

SAN MIGUEL WATERSHED COALITION NEWSLETTER SUMMER 2010

This edition of the Watershed Connection serves as the 2010 update to the San Miguel Watershed Ecological Health Report Card, issued in 2005. It provides information on watershed health in 2009, and upcoming watershed management activities for field season 2010. The updates are arranged according to report card categories: Climate Change, Water, Wildlife, and Vegetation. Additional information is supplied on open space, resource and recreation management activities, education, and sustainability.

CLIMATE CHANGE

DIRT IS THE WORD

This past El Niño winter had less dirt in the snow than previous years. Then came the dirt, and, after a cold snowy March with little melt, our normal snowpack levels quickly decreased. Like the big snow winter of 1983-84, when the snow held on until early May, the mid-level snows came down with a vengeance. This year, Leopard Creek flows contributed to Placerville Gage stage of 4.05, over 1000 CFS on Sunday 4/18/10. The other big-mid level contributor is Horsefly Creek, the favorite of spring play boaters. At Brooks Bridge, the same day, the San Miguel rose to about 2800. The all-time peak flow at Brooks Bridge was about 3400, on 4/24/98. Last year the early peak near Nucla was on 4/2/09 at about 1803, and a later peak of 1519 cfs on 5/17/09.

The Colorado River Basin Forecast Center is predicting peak flow at Placerville (below Specie Creek) of about 1300 in the second week of June. Like this year, we can expect most years in the future will experience a rapid snowmelt as soon as the dirty snow is exposed to the warm spring sun, as early as Mid March.

I've been checking the flows on the San Miguel River at Mahoney Drive in Telluride. As of this writing (May 10), the highest flows came on April 21, at 47.5, and since then, with cold and snow weather, have returned mostly to the 20s. On Monday May 10 the Mahoney Gage showed 40CFS, with continued cool weather forecast. □By Jerry Greene, local climatologist

USFS CLIMATE CHANGE STUDY □The GMUG National Forest is participating in a pilot project with 10 other National Forests around the country to develop an approach to evaluate relative vulnerability of watersheds to risks posed by climate change. This Watershed Vulnerability Assessment (WVA) project is being led by Mike Furniss of the Pacific NW Research Station. Each forest has identified specific water resource values of concern to be the focus of their WVA. The GMUG has selected floodplain and in-channel infrastructure (culverts, bridges, roads, trails, campgrounds), water uses (diversions and improvements) and aquatic species (cutthroat trout, botanical communities) as our water resource values. Building upon watershed assessment work conducted as part of the forest plan revision effort over the past few years GMUG personnel will be looking at natural sensitivities of forest watersheds and ongoing management stressors, and will evaluate how additional predicted climate changes may affect these resource values. The WVA should identify where water related resources are most susceptible to changes in climate and what types of management actions might be used to increase watershed resilience. The WVA will also result in recommendations for monitoring to track changes over time so that management actions can be adapted as needed and to validate predicted results. By Carol Howe, Resource Information Specialist, GMUG NF, (970) 874-6647, chowe@fs.fed.us

MOUNTAIN STUDIES INSTITUTE REPORT

MSI held its third annual Air Quality Forum in Durango on 5/7/10. Discussions covered ground-level ozone, mercury, biomass burning, emissions near schools, and other topics. MSI continues its studies of mercury in the environment, including new back trajectory modeling of storms that bring mercury to SW Colorado. MSI also completed a pilot study of ozone injury to plants in the San Juan NF. No evidence of ozone caused injury was documented.

MSI is conducting a literature review of observed and projected impacts from climate change and will assemble information into a report and shorter education booklet. MSI is collaborating with USFS and others on climate change adaptation planning and will hold a conference on this topic in early October, 2010. By Koren Nydick, MSI

BLM'S SAN MIGUEL WATERSHED CLIMATE OUTLOOK

Both monthly temperature and precipitation were near normal during winter. As of end of February cumulative precipitation received since the 2010 Water Year began in October was near normal. Current snowpack is slightly below normal for the whole state.

The official outlook for spring calls for above normal precipitation, but models are predicting things to

dry out to normal by early summer. Spring outlook is for normal temperatures. As summer approaches, temperatures may move slightly above normal.

Regionally, El Nino is continuing to weaken.

During May, our temperatures may be unseasonably warm, as models predict a chance of above normal temperatures. As summer arrives the above normal temperatures may only be noticeable on the far west end. In early May we had 79% average snowpack in San Miguel watershed. By Kelly Homstad, BLM Fire Management Specialist, 970-240-5393

WATER

NOTICE – The Colorado River Water Availability Study (CRWAS) Phase 1 Draft Report public review period has been extended until 7/21/2010. The Colorado River Water Availability Study (CRWAS) is available for public review on the [CWCB website](#). □ We value your input; please send your comments to [Ray Alvarado](#).

WORK CONTINUES ON HOWARD FORK/OPHIR VALLEY

A variety of state and federal agencies, and two local non-profit organizations, The Trust for Land Restoration (TLR) and the San Miguel Watershed Coalition (SMWC) continue to focus on cleanup efforts along the Howard Fork in the Ophir Valley.

At the Carbonero Tailings, just east of Ophir along the Howard Fork, the USFS' primary contractor, MSE of Salt Lake City, has selected Telluride Gravel as construction subcontractor, and work is planned for this summer. Linda Lanham of the USFS GMUG Supervisors Office is working with Norwood District Ranger Judy Schutza to oversee all aspects of the work. TLR assists the USFS on an "as needed" basis.

At the Carbonero Adit, high on the hillside northeast of Ophir, the EPA, the Colorado Division of Reclamation, Mining and Safety (DRMS) and CDPHE, with the cooperation of the private landowner, are continuing to gather information to help characterize and understand flows coming out of the adit. The goal is to evaluate the impacts to the watershed from those flows, and determine potential methods of reducing them. As part of that effort, the EPA directed funds through the USFS and TLR to have Leigh Sullivan collect water samples monthly through the past year at both the Carbonero Adit, and a nearby domestic water well. Jean Mackenzie and Mike Wireman are leading the EPA effort. Camille Price and Bruce Stover are representing DRMS. Mark Rudolph represents CDPHE, Leigh Sullivan represents SMWC, and Pat Willits represents TLR.

Improving water quality by cleaning and reclaiming abandoned mines in the Howard Fork was one of five top priority recommendations of the 2001 San Miguel River Restoration Assessment. This assessment was funded by a grant to SMC by EPA, and was a cooperative effort of SMWC, TNC, SMC, TLR, and USGS. The goals of this assessment were to identify elements of biodiversity, their condition, and the ecological and hydrological processes that sustain them and to identify and prioritize restoration reaches and activities that will help restore and maintain those elements and processes.

The San Miguel River Restoration Assessment is available at Telluride's Wilkinson Library, the Norwood Library, and the Naturita Library. A text-only version is available on-line at www.restorationtrust.org/Rest-Assess_summ.pdf.

Shortly after release of the San Miguel River Restoration Assessment, SMWC and TLR hosted the Howard Fork Roundtable, a meeting of landowners, community members, local government, state and federal agencies. The roundtable ultimately recognized three sites as the highest priorities for cleanup and reclamation to improve overall water quality in the Howard Fork: The Carribeau Mine and Millsite, a mixed-ownership site, west of Ophir; The Carbonero Mine, on private property, two miles northeast of Ophir; and The Carbonero Tailings, just east of Ophir. By Pat Willits, TLR. For more information about cleanup and reclamation of abandoned mines in general, or in Ophir Valley in particular, contact TLR in Ridgway at 970-626-3236, or at www.restorationtrust.org.

AMES HYDRO PLANT RE-LICENSING PROGRESS

In early December 2009 a settlement agreement was signed by authorized representatives of USFS, Colorado Department of Natural Resources and Public Service of Colorado (PSCo) which defined operational changes to power plant operations affecting flows in the South Fork of the San Miguel River in order to reduce the potential for ice flows and to improve aquatic habitat in the South Fork of the San Miguel River. In addition PSCo was given a period of six years to reconstruct Priest Lake, which will be owned and operated by the USFS as a storage facility used primarily for recreation and fisheries purposes, in lieu of mandatory bypass flow releases out of Trout Lake to the Lake Fork of the San Miguel. This signed settlement agreement was filed with the Federal Energy Regulatory Commission (FERC) along with an explanatory letter encouraging their acceptance of the settlement

and incorporation of those agreements into the Federal hydropower license due to be issued on or before 6/30/2010. Letters supporting the agreement were filed with FERC by the local Chapter of Trout Unlimited; the Southwest Citizen Alliance, SMC Board of Commissioners; SWCD; and BLM. As of 5/1/2010, the fate of the Federal license and attached conditions is uncertain, but the outcome is expected soon. By John M. Almy, USFS GMUG Hydrologist

BLM HYDROLOGIST'S REPORT

The Montrose BLM office replaced the recently retired hydrologist, Dennis Murphy, who had almost 30 years of experience in the San Miguel watershed, with Jeff Litteral of Ridgway in February 2010. Jeff has experience in water quality with USGS and Kentucky Department for Environmental Protections and was previously employed by the Co.Division of Reclamation, Mining and Safety. BLM is still working on the CC Ditch enhancement project with SMWC, TNC, Co. Water Trust, CDOW, Trout Unlimited, and the Colorado Co-Operative Company. Water is currently directed to the CC ditch headgate by a five-foot-high bank-to-bank concrete and steel dam that runs perpendicular to the rivers flow. The new design will improve and strengthen the existing diversion structure, return the stream channel to natural dimensions, and improve riparian habitat. The new design proposes to construct a bank-to-bank rock and fill structure below the existing diversion dam that will facilitate fish migration and allow a safer recreational boating experience. This project is an important collaboration that showcases how environment, recreation and agricultural water use can all benefit from a single effort. The UFO field staff has been in the Lower San Miguel watershed recently to conduct a Land Health Assessment based on five standards which describe conditions needed to sustain land health. The standards are described by indicators which can be observed on the ground. Standard five deals with water quality and assessments will be conducted this year with reports due in spring 2011. For Information about the LHA process go to <http://www.blm.gov/co/st/en/fo/ufo.html>. By Jeff Litteral, Hydrologist-BLM UFO, 970-240-5342, charles_litteral@blm.gov

CDPHE IDARADO REMEDIATION PROJECT

Success of the Idarado mine remediation in the San Miguel Watershed is determined by a 50% reduction in zinc concentrations in the San Miguel River, and adequate vegetative cover on the tailings piles. Idarado revegetation of the Telluride Tailings piles, as well as remediation work in Marshall, Savage and Black Bear basins, and at the Meldrum and Mill Level tunnels, has resulted in Idarado reaching the Idarado Consent Decree's performance objective of a 50% reduction of total zinc concentrations in the San Miguel River. In 2009, the 52-week annual average total zinc concentration in the San Miguel River was 0.298 mg/l, while in 2008 it was 0.34 mg/l, just above the water quality performance objective of 0.336 mg/l.

Irrigation of the Telluride Tailings piles occurred in July 2009 due to dry conditions. Vegetative cover is measured annually, and in 2009 exceeded the requirements specified in the Consent Decree. Sampling of the Telluride tailings piles during the 9th and 10 growing seasons following cessation of irrigation and fertilization will determine if Idarado has been successful in meeting the performance objectives specified in the Consent Decree.

Irrigation will occur if precipitation is below average from March through September. A weed management plan will be implemented to control any weeds found on the property. Areas with low vegetative cover will have 12-18" of soil placed thereon and revegetated with the seed mix specified in the RAP.

