



STATE OF NEW MEXICO
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April 20, 2023

Rio Grande Cutthroat Trout Conservation Team

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Dear Conservation Team,

This letter summarizes the 2022 range-wide activities for the conservation of Rio Grande Cutthroat Trout (RGCT) and provides that information to Conservation Team leaders. The activities below are divided into the eight categories identified in the RGCT Conservation Agreement.

Population Inventory

In 2022, 32 waters (59 individual surveys) were inventoried within the historical range of RGCT. The purpose of the inventories was to monitor known populations (19 waters, 41 surveys), assess the genetic status of RGCT populations (2 AFLP tests), collect habitat information (4 waters), and test for diseases (5 waters).

Population Maintenance

Brook Trout were mechanically removed from Jim Creek by CPW and TU staff. In the Carson National Forest, a fish barrier was wrapped to be protected from fire, and a fish barrier was inspected after being affected by wildfire and flooding.

Population Expansion

Twenty-six events were classified as population expansion. In New Mexico, nonnative fish were removed from six creeks using piscicide. Piscicide treatments occurred in the Canadian, Lower Rio

Grande, and Pecos GMUs. Once populations are established, these projects will increase RGCT distribution by approximately 37 miles. Nearly 90,000 pure RGCT were reintroduced into eight waters within the Rio Costilla watershed as part of a long-term restoration project in the Lower Rio Grande GMU. Pure RGCT were reintroduced or populations were augmented in nine other waters and recreational stocking occurred in an additional nine waters. Additionally, two culverts were replaced in Jim Creek to restore population connectivity.

Protecting/Restoring Habitat

In Colorado, riparian fencing was installed on Jim Creek and 9 beaver dam analogs were installed within South and Middle Fork Saguache Creek. In New Mexico, erosion and flow control structures were installed and nearby wetland habitat was restored on Comanche Creek and Bitter Creek.

Education

Colorado Parks and Wildlife published RGCT conservation articles in two magazines, presented information regarding RGCT conservation to Texas angling groups, and taught kids about native fishes at Costilla Youth Conservation Camp. Trout Unlimited conducted the TU Brook Trout Challenge to remove Brook Trout from Jim Creek, printed additional RGCT educational posters, and conducted a field trip to educate Rio Grande Basin Roundtable. Rio Grande National Forest conducted a snorkel event with high school students in the Rio Grande. New Mexico Department of Game and Fish worked with media outlets for two articles involving RGCT conservation and wildfire.

Database Sharing

The annual RGCT range-wide database workshop was attended by the GMU leaders from New Mexico and Colorado. The range-wide database was updated with the previous year's data using the online editor.

Coordination

The annual RGCT Conservation Team meeting was well attended by all signatory agencies.

Miscellaneous

Seven Springs Hatchery in New Mexico completed its annual RGCT spawn, producing over 289,000 fry for conservation and recreational stocking purposes.

Thank you all for your help developing this report. The success of our work toward RGCT conservation would not be possible without the continued cooperation, dedication, and professionalism of all team members and their respective agencies and organizations.

Sincerely,

Bryan Ferguson
Rio Grande Cutthroat Trout Biologist
New Mexico Department of Game and Fish

RGCT Rangewide Report 2022 - Summary by Strategy, January 1 to December 31, 2022					
Strategy	Subhead	Title	Waters/Events	Total	Description
1	Survey	Population Inventory	2	5	Survey potential RGCT waters within historical range; maintain database
1	Monitor	Population Inventory	19	41	Monitor RGCT populations to detect changes; maintain database
1	Taxonomy	Population Inventory	2	2	Collect genetic information within historical range, maintain database
1	Habitat Inventory	Population Inventory	4	4	Collect habitat information within historical range; maintain database
1	Disease	Population Inventory	5	7	Conduct fish health surveys including WD
2	Identify	Population Maintenance	0	0	Identify Core Conservation and Conservation populations
2	Secure	Population Maintenance	3	3	Secure and enhance distribution and abundance of Conservation and Core Conservation populations
2	Metapopulation	Population Maintenance	0	0	Identify, maintain, and expand connectivity within metapopulations
3	Restore	Population Expansion	6	6	Increase RGCT populations by restoring RGCT habitat through chemical reclamation
3	Augment	Population Expansion	18	18	Augment pure populations within historical range by stocking or transplanting RGCT
3	Connectivity	Population Expansion	1	2	Promote and restore connectivity of populations to enhance metapopulation function
3	Stock RGCT	Population Expansion	1	9	Stock lakes and streams with RGCT for angler recreation (sum of lakes and streams stocked)
4	Improve	Protect sustaining habitat and restore degraded habitat	5	5	Inventory, maintain, protect, and improve existing habitat; improve fluvial/ hydrological processes
4	Unoccupied	Protect sustaining habitat and restore degraded habitat	0	0	Identify unoccupied habitat for restoration with RGCT
5	Education	Conservation Education and Interpretation	8	11	Subcommittee to develop education and interpretation program providing deliverables and a consistent message regarding RGCT conservation efforts
6	Database	Database Sharing	3	3	Summarize distribution, population genetics and habitat data; centralize data into a database; allow rangewide integrated data analysis, summaries, and comparisons
7	Coordinate	Planning/ Coordination	14	15	Share information; identify/ discuss/ solve common conservation problems; prioritize issues
A*	Miscellaneous	Other Activities/ Actions	1	1	Accomplishments that are not listed in the other titles or strategies
B	Habitat	Private Land Protection or Restoration (stream miles)	0	0	Landowner/ private land habitat protection or restoration

