

Range-Wide Status of Rio Grande Cutthroat Trout (*Oncorhynchus clarkii virginalis*): 2016

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Executive Summary

The Rio Grande Cutthroat Trout (RGCT) is a native sportfish that occurs in coldwater streams and lakes in the Canadian River, Pecos River, and Rio Grande basins in Colorado and New Mexico. Over the past century this subspecies has declined, primarily due to the effects of introduced trout species and habitat loss. As such, RGCT have been considered for listing under the Endangered Species Act (ESA) since 2002, but in 2014, the U.S. Fish and Wildlife Service determined that listing was not warranted. To improve the conservation status of RGCT and prevent listing under the ESA, federal, state, and tribal agencies and other organizations interested in RGCT conservation formed the RGCT Conservation Team in 2003. This document is an updated RGCT status assessment using the most recent data available from the RGCT Conservation Team to collaboratively plan and implement RGCT conservation efforts and document RGCT conservation actions from 2006 – 2016.

There were 129 RGCT conservation populations occupying 1210 kilometers range-wide in 2016. This represents a net addition of 8 conservation populations and 86 kilometers of occupied stream habitat since 2006. In addition, the area of occupied lake habitat increased by 1.29 square kilometers indicating an increase of 37 percent. This substantial improvement of the range-wide status of RGCT is a result of management actions taken by the RGCT Conservation Team, primarily through the implementation of non-native fish eradication projects.

To understand the likelihood of individual conservation populations persisting into the future, the RGCT Conservation Team requested the development of a Bayesian network model based on the most recent information. According to the model, the populations most likely to persist into the 2040's and 2080's do not contain non-native fish and are protected by fish migration barriers. Although many populations in the Rio Grande basin are predicted to persist, only six populations in the Canadian and Pecos River basins are predicted to persist long-term without management actions. The results from this model validate the effectiveness and need for continued non-native fish eradication and fish barrier construction projects.

The accomplishments of the RGCT Conservation Team from 2014 – 2017 demonstrate the substantial progress toward achieving the goals identified in the Range-wide Conservation Strategy of 2013. Many of these goals have already been met or exceeded, including the restoration of new populations, populations monitoring, constructing fish barriers, and maintaining sources of RGCT. To meet the remaining goals and continue improving the status of RGCT, future management actions will need to increase in the Rio Grande Headwaters in Colorado and the Canadian and Pecos River basins in New Mexico.

Introduction

Conservation efforts for Rio Grande Cutthroat Trout (*Oncorhynchus clarkii virginalis*; RGCT) across its historic distribution have been occurring for several decades through efforts by federal, state, tribal, non-governmental, and private organizations. To better understand the conservation status of RGCT and guide management actions, the RGCT Conservation Team developed the first Range-wide Status Assessment (Alves et al. 2008) based on information collected in 2006 and 2007. The purpose of this initial status assessment was to describe historic and current distribution, abundance, genetic status, and risks to RGCT range-wide. Prior to the 2008 Range-wide Assessment, other publications (i.e., Behnke 1992, Rinne 1995, Stumpff and Cooper 1996, Behnke 2002, Pritchard and Cowley 2006) had assessed the status of RGCT but were limited to only a portion of RGCT historical range, involved a limited number of experts with specific knowledge of the assessment area, or were constrained by a lack of consistency in the sources of information and criteria used. The 2008 assessment addressed these issues by incorporating data collected range-wide and using standardized data collection and storage protocols. The purpose of this document is to provide an updated status assessment using the most recent data available from the RGCT Conservation Team database to collaboratively assess, plan, and prioritize their ongoing and future RGCT conservation efforts.

The history of RGCT and its listing consideration under the Endangered Species Act of 1973, as amended (ESA) began in 2002 when U.S Fish and Wildlife Service (USFWS) determined that listing the subspecies was not warranted (Figure 1). However, in 2008 USFWS determined that listing was warranted, but precluded by higher priority actions. Most recently, in 2014, USFWS once again determined that listing RGCT under the ESA was not warranted. This decision was primarily based on the USFWS's Species Status Assessment (U.S. Fish and Wildlife Service, 2014) and the evaluation of conservation efforts being implemented by the RGCT Conservation Team and their partners.

The RGCT Conservation Team, established in 2003, is an interstate and interagency group of representatives from federal, state, and tribal agencies and other interested parties who are committed to the conservation of RGCT. This team was formed to assure the long-term viability of RGCT throughout its historic distribution and reduce the likelihood that the subspecies would require listing under the ESA. The actions and objectives of the RGCT Conservation Team are guided by a range-wide Conversation Strategy and Agreement which sets broad goals and specific conservation actions for the management and conservation of RGCT in each geographic management unit (GMU). Although the states of Colorado and New Mexico developed separate strategies and management plans in previous years, in 2013 the RGCT Conservation Team adopted and is currently working under a range-wide Conservation Strategy (RGCT Conservation Team, 2013b). Conservation Agreements among cooperating agencies and supporting organizations have been signed and updated since 2003 with the most current version

adopted in 2013 (RGCT Conservation Team, 2013a). This document demonstrates the commitment of each signatory to the actions agreed upon in the associated Conservation Strategy. The signatories to the 2013 Conservation Agreement include Bureau of Land Management (Colorado and New Mexico), Colorado Parks and Wildlife (CPW), Jicarilla Apache Nation, Mescalero Apache Nation, National Park Service (Intermountain Region), New Mexico Department of Game and Fish (NMDGF), Taos Pueblo, USFWS (Regions 2 and 6), and USDA Forest Service (Regions 2 and 3). Supporting organizations in the Conservation Agreement include Colorado Trout Unlimited, New Mexico Council of Trout Unlimited, and the Coalition of Colorado Counties.

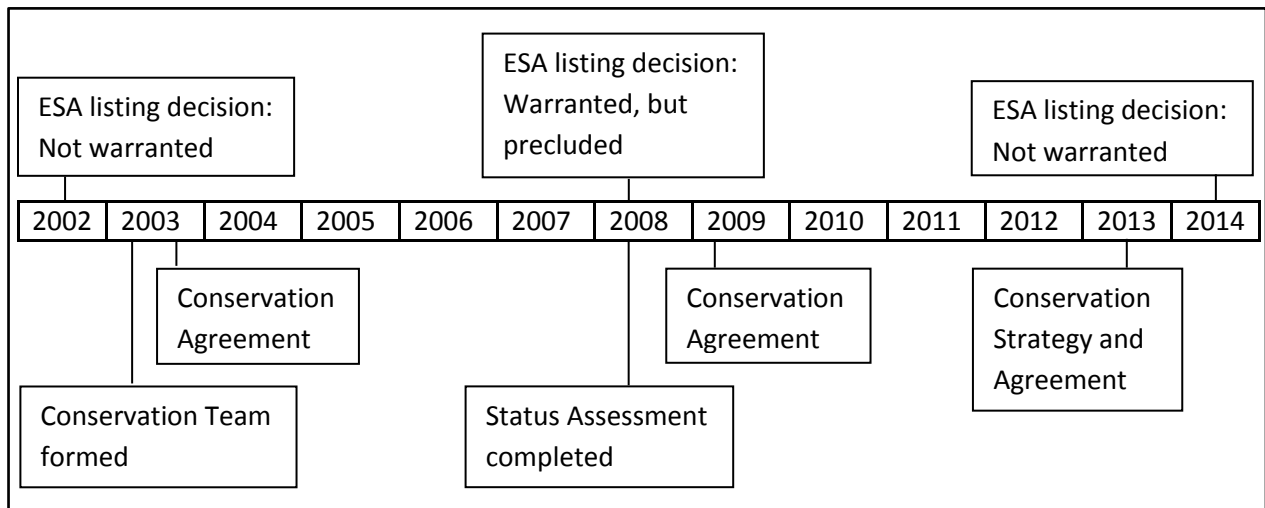


Figure 1. Timeline of ESA listing decisions and RGCT Conservation Team actions.

Range-wide Status of RGCT Conservation Populations 2016

Signatories, cooperating organizations, and other entities are continuously collecting information on the distribution and status of RGCT. Those data are consolidated, reviewed, and entered into the RGCT database annually following the Inland Cutthroat Trout Protocol (May et al. 2003; May et al. 2005; Shepard et al. 2003). This assessment is a summary and analysis of all data collected, reviewed, and entered into the database through 2016 and a comparison of the status of RGCT in 2016 to that in 2006. The reader may note that this document, published in 2019, includes data only through 2016. This is because the data collection occurred through the end of 2016, was entered into the database in 2017, and then analyzed, prepared, and reviewed for this assessment in 2018 and 2019.

Current Status and Changes in Conservation Populations 2006 – 2016

There were 129 RGCT conservation populations (genetic purity $\geq 90\%$) occupying 1210 kilometers range-wide in 2016 (Appendix A, Figure 1, Table 1). This represents a net addition of

8 conservation populations and 86 kilometers of occupied stream habitat since 2006. Similarly, the percent of historic distribution occupied by conservation populations increased from 10.5% in 2006 to 11.3% in 2016. In addition to stream kilometers, the area of occupied lake habitat increased by 1.29 square kilometers (37%) from 2006 - 2016.

In Colorado, the number of conservation populations increased by two from 2006 - 2016, though the amount of currently occupied stream habitat decreased by 9 kilometers (1.9%). The addition of new populations improved the range-wide resiliency of RGCT to stochastic events, but the mean patch length (average length of conservation populations) and percent of historic habitat occupied slightly decreased in Colorado. Lake area occupied by conservation populations and the percent of historic distribution occupied in Colorado remained consistent from 2006 - 2016.

In New Mexico, the number of conservation populations increased by five and the amount of stream habitat currently occupied increased by 90 kilometers (12.4%) from 2006 - 2016. In addition, the percent of historic distribution occupied by conservation populations increased by 1.6%, mean patch length increased by 0.6 kilometers (7.3%), and lake area occupied increased by 1.29 square kilometers (87.8%).

The substantial improvement of the range-wide conservation status of RGCT from 2006 - 2016 is a result of management actions taken by the RGCT Conservation Team. Most of the new populations and occupied stream miles can be attributed to non-native fish eradication achieved through the use of piscicides or by ash and debris flows caused by wildfires and the subsequent stocking of RGCT. Between 2006 and 2016, two conservation populations in Colorado and three in New Mexico were lost due to the invasion and persistence of non-native salmonids, severe drought conditions, or genetic purity results demonstrating greater than 10 percent non-native genetic introgression. However, the restoration efforts that added new conservation populations and occupied stream kilometers between 2006 and 2016 considerably outnumbered these losses, resulting in net gains for the subspecies range-wide.

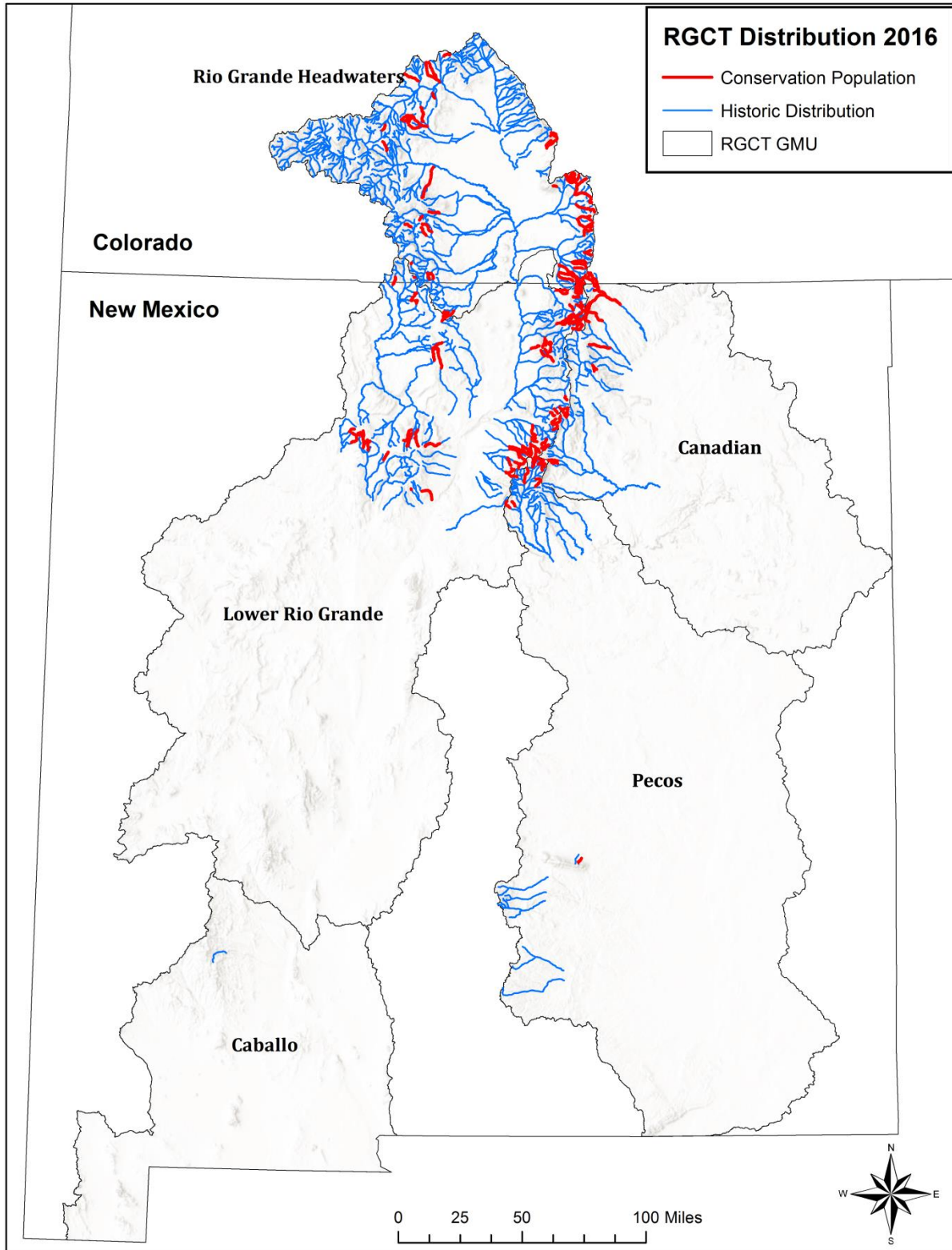


Figure 1. Current conservation populations and historic distribution of RGCT by GMU in 2016.

Table 1. Status of RGCT populations range-wide and by state in 2006 and 2016. Conservation populations crossing state lines are counted twice (6 populations in 2006 and 5 populations in 2016) but do not affect the range-wide total number of conservation populations.

	2006	2016	% Change
Range-wide			
Number of conservation populations	121	129	+ 6.2
Current distribution (km)	1124	1210	+ 7.1
Historic distribution (km)	10,718	10,720	0.0
Percent of historic distribution	10.5	11.3	+ 7.1
Mean patch length (km)	9.3	9.4	+ 1.1
Lake area occupied (km ²)	2.20	3.49	+ 37.0
Colorado			
Number of conservation populations	42	44	+ 4.5
Current distribution (km)	486	477	- 1.9
Historic distribution (km)	5,197	5,193	0.0
Percent of historic distribution	9.4	9.2	- 2.2
Mean patch length (km)	11.6	10.8	- 7.4
Lake area occupied (km ²)	2.02	2.02	0.0
New Mexico			
Number of conservation populations	84	89	+ 5.6
Current distribution (km)	638	728	+ 12.4
Historic distribution (km)	5,521	5,527	0.0
Percent of historic distribution	11.6	13.2	+ 12.1
Mean patch length (km)	7.6	8.2	+ 7.3
Lake area occupied (km ²)	0.18	1.47	+ 87.8

RGCT Conservation Populations by GMU and HUC8 Watershed 2016

In 2016, Rio Grande Cutthroat Trout conservation populations and occupied stream kilometers were the most abundant in the Lower Rio Grande GMU and Rio Grande Headwaters GMU (Table 2). The Lower Rio Grande GMU had the highest number of populations (63) and occupied stream kilometers (526.6). The Rio Grande Headwaters GMU contained 43 conservation populations occupying 464.6 kilometers of stream habitat. The Pecos GMU contained 12 populations, 11 of which were located in the Pecos Headwaters HUC8 watershed. The Canadian GMU contained 11 populations spread across three HUC8 watersheds. There were no conservation populations in the Caballo GMU, but it contained 17 kilometers of historic habitat in the Las Animas Creek watershed. Most of the historic distribution of RGCT occurred in the Rio Grande Headwaters GMU, followed by the Lower Rio Grande, Canadian, and Pecos GMUs.

Table 2. The number, currently occupied stream length, mean patch length, and occupied lake area of conservation populations and historic distribution by GMU and 8-digit HUC in 2016.

GMU, HUC8	# Pops	Current km	Mean km	Lake km²	Historic km
Caballo	--	--	--	--	17
<i>Caballo (13030101)</i>	--	--	--	--	17
Canadian	11	156.4	15.4	--	1027
<i>Canadian Headwaters (11080001)</i>	3	84.3	28.1	--	143
<i>Cimarron (11080002)</i>	4	47.5	11.9	--	414
<i>Upper Canadian (1108003)</i>	--	--	--	--	23
<i>Mora (11080004)</i>	4	24.6	6.2	--	447
Lower Rio Grande	63	526.6	8.1	1.86	3404
<i>Upper Rio Grande (13020101)</i>	42	360.4	8.6	1.56	1524
<i>Rio Chama (13020102)</i>	13	98.9	7.6	0.30	1305
<i>Rio Grande-Santa Fe (13020201)</i>	2	12.7	6.3	--	124
<i>Jemez (03020202)</i>	3	33.5	11.2	--	358
<i>Rio Puerco (13020204)</i>	3	21.1	7.0	--	93
Pecos	12	62.9	4.7	--	1002
<i>Pecos Headwaters (03060001)</i>	11	59	5.4	--	727
<i>Arroyo Del Macho (13060005)</i>	1	3.9	3.9	--	13
<i>Rio Hondo (13060008)</i>	--	--	--	--	155
<i>Rio Peñasco (13060010)</i>	--	--	--	--	107
Rio Grande Headwaters	43	464.6	12.9	1.63	5274
<i>Rio Grande Headwaters (13010001)</i>	1	7.2	7.2	0.96	1314
<i>Alamosa-Trinchera (13010002)</i>	23	279.1	12.1	0.10	1518
<i>San Luis (13010003)</i>	1	28.8	28.8	.06	820
<i>Saguache (13010004)</i>	9	112.9	12.5	--	873
<i>Conejos (13010005)</i>	9	36.6	4.1	0.51	749

Mean patch length of conservation populations varied both among and within the GMUs. The Canadian GMU had the longest conservation populations averaging 15.4 kilometers in stream length. This can be attributed to the low number of populations in this GMU, but the presence of large, connected populations in the Vermejo River and Ponil Creek watersheds. The mean patch length of conservation populations in the Rio Grande Headwaters GMU was 12.9 kilometers and included the San Luis HUC8 which had the highest average patch length at the HUC8 scale. The Saguache and Alamosa-Trinchera HUC8 mean patch lengths were above the range-wide average while the Rio Grande Headwaters and Conejos HUC8s were below the range-wide average. Although the mean patch lengths of most HUC8s in the Lower Rio Grande GMU were below the range-wide average, some of the largest conservation populations occurred here. Lastly, the Pecos GMU had the shortest average patch length containing small, fragmented populations located primarily in the Pecos Headwaters HUC8.

Lakes that contained conservation populations occurred in the Lower Rio Grande and Rio Grande Headwaters GMUs. In the Lower Rio Grande GMU, most occupied lake habitat occurred in the Upper Rio Grande HUC8, all of which were located in the upper Rio Costilla watershed upstream of Costilla Reservoir. The Rio Grande Headwaters GMU contained four lakes spread among the Rio Grande Headwaters, Alamosa-Trinchera, San Luis, and Conejos HUC8 watersheds.

Genetic Status of RGCT Conservation Populations

Rio Grande Cutthroat Trout conservation populations are divided into two groups based on genetic purity: core conservation populations (genetic purity $\geq 99\%$) and conservation populations (genetic purity $\geq 90\% < 99\%$). There were 96 core conservation populations and 33 conservation populations range-wide in 2016 (Table 3) compared to 92 and 29 in 2006, respectively. The Lower Rio Grande GMU contained the highest number of core conservation populations, while the Rio Grande Headwaters contained the highest proportion relative to the less genetically pure conservation populations. The Canadian and Pecos GMUs contained the fewest core conservation populations, with the exception of the Caballo GMU which contained no RGCT populations.

Table 3. Number and occupied stream kilometers of core conservation populations (genetic purity $\geq 99\%$) and conservation populations (genetic purity $< 99\%$ and $\geq 90\%$) by GMU and 8-digit HUC in 2016.

