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Water Valuation Case Study: Kinross Gold's Historic Mining Water Rights Donation

Historic Mining

The Mineral Hill Mine overlooks the northern boundary of Yellowstone National Park on an important tributary to the upper Yellowstone River, Bear Creek. The rich mining history of Bear Creek, Pine Creek, and Mineral Hill date back to 1866 when Joe Brown discovered gold in the gravels at the confluence of Bear Creek and the Yellowstone River, waters both teeming with Yellowstone cutthroat trout.

Since the inception of mining, the waters of Pine Creek and Bear Creek powered placer and hydraulic mining, hardrock mining and milling, hydroelectric generators, domestic water, fire suppression, and irrigation. Mining on Mineral Hill concluded after 182 years of yielding gold, silver, arsenic, and tungsten. Kinross Gold USA, Inc., the last mine owner, completed its reclamation of the site, securing the real property with a perpetual conservation easement with the Rocky Mountain Elk Foundation prior to its sale to a local outfitter. Kinross furthered its conservation effort by donating its water rights to Trout Unlimited in service of the wild fisheries of Bear Gulch and Pine Creek, permanently protecting instream flows to the Yellowstone River.

Water Right Changes

A fundamental precept of western water law is that the beneficial use of a water right may be changed to a new purpose, so long as other water rights owners on the source are not adversely affected by the change. In most western states, changes in water rights are administered by administrative agencies or water courts, in often lengthy, highly regulated processes. To scrutinize a water right change, administrators closely review documentation of historic use of a water right, calculating the maximum amount of water that can be transferred to a new use without harming other water users on the source. Generally, the transferrable amount of a water right is the historic consumed volume – the amount of water removed from the source that was never available to other water users.

Fortunately, ample historic evidence was available to document water use across the history of the Mineral Hill Mine. Quantifying historic use of the Mineral Hill water rights for various industrial purposes was necessary to both change the water rights to the new purpose of instream flow, and to assign a market value of the water rights as a charitable donation.

Valuation

Placing an economic value to an appropriative water right is a complex art. While appraisal of real property is time-honored with well-structured parameters, valuing a usufructuary right – a

right to use, not to own – is much more difficult. Along with endless ambiguities of quantifying water rights, water markets in the West tend to be poorly developed, with spotty comparable transactions on which an appraiser could rely.

Trout Unlimited and Kinross Gold USA selected Deborah Stephenson, of DMS Natural Resources, LLC to appraise the fair market value of the water rights.

Running the Numbers

Due Diligence on which Valuation was based predicted that consumptive use was the limit of what could be protected in-stream. Most of the consumptive use was attributed to mine and mill works, including road and grounds maintenance, from both streams. To be conservative, the non-consumptive portion of the water right was assumed to be unprotectable as instream flow. For that reason, the valuation **at the time of the water right donation** was based on an estimated **2,424 af**, annually.

	43B 134019 00	43B 194641 00	Total
Consumptive Use	1,345	1,079	2,424
Non-Consumptive Use			
Diversions	0	6,404	6,404
Non-Diversions	0	5,521	5,521
Total Non-Consumptive	0	11,925	11,925

Change Authorization

The legal process to change a water right to a new purpose is complex, involving a set of rules and policies that affect the amount of water that may be dedicated to a new purpose without causing adverse impacts to other water users. In this case, the DNRC broke the historic reaches of Pine Creek and Bear Creek into 2 reaches, and allocated both consumptive and non-consumptive uses that could be protected across two seasons:

			43B 134019- 00 CFS	43B 194641- 00 CFS	Total CFS	43B 134019- 00 AF	43B 194641- 00 AF	Total AF
Instream Fishery	Protected Reach 1	5/1-10/15	0.08	10.90	10.98	27.83	3630.25	3658.08
		10/16-4/30	0.08	10.75	10.83	29.69	4200.24	4229.93
	Protected Reach 2	5/1-10/15	0.08	0.89	0.98	27.83	298.02	325.85
		10/16-4/30	0.08	0.75	0.83	29.69	292.79	322.49

Valuation of a water right occurs **at the time of the donation**, whereas the legal process to change a water right may occur years after the donation. (June 7, 2017). In this case, the change authorization was issued over five and a half years in November, 2022.

Here, the protectable volume of the water right as approved was almost doubled from the valuation raising the question of whether the valuation could be invalid or affect the charitable deduction.

Conclusion

The valuation was based on the best information available about the water rights at the time of the donation. The appraiser certified its qualifications and detailed its rationale based on the due diligence analysis in form 8923. It would be very difficult, if not impossible, to accurately predict the results of the change authorization, which in this case occurred over five years after the donation.

We conclude that because the valuation was based on conservative due diligence (approximately 57% lower than the changed volume) based on the best available data, and certified by the appraiser, that the charitable deduction was well documented and justified.

It would be interesting, but purely speculative, to consider if the valuation was far greater than the approved volume put to charitable purposes would draw the attention of the IRS.