319 river projects
- Represent NRCS at the San Luis Valley [SLV] Biologist's Group which involves natural resource managers from CDOW, US Fish and Wildlife Service [USFWS], Ducks Unlimited, The Nature Conservancy, USFS, BLM, and Rocky Mountain Bird Observatory

Claffey Ecological Consulting, Inc. [CECI]
1371 17 Road
Fruita, CO 81521

Dates Employed: 5/2003-7/2004
Salary: $35.00/hour
Hours per Week: 35-60

SUB-CONTRACTOR, BOTANIST

Independent consultant in cooperation with CECI and the BLM on biological assessment and evaluation on 4,000 acres in Grand County, Colorado. Responsible for vegetation and habitat assessment, and

evaluation of threatened and endangered plant species as identified by the Craig District of the BLM and White River NF.

(Contractor: Michael Claffey, Phone: 970-858-1670)

Accomplishments

- Established productive and successful working relationships with principle investigator, BLM resource managers, and CDOW wildlife biologists
- Delineated and mapped vegetation communities and range sites
- Successfully located and identified threatened and endangered plant species
- Produced and summarized habitat analysis and conclusions in a written report submitted July 2004

Dr. Roy Roath
1919 Lindenmeier Road
Fort Collins, CO 80524

Dates Employed: 3/2001-8/2003
Salary: $35.00/hour
Hours per Week: 35-60

SUB-CONTRACTOR, BOTANIST

Independent consultant on floristic inventory of Blue Valley Ranch, private 25,000-acre ranch in Grand County, Colorado, which is involved with CDOW's Ranching for Wildlife Program.

(Contractor: Dr. Roy Roath, Phone: 970-491-6543)

Accomplishments

- Trained two crew members for vegetation survey on line intercept method, Robel pole method, collecting of unknown plant species, identifying and delineating vegetation communities and range sites for long-term management plan
- Established successful working relationship with landowner and created a botany position on the ranch
- Established successful working relationships with ranch manager, ranch employees, CDOW habitat specialists, curator and assistant curator at Rocky Mountain Herbarium at the University of Wyoming
- Provided technical assistance to CDOW habitat specialist on range site evaluation, delineation of vegetation communities, and plant species identification
- Generated UTM coordinates with GPS receiver and created maps of sample and collection sites
- Drafted observation narratives on site description including azimuth of plot, slope, topography, evidence of wildlife, and vegetation type with detailed description regarding structure, density, and understory
- Collected, inventoried, pressed, and identified over 3,000 plant specimens
- Generated a master species list currently categorizing 556 plant species
- Maintained extensive databases in Microsoft Excel for all information gathered
- Created an herbarium of plant specimens representing all plant species observed
- Created a plant gallery for main ranch office

Cynthia Villa
625 Cherry Street
Del Norte, CO 81132

Dates Employed: 1/2000-2/2004
Salary: $50.00/hour
Hours per Week: 35-60

CONTRACTOR, BOTANY & RANGE ECOLOGY

Accomplishments

- Developed successful business as an independent consultant

- Assisted in creating baseline inventory protocol for conservation easements in cooperation with land trusts
- Established productive and successful working relationships with local, regional, and national land trusts and private landowners
- Conducted 17 baseline inventories and authored present condition reports 13 ranches as part of a conservation easement for 13 landowners and 11 land trusts
- Assisted in coordinating meetings with heads of seven original families allowed grazing privileges on the Taylor Ranch in San Luis, CO. After several meetings the Sangre de Cristo Grazing Association was formed
- Coordinated and co-lead weekend grazing workshops at the Taylor Ranch, several which were facilitated by personnel from local NRCS offices. Objectives were multifold, but immediate concern was to have the ranch reinstated into the CDOW Ranching for Wildlife program by the 1999 hunting season

(Contractor: Cynthia Villa, Phone: 719-657-2886)

Rocky Mountain Elk Foundation
6060 Broadway
P.O. Box 211512
Denver, CO 80221

Dates Employed: 1/2000-2/2001
Salary: $18.00/hour
Hours per Week: 40-50

PROJECT MANAGER, BOTANY & RANGE ECOLOGY

Project manager and lead botanist on vegetation baseline inventory and habitat analysis of 30,000-acre CDOW State Wildlife Management Area [SWMA] in Las Animas County, Colorado. (Contractor: Dr. Roy Roath, Phone: 970-491-6543)

Accomplishments

- Prepared, organized, and conducted research
- Hired, trained, and supervised research crew
- Successfully acted as primary contact between principal investigators, research crew, public land managers, and landowners
- Created productive working relationships with NRCS and CDOW resource managers
- Established 50 long-term vegetation monitoring plots over 30,000-acre SWMA
- Provided quality scientific responsibility including methodology of data collection, quality and assurance data collection, and project-related planning and reporting
- Presented project related planning and reporting at monthly steering committee meetings to SWMA Board
- Assembled and maintained maps, aerial photos, and other media to facilitate office management and administration
- Identified and collected plant specimens and generated master species list categorizing 426 plant species
- Prepared and finalized statistical analysis and data summaries for research conclusions, management recommendations, and manuscript
- Co-authored final report

Dr. Roy Roath
1919 Lindenmeier Road
Fort Collins, CO 80524

Dates Employed: 8/2000-11/2000
Salary: $18.00/hour
Hours per Week: 25-50

SUB-CONTRACTOR, BOTANY & RANGE ECOLOGY

Accomplishments

- Finalized data collected on four-year HPP project on White River National Forest
- Generated species lists for 68 range sites and vegetation communities
- Prepared statistical analysis and data summaries for research conclusions and management recommendations

(Supervisor's Name: Dr. Roy Roath, Phone: 970-491-6543)

Dr. Tom Stohlgren
USGS, Natural Resource Ecology Laboratory
Colorado State University
Fort Collins, CO 80523-1944

Dates Employed: 5/1994-8/1999
Salary: $10.00- $13.40/hour
Hours per Week: 40

RESEARCH ASSOCIATE

Project director and lead botanist for landscape-scale assessment of native and exotic plant diversity and cryptobiotic soil crusts in the 2,000,000-acre Grand Staircase-Escalante National Monument, Utah.
(Supervisor's Name: Dr. Tom Stohlgren, Phone: 970-491-1980)

Accomplishments

- Successfully prepared and organized research and logistics
- Highly productive as primary contact between principal investigators, public land managers, research crews, laboratory crews, landowners, and volunteers
- Hired a BLM airplane pilot and coordinated reconnaissance flights to otherwise inaccessible, remote backcountry areas
- Successfully hired, trained, coordinated, and supervised four, three-person field research crews
- Located pre-selected random sample points [generated by computer program] in remote backcountry areas with use of aerial photographs, topographic maps, compass, and GPS receiver
- Effectively hired BLM helicopter pilots and coordinated logistics for drop-off and pick-up of research crews and supplies for ten day fieldwork trips in inaccessible and remote backcountry areas
- Established 110 long-term vegetation monitoring plots over 500,000 acres in two field seasons
- Successfully performed detailed vegetation inventory; cryptobiotic soils identification, classification, measurement and collection; and soil core sampling on 110 monitoring plots established
- Drafted observation narratives on site description including azimuth of plot, slope, evidence of wildlife, and vegetation type with detailed description regarding structure, density, and understory
- Effectively entered field data electronically on each monitoring plot using palmtop computers, GPS receivers, digital, and video-mapping cameras
- Effectively managed data and transfer of data collected on palmtops to laptop computers for data backup and storage
- Productively prepared, organized, and conducted research and provided quality scientific responsibility including methodology of data collection, quality assurance of data collection, and project-related planning and reporting

- Assembled and maintained scientific literature, topographic maps, aerial photos and other media to effectively facilitate research, field work, and office management and administration
- Assisted in preparation of statistical analysis, data summaries, and manuscripts
- Co-authored three journal manuscripts

RESEARCH ASSOCIATE

Project manager and botanist for Environmental Protection Agency [EPA] funded vegetation study in the San Luis Valley, CO.

Accomplishments

- Trained, coordinated, and supervised two 3-person field research crews
- Acted as primary contact between principal investigators, landowners, and research crews
- Effectively entered field data electronically on each monitoring plot using palmtop computers, GPS receivers, and cameras
- Effectively managed data and transfer of data collected on palmtops to laptop computers for data backup and storage
- Prepared, organized, and conducted research and provided quality scientific responsibility including methodology of data collection, quality and assurance data collection, and project-related planning and reporting
- Assembled and maintained scientific literature, topographic maps, aerial photos and other media to effectively facilitate research, field work, and office management and administration
- Reported quarterly to EPA on project related planning and accomplishments
- Assisted in final preparation of statistical analysis, data summaries, and manuscripts

RESEARCH TECHNICIAN

Crew leader and botanist for landscape-scale vegetation studies based on public lands throughout the Rocky Mountains and central Great Plains. Focus of project was to find correlation between native plant diversity and invasive species at multiple spatial scales relative to soil characteristics and grazing by domestic and wild ungulates.

Accomplishments

- Created long-term vegetation monitoring sites in six National Parks, two USFWS National Refuges, and sites for Larimer and Boulder County Open Space, and the City of Fort Collins
- Conducted vegetation sampling for baseline on monitoring sites
- Trained federal, state, county, and city natural resource agencies in the use and application of the Modified-Whittaker vegetation sampling design
- Acted as primary contact between natural resource managers, project manager, and research crew
- Assembled and maintained topographic maps, aerial photos and other media to effectively facilitate research, field work, and office management and administration
- Assisted in preparation of statistical analysis, data summaries, and manuscripts
- Co-author on two journal manuscripts

Department of Forest Sciences & Department of Rangeland Ecosystem Sciences

Colorado State University

Fort Collins, CO 80523-1944

Dates Employed: 8/1994-12/1997
Salary: $6.78/hour
Hours per Week: 20

TEACHING ASSISTANT

Accomplishments

- Developed and instructed laboratory and field exercises for Dendrology [botanical study of trees & woody plants] classes
- Conducted tutoring sessions for 90 college students
- Developed and proctored Dendrology taxonomy exams
- Collected and mounted tree specimens for class exercises and herbarium
- Instructed middle school, high school, and college students in proper use of herbarium, plant collecting, mounting, and care of plant specimens
- Directed team of three work study students
- Developed and proctored taxonomy exams for the Science Olympiad statewide school competition

(Supervisor's Name: Rocky Coleman, Phone: 970-491-0710).

RANGE TECHNICIAN, STUDENT WORK STUDY

Accomplishments

- Independently conducted research on 26,000-acre working cattle ranch
- Obtained quantitative and qualitative data on range productivity, condition, and trend through vegetation sampling which included plant species, cover, frequency, and establishing photo points
- Assisted in preparation of statistical analysis
- Assisted in developing and proctoring on-site rangeland assessment exams for FFA students in statewide high school competitions in cooperation with CSU Range Extension.

(Supervisor's Name: Dr. Roy Roath, Phone: 970-491-6543)

EDUCATION

Colorado State University

Fort Collins, CO 80523

B.S., 1997

127 Semester Hours

Major: **RANGELAND ECOLOGY**

Concentration: **RANGELAND MANAGEMENT**

GPA: 3.00 out of 4.00

Front Range Community College

Westminster, CO 80031

Completed 33 credit hours, 1992-1993

GPA: 3.727 out of 4.00

College of Lake County

Grayslake, IL 60030

Completed classes in Animal Husbandry, 1976-1977

Grayslake Community High School

Grayslake, IL 60030

Graduated, 1976

SCHOLARSHIPS

First Generation Award- Awarded by the State Board of Agriculture, 1993-1997

College of Natural Resources Dean's List- 1994-1995

JOB RELATED SKILLS

- Highly skilled in vegetation and resource inventory, monitoring, collection, and summarization of data
- Extensive experience in effective communication with landowners, natural resource managers, public land managers, and a broad array of scientists.
- Computer software qualifications with Windows based software: Proficient in Adobe Acrobat, Excel, Word, Power Point, Publisher, ArcView, ArcGIS, Protracts, eFOTG, TOPO, WebTCAS, and WordPerfect. Experience with Quattro Pro, Freelance, SCIMS, PRS, and Soils Data Mart
- Strong range ecology background
- Excellent oral and written communication skills
- Strong ability in developing productive working relationships
- Excellent organizational and leadership skills
- Ability to effectively work independently and within team settings
- Experience and training in collecting data and developing ESDs
- Extensive experience in database management, microcomputer, and palmtop computer use
- Proficiency in backcountry navigation using aerial photographs, compass, topographic maps, and GPS receivers
- Broad plant taxonomic expertise throughout the Rocky Mountain region from Montana to New Mexico, Great Plains, Colorado Plateau, and the Intermountain Basin
- Proficient with various vegetation inventory and monitoring techniques including Daubenmeir, Nested Frequency, Parker Three Step, Line Intercept, Robel Pole, and Modified-Whittaker
- Expert use of dichotomous plant keys
- Extensive experience with herbarium and plant specimen cataloging and preservation skills
- Bilingual- English & Spanish
- Extensive experience handling and riding horses
- Experience with 4-wheel drive, ATVs, and snowmobiles

