

Mineral County Fairgrounds Association

P.O. Box 61

Creede, CO 81130

719-658-2376

December 4, 2003

Don West
Environmental Management Support, Inc.
8601 Georgia Avenue, Suite 500
Silver Spring, MD 20910

Re: Brownfields Clean Up Grant Application

To Whom It May Concern:

The Mineral County Fairgrounds Association (MCFA) submits the attached documents as an application to the EPA Brownfields program for clean up funding. The MCFA is a Colorado non-profit corporation based in Creede. It is the mission of the MCFA to develop and oversee the construction, management, promotion, and maintenance of a public, all-weather, multi-use fairgrounds: an educational, recreational, and cultural center for the Creede/Mineral County community. Further, it is the mission of the MCFA to create and promote a broad range of educational, recreational, and cultural events and activities of interest and social benefit to Creede/Mineral County residents.

The MCFA will be the recipient of 45.89 acres near Creede that has been contaminated by mine and mill wastes during the last century. Heavy metals in the soils constitute a human health and environmental hazard that must be cleaned up prior to any development. With the assistance of the Willow Creek Reclamation Committee, a local stakeholder-based environmental organization, the MCFA has entered into the Colorado Voluntary Clean Up Program (VCUP). The attached proposal for Brownfields funding includes the preliminary reclamation plans as detailed in MCFA's application to the Colorado VCUP. These plans incorporate capping of the contaminated areas with low permeability surfaces, structures, or soil and vegetation. Participation in the VCUP will ensure that the clean up is appropriate and sustainable.

Brownfields clean up funding will initiate a project that has been researched and conceptualized over the last five years. The MCFA members are committed to serving the needs of the community, and they know from similar projects what it takes to fund and manage a fairgrounds. The in-kind pledges from Mineral County and the Willow Creek Reclamation Committee demonstrate local support and a conviction that environmental reclamation with redevelopment for community benefit is a sustainable and commendable effort (see attached letters). The MCFA has received thirteen letters from organizations and individuals specifically supporting the proposed clean up and fairgrounds. Ten of these letters have pledged donations such as technical assistance, heavy equipment use, advertising and promotional support, and facility

design. Given the Mineral County population of only 831, the response to MCFA's outreach has been considered tremendous.

Attached to this cover letter is the Applicant Information, Threshold Criteria, Ranking Criteria, a letter from Mark Walker with the Colorado Department of Public Health and the Environment, documentation of public notices, and support letters pledging donations. Please contact Jenny Inge, MCFA President, or Leigh Ann Vradenburg, Willow Creek Reclamation Committee Coordinator and MCFA member, if you have any questions. Thank you for your consideration and we look forward to hearing from you in the spring.

Sincerely,

Jenny Inge
President
Mineral County Fairgrounds Association

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EPA Region 8
Kathy Atencio
999 18th St., Suite 300 (EPR-B)
Denver, CO 80202-2406

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Sincerely,

Jenny Inge
President
Mineral County Fairgrounds Association

Applicant Information

Project Title: Mineral County Fairgrounds Clean Up

Grant Type: Clean Up - hazardous substance

Total Dollar Amount Requested for this Grant: \$200,000 hazardous substance

Name of Applicant: Mineral County Fairgrounds Association

Project Contact: Leigh Ann Vradenburg
PO Box 518
Creede, CO 81130
willowcreekr@my.amigo.net
719-658-0178 (phone)
719-658-2017 (fax)

Chief Executive: Jenny Inge
PO Box 371
Creede, CO 81130
rarethingsgallery@yahoo.com
719-658-2376 (phone)
719-658-2599 (fax)

Location: City of Creede, Mineral County, Colorado

Population: City of Creede- 381
Mineral County- 831

Special Consideration: The MCFA is eligible for special consideration because the target community population is only 831.

Threshold Criteria

A. Applicant Eligibility- The Mineral County Fairgrounds Association (MCFA) is a Colorado non-profit corporation meeting the description in the Brownfields Proposal Guidelines (footnote 6 on page 8) and definition in Section 4(6) of the Federal Financial Assistance Management Improvement Act of 1999, Public Law 106-107. The property is currently owned by Creede Resources, Inc., Charles Van Duzer, President. Upon completion of a Prospective Purchaser Agreement, the property will be conveyed to Navajo Development, L.L.C., John Parker, owner. John Parker has signed an intent to donate the 46-acre property to the Mineral County Fairgrounds Association. The Prospective Purchaser Agreement and MCFA's acquisition of the fee simple title are expected to occur within the next two months and well before the September 30, 2004 deadline.

B. Community Notification- The target communities for the clean up and redevelopment of the Property are Creede and Mineral County. Given that there is no radio reception or public access channel in Mineral County, efforts at community notification focused on fliers at essential businesses and services and notices in the newspaper. As Creede is the only town in Mineral County, it was believed that most of the 831 county residents would read about the proposal and meetings in the paper, in mailings, or around town. All meetings were advertised in notices placed at 20 local businesses and services including the post office, Creede City Hall, Mineral County Courthouse, both banks, the only grocery store and gas station, numerous shops and restaurants, and on the public bulletin board on Main Street. The first public discussion was at the City Council meeting on November 10, 2003, which was attended by 27 people. This discussion was advertised with public notices (posted November 4; see attachment) at the locations listed above and in the Creede newsletter. The second public discussion was sponsored

by the MCFA at the local coffee shop, Café Ole, and was attended by 17 people. The meeting was advertised by notices (posted November 10; see attachment) and through mailings to 36 citizens. These citizens had responded to MCFA's Fall 2002 mailing survey and expressed interest in the organization and future involvement. The third public discussion was held December 1, 2003 at the Mineral County Commissioners' meeting, which was attended by 15 people. The meeting was advertised in notices (posted November 24; see attachment) and in the Mineral County Miner (appeared November 20 and 26; see attachment). All of the notices indicated that the MCFA was applying for an EPA Brownfields grant and invited everyone to participate through comments, questions, or concerns. Contact information was provided for the MCFA President and the Willow Creek Reclamation Committee Coordinator. The MCFA's intent for a Brownfields proposal was also detailed on the Willow Creek Reclamation Committee's website homepage (www.willowcreede.org).

