

## STATE OF THE SAN MIGUEL ANNUAL REPORT 2010 OVERVIEW

During the 2009/10 winter the headwaters of the San Miguel received close to average precipitation. Several dust storms during the spring runoff season deposited dirt layers in the snowpack, which triggered faster than average melting. The lower river reached nearly 3000 cfs during mid-April when the low country melted off rather quickly with a warm spell. Temperatures stayed relatively cool in May compared to 2009. The upper San Miguel reached flows over 1100 during late May. Then it reached a second peak over 1300 on June 8<sup>th</sup>. The second peak caused some out-of bank flooding and moved lots of wood and obstacles in the upper river. After this peak, the river dropped off rather quickly. There was a significant fire in the Beaver-Mackenzie creek area near Norwood Bridge. The river running season lasted until about the fourth of July. The later part of July and early August were quite wet, with several significant mudslides. The occurrence of significant fires throughout the west was down somewhat due to consistent and heavy moisture.

### HEADWATERS AREAS

The headwaters of the San Miguel consist of the Wilson, Sneffels, and Trout Lake/Ophir ranges. Wilderness designation protects portions of the Lizard Head and Mt. Sneffels ranges. A proposal for designating additional wilderness in the watershed has gained local support and been received enthusiastically by Colorado senators and Congressmen. It has continued to move through Congress and the Senate in 2010, with significant support. High elevation lakes and streams were monitored throughout the watershed for water quality parameters during 2010 by the river ranger, with funding received for the third year from Southwestern Water Conservation District. Data will hopefully be available later this fall on the Coalition website at [sanmiguelwatershed.org](http://sanmiguelwatershed.org).

Below the peaks, the mesas surrounding Telluride continue to be developed, especially Turkey Creek, Deep Creek, Hastings, Specie, and Wilson Mesas. The mesas traditionally have provided wildlife habitat and migration corridors, and an arena for agriculture and ranching. Efforts continue to protect wildlife habitat and migration corridors, as development continues. SADS-sudden aspen death syndrome, has appeared throughout the watershed. The disease attacks aspen trees most commonly on south facing hillsides at lower elevations. Drought tends to weaken the trees. The spruce budworm has also become more prevalent in the upper watershed, preying on spruce and Douglas and sub-alpine fir. It was less severe in 2010 than 2009. Educational tree tours about forest health sponsored by TNCC were held again.

### HOWARDS FORK

This tributary drainage is a narrow steep valley, which holds the town of Ophir. Heavy impacts from mining contaminate the stream to the point that few fish survive. The town has worked for many years to preserve open space in the valley and its main side canyons, Waterfall and Swamp, with assistance from the San Miguel Conservation Foundation. An additional TPL project is currently in progress, which will transfer more privately owned mining claims in the Ophir valley to the USFS via the Trust for Public Land. Efforts by the TPL to purchase Pauls claims in the Ophir high country with Land and Water Conservation Funds will continue into the future. The EPA has continued to support monitoring work in the Howard Fork valley, partnering with the State of Colorado, USFS, TLR, and SMWC to collect further water quality data to work towards additional future mine cleanup efforts. In fall 2009, the EPA performed a remediation project on the Northstar Millsite, a privately owned mining claim where the mill that processed the Carbonero tailings is located. During late September 2010, the EPA and State of Colorado are partnering on a project to drill wells above the Carbonero adit, in an effort to further research the source of the adit water, which erodes the hillside so strongly. In addition, the EPA, State, and USFS are meeting to look at options for remediation project to address the Carribeau adit. The town of Ophir is currently changing the source of drinking water to surface water in Waterfall Creek, with funding from Department of Local Affairs, and a loan from the Federal Reinvestment and Recovery Act. The revegetation of the Carribeau tailings, about a mile up the valley, performed by the landowner during summer 2008 showed some vegetative growth. It is hoped that it will reduce metals loading to the Howard Fork. Monitoring by the river ranger with the state sponsored Riverwatch program should help determine the effectiveness of this project. A cleanup of the Carbonero tailings by the USFS is underway during summer 2010. A couple acres of the Ferric Oxide claim were donated to the USFS by the town of Ophir, who acquired the lands as open space. This land will serve as part of the repository for the tailing cleanup, and SMCf holds a conservation easement on it to protect rare wetlands-and iron bog and fens. Tailings have been pulled back from the

Howard Fork, recontoured, and covered with a geomembrane layer, and rock over that. Stabilizing rip-rap supports the pile, and drainage is diverted away from wetlands. A diversion just above the Ophir Post Office feeds water to the Ames hydroelectric plant. Work occurred on the leaching pond below the Silverbelle tailings, below the highway to reduce metals leaching into the Howard Fork. Additional tailings cleanup is ongoing at the site.