JOB-RELATED TRAINING

ArcView, 2004

Windbreak/Shelterbelt Establishment, 2004

Computer- Microsoft, 2004

Toolkit Training, 2004

Irrigation Water Management, 2004 & 2006

ArcPad/IPAQ/GPS, 2004

SCIMS, 2004

GPS, 2004

Civil Rights, 2004

Ethics, 2004

Sexual Harassment, 2004

Environmental Compliance, 2004

Creating Ecological Site Descriptions, 2004

Introduction to NUTBAL Sampling, 2004

WHIP, WRP, EQIP, 2004

PRS, 2004

RUSLE 2, 2004

Security Literacy & Basics, 2004 & 2006

New Employee Orientation, 2004 & 2005

CPR/1st Aid, 2004 & 2005

Range Conservation, 2004 & 2005

Math and Hydraulics, 2005

Intro to NRCS, 2005

Range School, 2005

Intermediate Toolkit Training, 2005

Conservation Planning, 2005

Snow Survey, 2005

CSP Trainings, 2005

Rangeland Health Assessment, 2005

Creating Ecological Reference Worksheets, 2005

ArcGIS, 2006

Forested Ecological Site Descriptions, 2006

JOB-RELATED CERTIFICATES AND LICENSES

Driver's License, State of Colorado, expires November 2011

Conservation Planning, 2005

Rangeland Conservation Planning, 2005

West-Wide Snow Survey Training, 2005

ATV Operator Certified, 2000

HONORS AND AWARDS

2004 Certificate of Merit- Extra Effort in Completing Short-Term Deadlines in EQIP, WHIP, & GSWCP

2005 Certificate of Merit- Successful Implementation of Conservation Security Program Activities

JOURNAL PUBLICATIONS

Chong, G.W., Y. Otsuki, T. J. Stohlgren, D. Guenther, and C.A. Villa. 2002. Evaluating Plant Invasions from Both Habitat and Species Perspectives. *The Western North American Naturalist* 66: 92-105.

Stohlgren, T.J., G.W. Chong, L.D. Schell, K.A. Rimar, Y. Otsuki, M. Lee, M.A. Kalkhan, and C.A. Villa. 2002. Assessing vulnerability to invasion by non-native plant species at multiple spatial scales. *Environmental Management* 29: 1-12.

Stohlgren, T.J., Y. Otsuki, C.A. Villa, M. Lee, and J. Belnap. 2001. Patterns of plant invasions: A case example in native species hotspots and rare habitats. *Biological Invasions* 3: 37-50.

Stohlgren, T.J., M. Kaye, C.A. Villa, Y. Otsuki, and D. McCrumb. 2000. Computers in Biology: Using new video mapping technology in landscape-scale ecological studies. *BioScience* 50:529-536.

Stohlgren, T. J., K.A. Bull, Y. Otsuki, C.A. Villa, and M. Lee. 1998. Riparian zones as havens for exotic plant species. *Plant Ecology* 138: 113-125.

OTHER PUBLICATIONS

Villa, C.A. 2004. Baseline Inventory & Present Condition Report requested by NRCS, The Conservation Fund [TCF], Colorado Cattlemen's Agricultural Land Trust [CCALT], & Spring Creek Ranch for FRPP.

Villa, C.A. 2004. Baseline Inventory & Present Condition Report requested by NRCS & McNeil Ranch for GRP.

Villa, C.A. 2004. Habitat Specialist Report; Floristic Survey Report requested by Claffey Ecological Consulting, BLM, & Blue Valley Ranch. 62pp.

Villa, C.A. 2003. Baseline Inventory & Present Condition Report requested by Ducks Unlimited [DU] & Getz Ranch, Inc.

Villa, C.A. 2003. Baseline Inventory & Present Condition Report requested by TCF, CCALT, & Spring Creek Ranch.

Villa, C.A. 2003. Baseline Inventory & Present Condition Report requested by TCF, CCALT, & Slash Bar Land Company.

Villa, C.A. 2003. Baseline Inventory & Present Condition Report requested by TCF, CCALT, Rio Grande Headwaters Land Trust [RiGHT], & Wright's Ranch.

Villa, C.A. 2002. Baseline Inventory & Present Condition Report requested by Issacson, Rosenbaum, Woods & Levy, PC, CCALT, & Dos Hermanos Ranch.

Villa, C.A. 2002. Baseline Inventory & Present Condition Report requested by American Farmland Trust [AFT] & Two Creek Ranches.

Villa, C.A. 2002. Baseline Inventory & Present Condition Report requested by DU & McNeil Ranch.

Villa, C.A. 2002. Baseline Inventory & Present Condition Report requested by AFT & McNeil Ranch.

Villa, C.A. 2001. Baseline Inventory & Present Condition Report requested by DU & Corzine Ranch.

Villa, C.A. 2001. Baseline Inventory & Present Condition Report requested by RiGHT & Pinos Creek Hay Company.

Villa, C.A. 2001. Baseline Inventory & Present Condition Report requested by Trust for Public Lands, RiGHT, & Parma Ranch.

Villa, C.A. 2001. Baseline Inventory & Present Condition Report requested by Issacson, Rosenbaum, Woods & Levy, PC, CCALT, & Dos Hermanos Ranch.

Roath, L.R. and C.A. Villa. 2001. Forage & Habitat Analysis for Bosque del Oso. Requested by the Bosque del Oso Advisory Board, the CDOW, & the Rocky Mountain Elk Foundation.

Villa, C.A. 2000. Baseline Inventory & Present Condition Report requested by Colorado Open Lands, RiGHT, & Claytonia Ranch.

Villa, C.A. 2000. Baseline Inventory & Present Condition Report requested by AFT, CCALT, & Getz

Ranch.

T. Bargsten, M. Fraker, A. Grady, and C. Villa. 1997. Baseline Inventory & Present Condition Report requested by The Nature Conservancy & Carpenter Ranch.

Roath, L. R., C. Villa, and K. Flaig. 1994. Rio Grande County Weed Management Assessment conducted on the Monte Vista National Wildlife Refuge. Publication requested & paid for by the Rio Grande County Commissioners. 40 pp.

PROFESSIONAL ORGANIZATIONS

Membership in Society of Range Management since 1996
Membership in Colorado Riparian Association since 2004

VOLUNTEER INVOLVEMENT

1999- Present	*Technical Committee*- Rio Grande Headwaters Land Trust, Monte Vista, CO
2003	*Botanist*- Colorado Natural Heritage Program, Fort Collins, CO
1999	*Rangeland Consultant*- Sangre de Cristo Grazing Association in cooperation with the Taylor Ranch, San Luis, CO
1995-1997	*Tutor*- Academic Advancement Center, Colorado State University (CSU)
1995-1997	*Mentoring for Leadership*- Academic Advancement Center, CSU
1996-1997	*Tutor*- Middle school children from Poudre Valley School District in tree identification
1996-1997	*Proctor*- Science Olympiad- Department of Forest Sciences, CSU in cooperation with statewide middle and high school competition
1995-1996	*Proctor*- Future Farmers of America- Range Cooperative Extension, CSU in cooperation with statewide high school competition
1994-1995	*Mentor*- Big Sister Program- El Centro Hispanic Community, CSU
1987-1989	*Firefighter*- Sugarloaf Volunteer Fire Department, Boulder, CO
1982-1985	*Docent* - Miami Metro Zoo, Miami, FL and Denver Zoo, Denver, CO

A. KNOWLEDGE OF THE PRINCIPLES OF RANGE SCIENCE AND RELATED RESOURCES

In the 2 years I've worked with NRCS:

- Assisted in development of rangeland ESDs for MLRA 51
- Assisted in development of Ecological Reference Worksheets for CSP San Luis and Saguache Watersheds
- Conducted rangeland assessment presentation at four CSP workshops for agricultural producers
- Conducted four rangeland health assessments and evaluations for CSP applicants for Alamosa and Monte Vista Field Offices
- Conducted baseline inventory and authored present condition report for McNeil Ranch GRP, Rio Grande County
- Conducted baseline inventory and authored present condition report for Spring Creek Ranch FRPP, Archuleta County
- Conducted range inventory and grazing management plan alternatives for Two Creek Ranches
- Productively worked with USFS, BLM, CDOW, and State Land Board officials through CRMP on five allotments in Conejos, Rio Grande, and Saguache Counties
- Productively worked with USFS and BLM range managers in range assessments and range readiness for Embargo Creek, Myers Creek, Rock Creek, and Sawlog Allotments
- Assisted Center FO with grazing management plan on Orient Land Trust's Everson Ranch
- Assisted Center FO in range inventory on Lovato Ranch
- Assisted San Luis FO with baseline inventory, grazing plan, and final report for Carpenter Ranch, Costilla County
- Conducted vegetation inventory and generated plant species list for Willow Creek Reclamation Committee
- Conducted range inventory and developed stewardship plan for State Land Board on Dugan Ranch
- Produced photo monitoring protocol for vegetation monitoring of 319 river projects
- Assisted Rio Grande Conservation District and Saguache BLM Office in plant identification

While working as an independent contractor:

- Delineated and mapped vegetation communities and range sites for public and private landowners on more than 120,000 acres
- Successfully located and identified threatened and endangered plant species on project encompassing 4,000 acres
- Produced and summarized habitat analysis, conclusions, and submitted a written report for project encompassing over 30,000 acres
- Conducted 17 baseline inventories and authored 13 present condition reports, as part of a conservation easement, on 11 ranches for 1 landowners and nine land trusts
- Trained three crew members for vegetation survey on line intercept method, Robel pole method, collecting of unknown plant species, identifying and delineating vegetation communities and range sites for long-term management plan on project encompassing 30,000 acres
- Established 50 long-term vegetation monitoring plots on 10 different range sites over 30,000-acre SWMA
- Prepared and finalized statistical analysis and data summaries for research conclusions, management recommendations, and manuscript for forage inventory and habitat analyses

- Finalized data and generated species lists for 68 range sites and vegetation communities and prepared statistical analysis and data summaries for research conclusions and management recommendations on four-year Habitat Partnership Project on project encompassing more than 300,000 acres

While employed with Dr. Tom Stohlgren at NREL:

- Established 110 long-term vegetation monitoring plots over 500,000 acres in two field seasons
- Examined and studied plant habitats in the ecosystems that comprise the Rocky Mountain west, the central Great Plains, and the Colorado Plateau
- Successfully conducted baseline inventories, developed long-term vegetation monitoring sites, as well as habitat analyses on the basis of field observations and data collection. Information disseminated provided public lands natural resource managers guidelines for implementation and management plans.
- Successfully performed detailed vegetation inventory; cryptobiotic soils identification, classification, measurement and collection, and soil core sampling on 110 monitoring plots established
- Drafted observation narratives on site descriptions including azimuth of plot, slope, evidence of wildlife, and vegetation type with detailed description regarding structure, density, and understory
- Crew leader and botanist for landscape-scale vegetation studies based on public lands throughout the Rocky Mountains and central Great Plains. Focus of project was to find correlation between native plant diversity and invasive species at multiple spatial scales relative to soil characteristics and grazing by domestic and wild ungulates.
- Conducted vegetation sampling for baselines and created long-term vegetation monitoring sites in six National Parks, two USFWS National Refuges, and sites for Larimer and Boulder County Open Space, and the City of Fort Collins
- Assisted in preparation of statistical analysis, data summaries, and manuscripts and co-authored five journal manuscripts

While employed as a range technician, CSU-Dept. of Rangeland Ecosystem Sciences

- Independently conducted research on 26,000-acre working cattle ranch, obtaining quantitative and qualitative data on range productivity, condition, and trend through vegetation sampling which included plant species, cover, frequency, and establishing photo points. Information disseminated was provided to ranch manager and used in adaptive management for grazing plan.
- Assisted in developing and proctoring on-site rangeland assessment exams for FFA students in statewide high school competitions in cooperation with CSU Range Extension. The exams included range site assessment and production and plant identification.

