

Integrated Weed Management

In 2018, a \$960.45 grant awarded by the Habitat Protection Program (HPP) funded an on-the-ground management plan implemented by GCWMP staff to restore disturbed areas through hydro-seeding.

125 pounds of Colorado native grass seed was hydro-seeded to rehabilitate areas of extreme disturbance along CR 26 on Sapinero Mesa. This area is critical habitat for big game animals including elk, deer, pronghorn, and bird species such as the Gunnison Sage-grouse (*Centrocercus minimus*). This habitat is being threatened by the noxious annual grass species cheatgrass (*Bromus tectorum*). Implementing this integrated approach will allow for seeded grass species to create competition against cheatgrass and other noxious weed species.

Grass species seeded:

- 1) Western Wheatgrass (*Pascopyrum smithii*)
- 2) Streambank Wheatgrass (*Elymus lanceolatus*)
- 3) Indian Ricegrass (*Achnatherum hyenoides*)
- 4) Prairie June Grass (*Koeleria macrantha*)



Project Outcomes:

- 1) Plots established for monitoring establishment of desired seeded plant species that have potential for providing forage for wildlife and that create high competition against weed species, including cheatgrass.
- 2) Testing and monitoring of research-based hydro-seeding protocols that show best promise for successful establishment in native plant communities.
- 3) Establishment of photo-points to compare and quantify native vegetation re-establishment success in herbicide-treated plots vs. seeded plots.
- 4) Building of staff technical expertise will inform and streamline future hydro-seeding projects .



Continuing noxious weed management efforts with our partners and reducing species populations Basin-Wide is a high priority for the Gunnison County Weed Management Program. Picture: Canada thistle (Cirsium arvense) treatments made at Needle Creek Reservoir in 2019, in an ongoing partnership with the US Forest Service. Needle Creek Reservoir has seen a 50-60% reduction in Canada thistle along it's banks.

2019 Goals

- Grow cooperative efforts with municipal partners through creating a 0.75 FTE, shared position focused on weed management and awareness-raising in the Basin's population centers.
- Establish and define partnership with the Bureau of Land Management for increased contracted weed management, re-seeding and monitoring on BLM-managed lands. The GCWMP has been awarded a \$40K/year grant for 3 years for this effort.
- Secure grant funding that will support continued growth of private lands assistance program.
- Seek funding for the integration of re-vegetation into weed management projects, with priority focus on GuSg habitats.
- Assist Western Colorado University Masters in Environmental Management students' efforts to secure grant funds for the establishment an awareness campaign focused on cheatgrass in the City of Gunnison.
- Update and increase resources available on the GCWMP's webpage on the Gunnison County website
- Continue to increase efforts toward State mapping requirements and data entry into EDDMapS West.
- Pursue a Program name change that more accurately encompasses our work.
- Look for opportunities to increase "front-end" assistance to Gunnison County Reclamation Permit applicants in order to ensure successful re-vegetation and noxious weed control prior to post-construction reclamation inspections.
- Continue to assist hay producers with certification of weed-free forage in partnership with CO Dept. of Agriculture.
- Continue to intensify weed management and awareness-raising efforts around Marble and the North Fork Valley through contracted weed treatments, private landowner assistance and GCWMP's on-the-ground and educational efforts.
- Plan and host the first annual local western County Weed Manager's and Coordinator's conference to be held in Gunnison. Counties that may be included: Montrose, Chaffee, Mineral, Archuleta, and Delta County.



2018 Annual Report Weed Management Program

Cheatgrass (*Bromus tectorum*): Protecting Gunnison Sage-grouse habitat from cheatgrass is a Weed Management Program priority.

Partnerships Drive Success in 2018

It is with gratitude that we share the Gunnison County Weed Management Program's (GCWMP) accomplishments during the 2018 growing season. Meeting our Program's Basin-wide objectives and goals is possible only through collaboration, and we are fortunate to work with many professional and citizen partners who share funding, expertise, time and an earnest dedication to awareness-raising and stewarding the health of the Basin's agricultural, ecological, economic and recreational natural resources.

We gratefully acknowledge Gunnison County's support and recognition of the importance of noxious weed management to the ecology and economy of the Gunnison Basin. The ongoing financial support of Gunnison County forms the basis of our Program's successes, and provides the foundation upon which we are able to build collaborative partnerships with agencies and citizens throughout the Basin.

