



## **Mosca-Hooper Conservation District**

### **3-Year Plan (2022 to 2024)**

For More Information Contact: Marta Petermann (319) 217-0679

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#### **BACKGROUND**

##### **Organization of the Mosca-Hooper Conservation District**

Conservation Districts are political subdivisions of the State of Colorado. The authorities, powers and structure are contained in Colorado Revised Statutes, Title 35, Article 70.

The Mosca-Hooper Conservation District was organized under the Colorado Soil Conservation Act of 1937 (Colorado Revised Statutes Title 35 Article 70). The District was established by a referendum of landowners on 07 June 1943. All incorporated municipalities and areas devoted exclusively to commercial or industrial uses, as they existed at the time the original District was formed, are excluded from the District. Total acreage within the district is 462,000 acres, of which, 317,000 acres are private and 145,000 acres are public lands.

##### **Function of the Mosca-Hooper Conservation District**

To make available technical, financial and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land manager with conservation of soil, water and related natural resources.

##### **Mission of the Mosca-Hooper Conservation District**

The mission of the Mosca-Hooper Conservation District is to provide leadership in natural resource management for the betterment of all present and future residents of the district through education and example.

## RESOURCE DESCRIPTION

### Natural Resource Data

Lands within the Mosca-Hooper Conservation District total approximately 722 square miles in Alamosa County, Colorado. Most of this land is level, with an approximate elevation of 7,500 feet, except for the extreme eastern part of the District which rises to woodlands and alpine areas on the western Sangre de Cristo Mountains. Aeolian and alluvial deposits form the basis for the soils of the District. Arid conditions, with annual precipitation averaging 7 inches, and cold temperatures with annual average temperature at 41 degrees F, create distinct challenges for agricultural production in the region. Irrigated cropping, pasturing, and livestock production are the dominant land uses in the District. Water for irrigation is sourced from wells drawing from the region's system of aquifers, and from snowmelt delivered through an extensive system of mostly unlined earthen ditches.

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## RESOURCE PLANNING

### Trends Which Adversely Impact Conservation within the Mosca-Hooper Conservation District

- Soil within the district is affected by wind erosion, alkalinity, salinity, and hydrologic drought, which challenge management towards soil health
- Lack of soil health education
- Lack of conservation tillage and over-tilling, bare soil fall to spring
- Depletion of ground water for irrigation
- Decreasing quantity and quality of surface water for irrigation
- Inefficient water delivery systems and aging irrigation infrastructure throughout the District
- Limited on-farm aquifer recharge facilities
- Lack of noxious weed control and related education
- Degraded air quality due to wind-borne soils
- Lack of conservation awareness within the general population
- Lack of funding for public efforts for conservation

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### Prioritized Natural Resource Issues & Goals

**Soil Health** - Across our district, we experience soils that are commonly not high-functioning, productive, nor fertile. We will work to make our soils more functional at producing healthy crops, at resisting erosion, at cycling nutrients, at supporting livestock production, and at storing water.

Goal – Within the term of this long-range plan, we will see increased participation by our district's land managers in district sponsored soil health workshops and trainings, and resulting adoption of basic soil health principles, with decreased wind erosion and increased soil carbon.

Objectives - Sponsor soil health workshops, tours, and trainings to educate local land managers and livestock producers about the potential for improvement of soil function, productivity, and reduced erodibility of their lands thorough use of basic soil health practices.

**Water Conservation** - Within our arid district, irrigation is the primary means for sustaining crop production, but diminishing water supply and water quality are forcing farmers and ranchers to reduce active cropping and livestock grazing in response to these limitations.

Goal – We will see sustained agricultural use of the bulk of irrigated lands in our district, resulting in part from implementation of soil health practices (including compost applications), irrigation system efficiency upgrades, and improved water utilization (through use of moisture sensor probes and other technologies), each of which the conservation district will be actively promoting.

Objectives – Improve communication between land managers and District; develop retail sales of fungal-based compost and soil moisture sensors, and make these resources more accessible within our district.