B. KNOWLEDGE OF RESOURCE CONSERVATION PROGRAMS

In the 2 years I've worked with NRCS:

- Assisted with Monte Vista Field Office [MVFO] management and administrative activities including: furnishing local program objectives to landowners and methods of installation of conservation and management practices; gathering and assembling data for planning, developing, and implementing resource management applications and conservation plans, and producing contracts on range and agricultural lands for Rio Grande, Mineral, and Hinsdale Counties using ArcView, ArcGIS, Customer Service Toolkit, Protracts, and SCIMS computer software programs; and implementation, management, maintenance, and monitoring of conservation plans and management practices
- Proficient with the following NRCS conservation programs: Coordinated Resource Management Plan [CRMP], Conservation Security Program [CSP], Environmental Quality Incentive Program [EQIP], Ground and Surface Water Conservation Program [GSWCP], Wildlife Habitat Incentive Program [WHIP]
- Experience with the following NRCS conservation programs: Farm and Ranch Protection Program [FRPP], Grassland Reserve Program [GRP], and Wetland Reserve Program [WRP]
- Experience with the following Colorado Division of Wildlife [CDOW] conservation programs: Cooperative Habitat Improvement Program [CHIP], Habitat Partnership Program [HPP], and Ranching for Wildlife
- Worked on four of four CSP contracts for 2006 funding of $517,282.00
- Worked on 82 of 121 EQIP contracts for 2004-2006 funding of $1,414,154.00
- Worked on six of 20 WHIP contracts for 2004-2005 funding of $194,622.00; majority of WHIP contracts involve partnership with CDOW through CHIP and EPA funding through 319 Program
- Produced photo monitoring protocol for vegetation monitoring of 319 river projects
- Provided technical assistance on seven of 13 WRP contracts, which included field inventories, meetings with landowners, appraisers, and surveyors for WRP applications and/or monitoring easements
- MVFO representative at BLM and USFS allotment meetings with ranches involved in CRMP, totaling over 125,000 acres, include: Corset Ranch, Davie Ranch, Dugan Ranch, Fuchs Ranch, McNeil Ranch, Myers Creek Grazing Association, and Two Creek Ranches

While sub-contractor with Dr. Roy Roath:

- Finalized data collected on four-year CDOW-HPP on White River National Forest
- Provided technical assistance to CDOW habitat specialists on range site evaluation, delineation of vegetation communities, and plant species identification on 25,000-acre ranch involved with CDOW-Ranching for Wildlife Program

C. ABILITY TO COMMUNICATE AND WORK CLOSELY WITH OTHERS

In the 2 years I've worked with NRCS:

- MVFO representative at BLM and USFS allotment meetings with ranches involved in CRMP including: Corset Ranch, Davie Ranch, Dugan Ranch, Fuchs Ranch, McNeil Ranch, Myers Creek Grazing Association, and Two Creek Ranches
- Assist wildlife biologist with field inventories, meetings with landowners, appraisers, and surveyors for WRP applications and/or monitoring easements
- MVFO representative and vegetation lead within national NRCS group working with Willow Creek Reclamation Committee in Creede, Mineral County, CO
- Assisted in development of MLRA 51 ESDs in conjunction with State Office
- Assisted in development of Ecological Reference Worksheets for CSP San Luis and Saguache Watersheds
- Conducted rangeland assessment presentation at four CSP workshops for agricultural producers
- Successfully co-authored grant for Embargo Creek Allotment spring development through CDOW's Habitat Partnership Program
- Trained San Luis FO Range Technician in performing baseline inventories
- Guided plant identification field trip for middle school children at Beaver Creek Natural Resource Camp
- Conducted presentation on baseline inventories and present condition reports for natural resource professionals and landowners at Rio Grande Headwaters Land Trust's Easement Workshop
- Conducted presentation on range ecology and vegetation for Sustainable Agriculture class for Colorado College at Two Creek Ranches

While employed as an independent contractor:

- Provided technical assistance to CDOW habitat specialists on range site evaluation, delineation of vegetation communities, and plant species identification on 25,000-acre ranch involved with CDOW-Ranching for Wildlife Program
- Established successful working relationships with ranch manager, ranch employees, CDOW habitat specialists, curator and assistant curator at Rocky Mountain Herbarium at the University of Wyoming
- Provided technical assistance to CDOW habitat specialist on range site evaluation, delineation of vegetation communities, and plant species identification
- Assisted in developing and proctoring on-site rangeland assessment exams for FFA students in statewide high school competitions in cooperation with CSU Range Extension. The exams included range site assessment and production and plant identification.
- Trained two crew members for vegetation survey on line intercept method, Robel pole method, collecting of unknown plant species, identifying and delineating vegetation communities and range sites for long-term management plan
- Hired, trained, and supervised research crew on CDOW SWMA project
- Successfully acted as primary contact between principal investigators, research crew, public land managers, and landowners
- Created productive working relationships with NRCS and CDOW resource managers
- Presented project related planning and reporting at monthly steering committee meetings to SWMA Board
- Co-authored final report with Dr. Roath
- Developed a successful business as an independent consultant working with public and private landowners and land trusts

- Assisted in creating baseline inventory protocol for conservation easements in cooperation with land trusts
- Established productive and successful working relationships with local, regional, and national land trusts and private landowners
- Conducted 17 baseline inventories and authored present condition reports 13 ranches as part of a conservation easement for 13 landowners and 11 land trusts
- Assisted in coordinating meetings with heads of seven original families allowed grazing privileges on the Taylor Ranch in San Luis, CO. Members of these families along with a NRCS representative, ecologists with the Land Institute, and I met in order to encourage an alliance between the families in order to form a grazing association. After several meetings the families agreed and the Sangre de Cristo Grazing Association was formed
- Coordinated and co-lead weekend grazing workshops at the Taylor Ranch. The objectives were multifold, but the immediate concern was to have the ranch reinstated into the CDOW Ranching for Wildlife program by the 1999 hunting season

While employed with Dr. Tom Stohlgren [NREL]:

- Highly productive as primary contact between principal investigators, public land managers, research crews, laboratory crews, landowners, and volunteers
- Hired a BLM airplane pilot and coordinated reconnaissance flights to otherwise inaccessible, remote backcountry areas
- Successfully hired, trained, coordinated, and supervised four, three-person field research crews
- Effectively hired BLM helicopter pilots and coordinated logistics for drop-off and pick-up of research crews and supplies for ten day fieldwork trips in inaccessible and remote backcountry areas
- Established 110 long-term vegetation monitoring plots over 500,000 acres in two field seasons
- Successfully performed detailed vegetation inventory; cryptobiotic soils identification, classification, measurement and collection; and soil core sampling on 110 monitoring plots established
- Productively prepared, organized, and conducted research and provided quality scientific responsibility including methodology of data collection, quality assurance of data collection, and project-related planning and reporting
- Assisted in preparation of statistical analysis, data summaries, and manuscripts
- Co-authored five journal manuscripts involving eleven colleagues
- Effectively navigated political issues, surrounding work on the Grand Staircase-Escalante National Monument, which were emotional & intense topics for the landowners & the land management officials in the area. My communication efforts with BLM management & several of the ranchers with grazing permits on the GSENM allowed for cooperative information transfer, safe access, and a copasetic working environment for NREL field crews
- Created long-term vegetation monitoring sites in cooperation with natural resource managers in six National Parks, two USFWS National Refuges, and several sites for Larimer and Boulder County Open Space, and the City of Fort Collins
- Trained federal, state, county, and city natural resource agencies in the use and application of the Modified-Whittaker vegetation sampling design
- Acted as primary contact between natural resource managers, project manager, and research crew
- Assisted in preparation of statistical analysis, data summaries, and manuscripts

While Teaching Assistant and Range Technician at CSU:

- Developed and instructed laboratory and field exercises for three Dendrology classes averaging 30 college students
- Conducted tutoring sessions for college students

- Developed and proctored Dendrology taxonomy exams
- Instructed middle school, high school, and college students in proper use of herbarium, plant collecting, mounting, and care of plant specimens
- Directed team of three work study students
- Developed and proctored taxonomy exams for the Science Olympiad statewide school competition
- Assisted in developing and proctoring on-site rangeland assessment exams for FFA students in statewide high school competitions in cooperation with CSU Range Extension.

D. KNOWLEDGE OF COMPUTER SOFTWARE PROGRAMS

- Assisted with Monte Vista Field Office developing and implementing resource management applications and conservation plans and producing contracts for Rio Grande, Mineral, and Hinsdale Counties using ArcView, ArcMap, ArcGIS, Customer Service Toolkit, Protracts, and SCIMS computer software programs
- Gathered and assembled data for planning, developing, and implementing resource management applications and conservation plans, and producing contracts on range and agricultural lands using GPS receivers, IPAQ Palm Pilot, ArcMap, ArcGIS, Customer Service Toolkit, Protracts, SCIMS, Excel, Access, and Word computer software programs
- Extensive experience in Microsoft Word, Excel, Publisher, with experience in Access and PowerPoint through preparation, organization, and development of research and providing quality scientific responsibility including methodology of data collection, quality and assurance data collection, and project-related planning, reporting, and dissemination of data collected
- Extensive experience with GPS receivers, ArcView, and ArcGIS software to delineate range sites, vegetation communities, develop long-term monitoring sites, and conducting resource inventories
- Utilized the latest video technology by Red Hen using Sony Camcorder integrated with a GPS receiver in long-term monitoring projects. Data was downloaded into ArcView, Excel, and finalized in Access
- Co-authored journal publication published in *Computers in Biology* discussing methodology and evaluation of GPS receivers and videography technology used in conjunction with Excel and ArcView/ArcGIS programs for rapid evaluation of monitoring data and visual field conditions
- Effectively entered field data electronically on each monitoring plot using HP palmtop computers, Trimble and Garmin GPS receivers, digital, and video-mapping cameras
- Productively managed data collected on palmtop computers and transferred to laptop computers for data backup and storage
- Generated and maintained extensive databases in Excel for plant species lists and vegetation community data collected
- Vast experience in use of the World Wide Web and the Internet for communication, research, and data transfer
- Highly skilled in navigating between software programs and can manage trouble-shooting setting up systems and peripherals

Chanda M. Pettie

Address: 2608 S CR 41 - Monte Vista, Colorado 81144
Phone: 719-588-2933 - 719-852-8978
Email: chanda.pettie@co.usda.gov

RELEVANT WORK EXPERIENCE:

Wildlife Biologist GS-486-11 — **Alamosa, CO**

02/2003-Present — Employer: Natural Resources Conservation Service (NRCS)
Employer's Address: 0851 North Highway 285, Monte Vista CO 81144
Supervisor: Cathee Wilson, NRCS Area Conservationist 719 852-4489 ext. 317
Salary: $4,583 per month Hours: 40 hours per week Employment Type: 3-year Term

Implement USDA Farm Bill Conservation Programs to protect and enhance wildlife habitat and to ensure species conservation on private lands. Responsible for twelve counties within the Rio Grande and San Juan watersheds.

- Provide NRCS with support on Farm Bill habitat conservation programs, primarily the Wetlands Reserve Program (WRP), Wildlife Habitat Incentives Program (WHIP), and the Environmental Quality Incentives Program (EQIP). Develop local program policy, assist in determining fund allocations, provide field office training, perform quality assurance reviews, analyze program performance, and promote enrollment.
- Provide technical assistance to landowners in the development, implementation, management, and monitoring of wildlife habitat restoration projects on private lands. Establish landowner contacts, determine project need and feasibility, assess baseline conditions, and determine program eligibility. Review, rank and process applications. Develop restoration and management plans to address the limiting resources needs of the targeted species. Conduct preliminary engineering designs and cost analysis. Partner with other organizations and agencies to provide additional technical and financial support. Work with the landowner to implement the conservation plan. Finalize the contracts, certify completed practices, process payments, perform annual status reviews, modify contracts, and provide any additional support to implement the restoration and management plan.
- Conduct and provide support to NRCS on wetland delineations, environmental evaluations, and quality assurance.
- Ensure wildlife considerations and environmental issues are incorporated into landowner resource planning.
- Develop and sustain cooperative working partnerships with local organizations and agencies.
- Provide training, workshops, and outreach on Farm Bill programs and local wildlife issues.
- Provide technical support on partnering conservation programs and obtain additional grant funding.

Private Lands Wildlife Biologist — **Monte Vista, CO**

02/2002-02/2003 — Employers: Colorado Watershed Network in partnership with the
Natural Resources Conservation Service and the Colorado Division of Wildlife
Employer's Address: CWN - P.O. Box 21935, Denver CO 80221 - 303-291-7457
Supervisor: Cathee Wilson, NRCS Area Conservationist - 719 852-4489 ext. 315
Salary: $3,659 per month Hours: 40 hours per week Employment Type: Contract

Contracted to implement USDA Farm Bill Conservation Programs to protect and enhance wildlife habitat and to ensure species conservation on private lands. Responsible for twelve counties within the Rio Grande and San Juan watersheds.

- Provide NRCS with support on Farm Bill habitat conservation programs, primarily the Wetlands Reserve Program (WRP), Wildlife Habitat Incentives Program (WHIP), and the Environmental Quality Incentives Program (EQIP). Develop local program policy, assist in determining fund allocations, provide field office training, perform quality assurance reviews, analyze program performance, and promote enrollment.
- Provide technical assistance to landowners in the development, implementation, management, and monitoring of wildlife habitat restoration projects on private lands. Establish landowner contacts, determine project need and feasibility, assess baseline conditions, and determine program eligibility. Review, rank and process applications.