C. Letter from the State or Tribal Environmental Authority- A current letter from Mark Walker with Voluntary Clean Up and Brownfields Programs of the Colorado Department of Public Health and the Environment is attached.

D. Site Eligibility and Property Ownership Eligibility

1. Site Information- The site has no official name, but has generally been referred to as the Fairgrounds portion of the Creede Airport Corner property. The Property proposed for clean up consists of 45.89 acres and is located southeast of the junction of Airport Road and Highway 149 west, approximately 0.75 miles outside of Creede, Colorado. The site does not have an address in County records. The legal description is the Southwest quarter of Section 6, Township 41 North, Range 1 East, and the elevation is approximately 8,640 feet. The Property is outside of Creede city limits and is zoned rural by Mineral County. Adjacent property uses include rural agriculture, the local airport, residential, open space, and a recreational vehicle park. The Property consists of a raised bench area (approximately 17 acres) sloping down to the alluvial area of the Willow Creek floodplain. These areas have been subjected to differing levels of contamination and sampling, and therefore, when discussed separately, the two portions will be referred to as the "bench" and the "floodplain". The Property has no operational history because it has never been used or developed. Environmental concerns at the site include mine waste and/or mill tailings that were inadvertently deposited on the Property from failures of structures or impoundments on adjacent properties. The Property has been and is currently open space.

2. Property Specific Determination- A property-specific determination is not necessary as the Property consists of abandoned waste rock and mill tailings, which meet the Brownfields definition of non-coal hard rock mine-scarred lands.

3. Origin and Extent of Contamination- Contamination on the Property is discussed for the two separate areas on the property, the "bench" and the "floodplain".

"Bench"- It is believed that the minimal contamination of soils on the 17-acre "bench" occurred as a result of accidentally dumped material (waste rock, tailings, and/or spent ore) from the former Humphries Mill (pers. comm. with local miners). The Mill, located on West Willow Creek just above Creede, operated from 1902 to 1912 and processed ore hauled out of the Nelson Tunnel. Material from the mill was conveyed to land on the west side of Airport Road by a wooden flume, pipe, and ditch system. The pipe under the highway occasionally clogged and discharged the waste material onto the Property. The presence of elevated metals in soils only at the north end of the Property further confirms this source scenario.

The "bench" soils have been sampled and analyzed for metals on three occasions. The

Colorado Department of Public Health and the Environment (CDPHE) conducted a Targeted Brownfields Assessment for the Property and adjacent areas described as the Creede Airport Corner (CDPHE 2002). Soil samples (24) revealed that the analyzed parameters were in the greatest concentrations in the top 6 inches, decreased in concentration with depth, and were not at elevated concentrations at 36 inches. Five soil samples at the north end of the “bench” were above CDPHE’s Soil Remediation Objectives (SRO) in terms of lead for residential or unrestricted land use ($SRO_R=400$ mg/kg). Maximum arsenic, cadmium, and zinc concentrations on the “bench” were below CDPHE SRO for residential use. A 10-point composite sample from the “bench” passed Toxicity Characteristic Leaching Procedure (TCLP) for arsenic, cadmium, lead, and zinc, had a pH of 7.2, and had no acid generation potential.

In February 2000, EnviroGroup Limited collected water from an existing well south of the airport runway, approximately 443 yards from the Property boundary. In the groundwater sample, concentrations of arsenic (<0.001 mg/L), cadmium (<0.005 mg/L), lead (<0.003 mg/L), zinc (<0.002 mg/L), and pH (7.8) were compliant with drinking water standards.

In September 2000, the U.S. Army Corps of Engineers (Albuquerque District) used XRF to investigate soil lead concentrations at four sampling points on the northern half of the “bench”. Lead ranged from 287-1,954 mg/kg, and only one site was below residential SRO.

In July 2002, EnviroGroup Limited collected soil samples from the “bench” from the 0-2” depth. Ten samples were composited for each of three sectors near the southern portion of the “bench”. Maximum cadmium (2.4 mg/kg) and lead (290 mg/kg) levels were below residential SRO. Arsenic (21 mg/kg) was well below the 70 mg/kg level.

“Floodplain”- In the alluvial “floodplain” portion of the Property, sources of contamination were mine and mill wastes from sites above town and the Emperious tailings pile located on the northeastern side of the floodplain. Deposition of mine and mill wastes occurred through washout and floodplain disturbance during nearly a century of silver mining in the watershed.

Soils in the “floodplain” were only characterized during the Army Corps investigations in 2000. Nine sites in the “floodplain” were analyzed by XRF, and lead concentrations ranged from 3,963 to 23,707 mg/kg. Due to a diverse and diffuse contamination history, the “floodplain” will be generally characterized as being contaminated to the greatest extent as identified by the XRF investigation (23,707 mg/kg).

4. Assessment Phase- The MCFA conducted records research for the Property at the Mineral County Courthouse. The current owner of the site, Creede Mines Incorporated, purchased the site from Humphrey Mining Company Incorporated in 1928. Preliminary assessments and site investigations have been conducted and reported in CDPHE’s Targeted Brownfields Assessment (CDHPE 2002), EnviroGroup’s investigations for John Parker’s Voluntary Clean Up Plan (EnviroGroup 2002), and the Army’s investigations for the Willow Creek Reclamation Committee’s Airport Corner Land Characterization (WCRC 2001). The MCFA has also reviewed the extensive documentation of the mining history and environmental impacts in and around Creede that has been compiled by the Willow Creek Reclamation Committee (available on their website (www.willowcreede.org) or by request). The MCFA contracted with URS Corporation (Denver, CO) to prepare a Voluntary Clean Up Plan (VCUP) that was submitted to CDPHE on November 14, 2003. This plan incorporates all of the previous assessment work into a comprehensive plan for remediation of the Property. The plan is currently under review by the state Voluntary Clean Up Program.