#### LAKE FORK

The dams on Hope Lake and Trout Lake were created to feed the Ames power plant. Currently, residential development continues in the Trout Lake and San Bernardo areas. Acid mine leaching may be occurring from the Matterhorn, San Bernardo, and Butterfly mine sites. A large, unstable landslide area overhangs the river just below the confluence of the Lake Fork with Wilson Creek. Directly across the river from that confluence a gravel pit sits on private property along the old railroad grade. Immediately below the Lake Fork drops over two waterfalls and into the Ames end of the Ilium valley.

#### SOUTH FORK

Just below the small subdivision of Ames, and the confluence of the Lake Fork and Howard Fork, the river goes through a relatively pristine area, consisting of a mix of USFS lands, private lands, and a preserve protected by the Nature Conservancy. Good wildlife habitat, with spectacular view of the Ophir Needles and Ames wall, is relatively free from recreation and mining impacts.

Further downstream former USFS camping areas have been converted to day use areas, to mitigate former grazing and recreation impacts. Road closures and revegetation efforts are allowing riparian vegetation to start healing from heavy impacts in the past.

A mudslide draining from Turkey Creek sometimes overflows in the river, and can create sedimentation problems. Extensive beaver dams have thrived in the area. Further downstream, cottonwoods in the old Mary E and Sheep Corrals camping areas have been damaged by fluctuating/decreasing water table levels, possibly caused by gravel mining in the confluence area. The Mary E campground is closed until further notice. Gravel mining near the confluence of the South Fork and the mainstem caused stream channel undercutting to move both upstream and downstream from the confluence. Revegetation efforts of formerly mined areas at the confluence, funded by grant money from the National Fish and Wildlife Foundation and USFS seem to be getting more native plants established.

Also of note in the South Fork are ice flows, which were taken into consideration in the FERC license renewal process of the Ames Power Plant. The ice flows may be affected by water temperatures influenced by the release of flows from the Trout Lake Dam. During winter 09/10, water column mixers were again installed near the lake's outflow to cool lake-bottom temperatures. Flow release modifications for power peaking from the power plant outlet combined with the cooler lake-bottom temperatures were designed to encourage the formation of a stable ice cover on the South Fork and mainstem. Studies continue. Aquatic issues are important in the re-licensing process as well. In early December 2009 a settlement agreement was signed by authorized representatives from USFS, Co. Dept. of Natural Resources, and Public Service of Colorado which defined operation changes to power plant operations affecting flows in the South Fork. In addition, Public Service was given a period of six years to reconstruct Priest Lake, which will be owned and operated by 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.

#### MAINSTEM

The mainstem of the San Miguel is formed by Bridalveil and Ingram falls. The Bridalveil hydropower plant continues to generate electricity at Bridalveil falls. The Idarado mine site, at the head of the valley, is currently in the post-construction monitoring phase of a Superfund cleanup project, administered by the State of Colorado, and designed to reduce impacts created by high country mining and tailings located along the main stem. The long-term goal is to improve and maintain the water quality to the point that zinc levels have been reduced to the point that brown trout can survive. The Town of Telluride continues work towards adding surface water from Blue Lake in Bridalveil basin to the town's water supply. Construction of a water processing plant at Pandora went to bid in 2010 and will be constructed in 2011. Bear Creek was purchased many years ago by the San Miguel Conservation Foundation, and is managed by the Town of Telluride, to protect resource values. During summer 2010, the town of Telluride annexed the Bear Creek preserve. Extensive development in and around the town of Telluride continues to impact the main stem through town. In recent years, the Town of Telluride received Natural Resource

Damages funding, matching with other grant funds, to do two river restoration projects within the town limits. These projects worked to restore a more natural channel, and regenerate more native vegetation. Extensive storm water management work within the Town helps reduce impacts to water quality from storm water runoff. The Town of Telluride continues to work to mitigate potential flood impacts of Cornet Creek. Water diversions for snowmaking and golf course watering deplete watershed stream flows on an annual basis. Tailings and channel diversions remain on the valley floor. During 2010, the Town of Telluride continued to work to implement a management plan for the Valley Floor. SMCF, the Town of Telluride, and Ecological Resource Consultants are working to finalize a Valley Floor Trails/Conceptual River Restoration Plan. Remediation work in the Prospect Creek area of the valley floor has been completed by Telluride Ski and Golf. Tailings near Lawson Hill were constructed into a ball field. Remediation work for tailings on the valley floor near Boomerang is being negotiated by Idarado and the USFS. An access agreement for reclamation of the Society Turn tailings on the valley floor is being negotiated between Town of Telluride, Idarado, and State of Colorado. Keystone Gorge remains relatively pristine, providing an important wildlife migration corridor and riparian vegetation. A parcel containing the riparian corridor of the Keystone Gorge was acquired by the Nature Conservancy, which will protect riparian values long-term! This parcel was transferred to county ownership, after trail improvements and installation of two new bridges provided for public access.

