



Aquatic & Wetland News



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The Win-Win of Mitigation Banking

If you have received this newsletter, chances are you're somewhat familiar with Section 404 of the Clean Water Act and wetland mitigation regulations. Mitigation banking is a federally endorsed regulatory option that has been available for almost a decade, but is just beginning to become popular in the rapidly growing Rocky Mountain Region. Mitigation banking offers a regulatory alternative that is appealing to both project sponsors and environmental regulators.

Mitigation Banking is wetland creation or restoration that is undertaken in advance of a project to compensate for unavoidable wetland impacts. Total mitigation is tracked on a balance sheet using a credit and debit method. Created wetland acreage is recorded as a credit and can be sold to project sponsors to compensate for wetland impacts (debits).

Mitigation Banking makes sense for project sponsors because mitigation requirements are handled with one cost effective transaction. Lengthy permitting, design and construction have already been completed by the bank sponsor. So, when the mitigation is required, projects can proceed on schedule. Project sponsors such as municipalities or developers who find that they have ongoing small mitigation requirements in a specific geographic area can appreciate the economy of scale that banking offers.

Environmental regulators can also appreciate the efficiency that banking offers because the permitting for several projects can be handled with one mitigation project.

Most importantly, mitigation banking makes sense for

The orchids are blooming and the mice are scurrying (Ute Ladies' Tresses and Preble's Meadow Jumping to be specific). So if you are planning a project in the Colorado Front Range that may impact wetland or riparian areas, give AWC a call today to discuss your need for a Threatened and Endangered species survey.



the environment because one large functioning wetland is exchanged for small fragmented parcels. The regulatory guidance for mitigation banking stipulates that the service area of a bank is the area (e.g. watershed, county) wherein a bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources. In

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Regulatory Update

Work on Summit County SAMP Continues

The Sacramento District office of the U.S. Army Corps of Engineers (ACOE) reports that the Special Area Management Plan (SAMP) which is being developed for Summit County will be based on the "Hydrogeomorphic Classification of Wetlands" (HGM). HGM is a system which is gaining popularity with agencies nationwide (and is replacing the Wetland Evaluation Technique or WET). HGM relies on comparison to modeled, reference wetland sites (i.e., wetland types and functions that are important to the specific region).

To date there have been no models prepared on any reference wetlands in Summit County. In the absence of the developed models, the SAMP Technical Team is going forward with a hybrid functional assessment technique that uses the HGM classifications of wetland habitat (e.g., riverine) and looks at the field indicators outlined in HGM. To facilitate this hybrid system, the SAMP team has formulated a region-specific table of wetland subclasses, as HGM uses classes that are too broad for use in Summit County.

(See Update page 3)

The AWC Design/Build/Grow Teams

Consulting

Specializing in stream and wetland restoration, regulatory issues, wildlife habitat enhancement, and environmental assessments.

Construction

Specializing in the construction of ecological restoration, reclamation and native landscaping projects.

Nurseries

Specializing in wetland and riparian plants for the Rocky Mountain and Southwest Regions.



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Return of the Natives

Featured Species:

Spiranthes diluvialis

Ute Ladies' Tresses Orchid

Although the first specimens of this Federally threatened orchid were collected in 1880, it was over a century later in 1984 that the flower was identified as a new species and given the name *Spiranthes diluvialis*. One year after it was identified as a new species, the orchid was listed as a federal candidate for threatened/endangered species. The genus name comes from the Greek and means coiled flower. The species name is derived from the Greek *diluvium*, meaning flood or deluge and refers to the flower's preference for streamsides and wet meadows. This unusual wild orchid was originally known as the Plateau Ladies' Tresses because with just a little imagination the coiled arrangement of the flowers resembles braided hair. This was changed to Ute Ladies' Tresses in recognition of the plant's occurrence in the ancestral lands of the Ute Indian Tribe (Federal Register 1992).



S. diluvialis seems to like to have its feet wet for at least part of the growing season and prefers lower elevations (below 6,500'). All known sites for *S. diluvialis* are near major streams or along abandoned meanders where ample subsurface water percolates through the alluvium underlying lush meadows. In some cases, the orchid even grows in running water. Populations of the plant have been discovered in Utah, Colorado's
(See Orchid page 4)

Chrysothamnus nauseosus

Rubber or Stinky Rabbitbrush

The nomenclature for rabbitbrush is quite descriptive and provides a concise snapshot of this native species. Its scientific name is very literal and is derived from the Greek "*chrysos*" meaning gold and "*thamnos*" meaning shrub. "*Nauseosus*" can be translated to mean ill smelling. So, in strict interpretation, Rabbitbrush is the gold shrub that stinks. The stink may refer to the foul odor that is omitted when the leaves are crushed. "Rubber" in the common name refers to the fact that the plant has been suggested as a source for rubber. In fact, rubber content can be up to 7% dry weight.