5. Enforcement Actions or Inquiries- There are no ongoing or anticipated environmental enforcement actions related to the Property. There are no known inquiries or orders from the

government regarding the responsibility of any party. No notifications have been required to Mineral County emergency response personnel under the Emergency Planning and Community Right to Know Act (aka Superfund Amendments and Reauthorization Act Title III). No documented spills or accidental releases of hazardous substances requiring regulatory notification have occurred at the Property.

6.

a. Ownership- John Parker, owner of Navajo Development L.L.C., has signed an intent to donate the Property to the Mineral County Fairgrounds Association upon approval by the EPA of a Prospective Purchaser Agreement (PPA) with Creede Mines Incorporated. The PPA involves the MCFA and Navajo Development as the purchasers. The MCFA anticipates acquisition of fee simple title within two months and well before the September 30, 2004 deadline.

b. Disposal Prior to Acquisition- All disposal of hazardous substances on the Property occurred prior to acquisition by the Mineral County Fairgrounds Association.

c. All Appropriate Inquiry- The MCFA conducted records research at the Mineral County Courthouse. The Property will be donated by John Parker, owner of Navajo Development L.L.C. (1140 Cherokee Suite 801, Denver, CO, 80204). Parker has an option on the land from Creede Mines, Incorporated, and is currently working with the MCFA on an EPA Prospective Purchaser Agreement. Charles Van Duzer (23617 Sandus Cemetery Road, Magnolia, TX, 77355) is the current President of Creede Mines Incorporated. Creede Mines Inc. purchased the land from Humphrey Mining Company, Inc. on May 7, 1928 (Mineral County Book 110c p.393). There has been no development on the Property and no documented uses other than as open space. There is no documentation that mine/mill waste was deposited on the Property, but personal communications with locals and environmental assessments indicate varying degrees of contamination in soils on the northern part of the property. Sampling and local knowledge indicate contamination is present in the floodplain. The MCFA reviewed the environmental assessments at the site, which were the Targeted Brownfields Assessment (CDPHE 2002), John Parker's Voluntary Clean Up Plan application (EnviroGroup 2002), and the Airport Corner Land Characterization (WCRC 2001).

d. Responsibility- The Mineral County Fairgrounds Association is not responsible for any of the environmental concerns at the Property. All contamination occurred prior to formation of the MCFA in 1997. No development or disturbance has occurred on the Property with the exception of site access for sample collection by the Army Corps/Willow Creek Reclamation Committee (2001), CDPHE (2002), and EnviroGroup (2000 and 2002).

e. Potential Liability- The board of directors and members of the MCFA and their affiliates are not potentially liable for contamination of the Property.

f. Relationship with Liable Entity- The MCFA, its board, and its members have no familial, contractual, corporate, or financial relationship with any potentially liable entity, including but not limited to Creede Mines Incorporated and Humphrey Mining Company Incorporated.

g. Steps Regarding Hazardous Substances- The steps that have been taken with regard to the hazardous substances on the Property were for the purposes of assessment by the Willow Creek Reclamation Committee (2001), CDPHE (2002), and EnviroGroup (2002). The "bench" portion of the Property was previously included with John Parker's VCUP (EnviroGroup 2002), but no clean up work has been conducted. There have been no historic attempts to clean up the

Property. Through Colorado's Voluntary Clean Up Program, the MCFA will ensure that clean up is appropriate and sustainable. The MCFA will also adhere to continuing obligations for the property, including but not limited to: land use restrictions; institutional controls; taking reasonable steps with respect to hazardous substances; providing cooperation, assistance, and access to authorized persons; compliance with information requests; and provision of legally required notices.

7. Petroleum sites- There is no reason to suspect petroleum contamination at the site.

E. Clean Up Authority and Oversight Structure

1. Clean Up Oversight- The MCFA is a partner with the Willow Creek Reclamation Committee (WCRC), a local stakeholder group that has been working to characterize and reclaim mine-scarred aquatic and terrestrial areas in and around the Willow Creek watershed and Creede. The WCRC pledges more than 80 hours of non-Federal assistance (see attachment). In addition to local support, the following agency personnel are available to review clean up plans and provide oversight for the clean up (Federal support is not included in the cost share):

- U.S. Environmental Protection Agency- Michael Wireman, hydrogeologist
- CO Div. of Minerals and Geology- Jim Herron and Jeff Graves, reclamation specialists
- CO Dept. of Public Health and the Environment- Mark Walker, Voluntary Clean Up and Brownfields Programs
- U.S. Dept. of Agriculture, Natural Resources Conservation Service- Steve Russell, District Conservationist
- CO State University Cooperative Extension- Marvin Reynolds, Area Director

These individuals are experienced in environmental restoration, and their knowledge of the site and the heavy metal contamination associated with the Creede mining area will prove useful in the design and review of reclamation plans. The Property is at an elevation of 8,640 feet, and with a harsh winter climate and only 75-80 frost-free days, landscaping and revegetation efforts as part of clean up, phytostabilization, and redevelopment will need to be site-specific. The revegetation trials that the WCRC has conducted for four years will provide insight into which species and conditions provide the greatest chance for vegetation establishment (WCRC 2003).

URS Corporation (Denver, CO) prepared the Voluntary Clean Up Plan for the MCFA, and it is planned that they or another environmental consulting firm will be hired to implement the clean up plan. Mark Walker (CDPHE) will periodically monitor progress at the site to ensure that the VCUP is correctly implemented.

2. Property Access- Property access for clean up and redevelopment will occur primarily through the western boundary by Airport Road or Highway 149. Adjacent landowners, Navajo Development, Mountain Views RV Park, Wason Ranch, and Creede Resources are supportive of the clean up and have approved of any access through their properties that might be necessary.