The Gunnison Basin Weed Commission continues to grow and evolve into a diverse and dynamic group of partners who are dedicated to working together to make positive impacts throughout the Gunnison Basin. Each federal, state, county, municipal, non-profit and citizen partner on the Weed Commission demonstrates ongoing dedication and generosity in sharing valuable skills, perspectives and resources that make our collective awareness-raising and land management efforts increasingly successful and impactful each year.

The GCWMP was excited to make strides in 2018 toward meeting our ongoing goal of increasing our integrated weed management efforts. A grant from the Colorado Parks and Wildlife's Habitat Protection Program and support from the Gunnison County Public Works Department allowed us to complete a large-scale hydro-seeding project in Gunnison Sage-grouse habitat on Sapinero Mesa. We look forward to monitoring and evaluating the project's results in the coming years, and hope that it will yield information that will inform our ongoing and increasing re-seeding efforts in native plant communities.

Grant funding provided by the Colorado Department of Agriculture (CDA) continued to support some of the efforts we were proudest of in 2018. For example, a grant-funded partnership between the Town of Crested Butte, Town of Mt. Crested Butte, City of Gunnison and Gunnison County allowed the Weed Management Program to address critical noxious weed "hot spots" in the valley's population centers. Increased funding commitments from the Towns of CB and Mt. CB will allow the partnership to continue into the future in these jurisdictions. Funding for weed management in Gunnison will remain at current levels in 2019.

CDA also provided funding for the continuation of the Private Lands Assistance Program, which allows the Weed Management Program to provide financial assistance to private landowners who are managing noxious weeds on their properties. Without landowners' stewardship, our efforts to ensure Basin-wide land health are in vain. We are grateful to all Gunnison Basin citizens who are doing their part to be good neighbors by managing noxious weeds, and we look forward to gladly helping those who may benefit from our assistance in the future.

We are grateful for the privilege of serving the citizens and lands of the Gunnison Basin. We sincerely approach our jobs with our sights set on safety, ecological stewardship and service to the people of the Basin. Please don't hesitate to contact us with thoughts about how we can better serve you and the places you care about.

- Jon Mugglestone & Bradley Wigginton, Co-Coordinator

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2018 Highlights

The Gunnison County Weed Management Program coordinates integrated noxious weed management in the Gunnison Basin, provides education and consultation on plant community ecology and management, certifies weed free hay and implements and inspects reclamation projects. Below, please find some of the accomplishments we were most proud of in 2018:

- 87+ herbicide acres of noxious weeds were treated on federal, state, county, municipal and private lands throughout the Gunnison Basin.
- 15 reclamation permit inspections and reports (100% of outstanding permits) were completed by GCWMP Co-Coordinator
- Consultations and on-site visits were carried out with over 200 private landowners, agency representatives and businesses.
- Five Certified Weed Free Hay inspections were completed for local hay producers and the CO Dept. of Ag, for a total of 520 acres certified.
- A \$22,000 grant from the CO Dept. of Ag funded a shared seasonal employee in partnership with Towns of CB & Mt. CB and the City of Gunnison.
- Partnered with the Towns of CB & Mt. CB and City of Gunnison to request equitable and ongoing funding for a shared, 3/4 time position. Funding was granted by CB & Mt. CB.
- Participated in USFWS Species Status Assessment for Gunnison Sage-grouse.

State-Listed Noxious Weed Control

87.05 acres of state-listed noxious weeds were treated using chemical and mechanical control methods during the 2018 field season, April 19 – November 6. Treatment locations, herbicide acreages, hours worked and cooperators' annual monetary contributions to the Weed Management Program's efforts were as follows. For additional details about any of these treatments please contact the Weed Management Program Co-Coordinators. Please note that we have changed our method of calculation of acres treated in 2018. The acreages listed below are based on "herbicide acres" (not "polygon acres", as in the past). This change allows us to more precisely track and report work completed, materials costs and herbicide inventory.

