

WATER RIGHTS ENGINEERING

Changes of Water Rights/Historical Use Analyses

Lone Rock H₂O - Change of Parmalee No. 2 and 3 Ditch and Flume Ditch

Lone Rock H₂O and its family predecessors have long owned and used several ditch rights diverting from Deer Creek near Bailey to irrigate hay for their cattle. Times have changed, and Lone Rock H₂O decided to subdivide its property and to sell off the surplus historical use

from a change of water rights for the Parmalee No. 2 and 3 Ditch and the Flume Ditch.

Martin and Wood performed the engineering analyses of historical use, quantified the amount of augmentation storage required, and developed terms and conditions to limit the future use of the changed ditch rights to their historical uses.



New picture fromCristy

As part of the change case, Martin and Wood designed and arranged for the installation of 14 piezometers to determine the contribution of ground water for the historical growth of the hay. Martin and Wood also analyzed the piezometer data over three years to determine the final dry-up percentages for the change of the two ditch rights.

City of Englewood - Change of Brown Ditch, Nevada Ditch and McBroom Ditch

The City of Englewood filed three applications before the Division I Water Court to change the City's interests in the originally decreed irrigation rights in the Brown, Nevada, and McBroom Ditches.

property records at county courthouses. Using these records, Martin and Wood determined the varying places of use and quantified the irrigated area using aerial photography for Englewood's interests in the three ditches.

Martin and Wood performed the historical use analyses for all three change applications, which involved tracing the places of use for all of the shares representing Englewood's ownership in the three ditches. Martin and Wood began this work by examining the ditch companies' stock records, followed by research in the

The Water Court entered its decrees approving the changes of all three ditch rights based upon the engineering by Martin and Wood and upon terms and conditions proposed by Martin and Wood. These three change cases added over 1,300 acre-feet per year of very senior and reliable water rights to Englewood's water supply.

Martin and Wood Water Consultants, Inc.

602 Park Point Drive, Suite 275 • Golden, CO 80401 • Phone: (303)526-2600 • Fax: (303)526-2624



WATER RIGHTS ENGINEERING

Changes of Water Rights/Historical Use Analyses

City of Florence, *et al.* - Change of Union Ditch Water Rights



Headworks of the Minnequa Canal on the Arkansas River

In 1999 the City of Florence and the Towns of Coal Creek and Williamsburg filed an application to change their water rights in the Union Ditch. Martin and Wood conducted an engineering analysis of the historical use of these water rights for the period subsequent to the City of Florence's prior change of its Union Ditch rights decreed in 1982. This analysis assessed the post-1982 "changed circumstances" in both the character of the historical use of the Union Ditch and the character of the Florence Regional Water System's municipal use of water, pursuant to the Colorado Supreme Court's doctrine of "changed circumstances."

The above photograph shows today's point of diversion of the Union Ditch water right, which is at

the headworks of the Minnequa Canal on the Arkansas River between the Cities of Florence and Cañon City. In 1942 the Union Ditch Company entered into an agreement with the Colorado Fuel and Iron Company ("CF&I") to allow CF&I to divert the Union Ditch water right at the headworks of the Minnequa Canal, which diverted large quantities of water from the Arkansas River to CF&I's steel works at the City of Pueblo. The Minnequa Canal, whose new headworks occupied the former point of diversion of the Union Ditch, began

to supply water in 1944 to CF&I's steel works in Pueblo, during the nation's critical need for steel in World War II.

The photograph below depicts the Union Ditch's point of withdrawal of its water from the Minnequa Canal.



Headworks of the Union Ditch from the Minnequa Canal

Martin and Wood Water Consultants, Inc.

602 Park Point Drive, Suite 275 • Golden, CO 80401 • Phone: (303)526-2600 • Fax: (303)526-2624