F. Cost Share

1. Cost Share- The MCFA is applying for a Federal Brownfields clean up grant of \$200,000, with a 20% cost share requirement of \$40,000. The MCFA has received pledges of non-Federal in-kind time and equipment use from Mineral County (\$35,970.16) and the Willow Creek Reclamation Committee (\$5,200), which totaled (\$41,170.16), satisfy the cost share requirement (see attachments). Additional match is anticipated to total \$76,449.84.

Ranking Criteria

A. Clean Up Grant Budget-

Project Tasks				
Budget Categories (programmatic)	Task 1 Community Involvement	Task 2 Clean Up Planning	Task 3 Site Clean Up	Task 4 Monitoring and Assessment
Personnel	\$3,600- outreach, planning, meeting facilitation specific to clean up	\$12,900- plan review, bid coordination	\$2,600- ongoing review and project oversight	\$2,900- sample collection and reporting
Fringe Benefits				
Travel				
Equipment				
Supplies	\$500- post, printing		\$500- reporting and oversight	\$300-sampling supplies
Contractual		\$3,000- consultant time to work with VCUP	\$287,900- contractor (incl. time, equip., supplies); consultant oversight	\$3,420- lab analyses
Other (specify)				
Total	\$4,100	\$15,900	\$291,000	\$6,620
Cost Share	\$4,100	\$12,900	\$95,200	\$5,420

B. Community Need

1. Target Community- The Property is located approximately 0.75 miles south of the Creede city limits in Mineral County, Colorado. Creede is the county seat and the only town in Mineral County. The target communities that the proposal for clean up and redevelopment of the Property will benefit are Creede and greater Mineral County. The following table indicates demographic data for these municipalities. All demographic information was acquired from the Mineral County and Creede Community Plan (Four Corners 2001) and the 2000 Census data tables or extrapolations on the US Census Bureau website (<http://factfinder.census.gov>).

Demographics for Creede and Mineral County		
	Creede	Mineral County
Population	381	831
Per capita income	\$21,801	\$24,475
Families	115	258
% that are below poverty level	12.2%	9.3%
% with unemployed husband or wife	4.5%	4.4%
Households	179	381
% with children under 18 years of age	20.4%	24.9%
% with annual income <\$25,000	41.9%	33.3%
Housing units	275	1119
% vacant except for seasonal use	27.3%	60.1%

The Creede mining district was one of America's most significant producers of silver.

Mining in the Creede area began around 1890, and although the devaluation of silver proved difficult for the economy, the rich veins proved profitable for nearly a century. Since 1985, when the last of the mines closed, the economy has shifted from mining to services, construction, and retail in response to the demand for seasonal homes and tourism. These three economic sectors accounted for 78% of employment in Mineral County in 1997. Retail sales increased from \$5.3 million in 1985 to \$14.2 million in 1999 (Four Corners 2001). The City of Creede, the district's historic commercial and social hub, remains as a center for tourism and recreation for the region. The current economy relies on the four-month (July-October) peak tourist season. Annually, an estimated 10,000 people visit the dozens of historic sites and over 800 square miles of National Forest and State land in Mineral County (pers. comm. Chamber of Commerce). Mineral County is a popular summer residence, with 60% of housing units vacant except for seasonal use (Census 2000). Although over 93% of Mineral County is Federal or State land, the riparian and floodplain areas of lower Willow Creek and the Rio Grande River below Creede are entirely private with the exception of a small fishing access area on the Rio Grande 2 miles from town. A small playground (<0.5 acre) and a baseball field in town are the only open, flat areas of greenspace available for public use within walking distance (<2 miles) of Creede (based on map; USDI 1993).

Low income or poverty conditions are a serious problem in Mineral County, especially within Creede. Of the 71 children in Creede, 22 (31%) live below the poverty level, and nearly 42% of households have an annual income below \$25,000. Although only 40% of residents were born in Colorado, Mineral County has not shown net growth over the last 80 years since the end of the silver boom, indicating a high rate of emigration (Census 2000).

The portion of Mineral County associated with Creede and the historic mining district has been heavily impacted by environmental degradation for nearly a century. Surface water quality is affected for more than 7 miles of Willow Creek and its tributaries, with nearly 5 miles out of compliance with state water quality standards for heavy metals and pH (WCRC 2003). Fish and invertebrate communities are minimal or non-existent in the lower reaches of Willow Creek (WCRC 2003). The Rio Grande River below the confluence with Willow Creek is on the Colorado impaired waters list (303d) for high levels of zinc (38 mile reach) and cadmium (7 mile reach) (CDPHE 2003). At least sixteen mine/mill areas in the Willow Creek watershed have associated waste rock and/or tailings piles that have contributed to water contamination and habitat degradation through acidic, heavy metals or sediment-laden runoff (WCRC 2003). The most prominent of these is the Emperious Tailings Pile (~25 acres) just south of Creede city limits. Runoff from the Emperious and other piles has created a barren landscape throughout much of the 275 acres of Willow Creek floodplain between Creede and the Rio Grande. In an area that relies heavily on tourism and recreation, the poor aesthetics, lack of aquatic and terrestrial life, and impaired waters listing are substantial drawbacks to an otherwise attractive vacation destination. The Willow Creek Reclamation Committee, a local stakeholder group and partner with the MCFA, has utilized more than \$500,000 in grants and donations to characterize the sources and degrees of contamination and to begin clean up in the watershed. Estimates for the time and cost of clean up have ranged from 5-10 years at 10's of millions of dollars. With only 831 residents, the entire cost of clean up cannot feasibly be assumed by the Mineral County taxpayers.

