

Representative Stream and Wetland Restoration Projects



ENVIRONMENTAL CONSULTANTS

679 E 2nd Ave Unit E2
Durango, CO 81301-5563
(p) 970-259-9595 (f) 970-259-0050

SME's experience in design, construction and monitoring of stream and wetland restoration projects dates back to the late 1980's in the Central Valley of California and includes the successful creation of more than 800 individual wetland features totaling hundreds of acres throughout the western US.

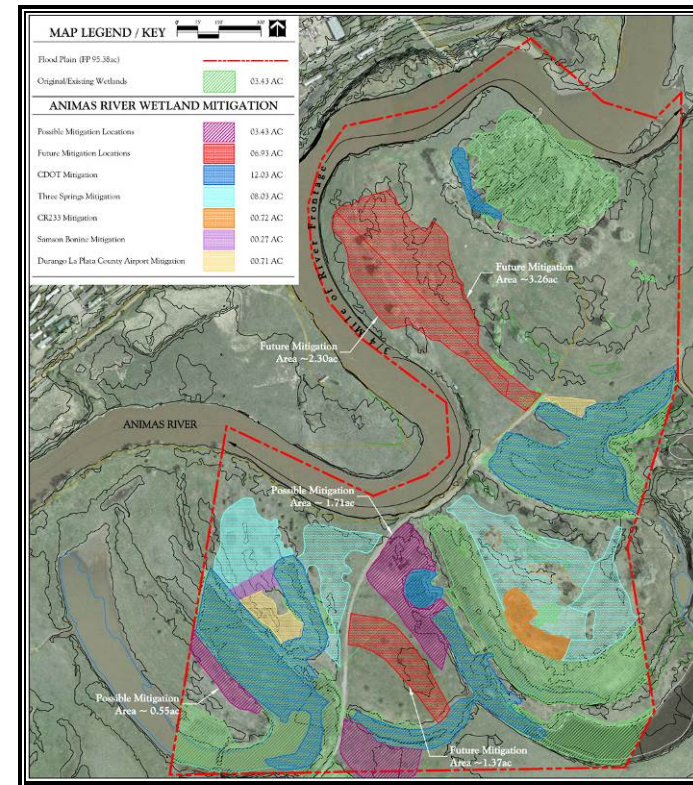
SME has been headquartered in Durango, Colorado since 1995 and has completed design, construction and monitoring on approximately 40 stream and/or wetland restoration projects in the Four Corners region, including permittee-responsible mitigation for various entities and the design and permitting of the Animas River Wetlands, LLC Mitigation Bank. Additionally, SME facilitated over 50 restoration/enhancement projects associated with temporary impacts that required post-construction monitoring by the U.S. Army Corps of Engineers (USACE) to ensure success. SME has also completed over 100 annual mitigation monitoring reports per USACE specifications associated with these projects.

Animas River Wetland Meanders Site La Plata County, CO – 1996 to 2009

The Animas River Wetlands Meanders (ARWM) site is located in Durango, Colorado and is approximately 107 acres in size. In 1996-1997, the owner and operator of ARWM worked with CDOT to construct required wetland mitigation for the Purgatory Highway Widening Project. The objective of the mitigation project was to restore, create and enhance riparian and floodplain wetland functions of ±12 acres associated with abandoned channels and oxbows within established conservation areas on the property.

Sugnet Environmental, Inc. (now SME) conducted extensive baseline studies on the site. After the collection and thorough analysis of this baseline data, distinct 'conservation areas' were isolated on the property where mitigation would have the greatest level of success and mitigation for the Purgatory Highway Widening Project was constructed in 1997. This project was deemed successful by the USACE after three years of monitoring data indicated project success. Subsequently, an additional 15 acres of successful wetland mitigation has occurred on this site for a variety of other projects in the Animas River watershed including La Plata County, City of Durango,

Durango-La Plata Airport, Samson Resources Company, Three Springs, and Mercy Regional Medical Center. SME has provided all design, construction management and mitigation monitoring on all subsequent phases



Services included site assessment and data collection, restoration design, project permitting, construction supervision and management, and site monitoring.