Cooperator	Treatment Site	Acres	Cooperator	Treatment Site	Acres	Cooperator	Treatment Site	Acres	
NPS (\$5900)	Iola	0.02	Town of Pitkin (\$300)	Streets/Alleys	0.08	Gunnison Cty. (continued)	CR 32/Wetlands	0.41	
	NPS Hwy. Pulloffs	0.34		Total Acres	0.08		CR 38/Subdivisions	0.77	
	Elk Creek	0.44		Hours Worked	3.0		CR 40	0.03	
	North Willow	0.13	City of Gunnison (\$1200)	ROW's and Trails	5.09		CR 41	0.02	
	Dillon Pinnacles	0.05		Water Treatment	0.17		CR 42/42C	0.13	
	Dry Gulch	0.05		Total Acres	5.26		CR 43	0.03	
	Red Creek	0.02		Hours Worked	110.0		CR 44	0.14	
	Bay of Chickens	0.04		(note: 98 hours paid by CDA grant funds)			CR 76	2.34	
	Cooper West	0.04	Town of CB (\$1800)	Streets & Alleys, Big Mine Park, Trails & Open Spaces	2.59		CR 77	0.18	
	East Elk Creek	0.10		Total Acres	2.59		CR 265	0.42	
	Old Stevens	0.07		Hours Worked	86.0		CR 317	0.29	
	Stevens Creek	0.05		(note: 68 hours paid by CDA grant funds)			CR 721	0.88	
	Pine Creek	0.32		Town of Mt. CB (\$2400)	Rec. Path, Street ROW's, Town Hall, Pavillion, Park, Tent Pads		4.40	CR 723	1.20
	CONE Island	2.80			Total Acres		4.40	CR 727	0.23
	Beaver Creek	0.52			Hours Worked		117.0	CR 730	3.51
	Lake Fork	0.05	(note: 93 hours paid by CDA grant funds)		CR 734	0.53			
	Soap Creek	0.15	Saguache Cty. (\$2600)		CR 14PP	1.89	CR 737	0.89	
	Cooper Ranch	0.02			CR 18VV	0.14	CR 738	0.25	
	Total Acres	5.21			Dome Lakes Rds.	0.03	CR 740/Allen HS	0.28	
	Hours Worked	59.0			CR WW13	0.03	CR 742 & 744	0.96	
		CR 6YY			0.07	CR 749	0.01		
USFS (\$6000)	Marshall Pass	0.06	Gunnison Cty. (\$110,467)		CR 2	0.18	CR 771	0.02	
	Needle Creek	0.06		Marble Area Roads	2.30	CR 811	0.26		
	Slate/ Wash. Gulch	0.07		CR 4	0.23	CR 813	0.03		
	Alpine Plateau	0.29		CR 6	0.92	CR 818	0.17		
	Kebler Pass	0.44		CR 7	0.08	CR 858	0.24		
	Taylor & Spring Ck.	0.85	CR 8	0.21	CR 864	2.24			
	Lost Canyon	0.09	CR 9	0.02	CR 887	0.54			
	Gothic to Schofield	0.02	CR 10/North Valley	0.44	CR 888	0.14			
	Cement Creek	0.03	CR 11	0.05	Basin Industrial Park	0.14			
	Red Creek	0.24	CR 12	2.47	County Shop CB	0.14			
Total Acres	2.15	CR 13	0.02	Dos Rios Subdivision	0.21				
Hours Worked	64.5	CR 16 & 19	0.07	Fairgrounds/Airport/Pub. Safety	0.20				
CPW (\$1500)	Gunnison SWA	0.65	CR 17 & Waterline	1.45	GC Landfill	0.08			
	Sapinero SWA	0.82	CR 18	0.03	Hartman Rocks Front Side	0.03			
	Centennial SWA	0.19	CR 20	0.13	Meridian Lake Pk Subdiv.	0.06			
	Van Tuyl SWA	0.09	CR 21	0.84	Riverbend Subdivision	0.24			
	Dome Lakes SWA	0.03	CR 24	0.61	Wilson/CSFS Sewer Easement	0.12			
	Total Acres	1.78	CR 25	0.99	Somerset/GC Maint.	0.37			
	Hours Worked	15.0	CR 26	2.29	Tomichi Heights Subdivision	0.02			
	CDOT (\$27,000)	SH 114	2.18	CR 27	0.16	Total Acres	29.79		
		SH 133	4.62			Hours Worked	813.0		
		SH 135	3.88	A Few Key 2018 Summary Totals:					
SH 92		3.54	• Total Acres Treated by GCWMP: 87.05						
US 50		10.59	• Total Private Lands Acres Surveyed & Treated: 980.0						
SH 149		5.20	• Total Value of Contracted Work Competed for Cooperators: \$50,300						
Total Acres		30.01	• Total Grant Awards Received: \$30,000						
Hours Worked		245.0	• Total Growing Season Hours Worked for Cooperators: 747 (note: 259 hours were grant-funded)						
Hinsdale Cty. (\$1600)		CR 30, 33, 20	0.22	• Total Gunnison County Contribution: \$110,467					
		Total Acres	0.22	• Total Growing Season Hours Worked for Gunnison County: 813					
	Hours Worked	16.0							

Population Centers' "Hot Spots" Targeted in 2018

Management of noxious weed "hot spots" in population centers is critical to limiting weed dispersal and reducing populations of weed species throughout the Gunnison Basin. The Gunnison County Weed Management Program continued to increase our partnerships, bolster awareness-raising efforts and increase on- the-ground treatments within the valley's municipalities during the 2018 growing season.