**Noxious Weeds** - Noxious weed encroachment onto agricultural lands is a persistent and troublesome problem in our district. These weeds threaten the sustained function and production of these lands.

Goal –we will see a reduction of weed infested areas in the District.

Objectives – In cooperation with the Northwest Weed District and Alamosa County, increase online and in-person educational opportunities and trainings to enable land managers to control noxious weeds, emphasizing effective alternatives to herbicide applications.

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### **Natural Resource Information /Education Priorities and Goals**

We plan to provide a scholarship for Colorado youth, to engage students through a conservation-themed poster contest, to sponsor workshops for local land managers on soil health, water conservation, and noxious weed. Further, we plan to continue to provide funding to the Rio Grande Watershed Education and Conservation Initiative, which does youth educational outreach in our district and in our watershed.

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### **Conservation District Operational Goals & Objectives**

Goal – Within the term of this long-range plan, we will continue to employ a district manager and look for capacity building opportunities via grants and private donations.

Objectives – Seek out multiple revenue streams for long-term funding of District employee position(s). Require on-the-job trainings to improve the manager’s competence and performance. Adjust, as necessary, the manager’s hours and hourly compensation to promote recruitment and retention.

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### **Staffing Needs**

#### **Manager**

The part-time Manager is the only District employee, working 50-hours-per-month at \$22-per-hour with no benefits other than required insurance. Additional benefits, such as retirement contributions could help with recruitment/retention. The District must secure long term funding for staffing, plan for cost of living increases, and increase capacity to meet demands of future projects.

#### **Supervisors**

Robert Rice, President

Bill Brinton, Vice President

Segundo Diaz, Treasurer

Patrick O’Neill, Supervisor

Trudi Kretsinger, Supervisor

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# MOSCA-HOOPER CONSERVATION DISTRICT

## Natural Resource Goals & Objectives

Long Range Plan for: 2022-2024

**Natural Resource Priority:** Soil Health

**Why is this a concern and what is the location:** Most soils in the District are highly erodible, on low-functioning, input-dependent irrigated agricultural lands.

**Three Year Goal(s):** To identify landowners and land managers presently implementing soil health practices within the District; to establish District-Farmer partnerships to continue baseline data collection related to soil function, soil carbon content, and erodibility of lands across the area of the District; to track the number of farmers participating in District-Farmer partnerships.

PROGRAM YEAR	MEASURABLE ANNUAL OBJECTIVES	COOPERATING AGENCY/GROUP	TIME AND FUNDING NEEDED	SOURCE OF FUNDING
2022	<p>A. Establish a soil health learning network with land managers.</p> <p>B. Communicate the activities of regional soil health efforts via field days, workshops, and other coordinated activities. Track participation numbers and value to participants by survey. Promote NRCS technical services and program opportunities for land owners' benefit.</p> <p>C. Work with local producers and school districts to provide soil health support materials for teachers, and to help arrange demonstrations and presentations from visiting soil health educators.</p> <p>D. Work to identify funding to build useful soil reports for target audiences.</p> <p>E. Promote use of fungal-based compost and compost extract by land managers in the District and region.</p> <p>F. Review agreement/contract with Fungal Link LLC</p>	<p>Soil Carbon Coalition</p> <p>National Center for Appropriate Technology (NCAT)</p> <p>Rio Grande Watershed Conservation &amp; Education Initiative (RGWCEI)</p> <p>Valley Courier Newspaper</p> <p>San Luis Valley Soil Health Group</p> <p>Fungal Link LLC</p>	<p>\$100/hr writing</p> <p>\$1600/wk onsite</p>	<p>Grants</p> <p>NCAT</p> <p>Colorado State STAR Grant Program</p> <p>Colorado Water Conservation Board (CWCB)</p> <p>Statewide Internet Portal Authority (SIPA)</p> <p>Local farmers and businesses</p> <p>Compost sales</p> <p>Extract sales</p> <p>Extractor rental</p>