La Plata County Public Works Department La Plata County, CO – 1997 to Present

Dating back to 1997, SME has completed environmental compliance tasks on approximately 25 projects for the La Plata County Public Works Department. Some of this work was completed under on-call environmental contract between 2004 and 2009. Other projects were completed between 1998 and 2011 as part of individual design projects. A significant component of this work has included site-specific wetland mitigation design for infrastructure projects involving small impacts with enhancement and restoration of wetlands on-site.

SME has also assisted the county in 'big-picture' mitigation planning, as to address more long term wetland mitigation needs. These solutions have included creating mitigation at both the Animas River Wetlands, LLC mitigation bank and at the ARWM site (both described herein).

Durango Mountain Resort La Plata/San Juan Counties, CO – 2000 to Present

SME was contracted by DMR in 2000 to delineate wetlands and inventory buffer areas on ±612 acres to assist with the development of the resort's master plan.

The DMR Master Plan is that of an alpine resort community (8,500-9,000 ft elevation) in the tradition of small resort towns and development is anticipated to continue over the next 15-20 years. At this time, construction has begun on three of six planned villages.

SME assisted DMR and resort developers with overcoming an array of environmental issues under jurisdiction of the USACE, USFWS, CDPHE, CDOT, La Plata/San Juan Counties, and Purgatory Metro District as build-out occurs.



County planning requires review of development plats as each area of DMR is developed with emphasis placed on buffers, wetlands, and stormwater management. SME identified wetland riparian buffers to provide wildlife habitat and protective pathways, protect water quality, and function as visual/noise barriers. Mapped buffers are compared to development plans and replaced as needed at a 1:1 ratio. On-site mitigation design, construction and monitoring by SME are ongoing since 2005, including stream rehabilitation/restoration (±1,140 linear feet) and wetland creation (±0.61 acre).



In 2008, SME evaluated several off-site mitigation sites suitable for fen restoration and coordinated two areas (±3.25 acres) for fen mitigation credit working with the USFS and Mountain Studies Institute. With two off-site and five on-site wetland mitigation sites now included in the DMR mitigation plan, SME continues to manage and monitor DMR's complex mitigation strategy to ensure compliance with DMR's 404 Permit.

Animas River Wetlands, LLC Mitigation Bank La Plata County, CO – 2007 to Present

In 2007, SME began baseline studies (hydrology, soils, vegetation, wildlife, historical land use) on an 80-acre site

located at approximately 6,600 ft elevation near Hermosa, Colorado through which the Animas River and Falls Creek both flow. The work was conducted in anticipation of the creation of a mitigation bank on the property.

SME continued to work with the owners of the property to design 50 acres of wetlands and riparian buffer on and abutting both the Animas River and Falls Creek, including preparation of the prospectus and bank enabling instrument (BEI) which outlines how the bank will operate. The approval process for the BEI involved coordination with an Interagency Review Team comprised of the USACE, USEPA, USFWS, USDA NRCS, and La Plata County. The BEI was approved and permitted by the USACE in August of 2010. Nationwide Permit 27 was also procured for implementation of mitigation project in 2010. Since establishment, SME has conducted annual monitoring.



Adjacent to the mitigation bank, through NRCS funding and oversight, bank stabilization efforts were also approved via Regional Permit 37. The project installed brush mattresses in four disjunct segments along the Animas River totaling 1,835 linear feet along the river bank. In addition to, and abutting, the bank stabilization activities, riparian vegetation was planted to form a continuous riparian buffer zone.

Three Springs Development Durango, CO – 2001 to 2010

Three Springs is a ±621 acre mixed-use master planned community developed by GF Properties Group LLC, the real estate development division of the Southern Ute Indian Tribe's Growth Fund. Three Springs provides two Mixed-Use Urban Centers (Villages). Build-out at Three Springs may include up to 2,283 residential units and 864,000 SF commercial over the next 15-20 years.