The Town of Telluride, Idarado Mining Company and the CDPHE are preparing an Access Agreement, which will allow Idarado access to remediate Society Turn Tailings pile number 1, to be overseen by CDPHE. Preliminary site inspections, site access determination and administrative requirements commenced in 2009, with remediation to occur in a subsequent year. By Camille Price, CDPHE

NEWMIRE VANADIUM MILL REMEDIATION

Construction activity resumed in May and is scheduled to conclude in October at the Newmire site on Hwy 145 at Silver Pick rd. This summer contractors will remove historical mill materials on the north side of the highway. As a safety precaution, access to the river road trail at the site will be closed during construction season. For more information call 866-465-3989 or go to www.NewmireSite.com

SOUTHWESTERN WATER CONSERVATION DISTRICT

Southwestern (SWCD) is one of four water conservation districts in the state. All were legislated into being at different times, depending on need. SWCD was formed in 1941 and its overall purpose is

to protect and develop the waters within its nine-county boundary, including San Miguel County.

Public education about water is one of the District's major focuses. Each April SWCD hosts a water seminar in Durango, regularly attended by over 120 people. Speakers on current issues come from local, regional, state and national levels. The theme for 2010 was "Common Causes" and keynote speaker was John Fielder, renowned Colorado photographer. He recently completed a new book, Colorado Ranches, with a theme of how ranchers and other entities have common causes in protecting resources. The District is also a primary sponsor of the Water Information Program, whose purpose is to provide useful information about water issues. Visit the website at www.waterinfo.org. WIP, SWCD and TNCC held a Water 101 Seminar in Telluride last fall. Each year SWCD sponsors a Children's Water Festival at Ft. Lewis College for 5th graders in regional school districts, attended by over 600 children in 2010.

During 2009, SWCD provided professional resources, working with a water task force in San Miguel and Montrose counties to look at water storage and development needs and how a proposed instream flow on the lower San Miguel would impact water users. SWCD's engineer Steve Harris met with most municipalities, counties, ditch companies and major water users along the San Miguel and will present a report on future water needs this summer.

SWCD provides grants and loans for water conservation and development projects. It provided funding for SMWC to perform water quality monitoring in 2008 and 2009, and helps support the USGS stream gauge program and cloud seeding in the southwest basin. For more information go to www.swgcd.org. By Jane Maxon, SWCD Staff and April Montgomery, SWCD Board Member for San Miguel County

CORONET CREEK RESTORATION

Additional vegetation will be planted this spring by Western Stream Works to further increase structural integrity of bank stabilization on private property upstream of the Dakota Avenue bridge in Telluride. Several species of riparian shrubs will be selected to increase habitat diversity, improve functions and values, and soften the impacts of heavy-rock work required to protect bank erosion. Huge boulders were deposited in past significant debris slide events. One 11'x15' boulder could not be lifted and WSW excavated an enormous hole within the bank and gravity, assisted by an excellent TGI operator, rolled the boulder out of the way. The steep gradient drop within the project is caused by enormous boulders too large to move. It becomes immediately apparent working on Coronet Creek the size and magnitude of potential flood conditions.

Future peak flow conditions will continue to naturalize the project, and sinuosity will increase while erosive currents create small waterfalls. Deposition occurs on the receding end of the hydrograph and will be monitored throughout the reach, alluvium may need to be extracted proactively to mitigate potential degradation. Stream restoration techniques continually improve with the objective of applying proven techniques while making every effort to replicate natural stream dynamics. Less instream features save costs and smaller volume features can be built stronger and function longer. A good example is a feature WSW re-built several years ago where Bear Creek flows into the San Miguel. The grade control structure appears natural, while the mass of material placed under visible rocks create a strong, durable feature. By Bill Coughlin, WSW 970-708-2139

SILVERBELL MINE RECLAMATION-HOWARD FORK

Additional efforts to improve water quality continue in 2010 at the Silverbell mine reclamation project, with improvements at the base of the tailings. WSW may utilize this opportunity to offer field experience to local college students interested in reclamation. Additional sedge plants will be planted within limestone bays. Sedge thus far has thrived surprisingly well in the bays created to increase iron precipitation. By utilizing limestone "anoxic drains" the pH changes enough to remove additional iron prior to discharging into Howard's Fork of the San Miguel. WSW completed additional bank stabilization to protect remediation from stream erosion. Using a long reach excavator lowering boulders with a 100' steel cable, we were able to build an instream feature at the foot of the tailing. Horizontal drains were established within the tailing to mix with the water discharging from existing anoxic drains to further increase water quality. The settling bays were lined with a non-permeable membrane last summer to further target water quality prior to discharging into a treatment wetland. By Bill Coughlin, WSW (970) 708-2139

URAVAN NATURAL RESOURCE DAMAGE PROJECT

In July 2005, CDPHE and the Division of Minerals and Geology, now known as the Co. Division of Reclamation, Mining and Safety (DRMS), entered a contract whereby CDPHE allocated \$852,360 from the UraVan Natural Resource Damage Fund for DRMS to reclaim and safeguard abandoned, historical

mine areas to benefit terrestrial and water resources and optimize riparian habitat along the San Miguel River in Montrose County.

The project was designed to remove mine waste from intermittent drainages that flow through the site and stabilize mine waste with vegetation to minimize wind and water erosion, returning the land to the beneficial uses of rangeland and wildlife habitat.

The secondary project scope was to provide real world reclamation experience for students at Mesa State College (MSC). The initial design portion was part of an Independent Study: Uraivan Waste Reclamation class held in 2006 attended by 7 students.

Phase I was conducted in 2007; it included reclamation of mine waste and safeguarding hazardous mine openings in the Eagle Basin Area. Phase I utilized \$503,256.17 of the \$852,360. A total of 9 mine waste piles were re-graded and approximately 15 acres were revegetated on lands managed by BLM. A Mesa State student managed a reclamation project to remove mine waste from a drainage channel and safeguard two hazardous mine openings. As a matching contribution, DRMS safeguarded 40 inactive mine features within Eagle Basin. Two mines were safeguarded while regrading the Rex mine.

Phase II was conducted in 2009; it utilized \$97,075.82 for Site Inventory, Reclamation Construction and Project Management. A down-slope drainage channel was constructed at the Rex Mine, mine waste was relocated out of an intermittent drainage channel at the Moon Beam and Republican Mines and unnamed mines near features 1-3 of the Long Park Mine Safeguarding Project. Mesa State College spent \$16,560 in Phase II for Tamarisk control, river restoration and riparian areas planting. As a matching contribution, DRMS safeguarded 27 inactive mine features within Long Park, for a matching contribution of \$47,925. Total Matching Funds contributed by DRMS, BLM, CDOW and UMETCO mining co. for PHASES I and II to date are \$221,494.48.

The final Phase (III) of the project will be conducted in fall 2010. Flow from two intermittent drainage channels will be diverted away from draining into two inactive uranium mines. The amount remaining for Phase III is \$264,244.49. As a matching contribution, DRMS and BLM will safeguard 10 inactive mine features west of Paradox, for a matching contribution of approximately \$30,000. By Camille Price, CDPHE

CARBONERO MINE MAINTENANCE

In June 2009, the Co. Division of Reclamation, Mining and Safety, in coordination with the landowner, CDPHE, and EPA, completed a maintenance project at the Carbonero Mine northeast of Ophir. The mine safety closure installed in 1997 was clogged, and drainage was emanating from beneath and around the culvert, making it difficult to ascertain accurate flow measurements for continued water quality analyses and watershed reclamation planning. A concrete ditch with 6" Parshall Flume was constructed to collect all drainage emanating from the mine to accurately measure flow. A snow shed was constructed to keep snow and earthen debris from occluding the ditch.

The Colorado Division of Reclamation, Mining and Safety, in coordination with the landowner, CDPHE, USFS and EPA will be conducting exploratory drilling during the summer 2010 to investigate the source of water draining from the Carbonero mine.

By Camille Price, CDPHE

SAN MIGUEL RIVER INSTREAM FLOW RECOMMENDATION

There are several instream flows along the San Miguel River, appropriated and held by CWCB over the last three decades to ensure that the river does not dry up enough that fish and other aquatic and riparian species die. Colorado's Instream Flow Program was created in 1973 when the State Legislature recognized "the need to correlate the activities of mankind with some reasonable preservation of the natural environment"

The statute vests CWCB with exclusive authority to appropriate and acquire instream flow and natural lake level water rights.

CDOW and BLM are jointly recommending a segment of San Miguel River from Calamity Creek (downstream of Naturita) to the confluence with the Dolores River for inclusion in the instream flow program. The instream flow recommendation, which ranges from 325 cfs during run-off to 80cfs in fall and winter and during dry or low water years, are being considered because the San Miguel has a natural environment that can be preserved to a reasonable degree. The instream flow recommendation was based partly on the identification of this segment of the river as being outstanding population for three fish species of concern, including the flannelmouth sucker, bluehead sucker, and roundtail chub, and because the lower San Miguel River is known to provide habitat for globally imperiled and other important riparian communities, and because of free-flowing river hydrology. The globally impaired communities include New Mexico privet riparian shrub land, skunkbrush riparian shrubland, narrowleaf cottonwood communities and fremont cottonwood communities. The Colorado Natural Heritage

Program has identified two potential conservation areas along this reach of the river because of these riparian communities and species. Finally, BLM seeks to protect flows that support reclaimed acreage from the Umetco Superfund site. The reclamation effort is nearly complete, and the flows assist in maintaining ecology of land parcels donated by Umetco as part of the Superfund settlement.

CWCB Staff and SMC Board of Commissioners have held several public meetings to explain the potential instream flow designation and hear concerns and comments from water users and the public. Due to comments from San Miguel and Montrose counties and SWCD, the CWCB recently recommended that their decision to appropriate be postponed for approximately one year, until January 2011, to enable additional study on water availability, development possibilities, and to understand more confidently what if any impacts would be incurred on current and future water rights. For more information on the proposal and the in-stream flow program, go to: <http://cwcb.state.co.us/StreamAndLake/> Information provided by Peter Mueller, TNC, pmueller@tnc.org, (970) 728-5291 office, and April Montgomery, SWCD

MOUNTAIN STUDIES INSTITUTE

MSI, CU Boulder researchers, and San Juan Public Lands Center are finishing Phase 1 of a study to characterize groundwater-surface water interactions and possible impacts of coalbed methane development in La Plata and Archuleta Counties. MSI will be collaborating with the Animas Watershed Partnership to identify nutrient sources and measure algal growth along the Lower Animas River. MSI and collaborators are monitoring sediment in Lightner Creek in the Animas Watershed to identify sources of sediment causing turbidity. MSI will continue to partner with USGS to monitor water quality in high elevation lakes. By Koren Nydick, MSI

TELLURIDE'S NEW WATER TREATMENT PLANT

Engineering is complete, bids are in, and the contractor should be selected shortly! The Town of Telluride is moving forward to construct the new Pandora Water Treatment Plant at the head of the valley. Tucked into bedrock to protect it against rock fall and avalanches, the new plant is designed to treat 1 million gallons of water per day for domestic consumption. The water comes from Blue Lake—a cleaner, more reliable year-round water supply. Current water supplies for the Town come from Stillwell Tunnel, which dries up in summer, and Mill Creek, which is plagued by turbidity problems during spring runoff. Construction on the new plant should begin sometime in July 2010 and be finished by fall 2011. By Karen Guglielmo, Town of Telluride

MV WATER DISTRIBUTION PLAN

The Town of Mountain Village wants to develop a strategic plan to handle future water issues, like drought and equipment failure. MV hired its longtime engineering consultant Al Testa to complete a comprehensive study of the town's water distribution system. This 2 year study entailed creating a highly sophisticated and customized computerized model, used to analyze the integrity of the town's water system to see if and how it would perform in various scenarios including drought, fire suppression, and projected community build-out.

As a result, town staff, with Town Council approval, created a long-term (55 year) capital plan. In 2011 and 2012, the town intends to begin system upgrades with installation of new pressure reducing valves. In 2013, the town plans to install a new well, and in 2014 it will extend one of its main water lines to connect the Wapiti storage tanks (the town's largest tanks) with San Joaquin and Double Cabin storage tanks. The complete capital plan calls for replacement of all parts of the entire water system over their projected life span.