GMU, HUC8	Core Cons Pops		Cons Pops	
	#Pops	Km	#Pops	Km
Caballo	--	--	--	--
<i>Caballo (13030101)</i>	--	--	--	--
Canadian	8	70.8	3	85.7
<i>Canadian Headwaters (11080001)</i>	2	15	1	69.3
<i>Cimarron (11080002)</i>	3	37.9	1	9.6
<i>Upper Canadian (1108003)</i>	--	--	--	--
<i>Mora (11080004)</i>	3	17.9	1	6.8
Lower Rio Grande	44	381.9	19	144.6
<i>Upper Rio Grande (13020101)</i>	31	290.1	11	70.3
<i>Rio Chama (13020102)</i>	8	61.1	5	37.7
<i>Rio Grande-Santa Fe (13020201)</i>	2	12.7	--	--
<i>Jemez (13020202)</i>	2	13.6	1	19.9
<i>Rio Puerco (13020204)</i>	1	4.4	2	16.7
Pecos	8	40.7	4	22.2
<i>Pecos Headwaters (13060001)</i>	7	36.8	4	22.2
<i>Arroyo Del Macho (13060005)</i>	1	3.9	--	--
<i>Rio Hondo (13060008)</i>	--	--	--	--
<i>Rio Peñasco (13060010)</i>	--	--	--	--
Rio Grande Headwaters	36	364.5	7	100.3

GMU, HUC8	Core Cons Pops		Cons Pops	
	#Pops	Km	#Pops	Km
<i>Rio Grande Headwaters (13010001)</i>	1	7.2	--	--
<i>Alamosa-Trinchera (13010002)</i>	19	207	4	72.2
<i>San Luis (13010003)</i>	1	28.8	--	--
<i>Saguache (13010004)</i>	6	84.9	3	28.1
<i>Conejos (13010005)</i>	9	36.6	--	--
Total	96	857.9	33	352.8

Population Persistence Modelling

To understand the likelihood of individual conservation populations persisting in the current time period (2010s), the short-term (2040s), and the long-term (2080s), Zeigler et al. (in review) developed a Bayesian network (BN) to model the probability of population persistence across these three time periods. This model was developed at the request of the RGCT Conservation Team as a more scientifically rigorous and predictive alternative to the previous Population Health Index (Alves et al. 2008). It not only evaluated each conservation population, but also showed what biotic and abiotic factors were the most significant contributors to population persistence and extirpation. An important assumption of the BN model is that no management actions (e.g., restoring populations, barrier construction, non-native eradication, habitat improvement) will occur over the three time periods. This approach allows managers to identify potential at-risk populations in need of active management, and conversely, which populations are predicted to persist in the absence of conservation activities.

The BN model also provides managers with information about what factors have the greatest impact on conservation populations and those that do not. A sensitivity analysis of the factors incorporated into the model indicated that threats posed by non-native fishes (e.g., non-native presence, barrier absence, proximity of non-native fishes) are the primary factors influencing population persistence (Zeigler et al. in review). Although not surprising, this result from the model provides further evidence that non-native fish eradication and barrier construction projects are the most effective actions for conserving RGCT range-wide. Conversely, environmental factors associated with climate change such as mean weekly maximum water temperature, baseflow discharge, and stream intermittency had much less effect on population persistence.

In the current time period, the model indicated that 95 of the 129 conservation populations fell between 25% and 75% probability of persistence, with 16 above 75% and 18 below 25% (Appendix B, Appendix C, Table 4). As the model projects into the future time periods, many populations move to below 25% probability of persistence. In general, these populations contain or are in close proximity to non-native fishes and lack fish migration barriers protecting them from future invasion. On the other hand, populations most likely to persist in the long-term do

not contain non-natives, sources of non-natives are far away, and are protected by a complete fish barrier. This pattern of non-native fish effects on population persistence across the three time periods is also apparent at the GMU scale.

Table 4. The number of conservation populations grouped by the percent probability of persistence range-wide and by GMU in the current (2016), short-term (2040s), and long-term (2080s) time periods.

GMU	Time Period	Number of Populations			
		0% ≤ 25% Persistence	>25% ≤ 50% Persistence	>50% ≤ 75% Persistence	>75% Persistence
All GMUs	Current	18	51	44	16
	Short-term	76	11	39	3
	Long-term	80	14	31	4
Caballo	Current	--	--	--	--
	Short-term	--	--	--	--
	Long-term	--	--	--	--
Canadian	Current	1	5	3	2
	Short-term	7	0	3	1
	Long-term	7	1	3	0
Lower Rio Grande	Current	10	21	22	10
	Short-term	36	6	19	2
	Long-term	41	3	15	4
Pecos	Current	4	5	0	3
	Short-term	9	0	3	0
	Long-term	9	0	3	0
Rio Grande Headwaters	Current	3	20	19	1
	Short-term	24	5	14	0
	Long-term	23	10	10	0

The Rio Grande Headwaters and Lower Rio Grande GMUs contain a vast majority of the total RGCT populations, several of which will likely persist into the 2080s without management action. There are, however, a much larger number of populations that are at high risk to become extirpated in these GMUs without active management of threats. The Canadian and Pecos GMUs contain only 11 and 12 populations, respectively, and the BN model predicts that few of these populations are likely to persist in the long-term without management action.

The substantial population restoration and habitat work conducted by the RGCT Conservation Team since 2006 has improved the conservation status of RGCT range-wide, but the BN model strongly suggests that continued management action will be necessary to ensure that current populations will persist long-term. Large-scale non-native fish eradication projects, such as the project in the Rio Costilla watershed, will be the most effective method for addressing threats from non-native fish and creating robust RGCT metapopulations. In addition, replicating

currently threatened populations in streams not occupied by non-native fishes will further ensure the genetic diversity of the subspecies will be conserved. Although opportunities for restoration projects should be acted upon range-wide, results from the BN model suggest future conservation actions should be prioritized in the Rio Grande Headwaters GMU in Colorado and the Canadian and Pecos GMUs in New Mexico.

The BN model is the most scientifically rigorous evaluation of the status of RGCT at the population and subspecies level, but the results are very similar to those of previous analyses. Most notably, the Species Status Assessment (U.S. Fish and Wildlife Service, 2014), which preceded the “not warranted” ESA listing decision of 2014, provided similar predictions of population persistence across similar timeframes. The RGCT Population Health Index (Alves et al. 2008) differed greatly from the BN model in method, but the overall results were similar. While the BN model represents the most recent data and rigorous modelling techniques, the convergence of similar results among the BN model and other RGCT population viability models suggest that RGCT will persist in the long-term, provided that managers continue to restore new and protect current conservation populations.

RGCT Range-Wide Conservation Team Accomplishments 2008 – 2017

In 2008, the RGCT Conservation Team implemented an annual reporting protocol to summarize range-wide accomplishments towards each of the objectives outlined in the RGCT Conservation Strategy and Agreement. From 2008 – 2017, annual accomplishments were submitted by the signatories and supporting organizations and summarized in a short report to document efforts to improve the conservation status of RGCT.

Objective 1: Identify and characterize all RGCT conservation populations and occupied habitat

From 2008 - 2017, 56 surveys occurred in potentially occupied RGCT waters where RGCT were not known to occur (Table 5). This includes potential RGCT restoration waters affected by wildfire and other streams where the presence of RGCT was suspected but not confirmed. In addition, one hundred eighty-one monitoring events occurred to gather information on RGCT density, size structure, age composition, and non-native fish status. Genetic samples from 134 known or suspected RGCT populations were collected and analyzed to determine genetic purity and within-population genetic diversity. Lastly, habitat information within RGCT historic range was collected in 30 waters.

Objective 2: Secure and enhance conservation populations

Two aboriginal core conservation populations were identified and added to the range-wide database in from 2008 - 2017. Non-native fish removal efforts and fish migration barrier

construction occurred in 64 waters to secure existing conservation populations. No activities to expand connectivity within RGCT metapopulations occurred during this time period.

Objective 3: Restore populations

To eradicate non-native fish and establish new conservation populations, RGCT restoration projects occurred in 43 waters consisting of approximately 326 kilometers of stream and 2.7 km² of lake habitat. These amounts of stream length and lake area are much greater than the total restored habitat because some projects required multiple piscicide treatments of the same water to ensure successful eradication of non-native fish. A substantial portion of this work was conducted in the Rio Costilla watershed as part of a large-scale native fish restoration project consisting of 120 miles of stream, 16 mountain lakes, and a 300 acre reservoir. The restoration of Haypress Lake and its tributaries was also conducted to establish a broodstock source of RGCT for other restoration projects and recreational stocking. Approximately 200,000 RGCT were stocked into restored waters to augment pure populations in 39 waters. To improve connectivity within conservation populations, 10 events occurred including the removal or replacement of culverts that restricted RGCT movement and gene flow. Lastly, approximately 2.7 million RGCT were stocked into 213 waters to provide recreational angling opportunities outside of conservation populations. These fry, fingerling, and catchable-size RGCT were stocked into high mountain lakes, streams, and large river systems such as the Rio Grande to build awareness and provide formative experiences with native fish.

Objective 4: Secure and enhance watershed conditions

Habitat improvements and maintenance such as instream habitat improvement riparian fencing, culvert repairs or replacements, trail hardening, and changes in grazing plans occurred in 32 waters. This includes four miles of riparian fencing to benefit conservation populations on Vermejo Park Ranch in the Canadian GMU. To identify unoccupied habitats with potential for RGCT restoration, 14 waters were scouted for barriers, electrofished to determine fish presence/absence, and surveyed above a natural barrier.

Objective 5: Public Outreach

Education activities pertaining to RGCT conservation and management occurred 41 times in public and professional arenas. These activities included talks at local high schools, Native Fish and Trout in the Classroom events, Trout Unlimited Meetings, and presentations at American Fisheries Society meetings at state, regional, and national levels.

Objective 6: Data sharing

Signatories and supporting organizations submitted annual accomplishment updates that were compiled into an annual report and distributed to the RGCT Conservation Team. These accomplishments were entered into the RGCT database each year to ensure the most current information on the status of RGCT was available.

Objective 7: Coordination

The Conservation Strategy and the updated Conservation Agreement were completed and signed in 2013. In addition, the annual range-wide meetings were well attended by signatory agency representatives and included the discussion and planning of RGCT conservation actions. Representatives from signatory agencies also contributed information for the annual accomplishment reports, which were summarized and distributed to the RGCT Conservation Team.

Additional categories in the Annual Accomplishments report that capture other accomplishments not specific to any of the 7 Objectives include Category A (Miscellaneous) and Category B (Habitat). Accomplishments reported under the “Miscellaneous” category included wild and hatchery spawn operations, fish salvage in response to wildfires, and development of management plans. Accomplishments reported under the “Habitat” category consisted of fish migration barrier maintenance and construction on private property.

Table 5. Summary of annual accomplishment reports by Conservation Strategy objective and subhead 2008 – 2017.

Objective	Subhead	Events	Definition
1	Survey	56	Survey potential RGCT waters within historic range; maintain database
1	Monitor	181	Monitor RGCT populations to detect changes; maintain database
1	Taxonomy	134	Collect genetic information within historic range; maintain database
1	Habitat Inventory	30	Collect habitat information within historic range; maintain database
1	Disease	43	Conduct fish health surveys including whirling disease
2	Identify	2	Identify core conservation populations and conservation populations
2	Secure	64	Secure and enhance distribution and abundance of conservation and core conservation populations

Objective	Subhead	Events	Definition
2	Metapopulation	0	Identify, maintain, and expand connectivity within metapopulations
3	Restore	43	Increase RGCT populations by restoring RGCT habitat restoration through chemical reclamation
3	Augment	38	Augment pure populations within historic range by stocking or transplanting RGCT
3	Connectivity	10	Promote and restore connectivity of populations to enhance metapopulation function
3	Stock RGCT	213	Stock lakes and streams with RGCT for angler recreation (sum of lakes and streams stocked)
4	Improve	32	Inventory, maintain, protect, and improve existing habitat; improve fluvial/hydrological processes
4	Unoccupied	14	Identify unoccupied habitat for restoration with RGCT
5	Education	41	Subcommittee to develop education and interpretation program providing deliverables and a consistent message regarding RGCT conservation efforts
6	Database	34	Summarize distribution, population genetics and habitat data; centralize data into a database; allow range-wide integrated data analysis, summaries, and comparisons
7	Coordinate	173	Share information; identify/discuss/solve common conservation problems; prioritize issues
A	Miscellaneous	47	Accomplishments that are not listed in the other titles or strategies
B	Habitat	6	Landowner/private land habitat protection or restoration

Progress Toward 10-Year Conservation Strategy Goals

The 2013 RGCT Conservation Strategy identifies specific monitoring, population restoration, habitat improvement, and other conservation goals to be accomplished from 2014 – 2024. Information contained in the annual accomplishment reports from 2014 – 2017 were used to evaluate the RGCT Conservation Team’s progress toward meeting these goals.

Conservation goals described in Objective 1, which includes population monitoring and genetic analysis, have largely been met or exceeded (Appendix D). Population monitoring goals in the Rio Grande Headwaters and Lower Rio Grande GMUs have been met and substantial work has occurred in the Pecos and Canadian GMUs. Conservation actions taken to meet this goal include standard population surveys, environmental DNA sampling, and disease testing. Repatriation of RGCT to Las Animas Creek, the only historic habitat in the Caballo GMU, began in 2017 and will be surveyed after the population becomes established. Although specific goals for genetic analysis were not identified in the Conservation Strategy, 33 populations were analyzed for genetic purity across all GMUs occupied by RGCT.

Conservation goals described in Objective 2 include the maintenance of wildlife regulations, mechanical removal (e.g., electrofishing, gill netting) of non-native fish species, fish migration barrier construction, and RGCT broodstock development. Nearly all goals for these sub-categories were met from 2014 – 2017. Both CPW and NMDGF continue to have and enforce statutes restricting the introduction of non-native fish species, restricting the spread of disease and invasive species, and regulating angling. Although specific goals were not described in the Conservation Strategy, the mechanical removal of non-native fish within current conservation populations occurred in several waters. Construction of fish migration barriers occurred in the Rio Grande Headwaters and Lower Rio Grande GMUs, and planning had begun for fish barrier work in the Canadian and Pecos GMUs. To maintain genetically pure broodstocks, CPW has re-established the Haypress Lake broodstock program and NMDGF continued to produce RGCT at Seven Springs Hatchery.

The primary conservation goal described in Objective 3 is to restore conservation populations to unoccupied waters in all GMUs. Goals for the Lower Rio Grande and Caballo GMUs have been met, though continued restoration work in these GMUs is likely to continue. Progress has been made in the Rio Grande Headwaters GMU, but four more restored populations will be needed to achieve the goal for this GMU. Similarly, at least one population will need to be restored to both the Canadian and Pecos GMUs. Projects in the Canadian, Pecos, and Rio Grande Headwaters GMUs are currently being planned and implemented to meet the goals outlined in the Conservation Strategy.

Conservation goals described in Objective 4 include restoring and monitoring current and potential RGCT habitat. Habitat restoration goals have been met in the Lower Rio Grande GMU

by the implementation of a large-scale instream habitat project on Rio Costilla and headwater meadow and wetland restoration on Comanche Creek. Although no goals were set in the Canadian GMU, approximately 3 miles of riparian fencing was built to protect and enhance RGCT habitat on Vermejo Park Ranch. Two miles of riparian fencing was completed in the Rio Grande Headwaters GMU, though more work will need to be completed here and in the Lower Rio Grande and Pecos GMUs.

Conservation goals described in Objectives 5, 6, and 7 have been met, with the exception of the Conservation Agreement renewal which expires in 2024. All of the public outreach goals have been met and exceeded through continued efforts to educate the public about RGCT conservation. Each year, several agency and other entity representatives gave presentations to students, attended youth camps, met with angler groups, and developed and distributed educational materials such as brochures and posters. GMU leaders met annually to update the range-wide dataset and ensured that database administrators were sufficiently funded. The annual range-wide meetings were well-attended by all signatories, supporting organizations, and other entities interested in RGCT conservation. Annual accomplishment reports were completed each year and a five-year Status Report was completed.

Overall, the RGCT Conservation Team is succeeding in meeting the 10-year goals described in the Conservation Strategy. In many cases, such as genetic analysis and restoration in the Lower Rio Grande GMU, efforts have exceeded these goals. Substantial work in the Rio Grande Headwaters GMU in Colorado and a shift toward conservation actions in the Canadian and Pecos GMUs in New Mexico will be necessary to meet all of the goals by 2024.

Conclusions

From 2008 – 2016, the range-wide conservation status of RGCT has improved in total number of populations and occupied stream length and lake area. Although a few populations were extirpated during this time period, management actions taken by the RGCT Conservation Team have resulted in overall net gains for the subspecies. These gains can be primarily attributed to the success of non-native fish eradication projects through use of piscicides (i.e., rotenone). Although ash and debris flows caused by catastrophic wildfire are a threat to current RGCT populations, they have eradicated non-native fish from several streams and provided additional restoration opportunities once the impacted aquatic habitats recover. These management actions by the RGCT Conservation Team played an important role in the USFWS decision not to list RGCT under the ESA in 2014.

The Canadian, Pecos, and Rio Grande Headwaters GMUs should be the focus of future conservation actions. The BN model suggests that many populations in these GMUs are at risk because they lack a fish migration barrier and either contain or are in close proximity to non-

native fishes. In addition, continued RGCT restoration projects in the Rio Grande Headwaters GMU will be necessary to meet the goals set forth in the Conservation Strategy. Overall, the RGCT Conservation Team is ahead of schedule on meeting many of these goals and must now focus efforts on restoring RGCT to the Canadian, Pecos, and Rio Grande Headwaters GMUs.

The RGCT Conservation Team has accomplished significant work in conserving RGCT since it was established in 2003. However, non-native fish, drought, catastrophic wildfire, and other threats will continue to affect RGCT in the future. As such, the RGCT Conservation Team should continue to coordinate, plan, and implement RGCT restoration activities to ensure the long-term persistence of individual populations and the subspecies range-wide.

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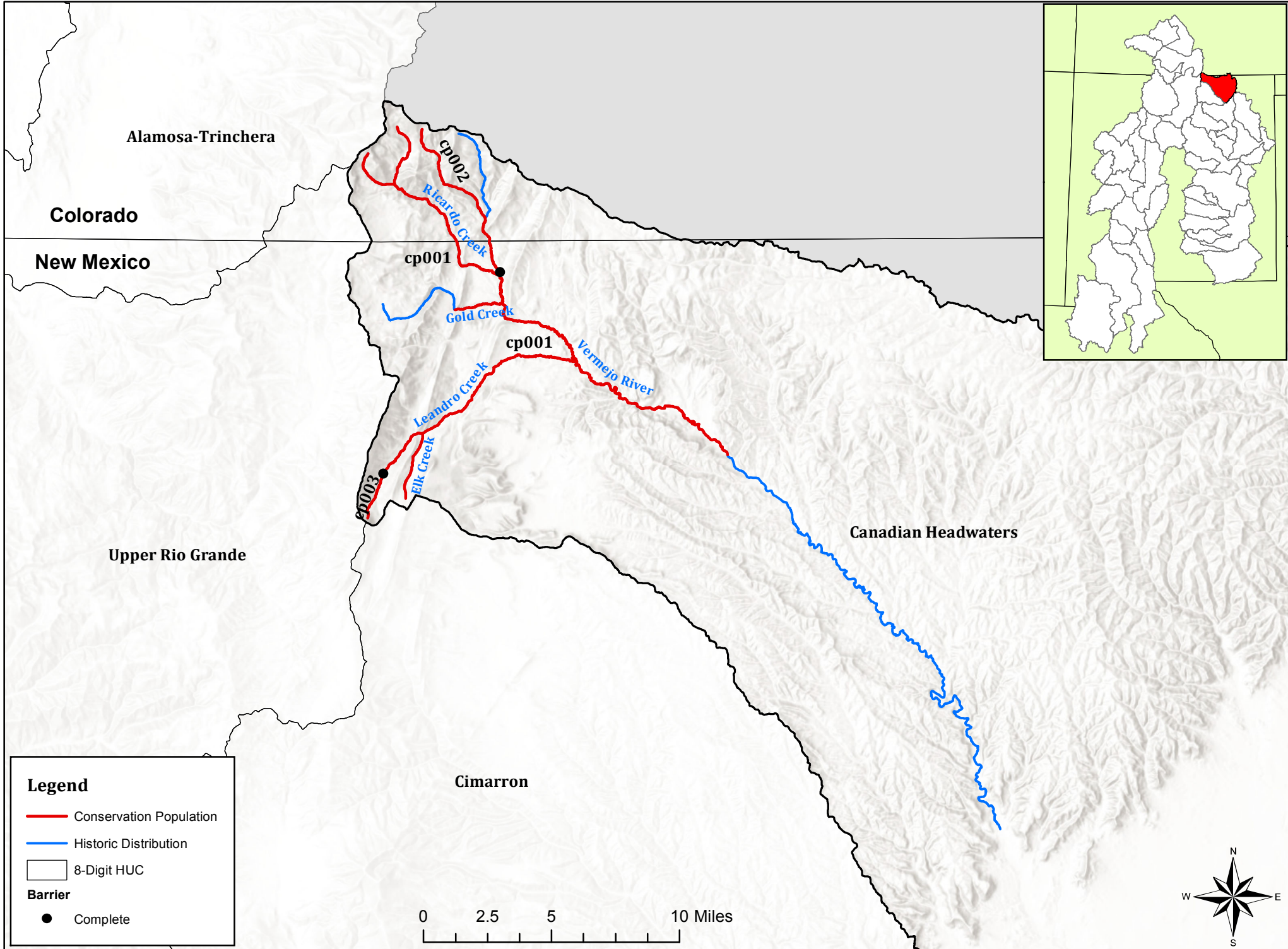
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Appendix A. Maps and population characteristics of RGCT conservation populations by HUC8 watershed in 2016.