2. Community Benefit- A Brownfields clean up grant will clean up and allow redevelopment of a Property that is intended to benefit the communities of Creede and Mineral County. The cleaned up land will be accessible to the public, and redevelopment will be directed towards the

public's objectives for a multi-use fairgrounds. The 45.89 acres are highly visible to residents and travelers due to abutment to Highway 149 and proximity to Creede. This stretch of Highway 149 is part of the Scenic Silver Thread Byway, which is designated as a National and State Scenic Byway. The Airport Road is also heavily traveled by Mineral County residents living in subdivisions along Deep Creek road and by tourists staying at the 100-unit RV Park at the southern boundary of the Property. Mineral County constructed a 6,000' walking trail through private land along the western side of the floodplain for exercise and as a safe path for pedestrians between Creede and Airport Road. Currently this trail ends at the northern boundary of the Property. The MCFA has committed that clean up of the property will allow for expansion of this trail or other means of access to open areas and to Airport Road. Clean up of the Property will improve the aesthetics of a parcel of land and indirectly benefit the economy by beginning removal of a blight situation.

Clean up of the Property will reduce threats to human health and the environment through exposure to heavy metals. The Creede Child Care Center and several residences are within 1 mile of the Property and are susceptible to contaminants in dust blowing from the Property. A large, safe, greenspace for recreation within walking distance of downtown will provide an opportunity that is currently not available to residents and visitors to Creede. Redevelopment as a multi-use fairgrounds will provide previously unavailable facilities for cultural and musical events, trade shows, fairs, soccer, track, and horse/livestock activities and education. The availability of these and other activities in a new fairgrounds was identified as highly important by the respondents to MCFA's Fall 2002 survey. Currently, the largest indoor event facility in Mineral County will only hold 200 patrons, and there are no public indoor horse/livestock arenas. The nearest opportunities for participation in 4-H and other fair events are 55 miles away in Monte Vista. Furthermore, there is not a track or any ball field facilities in Mineral County available to the schools or residents with the exception of one baseball field.

In line with Creede and Mineral County's land use plans (Four Corners 2001), the clean up will provide safe greenspace within designated wildlife migration corridors. The wilderness areas and open spaces around Creede have been identified as a critical winter range for elk. The revegetation that is proposed as part of clean up measures will also provide a visual and environmental buffer for the commercial and light industrial development that is planned west of the Property. Reduction in the migration potential for contaminants to Willow Creek will be a step in restoring the biological integrity and water quality of the lower Willow Creek and upper Rio Grande River watersheds.

3. Brownfields Impacts- Currently the Brownfields identified in the Creede/Mineral County area are all mine-scarred lands.

- The Willow Creek floodplain below Creede constitutes at least 275 acres of land that has been subject to contamination from mine and mill areas and their associated waste materials. The floodplain is <20% vegetated based on aerial photos from 2002. This unsightly area is owned by four landowners (MCFA will be one), but remains undeveloped because of contamination concerns. The landowner of 168 acres at the north end of the floodplain has expressed an interest in donating the property to the City of Creede for greenspace.
- Approximately 251 acres at the Creede Airport Corner site on the west side of Airport Road have been approved for clean up under the Colorado Voluntary Clean Up Program. To date this land was only minimally developed as an airstrip and airport building due to heavy metal contamination from waste rock and tailings dumps.
- The U.S. Forest Service Abandoned Mine Land Inventory (2000) identified at least 60 mine

areas in the Willow Creek watershed, encompassing more than 200 adits/holes and 68 waste rock/tailings piles. Each of these sites is a current or potential contributor to environmental degradation through acid, sediments, and heavy metals contamination of terrestrial and aquatic habitats.

Brownfields in Creede and Mineral County are numerous, with devastating effects on the environment. Fish are unable to thrive in lower Willow Creek due to heavy metals and the lack of suitable habitat (WCRC 2003). The creek and associated floodplain as visible in Creede and from Highway 149 are virtually devoid of vegetation, with iron and salt deposits on the rocks. For an area in which tourism is an integral part of the economy, these barren landscapes near town are not welcoming. Guest ranches along the Rio Grande corridor below Willow Creek have indicated that the poor water quality and 303(d) impaired waters listing (CDPHE 2003) are deterrents to some of their primary customers- fly fishermen.

Mine scarred Brownfields also have a negative impact on real estate sales and value. In 2003, the Happy Thought mine area sold for \$30,000 for 10 acres, or \$3,000/acre. Comparable land, a secluded mountainside lot with road access, but with no contamination could sell for \$8-10,000/acre (pers. comm. Broken Arrow Realty). Many owners of contaminated land find sales non-profitable or more likely are unable to find someone willing to buy contaminated property.

C. Sustainable Reuse of Brownfields/Development Potential

1. Sustainable Development Strategy- The development of the MCFA was prompted by the fact that Mineral County is one of the few counties in the state that does not have a fairgrounds. Therefore, many of the events associated with a rural community such as a county fair, have been relatively unavailable to citizens. The Property will be developed into a multi-use fairgrounds facility that will offer a wide range of recreational, sports, and educational opportunities for youth and adults. Conceptual plans include structures for fairs, conferences, concerts, and other shows; a running/walking track; a soccer/football field; indoor and outdoor horse/livestock facilities; and open space. Facilities for sports and other competitions or shows do not exist in Mineral County, and their availability will spur social development and a sense of community. Full-time and part-time jobs will be created to manage the fairgrounds and to organize and promote its events and programs. The events and shows that the fairgrounds can house will compliment the local economy by drawing in patrons to the restaurants and shops in Creede. In addition to the reclamation of 46 acres, this proposal will contribute to the efforts of the Willow Creek Reclamation Committee, a stakeholder-based watershed group. These efforts will lend credence to the effectiveness of community involvement in environmental action.

2. Reuse with Environmental Improvement- Fairground design discussions with the architects have included green building designs and use of materials such as solar cells, straw bale and stucco construction, in-floor radiant heat, and natural lighting. Effluent from the City sewage lagoons that flows through the northeast portion of the property might be recycled for irrigation purposes. In accordance with the Mineral County and Creede Community Plan (Four Corners 2001), landscaping will incorporate native vegetation, with the ultimate objective of minimizing the visual impact of new development along the Scenic Byway. Revegetation efforts will take into account the trials of the Willow Creek Reclamation Committee (WCRC 2003) so that shade, water, and fertilizer provisions create the greatest likelihood for establishment. Manure from equestrian/livestock facilities will be composted and used as fertilizer on-site. Portions of greenspace may be used for garden development as part of local 4-H projects.