To reduce hardship for taxpayers and protect water system integrity, MV created a Water Enterprise Fund to insure that user fee revenues be available to pay for a portion of the system's capital improvements estimated in excess of \$160 million through 2065. By Greg Sparks, MV Town Manger

OPHIR'S 2010 WATERFALL CANYON WATER PROJECT

The Colorado Water Resources and Power Development Authority, (CWRPDA), recently approved the Town of Ophir's request for a \$500,000 loan at 0% interest rate via the American Recovery and Reinvestment Act (ARRA) to support planned improvements to Ophir's water system. In addition to federal stimulus funds, Ophir has been awarded approximately \$390,000 in grant funds from Colorado Department of Local Affairs (DOLA). At the 12/15/09 Ophir General Assembly meeting, the Town approved a contract with Reams Construction of Naturita to construct the project. Project engineering was completed by Drexel Barrell. Ophir applied for federal stimulus funds in 4/09, working with Telluride Energy, a local consulting and project development firm, which prepared the application for federal stimulus funding. "We are grateful to be receiving support from federal and state governments

for our water project,” said Ophir Town Manager Randy Barnes. “It’s awesome that even tiny communities like Ophir can benefit from federal stimulus dollars.” Improvements to Ophir’s water system will include construction of a new water infiltration gallery adjacent to the existing diversion on Waterfall Creek, construction of a new water treatment facility with upgrades to the treatment and filtration mechanism, and installation of an additional 35,000-gallon storage tank in East Ophir to improve treated water storage capacity and bolster fire suppression capability. The principal component of the proposed project is a return to using the surface water of Waterfall Creek as the Town’s primary water supply, due to concerns about the existing water system, which is based on groundwater from Werner Springs on the north side of Town. Werner Springs will be available as a back-up source. Provided by Randy Barnes, Ophir Town Manager, 728-4943

SMWC MONITORING

SMWC has supported a tributary flow monitoring program since 1995. It has grown from measuring 15 to more than 35 tributaries. Flow levels are recorded monthly from May through October. During 2004, a monthly water quality monitoring program was initiated, with support from SMWC partners. Sampling for parameters of temperature, conductivity, ph, and dissolved oxygen are performed with a YSI water quality meter. In addition, SMWC is currently funding a Riverwatch program. CDOW and Co. Watershed Network support metals and nutrient sampling by schools and watershed groups statewide. Locally, SMWC monitors six stations on the Howard Fork monthly year-round to establish baseline data on metals impacting Howard Fork water quality. During summer 2009, the alpine water quality monitoring program was continued, with funding from SWCD. Water quality data was collected at approximately 100 high alpine locations, documenting the status of headwater tributaries. Data from these projects will be included in the USGS water quality website and on the SMWC website at sanmiguelwatershed.org. These projects are funded by many watershed partners, including USFS, BLM, Towns of Telluride, Mountain Village, and Ophir, San Miguel County, Telluride Foundation, and SWCD. By Leigh Sullivan, River Ranger, 728-3204, lsullivan@mindspring.com

WILDLIFE

USFS WILDLIFE HABITAT PROGRAM

Since Craig Grother retired last year change has come to the wildlife program of the USFS Norwood and Ouray Ranger Districts. With a new biologist in the position new project planning has occurred. The Telephone Draw Rollerchop project was completed successfully last fall. Treating big game winter and transition range has been the primary focus for the wildlife program for the past several years. Current focus is on summer range. Plans are being made to re-enter and maintain the historic and natural park-like nature of the mature ponderosa pine stands habitat. To re-enter means to lay fire on the ground and maintain an open understory to reduce fuel loads and encroaching conifer. The stands will be treated with low-intensity fire to prevent overstory mortality. □ Studies are underway on the current “Sudden Aspen Decline” occurring on the GMUG National Forest. Study plots will be installed during 2010 to monitor stand mortality, browsing use by domestic and wild ungulates (cows and elk). Different treatment areas will be analyzed with study plots consisting of exclosures to keep livestock and big game out to see the response the aspen will have. The study will help identify current challenges facing aspen and treatment options for future management. On going monitoring will continue for all past treatments and as conditions allow, additional treatments will be implemented. For further information contact USFS wildlife biologist Curtis Keetch at (970) 327-4261, ckeetch@fs.fed.us

A HELPING HAND FOR SAGE GROUSE

Sage-grouse have been in the news recently. In March, the greater sage-grouse was declared warranted but precluded for Endangered Species Act protection. Although they should be listed as threatened or endangered, other higher priority species must come first. In conjunction with that decision, BLM developed stricter regulations for energy development in sage-grouse habitat. By 9/15/2010, the USFWS should announce their decision on the status of our local species, the Gunnison sage-grouse.

In the San Miguel Basin, Grouse Working Group partners have completed many projects to benefit the bird and its habitat. Highlights include a conservation easement to protect 600 acres of grouse habitat on Hamilton Mesa and another C.E. underway to protect 400 acres of habitat near Miramonte Reservoir, revising our local conservation plan, planting over 1000 sagebrush seedlings with the help of EnCana and NRCS volunteers, and getting a 2010 grant from Telluride Foundation to continue our work. The 2009 count of sage-grouse on local leks (courtship grounds) was down to 33 adult males, 11 males less than 2008. This decline led the DOW to translocate 30 grouse from the Gunnison Basin to

Dry Creek Basin. The DOW is also conducting a captive breeding program to improve sage-grouse numbers in the wild. For details go to: <http://wildlife.state.co.us/Research/Birds/GunnisonSageGrouse>. The Working Group would like to thank everyone who has helped the Gunnison sage-grouse and their habitat. For more information, call 970-626-2272 or email: LeighRobertson@netscape.com.

NRCS HELPS PROTECT SAGE GROUSE

The USDA's Natural Resources Conservation Service (NRCS) accepted applications through 5/14/2010 into the new Sage Grouse initiative. A conservation plan will be developed to help reduce threats to Sage Grouse. NRCS will utilize its Environmental Quality Incentive's Program (EQIP) and Wildlife Habitat Incentive's Program (WHIP) to implement the initiative. All applications including an NRCS approved conservation plan received priority status for enrollment consideration. NRCS' WHIP program is a voluntary conservation program to help people develop and improve wildlife habitat on private lands with technical and financial assistance. EQIP is a voluntary conservation program offering farmers and ranchers a tool to address natural resource concerns while achieving environmental benefits, by providing both technical and financial assistance.

This National initiative affords landowners the specific opportunity to help mitigate invasive species and deterioration of sage grouse habitat by targeting specific conservation practices including upland wildlife habitat management, the implementation of a grazing system that maintains feed and forage for livestock while protecting sage grouse. Other practices include water and spring developments to attract forbs and insects critical for sage grouse "chick" growth and development, installation of fences with increased visibility to grouse, water facilities complete with escape ramps, and brush management to help control piñon juniper encroachment onto sage brush grass land.

Colorado is one of 11 states able to access more than \$16 million recently made available by Agriculture Secretary Tom Vilsack and landowners within 15 Colorado counties include San Miguel and Montrose are eligible for enrollment. Tim Carney, NRCS Assistant State Conservationist states "In addition to increased funding to protect natural resources, this initiative resulted from collaboration between US Departments of Agriculture and Interior. We will implement the initiative in partnership with state and local entities such as CDOW and local Conservation Districts to improve success."

Sage-grouse are ground-dwelling birds, native to the sagebrush steppe ecosystem of the American West. Found from 4000' to 9000', they are highly dependent on sagebrush for cover and food. Despite a significant decline in population and habitat, Department of Interior will not list it as a species warranting protection under the Endangered Species Act because of the need to focus on other higher priority species" states Terri Sage, NRCS State Biologist. "That's why communication and partnership between the two departments, state wildlife agencies and local entities is critical. NRCS will intensify our on-going voluntary conservation activities." For more information visit www.co.nrcs.usda.gov. By Ashley Jackson-Baillie, NRCS Soil Conservation Technician, Norwood Field Office, (970) 327-4245, ashley.jackson@co.usda.gov

FISHING THE SAN MIGUEL RIVER BASIN-2010, CDOW REPORT

Fishing opportunities in the San Miguel River basin should be excellent this year and DOW is making progress on several exciting projects that will benefit native fish conservation in our local rivers and lakes for many years to come. Recently, DOW has worked closely with the USFS and BLM on the Ames Hydropower re-licensing. This lengthy process has almost concluded and has resulted in an agreement in principle to continue power generation on the South Fork while mitigating for some environmental impacts associated with the plant. The agreement will produce a more natural flow and temperature regime and help meet instream flows in the South Fork, and provide for reconstruction of Priest Lake. The reconstruction of Priest Lake will allow for establishment of a new cutthroat trout population and will provide good angling opportunities for this native fish. The improvement in flow and temperature regimes of the South Fork will benefit trout habitat, improve trout populations and provide angling opportunities in the South Fork and on the San Miguel main stem.

Another native cutthroat conservation project DOW has been working on is the Woods Lake reclamation project. For several years, DOW and USFS have cooperated to isolate Woods Lake and its tributaries so we can remove non-native fish and restore native cutthroat trout. This project will continue in 2010 with the goal of completing reclamation by 8/2011 and establishing a native fish population by summer 2012. Anglers will notice some impacts the next couple summers, with Woods Lake being periodically closed while parts of the project are completed. Fishing success in the lake will decline immediately after removal of non-native fish, but will quickly rebound and the opportunity to catch native cutthroats in good numbers can be expected 2-3 years after project completion. This exciting project will be a huge step forward for native trout conservation in the San Miguel River Basin.

DOW also continues to work on many aspects of native warmwater fish conservation lower in the San

Miguel River. Populations of native flannelmouth suckers, bluehead suckers, and roundtail chub have declined considerably in the Dolores River basin and these important native species need to be protected to ensure their future survival and to avoid federal listing under the endangered species act. The lower San Miguel River from Tabeguache Creek to the Dolores confluence is one of the last refuges of good native fish populations in the lower Dolores basin. Native fish in this reach benefit from a natural spring peak hydrograph that has not been altered by large dams. Base flows in the river are protected by senior water rights in the Nucla and Naturita areas. While the river is de-watered in certain reaches and fish populations are impacted, downstream irrigation flows return to the river, and good native fish habitat is provided. The current water use patterns of the agricultural community have benefited native fish in the river below Brooks Bridge. DOW has partnered with BLM, CWCB, and TNC to look at an instream flow water right to protect this vital native fishery. The proposed instream flow right would protect the existing stream flows against future depletions that would threaten the future of native fish populations. This water right would be junior to all other existing water rights in the basin and would essentially protect the existing flow conditions in the river. No current uses of senior water in the basin would be infringed upon by this new water right because, by definition, it would have a junior priority date. The instream flow water right is an important tool in preserving native fish species of the river, preventing future federal listing of the species, while continuing to allow for current water use in the basin for agricultural, municipal, and industrial purposes.

Sport fisheries of the San Miguel basin will also continue to be a large focus of CDOW. DOW will stock more than 120,000 catchable and fingerling trout in area waters for anglers to pursue. The San Miguel River between Placerville and the Pinon Bridge will receive 40,000 fingerling brown trout, 40,000 fingerling rainbows, and 3,000 catchable sized rainbow trout. The San Miguel above Placerville, including the South Fork will be stocked with 20,000 fingerling brown trout, 20,000 fingerling rainbows, 15,000 fingerling brook trout and 1,000 catchable sized rainbow trout. An exciting new management change is that rainbow trout fingerlings stocked in the San Miguel will be the new whirling disease resistant strain. This will hopefully improve the survival of the fingerlings and help return wild rainbow trout reproduction to the river.