Rio Grande Cutthroat Trout Rangewide Report 2022 - Summary by Signatory Agency, January 1 to December 31, 2022

Year	GMU	Population Code	Water	Water Code	HUC	Biologist	Agency	Strategy	Subhead	Activity	Units Accomplished	Comments
Colorado Parks and Wildlife												
2022	Alamosa-Trinchera	13010002cp005	Jim Creek	44254	13010002	Vigil/Terry	CPW (TU)	4	Improve	Installed riparian fencing (TU)	1	
2022	Alamosa-Trinchera	13010002cp005	Jim Creek	44254	13010002	Vigil/Terry	CPW (TU)	3	Connectivity	Replaced 2 culverts to restore connectivity (TU)	2	
2022	Alamosa-Trinchera	13010002cp005	Jim Creek	44254	13010002	Vigil/Terry	CPW (TU)	2	Secure	Mechanically removed Brook Trout and Tiger Trout from Jim Creek (TU)	1	
2022	Rio Grande Headwaters		East Bellows Creek	38364	13010001	Vigil/Terry	CPW (TU)	1	Habitat Inventory	Electrofishing to characterize stream for potential restoration	1	
2022	San Luis		Deadman Creek	39607	13010003	Vigil/Terry	CPW (TU)	1	Habitat Inventory	Electrofishing to characterize stream for potential restoration	1	
2022	Alamosa-Trinchera	1301002cp005	Jim Creek	44254	13010002	Vigil/Terry	TU	5	Education	TU Brook Trout challenge (angling to remove brook trout)	1	
2022						Vigil/Terry	TU	5	Education	Print 4000 new RGCT educational posters	1	
2022	Saguache		East Pass Creek	42022	13010004	Vigil/Terry	TU	5	Education	Field trip to educate Rio Grande Basin Roundtable	1	
2022	Alamosa-Trinchera	13010002cp012	South Fork Trinchera Creek	48682	13010002	Vigil/Samuelson	CPW	1	Disease	Fish collected to test for WD infection	3	
2022	Alamosa-Trinchera		Trinchera Creek #2	43719	13010002	Vigil/Samuelson	CPW	1	Disease	Fish collected to test for WD infection	1	
2022	Alamosa-Trinchera		N. Fork Culebra (El Poso)	39493	13010002	Vigil/Samuelson	CPW	3	Augment	Stock N. Fork of Culebra with pure RGCT	1	
2022	Alamosa-Trinchera				13010002	Vigil/Samuelson	CPW	5	Education	Teach kids about native fishes at Costilla Youth Conservation Camp	1	
2022	Alamosa-Trinchera				13010002	Vigil/Samuelson	CPW	5	Education	Teach TX angling groups about RGCT conservation	2	
2022	Alamosa-Trinchera	13010002cp020	Alamosito Creek	38248	13010002	Vigil	CPW	1	Monitor	268 LOC/mile, removed all LOC	1	
2022	Saguache	13010004cp004	East Middle Creek	41587	13010004	Vigil	CPW	1	Monitor	8 RGCT sampled	1	
2022	Upper Rio Grande	13020101cp001	East Costilla Creek	39390	13020101	Vigil	CPW	1	Monitor	5 RGCT at upper site; 486 RGCT/mile at lower site	2	
2022	Upper Rio Grande	13020101cp001	West Costilla Creek	33890	13020101	Vigil	CPW	1	Monitor	8 RGCT at upper site; 389 RGCT/mile at lower site	2	
2022	Conejos	13010005cp008	Lake Fork of Conejos	39289	13010005	Vigil	CPW	1	Monitor	418 RGCT/mile	1	
2022	Saguache	13010004cp010	South Fork Carnero	38807	13010004	Vigil	CPW	1	Monitor	Only BRK sampled at historic site	1	
2022	San Luis	13010003cp001	Medano Creek	41501	13010003	Vigil	CPW	1	Monitor	166 RGCT/mile; 331 RGCT/mile; 462 RGCT/mile	3	
2022	Alamosa-Trinchera	13010002cp005	Squirrel Canyon	39768	13010002	Vigil/Samuelson	CPW	1	Taxonomy	Found previously unknown pure pop of RGCT	1	
2022	Rio Grande Headwaters	13010001cp001	Haypress Lake	90388	13010001	Vigil	CPW	3	Augment	3K fry stocked	1	
2022	San Luis		Upper Sand Creek Lake	81163	13010003	Vigil	CPW	3	Augment	4K fry stocked	1	