3. Economic Development and Community Needs- It is anticipated that local companies will

be the low bidders for all of the construction, landscaping, and building on the site due to prohibitive mobilization costs from outside communities. The clean up and construction will provide temporary work for several laborers for the next few years. Once the fairgrounds is operational, part-time and eventually a full-time job(s) will be created for event planning and coordination, grounds keeping, maintenance, and care of animal housing/arenas. The facilities will stimulate the local economy by drawing visitors to concerts, fairs, trade shows, and other events. These visitors will patronize the local retail and lodging establishments already available in Creede. Indoor facilities will allow event hosting during the winter months that are currently poor revenue times for the region. As indicated in the Mineral County and Creede Community Plan (Four Corners 2001), economic development strategies for winter are a priority for the local economy.

4. Brownfields prevention- Mining has ceased in Mineral County, and with the current value of silver, is unlikely to return. Mineral County and Creede have adopted a Preferred Growth Scenario (Four Corners 2001). This plan focuses on cluster development, and although it promotes some degree of economic growth through light industry and business, guidelines and standards will govern development and placement. The county is also considering tax incentives for conservation easements, and has already contributed financially to an easement along the Rio Grande River. Given the limited amount of private land (<7% of Mineral County), citizens are committed to protecting, preserving, reclaiming, and redeveloping what there is.

5. Proposed Reuse, Brownfields Prevention, Community Plan- Benefits of the Property redevelopment that align with the Mineral County and Creede Community Plan (Four Corners 2001) include diversifying the local economy, creating opportunities for tourist attraction during winter, and reclaiming a portion of lower Willow Creek. The Property lies within the area designated as a Scenic Corridor and adjacent to a proposed light industrial and commercial park in the Community Plan. The proposed redevelopment as a fairgrounds complies with the Community Plan's guidelines by using native landscaping and open spaces to minimize visual impacts on scenic corridors. The Community Plan also indicates the City and County's commitment to working with the Willow Creek Reclamation Committee (WCRC) to reclaim lower Willow Creek and to develop a park and greenway. MCFA's partnership with the WCRC will demonstrate the effectiveness and benefits of Brownfields redevelopment, and will serve as a model for reclamation and reuse of other mine-scarred areas.

D. Creation and/or Preservation of Greenspace/Open Space or Other Nonprofit Purpose

1. Facilitation of Greenspace/Open Space- The Property has historically been undeveloped due to contamination issues, and would certainly remain unused if not cleaned up. A Brownfields clean up grant would facilitate the clean up and restoration of the Property for the community's benefit. With the limited amount of land available, a non-profit fairgrounds will provide a much needed publicly accessible recreation and park area. The Property will be connected to Mineral County's walking trail, the RV Park, and the community along Deep Creek Road, allowing easy, safe access for events and recreation. Recreational facilities, such as the proposed ball field and track, are greatly needed, as they are currently not available in the County, even at the school. The riparian areas and upland open spaces will be reclaimed and enhanced with native vegetation, providing wildlife and aquatic habitat. It is anticipated that reclamation of the Property will inspire adjacent landowners to pursue similar projects.

E. Reuse of Existing Infrastructure

1. Existing Infrastructure- Clean up and future uses of the Property will benefit from existing

infrastructure in the way of roads, trails, electricity, water, and sewer. Vehicular access to the Property is available directly from Highway 149 or Airport Road. Mineral County has committed assistance in expansion of their walking trail that begins in Creede and currently ends at the northern boundary of the Property. In the Mineral County and Creede Community Plan (Four Corners 2001), the narrow gauge railroad currently undergoing renovation will feature a depot on the adjacent land to the east of the Property. Three-phase electrical power is available at the site, and city water and sewer lines are available within one-half mile of the Property. MCFA will utilize the extensive knowledge and experience of existing service groups such as the Willow Creek Reclamation Committee and the Mineral County Arts and Recreation Department for guidance and review of the proposed clean up and redevelopment.

F. Community Involvement

1. Community Involvement- The MCFA has partnered locally with the Willow Creek Reclamation Committee (WCRC) for clean up decisions on the Property (see attachment). The WCRC is comprised of private citizens and businesses in and around Creede and representatives from >11 federal, state, and local environmental agencies. The WCRC has acted as an advisor to local government on environmental issues for five years, and its members are experienced in data collection and environmental restoration. As both the WCRC and MCFA have open memberships and advertised meetings, anyone from the local community will have an opportunity to provide input on clean up decisions.

The MCFA has already shown a commitment to community input in redevelopment by sending out a Community Survey with the help of the Community Technical Assistance Program of the Colorado State University Cooperative Extension. This survey, conducted in Fall 2002, was sent to utility customers and post office box holders in Creede, which serves the larger target community of Mineral County. Ninety-nine surveys were returned, with 59 (15%) of year-round resident households represented. This response was considered average for mail surveys. The survey asked questions about current and future participation in various activities, events, and programs, as well as the importance of those things to the respondent. Overall, the majority of full time Mineral County residents ranked their level of support for a fairgrounds proposal as “high” (64% of respondents), whereas only 7% ranked their support as “low”. The priorities of this initial survey have already been incorporated in conceptual designs by the architect.

The MCFA has garnered support and input for reuse planning from the following local groups and businesses (underlined indicates letters attached): City of Creede, Mineral County, Willow Creek Reclamation Committee, Mineral County/Creede Recreation Department, Creede-Mineral County Chamber of Commerce, Creede Consolidated Schools, Rocky Mountain Knife & Tomahawk Alliance, SLV Renegades, Mountain Views RV Park, 4-H, Gilmer Design, First National Bank of Lake City and Creede, Emerald Ranch, and Creede Animal Clinic. Representatives from MCFA have personally met with these partners to discuss the objectives of the group and the conceptual plans for the Property. Clean up and redevelopment proposals have been publicly discussed at open and advertised meetings including a City Council meeting (27 attending; 11/10/03), a public meeting (17 attending; 11/19/03), and a County Commissioners’ meeting (15 attending; 12/1/03). Future community input on reuse plans will be encouraged at monthly MCFA meetings and regular open meetings to be advertised through the Mineral County Miner newspaper, bulk mailings, and fliers at 20 locations around Creede.