REFERENCES FURNISHED UPON REQUEST.

- Finished the Final Report for the CDPHE/EPA 319 Non-Point Source Grant.
- The ARWRF board conducted an election of officers and appointed new members
- Persuaded the ARWRF board to hire San Luis Valley Resource Conservation & Development to write grants and manage the restoration project.
- Conducted an outreach to the landowners to maintain their involvement in the restoration process.
- Assisted in the selection of a new designer/contractor to finish Phase III.
- Assisted San Luis Valley Resource Conservation & Development and Tawney Becker in grant proposals for the five million dollar Natural Resource Damage Fund the CDPHE/EPA 319 NPS program, and the Rio Grande Round Table.
- Provided material for the Alamosa River Restoration Master Plan
- Participated in the Natural Resource Damage selection process
- Incorporated the CCC, LLC to conduct river construction in Phase III.

Skills:

- Knowledge in finances which includes, cash flows, cash projections, balance sheets, and profit and loss statements.
- Experienced with MS Excel spreadsheets, MS Word, MS PowerPoint, and MS Publisher.
- Familiar and experienced with equipment and equipment usage. This includes backhoes, frontend loaders, bulldozers, and heavy trucks.
- Knowledge and experience in river restoration technique and principles.
- Writing abilities

MAYA TER KUILE

20758 County Road 10 La Jara, CO 81140
Phone: (719) 274-5430; (719) 580-1976 (cellular)

E-mail: mayatk30@gmail.com

EDUCATION

B.A. AGRICULTURE AND FOREST SCIENCE
St. Catherine's College, Oxford University *Oxford, Oxon., United Kingdom*

Major in Soil Science and Minor in Crop Production.

M.S. AGRONOMY 1984-1986
Colorado State University *Fort Collins, Colorado*

Emphasis on Irrigation Agronomy. Thesis on the application of Farming Systems Research and Development methods in agricultural communities not reached by research and extension. Elected Member Gamma Sigma Delta, Honor Society of Agriculture.

SECONDARY EDUCATION LICENSURE **1997-1999**
Adams State College *Alamosa, Colorado*

Completed all requirements for Colorado Secondary Licensure in Science. Currently seeking licensure in Spanish and Computers.

EMPLOYMENT

Agronomist MARCH 1986 –PRESENT
Agro Engineering, Inc. *Alamosa, Colorado*

Responsibilities include field assistance to farmer clients in irrigation water management (irrigation scheduling), crop nutrition, soil analysis recommendations, fertilizer management, soil reclamation plans, crop injury assessments, farm economics, integrated pest management, water resource evaluation and analysis, web page creation and assistance in other marketing and computer tools such as farm brochures. Created computer (GIS) ditch maps for the San Luis Valley as part of the Rio Grande Decision Support System for the State of Colorado. Managed the annual Closed Basin Vegetation study for 5 years, a study conducted annually for the U.S. Bureau of Reclamation since 1993 which integrates ground vegetation monitoring with remote sensing techniques..

As part of the management team of Agro Engineering, Inc., was company treasurer from 1987 to 1997. Developed the bookkeeping and financial management system still being used today. As part of the Agro training team, conducted a number of workshops for farmer clients in diverse subject areas, and conducted many presentations for the Colorado State University Cooperative Extension annual workshops for farmers and other members of the agricultural sector. Taught in a number of short courses on irrigation, crop nutrition, farm economics and IPM in the San Luis Valley as well as overseas (Dominican Republic, Honduras), in English as well as in Spanish.

Independent Consulting, Translation and Training
2000 - Present
Self Employed Summer Work *San Luis Valley, Colorado*

Conducted Baseline Vegetation Monitoring Project for the Alamosa River Watershed Restoration Project in 2001 and 2002 in conjunction with Julie Burt, Ph. D in botany and previous member of the Colorado Natural Heritage Assessment Team. Prepared report for this project. Translation of Safe School Policies and Handbook for the Alamosa School District. Miscellaneous other translation services for the Alamosa School District. Instructor for 3 sessions of Conversational Spanish Classes held at the Immigrant Resource Center in Alamosa, Colorado (currently beginning the second 10 week session of this on-going class.

QA Inspector **F**eb **1999-**
Present
Rocky Mountain Research and Consulting, Hinesite Research Center, Colorado and Delta, Colorado

Critical Event and Facility Inspections for GLP Compliance and Quality Control.

Science, Technology and Spanish Teacher **A** ugust **2000 – JULY 2007**
Alamosa Open High School **Alamosa, Colorado**

Responsibilities include all scie nce, som e m ath and all technol ogy and spanish instruction. Technology coordinator for the AOHS building in cluding maintenance of network and com puters and assisting in technology integ ration acros s the curricu lum. Served on Technolo gy Committee and Science Curriculum Committee for the Alam osa Sc hool District. Sponsor for Colorado Riverwatch activities, sampling monthly on the Rio Grande and quarterly at 4 sites on the Alamosa River. Intel Teach to the Future Master Teach er and Trainer. Also m any adult education classes for teachers on Computer Applications and on Technology Integration in the classroom.

Graduate Teaching Assistant **1985**
Colorado State University *Fort Collins, Colorado*

Teaching assistant to Dr. W.L. Schmehl in a senior level course on Cropping Systems Research.

Field Teaching Assistant **SUMMER, 1983**
Colorado State University *Fort Collins, Colorado*

Organized field tours and practices, assisted in teaching and was the driver for 26 multinational students on a 5 week Irrigation Management and Practices course.

Research Assistant **1983-1985**
Colorado State University *Fort Collins, Colorado*

Research Assistant in the Department of Agronomy, conducting the Interdisciplinary Farming Systems Research Project in the San Luis Valley with a team of graduate students from Civil Engineering, Agricultural Engineering, Sociology and Agricultural Economics.

OTHER EXPERIENCE:

- *Coach: Odyssey of the Mind/Destination Imagination, for Centauri Middle School, La Jara, Colorado. 1997-98; 1998-99; 1999-2000.*
- *Research Assistant at Oxford University (6 months): Use of Tertiary Treatment Sewage Sludge as a Phosphate Fertilizer.*
- *Farm manager/operator of a small organic farm in Devon, England (8 months).*
- *Lambing assistant/general farm help, 3 farms in Wiltshire, England (1978, 1979, 10 months total).*
- *Driver/Assistant in an expedition through southern Ecuador collecting wild tomatoes for FAO and IBPGR (1980).*
- *Laboratory technician/weighbridge operator, Ridgeway Grain Storage Cooperative, Berkshire, England.*

SKILLS

- Computer skills include the proficient use of spreadsheet applications (Quattro Pro, Excel) and word processing software (MS Word and Corel Wordperfect) and some use of Microsoft Access (database program). Also use Arcview (GIS Software), Microsoft Frontpage (Web Page design software), MS Publisher and other publication software, Corel Photopaint, Adobe Photoshop, AUTOCAD and accounting software, including Quickbooks Pro and Peachtree Complete Accounting.
- Fluent in reading, spoken and written Spanish, some knowledge of French.
- Expired Certified Crop Adviser (CCA) License, American Society of Agronomy.
- Expired Commercial Applicator Qualified Supervisor License through Colorado Dep. of Agriculture: Agricultural pests, Ornamental Pests, Research and Development
- Private Applicator License (current).
- Worker Protection Standards, US EPA certified trainer.
- Master Teacher/Trainer for Intel Teach to the Future program.

MEMBERSHIPS

National Science Teacher's Association (NSTA)
Alamosa Riverkeeper Member and technical assistant in Riverwatch sampling effort
SLV LEAP HIGH, Household Water Testing Initiative, SLV Ecosystem Council
Past member, Agronomy Society of America (ASA/CSSA/SSSA)
Weed Science Society of America.
Past Member, Independent Agricultural Consultants of Colorado (IACC).
Past Member, National Alliance of Independent Crop Consultants (NAICC).

PUBLICATIONS

Burt, Julie and ter Kuile, Maya. 2006. *Vegetation Monitoring Report for the Alamosa River Watershed Restoration Project, 2001 (Baseline) and 2002 (Drought Condition)*.

Erdman, Smith, ter Kuile, Dillon et al. 1995. *Impacts on alfalfa from irrigation with Alamosa River Water*. Proceedings, Summitville Forum and Tailings and Mine Waste Conference, January 1995.

Salazar, L., J. Tolisano, K. Crane, L. Wheeler, M. ter Kuile and D. Radtke. 1994. *Irrigation Reference Manual*, Peace Corps Information Collection and Exchange.

Knop, E.M., M. ter Kuile, W.R. Schmehl and M. Beebe. 1985. *Making the Mixed-discipline Farming Systems Model work.* Proceedings, 5th Annual Farming Systems Symposium, Kansas State University, October 1985.

ter Kuile, M. 1985. *Interdisciplinary Teamwork.* CSU Training Module.

Tinsley, R. and M. ter Kuile. 1984. *Small Farm Mechanization: A Major Hope in Development?* Proceedings, 4th Annual Farming Systems Symposium, Kansas State University 1984.

ter Kuile, M. R., P.H.T. Beckett, R.E. White. 1983. *Availability to Plants of Phosphate in Sludges Precipitated from the Effluent of Sewage Treatment.* Water Pollution Control, V82, N4.

Carol A. Gurule
7584 State Hwy 15
PO BOX 134
Capulin, CO 81124
Country of Citizenship: U.S.
HOME: (719) 274-4243
EMAIL: carolgurule@peoplepc.com

WORK EXPERIENCE:

San Luis Valley Resource Conservation & Development Council (SLV RC&D), 101 South Craft Drive, Alamosa, CO 81101-3559, 10/00 – present, Secretary (Administrative Assistant to Program Director), 40 hours per week, James Mietz (719) 589-3907, X-124.

Work as administrative support assistant to the staff and as administrative project coordinator to the Coordinator performing a variety of clerical, administrative and office automation functions. Work in a group environment. Receive all visitors and telephone calls to the office. Manage the Council's calendar and make all travel arrangements. Arrange schedule of visits, secure conference room schedule ensuring no overlaps and prepare all documents required to ensure accurate payment vouchers. Create and manage websites. Use Microsoft Office (EXCEL, PowerPoint, WORD, ACCESS, and OUTLOOK) extensively to create memos, reports, charts, slides, databases and spreadsheets and Dreamweaver (create websites). Use Internet to research information for Staff and Coordinator. Typing (WPM): 60/Dictation (WPM): 60

Conejos County Hospital, Self Pay Billings Clerk, PO Box 669, La Jara, CO 81140, 09/96 – 08/99, 40 hours per week, Ms. Yvonne Cordova, (719) 274-5121.

Worked as a self pay billings clerk for the Conejos County Hospital business department. Collected cash money from patients who did not pay their bills or make an effort to make some type of payment arrangements. Provided assistance to many of my clients ensuring that we agreed on a type of budget or payment plan that met their financial situation. Some did not comply, therefore were sent to a specific collection agency where they were forced to pay their bills or get a bad mark on their credit report. I also dealt with patients who flat out refused to make any type of payment for the services they received. Again, they were sent to the collection agency for noncompliance. For those patients who had innocently forgot or misplaced their bill, they usually came in within the next couple of days to bring their account to a good standing.

EDUCATION:

Highest level completed:

CTU Online
Marketing
Current Student

Community College of Denver
Information Process Cluster
Accounting Clerk
Certificate: 1990
Graduated: May 1990

SPECIALIZED TRAINING:

12/2007-Human Resource Training
11/2006-Non-Profit Management Training
11/2005-Financial Management Training
08/2002 -Trinidad State Jr. College, training in web page design,
01/2001- Trinidad State Jr. College, MOUSE Certification Training

HONORS/AWARDS:

03/2006-Outstanding Program Assistance Award (National)
02/2005 –Performance Award
11/2004-Volunteer Connections of the San Luis Valley

OTHER INFORMATION:

Spanish - understand, speak, and write.
Boys & Girls Club Advisory board member
San Luis Valley Ecosystem Council board member

I certify that, to the best of my knowledge and belief, all the information on and attached to this resume is true, correct, complete, and made in good faith. I understand that false and fraudulent information on or attached to this Resume may be grounds for not hiring me or for firing me after I begin work, and may be punishable by fine or imprisonment. I understand that any information I give may be investigated.

Date: May 20, 2008

Tawney L. Becker
6616 Blanca Vista Lane
Alamosa, Colorado 81101 tel.: 719-587-3210 email: tawney1@earthlink.net

Education:
University of Kansas, Lawrence, KS, May, 1994. M.A., Germanic Languages and Literatures.