The WMP partnered with the Town of Crested Butte, Town of Mt. Crested Butte and the City of Gunnison to secure funding to continue comprehensive and coordinated efforts across jurisdictional boundaries in 2018. The Gunnison County and Municipality Noxious Weed Partnership Project was awarded \$22,000 by the CO Department of Agriculture for a shared seasonal employee, and Jason Evanko was hired to lead the effort. CDA emphasizes cultivating local and sustainable fiscal support for ongoing projects, and so in 2018 we requested that municipal partners join the County in committing ongoing, equitable funding for sustaining a shared 3/4 FTE position into the future.

We anticipate that, through funding increases from our partners at the Town of Crested Butte and Town of Mt Crested Butte, that managing noxious weeds in the municipalities in the north end of the valley will continue to be a high priority for our Program into the future. While the City of Gunnison opted not to grant our request for increased funding next year, we plan to continue to partner with this municipality as their current funding level will allow in 2019. GCWMP staff will continue discussions with City officials to consider ways that weed management in Gunnison can be bolstered and better funded in the future. Of course, managing weeds on County lands and rights of way surrounding Gunnison will continue to be a high priority for our Program.



Yellow toadflax (*Linaria vulgaris*)

Private Lands Assistance Program

Through a \$7,000 grant award from the CO Department of Agriculture's State and Private Forestry Grant fund, the Gunnison County Weed Management Program, in partnership with the Crested Butte Land Trust, was able to leverage private landowners' commitment to noxious weed management by providing financial assistance for noxious weed treatments completed on their lands by a licensed Colorado applicator.

In 2018, the Weed Management Program's Private Lands Assistance & Cost Share Program provided financial incentives to the landowners in the table below to implement research-based management of noxious weed infestations on their properties. The Program allowed for 980 acres to be treated and surveyed for noxious weed species on privately owned land. The CB Land Trust distributed letters to all neighboring landowners of conserved property that provided information on noxious weeds in the area and helped inform landowners of the Gunnison County's Cost Share Program. This was a great opportunity to connect with neighboring landowners, inform them about our noxious weed management programs, and grow our Private Lands and Assistance Program. A special thanks to the Crested Butte Land Trust!

Landowner	Awarded Amount	Project Cost	Reimbursement Amount	Approximate Acres Treated
Dos Rios Island Properties	\$300.00	\$312.83	\$180.00	5ac
Star Mountain Ranch	\$1,000.00	\$3,952.58	\$1,000.00	30ac
wildbird Est.	\$600.00	\$826.35	\$600.00	20ac
Reserve on the East River	\$1,000.00	\$709.25	\$425.55	100ac
Hidden River Ranch	\$700.00	2,680.85	\$700.00	170ac
Double R Ranch	\$1,000.00	\$5,248.86	\$1,694.45	155ac
Buckhorn Ranch	\$1,000.00	\$1,783.82	\$1,000.00	300ac
Arrowhead Properties	\$900.00	\$4,496.50	\$900.00	200ac
Total	\$6,500.00	\$20,011.04	\$6,500.00	980ac

2018 Highlights

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- A \$7000 grant from the CO Dept. of Ag allowed the WMP to provide cost share assistance to landowners for contracted noxious weed treatments, resulting in 980 acres of noxious weeds treated & surveyed.
- Hydro-seeding was completed on 3 acres in big game and GuSg habitat on Sapinero Mesa, funded by CPW's HPP grant.
- Monitoring plots established to evaluate seedling establishment success and to inform future hydro-seeding efforts.
- WMP staff partnered with BLM to contribute to a habitat restoration project on National Public Lands Day, attended by 25 WCU students and citizens.
- Over 35 herbicide acres of cheatgrass and other state-listed noxious weeds were treated in Gunnison Sage-grouse habitat.
- The GCWMP was highlighted in both the Gunnison Country Times and the Crested News during 2018.
- Wrote educational content for Crested Butte Wildflower Festival on scentless chamomile, which ran in the CB News and on KBUT.
- GCWMP staff shared information on Canada thistle at the Rural Landowner Day hosted by CSU Extension.
- Contributed to outreach on noxious weeds at Gunnison Farmer's Market.
- GCWMP staff presented at CSU Extension Colorado Master Gardener course in March.
- Assisted the town of Marble to create a noxious weed ordinance that was voted on and adopted.
- All contracts for service completed on time & on budget.