Chrysothamnus is a pretty addition to both xeric landscaping and native reclamation. The shrub can grow up to seven feet in height but is typically much smaller. It produces clumps of brilliant gold flowers in the summer and is a good source of color for a water wise flower garden.

Rabbitbrush is an excellent plant for erosion control. It has a deep root system and can establish rapidly even on severe sites. It produces a large amount of leaf litter which acts as a mulch and also recycles nutrients into the soil. In the winter, drifting snow accumulates around them and provides added moisture in the spring for species near the base of the shrubs. It vigorously invades disturbed sites such as road cuts, overgrazed range or burned areas. 🌿

Wetlands and Development Can Go Together

AWC is currently directing the extensive landscaping of a visionary new housing development in Southern Jefferson County. According to Bill Swalling, president of Skyland Meadows Development, the long-term goal of The Meadows Sanctuary is to develop a community where residents are invited to get involved with their surroundings. To facilitate this involvement, the development will feature cascading streams, ponds, native landscaping, a nature trail and unique cul-de-sac parks.

The centerpiece of The Meadows Sanctuary will be its natural park, more than 11 acres in size. Through coordination with Foothills Park and Recreation District, Urban Drainage, Jefferson County, and the Army Corps of Engineers, this area is being enhanced and transformed into abundant wildlife habitat. The plant material chosen for the project was selected for its tendency to attract birds and other wildlife. In addition, what was once a degraded drainageway has now been transformed into a natural park area complete with two ponds replete with recirculating waters.

More than 2,000 wetland plants, including water lilies, 3,000 willow cuttings, and 100 cottonwood trees have recently been planted around the two ponds in the community. When the development is complete, the park will include 300 trees, 9,000 shrubs and more than 33,000 wetland plants.

Skyland Meadows Development is also working with the National Wildlife Federation in an effort to become the first new development in the United States to register in its Community Wildlife Habitat program. The program encourages residents to use environmentally sensitive landscape techniques in their own backyards.

The centerpiece of The Meadows Sanctuary will be its natural park, more than 11 acres in size.

Skyland Meadows Development and the Meadows Sanctuary project is among the ranks of several of AWC's clients who understand the attraction that water and wildlife have for people and believe that wetlands and drainageways can be enhanced and transformed into an asset for a residential community. ➤

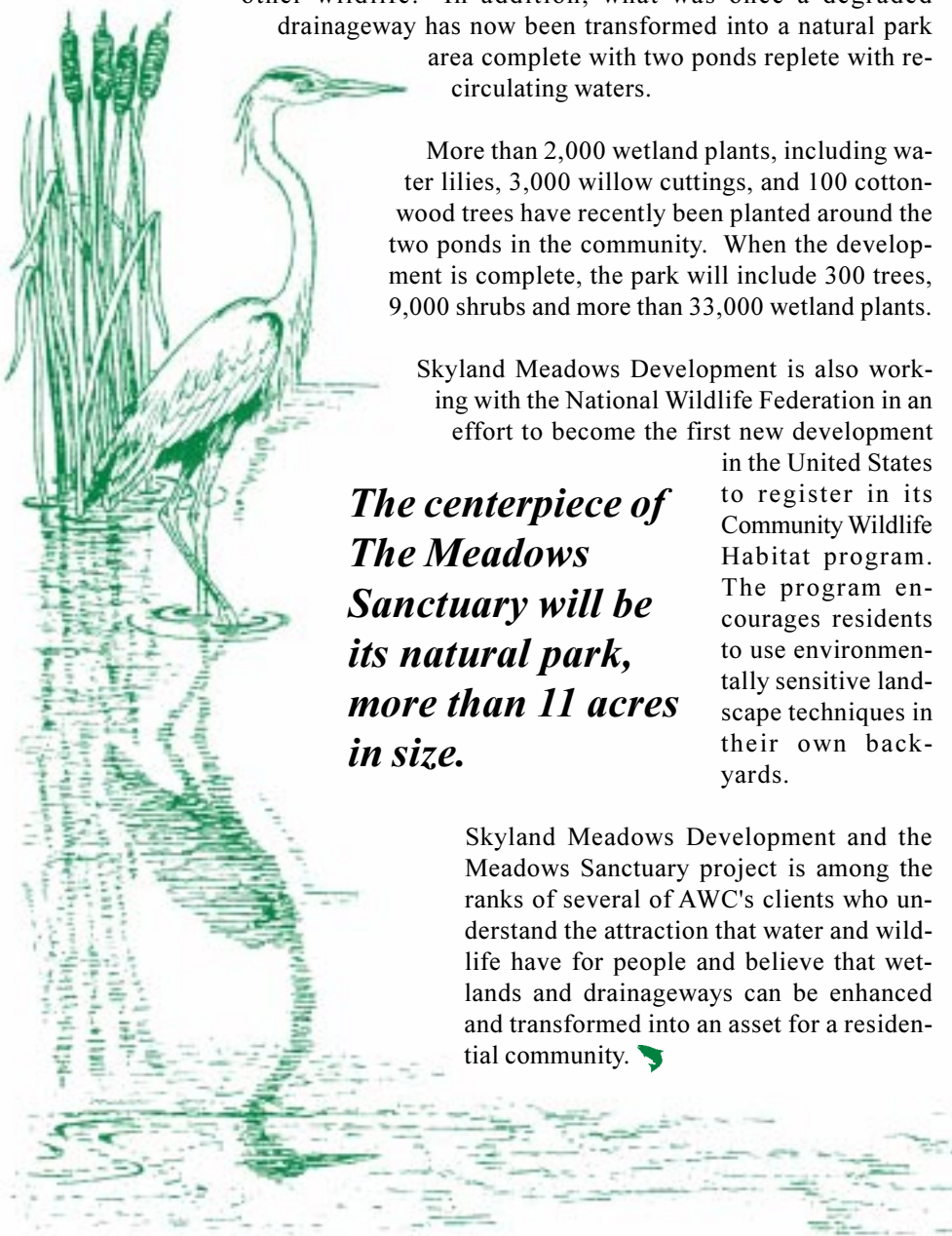
(Update from page 1)