For those who prefer flat water fishing, Miramonte Reservoir was stocked with 70,000 fingerling rainbow trout in May and 10,000 fingerling brown trout in June. Recent surveys indicate fishing should be good at Miramonte in 2010 for rainbow trout in the 14-16" range, along with the opportunity to catch a few brown trout up to 20". After several years of low recruitment of rainbow fingerlings, numbers are back up and fishing should be good for the next several years. Trout Lake should live up to its name after 7,000 rainbows are stocked in June, July, and August. Alta Lakes will be stocked with 3,000 catchable rainbow trout in June and July. Applebaugh pond near Placerville is open to fishing and was stocked with rainbow trout in May. Many high mountain lakes and streams will be stocked with Colorado River cutthroat trout in ongoing efforts to restore the West Slope's native trout to area waters. Fishing should be good at productive high elevation lakes such as Blue Lakes, Hope, Silver, Ptarmigan, and Crystal Lakes.

Efforts will also continue on developing a brood stock of native Colorado River cutthroats from the San Miguel Basin to be used in future restoration efforts. Several populations of cutthroat are being evaluated to determine the best strains to use to restock historically occupied habitat.

Anglers should have good opportunities this year to get out and enjoy the great aquatic resources of the San Miguel basin and are encouraged to be aware of and follow all fishing regulations. The daily bag limit for trout is 4 fish with a possession limit of 8. In addition, anglers may take 10 brook trout daily less than 8". The flies and lures only restriction on Woods Lake has been temporarily lifted to allow for bait fishing and increased harvest of brook trout. Be sure to check the DOW 2010 Colorado Fishing brochure for specific regulations. You can call DOW Aquatic Biologist Dan Kowalski at (970) 252-6017, or go to: <http://wildlife.state.co.us/Fishing>.

MOUNTAIN STUDIES INSTITUTE

MSI, UC Boulder researchers, and other non-profit organizations are developing PikaNET, a citizen science monitoring network for the American Pika. The program will start this summer with several training workshops in SW Colorado (dates/locations TBD) starting in mid-July. Volunteers who like to hike are encouraged to participate. Next summer 2011 MSI will re-survey high elevation vegetation plots near Lake City. Volunteers who are excellent hikers, especially those with botany skills, are needed for about 12 days of fieldwork. By Koren Nydick, MSI

VEGETATION

FOREST INSECT AND DISEASE

In recent years, the greatest decreases in forest health in San Miguel watershed have been defoliation by western spruce budworm (Douglas-fir, spruce and subalpine fir) and sudden aspen decline (SAD). Mortality of subalpine fir in the upper watershed continues at a slower rate. Mountain Pine beetle is evident at relatively low levels scattered throughout ponderosa pine. Douglas-fir beetle activity (in large diameter Douglas-fir) is evident, particularly on densely forested, north-facing slopes. Estimates of current spruce beetle activity are very low. However, it should be noted that of all of the "signatures" of dying forests that can be detected from aerial survey, spruce beetle is one of the most challenging. By Roy Mask entomologist, providing forest insect and disease expertise to federal land managers throughout SW Co. (970)642-1133

BLM RANGE MANAGEMENT

BLM's Uncompahgre Field Office has initiated the data collection phase of the East Paradox Area Landscape Health Assessment (LHA), covering approximately 80,000 acres of BLM administered lands between Naturita and Bedrock including East Paradox Valley, Monogram Mesa, La Sal Creek, Sawtooth Ridge, Club Bench, and Saucer Basin. Resource conditions will be assessed during field visits conducted by interdisciplinary BLM staff, grazing permittees and interested public. Information gathered will be used to determine status of those lands relative to BLM Rangeland Health Standards. Where Standards are not being met, the LHA will try to identify causative factors and make recommendations to address problems.

There are 9 grazing permits and 8 allotments in the East Paradox area. The 10 year term permits for those allotments will be considered for renewal in early 2011. The LHA will serve as supporting documentation for terms and conditions associated with the new grazing authorizations. By Dean Stindt, BLM Range

BLM VEGETATION UPDATE

BLM's Uncompahgre Field Office has been working on a variety of activities in the San Miguel Watershed. We are midway through our annual land health assessment, focusing on the East Paradox land health unit. A portion of this unit is in the San Miguel Watershed, and the lower river forms one of the unit's boundaries. We are utilizing a new method for the land health assessments, which incorporates some of our long term upland and riparian monitoring studies, and takes a closer look at the impacts of various uses of public lands. This approach should

increase repeatability and improve our understanding of land health trends, and extend results beyond just the grazing program. This effort will feed into review and renewal of grazing permits in the East Paradox area, along with a number of other activities. The 10 year grazing permits will be reviewed according to results from the Land Health Assessment and other environmental considerations, and adjustments will be made to address any concerns that have been raised.

Other activities in the watershed include the 420 acre Nucla-Cahone fuels treatment. This targeted tree removal has the dual purpose of protecting the Nucla-Cahone power transmission line from wildfire while increase age class diversity within the tree stand. The treatment is a series of small, natural looking openings which will give firefighters a better chance to control any wildfire which threatens powerlines. The tamarisk beetle continues to spread along the Dolores River, and up into the San Miguel. We expect to see substantial damage to tamarisk along the lower reaches of the San Miguel River this year as a result of this biocontrol. The neighboring Dolores Watershed is the subject of intensive riparian restoration efforts, and it is likely that some pilot projects will take place very close to the confluence with the San Miguel River.

The 600+ acre Grammer Fire near Norwood was seeded with native species this past winter, and a precipitation gauge with an automated call system is being set up on the burn to alert neighbors in the area should there be a threat of flash flooding.
By Amanda Clements, BLM ecologist

MOUNTAIN STUDIES INSTITUTE

MSI continues to work with the San Juan Fens Partnership, including local government, USFS, BLM, and academic researchers Drs. David Cooper and Rod Chimner, on fen wetlands restoration projects in San Miguel, San Juan, and other counties in SW Colorado. A Fen Restoration Workshop will be held on July 13 in Silverton. A meeting of the San Juan Fens Partnership will occur in Mountain Village in September TBD. By Koren Nydick, MSI

UP PROJECT COMPLETES UTE SPOTTED KNAPWEED WORK

The UP Project has completed a three-year treatment project focusing on spotted knapweed and oxeye daisy infestations in the Ute area on the west side of the Uncompahgre Plateau in the Cottonwood/Sheep Creek drainages. The treatment efforts focused on 3,000 acres of private land located on 4 ranches. Funding for this project was provided by the National Resources Conservation Service - Environmental Quality Incentives Program (NRCS-EQIP) and the Uncompahgre Habitat Partnership Program, Montrose County cost-share program, and private land owners. Powerline and pipeline right-of-ways that cross the private lands were also treated. Tri-State Generation and Transmission Association and Kinder Morgan contributed funds for these treatment costs. In addition, USFS and Montrose County treated over 10,000 acres of adjacent rangelands and county roads infested with spotted knapweed, using funding received by a 2005 Uravan Mill Natural Resources Damage Fund Grant.

The spotted knapweed infestations were originally found during the survey of the Horsefly Weed Management Area, facilitated by the UP in 2006. The spotted knapweed was found in open dry meadows, irrigated meadows, mixed in sagebrush stands, underneath oak brush (mountain shrub) and under ponderosa pine. Densities varied from 100% cover to random plants scattered over many acres within all the plant communities. When infestations were found, the UP began to coordinate with WMA partners and NRCS on a treatment strategy and sought outside funding sources to assist landowners. Four of seven landowners participated in the treatment program, covering approximately 95% of the private land in the area. Spotted knapweed was being heavily grazed in the spring by cattle. Therefore, inventories were done after the plant blooms in late July and August. As cattle moved and spotted knapweed recovered from grazing and flowered, new plants were found. Infestations were treated both early summer and fall for the three-year period, pre and post grazing. By fall 2009, the spotted knapweed infestations were reduced by 90% on 2,700 acres of private land. Annual treatments will be needed to prevent individual plants from again spreading into large infestations.

The 3 year treatment of spotted knapweed included: 2007: Over 2,900 acres of rangeland inventoried on 4 private ranches. A total of 38.5 chemical acres (actual acres of spotted knapweed) treated. 2008: The 2,900 acres of rangeland were reinventoried, finding infestations on 2 ranches had been successfully eradicated in 2007. A total of 12 chemical acres were treated on the 2 remaining ranches. These acres include both new infestations and retreatment of areas where new plants emerged from the remaining seed bank. 2009: An inventory found a new 4 acre infestation. A total of 8.5 chemical acres were treated on two ranches. Approximately 60 chemical acres of spotted knapweed were treated on private lands over 3 years. Additional acres were treated on adjacent USFS lands, within utility right-of-ways and along county roads in the Ute area.

A large infestation of oxeye daisy was found in the meadows of one of the private ranches in 2008. Treatment of this species was initiated in 2008 with on-the-ground applications. In 2009 it was determined that the best method of treating the oxeye daisy was by aerial application in the spring on meadows followed by ground application in areas where the plants had moved under the ponderosa pine canopy. In total, over 130 acres of oxeye daisy were treated by aerial and ground applications in 2009. By Pam Motley, UPP

UP PROJECT INITIATES ASPEN STUDY ON THE UNCOMPAHGRE PLATEAU

CSU, USFS, and the UP have initiated a study, 'Characterizing browsing and aspen regeneration on the Uncompahgre Plateau', that began on the plateau in spring 2010. It will focus on aspen regeneration (the successful re-growth of aspen trees from seeds and/or roots). Aspen occurs across much of the plateau in pure stands as well as mixed in with conifers. In the past few years, successful regeneration of aspen appears to be limited in many areas as a result of several potential factors including low fire frequency, Sudden Aspen Decline (SAD) and browsing on aspen saplings by big game and/or livestock. By gaining a better understanding of aspen regeneration, forest managers hope to foster more healthy aspen stands. Specifically, the study will address how browsing effects aspen regeneration, to what extent is browsing impact caused by cattle or by deer and elk, what is the pattern of browsing impact across the plateau, and are there any apparent explanations for the pattern (elk populations within local areas; season of use by elk or cattle; basic site factors (such as elevation, forest type, conifer basal area). Because the answers to these questions will most likely differ from one area to another, the study will use three methods of investigation across the plateau: Small exclosures (32 feet x 32 feet, or similar) will be set up in 13 locations. The exact locations will be developed with the help of interested permittees; Pastures will be surveyed before and after cattle use; Aspen regeneration will be surveyed at random locations across the plateau. The UP has received grants from the National Forest Foundation and the Rocky Mountain Elk Foundation to conduct this study. By Pam Motley, Education Coordinator, UP Project, www.UPProject.org, 970.209.9087

OPEN SPACE

SAN MIGUEL CONSERVATION FOUNDATION

In 2008, Governor Bill Ritter signed into law HB 1353, establishing a regulatory framework for all conservation easement holders in Colorado that accept conservation easement donations for which state income tax credits are claimed. The purpose of the program is to establish minimum qualifications for certifying organizations to encourage professionalism and stability; and to identify and prevent fraudulent or unqualified land trusts from scamming the tax credit program. In determining whether to grant or deny certification, the Colorado Division of Real Estate considers the land trust's process for accepting easements, stewardship, finance, governance and any other unique circumstances that may apply to the organization. All land trusts were required to be certified by 12/09. SMCF is pleased to announce that after a very rigorous application process our organization was awarded certification.

Two conservation easements were completed in 2009. The first was the Ferric Oxide, a 19 acre mining claim situated adjacent to the eastern boundary of the Town of Ophir. In addition to significant natural habitat for plants and animals, wetlands and beaver ponds, it also contains an iron bog and fen, both rare wetland types extremely worthy of protection.