<p><b>2023</b></p>	<p>A. Establish a soil health learning network with land managers.  B. Communicate the activities of regional soil health efforts via field days, workshops, and other coordinated activities. Track participation numbers and value to participants by survey. Promote NRCS technical services and program opportunities for land owners' benefit.  C. Work with local producers and school districts to provide soil health support materials for teachers, and to help arrange demonstrations and presentations from visiting soil health educators.  D. Work to identify funding to build useful soil reports for target audiences.  E. Promote use of fungal-based compost and compost extract by land managers in the District and region  F. Encourage land managers to reduce wind erosion/wind-borne soil by modifying tillage techniques, use of cover crops, and windbreaks.  G. Review agreement/contract with Fungal Link LLC</p>	<p>Soil Carbon Coalition  NCAT  Rio Grande Watershed Conservation &amp; Education Initiative (RGWCEI)  Valley Courier Newspaper  San Luis Valley Soil Health Group  Fungal Link LLC  Preventive Planting Program  Colo State Forest Svc</p>	<p>\$100/hr writing  \$1600/wk onsite</p>	<p>Grants  NCAT  CSCB Matching Grant Program  CWCB  SIPA  Local farmers and businesses  Compost sales  Extract sales  Extractor rental</p>
<p><b>2024</b></p>	<p>A. Establish a soil health learning network with land managers.  B. Communicate the activities of regional soil health efforts via field days, workshops, and other coordinated activities. Track participation numbers and value to participants by survey. Promote NRCS technical services and program opportunities for land owners' benefit.  C. Work with local producers and school districts to provide soil health support materials for teachers, and to help arrange demonstrations and presentations from visiting soil health educators.  D. Work to identify funding to build useful soil reports for target audiences.  E. Promote use of fungal-based compost and compost extract by land managers in the District and region.  F. Encourage land managers to reduce wind erosion/wind-borne soil by modifying tillage techniques, use of cover crops, and windbreaks.  G. Review agreement/contract with Fungal Link LLC</p>	<p>Soil Carbon Coalition  NCAT  Rio Grande Watershed Conservation &amp; Education Initiative (RGWCEI)  Valley Courier Newspaper  San Luis Valley Soil Health Group  Fungal Link LLC  Preventive Planting Program  Colo State Forest Svc</p>	<p>\$100/hr writing  \$1600/wk onsite</p>	<p>Grants  NCAT  CSCB Matching Grant Program  CWCB  SIPA  Local farmers and businesses  Compost sales  Extract sales  Extractor rental</p>

\* Use of acronyms – please spell out each acronym the first time it is used followed by the acronym. From that point on, use only the acronym.

## MOSCA-HOOPER CONSERVATION DISTRICT

### Natural Resource Goals & Objectives

Long Range Plan for: 2022 – 2024

**Natural Resource Priority:** Water Conservation

**Why is this a concern and what is the location:** Water quantity and quality are very limited in our arid District. Conservation measures addressing these issues are of critical importance to the sustained productivity and livelihood of our lands and landowners.

**Three Year Goal(s):** To promote the recovery of aquifers in the region by encouraging landowners and managers to: improve irrigation efficiency, optimize recharge, use water efficient crops including cover crops, and enhance soil moisture retention. In the coming three-year period, the measurable outcomes of these efforts will be: sustained acreage of operating farms/ranches under irrigation, increasing aquifer levels, landowner use of incentive programs to optimize irrigation water usage and to use cover crops, ongoing sales of soil moisture meters and fungal-rich compost products within the District.