SME conducted baseline environmental studies on the entire parcel including biological resources inventory (wildlife and vegetation), soils analysis, and wetland delineation. In 2001, SME procured Clean Water Act Section 404 Individual Permit from the USACE and associated Section 401 from the USEPA, permits were authorized based final mitigation plan including on-site

design for stream enhancement, wetland creation and upland buffer areas (±28 acres) and off-site wetland creation (±16 acres) at two different locations. All required mitigation was successfully constructed prior to project build-out. In 2010, SME completed the fifth year of monitoring within the on-site areas with USACE sign-off procured upon submittal of annual monitoring report.



Year 1 (2005) ↑

Year 5 (2009) ↓



Off-site mitigation (photo to left) received USACE sign-off; photos above are from one of the successful Three Springs off-site mitigation sites at the ARWM site (2007).

Goeglein Road Site for City of Durango Durango, CO – 2003 to 2010

SME was contracted to design stream enhancement along approximately 2,000 linear feet of an existing intermittent stream located adjacent to residential lots within the Sky Ridge development. The project included the creation of 0.09 acre of palustrine emergent wetlands, 0.09 scrub-shrub wetlands and 0.11 acre of palustrine forested wetlands as well as enhancement within 1.48 acres of upland adjacent to the intermittent stream and created wetland areas. Photo below depicts the site post-construction.



Services included wetland delineation and jurisdictional verification procurement; CWA 401/404 permit from the USEPA/USACE; grading and planting plan for stream enhancement/restoration and wetland creation design; monitoring of the stream enhancement/ restoration and wetland creation with annual reports to the USACE.

Keyah Grande Ranch Archuleta County, CO – 2005 to Present

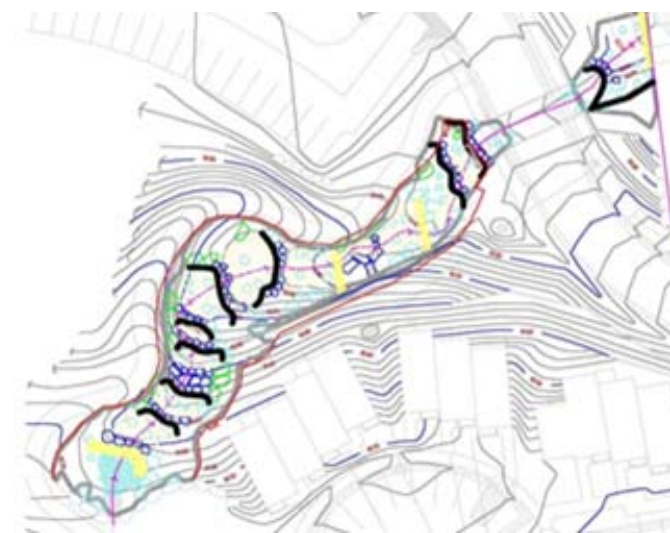
Keyah Grande Ranch is located west of Pagosa Springs in Archuleta County, Colorado. The project entails gravel mining and subsequent restoration activities on the property within the Devil Creek channel and floodplain. SME (formerly Sugnet Environmental, Inc.) prepared stream and wetland restoration design, and construction documentation as part of an overall landscape plan for the 30-acre site with existing and proposed gravel pits. These plans were used to procure associated permits for both mining and restoration activities from the DMG, CDPHE, USACE and USEPA. Clean Water Act Section 404 Individual Permit issued by the USACE involved wetland mitigation, stream restoration design, water augmentation planning, hydraulic monitoring, ecological function assessment, and establishment of conservation easements.

Stream channel restoration was managed by SME, completed in 2013, and is depicted below. Two wetland restoration areas have been completed with construction of additional areas scheduled for 2017. SME continues to monitor the site regularly in accordance with authorized permits and submits annual reports to the USACE.