The second easement was the 560 acre Valley Floor parcel adjacent to the Town of Telluride's western boundary. This easement is the culmination of nearly 30 years of local effort to protect the Valley Floor from development. The easement prohibits many things including construction of any structures or improvements, subdivision, grazing of livestock, timber harvesting, mining, commercial activity, hunting, camping, and athletic fields. It also allows public access for low-impact recreational and educational uses such as hiking, running, bicycling, cross-country skiing, and hang-glider, para-glider and hot air balloon landings. SMCF worked closely with Telluride Open Space Commission to develop the Valley Floor Management Plan, which, subject to terms of the conservation easement, provides both philosophical and policy guidance for the Town's management of natural resources and recreation on the property.

Both the Town and SMCF are currently working with Ecological Resource Consultants, recently hired to develop the Valley Floor Trails and Conceptual River Restoration Plan. This plan will combine the already completed baseline science and management guidelines into development of a trail system and make recommendations for potential restoration work on the San Miguel River on the valley floor.

For additional information, contact Gary Hickcox, Executive Director, SMCF, at (970) 728-1539, ghickcox@rmi.net or visit the SMCF office at 121 N. Pine St. in Telluride.

SMC OPEN SPACE/RECREATION PROGRAM

The SMC Land Heritage Program chose Bobby and Charlene Stark's North Mtn property for funding in 2010. The 880-acre property is adjacent to the Proposed McKenna Peak Wilderness Area. Since the program's inception in 1999, it has helped fund or facilitate the placement of conservation easements on 10,520 acres, of which about 3,000 acres are occupied Gunnison Sage Grouse habitat.

The Open Space Commission will be working with District 3 Commissioner Art Goodtimes, who received a fellowship from CSU to develop a Payment for Ecosystem Services pilot program. The concept is to acknowledge landowners for stewardship services such as protecting riparian or wetland areas, providing critical habitat for plants, birds or animals, or providing water for instream flow in low flow times. Payment for ecosystem services is considered an important aspect of financial sustainability for farms and ranches in the future.

The Open Space/Recreation program is funded by a 1.5 mill levy and includes parks, trails, open space, fairgrounds and historic preservation. The historic preservation part of the program just completed a county courthouse hallway restoration, managed and helped fund the listing of Matterhorn Mill to state and national registers of historic places, helped fund a temporary emergency stabilization of Matterhorn Mill, and helped fund and manage a historic assessment of the Matterhorn Mill.

This summer OSR staff and Ouray County will stabilize Ft. Peabody and interpret its vivid history. Fort Peabody is a machine gun nest at 13,000' on top of the ridge above Imogene Pass. Ft. Peabody figured prominently in the labor strife of the early 1900s. The wood has weathered considerably in the high altitude winds and shifting stone walls have shrunk the sentry post, but probably 60% of the original historic material exists. In the tiny sleeping quarters are remnants of the metal heating stove, and names of National Guard troopers carved with 1904 dates on the back wall. Though bent, even the old metal flag post may still be there.

Fort Peabody is listed on the National Register of Historic Places. The repair-in-place will use as much existing material as possible. The project will include some re-building of the walls of the gun battery and replicating dry laid methods on existing stonewalls. The SW Conservation Corps, young crews that do conservation work on public lands, is interested in participating in the project both for the exciting historic preservation work and intriguing educational opportunities. See related article in

HISTORY section. By Linda Luther, SMC OSR Program

OPHIR VALLEY PROJECT UPDATE

Located in the heart of SW Colorado's San Juan Mountains, the Ophir Valley Project in the Uncompahgre National Forest includes a backdrop of unsurpassed alpine scenery. The Ophir Valley offers abundant recreational opportunities, supports critical wildlife habitat, and contains headwaters of the Howard Fork, a tributary of the San Miguel, which TNC has called "one of the last naturally functioning rivers in the West."

While much of Ophir Valley is in public ownership, the region's mining heritage created hundreds of privately owned patented mining claims scattered across the landscape like matchsticks. Currently, the USFS hopes to have the opportunity to purchase the remaining 445 acres to total 1,145 acres of the Pauls Family mining claims acquired in the Ophir Valley. These claims had previously represented approximately 90 percent of the valley's privately owned inholdings. This conservation effort represents a strong partnership between Town of Ophir, San Miguel County, TPL, and USFS to protect Ophir Valley's subalpine and alpine environments from development, consolidate USFS management issues and protect wildlife habitat, the watershed, scenic splendor, and recreational opportunities so important to residents and visitors.

Federal appropriations provided in previous years have allowed USFS to acquire these mining claims. The President's Budget for fiscal year 2011 includes \$1 million for this project. However, Senators Udall and Bennett and Congressman Salazar's have requested an appropriation of \$4.3 million for FY 2011 from the Land and Water Conservation Fund that could help complete this conservation project in 2011. The LWCD Fund is our nation's premier federal program to acquire and protect lands providing the public with substantial social and economic benefits that will permanently pay dividends to the American people and to our great natural and historical heritage as parks, open spaces, wildlife areas and historic sites that define communities throughout Colorado.. Provided by Randy Barnes, Ophir Town Manager

VALLEY FLOOR TRAILS/CONCEPTURAL RIVER RESTORATION PLAN

In 2009, the Town of Telluride completed and enacted the Telluride Valley Floor Conservation Easement and Management Plan. These documents establish the specific policies and guidelines for management and use for Valley Floor Open Space, protecting the property's conservation and ecological values, while permitting appropriate low-impact recreational uses.

In April 2010, the Telluride Town Council decided to move forward with a key recommendation of the Management Plan to prepare a Trails/Conceptual River Restoration Plan for the property, and to perform trails and restoration planning concurrently so as to ensure integration and compatibility. These plans are important as they will influence and guide many future activities and decisions on the property, such as the priority and sequencing of future restoration efforts, where and when to re-route existing trails, location of new multi-seasonal trail, connections to regional trails, and types and character of trailheads and signage. The Plan will also form the basis and foundation for future grant applications for trails and restoration work. After a thorough request for qualifications process, the Town selected Ecological Resources Consultants, Inc. (ERC) to prepare the Plan. Subcontractors assisting ERC will be ERO Corp., Nordic Group International, and Arrowhead Trails. The Town has previous experience working with ERC, as the firm successfully completed the Valley Floor Environmental Report (also with ERO) and the second phase of the River Restoration Project in Town.

The Valley Floor Preservation Partners have provided \$30,000 in matching funds for the Plan's preparation. Work began on the plan in late-May with the first public session scheduled for June 14th at Rebekkah Hall in Telluride. Specific meeting times will be announced. The planned completion date is December 2010.

The National Trust for Historic Preservation has generously awarded the Town \$5000 (though the Valley Preservation Partners) towards stabilizing the Vezina Shed. This structure is located near Eider Creek and was identified in the Telluride Valley Floor Environmental Report as a significant local historic resource contributing to the overall historic setting of the Valley Floor. Stabilizing the structure is essential at this time to ensure its continued presence, and availability for future restoration and interpretative efforts. The stabilization activity will be undertaken during summer. By Lance McDonald, Town of Telluride

RESOURCE MANAGEMENT/PROTECTION

BLM UFO RESOURCE MANAGEMENT PLAN

The BLM Uncompahgre Field Office is revising its 1985 Resource Management Plan (RMP). The new

Uncompahgre RMP will cover about 675,700 acres of BLM surface land and about 2,234,600 acres of federal mineral estate. About 295,000 acres of the federal mineral estate is split estate, with privately owned surface lands.

The BLM held public meetings in seven communities in January 2010, including Norwood, Naturita, and Telluride. The public scoping and public comment period ran through February 29. Cooperating Agencies will meet once a month from May through September to assist BLM with the plan.

The RMP will involve many issues, including managing vegetative and water resources, terrestrial and aquatic habitat and special management areas, while sustaining biological diversity and native species populations; managing energy and mineral resources; managing increasing numbers and types of human activities and uses; managing land tenure adjustments, withdrawals and utility/energy corridors; managing and protecting cultural, historical and paleontological resources and Native American Religious Concerns; managing public lands and resources, including authorized and permitted land uses, for a growing population and an expanding urban interface, with consideration for community values and needs. Subsets of these issues include identifying lease stipulations and areas of no surface occupancy for oil and gas drilling, evaluating potential Areas of Critical Environmental Concern, assessing wilderness characteristics, managing wildfire and hazardous fuels in the urban interface, vegetation and wildlife habitat management, livestock grazing, and more. BLM will consider other issues that were brought to our attention during the public scoping and comment period.

Many documents regarding the Uncompahgre RMP have been added to the planning web page, and will continue to be included as they are developed. Access the planning web page at: http://www.blm.gov/co/st/en/fo/ufo/uncompahgre_rmp.html. To be added to the RMP mailing list, please send an email to ufomp@blm.gov. In the email, please indicate if you prefer information sent electronically or paper copy (to reduce the amount of paper used, UFO prefers electronic mailings). For more information, contact Bruce Krickbaum at 970-240-5300, or bruce_krickbaum@blm.gov.

SW BASINS ROUNDTABLE: PRESERVING AGRICULTURAL LANDS

The SW Basins Roundtable recently approved a grant to help keep working farms in active production and provide irrigated farmland for the next generation of farmers. Conserving Farmlands Partnership received a \$31,500 grant from the Roundtable to create a program to assist local communities in conserving irrigated agricultural lands as working farms.

The Partnership's goal is to prevent the continuing conversion of agricultural lands to other uses, preserve the critical irrigation water rights associated with those lands, and get those lands into the hands of young farmers. Current conservation easement programs can protect land from development, but currently there is no mechanism or program in Colorado to ensure that land remains in active agricultural production. We aim to change that.

The Partnership is using the grant to hire Jane Ellen Hamilton of Ridgway to research existing programs in other states; meet with interested farmers, ranchers, and land trusts, and develop a working program. Ms. Hamilton is an experienced land conservation attorney, former executive director of Co. Coalition of Land Trusts, and former CEO of Pitkin County Open Space and Trails. To become involved, contact Jenny Russell at 728-5006, ext. 1. By Jenny Russell, Conserving Farmlands Partnership

NORTH STAR MILL RECLAMATION

With TLR facilitating between the landowner and EPA, in fall 2009, EPA contractors completed reclamation of North Star Mill, on private property, at no cost to the landowner. North Star Mill is NE of the Town of Ophir, and N of Ophir Pass Road.

EPA's costs were estimated to be about \$750,000. Steve Merritt, of the EPA's Office of Emergency Response, served as the On-Scene-Coordinator. Before cleanup activities began last August, the EPA published the following on their website www.epaosc.org/NorthStarMill: The North Star Mill Tailings Site is a time-critical removal action to mitigate the hazards associated with historical mining activities at the site. The site is a 5-acre parcel that was patented as a mill claim in the 1920s. The North Star Mill was a 50-ton-per-day ore mill constructed on the claim in 1924 to service the nearby Carbonero Mine. It operated heavily through the 1930s, processing ore and shipping tailings via wooden flume to the Carbonero Tailings Pile along Howards Fork, just east of Ophir. It was partially demolished in the 1950s by the Silver Bell Mining Company. During operations, a significant quantity of rejected ore and waste rock accumulated next to the mill and processed tailings were spread and spilled on the site. These stockpiles and associated tailings contain potentially hazardous concentrations of lead and arsenic, along with other lower concentration non-toxic metals. The time-critical removal action will consolidate and cap these waste materials under a vegetated cover and manage surface water to prevent infiltration into the pile, thereby significantly reducing hazards present at the site. Clean-up activities included consolidation of about 5,000 cubic yards of contaminated mine waste into

an on-site repository, capped by 650 cubic yards rock imported from USFS lands in Chapman Gulch, about one mile east of the clean-up site, installation of 60 rolls of erosion prevention matting, 125 pounds of seed, 240 pounds of fertilizer, and 3,000 pounds of lime, and over 100 cubic yards of aspen mulch spread throughout the 1.5 acres of disturbed site. Provided by Pat Willits, TLR

SMA UPDATE

Sheep Mountain Alliance (SMA) is a grassroots citizen organization dedicated to the preservation of the natural environment in the Telluride region and SW Colorado. Our mission is to provide education about and protection for regional ecosystems, wildlife habitats and watersheds.