PROGRAM YEAR	MEASURABLE ANNUAL OBJECTIVES	COOPERATING AGENCY/GROUP	TIME AND FUNDING NEEDED	SOURCE OF FUNDING
2022	<p>A. Facilitate communication with land managers and ditch companies within the District to assure awareness of cost-share and incentive programs to improve irrigation and water conveyance system efficiencies.</p> <p>B. Augment pilot study of aquifer recharge optimization with Zeigler Geologic. Expand to interested parties.</p> <p>C. Grow the retail soil moisture sensor enterprise. Coordinate with local technical support providers to get the most effect from the technology.</p> <p>D. Grow the use of fungal-rich compost products.</p> <p>E. Annually review MOU with Fungal Link LLC.</p> <p>F. Promote Master Irrigators Program</p> <p>G. Assist District land managers and ditch companies with drought planning.</p>	<p>NRCS Land Owners Soil Moisture Sensor Manufacturers RGWCEI SLV Soil Health Group Soil Carbon Coalition Zeigler Geologic Rio Grande Water Conservation District (RGWCD) Fungal Link LLC Land Owners Ditch Companies CSU/Extension</p>		<p>District Funds NRCS EQIP Cost-Share Program Statewide Internet Portal Admin. (SIPA) CSCB Matching Grant Program CWCB SCC soil health app</p>

2023	<p>A. Facilitate communication with land managers and ditch companies within the District to assure awareness of cost-share and incentive programs to improve irrigation and water conveyance system efficiencies.</p> <p>B. Expand aquifer recharge optimization to interested parties.</p> <p>C. Grow the retail soil moisture sensor enterprise.</p> <p>D. Grow the use of fungal-rich compost products.</p> <p>E. Annually review MOU with Fungal Link LLC.</p> <p>F. Assist District land managers and ditch companies with drought planning.</p>	<p>NRCS Land Owners Soil Moisture Sensor Manufacturers RGWCEI SLV Soil Health Group Zeigler Geologic Rio Grande Water Conservation District (RGWCD) Soil Carbon Coalition Fungal Link LLC Land Owners Ditch Companies CSU/Extension</p>	<p>SARE Grants NRCS EQIP Cost-Share Program SIPA CSCB Matching Grant Program CVCB RGWCD SCC soil health app</p>
2024	<p>A. Facilitate communication with land managers within the district to assure awareness of cost-share and incentive programs to improve irrigation system and water conveyance system efficiencies.</p> <p>B. Expand aquifer recharge optimization to interested parties.</p> <p>C. Grow the retail soil moisture sensor enterprise. Coordinate with local technical support providers to get the most effect from the technology.</p> <p>D. Grow the use of fungal-rich compost products.</p> <p>E. Annually review MOU with Fungal Link LLC.</p> <p>F. Assist District land managers and ditch companies with drought planning</p>	<p>NRCS Land Owners Soil Moisture Sensor Manufacturers RGWCEI SLV Soil Health Group Zeigler Geologic Rio Grande Water Conservation District (RGWCD) Soil Carbon Coalition Fungal Link LLC Land Owners Ditch Companies CSU/Extension</p>	<p>SARE Grants District Funds NRCS EQIP Cost-Share Program SIPA CSCB Matching Grant Program CVCB RGWCD SCC soil health app</p>

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## MOSCA-HOOPER CONSERVATION DISTRICT

### Natural Resource Goals & Objectives

Long Range Plan for: 2022 – 2024

Natural Resource Priority: Ground Cover with Plant Diversity and Weed Education

Why is this a concern and what is the location: Bare ground is highly erosive, loses soil moisture quickly, and encourages growth of non-native aggressive invaders which replace native vegetation, reduces agricultural productivity, and poses an increased threat from wildfire.

Three Year Goal(s): We will see a reduction in bare ground, and a reduction in acres of weed infestation within our District. In cooperation with the Northwest Weed District and Alamosa County, the District will help educate landowners to proactively manage noxious weeds.