Universität Zürich, Zurich, Switzerland, 1992-93. Swiss Government Scholarship for one year of graduate level studies in German and art history.

Oberlin College, Oberlin, OH, 1983. B.A., German Literature. Minor in art history.

Phillips-Universität Marburg, Marburg, Federal Republic of Germany, Spring 1982. German-American Clubs Scholarship for semester abroad.

Experience:
San Luis Valley Resource Conservation & Development Council, Alamosa, CO 81101, January 2006-present. Grant writer. Research and write grants for various economic development, environmental, and cultural projects benefiting the San Luis Valley.

Alamosa Uptown & River Association, Alamosa, CO 81101, 2002-present. Executive Director. Manager and grant-writer for historic preservation and downtown revitalization projects through local non-profit, including historic site designation and restoration, public relations, and coordinating volunteer committee work in heritage and arts events, downtown design, planning, economic development, and a farmers' market.

Harvard University Art Museums, Busch-Reisinger Museum, Cambridge, MA 02138, 1995-2001. Curatorial assistant. Managed office and study room. Provided care and preservation of diverse art collection, visitor assistance. Advised interns and supervised student assistant. Led gallery talks and study room seminars. Editing, writing, research, translation, curating exhibitions. Catalogued works of art on EmbARK, a relational database for collections management.

University of Kansas, Lawrence, KS 66044, 1993-94, 1991-92. Graduate teaching assistant in elementary and intermediate German.

Linda Hall Library of Science and Technology, Cataloging Department, Kansas City, MO 64113, 1990-91. Cataloging assistant for Rare Book Collection. Cataloging, organization, and preservation of rare books.

Library of Congress, Prints and Photographs Division, Washington, D. C. 20540, 1989-90. Reference assistant/preservation technician. Reference research and correspondence, care and organization of works of art on paper, caption translation, visitor assistance.

Harvard University Art Museums, Fogg Art Museum, Drawing Department, Cambridge, MA 02138, 1985-89. Print Department, 1985-87. Curatorial assistant. Editing, research, word-processing, and translation. Care of drawings and prints. Visitor assistance.

Adler's Foreign Books, Inc., New York, NY, 1984-85. Multi-lingual representative in sales and

customer relations. Maintenance of computerized inventory.

SPACES, a non-profit alternative art gallery, Cleveland, OH, January, 1983. Intern.

Exhibitions:

Downtown Alamosa ArtWalk, an annual community arts celebration with more than 20 venues featuring visual artists' displays and demonstrations, performing arts, and poetry. Downtown Alamosa, CO, held in early February or March, 2002-2006. Coordinator, curator, installer.

When Did You Come to America?, contemporary art and personal objects on the theme of immigration, companion exhibition to concert by Lila Downs benefiting Tu Casa. Luther Bean Museum, Adams State College, Alamosa, CO, November 1 – 14, 2003. Curator.

HUAM Staff Art Exhibition, Harvard University Art Museums, Cambridge, MA, 1998, 1999, 2001. Co-curator, installer.

The Blue Rider Artists: Works of Art on Paper from the Busch-Reisinger Museum and Other Harvard Collections, Busch-Reisinger Museum, Cambridge, MA, 23 December 2000 - 18 March 2001. Co-curator.

A Decade of Collecting: Recent Acquisitions by the Busch-Reisinger Museum, Busch-Reisinger Museum, Cambridge, MA, 7 April - 29 July 2000. Co-curator.

A Laboratory of Modernity: Image and Society in the Weimar Republic, Busch-Reisinger Museum, Cambridge, MA, 31 October 1998 - 10 January 1999. Co-curator.

Joseph Beuys: The Sled as Symbol, Busch-Reisinger Museum, Cambridge, MA, 4 June - 4 August 1996. Curator.

Publications:

Essays:

Entries on works by Lovis Corinth, Joseph Hoffmann, Egon Schiele, in *A Decade of Collecting: Recent Acquisitions by the Harvard University Art Museums* (Harvard University Art Museums Bulletin), Spring 2000.

Translations:

Rembrandt and His Time: Masterworks from the Albertina, Vienna, by Marian Bisanz-Prakken (Milwaukee Art Museum), 2005. Exhibition catalogue, translated from the German.

"The Place of the Vapheio Cups in the History of Art" (1900), by Alois Riegl, in *The Vienna School Reader*, edited by Christopher S. Wood (New York: Zone Books), 2000. Essay, translated from the German.

Drawings from the Albertina: Landscape in the Age of Rembrandt, by Marian Bisanz-Prakken (Alexandria, VA: Art Services International), 1995. Exhibition catalogue, translated from the German.

Drawings by Adolph Menzel from the Nationalgalerie, East Berlin, (Alexandria, VA: Art Services International), 1990. Exhibition catalogue, translated from the German.

Other Skills:
Proficient in French and Spanish. Knowledge and practice in printmaking.

APPENDIX B
Letters of Approval for Matching Funds

Colorado Water Conservations Board

From: Brown, Rick [mailto:Rick.Brown@state.co.us]
Sent: Tuesday, October 02, 2007 1:33 PM
Subject: Notice of Results of CWCB Board Review of Water Supply Reserve Account Grant Application

Congratulations! On September 19 the Colorado Water Conservation Board **conditionally** approved you grant application for funding from the Water Supply Reserve Account. You will recall that on September 13 you received an e-mail from me outlining staff's recommendations to fund you water activity. That email contained a Water Activity Summary Sheet which outlined the basis for staff's recommendations and the CWCB Board approved staff recommendations.

Next Steps

The Water Activity Summary Sheet summarizes the conditions/issues/additional needs which must be addressed. Please revise the applicable sections of your application to address the required information and return it to me. If possible please provide this information electronically. Upon receipt of the information it will be reviewed to ensure that it fully addresses the issues and additional needs.

Once all issues and needs are addressed, the scope of work, budget and schedule will be taken from your application and will become part of a contract/purchase order document between the State of Colorado and the applicant. In simple terms the applicant is agreeing to perform the work contained in the scope of work within the terms of the budget and schedule and will in turn be reimbursed for eligible expenditures. The work products produced are the value that the State is receiving for the use of the funds.

As you can see there are still several important steps and the State contracting procedures take time (I would estimate between 30-60 days once we have all required information and signed documents). If timing is important to you please make sure you submit your information as soon as possible. Also please keep in mind that you must enter into a contract within 6 months of September 13.

Also please note that if you application is for funding under $100,000.00 it may be possible to accomplish the work pursuant to a purchase order which can reduce processing times.

Thank you once again for all your work and I look forward to hearing from you.

Rick Brown
Colorado Water Conservation Board
(303) 866-3514

AN AGREEMENT between the **San Luis Valley Resource Conservation & Development Council (developer) and Alamosa River Foundation (sponsor).**

Subject Project's title: Alamosa River Restoration

Developer will:

1. Service sponsor with staff research and coordination based on a detailed needs statement;
2. Will provide a proposal spelling out cost of services to be performed;
3. Provide sponsor with a Memorandum of Understanding (MOU). MOU will state the requirements for grant fulfillment;
4. Sign agreement when work assignment is imminent;
5. Fees are based on costs for personnel, travel, insurance, supplies, audits, and risk.

NRD Application	$ 600
* Write grants for $500,000 in project funds	6,300
Manage $1,000,000 in project funds	28,000
Total	34,900

Sponsor will:

1. Arrange for its members to attend organizational meetings;
2. Agree to work exclusively with developer on subject project;
3. Authorize developer to collect fees for service provided;
4. Will pay $50 commitment fee to developer at the initiation of service (can later be applied to situation described in Developer Section 5);
5. Provide necessary paperwork in a timely manner based on the completed scope of work.

Mutually:

1. Honor the other party, by separating with 30 days notice;
2. Dismiss the other party for non-performance without prejudice.

Signed: Harold A. Anderson Date: May 19-06
Harold A. Anderson, SLV RC&D Chairman

Signed: John B. Shawcroft Date: May 16 2005
Sponsor's Representative

* Payments are due for successful grant proposals.

(these agreements will come in 9-2008)

Alamosa River Watershed Restoration Project
And the
San Luis Valley Resource Conservation, and Development Council

P.O. Box XXXX
Alamosa, CO. 81101
719-589-XXXXX

Re: Alamosa River Restoration Project

March, 2008

Dear Landowner and Ditch Company,

The San Luis Valley Resource Conservation and Development Council (SLV RC&D) and the Alamosa River Watershed Restoration Foundation (ARWRF) is excited to announce that river construction will soon be underway on the Alamosa River. Expect activity beginning some time during May and continuing throughout the summer and fall.

WHAT TO EXPECT

ROCK HAULING:

- The 2.8 mile project, which begins at the Capulin Bridge (County Road 8) and ends at County Road 10, requires approximately 12,000 rocks the size of refrigerators and larger. Ten to fifteen rocks fit in one semi-truckload. This means that 1,000 one-way trips to the river will occur to deliver and place the rocks in their designated stockpile sites. Truck traffic through Capulin and the surrounding area will be noticeable. **We urge everyone to use caution**.

- The rock stockpile sites have already been identified with you. Most of the sites are away from homes, but still, as in any major construction, there will be noise and dust from the trucks. Please bear with us.

- The huge boulders will be stockpiled until the construction in the river begins. The Porco Quarry and the Capulin Construction Company will make every effort to leave the property as they found it, but these huge rocks may leave a foot print. The damage should be slight. In some cases, roadways and gates may need widening to allow equipment and trucks to enter. We will make every effort to minimize that activity. We may ask for your assistance in repairing these gateways.

WARNING:

We are asking for your help to prevent anyone from walking or playing on the rock stockpiles as these large boulders could move and cause serious injury or even death.

Disclaimer Agreement:

Once the rocks are stockpiled, the SLV RC&D, the ARWRF, the Porco Quarry, the CDPHE, and the CCC will not take responsibility for any accidents associated with the rocks. It is to be understood that once the rocks are placed in the rock sites, the rocks become the property of the landowner.

CONSTRUCTION PHASE:

- Each section of the river has unique characteristics. Certain sections require the channel to be redefined. After many years, parts of the river have filled in with gravel and debris. This material will have to be removed. Part of it can be blended into the landscape but likely, there will be excess. The landowner has first dibs on the gravel and this gravel can be used for private use. The law prohibits the landowner from selling the gravel for profit unless the landowner has a mining permit filed with the County and the State. The Conejos County Road and Bridge Dept. have offered to remove the gravel at no expense. The value of the gravel will be considered as an "in-kind" match towards the grants. The county will be using the gravel for roadfill in other areas. If you wish to keep your gravel please notify the ARWRF Board of Directors so that arrangements can be made to stockpile it away from the stream banks.

- One of the largest problems facing this restoration effort is the transplanting of trees. Large trees will be left alone, but many of the smaller trees will have to be removed. Normally, transplanting trees during other restoration efforts is not a problem. Because of the time of year and the lack of water in the stream, transplanting trees may be a real challenge. **We need your help:** Possibly we could remove the trees and temporarily plant them where they can be watered. This could be your own front yard or some designated place where water is available. Then, next spring, before the river comes on, we could re-plant them along the river. This is a real challenge which requires your assistance. If we can keep these trees alive, it will make the river look much nicer in the future.

- Fences in the river need to be temporarily removed. We will leave this task to you. After restoration, these fences can be put back. Later on in the winter, we will be meeting with you with suggestions for other fence designs.

- Old automobiles will be taken out of the river. If you wish to keep them, you can take them away.

- Every effort will be made by Capulin Construction Company to keep the damage to structures and vegetation on your property at a minimum. Your understanding and cooperation in this matter is greatly appreciated. Capulin Construction Company will be held financially responsible for damage done intentionally or accidentally to homes, out-buildings, automobiles, and other private property. It will not be held responsible for accidents which were caused by the carelessness or the negligence of the landowner or any spectator.

- A grass planting effort will be discussed with you after the construction is completed. Grasses, forbs, willows, and cottonwood trees tend to establish on their own over time, but we can speed up the process by planting vegetation. Please refer to the Landowner Participation Agreement pertaining to future grazing practices. This agreement may answer other questions you may have.

- Steve Belz, will be on site most all the time to answer your questions and address your concerns. You can also call Rodger Gallegos @ 274-5202 or Ben Rizzi @ 589-3452.

Thank you,

Alamosa River Watershed Restoration Foundation and the San Luis Valley Resource, Conservation, and Development Council.

Other Comments and Agreements (use back side of page if needed)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

I, _____, understand that rocks will be stock-piled on my property for the purposes of restoring the Alamosa River. I realize that these rock piles are a potential hazard and will do my best from keeping persons from playing or walking around them. I agree not to hold the Porco Quarry, the SLV RC&D, the ARWRF, and the CCC liable for accidents or damage to vegetation.