#### MAINSTEM BELOW CONFLUENCE WITH SOUTH FORK

Impacts from recreation, mining, grazing, and development threaten the mainstem of the San Miguel as it winds its way through San Miguel and Norwood canyons, and eventually to its confluence with the Dolores. BLM continued the process of updating their land use plan for our watershed in 2010. BLM manages much of the river corridor, with both ACEC-Area of Critical Environmental Concern, and SRMA-Special Recreation Management Area designations in the canyon. During late fall 2010, BLM will hold public meetings to allow stakeholders to weigh in on whether 16 segments of river found eligible for Wild and Scenic protective designations are suitable. BLM will conduct public meetings in October and November in both the upper and lower watershed to educate the public and receive input concerning eligibility of stretches of the San Miguel for potential wild and scenic status.

#### NORWOOD AREA

Engineering of a proposed "fish ladder" planned to be built at the diversion dam for the CCC ditch, just a short ways below Horsefly Creek in Norwood Canyon was completed in 2010 by Flywater Engineering. Recently grant funding from CDOW's Fishing is Fun Program for \$117, 600 has been secured. This will allow construction tentatively scheduled for late fall/low water 2011.

#### WEST END

Tamarisk eradication work in the lower end of the SM watershed has been completed. Ongoing work continues in the lower Dolores watershed. Maintenance will continue into the future.

BLM is working on a Land Health Assessment in the Lower San Miguel watershed this year. Reports, including information on water quality are due in spring 2011. (CHECK THIS)

A uranium mill is being proposed by Energy Fuels for the Paradox valley. The project's financial feasibility is contingent on the price of uranium. Recently, the state submitted a request to Energy Fuels, asking for more information on potential impacts to air quality, partially due to concerns voiced by local government, citizens, and non-profits. A decision on the application for the mill is due January 2011.

Phase III of the Uravan Natural Resource Damage project, diverting intermittent drainages away from inactive uranium mines is being engineered during fall 2010, with work scheduled for spring 2011.

CWCB's decision on an instream flow recommendation by CDOW and BLM seeking flows from Calamity Draw to the Dolores Confluence has been postponed until January 2011. The instream flow is being recommended because of three fish species of concern-falnnel mouth sucker, bluehead sucker, and roundtail chub. Also, the San Miguel provided habitat for globally imperiled and other important riparian communities with its' free flowing river hydrology.

#### MILE BY MILE SUMMARY

Mile 0- The Telluride Gravel plant near the confluence has caused sedimentation and stream channel alterations in the past. Ongoing revegetation and weed controls efforts continue. Telecam's affordable housing complex is currently being readied for expansion.

Mile 1- The Telecam industrial park thrives on the south facing hillside. Trash from a garbage transfer site often impacts the river corridor here. Private property owned by Alexanders has been impacted by residential and recreational use. It is closed to camping, with day use allowed.

Mile 2- A limited amount of residential use continues just above Deep Creek, on Alexander's lands. Near Deep Creek and the highway barn, the old river road, now closed to camping and vehicular use, and BLM lands start.

Mile 3-6-The river road (M59) continues past Silverpick road to just above Sawpit. The old road was closed in 95. Thirteen years of day use and non-motorized use only has allowed riparian vegetation to recover. Mudslides continue to impact this area repeatedly. At Silverpick, BLM trail register tracks use of the river road, and boat launches. A State Voluntary Cleanup of vanadium in the Silverpick area is currently underway. Radioactive materials are being removed from the site. Just below the end of the river road, a bulletin board marks BLM lands. This large easy access pullout continues to be abused, littered, and used as a human waste repository.

Mile 7-12-From Sawpit to Placerville, BLM and private lands intermix, with extensive riverside development. Public access is available at BLM's historic tram site, and the county's Down Valley park below Fall Creek, and below the park in Placerville. Woods Lake is in the upper reaches of Fall Creek, fed by both Fall Creek and Elk Creek. A fish barrier was constructed at the lake's outlet. The USFS and CDOW are working to establish a native cutthroat trout hatchery. Reclamation is scheduled for 2011, with hopes for establishment of a native fish population by 2012.