PROGRAM YEAR	MEASURABLE ANNUAL OBJECTIVES	COOPERATING AGENCY/GROUP	TIME AND FUNDING NEEDED	SOURCE OF FUNDING
<b>2022</b>	<p>A. District Supervisors and Manager will educate themselves on weed control covering bare ground in the District, including use of livestock for weed control.</p> <p>B. Encourage RGWCEI to educate youth, at programs such as Beaver Creek Camp, on topics of soil health, soil cover and reducing bare ground.</p>	<p>Northwest Weed District Alamosa County Landowners Farmers Ranchers RGWCEI</p>		<p>Northwest Weed District RGWCEI Mosca-Hooper Conservation District funds</p>
<b>2023</b>	<p>A. Educate the general public to help prevent the introduction of new invasive species; eradicate species with isolated or limited populations, and contain and manage those invasive species that are well-established and widespread. We will emphasize soil cover to eliminate bare ground which is susceptible to weed growth. We will do this via web page and social media.</p> <p>B. Encourage RGWCEI to educate youth, at programs such as Beaver Creek Camp, on topics of soil health, soil cover and reducing bare ground.</p> <p>C. Educate land managers on use of livestock for weed control.</p>	<p>Northwest Weed District Alamosa County Landowners Farmers Ranchers RGWCEI</p>		<p>Northwest Weed District Alamosa County RGWCEI Mosca-Hooper Conservation District funds</p>



2024	<p>A. Educate the general public to help prevent the introduction of new invasive species; eradicate species with isolated or limited populations, and contain and manage those invasive species that are well-established and widespread. We will emphasize soil cover to eliminate bare ground which is susceptible to weed growth. We will do this via web page and social media.</p> <p>B. Encourage RGWCEI to educate youth, at programs such as Beaver Creek Camp, on topics of soil health, soil cover and reducing bare ground.</p> <p>C. Educate land managers on use of livestock for weed control.</p>	<p>Northwest Weed District          Alamosa County Landowners          Farmers          Ranchers          RGWCEI</p>	<p>Northwest Weed District          Alamosa County          RGWCEI          Mosca-Hooper Conservation          District funds</p>
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<p><b>2023</b></p>	<p>A. The District Manager must be excellent at running the business of the Conservation District: fundraising including grant writing and reporting, retail sales, and the continued search for and implementation of diverse revenue streams; community outreach via website, newspaper articles, social media, advertising, and newsletter; statutory filing requirements by every deadline; event and meeting planning; budgeting; A/R and A/P; bookkeeping; monthly sales tax reporting, evaluate for newsletter to District landowners.</p> <p>B. Encourage board member participation in widely available natural resource meetings and private donation requests.</p>	<p>District Board SLV Soil Health Group RGWCEI RGWACD</p>	<p><b>80 Hours/Mo. plus benefits</b> for District Manager  2 hours/week for District Supervisors</p>	<p>Sales Grants</p>
<p><b>2024</b></p>	<p>A. The District Manager must be excellent at running the business of the Conservation District: fundraising including grant writing and reporting, retail sales, and the continued search for and implementation of diverse revenue streams; community outreach via website, newspaper articles, social media, advertising, and newsletter; statutory filing requirements by every deadline; event and meeting planning; budgeting; A/R and A/P; bookkeeping; monthly sales tax reporting, newsletter to District landowners.</p> <p>B. Encourage board member participation in widely available natural resource meetings and private donation requests.</p>	<p>District Board SLV Soil Health Group RGWCEI RGWACD</p>	<p><b>100+ Hours/Mo. plus benefits</b> for District Manager  2 hours/week for District Supervisors</p>	<p>Sales Grants</p>

**RESOLUTION OF ADOPTION**

THEREFORE, Be It Resolved that this Long Range Program of the Mosca-Hooper Conservation District be adopted as the official program of the District as of this 13th day of December, 2021.

Robert Rice 12/21/2021  
Robert Rice, President

William (Bill) Brunt 12-21-21  
Bill Brinton, Vice President

Segundo Diaz 12/21/2021  
Segundo Diaz, Secretary/Treasurer

Patrick O'Neill 21 Dec 2021  
Patrick O'Neill, Supervisor

Trudi Kretsinger 12.22.21  
Trudi Kretsinger, Supervisor

Reviewed by the Colorado State Conservation Board

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Colorado State Conservation Board, President

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Cindy Lair, Program Manager

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Date