The San Juan Mountains Wilderness Act, which will preserve over 60,000 acres of public lands around the region through various congressionally designated protections, has made its way through the House and Senate committees and is headed to the floor for a vote before the end of this session of Congress. The bill is widely supported around the region, and we anticipate that it will become law in early 2011. The bill will add 3,170 acres to the existing Lizard Head Wilderness, add 21,606 acres to the existing Mt. Sneffels Wilderness, convert 8,614 acres of the McKenna Peak Wilderness Study Area into wilderness, establish 21,697 acres as the Sheep Mountain Special Management Area, and withdraw 6,595 acres from eligibility for mineral leasing in Naturita Canyon. We are grateful to all who worked diligently to help us preserve these special lands for future generations.

In 2009, San Miguel County granted Silver Mountain Industries, owner of over 700 acres in the Alta Lakes Basin, approval to develop over 400 acres of mining claims. While this proposal showed many improvements over past ones, SMA was concerned about the potential impact from the proposed 48 homes in a relatively intact forest and riparian ecosystem. We submitted comments throughout the county process and then addressed the USFS permits necessary for the developer to improve roads. Our intention was to stop development and also encourage Silver Mountain Industries to conserve the entire property. In early 2010, neighboring landowners were able to purchase the property from the developer. While there's no conservation easement in place presently, we are confident that the new owner intends to preserve the land and its valuable habitat. SMA has pursued the preservation of Alta Lakes for many years, and are thrilled that this high-elevation headwaters ecosystem is now in the right hands.

SMA currently faces one of the most challenging campaigns in our 22 year history. We intend to stop the Piñon Ridge Uranium Mill from being developed in the Paradox Valley. This mill would sit within 6 miles of the Dolores River and threatens to use 140 to 300 gallons per minute from the San Miguel River to operate. Not only would this mill and the resulting mine contribute to air and water contamination and depletion in the region, it would also be destructive to habitat of deer, elk, sage grouse, and threatened Colorado River Fish; endanger the health of those living in the region; and continue the unsustainable cycle of boom-and-bust mining economies.

SMA has formed a coalition of several conservation and social justice groups around the region to fight the permitting of this mine and to address the need for mine reclamation in the Uravan Mineral Belt in the heart of the Dolores River Watershed. After receiving a Special Use Permit from Montrose County to build the mill, Energy Fuels—the company proposing the mill—has applied to CDPHE's Radiation Control Division for a permit to operate. A decision is expected January 2011. SMA is working with experts to address significant areas of concern in the application: We have challenged the Montrose County approval in district court and the water rights application of Energy Fuels for onsite wells. In addition, we are party in a lawsuit against the DOE for leasing over 25,000 acres of uranium claims in the Uravan Mineral Belt.

We also plan to produce a thorough damage assessment of the region, including past damage—remediated and unremediated, current levels of contamination and ongoing impacts and projections of future impacts—if the mill is allowed to operate. We intend to use this document to show the need for remediation and to prevent further destruction and negative health impacts from uranium operations in this region.

Renewable energy technology continues to advance, and there is huge solar-collection potential for the west end of San Miguel and Montrose counties. These advances have not been applied to the uranium extraction industry, and mining and milling operations continue to incur the same dismal health, safety and environmental violations as in the past. We intend to prevent these impacts from happening in the future.

While focusing most of our resources on the uranium campaign, SMA continues to work with our conservation partners on the BLM's UFO RMP Revision. We're advocating for Wild & Scenic designations for stretches of the San Miguel and Dolores Rivers and their tributaries, a reform of the BLM's mining regulations and special recreational consideration for the Paradox Valley. We are also continuing to work with Dolores River Coalition on a landscape conservation plan for the Dolores River Corridor. We welcome participation in our campaigns and invite your input. Please contact us at info@

sheepmountainalliance.org, or 728-3729. Find frequent updates at sheepmountainalliance.org. By Hilary White, SMA staff

RECREATION MANAGEMENT

USFS RECREATION PROGRAM

This summer the Norwood Ranger District will be working on a number of projects including the Rock of Ages Trail, Travel Management implementation at the Telluride Ski Area and basic trail maintenance.

The Rock of Ages Trail Project will restore public access to the summit of Wilson Peak through Silver Pick Basin to the Rock of Ages Saddle. The project started in summer 2009 and will continue this summer with a planned fall 2010 completion date. The Silver Pick Trail was closed to the public in 2003 due to private land concerns. There are three main components of the project, which include upgrading Elk Creek Rd. (FSR 645), developing a new trailhead, and rerouting and connecting segments of the new trail. The Elk Creek Rd. improvements are underway and the road will remain closed to the public until further notice.

Last summer, with the help of Colorado Mountain Club, a sign plan was developed for the trail and this summer CMC will help the USFS install signs. The trail crew will continue to work on reconstruction and rerouting the trail where necessary. The USFS asks that climbing Wilson Peak do not use the new Rock of Ages Trail until project completion. Hikers are still able to access Wilson Peak by using existing trails that include the Navajo Trail, Lizard Head Trail (Bilk or Lizard Head Pass or Cross Mountain trailheads), Kilpacker Trail, and Woods Lake Trail.

In 2009 the USFS, working closely with TSG Ski & Golf, started addressing Travel Management concerns at the Telluride Ski Area by decommissioning illegal trails, installing gates to prohibit motorized vehicles and improving signage. The goal of this project is to improve compliance with the Travel Plan and improve the overall trail experience for non-motorized trail users. The Uncompahgre National Forest Travel Plan (2002) prohibits the public use of all motorized vehicles at the Telluride Ski Area, which includes full size vehicles, ATV's, motorcycles and snowmobiles. The ski area trail system is non-motorized and open to hiking, mountain biking and horseback riding.

The Norwood Trail Crew will be focusing on maintaining the following trails this summer: Galloping Goose, Hope Lake, Jud Wiebe, Wilson Mesa, Indian and Red Canyon. Trail maintenance will stabilize the tread of the trail and improve drainage helping to minimize erosion. Trail signage will be inventoried and replaced as needed.

By Scott Spielman, USFS Recreation Manager

BLM RIVER CORRIDOR RECREATION MANGEMENT

In 2009 UFO BLM staff began preliminary analysis and public scoping relating to managing commercial use of BLM lands in the San Miguel River corridor. We looked at commercial boating, walk-in fishing and trail activities in the river corridor. Public scoping revealed a significant interest in the analysis, as BLM was presented with some thoughtful and substantive comments. Because of the comments received, we concluded that it warranted a higher level of analysis than originally planned. Since the field office has begun its revision of the Resource Management Plan (RMP), a comprehensive analysis of all resources across the field office, analysis of recreation in the river corridor will be accomplished as part of the EIS currently being prepared for the RMP revision. BLM has partnered with Northern Arizona University's Department of Geography, Planning and Recreation to analyze both private and commercial recreation on BLM-managed lands in the river corridor. The findings from university researchers will inform RMP decisions affecting recreation in the San Miguel River corridor. University researchers will be working intermittently in the area for the next two river seasons.

BLM's goal is to manage settings, access and services to allow people to achieve desired experiences and positive outcomes while recreating on public lands and waters in the river corridor. By Edd Franz, BLM Recreation Staff

SMCOUNTY OPEN SPACE/REC PROGRAM UPDATE

Construction was completed on the Lawson Hill Bicycle / Pedestrian Underpass in December 2009. Last summer TNC replaced two bridges at the upper and lower ends of the fishing trail that followed the San Miguel River down Keystone Gorge. TNC also added a connector trail along the south side of the river, using the Galloping Goose Trail to complete a loop hiking route.

Plans are underway to install flush toilets and an irrigation system in Placerville Park. An irrigation system will allow the San Miguel County Parks staff to begin planting new trees and shrubbery as well as maintaining the existing landscaping.

Telluride High School student volunteers, SMC Open Space and Recreation Program and SMA have

developed a program at the Telluride School to encourage walking, bicycling and busing to school. Program goals are to encourage healthy physical activity, to reduce congestion around Telluride Schools, and to encourage environmentally friendly forms of transportation. Students who register for the “Green Star – rewarding green behavior” program get a reward for walking, riding their bikes or taking the bus to school rather than being driven to school in single family vehicles. When the student signs up he or she receives a punch card. A volunteer punches the card each day the student walks, rides their bike or takes the bus to school. When the student has received 20 punches he or she gets a treat. Until Baked in Telluride burnt down students would get a gift certificate for a slice of pizza and a cookie. Now student gets a \$5 gift certificate from the Sweet Life, provided at a generous discount. Students who participate will be entered into a grand prize raffle at the end of the year for a new bicycle. The raffle will be weighted so students with more punches will have a better chance at the grand prize. Many thanks to Alpine Bank, BIT, Just for Kids Foundation and SMA for their support. By Kari Distefano, SMC Open Space/Rec Program

EDUCATION

TELLURIDE FOUNDATION’S ALTERNATIVE FUTURES STUDY

Over the last several years, the Telluride Foundation has embarked upon finding answers to the questions “what direction is Telluride headed?” and “how will future population increases, housing, jobs, traffic and mining impact the region?” Through a Special Initiative grant, TF contracted with the Graduate School of Design at Harvard University (Harvard) and the Massachusetts Institute of Technology (MIT) to conduct an “Alternative Futures” Study, which took 2 years to complete and involved a public, community-based effort.

The Study used advanced global information systems (GIS) computer modeling to project the 20-30 year economic, ecological and community impacts of various near term decision scenarios. The principal objectives of this study were to understand and model regional scale economic, ecological and community interactions and to assist TF and regional community leaders in decision making that might affect the future of the region, including San Miguel, Ouray and west Montrose counties.

The Study results emphasized the interdependence of Telluride and the surrounding communities, acknowledging that Telluride had a profound influence on the study area. Housing markets, labor markets and commercial markets are closely linked among Telluride, Ridgway and Norwood. If the demand for second homes and retirement homes in the greater region continue to increase, there will be pressure on labor and housing markets that will raise costs and further exacerbate the social challenges facing Telluride, particularly the full-time residents of Telluride. The Study evaluates many critical issues facing the region, looking across jurisdictions and over the long term, and suggests that the only long-term solution is a regional solution. According to the Study’s final report, “there is an obvious need to increase greatly the regional coordination of planning efforts among the towns and counties, and to coordinate with the several public agencies which control large amounts of land in the Telluride Region. This applies especially to regional issues such as planning for public transportation and new roads, visual management and ecological policies.”

For the Alternative Futures final report, to be posted 6/10, and for more information, please visit <http://telluride.alternativefuturestechnologies.com/>.
By April Montgomery, Telluride Foundation

TELLURIDE SUMMER COLLEGE

The University Centers of the San Miguel (UCSM) and The New Community Coalition (TNCC) are partnering with local organizations and Mesa State College to offer eight college credits in four weeks. The Telluride Summer College runs from 7/12 to 8/8 and includes the internationally recognized Permaculture Design Certificate, Introduction to Sustainability, Native Plants of the San Miguel Watershed, and Teaching Movies that Matter with Mountainfilm.

Local experts create the opportunity to offer classes on essential subjects and skills. Classes are available for credit, and non-credit at a reduced rate making them accessible for everyone. College and high school students, teachers needing graduate credits, and those interested in learning about these topics are invited to participate. Career advancing certificates including the Permaculture Design Certificate and the UCSM Certificate in Sustainable Studies are also available. Classes last from 3 to 12 days, and people can enroll in one or all of the classes.