2022	San Luis		Lower Sand Creek Lake	81151	13010003	Vigil	CPW	3	Augment	4K fry stocked	1	
2022	San Luis		Upper Sand Creek	42856	13010003	Vigil	CPW	3	Augment	2K fry stocked	1	
2022	Rio Grande Headwaters	13010001cp002	Roaring Fork	42616	13010003	Vigil	CPW	3	Augment	2K fry stocked	1	
2022						Vigil	CPW	6	Database	Shared all RGCT accomplishments with team	1	
2022						Vigil	CPW	7	Coordinate	Vigil attend rangewide meeting	1	
2022						Vigil	CPW	5	Education	RGCT conservation articles published in 2 magazines	2	
2022	Alamosa-Trinchera	13010002cp012	Deep Canyon	38350	13010002	Vigil/Samuelson	CPW	1	Monitor	3 sites sampled, Few RGCT sampled	3	
2022	Alamosa-Trinchera	13010002cp012	Hawk Canyon	80895	13010002	Vigil/Samuelson	CPW	1	Monitor	2 sites sampled, no RGCT	2	
2022	Alamosa-Trinchera	13010002cp012	Las Cruces Creek	30006	13010002	Vigil/Samuelson	CPW	1	Monitor	3 sites sampled, RGCT numbers down but present in stream	3	
2022	Alamosa-Trinchera	13010002cp017	Little Ute Creek	49379	13010002	Vigil/Samuelson	CPW	1	Monitor	2 sites sampled above barrier, 205 RGCT/mile; 410 RGCT/mile	2	
2022	Alamosa-Trinchera	13010002cd032	Maker Creek	32559	13010002	Vigil/Samuelson	CPW	1	Monitor	Only BRK sampled	1	
2022	Alamosa-Trinchera	13010002cd020	North Fork Trinchera Creek	48670	13010002	Vigil/Samuelson	CPW	1	Monitor	5 sites sampled, one site sampled twice; no RGCT sampled	6	
2022	Alamosa-Trinchera	13010002cd024	Sangre de Cristo Creek	42882	13010002	Vigil/Samuelson	CPW	1	Monitor	1 site sampled, no RGCT sampled	1	
2022	Alamosa-Trinchera	13010002cp012	South Fork Trinchera Creek	48682	13010002	Vigil/Samuelson	CPW	1	Monitor	5 sites sampled, few RGCT sampled across sites	5	
2022	Alamosa-Trinchera	13010002cp015	South Fork West Indian Creek	39530	13010002	Vigil/Samuelson	CPW	1	Monitor	2 sites sampled, few RGCT sampled	2	
2022	Alamosa-Trinchera	13010002cp005	Squirrel Canyon	39768	13010002	Vigil/Samuelson	CPW	1	Monitor	3 sites sampled, only pure RGCT at upper 2 sites. 190 RGCT/mile	3	
New Mexico Game and Fish												
2022	Lower Rio Grande	13020201cp003	Rito de los Frijoles		13020201	Ferguson	NMDGF	1	Monitor	Population monitoring	2	
2022	Lower Rio Grande		Encinado Creek		13020102	Ferguson	NMDGF	1	Survey	Population monitoring	4	
2022	Lower Rio Grande		Rio Costilla		13020101	Ferguson	NMDGF	3	Restore	Piscicide application to remove nonnative fishes	1	
2022	Lower Rio Grande		Powderhouse Creek		13020101	Ferguson	NMDGF	3	Restore	Piscicide application to remove nonnative fishes	1	
2022	Lower Rio Grande		Blind Canyon		13020101	Ferguson	NMDGF	3	Restore	Piscicide application to remove nonnative fishes	1	
2022	Lower Rio Grande		Turner Creek		13020101	Ferguson	NMDGF	3	Restore	Piscicide application to remove nonnative fishes	1	
2022	Canadian		Middle Ponil Creek		13020101	Ferguson	NMDGF	3	Restore	Piscicide application to remove nonnative fishes	1	
2022	Pecos		Willow Creek		13060001	Ferguson	NMDGF	3	Restore	Piscicide application to remove nonnative fishes	1	