Canadian GMU

Canadian Headwaters (11080001)



Canadian GMU

Canadian Headwaters 11080001

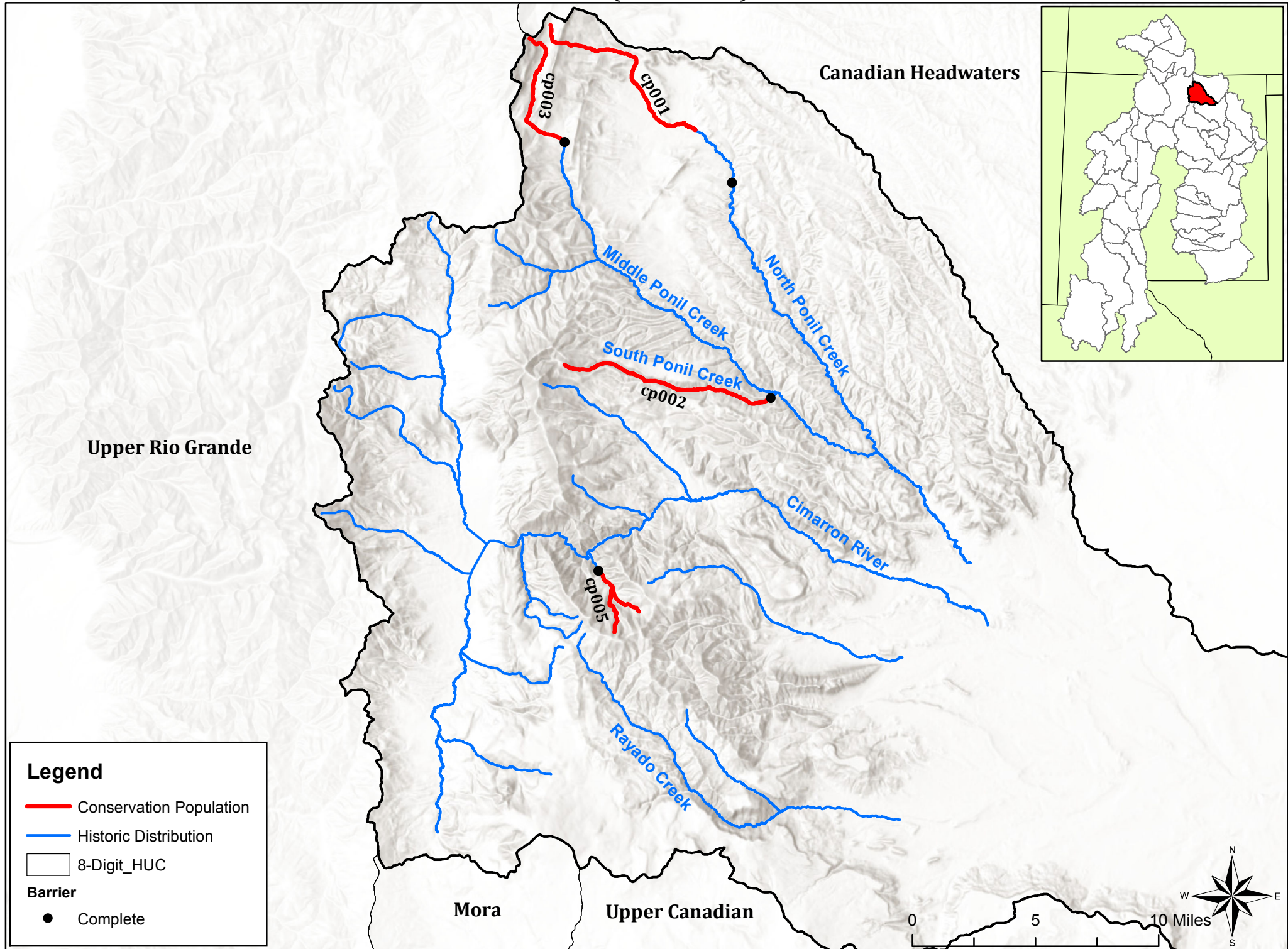
cp001	Conservation Population	Moderately Networked		Significant Disease Risk (sympatric)		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Ricardo Creek	11080001cd002	14.6	Aboriginal	Unaltered (< 1%)		50 to 150 fish/mi	Good	5 to 10 feet	BRK
E. Trib. Ricardo Creek	11080001cd003	3.5	Aboriginal	Unaltered (< 1%)		50 to 150 fish/mi	Good	5 to 10 feet	BRK
Gold Creek	11080001cd005	3.3	Aboriginal	Not Tested - Suspected Unaltered		Unknown	Good	< 5 feet	BRK
Elk Creek	11080001cd006	4.4	Aboriginal	Not Tested - Suspected Unaltered		Unknown	Good	5 to 10 feet	BRK
Leandro Creek	11080001cd007	16.8	Restored	Not Tested - Suspected Unaltered		Unknown	Good	5 to 10 feet	BRK
Little Vermejo Creek	11080001cd008	0	Aboriginal	>1% and <=10%		151 to 400 fish/mi	Fair	10 to 15 feet	RBT,BRK
Ricardo Creek	11080001cd008	0.5	Aboriginal	>1% and <=10%		151 to 400 fish/mi	Fair	10 to 15 feet	RBT,BRK
Vermejo River	11080001cd008	26.3	Aboriginal	>1% and <=10%		151 to 400 fish/mi	Fair	10 to 15 feet	RBT,BRK

cp002	Core Conservation Population	Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Little Vermejo Creek	11080001cd001	11.9	Aboriginal	Unaltered (< 1%)		50 to 150 fish/mi	Excellent	5 to 10 feet	BRK

cp003	Core Conservation Population	Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Leandro Creek	11080001cd004	3.1	Restored	Unaltered (< 1%)		151 to 400 fish/mi	Good	5 to 10 feet	BRK

Canadian GMU

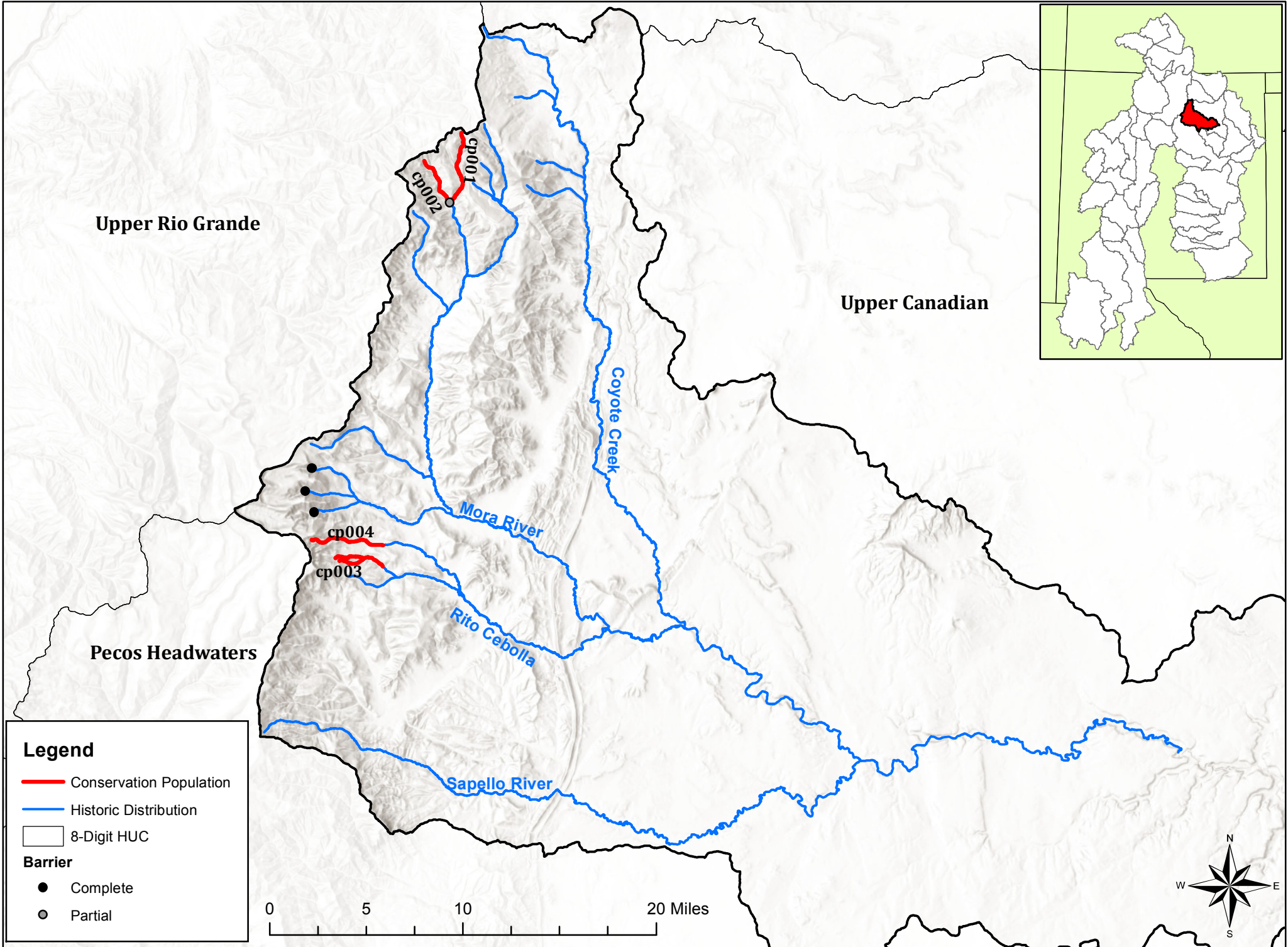
Cimarron (11080002)



Canadian GMU

Cimarron 11080002

cp001	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization			Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
McCrystal Creek	11080002cd001	15.1	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None
North Ponil Creek	11080002cd001	0.1	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None
cp002	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization			Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
South Ponil Creek	11080002cd002	15.2	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None
cp003	Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	Hybridizing species < 10 km			Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Middle Ponil Creek	11080002cd003	9.6	Aboriginal	>10% and <=20%	151 to 400 fish/mi	Good	5 to 10 feet	None
cp005	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization			Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Clear Creek	11080002cd005	4.8	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None
Headwater Trib. to Clear Creek	11080002cd005	2.7	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None



Upper Rio Grande

Upper Canadian

Pecos Headwaters

Legend

— Conservation Population

— Historic Distribution

□ 8-Digit HUC

Barrier

● Complete

○ Partial

0 5 10 20 Miles



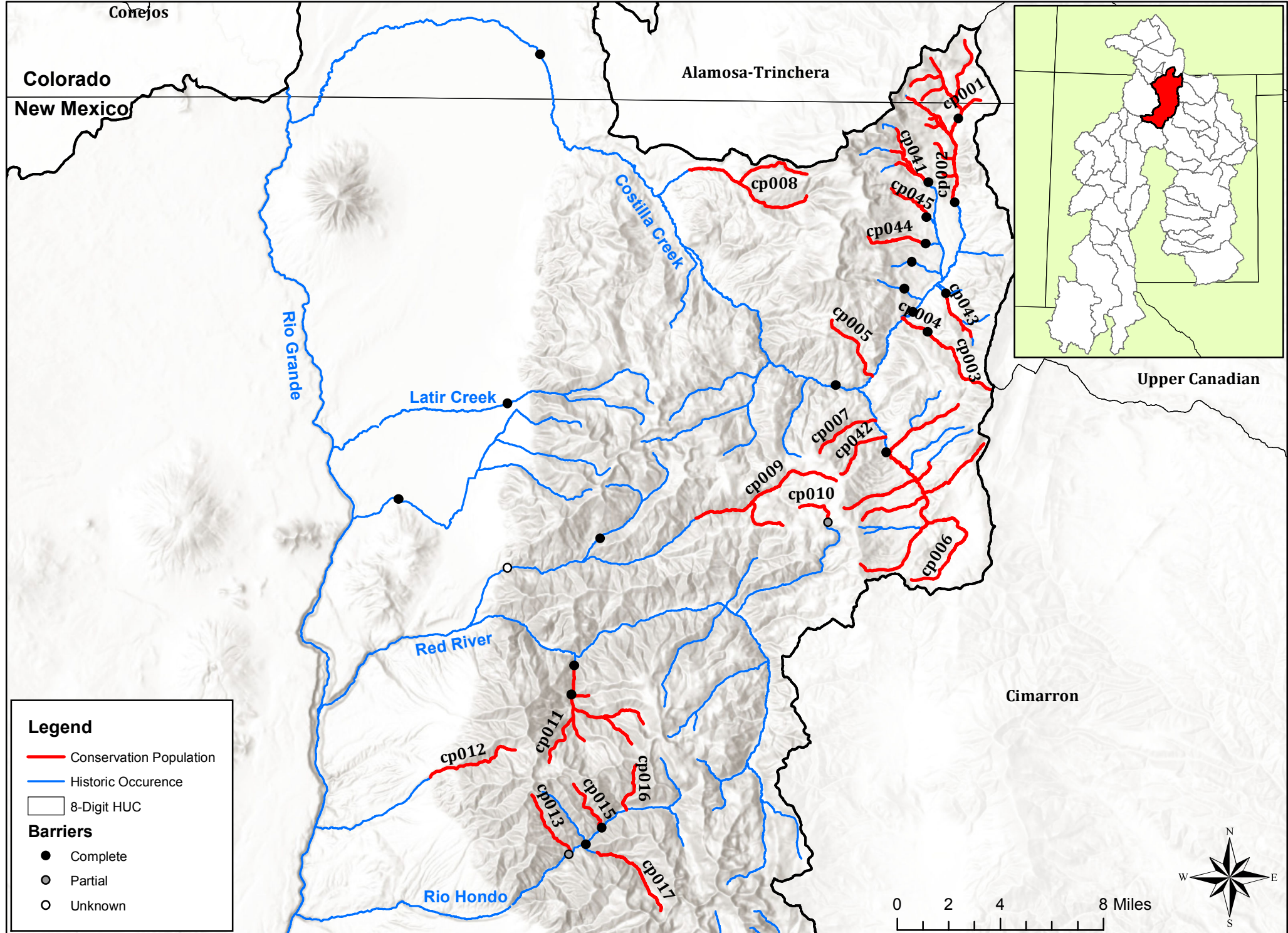
Canadian GMU

Mora 11080004

cp001	Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident				
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
East Fork Luna Creek	11080004cd004	6.8	Aboriginal	>1% and <=10%	Unknown	Fair	5 to 10 feet	BRN	
cp002	Core Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident				
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
West Fork Luna Creek	11080004cd001	4.6	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	BRN	
cp003	Core Conservation Population	Weakly Networked	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident				
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Headwater Trib. to Rito Morphy	11080004cd005	2.6	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Unknown	< 5 feet	None	
Rito Morphy	11080004cd005	4.2	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Unknown	< 5 feet	None	
cp004	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident				
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Santiago Creek	11080004cd006	6.6	Aboriginal	>1% and <=10%	50 to 150 fish/mi	Unknown	< 5 feet	None	

Lower Rio Grande GMU

Upper Rio Grande (13020101) North Half



Lower Rio Grande GMU

Upper Rio Grande (North Half) 13020101

cp001	Core Conservation Population	Weakly Networked	Limited Disease Risk	No Risk of Hybridization	Resident				
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Costilla Creek	13020101cd001	1.6	Restored	Unaltered (< 1%)	> 400 fish/mi	Excellent	5 to 10 feet	None	
State Line Creek	13020101cd002	1.5	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Excellent	< 5 feet	None	
West Fork Costilla Creek	13020101cd007	3.2	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	< 5 feet	None	
East Fork Costilla Creek	13020101cd008	4.3	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	< 5 feet	None	
Unnamed Trib #1 W Fk. Costilla Creek	13020101cd061	2.3	Aboriginal	Unaltered (< 1%)	Unknown	Good	< 5 feet	None	
Unnamed Trib #2 W Fk. Costilla Creek	13020101cd062	1.8	Aboriginal	Unaltered (< 1%)	Unknown	Good	< 5 feet	None	

cp002	Core Conservation Population	Moderately Networked	Limited Disease Risk	No Risk of Hybridization	Resident				
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Costilla Creek	13020101cd005	6.2	Restored	Unaltered (< 1%)	> 400 fish/mi	Excellent	5 to 10 feet	None	
Glacier Creek	13020101cd006	3.9	Restored	Unaltered (< 1%)	Unknown	Excellent	< 5 feet	None	
Patten Creek	13020101cd066	0.9	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Good	< 5 feet	None	
Frey Creek	13020101cd067	1.9	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Good	< 5 feet	None	
South Fork Glacier Creek	13020101cd068	1.4	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Excellent	< 5 feet	None	
Unnamed Trib. to South Fork Glacier Creek	13020101cd069	1	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Excellent	< 5 feet	None	

cp003	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
PowderHouse Creek	13020101cd003	6.2	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Good	< 5 feet	None
cp004	Conservation Population	Population Isolated		Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
PowderHouse Creek	13020101cd004	2.1	Aboriginal	Not Tested - Suspected Hybridized	50 to 150 fish/mi	Good	< 5 feet	BRK
cp005	Core Conservation Population	Population Isolated		Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
La Cueva Creek	13020101cd021	5.1	Aboriginal	>1% and <=10%	50 to 150 fish/mi	Good	< 5 feet	None
cp006	Core Conservation Population	Moderately Networked		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Comanche Creek	13020101cd010	6.4	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Fair	< 5 feet	None
Comanche Creek	13020101cd011	6.9	Restored	Unaltered (< 1%)	> 400 fish/mi	Fair	5 to 10 feet	None
Vidal Creek	13020101cd012	9	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Fair	< 5 feet	None
La Belle Creek	13020101cd013	4.6	Restored	Not Tested - Suspected Unaltered	50 to 150 fish/mi	Good	< 5 feet	None
Grassy Creek	13020101cd014	5.3	Restored	Not Tested - Suspected Unaltered	50 to 150 fish/mi	Good	< 5 feet	None
Holman Creek	13020101cd015	1.7	Restored	Not Tested - Suspected Unaltered	50 to 150 fish/mi	Good	< 5 feet	None
Gold Creek	13020101cd016	5.1	Restored	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Good	< 5 feet	None
Little Costilla Creek	13020101cd017	5.9	Restored	>1% and <=10%	50 to 150 fish/mi	Good	< 5 feet	None

cp007	Conservation Population	Population Isolated			Significant Disease Risk (sympatric)	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Fernandez Creek	13020101cd018	4.4	Aboriginal	>1% and <=10%	50 to 150 fish/mi	Good	< 5 feet	None	
cp008	Core Conservation Population	Population Isolated			Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Unnamed Trib. to Ute Creek	13020101cd022	5	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None	
Ute Creek	13020101cd022	8.8	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None	
cp009	Core Conservation Population	Population Isolated			Minimal Disease Risk > 10 k	Hybridizing species > 10 km		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Cabresto Creek	13020101cd023	10.3	Aboriginal	Unaltered (< 1%)	0 to 50 fish/mi	Poor	5 to 10 feet	BRK	
Unnamed Trib. to Cabresto Creek	13020101cd023	3.4	Aboriginal	Unaltered (< 1%)	0 to 50 fish/mi	Poor	5 to 10 feet	BRK	
cp010	Core Conservation Population	Population Isolated			Minimal Disease Risk > 10 km	Hybridizing species > 10 km		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Bitter Creek	13020101cd024	2.9	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Poor	< 5 feet	None	