2. Local and State Partnerships- The MCFA will continue to foster its partnerships with the Colorado Department of Public Health and the Environment Voluntary Clean Up Program and the Willow Creek Reclamation Committee (WCRC), as they are the appropriate resources

regarding past assessments done on the Property and the clean up of Brownfields. Approval and oversight under Colorado’s Voluntary Clean Up Program will ensure that clean up of the Property is complete and sustainable. The MCFA will continue to meet with the Creede City Council and Mineral County Commissioners to ensure that redevelopment plans for the Property are supported by the Mineral County and Creede Community Plan (Four Corners 2001). Open meetings involving other civic and private interest groups will be held to discuss the types, placement, and design of fairgrounds features. Such efforts will confirm the support in and usability of the fairgrounds for decades to come.

3. Communication Plans- The progress of the proposed project will be released to the public at periodic City Council and County Commissioners meetings, through public meetings, in MCFA flyers and mailings, and through articles in the Mineral County Miner newspaper. There is no radio reception or a public access television station in Mineral County, and therefore these media will not be used. Personal phone calls will be made to update pertinent partners, such as the City, County, adjacent landowners, and community groups. Over 99% of Mineral County residents speak English well (Census 2000), so no efforts will be made in other languages.

4. Involved Community Organizations- A list of local organizations that have expressed support of for the MCFA in their clean up and redevelopment plans is as follows:

Organization	Contact Person	Contact Number	Activities and Representation
Willow Creek Reclamation Committee	Leigh Ann Vradenburg, Coordinator	719-658-0178	Environmental reclamation; pledges assistance with project oversight, technical issues, and grant management
Creede/Mineral County Arts & Recreation Dept.	Eloise Hooper	719-658-2276	Organizes youth and adult arts and recreation programs, classes, and performances; supports facility development
Creede-Mineral County Chamber of Commerce	Patricia Richmond	719-658-2374	Organizes community events and tourist information; supports community benefit and economic development
Creede Consolidated Schools	Buck Stroh	719-658-2220	Local school district; supports track and field development and pledges in-kind design assistance
Rocky Mountain Knife and Tomahawk Alliance	Mike Kolisch	719-658-0420	Promotes knife and tomahawk throwing events and education; supports facility development and pledges in-kind assistance
San Luis Valley Renegades	Mike Kolisch	719-658-0420	Promotes black powder shooting and historical events and education; supports facility development and pledges in-kind assistance
4-H	Ray Sharp	719-658-2212	Develops life skills, social skills, and personal interests of youth; supports facility development for event hosting

G. Reduction of Threats to Human Health and the Environment

1. Human Health Threats- Past assessment activities have identified the areas and levels of contaminants that pose threats to human health and the environment. Contaminants of concern

are primarily lead, cadmium, zinc, and arsenic in the soils in the “floodplain” and at the northern end of the “bench”. There is no air pollution associated with the Property. Extensive surface water contamination in Willow Creek occurs miles upstream of the Property and sampling efforts have not indicated a significant contaminant increase associated with the Property (WCRC 2003). Surface water will not be treated under the MCFA’s Voluntary Clean Up Plan (VCUP) or Brownfields funding; however, measures will be undertaken to ensure that surface water interaction with contaminated soils and leaching of contaminants to ground water is minimized or prevented.

Brownfields funding will be used for soil remediation at the Properties, which will be conducted in accordance with the Colorado Voluntary Clean Up and Redevelopment Act (CRS 25-16-301) requirements. For MCFA’s VCUP to be approved, it is necessary to demonstrate that it will attain a degree of clean up and control of hazardous substances that complies with the promulgated applicable state requirements, regulations, criteria, or standards. Additionally, it must be shown that the Property does not present an unacceptable risk to human health or the environment based upon the uses proposed by the Property’s owners. The Property is planned for multi-purpose land use, which can be classified as Residential/ Unrestricted land use. The CDPHE developed recommended Soil Remediation Objectives (SRO), which are applicable to MCFA’s VCUP. These SRO take into account default exposure and biokinetic values and predicted blood levels in young children. As indicated in the VCUP submitted by Navajo Development, LLC (EnviroGroup 2002), the CDPHE established an action level of 70 ppm for arsenic in soil for all land uses. The objective of the remediation plan will be to treat soil with lead concentrations above 400 ppm and/or arsenic above 70 ppm using a stabilization/capping approach. This approach will reduce the mobility of metals in the soil. A site-specific health and safety plan will be developed to mitigate construction and operational risks. Human health is a potential issue since the Property will be developed as fairgrounds. Workers at the Property face the most risk due to longer-term exposure compared to the transient community visiting the fairgrounds. An objective of the remediation will be to control the potential for exposure of all users of the Property, and the remediation measures will be designed and implemented to be protective of human health and the environment.

2. Local or State Partnerships for Public Health- The MCFA will be working with the Colorado Department of Public Health and the Environment (CDPHE) through their Voluntary Clean Up Program. The MCFA’s Voluntary Clean Up Plan (VCUP) is currently under review by CDPHE. Necessary components of the VCUP include a risk assessment for human health, remediation plans for control of exposure, and all applicable institutional controls. Implementation of the clean up plan will meet appropriate and protective levels as approved of by CDPHE.

3. Proposed Clean Up and Costs- The proposed clean up plan for the Property involves soil remediation measures for approximately 32.5 acres with soil lead concentrations >400ppm and/or arsenic concentrations >70ppm. The proposal incorporates land use plans as conceptually designed by the architect as a basis for calculating the acreage of various land covers. The remediation approach is defined by three main types of activity: 1) capping with structures; 2) capping with low permeability surfaces; and 3) stabilizing with landscaping. The following points describe these activities and projected costs.