I understand there will be construction happening in the River on my property. This construction has been explained to me and my questions have been answered. I further agree not to hold the CCC, the SLV RC&D, nor the ARWRF liable for accidents, damages to the vegetation or landscape caused by the stockpiling of rocks nor for the roads created to transport this rock or enter the river. It is understood that Capulin Construction Company, LLC will make every effort to minimize these damages. The CCC will remove all rock material when construction is completed and level the landscape to best of their abilities. Reseeding vegetation and planting trees is not included in this agreement.

The CCC will be held financially responsible for damage done intentionally or accidentally to individual persons, homes, out-buildings, automobiles, or other private property. The CCC will not take responsibility for any accidents which were caused by the carelessness or negligence of the landowner or any spectator.

The CCC, LLC and Black Creek Hydrology will warranty the work in the stream up to 3 years or a 1.5 year runoff event of 650cfs, whichever comes first. The guarantee is based on normal historical flow conditions and does not include unusual acts of nature. Flooding is risk in all rivers and this project cannot be held responsible for that act of nature.

After the first runoff of 2009, the CCC, LLC, Black Creek Hydrology, the ARWRF, and the RC&D Project Manager will inspect the entire constructed reach and perform maintenance work on the stream if needed. Inspections of the stream will occur for the three year period. The long term maintenance will be the responsibility of the Alamosa- La Jara Water

Conservancy District. If you notice changes which should be considered maintenance you are asked to call them. They will direct the maintenance.

Agreed to and signed on this _____ day of _____.

_____
Landowner

_____
Landowner Signature

SLV RC&D Agent

_____
Signature

APPENDIX E

Sequence of Work Tasks

Alamosa River Watershed Restoration
Goals, Objectives and Tasks

Goal 1: ADMINISTRATION – Administers and supports all aspects of the project.
Task 1: Conduct all tasks necessary for the proper administration of the project. Prepare and submit billings, progress reports tracking and tracking documents required by the state project administrators. Coordinate site technical meetings with state entities and project partners.

Project Responsibility: Project Manager
Product: Project is well managed and all necessary documents are completed properly and submitted on time.

Task 2: On–going data and records management, book-keeping, and file storage. Final reports.

Project Responsibility: Project Manager, SLV RC&D staff
Product: Data and other records available for reference. Reports compiled in a timely manner

Goal 2: PUBLIC EDUCATION – Inform landowners and the public about the project.
Task 3: Develop public educational and outreach materials on the project to inform local residents and landowners of the need for the project and its goals and objectives. Determine how best to convey information, and utilize it; solicit community input and periodically hold public meetings to update them on the progress that has been made. Conduct at least two (2) tours of the project area to explain what is being done and the intended outcome. Publish an annual newsletter describing the achievements of the project.

Project Responsibility: Project manager, project assistant
Product: Public outreach and education on the projects goals and objectives, tours, and handout and electronic materials

Goal 3: DESIGN AND CONSTRUCTION – Using the Master Plan developed for the Alamosa River Watershed Restoration, restore the health of the Alamosa River and its corridor by reducing excess sediment loading within the 2.8 miles between County Roads 8 and 10.

Objective 1: Prepare for construction implementation by finalizing design and obtaining necessary agreements.

Task 4: Finalize the design for the river stabilization work that will be consistent with the work already completed in phases 1 and 2.

Responsible Party: Project manager, hydrologist
Product: Final design signed by Project Manager, County Official if appropriate, design team, to be approved by state entities

Task 5: Acquire all of the necessary Permits and Authorizations. A Section 404 permit issued by the U.S. Army Corps of Engineers will be needed for the project, as will a Section 401 water quality certification issued by the state Water Quality Control Division. Determine if any County or municipal permits are needed. Develop MOUs and agreements with landowners.

Responsible Party: Project manager
Product: All permits necessary to begin work, MOUs and landowner agreements

Task 6: Contact all affected landowners in the current project area, obtain their concurrence on the design, work out the schedules for access to the properties, delivery of materials, timetables, etc.

Responsible Party: Project Manager, project assistant
Product: Signed agreements with each landowner, describing the work to be performed, when access to the property will be needed, proposed schedule for start and completion of the work, when materials will be delivered and installed

Objective 2: Construction Preparation: select sub-contractors, prepare and sign contracts for state approval.

Task 7: Prepare the bid documents and/or contracts for the construction sub-contractors. Documents will detail the equipment, personnel,, time frames, , and the cost of the work. The RC&D will follow its procurement procedures in preparing these documents.

Responsible Party: Project Manager
Product: Signed documents with the construction sub-contractors with details on equipment, costs, and schedules. Draft copies must be submitted to the CDPHE for approval prior to signing.

Task 8: Select the construction sub-contractors, sign the contracts or agreements According to SLV RC&D's standard procurement procedures. RC&D will provide the state copies of the qualifications of the sub-contractor(s) for review prior to final selection.

Responsible party: Project Manager
Product: Signed, fully executed contracts or agreements that have been reviewed by the state. Construction team in place, contracts signed

Objective 3: Implement the construction design.

Task 9: Materials and Equipment:

Responsible Party: Construction manager
Product: Equipment leases and materials prepared, readied for staging

Task 10: Extract rock from local quarry and deliver to sites as laid out in staging map and construction schedule.

Responsible Party: Construction company, hydrologist
Product: 12,000 cu. yrds. of rock material delivered to staged work sites

Task 11: Install the stabilization structures called for in the approved design documents. Complete site preparatory and survey work, have necessary equipment materials on-site and personnel to oversee the construction work, keep logs of progress each day to be signed by construction foreman and/or project coordinator.

Responsible Party: Project manager, On-site Coordinator, Hydrologist, Construction Company
Product: 14,784 linear feet of the stabilized river between County Roads 8 and 10 in Conejos County

Task 12: Inspect, test, and verify integrity of constructed elements, section by section upon installation completion and to approve invoice payment

Responsible Party: Hydrologist
Product: Stabilization structures built to design specifications and approved

GOAL 4: GRAZING MANAGEMENT AND RIPARIAN HABITAT RESTORATION

Objective 1: Develop grazing management and riparian habitat restoration plan to reduce erosion and sediment loading to the Alamosa River within the project area.

Task 13: Engage the NRCS range conservationist and the biologist to work with landowners to develop grazing management plans towards riparian restoration in the project area

Responsible Party: Project manager
Product: Agreement with the NRCS staff to work with landowners to develop plans

Task 14: Obtain concurrence in the form of signed agreements from the landowners for the specific grazing management plans. Concurrence includes commitments to maintain structural improvements for a defined time frame.

Responsible Party: Project assistant
Product: Signed agreements and commitments from landowners

Objective 5: Implement grazing management and riparian vegetation plans on sites.

Task 15: Implement grazing management plans and vegetation restoration plans at sites identified.

Responsible Party: Project assistant
Product: Plans completed and installed on sites

Task 16: Plant willow and native grasses to stabilize the riparian corridor.

Responsible Party: NRCS staff, community volunteers
Product: Approx. 42 acres of planted, stabilized riparian areas

Task 17: Follow up with landowners periodically to determine the effectiveness of their grazing management practices. Note changes if needed

Responsible Party: Alamosa-La Jara Water Conservancy District
Product: Verification of effective grazing management implementation

GOAL 5: IN FIELD MONITORING/ INSPECTIONS QUALITY CONTROL/ ASSURANCE AND LONG TERM O&M

Objective 1: Until the warranty period is over, monitor all aspects of the project including in-stream structures, stream bed and bank conditions, grazing management and vegetative plans, and overall stream bank stabilization measures.

Task 18: Hire someone to coordinate monitoring of all functional areas, and to develop a monitoring plan(s) for approval by the project manager, hydrologist, and biologist.

Responsible Party: Project manager
Product: Monitoring technician, approved monitoring plan

Task 19: Implement monitoring plan, record findings, compile and analyze data. Outcomes of the project will be determined through water sampling, sediment measurement, photo-documentation of the revegetation and grazing measures. Recommend repairs or adjustments as needed. Data will be reported on a scheduled basis to the state and to the stakeholders.

Responsible Party: Hydrologist, monitoring technician
Product: Monitoring data and reports

Task 20: Compile project outcomes to determine achievement of goals and objectives.
Responsible Party: Project Manager, Project assistant,
Product: Determination that project goals and objectives to reduce sediment and improve water quality have been achieved.

Task 21: Perform long-term monitoring on completed project areas.
Responsible Party: Alamosa La Jara Water Conservancy District
Product: 10 years of monitoring of structures and riparian restoration work after project completion

APPENDIX F

Biological Evaluation

Please reference Appendix F of the Alamosa River Watershed Restoration Project, 319 NPS Final Report, 2007 for the Vegetation Monitoring as cited in the Phase 3 Statement of Work Sec. 8.1.3.

DRAFT

BIOLOGICAL EVALUATION

for

ALAMOSA RIVER WATERSHED RESTORATION

2007

Environmental Protection Agency
Region 8
Denver, Colorado
June, 2007

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Biological Evaluation for the Alamosa River Restoration 2007

Introduction

EPA Region 8 plans to provide FY 2007 grant funds under Clean Water Act (CWA) Section 319 to the State of Colorado, Water Quality Control Division, to implement a water quality project on the Alamosa River east of Capulin in Conejos County, Colorado. The FY 2007 Federal cost is $256,290 ($234,690 of Section 319 funds).

Restoring the health of the river and its corridor to reduce excess sediment and improve water quality and availability are the project's primary environmental goals. Programmatic goals include stabilizing the river bed and banks to reduce sediment in the river channel, adjoining ditches, and lower reaches of the river and prevent additional erosional loss to improve water quality and flow.

Project Description

The current project continues the design prepared and implemented in the 2004 effort, including reshaping the channel to a natural meander, installing rock structures to direct the flow, and replanting and grazing management efforts. 15,000 linear feet of stream channel will be rehabilitated, giving riparian vegetation opportunities to reestablish.

Benefits will include sediment reduction with achievements documented through post-restoration monitoring. Meander pattern, normal geomorphological cross section geometry, floodplain connection and function, and riverbank and –bed stability will improved. The regrowth of the natural riparian corridor habitat, the re-appearance of native species such as willows, thin-leafed alder, and migratory and native birds are additional successes to be tracked. The proposed measures will improve water quality and availability for public and agricultural use and for wildlife habitat. Sediment reduction measures will ensure the long-lasting effects of the restoration project. Beyond the importance of stabilizing the riparian ecosystem, the quality and availability of water from the Alamosa River is vital to the sustainability and future of the greater Capulin community and surrounding agricultural region. Project objectives are:

- Stabilize the Alamosa River, improving water quality, water accessibility, and aquatic habitat by reducing sediment load, bank erosion, and damage to irrigation head gates and adjacent land.
- Improve riparian health by replanting vegetation, assisting the natural regrowth process.
- Monitor the success of the project and develop long term BMPs, such as alternative grazing strategies, with participants so that the streams' stability can be maintained.
- Maintain continuous communication with area landowners as to project developments, concerns, and progress. Distribute information on the monitoring and the restoration process.

Project Location: Gunbarrel Road to County Road 10 in the 2005 *Alamosa River Watershed Restoration Master Plan*.

On-the-ground activities

GOAL 2: CONSTRUCTION PHASE / SEDIMENT REDUCTION

Continue the reach of the restoration work from CR 8 to CR 10.

OBJECTIVE 1: Obtain Rock Material and Prepare Channel for Restoration

TASK 1: A rock source has been secured from the Porco Quarry situated 2 miles away from the project site. Porco will deliver rocks to designated sites along the river. ***Product:*** *12,000 cu. yds. of rock material., excess rock could be applied to additional reach* ***Cost:*** *$312,000.00*

TASK 2: Gravel removal, Remove approx. 15,000 cu. yards of excess gravel material from the river. In return for Conejos County's in-kind assistance removing the gravel, ARWRF will donate the gravel to the county. Includes appropriate permits, landowner and CCBOC cooperation. ***Product:*** *Gravel removal and donation* ***Cost:*** *$45,000.00 (in-kind)*

OBJECTIVE 2: Prevent est. 12,000 cu. ft. of bank sediment from entering stream system annually

TASK 1: Construction

1) ARWRF and RC&D will contract with an experienced and qualified construction firm. Construction to begin in Fall 2007 requiring approximately 30 weeks of construction over one year. Rock acquisition will be well underway or complete prior to work. Project schedule will be oriented on section and linear feet, with milestones roughly at every 5,000 linear feet between CR 8 and CR 10. To minimize impact, work will proceed during low or no flow on no more than 1,000 feet of channel at a time when practical. Some areas will likely require a longer reach impact in order to complete a section. An average cost per foot will account for sections requiring more intensive effort. Task includes mobilization/startup costs.