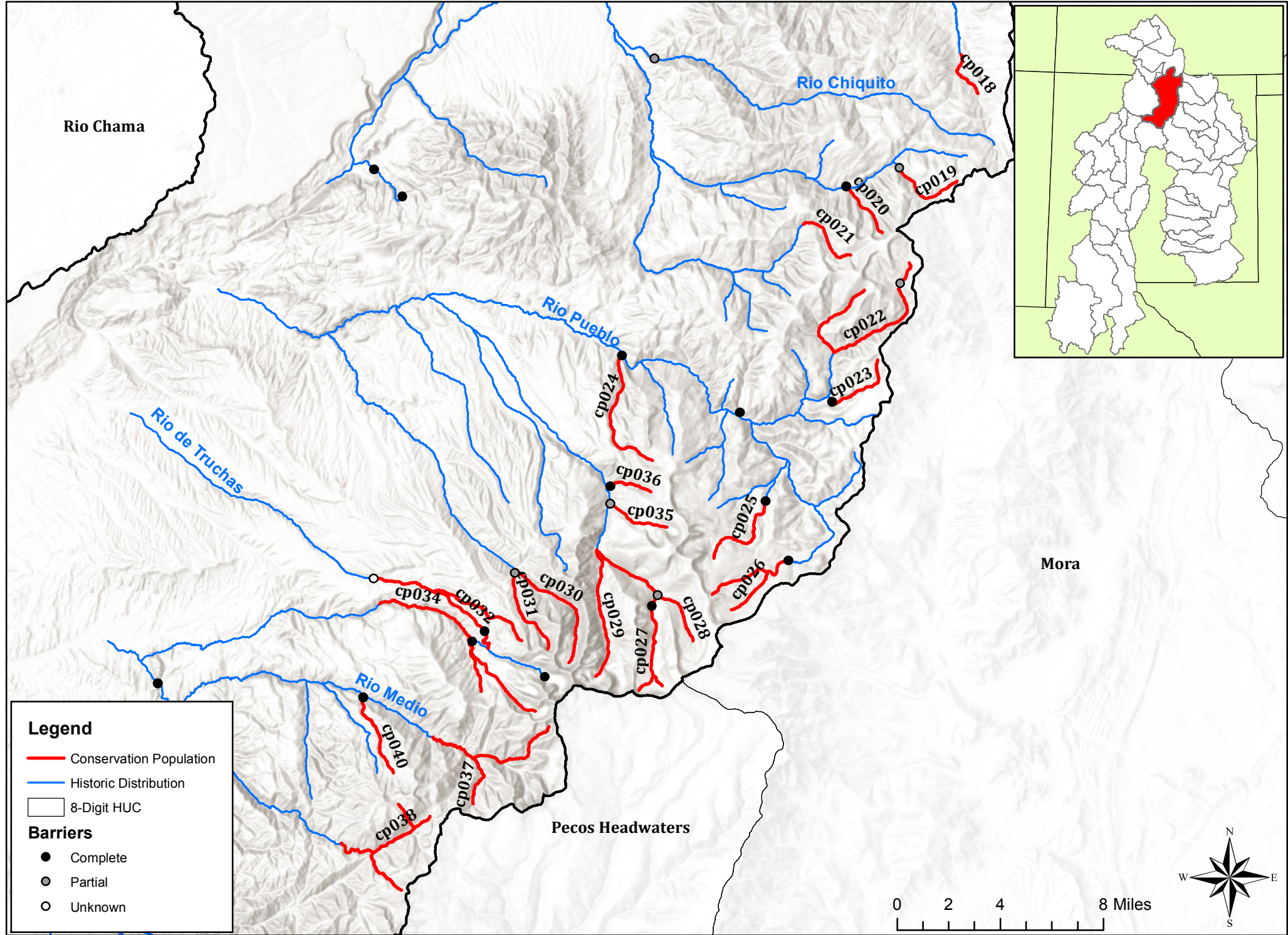
cp011	Core Conservation Population	Moderately Networked	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Columbine Creek	13020101cd025	5	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	10 to 15 feet	BRN
Placer Fork	13020101cd025	2.1	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	10 to 15 feet	BRN
Columbine Creek	13020101cd057	3.7	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	None
Placer Fork	13020101cd058	3.2	Aboriginal	Unaltered (< 1%)	Unknown	Good	< 5 feet	None
Willow Creek	13020101cd059	2.6	Aboriginal	Unaltered (< 1%)	Unknown	Good	< 5 feet	None
Deer Creek	13020101cd065	1.2	Aboriginal	Unaltered (< 1%)	0 to 50 fish/mi	Good	< 5 feet	None
cp012	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
San Cristobal Creek	13020101cd031	6.5	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	10 to 15 feet	None
cp013	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Yerba Creek	13020101cd027	4.7	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN
cp015	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Italianos Creek	13020101cd029	3.8	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	None
cp016	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Gavilan Creek	13020101cd030	3.4	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	BRN

cp017	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
South Fork Rio Hondo	13020101cd026	6.3	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	10 to 15 feet	BRN
cp041	Core Conservation Population	Moderately Networked	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Casias Creek	13020101cd078	4.7	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	None
Unnamed tributary # 1 to Casias Creek	13020101cd078	0.9	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	None
Unnamed tributary # 2 to Casias Creek	13020101cd078	1.7	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	None
cp042	Conservation Population	Population Isolated	Significant Disease Risk (sympatric)	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Chuckwagon Creek	13020101cd019	4.2	Aboriginal	>1% and <=10%	50 to 150 fish/mi	Good	< 5 feet	None
cp043	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	Hybridizing species > 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Allen Creek	13020101cd079	2.1	Restored	Unaltered (< 1%)	Unknown	Excellent	< 5 feet	None
Tributary #1 Allen Creek, Tributary #2 Allen Creek	13020101cd080	1.6	Restored	Unaltered (< 1%)	Unknown	Excellent	< 5 feet	None
cp044	Core Conservation Population	Weakly Networked	Minimal Disease Risk > 10 km	Hybridizing species > 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Long Canyon	13020101cd081	4.2	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	< 5 feet	None

cp045	Core Conservation Population	Weakly Networked		Minimal Disease Risk > 10 km		Hybridizing species > 10 km		Resident
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Beaver Creek	13020101cd082	3.4	Restored	Unaltered (< 1%)	Unknown	Excellent	< 5 feet	None

Lower Rio Grande GMU

Upper Rio Grande (13020101) South Half



Lower Rio Grande GMU

Upper Rio Grande (South Half) 13020101

cp018	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Tienditas Creek	13020101cd032	3.2	Aboriginal	Unaltered (< 1%)	0 to 50 fish/mi	Fair	5 to 10 feet	BRN
cp019	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Frijoles Creek	13020101cd033	5	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN
cp020	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Palociento Creek	13020101cd034	3.9	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN
cp021	Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio Grande del Rancho	13020101cd035	4.3	Aboriginal	>1% and <=10%	Unknown	Good	15 to 20 feet	BRN
cp022	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	Hybridizing species > 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Unnamed Trib. to Rito la Presa	13020101cd036	5.8	Aboriginal	Unaltered (< 1%)	Unknown	Fair	5 to 10 feet	BRN
Rito la Presa	13020101cd037	9.1	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Fair	10 to 15 feet	None

cp023	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Policarpio Creek	13020101cd038	4.8	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	None
cp024	Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Osha Creek	13020101cd047	8.8	Restored	>1% and <=10%	0 to 50 fish/mi	Good	5 to 10 feet	None
cp025	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rito Angostura	13020101cd040	6.4	Restored	>1% and <=10%	151 to 400 fish/mi	Good	5 to 10 feet	None
cp026	Core Conservation Population	Population Isolated	Minimal Disease Risk > 10 km	Hybridizing species > 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Alamitos Creek	13020101cd039	5.5	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	10 to 15 feet	None
Unnamed N Tributary to Alamitos Creek	13020101cd060	4.1	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	5 to 10 feet	None
cp027	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Middle Fork Rio Santa Barbara	13020101cd042	6.1	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	BRN
Unnamed Trib. to Middle Fork Rio Santa Barbara	13020101cd042	0.9	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	BRN

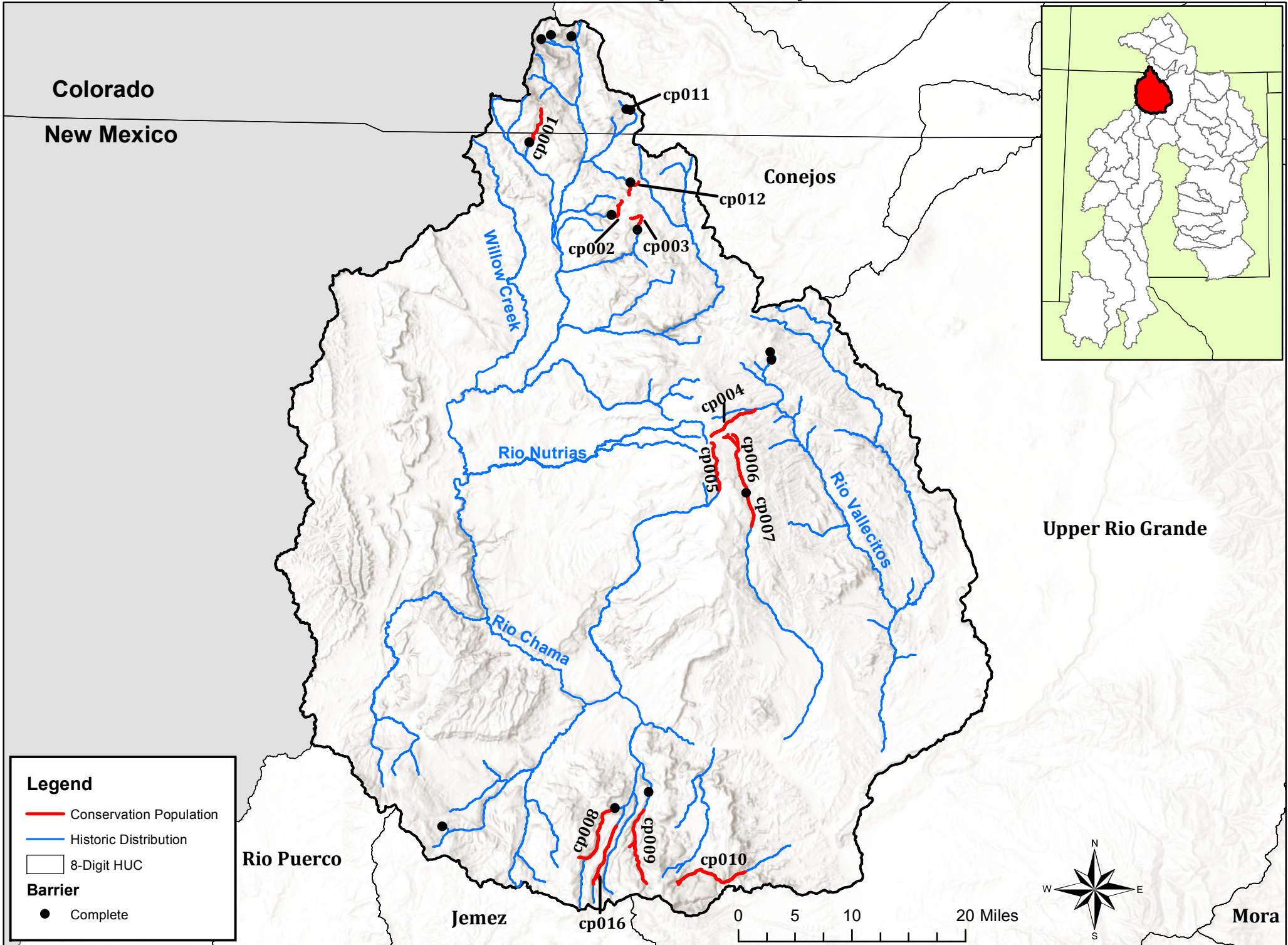
cp028	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
East Fork Rio Santa Barbara	13020101cd041	4.1	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	10 to 15 feet	BRN
cp029	Core Conservation Population	Population Isolated		Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
West Fork Rio Santa Barbara	13020101cd043	8.7	Aboriginal	>1% and <=10%	50 to 150 fish/mi	Good	10 to 15 feet	BRN
East Fork Rio Santa Barbara	13020101cd044	0.2	Aboriginal	Not Tested - Suspected Hybridized	50 to 150 fish/mi	Good	10 to 15 feet	BRN
Middle Fork Rio Santa Barbara	13020101cd044	5.6	Aboriginal	Not Tested - Suspected Hybridized	50 to 150 fish/mi	Good	10 to 15 feet	BRN
cp030	Conservation Population	Population Isolated		Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio de las Trampas	13020101cd048	8.2	Aboriginal	Not Tested - Suspected Hybridized	Unknown	Good	5 to 10 feet	None
cp031	Conservation Population	Population Isolated		Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio San Leonardo	13020101cd049	5.8	Aboriginal	Not Tested - Suspected Hybridized	Unknown	Good	5 to 10 feet	None

cp032	Core Conservation Population	Population Isolated			Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Rio de Truchas	13020101cd050	11.1	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Fair	5 to 10 feet	None	
Rio de la Cebolla	13020101cd051	6.1	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	None	
cp034	Core Conservation Population	Population Isolated			Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
South Fork Rio Quemado	13020101cd052	0.8	Aboriginal	Not Tested - Suspected Unaltered	151 to 400 fish/mi	Excellent	5 to 10 feet	None	
Unnamed Trib. South Fork Rio Quemado	13020101cd052	2.8	Aboriginal	Not Tested - Suspected Unaltered	151 to 400 fish/mi	Excellent	5 to 10 feet	None	
Rio Quemado	13020101cd053	7	Aboriginal	Not Tested - Suspected Unaltered	> 400 fish/mi	Excellent	15 to 20 feet	None	
North Fork Rio Quemado	13020101cd063	0.2	Aboriginal	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Excellent	5 to 10 feet	None	
South Fork Rio Quemado	13020101cd064	6	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	10 to 15 feet	None	
cp035	Conservation Population	Population Isolated			Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Jicarita Creek	13020101cd045	4.1	Aboriginal	Unaltered (< 1%)	Unknown	Good	5 to 10 feet	None	
cp036	Conservation Population	Population Isolated			Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Indian Creek	13020101cd046	2.8	Aboriginal	Not Tested - Suspected Hybridized	Unknown	Good	5 to 10 feet	Unknown	

cp037	Conservation Population	Population Isolated			Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio Medio	13020101cd054	9.7	Aboriginal	Not Tested - Suspected Hybridized		Unknown	Unknown	Unknown	RBT,BRN
Unnamed Trib. to Rio Medio	13020101cd054	3.4	Aboriginal	Not Tested - Suspected Hybridized		Unknown	Unknown	Unknown	RBT,BRN
cp038	Conservation Population	Population Isolated			Moderate Disease Risk < 10 km	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio Frijoles	13020101cd055	7.4	Aboriginal	Not Tested - Suspected Hybridized		151 to 400 fish/mi	Unknown	Unknown	RBT,BRN
Rito Jaroso	13020101cd055	1.9	Aboriginal	Not Tested - Suspected Hybridized		151 to 400 fish/mi	Unknown	Unknown	RBT,BRN
Rio Frijoles	13020101cd056	3.3	Aboriginal	Not Tested - Suspected Hybridized		Unknown	Unknown	Unknown	Unknown
cp040	Core Conservation Population	Population Isolated			Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Rio Molino	13020101cd077	5.6	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	None	

Lower Rio Grande GMU

Rio Chama (13020102)



Lower Rio Grande GMU

Rio Chama 13020102

cp001	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident, Lacustrine		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Nabor Creek	13020102cd001	5.9	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	< 5 feet	None
cp002	Core Conservation Population	Population Isolated		Significant Disease Risk (sympatric)	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Little Willow Creek	13020102cd003	3.7	Restored	Not Tested - Suspected Hybridized	151 to 400 fish/mi	Good	5 to 10 feet	RBT
cp003	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Poso Creek	13020102cd004	3.9	Restored	Not Tested - Suspected Hybridized	151 to 400 fish/mi	Excellent	< 5 feet	BRK
cp004	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Jaroso Creek	13020102cd008	8	Aboriginal	Not Tested - Suspected Hybridized	50 to 150 fish/mi	Good	< 5 feet	None
cp005	Conservation Population	Population Isolated		Minimal Disease Risk > 10 km	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Canjilon Creek	13020102cd009	8.1	Aboriginal	>1% and <=10%	151 to 400 fish/mi	Good	5 to 10 feet	None

cp006	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
El Rito	13020102cd006	10	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	10 to 15 feet	None
Unnamed Trib. #1 to El Rito	13020102cd006	2.1	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	10 to 15 feet	None
Unnamed Trib. #2 to El Rito	13020102cd006	0.6	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	10 to 15 feet	None

cp007	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
El Rito	13020102cd007	5.3	Aboriginal	Not Tested - Suspected Hybridized	> 400 fish/mi	Good	10 to 15 feet	RBT

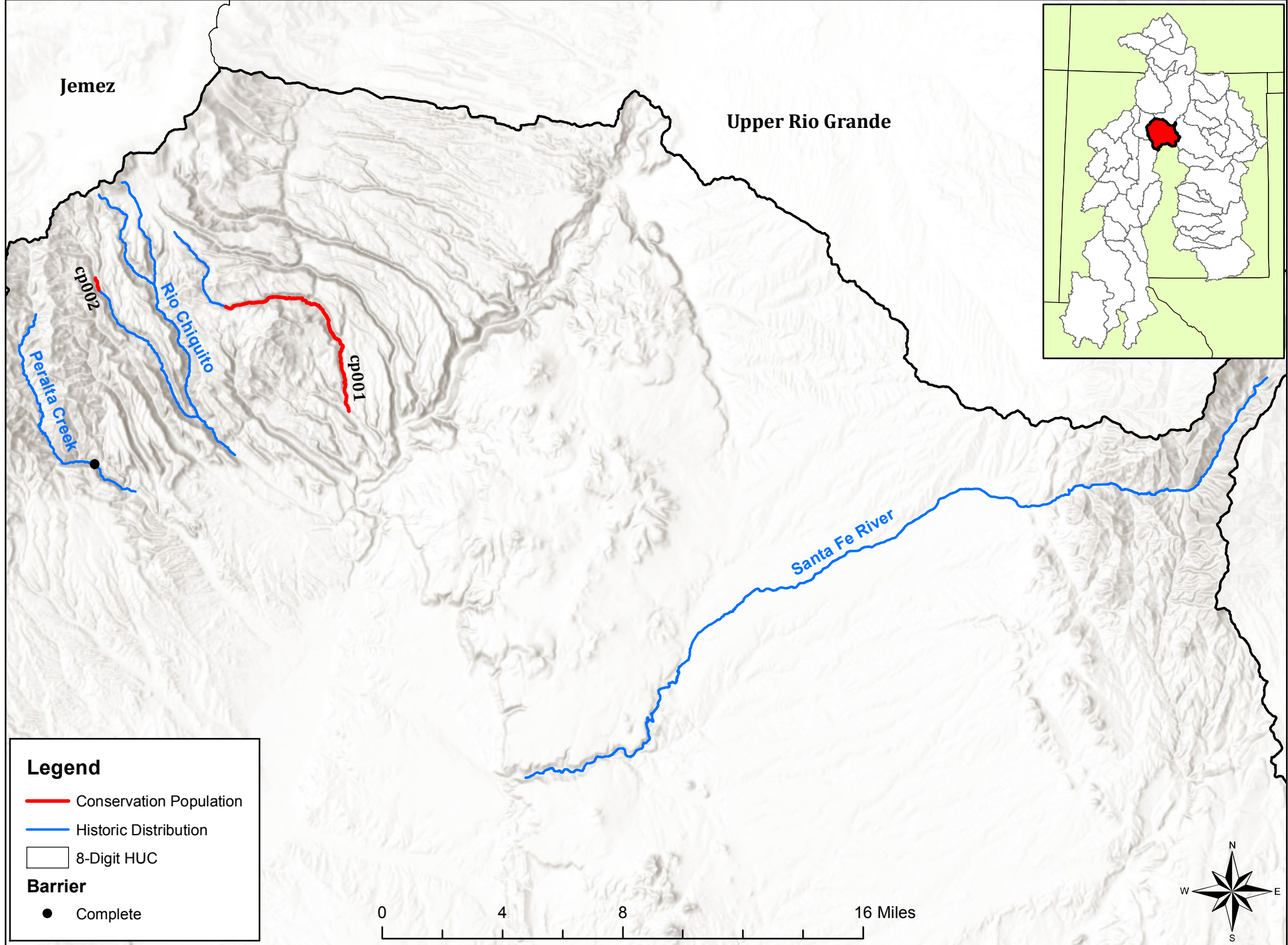
cp008	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Canones Creek	13020102cd010	9.6	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	5 to 10 feet	None
Unnamed Trib. to Canones Creek	13020102cd010	1.1	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	5 to 10 feet	None

cp009	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Polvadera Creek	13020102cd011	12.1	Aboriginal	Not Applicable	0 to 50 fish/mi	Poor	< 5 feet	None
South Fork Polvadera Creek	13020102cd012	1	Aboriginal	Unaltered (< 1%)	Unknown	Unknown	< 5 feet	None

cp010		Conservation Population		Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Rio del Oso	13020102cd013	11.2	Aboriginal	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Fair	< 5 feet	None	
Rito de Abiquiu	13020102cd013	0.6	Aboriginal	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Fair	< 5 feet	None	
Rito del Oso	13020102cd013	0.7	Aboriginal	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Fair	< 5 feet	None	
cp011		Core Conservation Population		Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Wolf Creek	13020102cd015	0.6	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	BRN	
cp012		Core Conservation Population		Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
East Fork Wolf Creek	13020102cd017	1.6	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Excellent	< 5 feet	None	
Headwater Trib. To East Fork Wolf Creek	13020102cd020	2.1	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	< 5 feet	None	
cp016		Core Conservation Population		Population Isolated	Minimal Disease Risk > 10 km	Hybridizing species > 10 km	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Chihuahueros Creek	13020102cd021	9.3	Aboriginal	>1% and <=10%	0 to 50 fish/mi	Fair	5 to 10 feet	None	
Unnamed tributary of Chihuahueros Creek	13020102cd021	1.4	Aboriginal	>1% and <=10%	0 to 50 fish/mi	Fair	5 to 10 feet	None	