UCSM is the non-profit higher education organization for San Miguel Watershed and neighboring communities. UCSM offers accredited courses, non-credit continuing education classes, and college counseling. For more information, contact Robyn Wilson at 970-369-5255, or go to www.ucsanmiguel.org

WATERSHED EDUCATION

The Watershed Education Program (WEP) of Telluride Institute held its second annual Snowshoe Overnight with Norwood Middle School in March, 2010. Eleven students, two teachers, and three WEP specialists participated in a 2.5 mile snowshoe tour to High Camp on Lizard Head Pass, an avalanche awareness and safety course, sledding, snow cave construction, and team-building exercises. Students also participated in discussions of San Miguel and Dolores Watersheds, including snowmelt and environmental and ecological factors on the rivers. For many students this was their first time on snowshoes, and first introduction to the high country in winter. The trip was made possible by a generous donation from San Miguel County, and Cindy Farny, the owner of High Camp. By Laura Kudo, WEP

MOUNTAIN STUDIES INSTITUTE

MSI continues its 10 week summer natural resource internship program for the third year. MSI and collaborators are delivering the ³My Water Comes from the San Juan Mountains² children's book and activity guide to 19 schools in SW Co., including several schools in San Miguel County, this spring and fall. Check the website for Moving Mountains Education events for the public. MSI continues work on the Animas River Corridor Revitalization/Trails Project in Silverton. MSI is operating a scientific field station in Silverton for its 6th summer and is working to purchase a field station property in Silverton. MSI hosts a variety of research projects and educational groups. For more info and newsletters, see www.mountainstudies.org. Contact: Dr. Koren Nydick, Nydick_k@fortlewis.edu

SAN MIGUEL WHITEWATER ASSOCIATION

The San Miguel Whitewater Association is comprised of 95 paid members and hundreds of river users on our email list and is an affiliate member of American Whitewater. Our main goal as a group is to protect and be a voice for our local watershed and the rivers of the world. We are kayakers, rafters, canoeists, fishermen, and more. As a group we understand the importance of a healthy watershed to us both commercially and for personal recreation. We feel the river needs a voice too so we get involved in important issues whenever possible. We have several goals for 2010. We understand the threat of instream flow issues on the lower San Miguel and are involved in protecting minimal instream flows we believe are necessary to support a healthy river ecosystem. We intend to stay apprised of the issues and be an active voice to help maintain instream flows for the river.

We are in support of a redesign of the CCC diversion structure on the San Miguel River. We would like funding to be approved for a redesign of the structure to allow for safe boater passage as well as fish passage to spawning grounds. We are also still trying to build a whitewater play park. Ridgway is very interested in re-designing their play park in town. We are planning on working with them to redesign those structures to make them safer and more user friendly for all river users.

We will host another annual river clean up day of the San Miguel through the valley floor just before Bluegrass festival so visitors can enjoy that section of river in all her splendor. In an effort to raise money, we are hosting a World Premiere showing of the kayak film Hotel Charley V to kick off Mountain Film Festival. This night is a fundraiser to support American Whitewater and SMWA. We also raise money through a kayak swap at Jagged Edge. These fundraisers help fund kayak lessons for kids that cannot afford them. By teaching kids kayaking, we help to grow the sport of boating and encourage river stewards for future generations. By Cari Mackey, SMWA, Jagged Edge, cari@jagged-edge-telluride.com, 728-9307 store, (970) 596-0662 cell

PINHEAD TOWN TALKS-2010 SUMMER SCHEDULE

□The Science Research

Center and Pinhead Institute are proud to bring Pinhead Town Talk science lecture series to the regional community for our 8th season. NEW LOCATION AT THE PALM THEATER in the Telluride Intermediate/High School, 725 W. Colorado, Every Tuesday Evening, July 6 - August 3, 6:00 – 7:15 pm, Free admission, Donations needed

Tuesday, July 6 - 7:15pm, “The Decline of Human Health and the Rise of Civilization: A surprising relationship” By Mark Cohen, SUNY University Professor of Anthropology □

Tuesday, July 13, 6- 7:15pm, “Coca versus Cocaine: How an ancient medicinal plant became a modern narcotic drug” By Carol Conzelman, PhD Cultural Anthropology, University of Colorado and University of Denver □□FIRST OF A TWO-PART PROGRAM ON SOLAR FUELS FOR THE 21ST CENTURY: Capture and Production, Tuesday, July 20, 6- 7:15pm □“Following Nature’s Blueprint:

Mimicking photosynthesis to fuel the planet” □By Victor Batista, Yale University Professor of Chemistry, Director of Yale Undergraduate Studies in Chemistry, and member Yale Climate and Energy Institute □□SECOND OF A TWO-PART PROGRAM ON ON SOLAR FUELS FOR THE 21ST CENTURY: Storage and Delivery, Tuesday, July 27, 6- 7:15pm, □“Fuels from Sunlight: Storing solar energy to meet global energy needs” By Michael R. Wasielewski, Northwestern Univ. “Clare Hamilton Hall Professor of Chemistry”, Director Argonne-Northwestern Energy Research Ctr., 2010 R. Stephen Berry Lecturer □Tuesday, August 3, 6- 7:15pm, Palm Theater □“Wine, Chocolate, and DNA: The chemistry of free-radicals and antioxidants” □By Cynthia Burrows, Distinguished Professor of Chemistry at University of Utah □□ PINHEAD PUNK SCIENCE
Each summer, children learn about atomic reactions, chemistry, and physics in FREE hands-on, kid friendly activities with leading PhD scientists. Punk Science courses are held each Tuesday from 7/6 through 8/3 from 5-6pm at the Telluride High School Basketball Court.

PINHEAD “ART AND SCIENCE CAMPS”

Science is part of everything we do, and the more we understand, the more we can appreciate and conserve our natural world. Pinhead Institute is excited to join forces with the Ah Haa School for the Arts to offer science courses that allow children an opportunity to explore and discover nature & chemistry through art, thereby introducing participants to alternative ways to understand & appreciate the world of scientific study. In these camps, kids will investigate, invent, experiment, interpret, discover, and share what they have learned. Most important of all, kids will have fun using their hands & minds!
Contact Ah Haa at www.ahhaa.org or 970.728.3886 to register

Nifty Nature: Trees, Bugs, Birds & Bees, July 5 - 8, 2010

Monday - Thursday from 9:00 AM - 4:00 PM, (with lunch break), Ages: 6+
\$400 for four full days, Instructor: Lisa Christadore (Boston University)

Become an eco-artist at Ah Haa this summer! Where do insects live? Why are flowers different colors? Can all birds fly? Each day a Pinhead scientist will teach kids how nifty nature can be & how field science is conducted. Get ready for outside adventures and activities to show how to observe the natural world around us! Students will spend afternoons gathering materials from outside to create nature-themed art! Projects will include recycled creations, leaf pruning, track molds, bark rubbing, a scavenger hunt and more! Dress for a mess!

Fizz! Bang! Pop! Squish! The Art of Mad Science, July 19-22, 2010

Monday - Thursday from 9:00 AM - 4:00 PM, (with lunch break), Ages: 6+,
\$400 for four full days, Instructor: Dr. Rosemary White (Boston University)

Are you ready to mix up some wild & wacky concoctions? Each day we will uncover the wonders of science through experiments & exploration with an expert Pinhead scientist. We will mix powders, make slime, discover planets, and grow crystal! Get your lab coats & goggles ready! In four art-filled & educational afternoons, kids will participate in hands-on activities such as a chemistry scavenger hunt and building a sculpture out of their found objects, creating invisible ink, and getting messy! Dress for a mess! By Sonchia Jilek, Executive Director, Pinhead Institute, 970.708.7441
www.pinheadinstitute.org, sonchia@pinheadinstitute.org

The 2010 Pinhead Town Talks and Pinhead Punk Science programs are being scaled back because of reduced funding. To help, mail a tax-deductible check to TSRC, PO Box 2429, Telluride, CO 81435. TSRC and Pinhead would like to especially thank TMVOA for many years of generous support hosting the Town Talks at the Conference Center in Mountain Village. By Nana Naisbitt, TSRC Executive Director, 970-708-0004 cell, nana@telluridescience.org, www.telluridescience.org, □
SUSTAINABILITY

SMC UPDATE

San Miguel County is dealing with new, stringent budget constraints as a result of the recession. While property tax revenues remain relatively stable to date, all other sources of County revenue are in decline, including sales tax, fees for building permits, road and bridge funding from the state and federal funding of payment in lieu of taxes for public lands that comprise over 60 % of SMC land. Meanwhile County services such as the food stamp program and foreclosure proceedings are on the steep rise. SMC is addressing these challenges by maintaining vital county services while tightening budgets in all departments.
The County has several accomplishments to report. The Board of Commissioners recently adopted specific text amendments to the County Land Use Code intended to implement the Wrights Mesa

Master Plan that was updated in 2008. The purpose of these LUC amendments and new zone districts is to protect the rural and agricultural character of WM and allow for town-level residential and light industrial uses within the Norwood Master Plan Boundary. The next step in this ongoing process will be to consider rezoning properties on WM to these new zone districts through a public process.

After 11 years of proposals, lawsuits and planning, Tri State Generation and Transmission's back up power line is approved for construction. This will improve power transmission to the east end of San Miguel County.

The bike underpass and keystone gorge trail are now complete! These are great additions to regional trail systems.

SMC continues to track and comment on Energy Fuels proposal to CDPHE for a uranium mill to be located in Montrose County. SMC will host a public meeting on the subject with CDPHE on 6/9/10 in Telluride. Energy Fuels has been invited to describe their proposal. A group of concerned citizens has been invited to speak about opposition to the mill. Public comment will be taken at the meeting. SMC bids farewell to 3 year 4H director Jack Krebs, who left Norwood to return to Wisconsin. He will be missed! The 4H program will be restructured as budget and participation with Montrose County allow. By Joan May, SMC Commissioner

TNCC UPDATE

The New Community Coalition is entering its 4th year of work to facilitate a more resilient future for people and places in San Miguel County. Energy continues as our main work project, but food security, education and economy are also important projects.

In 2009 we finished our administration of the Governor's Energy Office renewable energy rebates that were matched in funding by San Miguel Power Association. Some rebates are still available and interested parties should contact SMPA and Source Gas to find out more.

TNCC was granted funds from the GEO to create a regional Community Energy Board. We have many deliverables, culminating in Strategic Energy Plans for San Miguel and Ouray Counties. Our Western San Juan Community Energy Board has regular meetings and is moving forward in plan creation. Look for more Energy STAR for New Homes activities and workshops in our region.

Local food issues came to the forefront of our work plan in the past year. TNCC received funding from Telluride Foundation to perform a Regional Community Food Assessment. We will measure regional agricultural production of food crops, the market for local food within the region, and identify barriers to better connections to enhance our local food system. We're very excited to assist the local food movement and hope to help more farmers and ranchers grow great local food.

We continue to work with local festivals on compost, recycling and trash. We'll help the Town of Telluride's Ecology Commission with their concentration on recycling education this year. We had fun in the spring teaching people how to start their own worm bin. It was hands-on and folks left with a worm bin of their own to turn their food scraps into beautiful worm castings.

Education is the core of all our programs. TNCC brought the Science Explorers program back to the region this past spring. Over 15 teams of middle school students gathered for hands-on learning sessions in renewable energy and energy efficiency. They were able to test efficiency of various styles, numbers and alignments of wind turbine blades, investigate what kind of insulation was most efficient at slowing evaporation of dry ice, and discover how the season and angle of the sun should affect how you design and build your home.

This summer Executive Director, Kris Holstrom will co-teach a Permaculture Design course and Sustainability 101 through UCSM, and Energy 101 at the 5-star Wilkinson Public Library. The UCSM courses can be taken for college credit, or for high school students, dual college and high school credit.

