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Photo by John Armstrong

## Colorado Stone Quarries and the Destruction of Yule Creek

The Yule Quarry began operations in 1895, and played a significant role in the industrialization of the Crystal Valley. The quarry assumed ownership of the Crystal Railroad in 1918 and was the primary reason for its continuing operation until abandonment in 1941. The Lincoln Monument and the Tomb of the Unknown are perhaps the most famous products pulled from Treasury Mountain and sent down the rails before both ceased operations in 1941.

Unlike the railroad, the quarry came back to life in modern times, resuming mining in 1989. In 2011, the quarry was purchased by the Red Graniti group from Carrara, Italy. The Carrara Quarries boast of producing 4,000,000 tons of marble annually. The scale of the impact on Italy's Apuan Alps is far far beyond what most Crystal residents would expect from the heretofore quaint historic operations in Marble. One might rather picture the large open pit mines of Kentucky, where "Mr. Peabody's Coal train hauled it away." See "Inside Italy's \$1 Billion Marble Mountains" <a href="https://www.youtube.com/watch?ye=PcOPVYb7EO">https://www.youtube.com/watch?ye=PcOPVYb7EO</a>

Unbeknownst to most Crystal Valley residents, in 2016, the Colorado Division of Reclamation, Mining and Safety (DRMS)

approved an eleven-fold increase in the scale of Red Graniti's operations, from 10 acres to a total 124 permitted acres; a 114 acre expansion. The operation is now doing business as Colorado Stone Quarries (CSQ) and we are getting our first taste of the dramatic increase in the intensity of use.

Yule Creek is a perennial tributary to the Crystal River, characterized by a series of step-pools, chutes, and waterfalls. USFS lands lie adjacent to the quarry site, and the Raggeds Wilderness is directly upstream. Given the steep slopes and short growing season, such creeks are inherently fragile.

## Yule Problems Begin

Beginning in November of 2018, and with no permits, CSQ diverted approximately 1,600 linear feet of the creek through a constructed channel that flows approximately 1,700 linear feet around the east side of Franklin Ridge. (There is some evidence the Creek had been on that side in geologic time.) After forcing the stream to the east, the creek bed was buried under approximately 97,000 cubic yards of waste rock and other materials to create a new road access to the existing mining operation and to facilitate surface mining of Franklin Ridge itself.

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## Yule Creek, continued

Maciej Mrotek has released a video documentary of this carnage, called the Destruction of Yule Creek by Colorado Stone Quarries Marble, CO 2018- see <a href="https://www.youtube.com/watch?v=qK3fvmNLFCk">https://www.youtube.com/watch?v=qK3fvmNLFCk</a>

As we have reported previously, on October 16, 2019, approximately 5,500 gallons of diesel spilled from above-ground storage tanks located on the Franklin Ridge and in close proximity to the natural western alignment of Yule Creek. The ongoing remediation of the diesel spill is expected to take several years and is being directed by DRMS. CVEPA alerted the Corps about the re-route of the creek in early December. In response, the Corps initiated an enforcement investigation on December 18, 2019, and has now determined that the devastation of Yule Creek violated the Clean Water Act. Graniti claims it had thought its actions were exempt. The Corp has rejected this contention noting that the claimed exemption was intended only for temporary access, not for permanent haulage roads as have now been installed over the creek.

So CSQ is now requesting an after-the-fact Corps permit to expand mining operations by permanently retaining the current realignment of Yule Creek around the east side of the Franklin Ridge. The Corp has required the quarry to evaluate several alternatives. Several of these would seek to return Yule Creek to its historic channel, while building various new roads and bridges to facilitate haulage from the existing quarries and the surface mining of Franklin Ridge. The mine's preferred alternative would allow the creek to remain in its new alignment, and would allow the surface mining of Franklin Ridge to proceed.

In evaluating this sad situation, the CVEPA board has reached out to two stream ecologists for input, Stephen Ellsperman and Liza Mitchell. Based on input from each, we are skeptical that it would now be advisable to seek to return Yule Creek to its historic channel. The 97,000 cubic yards of waste rock and other materials placed in the former chute have destroyed any semblance of the old creek, and are now furthermore contaminated with the 5500 gallons of spilled fuel. Remediation efforts are under way with specific monitoring to ensure that diesel is not making it into the downstream watershed. Disturbing this area would now undermine this containment.

While we, therefore, have reluctantly concluded that Yule Creek should remain in its new channel, we do not agree that restoration efforts to date, or as proposed in the permit application, are adequate. Restoration of damage on the scale Yule Creek has now suffered will be a serious undertaking, and will likely require decades of careful work to recover full ecosystem functionality. Though the creek was previously disturbed due to historic mining practices, the realigned creek is now decimated, with scoured edges devoid of vegetation and its waters now tumbling through piles of rip rap. The mine has undertaken some grading and seeding of adjacent slopes, but any casual observer will easily see that significant additional restoration efforts are needed.

## **CVEPA Recommendations**

Specifically, we believe that biological inputs should be incorporated to restore habitat, river function, riparian function, Section 7 NEPA, fisheries, or other functions incorporated in the USACE requirements under the Clean Water Act. Despite the note in the public notice that describes that wetland habitat was likely not impacted in the new creek diversion – that does not mean that ecological functions should not be incorporated into the design alternatives for review.

To that end, CVEPA believes the quarry should be required to contract with a qualified and independent organization with the requisite skills to design and monitor efforts to ensure that ecological functionality is restored to the same quality as undisturbed upstream reference sites from within the Raggeds Wilderness. Based on comparisons with such referenced sites, the monitoring should include success matrices with targets for macro invertebrates and water quality.

Our valley is blessed with at least one organization qualified to oversee this work; the Roaring Fork Conservancy. We have discussed this challenge with RFC Director Rick Lofaro, who is interested in lending the skills of his organization to this effort as part of the Corps permit requirements. We believe that requiring a long term restoration effort, with ongoing monitoring and management adjustments as needed to optimize outcomes is entirely appropriate mitigation for such a large violation.

At the same time, we recognize that the loss of the historic creek bed, and the seeming impossibility of bringing that back, suggests that additional compensatory mitigation is also appropriate. For years, watershed advocates have been evaluating riparian restoration sites elsewhere in the Crystal Valley that were similarly impacted by the heavy hand of highway construction and mining. CVEPA plans to submit with its comment a list of offsite projects that can be added to the onsite restoration efforts, consistent with the above.

We certainly hope that recent events are not an indication of what life will be like with Graniti on an ongoing basis. The scale of the open pit mining seen in the Apuan Alps will hopefully not be our future. But be assured we'd all better hunker down for the long haul. According to Graniti, there is enough marble within its expanded permit area on Yule Creek to continue mining at the current rate for more than 100 years.