

Royal Gorge Wildfire Water Quality Impact and Protection Project – Emergency Mitigation,
Stabilization, and Reclamation
Progress Report dated April 22, 2014

The City of Cañon City (CCC) received the Notice to Proceed from the Colorado Water Conservation Board (CWCB) for the Royal Gorge Wildfire Water Quality Impact and Protection Project on October 22, 2013. As part of the grant agreement, the CCC is required to provide the CWCB a progress report every 6 months, beginning from the date of the executed contract.

This progress report is dated as of April 22, 2014 and describes the status of the tasks identified in the statement of work.

TASK 1 – Site stabilization and cleanup of debris resulting from the fire

The debris from the forty-eight structures at the Royal Gorge Bridge that were burned has been removed and the site cleaned. These cleanup efforts were of the highest priority to the Royal Gorge Bridge & Park Company (RGBP) and CCC. The work began immediately after the fire because of the risks posed to the Arkansas River directly below the rim of the gorge.

The debris included burnt buildings, concrete, metal, the aerial tram, the aerial tram cables, tons of random debris and ash. While most of this work was done by Alpine Cable & Construction, the employees of the RGBP also assisted. On October 3, 2013 Alpine Cable & Construction completed the debris removal when the cable for the aerial tram (that had fallen into the river) was hauled out by rail car.

The total cost to the RGBP for the site stabilization and cleanup of debris resulting from the fire was \$387,500 at the time the grant application was made. Task 1 is 100% complete.

TASK 2 – Construction of 147 check structures

Check structures designed to stabilize channel gradient and store a small amount of sediment which carries surface flow only after storm events have been constructed in three watershed drainages which have eight sub-drainages within. These check structures were a high priority for the CCC because of the threat of sediment migration into the watershed drainage channels that lead to the Arkansas River. Approval by City Council was given and on August 20, 2013 construction work began.

The CCC enlisted the services of B&G Construction to install the check structures. B&G had (at the time) a services agreement with the CCC for maintenance on CCC stormwater facilities for the 2013 Budget Year. B&G was chosen because of the emergency nature of the work, the fact that the CCC had all of the required documentation (General Liability Insurance, Worker's Compensation, Vehicle Insurance, and Hourly rate schedules) and the CCC also has had experience working with B&G; for the past three years they have been under contract with the CCC maintaining drainage ways.

The check structures were constructed from materials available on site which included logs and rocks. After heavy rains in August/September had occurred and several check structures had to be rebuilt, a geotextile fabric was also used to bolster the effectiveness and integrity of the check

structures. B&G Construction installed 172 check structures in the three watershed drainages with the work being completed November 22, 2013.

The total cost to the CCC & RGBP for the construction of the check structures was \$26,511.00. However the CCC anticipates future costs related to the maintenance of these structures over the next three years. The CCC will cover these maintenance costs with “In Kind” funding. Task 2 is 100% complete.

TASK 3 – Seeding

Note: Between the time when the CWCBS WSRA Grant application was made and the time when the specifications were completed to accomplish Task 3 more information had been gathered that generated data that was more accurate than originally proposed in the WSRA. As a result the Sealed Bid Specifications for the Custom Seed Mixture and the Aerial Seed Application let by the CCC identified 650 acres to be aerial seeded instead of 700 acres.

There were two components to the Seeding task; the first was the purchase of the bulk seed mix and the second was the hiring of a contractor to aerially apply the seed to the area. The Seeding task was coordinated and done prior to the hydro-axing treatment.

The seed mixture applied was a custom blend developed with the assistance of Mr. Rick Romano Natural Resources Conservation Services (NRCS) District Conservationist. The custom blend was a mixture of native grasses that included Western Wheatgrass, Side-oats Grama and Sand Dropseed. Triticale was added as a nursery cover crop. To provide a bit of variety and color a wildflower mix was added to the seed mixture. The custom seed mixture design called out for 19,025.5 pounds of pure live seed to be spread over the 650 acres for a calculated seed rate of 29.3 pounds of pure live seed (PLS) per acre.

By seeding prior to the hydro-axing treatment the mulch created by the hydro-axing operations provided more litter on the ground to cover the seed. In addition to this added litter on the ground the rubber tires with chains on the hydro-ax units worked the soil surface. This resulted in creating a better seed/soil interface which will aid in seed germination. Robust seed germination will speed the replacement of vegetation, increase infiltration, reduce run off, and retain the soil on site resulting in less sediment movement to the drainage channels.