Our economy is on many minds currently. TNCC helped form a Regional Economic Futures Task Force group that meets frequently to try to come up with specific recommendations to enhance our local visitor-based economy. We were thrilled to host Gunter Pauli at the library in early May. He presented information outlined in his book "The Blue Economy: 10 years, 100 innovations, 10 million jobs". One-third of the ideas in the book are already in 'off-the-shelf' mode and the paradigm shifting changes they represent are fascinating. Look for The Blue Economy to be featured in the Social Issues book club at the library this summer. To find out how you can help create a more sustainable future, visit our website at www.newcommunitycoalition.org, email coordinator.tncc@gmail.com or call 970-728-1340. By Kris Holstrom, TNCC

TSG SUSTAINABILITY EFFORTS

The Telluride Ski & Golf Resort's environmental work has evolved to cover a broad range of conservation initiatives and educational endeavors. Please visit our website www.tellurideskiresort.com, for information on initiatives including Watershed Protection, Air Quality and Fuel Reduction,

Waste Reduction and Recycling, Composting, Water Conservation, Energy Conservation, Education and Community Programs and Environmental Awards, and the Nature Center.

We are very proud of Eco Adventures, which opened 12/09. Located in the Franz Klammer Breezeway in Mountain Village, it is designed to connect the entire family to the surrounding Telluride region through educational adventures. Open in both winter and summer seasons, daily children's environmental programs are available with experienced interpreters and instructors providing opportunities to connect with and learn about our unique local environment.

To learn more about our environmental initiatives and the region, visit the San Sophia Nature Center, located atop the Coonskin Ridge near the Gondola. The Nature Center's environmental programs feature native wildlife education, children's nature activities and crafts, and guided interpretive hikes about Telluride's flora and fauna. The Center is open daily from 9 to 4pm, starting in early June.

TSG continues to strive toward outstanding environmental stewardship. Our programs have won acclaim in the ski and golf industries, including the National Ski Area Association's Golden Eagle Award for Environmental Excellence, the Regional Forester's Caring for the Land Stewardship Award, and certification in Audubon International's acclaimed Cooperative Sanctuary System program for golf courses. TSG collaborates with USFS, the Telluride and Mountain Village communities, San Miguel County, and local environmental groups to find solutions to sustain the region's economic, cultural and environmental health. By Elizabeth Howe, TSG Executive Director of Resort Services, 970-728-7522, www.tellurideskiresort.com

MV EFFORTS

Mountain Village's environmental staff is working with the town's Public Works Department to prevent excess sedimentation from entering the watershed at snow storage sites and other sensitive areas along town roadways. This effort is part of an ongoing project by the town to protect wetlands and other sensitive areas within the watershed that could be potentially impacted by town operations. Local ecological consultant Chris Hazen developed a Sensitive Areas Protection Plan for the town to assist staff with prioritizing and addressing sites where different erosion control methods could be applied to prevent pollutants from entering the watershed. The plan also includes an environmental education component that will be provided to residents, businesses and employees throughout the community.

The first sites to be addressed are the town's snow storage areas, where large piles of snow removed from roads and parking areas contain road ash and gravel that could wash into nearby streams. Town intends to install and monitor biodegradable coir logs and experiment with a new type of silt fencing, made entirely from recycled plastics that can be reused, which allows water to pass through it while catching the sediment. Other projects include replacing or fixing failed culverts and improving drainage systems.

Aspen forests in some areas of SW Co. have experienced widespread, severe, and rapid dieback and mortality. This phenomenon, termed Sudden Aspen Decline (SAD), has increased dramatically in recent years. In 2008, 553,000 acres of damage were recorded, affecting over 17% of the estimated aspen cover in the state.

Aspen forests are typically dynamic and have always responded to changes in climate, frequency and intensity of disturbance, and succession to other forest types. But the current situation is different from the usual changes in regard to the large scale of the dieback, the speed of mortality, and the typical agents causing the mortality. Scientists speculate there are three interacting groups of factors that appear to be involved: predisposed factors like low elevations, south to west aspects, and open stands vulnerable to warm drought; hot, dry conditions that existed from 2000-2005 which weakened the vulnerable stands; and contributing factors such as insects, like tree cankers, borers, and aspen bark beetles, and diseases capable of killing trees under stress. At this time, tree size and age does not appear to be a factor.

Aspens are generally stimulated to reproduce when the upper canopy of the tree is disturbed. Curiously, there is no significant regeneration response to overstory loss from SAD. When sprouting is poor, other vegetation types can take over the site and the aspen clone could die.

In an effort to protect the beautiful aspen stands in Mountain Village, staff Forester Dave Bangert has attempted to regenerate the trees by cutting trees of varying sizes before their root systems become too weak to respond. These treatment areas can be seen along Mountain Village Boulevard and in other places in MV where there is potential for SAD. No treatments are guaranteed to protect Mountain Village's aspens against SAD, but it appears that managing the diversity of age structure throughout the stand has increased the resilience of the landscape.

To support to the town's Zero Waste philosophy, Mountain Village residents and commercial businesses that use Waste Management as their trash and recycling provider can now recycle more

types of plastic than ever before. Starting immediately, Waste Management will accept all rigid plastic containers with the numbers 1 through 7 for recycling. The new "rigid rule" applies to many items not previously collected, including milk jugs, lids, yogurt and food containers, detergent and juice containers.

Unfortunately, the new rule does not include flimsy plastic items like grocery bags. The town continues to ask all residents and guests to minimize use of plastic bags to the greatest extent possible, and to carry reusable bags when shopping in the Village.

Town recreation staff is looking forward to a second successful season of the new Mountain Village Bike Park, which provides free downhill trails to riders with intermediate to expert abilities. Five trails combine three miles of singletrack that include smooth, rolling cruises and exciting jumps, drops, and berms. The bike park starts near the top of the gondola's Station St. Sophia and ends at Station Mountain Village and the MV Center. Use the free gondola to transport you and your bike back to the top after each ride to make for a free, fun-filled afternoon adventure in the Village. For more information call the Village's Recreation Department at (970) 369-8236. Trails are not patrolled – ride at your own risk!

Now that the Mountain Village Bike Park is open for business, the USFS has made the popular Ridge Trail open for hiking only. The Ridge Trail begins at the gondola's Station St. Sophia, and travels down 2 miles and about 1,000 vertical feet along the ridgeline to the Village Center below. The beautiful trail switches through aspen forests where the trained eye can spot a periodic Douglas fir, juniper, and even the rare Rocky Mountain Maple and mountain willow along its course. Wildflowers abound in the aspen understory throughout the summer and deer are often found lounging in the shadows. This trail has seen some damage in the past from extensive bike use, but the town expects to see some natural rehabilitation occur as a result of moving the bike traffic to the nearby downhill bike park. The Ridge Trail is a great hike for young and old, easily accessible from the town's free gondola for an uphill or downhill experience in nature. By Deanna Drew, MV staff

SOLAR PV PLANT TO BE BUILT IN NORWOOD

San Miguel Power recently announced they have signed an agreement with SunEdison to develop a two megawatt solar photovoltaic plant SE of Norwood later in 2010. SMPA has contracted to purchase electricity from the facility for 25 years. SMPA is also considering some small hydroelectric projects to add to its renewable energy portfolio. Information provided by SMPA. For questions or comments, contact Becky Mashburn, Communications Executive at 626-0212, energywise@smpa.com

HISTORY

GUNS OF IMOGENE

A century ago there were millions to be made in the San Juan Mountains in gold and silver mines, but not by miners. The early days of pick and pan prospecting gave way to deep shaft industrial mining, and miners traded muscles and brawn for a few dollars a day to work under increasingly dangerous conditions.

As more miners and mill workers died from cave-ins, explosions from dangerous gases, and silicosis in their lungs, they demanded better working conditions and an 8 hour workday. Fierce competition from capitalist mine owners and immigrant mine workers resulted in increasing tensions and calls for unionization. In Telluride in 1903 mine workers went on strike and Gov. James Peabody, in bed with wealthy mine owners, called out the Colorado National Guard.

Montrose resident Mary Joy Martin has chronicled the rise of the Western Federation of Miners and its hero Vincent St. John in her book *The Corpse on Boomerang Road*, which may become a major motion picture. She writes vividly of Bulkeley Wells, a captain in the Co. National Guard who took command of Troop A, First Squadron Cavalry, comprised of cowboys, Wells' employees at the Smuggler-Union Mining Co., and a few union-hating locals. Martin writes that Wells declared martial

law in Telluride with “mass deportations on special trains, false criminal charges, beatings, threats, and arrests without due process. No one could leave the county without official permission.” As illegally deported miners trickled back into Telluride over Imogene Pass, National Guardsmen under Wells’ command built a wooden sentry post complete with small stove, flagpole, and stone sniper or machine gun nest with a Colt rapid-fire machine gun. He named it Fort Peabody after the governor. It’s still there.

Started in 11/1903, workers completed the post in the freezing weather of 2/1904. Historical archaeologist Jon Horn explains, “Even after the Telluride strike was finished in 1904, Wells continued to station his own men at the post as late as 1908 to deter the flow of union sympathizers into the region. Fort Peabody remains as the only post in Colorado built specifically to control union activists.” Mary Joy Martin wants people to know that a governor had the gall to permit a border patrol station to prevent workers from entering a Colorado county. Bulkeley Wells committed suicide during the Great Depression. Union organizer Vincent St. John, who dedicated his life to better working conditions for the laboring man went to federal prison under false charges. Information from Andrew Gulliford, professor of SW Studies and History, Ft. Lewis College, gulliford_a@fortlewis.edu

CCC HISTORY

The Colorado Cooperative Company was organized in 1893 in Denver, Co., and incorporated 2/16/1894. One thousand shares of stock were issued at \$100 per share.

Finding a suitable location was the next problem, since the site would have to contain enough land to support a good-sized community; land that could be irrigated. In the summer of 1894, B.L. Smith, one of the organizers, started out with a team and wagon in search of a desirable location. He scouted the state and ended up in Placerville where early settlers directed him to Tabeguache Park. Tabeguache is an Indian word meaning sunny-side of the hill. Tabeguache Park was actually a mesa containing several thousand acres of sagebrush covered land sloping gently to the south. Lying several hundred feet above the San Miguel River, it overlooked the entire San Miguel Basin. When a preliminary survey showed that it could be irrigated with water taken from thirteen miles upstream, the members were unanimous in their decision to make this their project.

The Company was publicized through its own newspaper, The Altrurian. The paper was first published in Denver and the company immediately began soliciting members for the colony. Later the paper was published at Pinon.

In 1894 the CC families packed their belongings and headed over the Rockies to build the ditch. In fall of 1894 the first camp was established in Naturita, a small settlement on the San Miguel River, at the foot of the Park. Naturita Camp was located near John Ream’s present residence. Eighty acres was leased from Rockwell Blake. Crops were planted and a small ditch was built from Naturita Creek to irrigate the land. It was completed in July, just in time to save the crops. That first year the colonists were so busy raising food and building a ditch from Naturita Creek that it was September before the course of the big ditch was surveyed. Necessary roads had to be built before a sawmill was brought in and set up in the timber near Ute. With all of this preliminary work to be done, it was February, 1896 before any ground was broken and the first dirt was removed from the ditch. By Marie Templeton, San Miguel historian

MESSAGE FROM THE SMWC BOARD

SMWC’s guiding principle is to enable all watershed stakeholders to communicate, collaborate, and accomplish together what we can’t accomplish alone. Our 2010 goals are: Watershed Health Report Card Update-incorporated into this newsletter; CCC Ditch/Fish Ladder-progress toward installation, River Ranger-Continued sponsorship of RR program, which includes extensive water quality and quantity monitoring work, especially important in light of climate change concerns.

Our ultimate goal is a healthy watershed that provides a sustainable and quality lifestyle. These important projects are made possible by your financial support. Please join us in the effort. If you are a member, THANK YOU, and please renew your membership.