2022	Lower Rio Grande	13020101cp026	Alamitos Creek		13020101	Ferguson	NMDGF	1	Disease	Fish health testing	1	
2022	Lower Rio Grande		Rito de la Olla		13020101	Ferguson	NMDGF	1	Disease	Fish health testing	1	
2022	Pecos	13060001cp009	Macho Creek		13060001	Ferguson	NMDGF	1	Disease	Fish health testing	1	
2022	Lower Rio Grande		Guaje Creek		13020101	Ferguson	NMDGF	3	Augment	Transfer fish from Alamitos Creek	1	
2022	Lower Rio Grande		Santistevan Creek		13020101	Ferguson	NMDGF	3	Augment	Transfer fish from Alamitos Creek	1	
2022	Pecos		Willow Creek		13060001	Ferguson	NMDGF	3	Augment	Transfer fish from Dalton Creek	1	
2022	Canadian		Middle Ponil Creek		11080002	Ferguson	NMDGF	3	Augment	Transfer fish from Rito Morphy	1	
2022	Lower Rio Grande		Rio Costilla		13020101	Ferguson	NMDGF	3	Augment	Stock fish in Rio Costilla	1	
2022	Lower Rio Grande		Comanche Creek		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022	Lower Rio Grande		Turner Creek		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022	Lower Rio Grande		Powderhouse Creek		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022	Lower Rio Grande		Blind Canyon		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022	Lower Rio Grande		La Cueva Creek		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022	Lower Rio Grande		Chuckwagon Creek		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022	Lower Rio Grande		Fernandez Creek		13020101	Ferguson	NMDGF	3	Augment	Stock RGCT	1	
2022							NMDGF	3	Stock RGCT	Sum of recreational waters stocked	9	
2022	Canadian	11080004cp003	Rito Morphy		11020001	Ferguson	NMDGF	1	Taxonomy	Genetic Testing	1	
2022	Canadian	11080004cp004	Santiago Creek		11020001	Ferguson	NMDGF	1	Taxonomy	Genetic Testing	1	
2022						Brauer	NMDGF	7	Coordinate	Attended RGCT Rangewide Meeting	1	
2022						Brauer	NMDGF	6	Database	Updated RGCT database	1	
2022						Jacobsen	NMDGF	A	Miscellaneous	Seven Springs Hatchery Spawn	1	
2022							NMDGF	5	Education	Newspaper Articles	2	
United States Forest Service - Colorado												
2022	Rio Grande Headwaters					J. Remshardt	RGNF	7	Coordinate	Attend Rangewide	1	
2022	Rio Grande Headwaters	13010004cd021	South Fork Saguache Cr	42818	13010004	J. Remshardt	RGNF	4	Improve	Installed 5 Beaver Dam Analogs	1	
2022	Rio Grande Headwaters	13010004cd020	Middle Fork Saguache Cr	42806	13010004	J. Remshardt	RGNF	4	Improve	Installed 4 Beaver Dam Analogs	1	
2022	Rio Grande Headwaters					J. Remshardt	RGNF	5	Education	Conducted Snorkel Event with Del Norte	1	
United States Forest Service - New Mexico												
2022	Rio Grande	13020101cd020	Comanche Creek		13020101	Alyssa Radcliff	CANF	4	Improve	Stabilize headwater stream channel with erosion and flow control structures. Improve wetland habitat near stream.	1	Improve habitat within existing core conservation population stream.
2022	Rio Grande	13020101cd024	Bitter Creek		13020101	Alyssa Radcliff	CANF	4	Improve	Stabilize headwater stream channel with erosion and flow control structures. Improve wetland habitat near stream.	1	Improve habitat within existing core conservation population stream.
2022	Canadian	11080002cd003	Middle Ponil		13020101	Alyssa Radcliff	CANF		Restore	Rotenone treatment of 7 miles of Middle Ponil Creek for Canadian strain RGCT from Rito Murphy		Rotenone treatment of 7 miles of Middle Ponil Creek for Canadian strain RGCT from Rito Murphy