2) Rock vane/j-hook (160) and cross vane (17) construction, earth moving, in 2.8 mile section of Alamosa River. The proposed rock structures have proven to be highly effective in previous work and will substantially reduce bank and bed erosion and stream system sediment load.

Restoration will take place along the following parameters:

Stream Restoration 15,000 linear feet (incl. reattached meanders)
Excavation of excess riverbed material 15,000 cubic yards
Bank protection 30,000 linear feet
Vegetated bank stabilization 30,000 linear feet
Boulder cross vanes (in-stream structures) 17
Boulder vanes/j-hook (in-stream structures) 160
Chinking, sills and over-pour protection 2000 cubic yards
Re-vegetation riparian corridor unknown acreage
Agricultural area serviced by improvements 30,000 acres (est.)

Product: *Improvements to stabilize channel, reduce sediment, under 404 permit* ***Cost*** *$394,500.00, incl. equipment rental, supplies.*

TASK 2: Contingency and Operation and Maintenance, 20% of construction costs will be used for contingency during construction. Remaining funds will be used for future maintenance for 2 or more years with the possibility of applying some funds to an additional reach. ***Product:*** *Contingency, O&M* ***Cost:*** *$77,000.00*

TASK 3: Hire a Qualified Hydrologist, Steven Belz, Black Creek Hydrology, LLC, Northglenn, CO Belz's previous experience on the project and broad success in river restoration qualify him as the proposed hydrologist. Belz will train and supervise local contractors. ***Product:*** *Qualified hydrologist to implement project goals, supervising construction to standards* ***Cost:*** *$85,800, incl. travel, lodging, per diem (based on government standards)*

GOAL 3: RESTORE RIPARIAN HEALTH

Healthy bank vegetation, including willow, which is known to extract metals from water systems, is key in the overall success of riparian corridor restoration, channel stability and sustainable sediment transport.

OBJECTIVE 1: Restore Riparian Health for project reach

Apply best grazing management practices in riparian areas as required in landowner agreements, which state that planting and grazing management are a large portion of the participant's in-kind contribution.

TASK 1: Grazing Management, Coordinate implementation of individualized landowner grazing management plans with USFWS guidance. Agreements with 10 landowners include time management and deferred grazing for three years. ***Product:*** *Grazing management* ***Cost:*** *$80,000 (Landowner in-kind)*
TASK 2: Plant Vegetation, Plant native grasses, willows, and trees along approx. 40 acres of restored river corridor. ***Product****: Revegetation of riparian area* ***Cost****:$10,000 (per COFS, NRCS estimates)*

In-Field Monitoring: Determine restoration, sediment reduction, revegetation effectiveness
Monitoring cross sections will be established at 15 sites in the restored channel reach. Quarterly photos from benchmarks will document changes during the 3 year monitoring period. ARWRF will monitor all installed structures, maintain the reach, and make repairs under normal flow conditions in order to maintain the channel function. Cross sections will be surveyed after work is completed in any given section of river, with work completed prior to spring runoff measured before high flow. Cross sections will be measured annually for 2-3 years following construction once a flow of near bankfull occurs. Significantly less than average flow during the first runoff will not constitute the trigger point for monitoring. Vegetation survey transects will be established at benchmarks to document recovery of willows, grasses, and cottonwoods.
TASK 1: Monitor erosion on restored and unrestored sites, 1) Install and survey 15 monitoring cross sections following construction. Re-survey once a year after runoff. 2) Conduct longitudinal profile after construction with follow up survey in 3rd monitoring year. ***Product:*** *Document project effectiveness, estimate sediment reduction through monitoring* ***Cost:*** *$12,000.00*
TASK 2: Monitor vegetation transects created before and during restoration, Monitor vegetation regrowth in treated areas, with 1 transect per property owner in current reach. Conduct monitoring once when the project is completed and annually thereafter in August. Duration: 15 days (10 field days, 5 days for data manipulation) ***Product:*** *Monitored vegetation transects* ***Cost:*** *$12,600.00*
TASK 3: Data Management, Take existing data including maps, previous stream and riparian evaluations, and compile with current data. RC&D and the NRCS La Jara office will house all information, including progress reports. ***Product:*** *Data compilation* ***Cost****: $600.00*

Biological Evaluation for Species Occurring in Conejos County

Table 1: Species, Status, and Finding.

A. Endangered Species

1. Evaluation for the Black-footed Ferret (*Mustela nigripes*)

a. Listing Information
Population To Which Status Applies: Entire, except where listed as an experimental population below
Current Status: Endangered
Date First Listed: March 11, 1967
Critical Habitat: NA
Special Rules: NA
Lead Region: Mountain-Prairie Region (6)
Current Range of Species or Population: CO, KS, MT, NE, UT, WY; Presumed to be extirpated in other States of range and Canada

Population To Which Status Applies: U.S.A. (specific portions of AZ, CO, MT, SD, UT, and WY, see 17.84(g))
Current Status: Experimental Population, Non-Essential
Date First Listed: August 21, 1991
Critical Habitat: NA
Special Rules: 17.84(g)
Lead Region: Mountain-Prairie Region (6)
Current Range of Species or Population: AZ, CO, MT, SD, UT, WY

(The following information is extracted from:
Federal Register: October 1, 1998 (Volume 63, Number 190)
Rules and Regulations Page 52823-52841
Endangered and Threatened Wildlife and Plants: Establishment of a Nonessential Experimental Population of Black-footed Ferrets in Northwestern Colorado and Northeastern Utah; Final Rule
AGENCY: Fish and Wildlife Service, Interior.
ACTION: Final rule.)

b. Range/Distribution
Historically, the black-footed ferret was found over a wide area, but it is difficult to make a conclusive statement on its historical abundance due to its nocturnal and secretive habits. The historical range of the species, based on specimen collections, includes 12 States (Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming), and the Canadian Provinces of Alberta and Saskatchewan. There is prehistoric evidence of this ferret occurring from the Yukon Territory in Canada to New Mexico and Texas. Experimental populations of the ferret have been reintroduced into Arizona, Colorado, Montana, South Dakota, Utah and Wyoming.

In Colorado, the experimental population area is in Moffat and Rio Blanco counties in the northwestern part of the State. Ferrets are now being released in the Wolf Creek and Coyote Basin areas.

This experimental reintroduced population is designated nonessential. (For the purposes of section 7 of the Act, FWS treats nonessential experimental populations as if they are species proposed for listing if they are located outside of the National Wildlife Refuge System or National Park System.)

c. Habitat Requirements
Black-footed ferrets primarily prey on prairie dogs and use their burrows for shelter and denning and depend almost exclusively on prairie dogs for food and shelter. Ferret range is coincident with that of prairie dogs, with no documentation of black-footed ferrets breeding outside of prairie dog colonies. Habitat for ferrets may include colonies of black-tailed, white-tailed, or Gunnison prairie dogs.

The black-tailed prairie dog colonies must cover over 80 acres to support the ferret while the white-tailed prairie dog colonies must cover over 100 acres to support the ferret. The habitat for prairie dogs is short and mixed grass prairie and shrub-steppe.

d. EPA Finding
The EPA finding for the black-footed ferret is **"no effect."** Project activities will occur in a riparian area which is not habitat for prairie dogs. Prairie dogs are a necessary component of the ferret habitat.

2. Evaluation for Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

a. Listing information
Population To Which Status Applies: Entire Range
Current Status: Endangered
Date First Listed: February 27,1995
Critical Habitat: 17.95(b)
Special Rules: NA
Lead Region: Southwest Region (2)
Current Range of Species or Population: AZ, CA, CO, NM, TX, UT; Mexico

(The following information is extracted from:
DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
50 CFR Part 17
Endangered and Threatened Wildlife and Plants; Final Rule Determining
Endangered Status for the Southwestern Willow Flycatcher
AGENCY: Fish and Wildlife Service, Interior.
ACTION: Final rule.
and
[Federal Register: June 6, 2001 (Volume 66, Number 109)]
[Notices][Page 30477-30478]
DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Notice of Availability of the Draft Southwestern Willow Flycatcher Recovery Plan for Review and Comment

AGENCY: Fish and Wildlife Service, Interior.
ACTION: Notice of Document Availability.)

b. Range/Distribution
The southwestern willow flycatcher breeds in southwestern Colorado. A neotropical migratory bird, it is present in its breeding habitat from late April until August or September. It then migrates to wintering grounds in Mexico, Central America, and perhaps northern South America

c. Habitat Requirements
The southwestern willow flycatcher nests in dense vegetation along streams, rivers, cienegas, and areas with marshy seeps or saturated soils. It is threatened by loss of this habitat.

The southwestern willow flycatcher occurs in riparian habitats along rivers, streams, or other wetlands, where dense growths of willows, *Baccharis*, arrowweed, buttonbush, tamarisk, Russian olive or other plants are present, often with a scattered overstory of cottonwood. Throughout the range of the southwestern willow flycatcher, these riparian habitats tend to be rare, widely separated, small and/or linear locales, separated by vast expanses of arid lands. The southwestern willow flycatcher has experienced extensive loss and modification of this habitat and is also endangered by other factors, including brood parasitism by the brown-headed cowbird. Brown-headed cowbirds lay their own eggs in flycatcher nests, almost always causing complete loss of the flycatcher young.

<u>Critical Habitat</u>
Critical habitat for the southwestern willow flycatcher will include riparian areas within the 100-year flood plain along streams and rivers in southern California, Arizona, and New Mexico. No critical habitat is designated in Colorado.

d. EPA Finding
The EPA finding for the southwestern willow flycatcher is **"no effect."** As a <u>conservation measure</u>, all work in the riparian area will be conducted in a manner that does not destroy existing stands of woody vegetation that is habitat for the flycatcher. Also, no work will be conducted in the vicinity of existing woody vegetation between May 1 and August 15 so as to not disturb potential nests. In the long term, the improvement of riparian vegetation as a result of this project will benefit southwestern willow flycatcher habitat. **Is there any woody vegetation?**

B. Threatened Species

1. Evaluation for the Bald Eagle (*Haliaeetus leucocephalus*)

a. Listing information
Population To Which Status Applies: U.S.A., conterminous (lower 48) States
Current Status: Threatened
Date First Listed: March 11, 1967; Threatened, 1995;
Proposed for De-listing, 1999
Critical Habitat: NA
Special Rules: 17.41(a)
Lead Region: Great Lakes-Big Rivers Region (3)
Current Range: AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY

Proposed Rule for De-listing
July 6, 1999
50 CFR Part 17
Endangered and Threatened Wildlife and Plants; Proposed Rule To Remove the Bald Eagle in the Lower 48 States From the List of Endangered and Threatened Wildlife

(The following information is extracted from on-line documents of the U.S. Fish and Wildlife Service.)

b. Range
Entire lower 48 states.

c. Habitat
Quiet coastal areas, rivers or lakeshores with large, tall trees. Man-made reservoirs have provided excellent habitat. In winter, bald eagles often congregate at specific wintering sites that are generally close to open water and offer good perch trees and night roosts. For mid-continent bald eagles, wintering grounds may be the southern States, and for southern bald eagles, whose nesting occurs during the winter months, the non-breeding season foraging areas may be Chesapeake Bay or Yellowstone National Park during the summer. Eagles seek wintering (non-nesting) areas offering an abundant and readily available food supply with suitable night roosts. Night roosts typically offer isolation and thermal protection from winds. Carrion and easily scavenged prey provide important sources of winter food in terrestrial habitats far from open water.

d. EPA Finding
The EPA finding for the bald eagle is **??? [Are there eagle nests or roost trees at or near the project site?]**

2. Evaluation for the Mexican Spotted Owl (*Strix occidentalis lucida*)

a. Listing Information
Population To Which Status Applies: Entire Range
Current Status: Threatened
Date First Listed: March 16, 1993
Critical Habitat: 17.95(b)
Special Rules: NA
Lead Region: Southwest Region (2)
Current Range: AZ, CO, NM, TX, UT; Mexico

(The following is extracted from:
[Federal Register: February 1, 2001 (Volume 66, Number 22)] [Rules and Regulations] [Page 8530-8553]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr01fe01-8]

DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
50 CFR Part 17
RIN 1018-AG29
Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Mexican Spotted Owl
ACTION: Final rule.)

b. Range/Distribution
Arizona, Colorado, New Mexico, Texas, Utah and Mexico. The Mexican spotted owl has the largest geographic range of the three spotted owl subspecies. Its range extends from the southern Rocky Mountains in Colorado and the Colorado Plateau in southern Utah, southward through Arizona and New Mexico and, discontinuously, through the Sierra Madre Occidental and Oriental to the mountains at the southern end of the Mexican Plateau.