- **Capping with structures-** Several large structures that are planned for the site will serve as caps by preventing exposure to metal contaminated soil and further erosion and transportation of metals. Considerations will include slab-on-grade construction, storm water

collection systems, and use of the public wastewater system. These sites will be prepared with a 12 inch layer of on-site fill material. The area to be capped with soil and structures is 8 acres. The estimated cost for this technique is \$ 4,969/acre, for a total of \$39,752.

- **Capping with low permeability surfaces-** Several parking lots and sidewalks that are proposed for the site will be graded level with 6-12 inches of road base and then paved with asphalt. These low permeability surfaces will reduce infiltration of runoff, control erosion, and limit human exposure to soils. The estimated area to be capped with surfaces is 1 acre. The estimated cost for this technique is \$96,980/acre.
- **Stabilizing with landscaping-** The use of landscaping for phytostabilization will decrease the amount of infiltrating water, serve as a barrier between receptors and contaminated soil, prevent erosion, and reduce leaching of unacceptable levels of contamination to the ground water. Areas of phytostabilization include open space, play fields, and other landscaped areas. On site clean soil/fill material will be graded over the area at a consistent thickness of 12 inches. Native grasses, 300 shrubs, and 200 trees will be placed or planted as appropriate for designated uses. The estimated area to undergo phytostabilization is 23.5 acres. The estimated cost for this technique is \$5,713.53/acre, for a total of \$134,268.

Additional costs will include mobilization, establishment of positive drainage on the site, revegetation of clean soil excavation areas, prevention of erosion associated with Willow Creek, development of a soil management plan if any excavation and relocation is necessary, and adoption of institutional controls such as restricted groundwater use and site development. A monitoring plan will be designed to evaluate the effectiveness of acreage remediated through phytostabilization. Based on projected costs from the VCUP, the total clean up cost will be \$291,000. Other costs associated with community involvement, planning, and follow up bring the total to \$317,620.

H. Leveraging of Additional Resources

1. Financial Needs for Project Phases-

Phase 1: Clean Up- The clean phase is expected to take 2-4 years, with clean up in the first year, and monitoring, assessment, and any necessary follow up work taking the next 1-3 years. The four tasks involved in the clean up phase are:

Task	Estimated Cost	EPA Brownfields	Cost Share
1) Community involvement- outreach through meetings, mailings, and postings; associated costs are for planning, meeting facilitation, postage, and flier preparation for clean up	\$4,100	\$0	\$4,100
2) Clean up planning- consultant time, design review, bid development	\$15,900	\$3,000	\$12,900
3) Site clean up- project oversight, contractor costs (time, equipment, supplies, materials)	\$291,000	\$195,800	\$95,200
4) Post clean up monitoring and assessment- sample collection, sample analysis, reporting	\$6,620	\$1,200	\$5,420
TOTAL	\$317,620	\$200,000	\$117,620

Phase 2: Redevelopment/Fairgrounds Construction- The redevelopment of the Property is proposed to take 2-5 years, depending on the availability of resources and the interests of the community. The four tasks involved in the construction phase are:

Task	Estimated Cost
1) Community involvement- outreach through meetings, mailings, and postings; associated costs are for planning, meeting facilitation, postage, and flier preparation, fundraising	\$21,500
2) Design- architect, permits, bid development	\$15,000
3) Infrastructure- water rights, trails, utilities, insurance, management	\$140,000
4) Construction- project oversight, contractor costs (time, equipment, supplies, materials)	\$651,000
TOTAL	\$827,500

2. Committed funding from MCFA-

Phase 1: Clean up- The cost share for the clean-up work is \$117,620. The MCFA will commit the following to clean-up:

- MCFA members In Kind- \$ 3,000.00

Phase 2: Redevelopment/Fairgrounds Construction- The estimate for fairgrounds construction is \$827,500 over the next 5 years. The MCFA will commit the following to redevelopment:

- Fairgrounds revenue- \$130,000.00
- MCFA and local in kind- \$152,000.00
- Fundraising \$ 10,500.00

3. Additional Funding Sources-

Phase 1: Clean up- Given the MCFA commitment, funding for the remainder of the clean-up cost share (\$114,620) will come from the following:

- CDHPE remediation funds- \$ 50,000.00
- Mineral County In Kind- \$ 35,970.16
- Creede Virginia Christensen Fund- \$ 10,000.00
- Private donations- \$ 13,449.84
- Willow Creek Reclamation Committee- \$ 5,200.00

Phase 2: Redevelopment/Fairgrounds Construction- Given the MCFA commitment, funding for the remainder of the redevelopment cost share (\$535,000) will come from the following:

- Great Outdoors Colorado- \$350,000.00
- Coors Foundation- \$100,000.00
- Local in-kind, other grants- \$ 85,000.00

I. Ability to Manage Grants

1. Ability to Manage Grants- The MCFA has an elected board, including a treasurer, which will handle the management of this grant including payments, accounting, and reporting. The Willow Creek Reclamation Committee (WCRC), a local non-profit and partner, has been the recipient of multiple EPA grants and a participant in numerous cost share agreements with other Federal and State agencies. The WCRC is committed to providing any guidance necessary regarding grant management. Zeke Ward, WCRC chairman, is also on the board of the MCFA.

2. History of Federal Fund Management- To date, the MCFA has not been the recipient of any Federal funds, but has received \$16,221 in state and private funds. An elected treasurer is responsible for funds management, and all expenditures are verified and voted upon by the board members. The MCFA has not been the subject of any adverse audit findings.

3. Past Brownfields Reporting Compliance- The MCFA is not a current or past recipient.

4. Current Brownfields Recipient (Year of Award and Status)- Not applicable

5. Current Brownfields Recipient (Accomplishments)- Not applicable