As required by the CCC Purchasing Policy any purchase for goods and services over the \$5,000 level required the use of a Sealed Bid process. The specifications were sent out and a bid opening date was set. The formal Bid Opening for Bid # 93-13 CUSTOM SEED BLEND FOR ROYAL GORGE PARK RESTORATION took place at 11:00 a.m. on December 12, 2013. Bidding documents were sent out to four suppliers who specialize in supplying grass seeds. Of those four suppliers we received three sealed bid responses. The successful bidding supplier was Granite Seed Company located in Denver CO. Granite Seed Company’s cost \$3.49/pound of PLS. The second lowest bid received was from Arkansas Valley Seed with a cost of \$3.74/pound of PLS. The third supplier quoted a No Bid. The CCC Council formally awarded the bid to Granite Seed Company based upon the unit cost of \$3.49/pounds PLS at their December 16, 2013 City Council meeting.

To apply the seed to the burned areas it had been determined that the best method to apply this seed will be through aerial drop given the rugged terrain of the area and the amount of acres to be seeded.

As required by the CCC Purchasing Policy any purchase for goods and services over the \$5,000 level required the use of a Sealed Bid process. The specifications were sent out and a bid opening date was set. The formal Bid Opening for Bid # 09-14 ROYAL GORGE PARK AERIAL SEEDING PROJECT took place at 11:00 a.m. on December 31, 2013. Bidding documents were sent out to four contractors who specialize in aerial seeding work. Of those four contractors, two attended the mandatory Pre-Bid meeting held on site in the Royal Gorge Park on Wednesday December 18, 2013. We received bid responses from the two contractors that attended the mandatory Pre-Bid meeting. The successful bidder was Mountain West Helicopters, LLC out of Alpine Utah. Their bid was \$42.31 per acre. The second bidding contractor was Rampart Helicopters from Castle Rock, CO. and their bid was \$45.00 per acre. The CCC Council formally awarded the bid to Mountain West Helicopters based upon the unit cost of \$42.31 per acre at their January 6, 2014 City Council meeting.

Note: After the CWCB WSRA Grant award but prior to the purchase of the seed mixture and the award of the aerial seeding contract the CCC was notified that a grant from the Natural Resources Conservation Services (NRCS) Emergency Watershed Plan (EWP) Grant was approved. This grant provided up to \$385,000 to be used to apply the same treatment methods to additional burned acres within the watershed drainage basins. With the approval of the EWP the CCC identified additional acreage within the watershed drainages that could be treated by seeding and hydro-axing. This additional acreage totaled 203 acres and increased the area to be seeded to 853 acres.

The additional amount of seed needed was placed with the seed order; on February 10, 2014 approximately 24,981 pounds PLS was delivered. An additional amount of (10) 1 acre sacks (293 pounds PLS) was set aside for any hand seeding areas that may be needed. On February 11, 2013 Mountain West Helicopters began aerial seeding operations from the staging area located on the south side of the Royal Gorge Bridge. With these additional acres to be aerial seeded the total acres seeded by Mountain West Helicopters was 853 acres. Beginning at 9:30 a.m. the contractor spread approximately 24,981 pounds of seed mix over 853 acres; the calculated seed rate was 29.3 pounds/PLS per acre. Aerial seeding operations were completed at 1:30 p.m.

The total cost for the Custom Seed Mixture was \$88,610.97. The total cost for Mountain West Helicopters to apply the seed was \$36,090.43. The total cost for seeding 853 acres is \$124,701.40. Task 2 is 100% complete.

TASK 4 – Slash Spreading – Hydro-axing/mastication of 715 acres

Note: Between the time when the CWCB WSRA Grant application was made and the time when the specifications were completed to accomplish task 3 more information had been gathered that generated data that was more accurate than originally proposed in the WSRA. As a result the Sealed Bid Specifications for the Hydro-Axing let by the CCC identified 600 acres to be hydro-axed instead of 715 acres.

Throughout the burn area hydro-axing operations have taken place to provide soil cover to the burn areas and the seed that had been spread. This in turn should reduce the hill slope erosion due to the increased cover available. The hydro-ax/mastication type machinery has mulched the standing, burnt trees onsite, generating surface roughness. With the hydro-ax equipment tracking over the soil they have helped break up any hydro phobic layers in the soil. Stable burnt trees were designated as anchor trees for Reserve Areas. These Reserve Areas were left to provide habitats for wildlife as well as to provide some visual relief so it doesn't appear that the entire landscape has been clear cut.

As required by the CCC Purchasing Policy any purchase for goods and services over the \$5,000 level required the use of a Sealed Bid process. The specifications were sent out and a bid opening date was set. The formal Bid Opening for Bid # 08-14 Royal Gorge Park Hydro-Axing Project took place at 11:00 a.m. Bid documents had been sent out to four contractors who specialize in hydro-axing work. Of those four contractors, three attended the mandatory Pre-Bid meeting held on site in the Royal Gorge Park on Wednesday December 18, 2013. We received two bids from the three contractors that attended the mandatory Pre-Bid meeting. The successful bidder was West Range Reclamation from Hotchkiss, CO. with a cost of \$345.58 per acre. The second bidding contractor was Rue Logging from Southfork, CO; their cost was \$374.00 per acre. The CCC Council formally awarded the bid to West Range Reclamation based upon the unit cost of \$345.58 per acre at their January 6, 2014 City Council meeting.