Lower Rio Grande GMU

Rio Grande - Santa Fe (13020201)



Jemez

Upper Rio Grande

cp002

Rio Chiquito

cp001

Peralta Creek

Santa Fe River

Legend

— Conservation Population

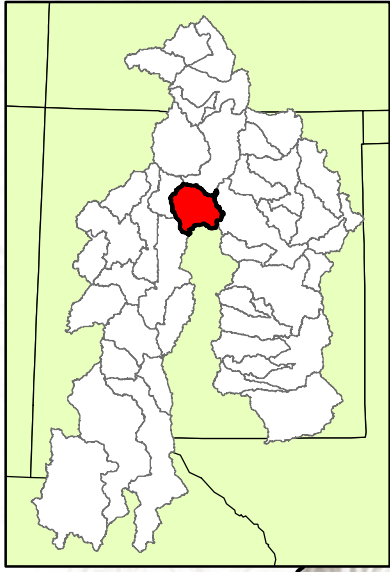
— Historic Distribution

□ 8-Digit HUC

Barrier

● Complete

0 4 8 16 Miles

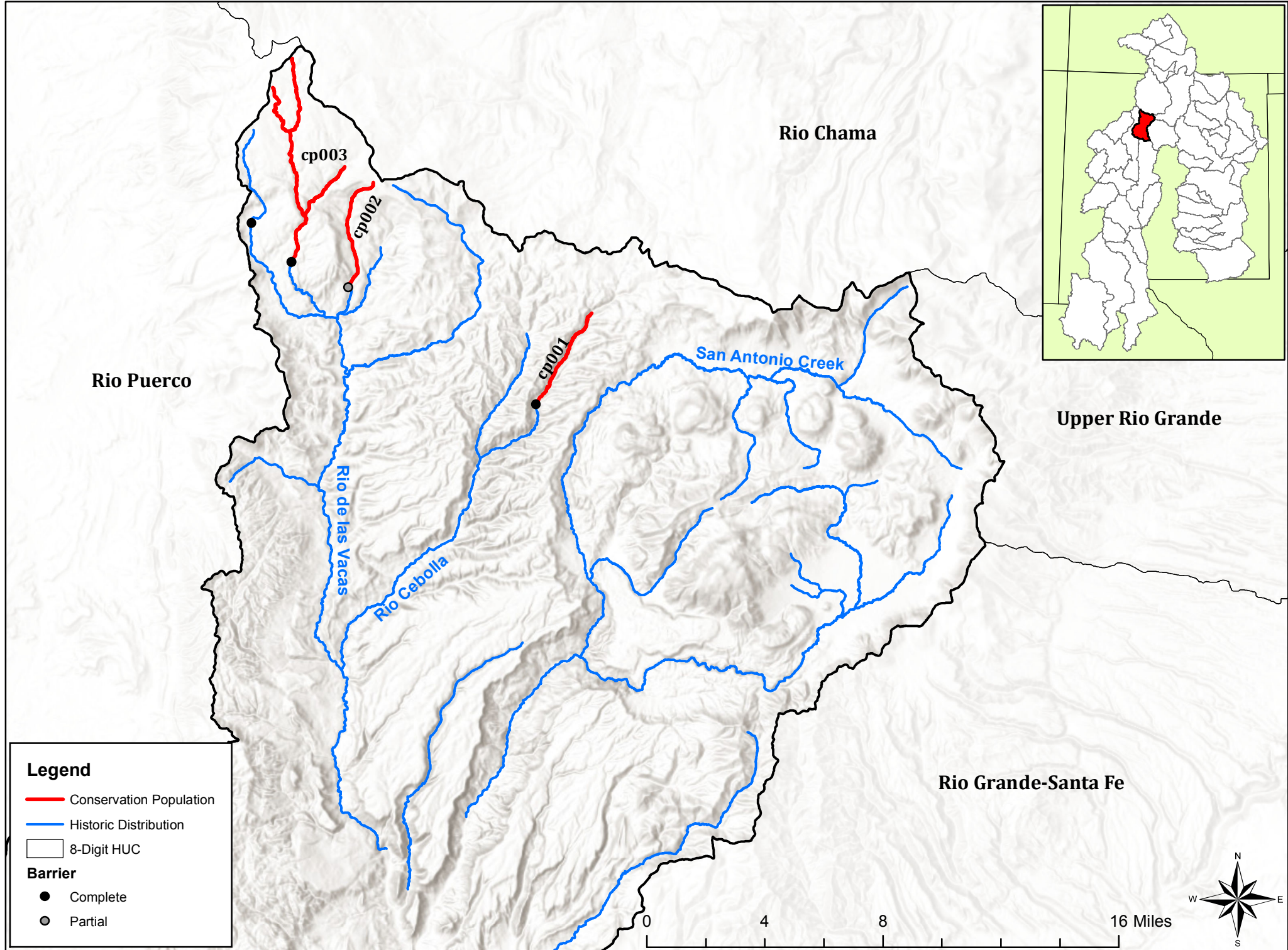


Lower Rio Grande GMU

Rio Grande – Santa Fe 13020201

cp001	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Capulin Creek	13020201cd001	12	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Poor	5 to 10 feet	None

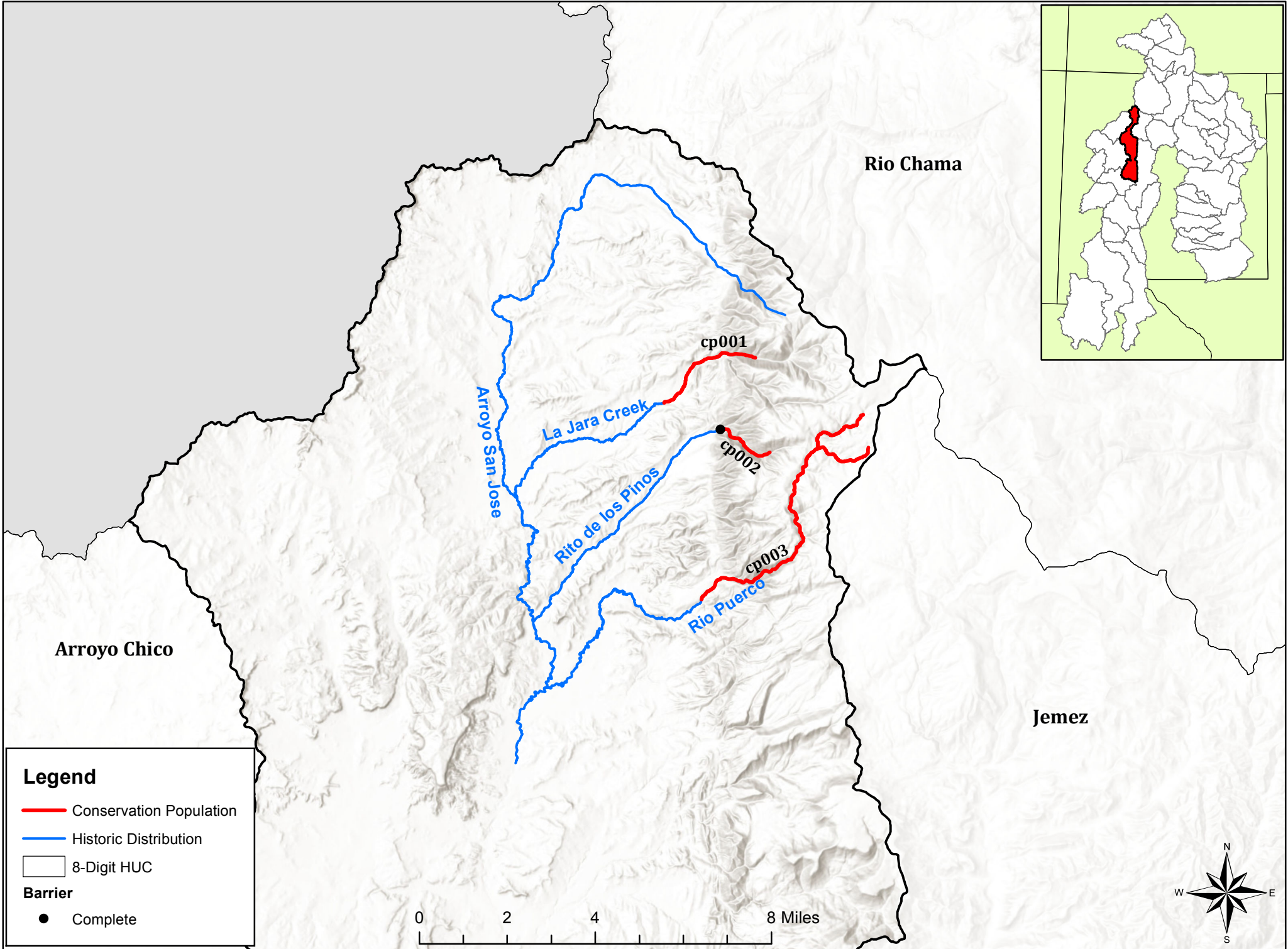
cp002	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Medio Dia Creek	13020201cd002	0.7	Aboriginal	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Fair	< 5 feet	None



Lower Rio Grande GMU

Jemez 13020202

cp001		Core Conservation Population		Population Isolated		Limited Disease Risk		Hybridizing species < 10 km		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>		
Rio Cebolla	13020202cd001	6.7	Restored	Not Tested - Suspected Unaltered		151 to 400 fish/mi	Fair	5 to 10 feet	BRN		
cp002		Core Conservation Population		Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>		
Rito de las Palomas	13020202cd004	6.9	Aboriginal	Unaltered (< 1%)		Unknown	Fair	5 to 10 feet	BRN		
cp003		Conservation Population		Weakly Networked		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>		<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>		
Rito de las Perchas	13020202cd005	3.9	Restored	>1% and <=10%		> 400 fish/mi	Unknown	< 5 feet	BRN		
Rio de las Vacas	13020202cd006	8.1	Restored	>1% and <=10%		> 400 fish/mi	Good	5 to 10 feet	BRN		
Rio de las Vacas	13020202cd007	4.5	Restored	>1% and <=10%		> 400 fish/mi	Fair	5 to 10 feet	None		
Rito Anastacio	13020202cd008	3.4	Restored	>1% and <=10%		Unknown	Fair	< 5 feet	BRN		



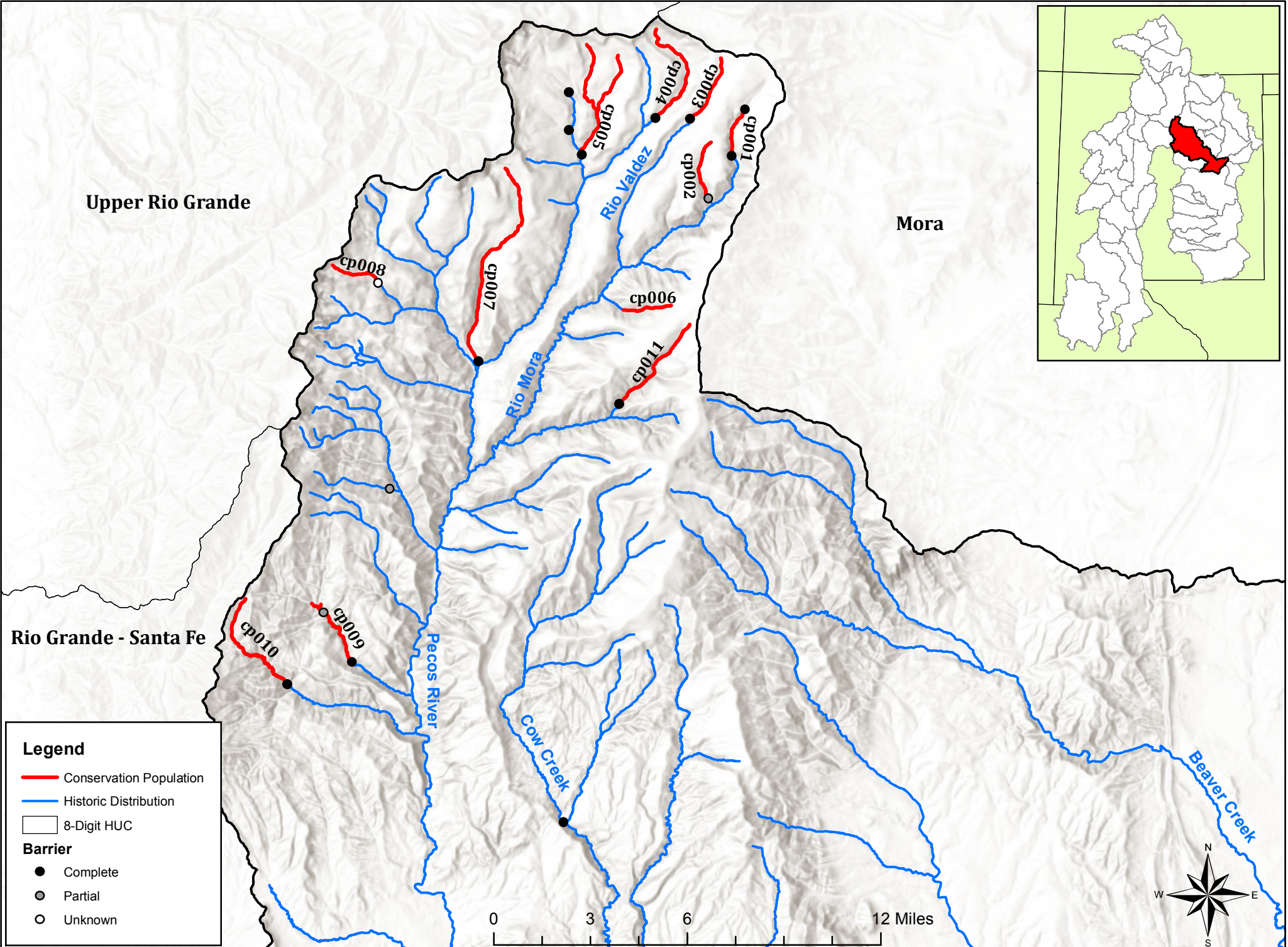
Lower Rio Grande GMU

Rio Puerco 13020204

cp001	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
La Jara Creek	13020204cd002	4.4	Unknown	>1% and <=10%	0 to 50 fish/mi	Good	< 5 feet	None
cp002	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rito de los Pinos	13020204cd001	2.3	Aboriginal	Not Tested - Suspected Unaltered	50 to 150 fish/mi	Good	< 5 feet	BRK
cp003	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio Puerco	13020204cd003	11.9	Aboriginal	>1% and <=10%	> 400 fish/mi	Fair	5 to 10 feet	None
Unnamed Trib. to Rio Puerco	13020204cd004	2.5	Aboriginal	>1% and <=10%	Unknown	Unknown	< 5 feet	None

Pecos GMU

Pecos Headwaters (13060001)



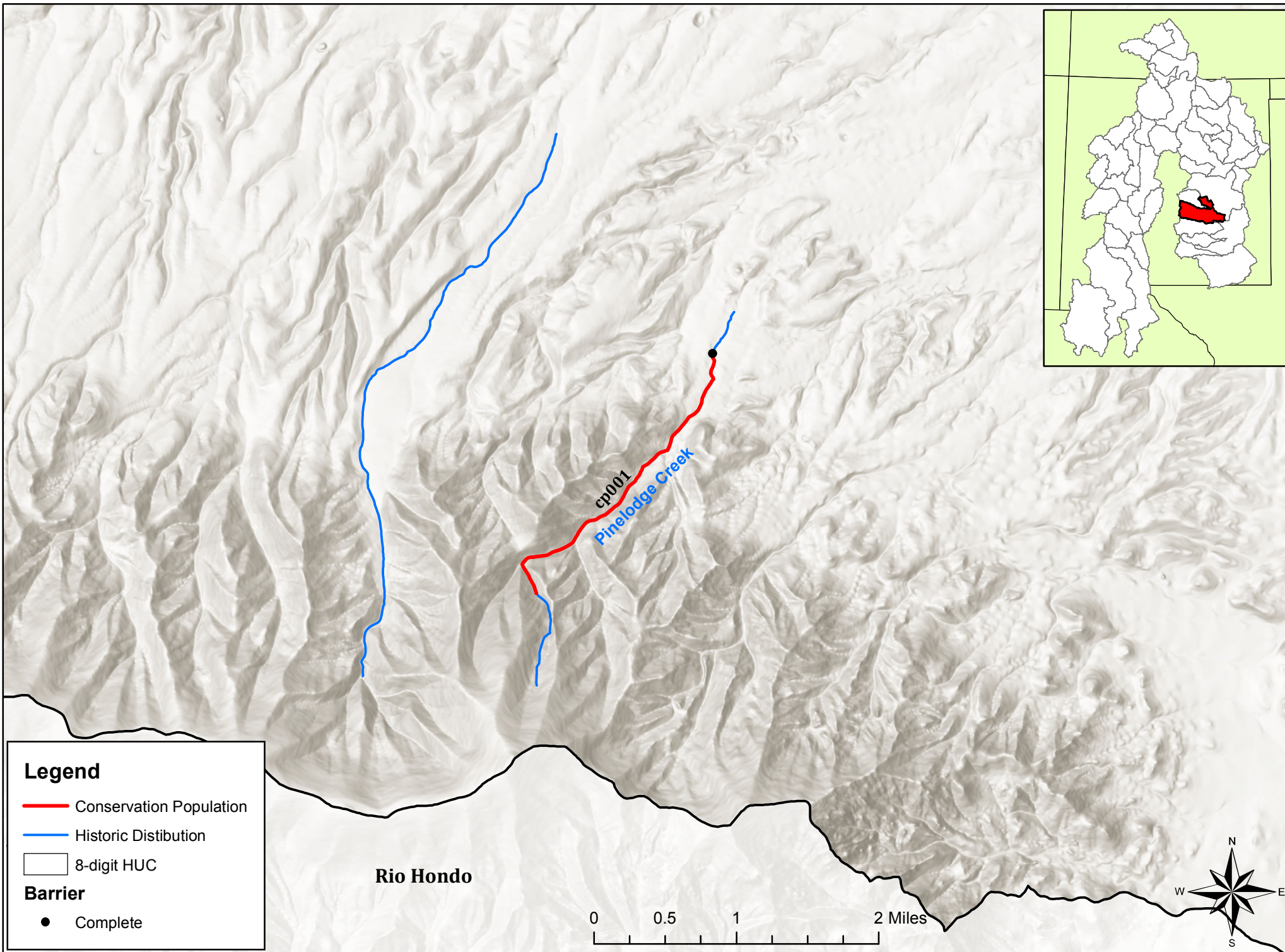
Pecos GMU

Pecos Headwaters 13060001

cp001	Core Conservation Population	Population Isolated		Minimal Disease Risk > 10 km		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Rio Mora	13060001cd006	2.4	Aboriginal	Unaltered (< 1%)	Unknown	Unknown	Unknown	Unknown	
cp002	Conservation Population	Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Unnamed Trib. to Rio Mora	13060001cd007	3.2	Aboriginal	>1% and <=10%	Unknown	Unknown	Unknown	Unknown	
cp003	Core Conservation Population	Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Rio Valdez	13060001cd005	3.7	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	10 to 15 feet	None	
cp004	Conservation Population	Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Pecos River	13060001cd003	6.3	Restored	>1% and <=10%	151 to 400 fish/mi	Good	5 to 10 feet	None	
cp005	Conservation Population	Population Isolated		Moderate Disease Risk < 10 km		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Rito del Padre	13060001cd001	6.6	Aboriginal	>1% and <=10%	151 to 400 fish/mi	Unknown	5 to 10 feet	BRN	
Rito Maestas	13060001cd002	3.4	Aboriginal	Not Tested - Suspected Hybridized		Unknown	Unknown	< 5 feet	Unknown

cp006	Core Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rito los Esteros	13060001cd008	2.5	Aboriginal	Unaltered (< 1%)	Unknown	Unknown	Unknown	BRN
cp007	Core Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	Hybridizing species < 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Jacks Creek	13060001cd009	11.3	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	None
cp008	Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Cave Creek	13060001cd010	2.7	Aboriginal	>1% and <=10%	Unknown	Fair	Unknown	Unknown
cp009	Core Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Macho Creek	13060001cd012	0.5	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Fair	< 5 feet	None
Macho Creek	13060001cd012	3.8	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Fair	< 5 feet	None
North Fork Macho Creek	13060001cd018	0.2	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Fair	< 5 feet	None
cp010	Core Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	Hybridizing species < 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Dalton Creek	13060001cd014	6.7	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	None

cp011	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Bear Creek	13060001cd015	5.6	Aboriginal	Not Tested - Suspected Unaltered	Unknown	Excellent	5 to 10 feet	None