Mile 12-14-Below Placerville, a mix of BLM and private lands line the river. A developed campground called "Caddis Flats" was opened in 2006 at RV Corner, a site which has been used for camping for many years. It includes a toilet and a boatramp. Additional river channel restoration occurred in late fall 2008 to protect the highway where the river nearly undercuts it, thanks to BLM/CDOT partnership.

Mile 14-Near Specie Creek, a boat ramp and picnic facility sees extensive use by commercial outfitters during boating season.

Mile 15-The Middle Nature Conservancy preserve protects a section of river, limiting recreational use to day use only. It is popular for fishing. The Specie creek gauge, which measures flow levels, is near here.

Mile 16-20 Prime riparian vegetation and classic rapids make this beautiful section popular with boaters and fishermen. Saltado creek enters below the large power lines.

Mile 21-24-Private and BLM lands intermix, with extensive recreational use at the Beaver Creek boat ramp, near the mouth of Beaver canyon. An additional campground at Lower Beaver Creek provides a restroom and boat ramp, A day use area provides toilets and a picnic cabana near Norwood Bridge. This area was heavily impacted by a fire in June.

Mile 24-27 For three miles the Sanborn Park Forest Access road parallels the river, with limited recreational impacts in a few scattered camps, and private ownership limiting river access near the Cascabel ranch.

Mile 27-35 The river leaves all roads through Norwood Canyon, dropping into ponderosa, then pinyon-juniper and cottonwood forest. A diversion weir near mile 32-33 poses a potential hazard to boaters during boating season. It also limits fish migration. Funding has been secured to build a fish ladder/boat channel during late fall 2011. Prime wildlife habitat and limited recreation co-exist with historical agricultural use. Horsefly Creek enters on the right near mile 30.

Mile 36-39 A BLM/county road parallels the river for the "Ledges" section, where rock ledges form large holes and rapids during high water. Cottonwood and Rock House BLM campgrounds include restrooms and a boat ramp to manage increasing recreational impacts from boaters and hunters.

Mile 40-46 The river flows through another roadless section between Hwy. 90 and the power plant. The lower section is mostly private land. Irrigation water spills back into the river, forming waterfalls down rock faces visible from the road above. Another diversion weir forms a hazard around mile 43-45. Portage on the river right, with land-owner's permission.

Mile 47 Power plant location. River temperatures here are often higher because of de-watering of the channel from the CCC Ditch and release of warmed waters from the power plant. The State Water Quality Control Division and Tri-State entered an agreement that the maximum temperature at end of pipe would be 86 degrees F. Below here the river is in a transition zone from cold water to warm water fishery. During 2008 Tri-State did more studies on the impacts of releasing warm water into the river.

Mile 47-52 The river flows through mostly private lands in the Naturita area. Public access is available at the Naturita town park. Watch for man-made river hazards. Increasing oil and gas development is evident in the lower end of the watershed. The primary concern is the effect of sediment released by oil and gas construction sites on water quality and aquatic habitat. State stormwater permits required for all construction activities impacting more than an acre. Currently most of the oil and gas development is occurring in the Dry Creek watershed, a tributary of the San Miguel. However, thousands of acres of land in the watershed, mostly in the Norwood area, have been leased for potential oil and gas development in the recent years,

Mile 53 The stream channel is altered by the Naturita gravel plant.

Mile 54-67 The river flows through a mix of private and BLM lands below Naturita. The Nature Conservancy has preserved a section of the high desert ecosystem in the Tabeguache preserve-610 acres and 6.5 river miles. From below Naturita Creek to the confluence with the Dolores the river, current increases in uranium development have influenced the State Water Quality Control Division to add uranium standards to their water quality standards.

Mile 67-69 The Uravan mine site stores uranium mining waste near the river shores. Private land. Reclamation work at the mill site at Uravan was completed in 2007. As part of the agreement between the state and Umetco to cleanup the mill site, Umetco's water rights were put into a trust to be used to complete reclamation activities at Uravan. These water rights are to be transferred to the Colorado Water Conservation Board after all reclamation is complete. Umetco is currently determining what water will be needed in the future to assure ongoing success of reclamation and revegetation activities at Uravan. Discussions will be held to determine the best possible use of these water rights.

Mile 70-72 A BLM/county road parallels the river through a slickrock canyon down to the confluence with the Dolores. Remnants of the hanging flume provide visual reminders of extensive local mining history.