The ACOE will be evaluating approximately 48 wetland sites throughout Summit County. Some of the sites will be done this summer.

In conjunction with the development of the SAMP in Summit County, the Town of Silverthorne has undertaken the task of inventorying all of the wetland areas in the Blue River watershed within the town limits and a three mile planning radius. The Town will use this information to support its recently approved Waterbody, Wetland and Riparian Protection Regulations; and to interface with the SAMP. AWC is excited to be assisting the Town with this effort.

NWP 26 Expiration Date Extended Again

The Federal Register released July 21, 1999, announced another extension of the expiration date for Nationwide Permit 26. The new date is December 30, 1999 or the effective date of the new and modified NWPs, whichever comes first. The new and modified NWPs will regulate categories of activities rather than a category of waters as NWP 26 currently does. A one-year grace period will still apply for permittees who have begun construction or are contracted to begin construction prior to the expiration. The new NWPs and the modifications are described in the July 21 Federal Register and the Corps has asked for comments to be submitted by September 7, 1999. Comments can be submitted to 20 Massachusetts Avenue, NW, Washington, DC 20314-1000 or cecwor@hq02.usace.army.mil. For a summary of the changes, the Corps homepage can be accessed at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/>. If you have questions about the status of your permit and/or project, call the AWC consulting group at 303.442.5770. ➤



(Orchid from page 2)

Front Range, Idaho, Montana, Wyoming and Nebraska.

The plant itself stands from 5"-20" tall and displays many white or ivory flowers on an upright stem and long narrow leaves. It blooms from late July to September. Field surveys for the plant must be conducted during the blooming season.

Because of its preference for wetland and riparian areas, it is vulnerable to habitat loss, modification of hydrology due to stream channelization or impoundment projects and destruction of individual plants. 🐸

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short, this assures that the local watershed incurs no net loss of wetland functions and values. Additionally, the availability of mitigation banking credits does not release a project sponsor from meeting other Section 404 requirements, e.g. avoidance and minimization. 🐸

AWC is growing . . .

and we're looking for qualified team players for the following positions:

Wetland Scientist/Designer - Minimum 2 years experience in conducting jurisdictional delineations, Section 404 permitting and mitigation design (minimum 1 year experience). AutoCAD experience required.

Landscape Maintenance Manager - Minimum 5 years of experience in landscape maintenance and snow removal. Must have experience in estimating, project and people management.

We are also seeking experienced equipment operators and general laborers. If you are interested please contact Heidi Hynes at 303.442.4766 or send a resume to 9999 Weld County Rd. 25, Ft. Lupton, CO 80621.

Colorado Water Facts

From 1820-1846, the boundary of the United States with Mexico was the Arkansas River.

Each year 15 million raindrops strike each square foot of land in the Denver area. Each raindrop that hits the ground dislodges soil particles. These soil particles (sediment) contribute to water pollution. (Better call AWC to get your erosion control measures in place!)

An acre foot of water is enough to flood the infield at Coors Field to a depth of 5.4 feet.

The record 24-hour snowfall in the United States is 75.8 inches which occurred at Silver Lake in the mountains west of Boulder. The storm occurred on April 14-15, 1921. (Ask us about snow removal too!)

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