Legend

— Conservation Population

— Historic Distribution

□ 8-digit HUC

Barrier

● Complete

Rio Hondo

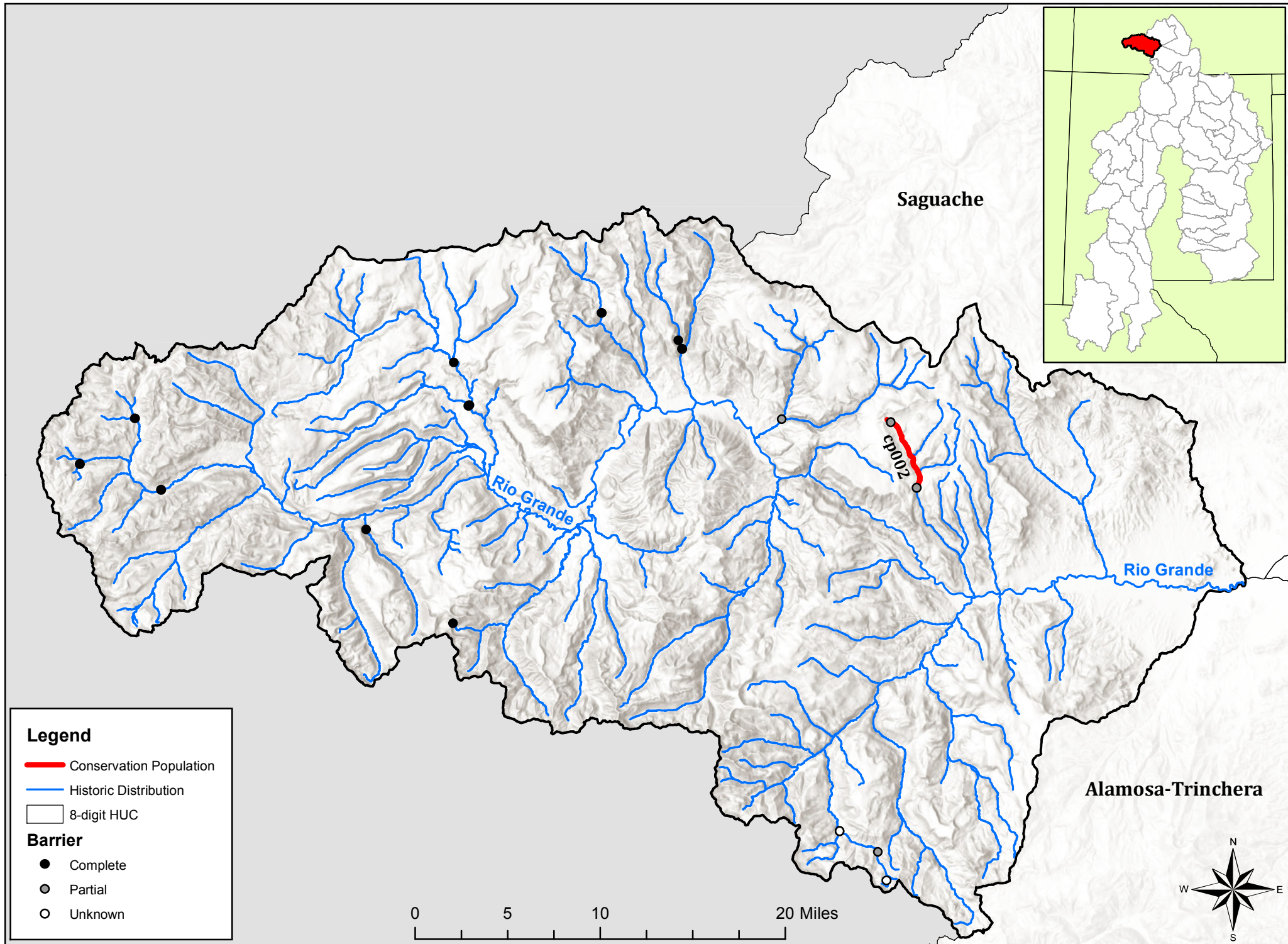
0 0.5 1 2 Miles



Pecos GMU

Arroyo Del Macho 13060005

cp001	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Pinelodge Creek	13060005cd001	3.9	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Good	5 to 10 feet	None



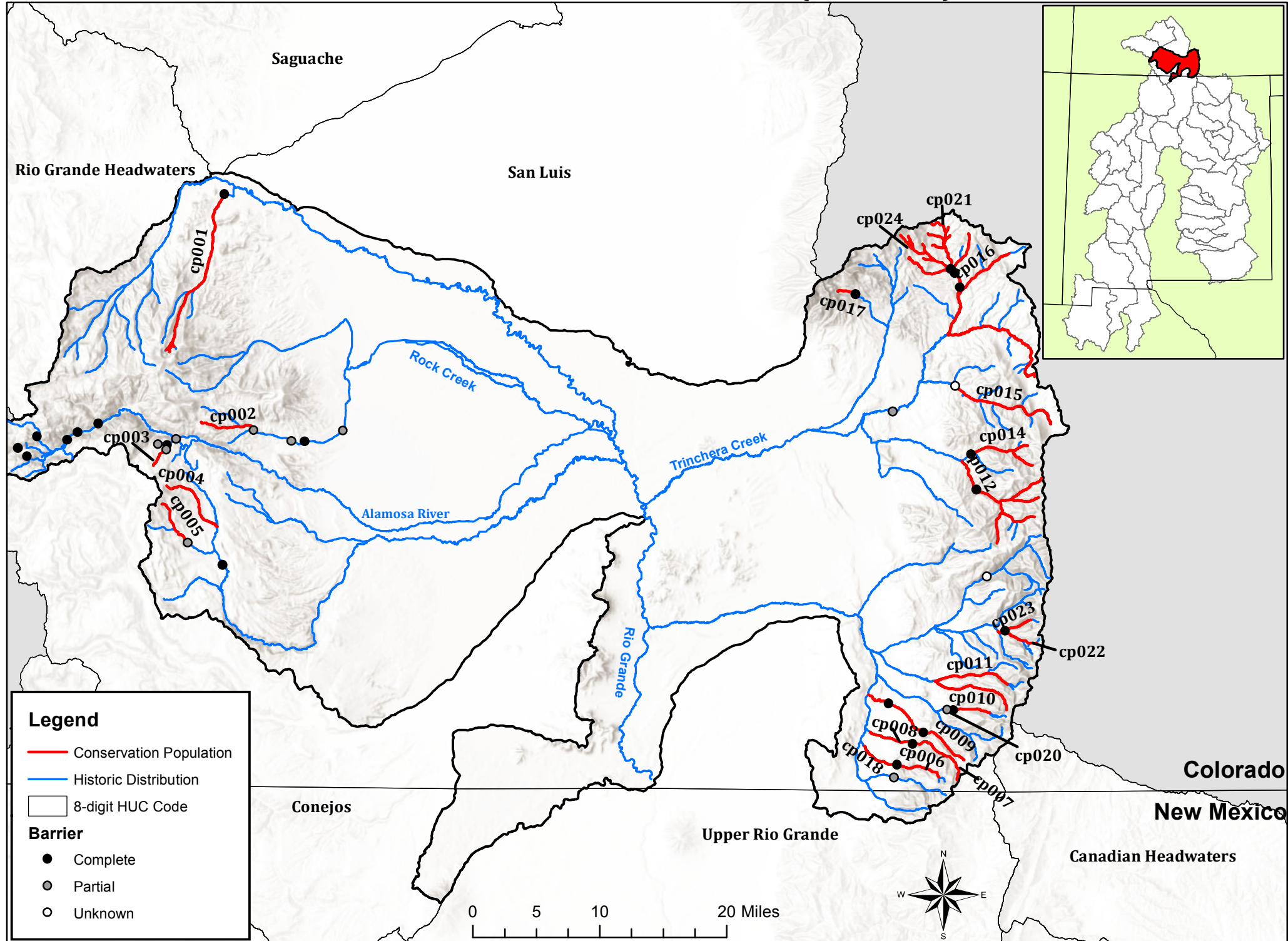
Rio Grande Headwaters GMU

Rio Grande Headwaters 13010001

cp002	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
West Alder Creek	13010001cd001	7.2	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	BRK

Rio Grande Headwaters GMU

Alamosa-Trinchera (13010002)



Rio Grande Headwaters GMU

Alamosa - Trinchera 13010002

cp001	Core Conservation Population	Weakly Networked		Limited Disease Risk	Hybridizing species < 10 km	Resident, Lacustrine		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
East Trib to Middle Fk San Francisco Creek	13010002cd005	0.6	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN
Middle Fork San Francisco Creek	13010002cd005	8.4	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN
San Francisco Creek	13010002cd005	15	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN
West Trib to Middle Fk San Francisco Creek	13010002cd005	1.3	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRN

cp002	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Cat Creek	13010002cd003	2.3	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Fair	< 5 feet	None
South Fork Cat Creek	13010002cd036	5.4	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Fair	< 5 feet	None

cp003	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rhodes Gulch	13010002cd004	3.5	Restored	>1% and <=10%	151 to 400 fish/mi	Fair	< 5 feet	None

cp004	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Torsido Creek	13010002cd002	10.4	Restored	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Poor	< 5 feet	BRK
cp005	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Jim Creek	13010002cd001	6.7	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Poor	5 to 10 feet	BRK
cp006	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Cuates Creek	13010002cd013	6.1	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	None
cp007	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Jaroso Creek	13010002cd015	9.3	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	BRK
cp008	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Jaroso Creek	13010002cd016	6.2	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Fair	15 to 20 feet	BRK

cp009	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Torcido Creek	13010002cd017	6.9	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	< 5 feet	None
Torcido Creek	13010002cd051	0.6	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	< 5 feet	None
Torcido Creek	13010002cd051	5.7	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	< 5 feet	None
cp010	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Alamosito Creek	13010002cd010	4.9	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	BRN
cp011	Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Vallejos Creek	13010002cd011	11.9	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	10 to 15 feet	BRN
North Vallejos Creek	13010002cd012	10.7	Aboriginal	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Excellent	5 to 10 feet	BRN
cp012	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Deep Canyon	13010002cd014	4.3	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Good	< 5 feet	BRK
South Fork Trinchera Creek	13010002cd018	13	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Excellent	10 to 15 feet	BRK
Trinchera Creek	13010002cd018	1.5	Restored	Unaltered (< 1%)	0 to 50 fish/mi	Excellent	10 to 15 feet	BRK
Tributary #1 South Fork Trinchera Creek	13010002cd049	6.7	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	< 5 feet	BRK
Tributary #2 South Fork Trinchera Creek	13010002cd050	3.7	Aboriginal	Unaltered (< 1%)	0 to 50 fish/mi	Good	< 5 feet	BRK

cp014	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
North Fork Trinchera Creek	13010002cd020	8.1	Restored	Not Tested - Suspected Unaltered	0 to 50 fish/mi	Excellent	5 to 10 feet	BRK
Trib #1 to North Fk Trinchera Creek	13010002cd032	3.4	Restored	Unaltered (< 1%)	Unknown	Good	5 to 10 feet	BRK
cp015	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
West Indian Creek	13010002cd021	10.4	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Excellent	5 to 10 feet	BRK
South Fork West Indian Creek	13010002cd037	6.7	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	BRK
cp016	Core Conservation Population	Weakly Networked		Significant Disease Risk (sympatric)	Unknown	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Wagon Creek	13010002cd022	20.5	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	BRK,Other Trout
Placer Creek	13010002cd024	1.4	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	5 to 10 feet	BRK
Sangre de Cristo Creek	13010002cd024	16	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	5 to 10 feet	BRK
cp017	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization	Resident		
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Little Ute Creek	13010002cd028	2.1	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	None
Unnamed Trib. to Little Ute Creek	13010002cd028	0.6	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	None

cp018	Core Conservation Population	Population Isolated			Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Cuates Creek	13010002cd008	5.5	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	< 5 feet	None
cp019	Core Conservation Population	Population Isolated			Limited Disease Risk	No Risk of Hybridization	Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Torcido Creek	13010002cd033	3.3	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	5 to 10 feet	None
cp020	Core Conservation Population	Population Isolated			Limited Disease Risk	No Risk of Hybridization	Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Alamosito Creek	13010002cd046	0.8	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	5 to 10 feet	BRN

cp021		Conservation Population		Weakly Networked		Limited Disease Risk		Hybridizing species < 10 km		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>			
E Unnamed Trib. #1 to Placer Creek	13010002cd025	0.8	Restored	>1% and <=10%	> 400 fish/mi	Excellent	5 to 10 feet	None			
E Unnamed Trib. #2 to Placer Creek	13010002cd025	1.6	Restored	>1% and <=10%	> 400 fish/mi	Excellent	5 to 10 feet	None			
Placer Creek	13010002cd025	11.9	Restored	>1% and <=10%	> 400 fish/mi	Excellent	5 to 10 feet	None			
W Unnamed Trib. #1 to Placer Creek	13010002cd025	1.9	Restored	>1% and <=10%	> 400 fish/mi	Excellent	5 to 10 feet	None			
W Unnamed Trib. #2 to Placer Creek	13010002cd025	2.4	Restored	>1% and <=10%	> 400 fish/mi	Excellent	5 to 10 feet	None			
Grayback Creek	13010002cd044	5.9	Aboriginal	>1% and <=10%	Unknown	Fair	< 5 feet	None			
Middle Fork Placer Creek	13010002cd045	0	Restored	>1% and <=10%	50 to 150 fish/mi	Fair	< 5 feet	None			
South Fork Placer Creek	13010002cd045	6.9	Restored	>1% and <=10%	50 to 150 fish/mi	Fair	< 5 feet	None			
Unnamed Trib. to S.F. Placer Creek	13010002cd045	0.4	Restored	>1% and <=10%	50 to 150 fish/mi	Fair	< 5 feet	None			

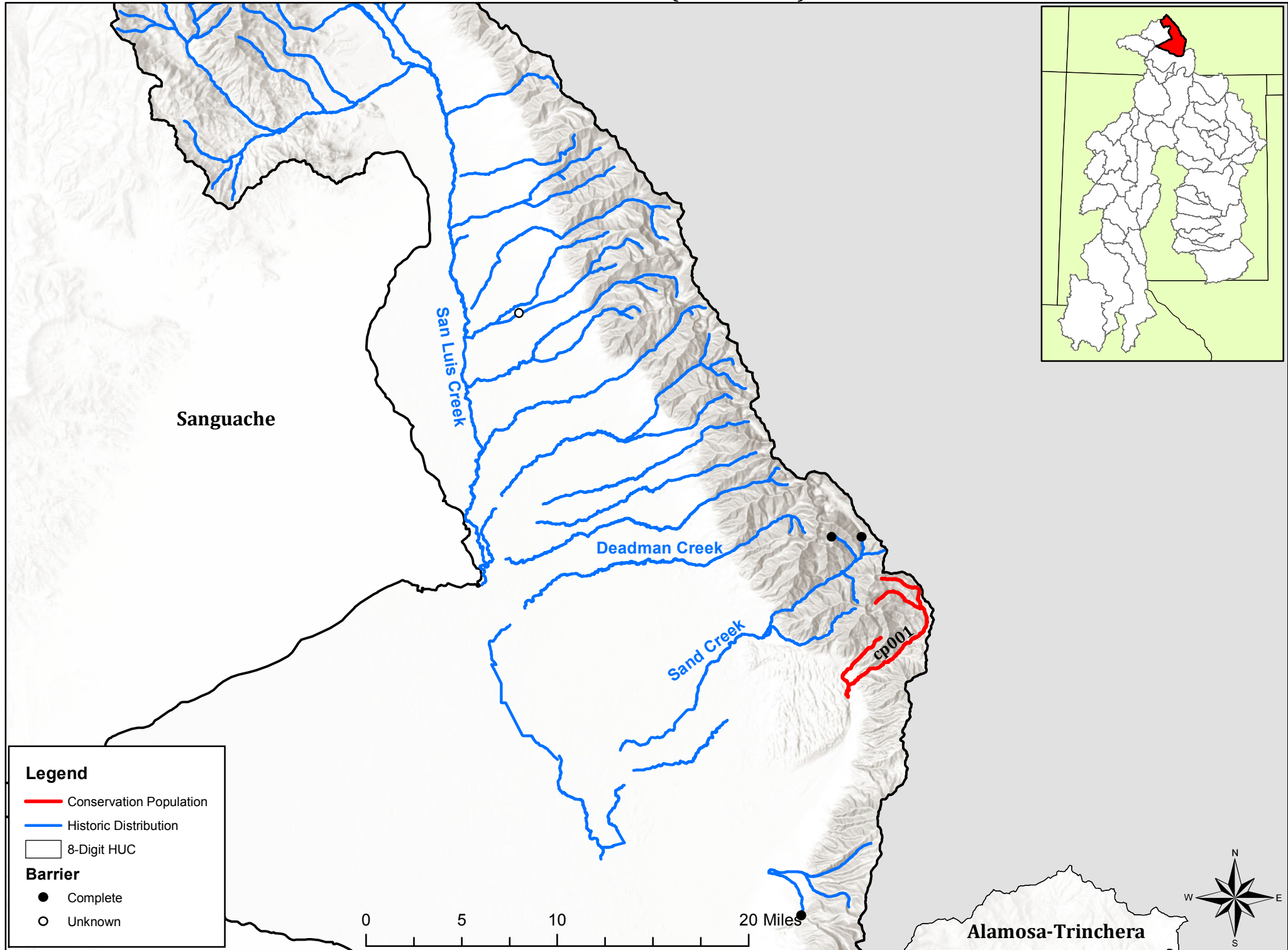
cp022		Core Conservation Population		Moderately Networked		Moderate Disease Risk < 10 km		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>			
Bernardino Creek	13010002cd047	5.6	Aboriginal	Unaltered (< 1%)	0 to 50 fish/mi	Good	5 to 10 feet	BRN,BRK			

cp023		Core Conservation Population		Population Isolated		Limited Disease Risk		No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>			
El Perdido Creek	13010002cd048	3.7	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	None			

cp024	Conservation Population	Weakly Networked		Limited Disease Risk	Hybridizing species < 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>	
Middle Fork Placer Creek	13010002cd027	8	Restored	>1% and <=10%	151 to 400 fish/mi	Excellent	5 to 10 feet	None	
N Unnamed Trib. to Middle Fork Placer Creek	13010002cd027	1.4	Restored	>1% and <=10%	151 to 400 fish/mi	Excellent	5 to 10 feet	None	
Unnamed Trib. #2 to Middle Fork Placer Creek	13010002cd027	2.7	Restored	>1% and <=10%	151 to 400 fish/mi	Excellent	5 to 10 feet	None	
Unnamed Trib. #3 to Middle Fork Placer Creek	13010002cd027	0.9	Restored	>1% and <=10%	151 to 400 fish/mi	Excellent	5 to 10 feet	None	
W Unnamed Trib. to Middle Fork Placer Creek	13010002cd027	1.5	Restored	>1% and <=10%	151 to 400 fish/mi	Excellent	5 to 10 feet	None	

Rio Grande Headwaters GMU

San Luis (13010003)



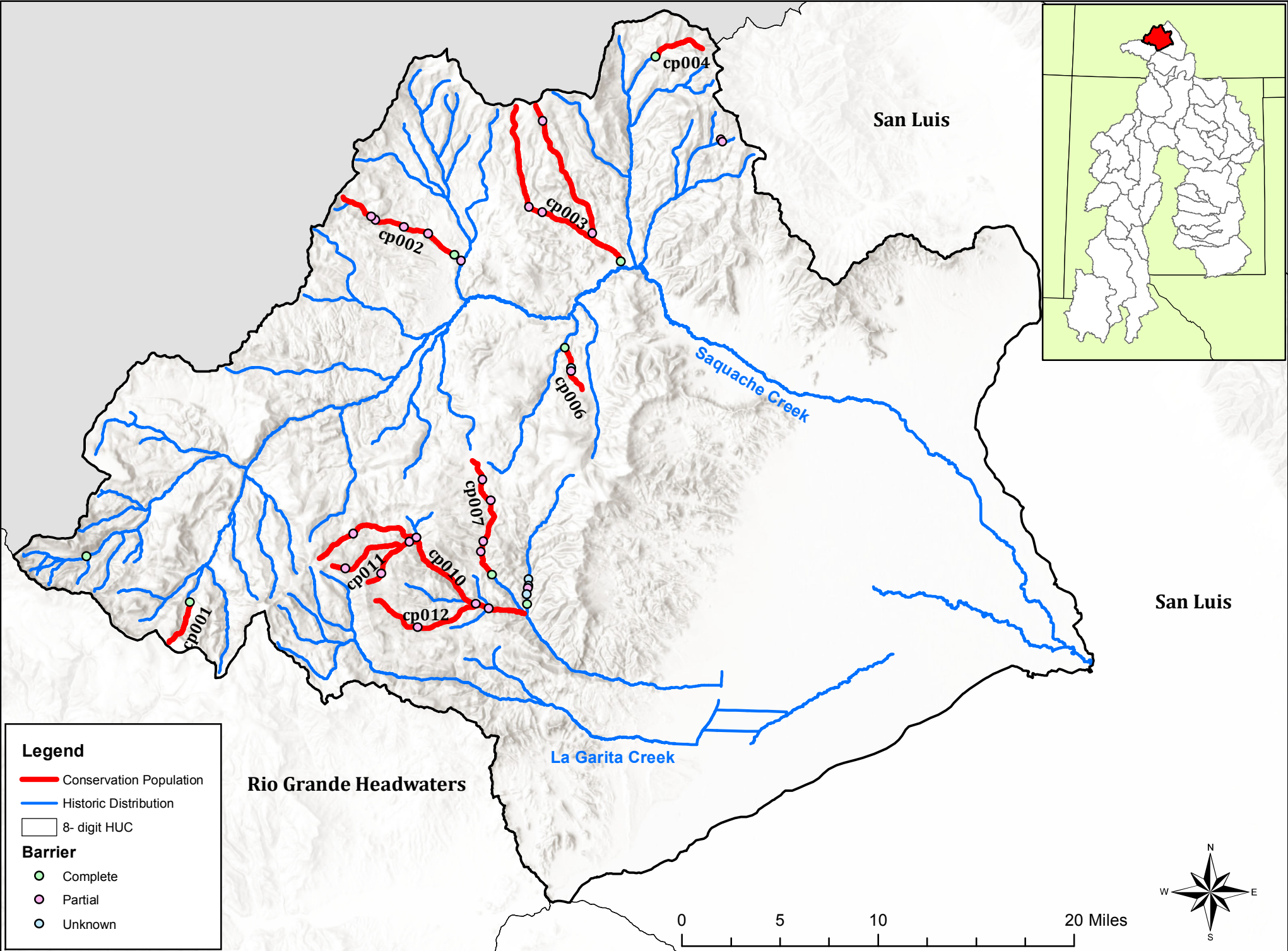
Rio Grande Headwaters GMU

San Luis 13010003

cp001	Core Conservation Population	Weakly Networked	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Medano Creek	13010003cd001	17.5	Restored	Unaltered (< 1%)	> 400 fish/mi	Excellent	5 to 10 feet	None
Hudson Branch Medano Creek	13010003cd002	5.3	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	< 5 feet	None
Little Medano Creek	13010003cd004	6	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Poor	< 5 feet	None