2022	Canadian	11080002cd003	Middle Ponil		13020101	Alyssa Radcliff	CANF		Augment	Stocked 3 miles of the Middle Ponil with Canadian strain RGCT from Rito Murphy.		Stocked 3 miles of the Middle Ponil with Canadian strain RGCT from Rito Murphy.
2022	Rio Grande	13020101cd102	Costilla Creek		13020101	Alyssa Radcliff	CANF		Restore	Non-Native fish removal via Rotenone treatment		Non-Native fish removal via Rotenone treatment
2022	Rio Grande	13020101cd103	Costilla Creek		13020101	Alyssa Radcliff	CANF		Augment	Stocked 15 miles of Costilla Creek post treatment		Stocked 15 miles of Costilla Creek post treatment
2022	Rio Grande	13020101cd039	Alamitos Creek		13020101	Alyssa Radcliff	CANF	2	Secure	Inspected barrier after Hermits Peak Calf Canyon Fire	1	Inspected barrier after Hermits Peak Calf Canyon Fire
2022	Rio Grande	13020101cd038	Pollicarpio Creek		13020101	Alyssa Radcliff	CANF	2	Secure	Protected fish barrier (wrapped) to protect from fire	1	Protected fish barrier (wrapped) to protect from fire
2022						Hampton	SFNF	7	Coordinate	Attend Rangewide meeting	1	
United States Fish and Wildlife Service												
2022						Baumler/Brittain	USFWS	7	Coordinate	attend rangewide meeting	1	
2022	Canadian	11080002cd003	Middle Ponil		13020101	Caswell	USFWS		Restore	Rotenone treatment of 7 miles of Middle Ponil Creek for Canadian strain RGCT from Rito Murphy		Rotenone treatment of 7 miles of Middle Ponil Creek for Canadian strain RGCT from Rito Murphy
Bureau of Land Management - Colorado												
2022						Swift-Miller	BLM	7	Coordinate	attend rangewide meeting	1	
Bureau of Land Management-New Mexico												
2022	Lower Rio Grande		Rio Nutrias		13020102	S. Dunn, J. Hatt, N. Murff, B. Ferguson, S. Burck	BLM-NM	1	Survey	Determine occupancy	1	Electrofishing survey 1 reach (300 m); no RGCT detected
2022						S. Dunn	BLM-NM	7	Coordinate	Attend range-wide meeting	1	
National Parks Service - Colorado												
2022	San Luis	13010003cp001	Medano Creek	41501	13010003	Mosher	NPS	2	Secure	Move fish entrained in trans mountain diversion back to main stem	1	
2022						Mosher/Bunch	NPS	7	Coordinate	Attend rangewide meeting	1	
National Parks Service - New Mexico												
2022						Milligan	NPS	7	Coordinate	Attend rangewide meeting	1	
2022	Lower Rio Grande	13020201cp003	Rito de los Frijoles		Rio Grande-Santa Fe	Hare	NPS	1	Monitor	Population monitoring		
Taos Pueblo												
2022						Duran		7	Coordinate	Attend Range Wide Meeting	1	
Jicarilla Apache Nation												
2022						J. Mazzone	JGFD	7	Coordinate	Attend Range Wide Meeting	1	
2022	Rio Chama		Poso Creek		13020102	J. Mazzone	JGFD	7	Coordinate	Coordinate Access	2	
2022	Rio Chama		Poso Creek		13020102	J. Mazzone	JGFD	1	inventory	Monitor Temperature	1	
2022	Rio Chama		Little Willow Creek		13020102	J. Mazzone	JGFD	7	Coordinate	USACoE Reporting Willow Creek	1	
2022	Rio Chama		Little Willow Creek		13020102	J. Mazzone	JGFD	1	inventory	Monitor Temperature	1	
2022	Rio Chama		Poso Creek		13020102	J. Mazzone	JGFD	7	Coordinate	USACoE Reporting Poso Creek	1	
2022	Rio Chama				13020102	J. Mazzone	JGFD	6	Database	Database Sharing	1	
Mescalero Apache Tribe												