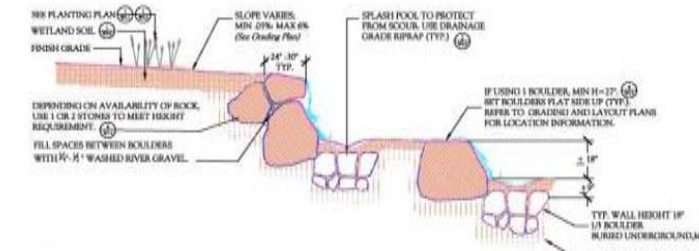


Sinclair Meadows-Brush Creek Enhancement Project Snowmass Village, CO – 2007 to 2008

Sinclair Meadows is a condominium development in Snowmass Village, Colorado that needed to create 0.39 acres of aquatic resources as a condition of the CWA 404 Permit for the project. The project site is approximately 23 acres in size and located at 8,180 feet elevation. SME developed a design to transform an entrenched ditch located at the entry way to the development into an attractive stream and wetland complex, meeting both mitigation and aesthetic requirements. The result is a series of 2' high wide terraces, with varied width, that drops 25 feet over 325 feet. By reducing the existing water sources' concentration and velocity, and gently grading the terraces and surrounding areas, SME was able to promote a proper hydrologic regime for a stream/ wetland/riparian complex.



Additionally, SME worked within the development constraints to design a permanent shallow-emergent wetland area within the proposed sediment-retention pond that handles stormwater runoff from the site. The result is a wetland area that functions both for stormwater retention and aesthetic qualities.



SME prepared design, grading and construction documentation, specifications, cost estimate and provided some construction oversight.

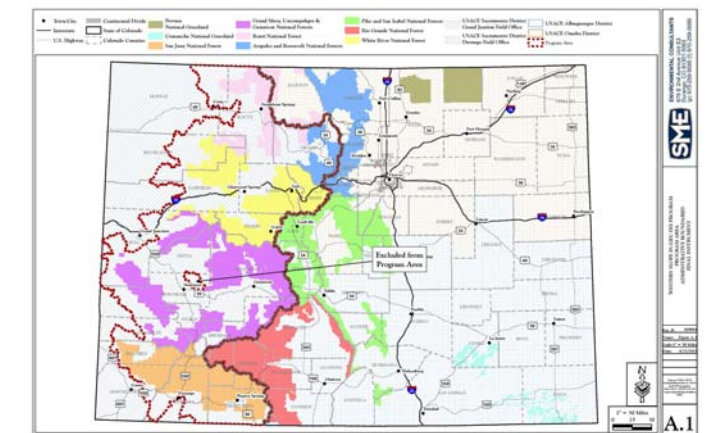
Aspen Village Wetland Restoration Pagosa Springs, CO – 2011 to 2015

Aspen Village is a mixed-use development that required the construction of 0.8 acre of wetlands as on-site mitigation for development-related impacts. Services provided by SME included obtaining a Section 404 Individual Permit (IP) for the entire development, wetland design, and oversight of wetland construction. The IP included a Mitigation Plan, which incorporated: baseline data, construction methods, timing/sequence, monitoring requirements, adaptive management, site protection, and long-term maintenance. The wetland construction was completed in the Spring of 2015 (photo below).



Western Slope In-Lieu Fee Program Colorado – 2014 to Present

The National Forest Foundation is working to establish an in-lieu fee (ILF) program to provide a compensatory mitigation option to compensate for or replace functions and values of aquatic resources degraded or destroyed as a result of activities permitted by the Sacramento District of the USACE under Section 404 of the Clean Water Act within the western slope of Colorado (the "Program Area"). The ILF program will be open to the public for projects within the ILF program area.



The approval process for the program involves coordination with an Interagency Review Team comprised of the USACE, USEPA, CDPHE, and CPW. SME has prepared the prospectus and final instrument which outlines how the ILF program will operate. It is anticipated that the program will become operational the Winter of 2016/2017.

Carpenter Natural Area Wetlands Cortez, CO – 2015 to Present

The Carpenter Natural Area is City Park located in Cortez, Colorado. On behalf of CDOT, SME designed two wetland establishment areas for the purposes of providing compensatory mitigation for CDOT and City of Cortez road and trail projects in the vicinity. Services provided by SME included wetland delineation, biological assessment, wetland design, and Section 404 permitting. Construction is scheduled for Fall of 2016.

SME References

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| Glacier Club at Tamarron | CDOT Region 5 |
| Animas River Wetlands, LLC | La Plata County |
| Durango Mountain Resort | City of Durango |
| National Forest Foundation | Galloway |
| Three Springs/SUIT Growth Fund | Keyah Grande |



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