Rio Grande Headwaters GMU

Saguache (13010004)

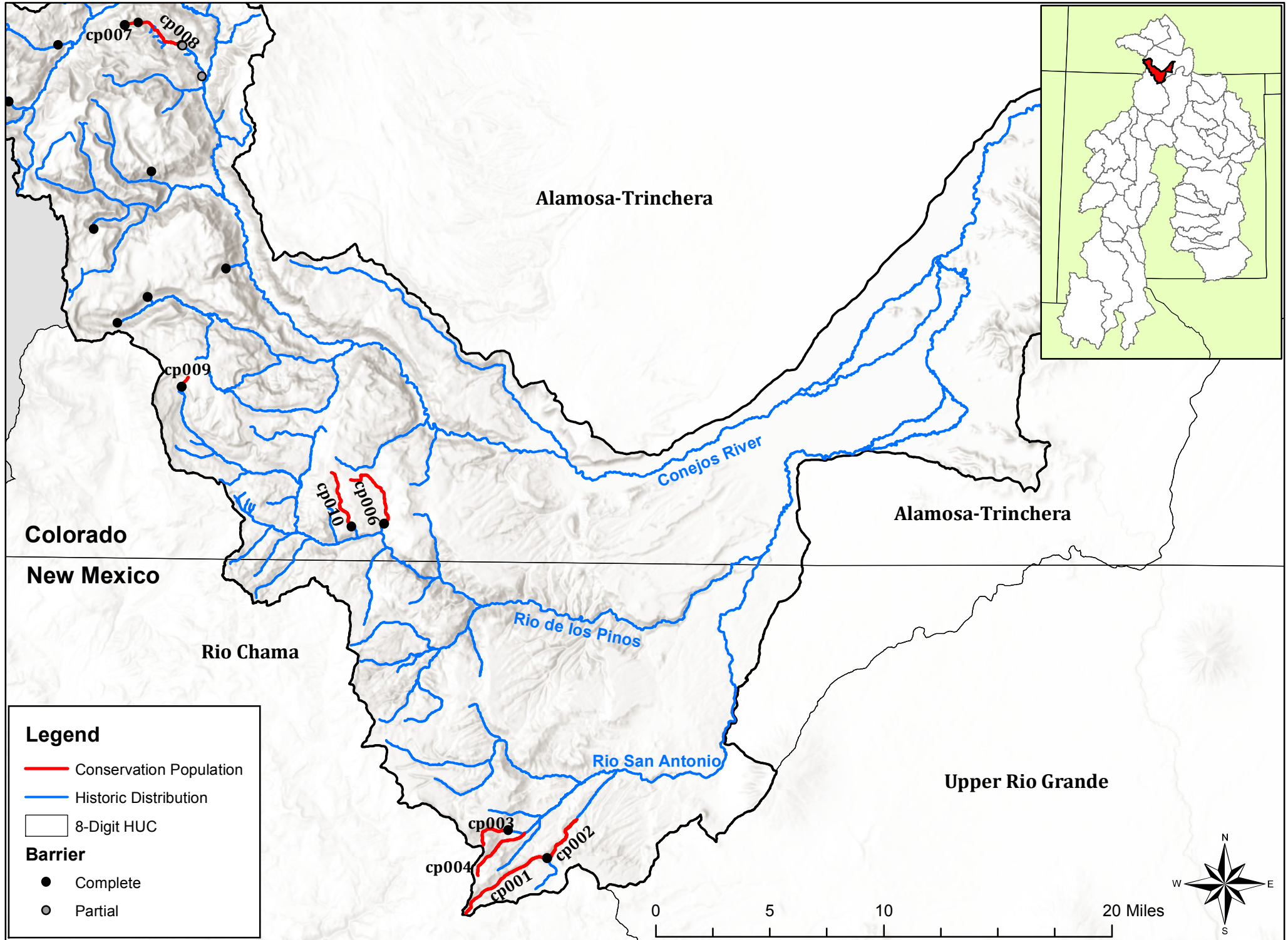


Rio Grande Headwaters

Saguache 13010004

cp001	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Whale Creek	13010004cd007	4.2	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	< 5 feet	None
cp002	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
East Pass Creek	13010004cd005	10.5	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Fair	< 5 feet	None
Unnamed Trib. to East Pass Creek	13010004cd005	0.8	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Fair	< 5 feet	None
cp003	Core Conservation Population	Population Isolated		Limited Disease Risk	Hybridizing species < 10 km		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Jacks Creek	13010004cd002	18.5	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	< 5 feet	BRK
Cross Creek	13010004cd004	12.9	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Fair	< 5 feet	None
cp004	Conservation Population	Population Isolated		Limited Disease Risk	Hybridizing species > 10 km		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
East Middle Creek	13010004cd006	4.9	Restored	>1% and <=10%	> 400 fish/mi	Fair	< 5 feet	None
cp006	Core Conservation Population	Population Isolated		Limited Disease Risk	No Risk of Hybridization		Resident	
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Big Springs Creek	13010004cd001	4.1	Restored	Unaltered (< 1%)	50 to 150 fish/mi	Fair	< 5 feet	None

cp007	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Middle Fork Carnero Creek	13010004cd013	11.3	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Fair	< 5 feet	White sucker
cp010	Core Conservation Population	Population Isolated	Moderate Disease Risk < 10 km	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
South Carnero Creek	13010004cd011	22.7	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Fair	10 to 15 feet	BRN,BRK, White sucker
cp011	Conservation Population	Population Isolated	Significant Disease Risk (sympatric)	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Miners Creek	13010004cd008	7	Aboriginal	>1% and <=10%	151 to 400 fish/mi	Fair	< 5 feet	BRK
Prong Creek	13010004cd009	6	Aboriginal	>1% and <=10%	151 to 400 fish/mi	Fair	5 to 10 feet	BRK
cp012	Conservation Population	Population Isolated	Significant Disease Risk (sympatric)	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Cave Creek	13010004cd010	10.2	Aboriginal	>1% and <=10%	50 to 150 fish/mi	Fair	5 to 10 feet	BRN,BRK, White sucker



Rio Grande Headwaters GMU

Conejos 13010005

cp001	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Tio Grande	13010005cd001	7.6	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	< 5 feet	BRN
cp002	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Tio Grande	13010005cd002	4.5	Aboriginal	Not Tested - Suspected Unaltered	151 to 400 fish/mi	Fair	< 5 feet	BRN
cp003	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Tanques Creek	13010005cd003	2.9	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	BRN,BRK
cp004	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio Nutritas	13010005cd004	5.1	Aboriginal	Unaltered (< 1%)	50 to 150 fish/mi	Good	< 5 feet	BRN,BRK
cp006	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Osier Creek	13010005cd010	5.9	Aboriginal	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	None

cp007	Core Conservation Population	Population Isolated	Limited Disease Risk	Hybridizing species > 10 km	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Lake Fork Conejos River	13010005cd009	1	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Excellent	5 to 10 feet	None
cp008	Core Conservation Population	Population Isolated	Limited Disease Risk	Hybridizing species < 10 km	Resident, Lacustrine			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Lake Fork Conejos River	13010005cd005	4	Restored	Unaltered (< 1%)	> 400 fish/mi	Good	5 to 10 feet	None
cp009	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Rio de los Pinos	13010005cd008	0.9	Restored	Unaltered (< 1%)	151 to 400 fish/mi	Good	5 to 10 feet	None
cp010	Core Conservation Population	Population Isolated	Limited Disease Risk	No Risk of Hybridization	Resident			
<u>Stream Name</u>	<u>FishID</u>	<u>Km</u>	<u>Origin</u>	<u>Genetic Status</u>	<u>Population Density</u>	<u>Habitat Quality</u>	<u>Stream Width</u>	<u>Non-natives</u>
Cascade Creek	13010005cd007	4.7	Aboriginal	Unaltered (< 1%)	> 400 fish/mi	Good	5 to 10 feet	None

Appendix B. Current, short-term (2040s), and long-term (2080s) persistence probabilities for all Rio Grande Cutthroat Trout conservation populations in 2016.

Population ID	GMU	Stream Name	Probability of Persistence		
			Current	Short-term	Long-term
11080001cp001	Canadian	Ricardo Creek	0.573	0.094	0.029
		E. Trib. Ricardo Creek			
		Gold Creek			
		Elk Creek			
		Leandro Creek			
		Little Vermejo Creek			
		Ricardo Creek			
		Vermejo River			
11080001cp002		Little Vermejo Creek	0.438	0.063	0.000
11080001cp003		Leandro Creek	0.659	0.531	0.473
11080002cp001		McCrystal Creek	0.100	0.019	0.004
		North Ponil Creek			
11080002cp002		South Ponil Creek	0.596	0.563	0.512
11080002cp003		Middle Ponil Creek	0.790	0.761	0.697
11080002cp005		Clear Creek	0.800	0.720	0.714
11080004cp001		East Fork Luna Creek	0.443	0.061	0.030
11080004cp002		West Fork Luna Creek	0.281	0.024	0.000
11080004cp003		Rito Morphy	0.269	0.052	0.011
11080004cp004		Santiago Creek	0.272	0.048	0.012
13010001cp002	Rio Grande Headwaters	West Alder Creek	0.274	0.026	0.000
13010002cp001		San Francisco Creek	0.610	0.142	0.066
		Middle Fork San Francisco Creek			
13010002cp002		Cat Creek	0.670	0.361	0.092
		South Fork Cat Creek			
13010002cp003		Rhodes Gulch	0.541	0.428	0.380
13010002cp004		Torsido Creek	0.252	0.029	0.000
13010002cp005		Jim Creek	0.284	0.031	0.000
13010002cp006		Cuates Creek	0.639	0.510	0.466
13010002cp007		Jaroso Creek	0.675	0.654	0.632
13010002cp008		Jaroso Creek	0.450	0.081	0.031
13010002cp009		Torcido Creek	0.722	0.702	0.682
13010002cp010		Alamosito Creek	0.295	0.038	0.000
13010002cp011		Vallejos Creek	0.262	0.031	0.000
		North Vallejos Creek			
13010002cp012		Trinchera Creek	0.236	0.020	0.000
	South Fork Trinchera Creek				
	Deep Canyon				
13010002cp014		North Fork Trinchera Creek	0.313	0.044	0.000

Population ID	GMU	Stream Name	Probability of Persistence		
			Current	Short-term	Long-term
13010002cp015		West Indian Creek	0.309	0.042	0.000
		South Fork West Indian Creek			
13010002cp016		Wagon Creek	0.428	0.068	0.022
		Placer Creek			
		Sangre de Cristo Creek			
13010002cp017		Little Ute Creek	0.706	0.675	0.640
13010002cp018		Cuates Creek	0.460	0.112	0.044
13010002cp019		Torcido Creek	0.470	0.126	0.052
13010002cp020		Alamosito Creek	0.470	0.099	0.044
13010002cp021		Placer Creek	0.709	0.674	0.620
		Middle Fork Placer Creek			
		South Fork Placer Creek			
		Grayback Creek			
13010002cp022		Bernardino Creek	0.237	0.024	0.000
13010002cp023		El Perdido Creek	0.304	0.232	0.311
13010002cp024		Middle Fork Placer Creek	0.709	0.674	0.620
13010003cp001		Medano Creek	0.754	0.734	0.714
		Little Medano Creek			
		Hudson Branch Medano Creek			
13010004cp001		Whale Creek	0.344	0.302	0.477
13010004cp002		East Pass Creek	0.693	0.621	0.546
13010004cp003		Jacks Creek	0.324	0.044	0.000
		Cross Creek			
13010004cp004		East Middle Creek	0.670	0.557	0.514
13010004cp006		Big Springs Creek	0.599	0.551	0.486
13010004cp007		Middle Fork Carnero Creek	0.693	0.634	0.588
13010004cp010		South Carnero Creek	0.520	0.146	0.065
13010004cp011		Miners Creek	0.539	0.104	0.044
		Prong Creek			
13010004cp012		Cave Creek	0.479	0.097	0.039
13010005cp001		Tio Grande	0.291	0.042	0.000
13010005cp002		Tio Grande	0.405	0.063	0.014
13010005cp003		Tanques Creek	0.469	0.366	0.319
13010005cp004		Rio Nutritas	0.213	0.018	0.000
13010005cp006		Osier Creek	0.644	0.519	0.490
13010005cp007		Lake Fork Conejos River	0.518	0.326	0.270
13010005cp008		Lake Fork Conejos River	0.707	0.634	0.581
13010005cp009		Rio de los Pinos	0.301	0.175	0.270
13010005cp010		Cascade Creek	0.563	0.510	0.466
13020101cp001	Lower Rio Grande	Costilla Creek	0.806	0.786	0.767
		East Fork Costilla Creek			
		West Fork Costilla Creek			
		State Line Creek			

Population ID	GMU	Stream Name	Probability of Persistence		
			Current	Short-term	Long-term
13020101cp002		Costilla Creek	0.806	0.786	0.767
		Glacier Creek			
		Patten Creek			
		Frey Creek			
13020101cp003		Powderhouse Creek	0.563	0.510	0.466
13020101cp004		Powderhouse Creek	0.376	0.049	0.014
13020101cp005		La Cueva Creek	0.234	0.048	0.010
13020101cp006		Comanche Creek	0.680	0.659	0.559
		Vidal Creek			
		La Belle Creek			
		Grassy Creek			
		Holman Creek			
		Gold Creek			
		Little Costilla Creek			
13020101cp007		Fernandez Creek	0.210	0.021	0.000
13020101cp008		Ute Creek	0.571	0.307	0.050
13020101cp009		Cabresto Creek	0.239	0.019	0.000
13020101cp010		Bitter Creek	0.517	0.201	0.052
13020101cp011		Columbine Creek	0.054	0.012	0.000
		Placer Fork			
		Willow Creek			
		Deer Creek			
13020101cp012		San Cristobal Creek	0.641	0.230	0.035
13020101cp013		Yerba Creek	0.403	0.037	0.000
13020101cp015		Italianos Creek	0.696	0.637	0.588
13020101cp016		Gavilan Creek	0.370	0.029	0.000
13020101cp017		South Fork Rio Hondo	0.358	0.036	0.000
13020101cp018		Tienditas Creek	0.257	0.018	0.000
13020101cp019		Frijoles Creek	0.243	0.024	0.000
13020101cp020		Palociento Creek	0.379	0.050	0.000
13020101cp021		Rio Grande del Rancho	0.121	0.010	0.000
13020101cp022		Rito la Presa	0.268	0.030	0.000
13020101cp023		Policarpio Creek	0.639	0.510	0.531
13020101cp024		Osha Creek	0.796	0.729	0.756
13020101cp025		Rito Angostura	0.771	0.645	0.679
13020101cp026		Alamitos Creek	0.801	0.736	0.761
13020101cp027		Middle Fork Rio Santa Barbara	0.235	0.053	0.000
13020101cp028		East Fork Rio Santa Barbara	0.229	0.019	0.000
13020101cp029		West Fork Rio Santa Barbara	0.381	0.050	0.000
		Middle Fork Rio Santa Barbara			
		East Fork Rio Santa Barbara			
13020101cp030		Rio de las Trampas	0.413	0.087	0.021
13020101cp031		Rio San Leonardo	0.405	0.116	0.086

Population ID	GMU	Stream Name	Probability of Persistence		
			Current	Short-term	Long-term
13020101cp032		Rio de Truchas	0.515	0.280	0.248
13020101cp034		Rio de la Cebolla	0.268	0.030	0.000
		Rio Quemado			
		North Fork Rio Quemado			
		South Fork Rio Quemado			
13020101cp035		Jicarita Creek	0.476	0.116	0.099
13020101cp036		Indian Creek	0.674	0.576	0.535
13020101cp037		Rio Medio	0.381	0.050	0.000
13020101cp038		Rio Frijoles	0.378	0.044	0.000
		Rito Jaroso			
13020101cp040		Rio Molino	0.766	0.637	0.589
13020101cp041		Casias Creek	0.801	0.736	0.700
13020101cp042		Chuckwagon Creek	0.210	0.021	0.000
13020101cp043		Allen Creek	0.696	0.635	0.585
13020101cp044		Long Canyon	0.746	0.622	0.557
13020101cp045		Beaver Creek	0.793	0.575	0.533
13020102cp001		Nabor Creek	0.771	0.707	0.612
13020102cp002		Little Willow Creek	0.526	0.397	0.311
13020102cp003		Poso Creek	0.295	0.033	0.000
13020102cp004		Jaroso Creek	0.291	0.059	0.013
13020102cp005		Canjilon Creek	0.566	0.270	0.049
13020102cp006		El Rito	0.680	0.610	0.640
13020102cp007		El Rito	0.527	0.296	0.065
13020102cp008		Canones Creek	0.676	0.655	0.559
13020102cp009		Polvadera Creek	0.676	0.655	0.635
13020102cp010		Rio del Oso	0.560	0.219	0.025
		Rito de Abiquiu			
13020102cp011		Wolf Creek	0.221	0.023	0.000
13020102cp012		East Fork Wolf Creek	0.754	0.666	0.615
13020102cp016		Chihuahuenos Creek	0.564	0.221	0.031
13020201cp001		Capulin Creek	0.667	0.393	0.063
13020201cp002		Medio Dia Creek	0.583	0.243	0.039
13020202cp001		Rio Cebolla	0.561	0.502	0.472
13020202cp002		Rito de las Palomas	0.408	0.041	0.000
13020202cp003		Rito de las Vacas	0.319	0.043	0.000
		Rito de las Perchas			
		Rito Anastacio			
13020204cp001		La Jara Creek	0.272	0.048	0.012
13020204cp002		Rito de los Pinos	0.297	0.036	0.000
13020204cp003		Rio Puerco	0.294	0.060	0.015
13060001cp001	Pecos	Rio Mora	0.185	0.016	0.000
13060001cp002		Unnamed Trib. to Rio Mora	0.332	0.026	0.000
13060001cp003		Rio Valdez	0.204	0.025	0.000

Population ID	GMU	Stream Name	Probability of Persistence		
			Current	Short-term	Long-term
13060001cp004		Pecos River	0.422	0.051	0.000
13060001cp005		Rito del Padre	0.441	0.059	0.000
		Rito Maestas			
13060001cp006		Rito los Esteros	0.216	0.014	0.000
13060001cp007		Jacks Creek	0.432	0.055	0.000
13060001cp008		Cave Creek	0.259	0.023	0.000
13060001cp009		Macho Creek	0.766	0.693	0.625
13060001cp010		Dalton Creek	0.771	0.641	0.652
13060001cp011		Bear Creek	0.766	0.635	0.647
13060005cp001		Pinelodge Creek	0.229	0.200	0.126

Appendix C. Data for each RGCT conservation population incorporated in the 2016 Status Assessment Bayesian Network model.