The smallest number of spotted owls occurs in the Southern Rocky Mountains-Colorado RU. This unit includes the southern Rocky Mountains in Colorado, where spotted owls are largely confined to steep canyons, generally with significant rock faces and various amounts of mature coniferous forest.

c. Habitat Requirements
Mexican spotted owls nest, roost, forage, and disperse in a diverse array of biotic communities. Nesting habitat is typically in areas with complex forest structure or rocky canyons, and contains uneven-aged, multi-storied mature or old-growth stands that have high canopy closure (Ganey and Balda 1989, USDI 1991). In the northern portion of the range (Utah and Colorado), most nests are in caves or on cliff ledges in steep-walled canyons. Owls generally use a wider variety of forest conditions for foraging than they use for nesting/roosting.

<u>Critical Habitat</u>
Critical habitat units are designated in portions of Custer, Douglas, El Paso, Fremont, Huerfano, Jefferson, Pueblo, and Teller Counties in Colorado.

d. EPA Finding

The EPA finding for the Mexican spotted owl is **"no effect"** as typical habitat is not present in the project area. The area lacks both the vegetation and steep-walled canyons that are habitat for the owl.

3. Evaluation for Canada Lynx (*Lynx canadensis*)

a. Listing Information

Population To Which Status Applies: U.S.A. (CO, ID, ME, MI, MN, MT, NH, NY, OR, UT, VT, WA, WI, WY)
Current Status: Threatened
Date First Listed: March 24, 2000
Critical Habitat: NA
Special Rules: 17.40(k)
Lead Region: Mountain-Prairie Region (6)Current Range: CO, ID, ME, MI, MN, MT, NH, NY, OR, PA, UT, VT, WA, WI, WY

(The following information is extracted from on-line documents of the U.S. Fish and Wildlife Service. Federal Register Online via GPO Access [wais.access.gpo.gov] [DOCID:fr24mr00-18] [Federal Register: March 24, 2000 (Volume 65, Number 58)] [Rules and Regulations] [Page 16051-16086])

b. Range/Distribution

Its range extends from Alaska, throughout much of Canada, to the boreal forests in the northeastern United States, the Great Lakes, the Rocky Mountains, and the Cascade Mountains. The boreal forest extends south into the contiguous United States along the Cascade and Rocky Mountain Ranges in the West, the western Great Lakes Region, and along the Appalachian Mountain Range of the northeastern United States. At its southern margins, the boreal forest becomes naturally fragmented into patches of varying size as it transitions into other vegetation types. These southern boreal forest habitat patches are small relative to the extensive northern boreal forest of Canada and Alaska, which constitutes the majority of the lynx range.

<u>Southern Rockies</u>
Colorado represents the extreme southern edge of the range of the lynx. The southern boreal forest of Colorado and southeastern Wyoming is isolated from boreal forest in Utah and northwestern Wyoming by the Green River Valley and the Wyoming basin. These habitats likely act as a barrier that reduces or precludes opportunities for immigration and emigration from the Northern Rocky Mountains/Cascades Region and Canada, effectively isolating lynx in the southern Rocky Mountains in Colorado and southeastern Wyoming. A majority of the lynx occurrence records in Colorado and southeastern Wyoming, are associated with the ``Rocky Mountain Conifer Forest'' type. The occurrences in the Southern Rockies were generally at higher elevations (4,100-12,300 feet) than were all other occurrences in the West.

<u>Colorado</u>--The montane and subalpine forest ecosystems in Colorado are naturally highly fragmented, which we believe limits the size of lynx populations.

Few, if any, native lynx continue to exist in Colorado. As a result, in 1997, the Colorado Division of Wildlife, in cooperation with numerous government and private entities, began a

program to introduce lynx from Canada and Alaska into Colorado in an attempt to reestablish a viable lynx population. Forty-one lynx were released into the wild in the San Juan Mountains beginning in early spring 1999. It is too early to predict the success of this effort.

c. Habitat Requirements

The lynx is a rare forest-dwelling cat of northern latitudes. Lynx feed primarily on snowshoe hares but also will eat small mammals and birds. In the western States they live in spruce/fir forests at higher elevations. Downed logs and windfalls provide cover for denning sites, escape, and protection from severe weather. Earlier successional forest stages provide habitat for the lynx's primary prey, the snowshoe hare.

In the contiguous United States, lynx populations occur at naturally low densities; the rarity of lynx at the southern portion of the range compared to more northern populations in Canada is normal. The rarity of lynx is based largely on limited availability of its primary prey, snowshoe hare. Such habitat prevents hare populations from achieving high densities similar to those in the extensive northern boreal forest. Lynx in the contiguous United States are part of a larger meta-population whose core is located in central Canada.

d. Behavior

The size of lynx home ranges vary and have been documented between 3 to 300 square miles. Lynx are capable of moving extremely long distances in search of food or to establish new home ranges. Lynx populations rise and fall following the cyclic highs and lows of snowshoe hare populations. When hare populations are low, the change in the lynx's diet causes the productivity of adult female lynx and survival of young to nearly cease. Lynx movements may be negatively influenced by high traffic volumes on roads that bisect suitable lynx habitat.

f. EPA Finding

The EPA finding for the Canada lynx is **"no effect."** The project area is a riparian area that lacks the habitat of the lynx.

C. Candidate Species

Evaluation for the Yellow-Billed Cuckoo, Western (*Coccyzus americanus occidentalis*)

a. Listing Information

Population To Which Status Applies: Entire Range
Current Status: Candidate
Lead Region: Pacific Region (1)
Current Range of Species or Population: AZ, CA, CO, ID, NM, NV, OR, TX, UT, WA; Canada, Mexico, Central and South America

(The following information is extracted from:
[Federal Register: July 25, 2001 (Volume 66, Number 143)]
[Proposed Rules]
[Page 38611-38626]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr25jy01-37])

b. Range

In Colorado, west of the Continental Divide, the species was probably never common and is now extremely rare. The yellow-billed cuckoo is an uncommon summer resident of Colorado. According to the Colorado Breeding Atlas, the general status of the yellow-billed cuckoo in Colorado is that it is nearly extirpated, with once common eastern populations becoming uncommon to rare. Only one confirmed nesting observation occurred along the Yampa River near Hayden during the Breeding Bird Atlas surveys conducted from 1987-1994. Other confirmed nesting records (mid 1980s) have been associated with outbreaks of caterpillar infestations in box elders (Acer negundo) in the Four Corners Region/Durango area. However, over recent years , the use of insecticides and the removal of box elders has reduced the outbreaks of insect infestations, resulting in fewer occurrences of yellow-billed cuckoo in the area.

National Park Service (NPS) surveys in southwest Colorado, from 1988 through 1995 for the Colorado Bird Breeding Atlas, found no records of yellow-billed cuckoo. Park staff also conducted extensive surveys of the Mancos River in the park six times during the past 12 years and adjacent to Yucca House National Monument throughout 2000 with no reports of yellow-billed cuckoos. Few sightings of the yellow-billed cuckoo have occurred in western Colorado along the Colorado River near Grand Junction. In 1998, biologists surveyed 242 miles of lowland river riparian habitat along six rivers in west-central Colorado for yellow-billed cuckoos, finding one individual bird.

c. Habitat Requirements and Behavior

Western yellow-billed cuckoos breed in large blocks of riparian habitats (particularly woodlands with cottonwoods and willows). Dense understory foliage appears to be an important factor in nest site selection, while cottonwood trees are an important foraging habitat in areas where the species has been studied in California. Western yellow-billed cuckoos appear to require large blocks of riparian habitat for nesting. Along the Sacramento River in California, nesting yellow-billed cuckoos occupied home ranges which included 25 acres or more of riparian habitat.

Another study on the same river found riparian patches with yellow-billed cuckoo pairs to average 99 acres. Home ranges in the South Fork of the Kern River in California averaged about 42 acres.

Nesting west of the Continental Divide occurs almost exclusively close to water, and biologists have hypothesized that the species may be restricted to nesting in moist river bottoms in the west because of humidity requirements for successful hatching and rearing of young. Nesting peaks later (mid-June through August) than in most co-occurring bird species, and may be triggered by an abundance of the cicadas, katydids, caterpillars, or other large prey which form the bulk of the species' diet.

d. EPA Finding

The EPA finding for the Western yellow-billed cuckoo is **"no effect." Does the area have habitat for the cuckoo and/or has the cuckoo been sighted in the area?**

APPENDIX G

Material and Equipment Requirements

Appendix G presents detailed information about the estimated materials and equipment required to perform the SOW; and specifically for the equipment:

- duration of use
- schedule of use
- monthly cost to lease
- optimization of equipment use
- persons leasing the equipment, and
- persons operating the equipment

At this time and based on conceptual design, the estimated materials and equipment required to implement the SOW are detailed in the following Sections 6.3.2.1 and 6.3.1.2. At the completion of design (SOW Section 6.1) and prior to commencement of construction activities, an update in the form of a Materials and Equipment Plan in accordance with the Final Design document, drawings and material specification shall be prepared.

Materials

According to the preliminary design, approximately 12,000 sq. ft. rock (verification of quantities) are required to complete the X-mile stretch. The following table presents the type of rock, size and specific gravity (and other parameter specifications) of the rock

Type	Size	Avg. Specific Gravity	Quantity	
Boulders 2'x2'x2'	to 3'x3'x3'	2.74	10,000 cu. yds	
riprap	6" min – 18" max 12" typical	2.74	2,000 cu. yds	

Rock will be procured from Purco Quarry. This quarry is located at Capulin, CO and owned by Ralph Porco. SLVRC&D shall arrange the procurement of rock by contract/purchase order with PERSON and the cost of $27/ sq. ft. for a total of $324,000.

At this time and based on preliminary design, the estimated materials and equipment required to implement the SOW are detailed in the following Section 6.3.1.1 and 6.3.2.2. At the completion of design (SOW Section 6.1) and prior to commencement of construction activities, an update in the form of the a Materials and Equipment Plan shall be prepared.

Equipment Requirements

Four pieces of heavy equipment and one piece of survey equipment will be leased for construction:

6.3.1.2 Equipm ent

Four pieces of heavy equipment and one piece of survey equipment will be leased for construction.

1. Excavator 65,000-70,000 lb excavator with a hydraulic thumb: The excavator will be used to extract rocks from the quarry and shape the river channel, and to install the rock vanes and cross vanes. Model 270DLC John Deere adds 8% for Hydraulic thumb. Monthly rate: $8,748.00

2. Front-end loader with a 4 cu. yd. capacity bucket: The front-end loader is used to shape the channel bottom, excavate and remove excess gravel, and haul the large boulders within short distances. Model 644 J. Monthly Rate: $6,500

3. Bulldozer : The dozer is used to shape the banks and the bottom of the stream. It is also used outside the river in the riparian areas and floodplains for grooming and landscaping. Model 700 J. Monthly rate: $4,600.

4. Off-road or articulated truck with rock bed: The off-road truck operates in adverse surface conditions and can be driven inside the river. It will be used to haul large boulders from the stockpiles to exact locations and haul gravel from the riverbed to designated areas. Model 300 D. Monthly Rate: $11,000

5. Surve y equipment: Hydrologist will use a Trimble S6 or 5600 robotic total station; construction crew will use a laser level. $400 per week.

Colorado Machinery requires a two week notice prior rental agreement. They require a firm commitment from the persons renting the equipment to proceed with the paper work. It is first come first served. When the SOW is accepted and funding is available, the Capulin Construction Company will notify the rental companies and make the proper arrangements to rent the equipment. A brochure of equipment availability and prices is furnished with this SOW. Appendix F.

Duration of Use

The expected startup dates for this project is set for early May or as soon as money becomes available. The duration of the project and the use of the equipment will extend about a year and two months. It is estimated that construction of the river will require a total of 30 weeks. Of the 14,780 feet of stream length, this breaks into 500 feet of finished stream per week. Actual river construction will continue as weather and stream flows permit. When the equipment is not in the river it will be used at the Porco Quarry to extract and deliver 10,000 to 12,000 cu yards of rock material to proposed construction sites. About 200 cu. yds. is currently available for the project. Rock extraction and delivery is calculated to take 5-6 months at 2400 cu. yds. of material per month during its peak.

Schedule of Use

The Construction Master Schedule shows schedule of construction subtasks (Xcel document worksheet attached). Proposed construction equipment schedule spans September through October 2009. "Equipment Usage" described below outlines the use of each piece of equipment for each subtask.

Optimization of Equipment Use

The timing of the rock extraction and construction will optimize equipment use with rock extraction and hauling taking place during winter months when the riverbed is frozen and continuing as needed during the spring run-off. Rock will be stockpiled strategically along the proposed work area in preparation for immediate access during the construction period. (See photo map.)

Person(s) leasing the equipment

The in-stream construction company is the lessee.

Person(s) operating equipment with the licensing or certifications to operate the equipment

In-stream contractor personnel.

Training

Steve Belz