Note: After the CWCB WSRA Grant award but prior to the award of the hydro-axing contract the CCC was notified that a grant from the Natural Resources Conservation Services (NRCS) Emergency Watershed Plan (EWP) Grant was approved. This grant provided up to \$385,000 to be used to apply the same treatment methods to additional burned acres within the watershed drainage basins. With the approval of the EWP the CCC identified additional acreage within the watershed drainages that could be treated by seeding and hydro-axing. This additional acreage totaled 203 acres and increased the area to be hydro-axed to 853 acres. In addition to the additional acreage identified with the additional funding from the EWP, the contractor was directed to push the boundaries of the designated units to get to as much of the burnt trees as possible. As a result more acres have been able to receive the hydro-axing treatment only.

On February 21, 2014 West Range Reclamation (WRR) began the hydro-axing operations. They began on the north side of the Royal Gorge Park closest to the Royal Gorge Bridge area. With the rebuilding of the structures that had been destroyed by the fire it was important for the CCC to have WRR get that area done as soon as possible so that the operations would not be impacting the contractor working on the structures.

The second method designated to be used is what is known as slash spreading. This method involves the utilization of hand crews to break down and drop burned trees with chain saws. This method would be used in areas where the hydro-ax units cannot get due to the steepness of the slope and/or rocky conditions that are prevalent in the area. Because of the total area completed by the hydro-axing units it is estimated that there is less than 25 acres to need the slash spreading operations. This work will be done by the Youth Corp once they arrive on site. A dollar figure of \$21,000 dollars was identified in the Budget Table to be paid by funds from the WSRA. However, this cost is being covered by a grant from GOCO and will not be charged to the WSRA.

WRR is currently working in the last unit designated for the hydro-axing treatment. As of the date of this progress report the contractor has been paid a total of \$245,487.59 for 705 acres. Task 4 is considered to be 95% completed. It is anticipated that WRR will be finished hydro-axing the last unit by end of day 4/23/2014. Once WRR has finished this last unit Task 4 will be completed 100%.

TASK 5 – Seedling Planting

Pinion pine seedlings will be planted in select locations throughout the burn area to accelerate the return of trees to the site, provide for soil stabilization, provide a seed source for coming years and add vegetative structure for wildlife. It was the recommendation of the NRCS that the seedlings

planted should be those with native seeds from Colorado trees. It had been originally identified that 10,000 seedlings would be planted as part of the project. However after review of that work by Mr. John Grieve, Colorado State Forest Service (CSFS) District Forester it was determined that due to the logistics of trying to plant that many seedlings and the cost of those seedlings it would be better to reduce the amount of seedlings to 5,000. Also, at the recommendation of the Mr. Grieve, the seedlings will be planted in areas where there are good soils instead of the original plan to plant 100 seedlings/acre.

As required by the CCC Purchasing Policy any purchase for goods and services over the \$5,000 level required the use of a Sealed Bid process. However, due to the recommendation that the seedlings be those grown from Colorado native trees the decision was made to use a "Sole Source" bid and purchase the seedlings from the CSFS. The cost of the seedlings were \$2.17 each, 30 per box. Therefore the bid presented to CCC Council was for the purchase of 167 boxes (total of 5,010 seedlings) at a cost of \$65.00 per box. The CCC Council formally awarded the bid #40-14 Pinion Pine Seedlings to the Colorado State Forest Service based upon the unit cost of \$65.00 per box at their April 7, 2014 City Council meeting.

The pinion pine seedlings will not be available for pick-up until the first week of May; however the CCC has already paid the invoice for the seedlings. The CCC will be using volunteer groups to plant the seedlings. The CCC will have assistance from the NRCS and the CSFS to direct the volunteer operations. The first planting event is scheduled for May 8, 2014 with a second event tentatively scheduled for May 15, 2014. There will be more events; dates yet to be determined. The intent is to have all of the seedlings planted by June 16, 2014. Since there will be no cost for the planting efforts there will be no reimbursement due to the CCC from the WSRA funds.

The total cost for the Pinion Pine Seedlings was \$10,855.00. The total cost for to plant the seedlings is \$0. Therefore the total cost for the Seedling Planting is \$10,855.00. Task 5 is 20% complete.

Summary

The CCC also received funding in the amount of \$500 from the Arkansas River Outfitters Association and \$5,000 from the Board of Waterworks Pueblo to aide in the recovery and restoration efforts in the Royal Gorge Park. It is anticipated that the CCC will apply for reimbursement of the costs identified that are attributable to the CWCB WSRA funding after May 1, 2014. This request was made by the CCC Finance Director so that the current audit process being conducted is not impacted. The budget table in Exhibit A will be amended to show the actual costs and funding.