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
11080001cp001	0.573	Current	69.33	15.46	20.93	0.2582	None	Invaded	Invaded	Far	None	Strong	Sporadic	High	*	None	10966	0.25	Minimal
11080001cp002	0.438	Current	11.94	13.12	19.14	0.0498	Complete	Invaded	Absent	Far	None	Isolated	None	High	*	None	1925	0.25	Minimal
11080001cp003	0.659	Current	3.08	10.85	16.34	0.0245	Complete	Invaded	Near	Absent	Annual	Isolated	None	High	*	None	708	0.25	Minimal
11080002cp001	0.100	Current	15.22	14.43	19.87	0.0456	None	Near	Far	Near	None	Isolated	None	High	Present	Yes	4718	0.25	{0.40, 0.60}
11080002cp002	0.596	Current	15.18	16.1	21.48	0.0496	Complete	Near	Far	Near	None	Isolated	None	High	*	None	4579	0.25	{0.1, 0.9}
11080002cp003	0.790	Current	9.6	12	18.12	0.0484	Complete	Near	Near	Near	None	Isolated	None	High	*	None	1676	0.25	Minimal
11080002cp005	0.800	Current	7.51	15.18	20.95	0.0324	Complete	Near	Far	Near	None	Moderate	None	High	*	None	2388	0.25	Minimal
11080004cp001	0.443	Current	6.77	12.5	17.93	0.0362	None	Invaded	Near	Absent	None	Isolated	Sporadic	High	Present	Yes	1108	0.25	{0.20, 0.80}
11080004cp002	0.281	Current	4.56	12.61	18.03	0.0372	Partial	Invaded	Near	Absent	None	Isolated	None	High	*	None	735	0.25	{0.1, 0.9}
11080004cp003	0.269	Current	6.75	14.5	18.86	0.0321	None	Near	Near	Absent	None	Moderate	None	High	*	None	2039	0.25	{0.1, 0.9}
11080004cp004	0.272	Current	6.55	12.89	17.46	0.0335	None	Near	Near	Absent	None	Isolated	None	High	*	None	1971	0.25	{0.1, 0.9}
13010001cp002	0.274	Current	7.17	10.41	14.85	0.0545	Partial	Invaded	Far	Far	None	Isolated	None	Moderate	*	None	107	0.25	{0.34, 0.66}
13010002cp001	0.610	Current	25.29	10.09	13.87	0.0936	Complete	Invaded	Absent	Near	None	Moderate	Sporadic	Moderate	*	None	4133	0.25	{0.31, 0.69}
13010002cp002	0.670	Current	7.63	13	17	0.0429	Partial	Far	Absent	Absent	None	Isolated	None	Moderate	Present	Yes	2868	0.25	{0.31, 0.69}
13010002cp003	0.541	Current	3.5	9.77	14.34	0.0233	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	594	0.25	{0.25, 0.75}
13010002cp004	0.252	Current	10.36	13.98	20.97	0.0491	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	80	0.25	{0.1, 0.9}
13010002cp005	0.284	Current	6.67	12.83	19.29	0.0392	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1073	0.25	{0.40, 0.60}
13010002cp006	0.639	Current	6.06	10.59	13.56	0.0374	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1213	0.25	{0.15, 0.85}
13010002cp007	0.675	Current	9.25	10.34	14.27	0.0339	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2542	0.25	{0.15, 0.85}
13010002cp008	0.450	Current	6.23	13.49	16.82	0.0627	None	Invaded	Absent	Absent	None	Isolated	Sporadic	High	*	None	955	0.25	{0.25, 0.75}
13010002cp009	0.722	Current	13.23	12.87	15.89	0.0464	Complete	Far	Absent	Absent	None	Isolated	Sporadic	High	*	None	7682	0.25	{0.15, 0.85}
13010002cp010	0.295	Current	4.88	9.15	12.97	0.0353	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	764	0.25	{0.15, 0.85}
13010002cp011	0.262	Current	22.51	10.6	15.24	0.0531	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	593	0.25	{0.15, 0.85}
13010002cp012	0.236	Current	29.23	9.69	14.72	0.1195	None	Invaded	Absent	Far	None	Strong	None	High	*	None	641	0.25	{0.15, 0.85}
13010002cp014	0.313	Current	11.53	12.3	16.99	0.0937	Complete	Invaded	Absent	Far	None	Moderate	None	High	*	None	1779	0.25	{0.1, 0.9}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13010002cp015	0.309	Current	17.09	13.81	18.58	0.1711	Complete	Invaded	Absent	Near	None	Isolated	None	High	*	None	4944	0.25	{0.15, 0.85}
13010002cp016	0.428	Current	37.96	15.84	20.47	0.2067	None	Invaded	Far	Infected	None	Moderate	Sporadic	Moderate	Present	Yes	15590	0.25	{0.20, 0.80}
13010002cp017	0.706	Current	2.69	10.29	12.61	0.0781	Complete	Near	Near	Absent	None	Isolated	None	Moderate	*	None	819	0.25	Minimal
13010002cp018	0.460	Current	5.47	13.78	16.25	0.0635	None	Near	Absent	Absent	None	Isolated	Sporadic	High	*	None	1677	0.25	{0.20, 0.80}
13010002cp019	0.470	Current	3.34	14.82	18.12	0.0814	None	Near	Absent	Absent	None	Isolated	Sporadic	Moderate	*	None	1025	0.25	{0.20, 0.80}
13010002cp020	0.470	Current	0.75	10.77	13.99	0.0412	Partial	Invaded	Absent	Far	None	Isolated	Consistent	Moderate	*	None	80	0.25	{0.15, 0.85}
13010002cp021	0.709	Current	31.76	14.36	19.43	0.0953	Complete	Near	Absent	Near	None	Strong	None	Moderate	*	None	9964	0.25	{0.1, 0.9}
13010002cp022	0.237	Current	5.56	9.12	13.88	0.0776	None	Invaded	Near	Absent	None	Isolated	None	High	*	None	194	0.25	{0.1, 0.9}
13010002cp023	0.304	Current	3.71	8.67	12.89	0.0426	Complete	*	Absent	Absent	None	Isolated	None	High	*	None	946	0.25	{0.1, 0.9}
13010002cp024	0.709	Current	14.39	12.98	18.16	0.0446	Complete	Near	Absent	Near	None	Strong	None	Moderate	*	None	5630	0.25	{0.1, 0.9}
13010003cp001	0.754	Current	28.78	11.7	15.61	0.1071	Complete	Far	Absent	Absent	None	Strong	Consistent	High	*	None	15906	0.25	{0.3, 0.70}
13010004cp001	0.344	Current	4.25	8.27	13.69	0.0249	Complete	Near	Far	Absent	None	Isolated	None	Moderate	*	None	281	0.25	{0.1, 0.9}
13010004cp002	0.693	Current	11.23	12.75	15.04	0.0441	Complete	Near	Absent	Near	None	Isolated	None	Moderate	*	None	785	0.25	{0.31, 0.69}
13010004cp003	0.324	Current	31.36	13.28	16.59	0.0494	Complete	Invaded	Near	Near	None	Moderate	None	Moderate	*	None	11149	0.25	{0.25, 0.75}
13010004cp004	0.670	Current	4.91	10.4	14.94	0.0352	Complete	Near	Near	Far	None	Isolated	None	Moderate	*	None	912	0.25	{0.1, 0.9}
13010004cp006	0.599	Current	4.07	14.5	17.71	0.0218	Complete	Near	Absent	Near	None	Isolated	None	Moderate	*	None	941	0.25	{0.25, 0.75}
13010004cp007	0.693	Current	11.3	12.84	17.37	0.0443	Complete	Near	Absent	Absent	None	Isolated	None	Moderate	*	None	621	0.25	{0.31, 0.69}
13010004cp010	0.520	Current	22.67	13.23	17.55	0.0836	None	Near	Absent	Absent	None	Isolated	Sporadic	Moderate	*	None	2472.5	0.25	{0.35, 0.65}
13010004cp011	0.539	Current	12.97	10.83	15.46	0.023	Partial	Invaded	Invaded	Absent	None	Moderate	Sporadic	Moderate	*	None	2025	0.25	{0.22, 0.78}
13010004cp012	0.479	Current	10.17	12.53	15.98	0.0339	None	Invaded	Invaded	Absent	None	Isolated	Sporadic	High	*	None	1570	0.25	{0.25, 0.75}
13010005cp001	0.291	Current	7.64	14.32	20.77	0.0288	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1196	0.25	{0.1, 0.9}
13010005cp002	0.405	Current	4.47	16.09	22.67	0.0571	None	Invaded	Absent	Absent	None	Isolated	Sporadic	High	*	None	713	0.25	{0.1, 0.9}
13010005cp003	0.469	Current	2.95	13.47	20.34	0.028	Complete	Invaded	Absent	Absent	Annual	Isolated	None	High	*	None	462	0.25	{0.1, 0.9}
13010005cp004	0.213	Current	5.06	13.75	20.96	0.0272	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	801	0.25	{0.20, 0.80}
13010005cp006	0.644	Current	5.9	12.99	18.52	0.0312	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	2007	0.25	{0.20, 0.80}
13010005cp007	0.518	Current	1.01	12.37	18.17	0.0324	Complete	Near	Near	Near	None	Isolated	None	High	*	None	217	0.25	{0.1, 0.9}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13010005cp008	0.707	Current	3.97	13.92	19.93	0.0465	Complete	Near	Near	Near	None	Isolated	Consistent	High	*	None	1466	0.25	{0.25, 0.75}
13010005cp009	0.301	Current	0.87	8.73	14.94	0.0314	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	138	0.25	{0.1, 0.9}
13010005cp010	0.563	Current	4.69	12.9	18.43	0.0279	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1499	0.25	{0.20, 0.80}
13020101cp001	0.806	Current	14.57	10.24	18.06	0.0313	Complete	Far	Far	Absent	None	Strong	None	High	*	None	2079	0.25	Minimal
13020101cp002	0.806	Current	15.19	12.17	20.34	0.0558	Complete	Near	Near	Absent	None	Strong	Sporadic	High	*	None	6350	0.25	Minimal
13020101cp003	0.563	Current	6.2	10.27	15.55	0.0259	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	1175	0.25	{0.1, 0.9}
13020101cp004	0.376	Current	2.09	12.58	17.74	0.0362	None	Invaded	Near	Absent	None	Isolated	Sporadic	High	*	None	327	0.25	{0.1, 0.9}
13020101cp005	0.234	Current	5.09	11.62	16.26	0.0264	None	Near	Near	Absent	None	Isolated	None	High	*	None	1603	0.25	{0.1, 0.9}
13020101cp006	0.680	Current	44.73	13.99	20.55	0.049	Complete	Near	Near	Absent	None	Strong	None	High	Present	Yes	13688	0.25	{0.20, 0.80}
13020101cp007	0.210	Current	4.42	13.32	19.56	0.0243	None	Invaded	Near	Absent	None	Isolated	None	High	*	None	688	0.25	{0.20, 0.80}
13020101cp008	0.571	Current	13.82	11.83	17.13	0.0459	None	Far	Near	Absent	None	Moderate	None	High	*	None	4204	0.25	{0.20, 0.80}
13020101cp009	0.239	Current	13.72	10.76	16.63	0.0374	None	Invaded	Near	Far	None	Moderate	None	High	*	None	2126	0.25	{0.20, 0.80}
13020101cp010	0.517	Current	2.85	9.98	14.64	0.0289	Partial	Far	Near	Far	None	Isolated	None	High	*	None	878	0.25	{0.3, 0.70}
13020101cp011	0.054	Current	17.85	9	12.15	0.0447	Complete	Invaded	Far	Infected	None	Strong	None	High	*	None	3357	0.25	Minimal
13020101cp012	0.641	Current	6.46	9.36	11.93	0.0348	None	Far	Far	Far	None	Isolated	None	High	*	None	1966	0.25	Minimal
13020101cp013	0.403	Current	4.74	12.15	15.53	0.0297	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	765	0.25	Minimal
13020101cp015	0.696	Current	3.85	11.37	15	0.0289	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1213	0.25	Minimal
13020101cp016	0.370	Current	3.37	10.82	13.63	0.0328	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	549	0.25	Minimal
13020101cp017	0.358	Current	6.26	11.43	14.78	0.0393	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	994	0.25	Minimal
13020101cp018	0.257	Current	3.19	13	17.64	0.0324	None	Invaded	Far	Absent	None	Isolated	None	High	*	None	513	0.25	{0.20, 0.80}
13020101cp019	0.243	Current	4.96	9.12	14.66	0.0282	Partial	Invaded	Far	Absent	None	Isolated	None	High	*	None	694	0.25	{0.20, 0.80}
13020101cp020	0.379	Current	3.94	10.16	15.25	0.0277	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	632	0.25	Minimal
13020101cp021	0.121	Current	4.27	8.86	13.48	0.0336	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	674	0.25	{0.40, 0.60}
13020101cp022	0.268	Current	14.84	10.45	15.85	0.0436	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	2352	0.25	{0.20, 0.80}
13020101cp023	0.639	Current	4.85	10.55	15.66	0.0336	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1335	0.25	{0.1, 0.9}
13020101cp024	0.796	Current	8.77	12.86	16.59	0.0421	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2793	0.25	Minimal
13020101cp025	0.771	Current	6.4	9.25	14.43	0.0461	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2016	0.25	Minimal

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020101cp026	0.801	Current	9.57	10.2	16.01	0.0408	Complete	Near	Absent	Absent	None	Moderate	None	High	*	None	4434	0.25	Minimal
13020101cp027	0.235	Current	7	8.98	12.12	0.0356	Complete	Invaded	Far	Absent	None	Moderate	None	High	*	None	405	0.25	Minimal
13020101cp028	0.229	Current	4.1	8.03	12.58	0.0408	Partial	Invaded	Far	Absent	None	Isolated	None	High	*	None	655	0.25	Minimal
13020101cp029	0.381	Current	14.5	9.18	13.71	0.0604	None	Invaded	Far	Absent	None	Moderate	None	High	*	None	2344	0.25	Minimal
13020101cp030	0.413	Current	8.22	10.63	11.22	0.0339	None	Near	Near	Absent	None	Isolated	None	High	*	None	2588	0.25	Minimal
13020101cp031	0.405	Current	5.78	8.62	12.11	0.0277	Partial	Near	Near	Absent	None	Isolated	None	High	*	None	1852	0.25	Minimal
13020101cp032	0.515	Current	17.18	12.1	16.29	0.0438	*	Near	Near	Absent	None	Moderate	None	High	*	None	5268	0.25	{0.20, 0.80}
13020101cp034	0.268	Current	16.81	10.76	14.64	0.0439	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	2623	0.25	{0.1, 0.9}
13020101cp035	0.476	Current	4.08	8.73	12.38	0.0329	Partial	Near	Near	Absent	None	Isolated	None	High	*	None	1239	0.25	Minimal
13020101cp036	0.674	Current	2.8	10.55	14.47	0.0273	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	845	0.25	Minimal
13020101cp037	0.381	Current	13.13	9.87	13.46	0.0501	None	Invaded	Invaded	Absent	None	Moderate	None	High	*	None	2071	0.25	Minimal
13020101cp038	0.378	Current	12.55	9.66	13.09	0.0465	None	Invaded	Invaded	Absent	None	Moderate	None	High	*	None	1984	0.25	Minimal
13020101cp040	0.766	Current	5.6	11.14	14.47	0.0305	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	1795	0.25	Minimal
13020101cp041	0.801	Current	7.25	9.64	15.93	0.0325	Complete	Near	Near	Absent	None	Moderate	None	High	*	None	2272	0.25	Minimal
13020101cp042	0.210	Current	4.21	12.44	18.18	0.0206	None	Invaded	Invaded	Absent	None	Isolated	None	High	*	None	662	0.25	{0.20, 0.80}
13020101cp043	0.696	Current	3.62	11.25	17.02	0.0224	Complete	Far	Far	Far	None	Isolated	None	High	*	None	1129	0.25	Minimal
13020101cp044	0.746	Current	4.15	10.45	16.52	0.0325	Complete	Far	Far	Far	None	Moderate	None	High	*	None	742	0.25	Minimal
13020101cp045	0.793	Current	3.39	11.08	17.24	0.0311	Complete	Far	Far	Far	None	Isolated	None	High	*	None	1057	0.25	Minimal
13020102cp001	0.771	Current	5.87	14.54	18.58	0.0364	Complete	Near	Absent	Absent	None	Isolated	Sporadic	High	*	None	2172	0.25	Minimal
13020102cp002	0.526	Current	3.66	13.58	18.06	0.0365	Complete	*	Invaded	Absent	None	Isolated	None	High	*	None	1155	0.25	{0.1, 0.9}
13020102cp003	0.295	Current	3.94	12.63	17.44	0.0316	Complete	Invaded	*	Absent	None	Isolated	None	High	*	None	626	0.25	{0.20, 0.80}
13020102cp004	0.291	Current	7.96	12.69	18.14	0.0365	None	Near	Far	Absent	None	Isolated	None	High	*	None	2446	0.25	{0.3, 0.70}
13020102cp005	0.566	Current	8.08	12.68	18.58	0.0359	None	Far	Absent	Absent	None	Isolated	None	High	*	None	2596	0.25	{0.1, 0.9}
13020102cp006	0.680	Current	12.75	13.5	19.4	0.0419	Complete	Far	Absent	Absent	None	Moderate	None	High	*	None	2172	0.25	{0.20, 0.80}
13020102cp007	0.527	Current	5.31	16.34	22.51	0.1037	None	Far	Absent	Absent	None	Isolated	Sporadic	High	*	None	1714	0.25	{0.20, 0.80}
13020102cp008	0.676	Current	10.71	15.5	20.65	0.096	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	3381	0.25	{0.1, 0.9}
13020102cp009	0.676	Current	13.07	14.07	19.41	0.0699	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	2600	0.25	{0.3, 0.70}
13020102cp010	0.560	Current	12.45	15.44	20.64	0.0662	None	Far	Absent	Far	None	Isolated	None	High	*	None	3866	0.25	{0.1, 0.9}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020102cp011	0.221	Current	0.61	12.64	17.1	0.0407	Complete	Invaded	Invaded	Absent	None	Isolated	None	High	*	None	92	0.25	{0.25, 0.75}
13020102cp012	0.754	Current	3.71	12.13	16.73	0.0299	Complete	Near	Far	Absent	None	Moderate	None	High	*	None	1167	0.25	Minimal
13020102cp016	0.564	Current	10.74	14.62	19.48	0.0701	None	Far	Far	Far	None	Moderate	None	High	*	None	3473	0.25	{0.20, 0.80}
13020201cp001	0.667	Current	11.97	18.05	21.91	0.0669	None	Far	Absent	Absent	None	Isolated	None	High	*	None	2436	0.25	Minimal
13020201cp002	0.583	Current	0.7	15.72	20.55	0.0366	None	Far	Absent	Absent	None	Isolated	None	Moderate	*	None	218	0.25	Minimal
13020202cp001	0.561	Current	6.71	15.27	19.41	0.0737	Complete	Invaded	Absent	Absent	Annual	Isolated	None	High	*	None	3254	0.25	{0.20, 0.80}
13020202cp002	0.408	Current	6.87	12.99	19.97	0.0356	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1120	0.25	Minimal
13020202cp003	0.319	Current	19.95	11.32	16.84	0.0461	Complete	Invaded	Absent	Absent	None	Moderate	None	High	*	None	3241	0.25	{0.1, 0.9}
13020204cp001	0.272	Current	4.36	12.72	15.55	0.043	None	Near	Absent	Absent	None	Isolated	None	High	*	None	1341	0.25	{0.1, 0.9}
13020204cp002	0.297	Current	2.32	11.27	14.17	0.0249	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	361	0.25	Minimal
13020204cp003	0.294	Current	14.39	10.89	15.24	0.0359	None	Near	Absent	Absent	None	Moderate	None	High	*	None	4492	0.25	{0.1, 0.9}
13060001cp001	0.185	Current	2.43	8.76	13.33	0.0353	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	397	0.25	Minimal
13060001cp002	0.332	Current	3.23	9.54	13.74	0.0254	Partial	Invaded	Far	Far	None	Isolated	None	High	*	None	528	0.25	Minimal
13060001cp003	0.204	Current	3.66	8.26	12.91	0.027	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	594	0.25	Minimal
13060001cp004	0.422	Current	6.33	9.45	16.07	0.0333	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	1013	0.25	Minimal
13060001cp005	0.441	Current	9.94	9.12	13.54	0.04	Complete	Invaded	Far	Far	None	Moderate	None	High	*	None	1620	0.25	Minimal
13060001cp006	0.216	Current	2.48	10.32	13.77	0.0266	None	Invaded	Far	Far	None	Isolated	None	High	*	None	375	0.25	Minimal
13060001cp007	0.432	Current	11.34	11.1	14.41	0.0448	Complete	Invaded	Far	Near	None	Isolated	None	High	*	None	1850	0.25	Minimal
13060001cp008	0.259	Current	2.71	9.13	11.99	0.0254	*	Invaded	Far	Far	None	Isolated	None	High	*	None	418	0.25	Minimal
13060001cp009	0.766	Current	4.46	15.08	17.44	0.0764	Complete	Near	Far	Near	None	Isolated	None	High	*	None	1077	0.25	Minimal
13060001cp010	0.771	Current	6.74	13.81	16.6	0.0338	Complete	Near	Far	Near	None	Isolated	None	High	*	None	2122	0.25	Minimal
13060001cp011	0.766	Current	5.64	10.45	13.78	0.0366	Complete	Near	Far	Far	None	Isolated	None	High	*	None	1772	0.25	Minimal
13060005cp001	0.229	Current Short-term	3.85	21.1	24.3	0.049	Complete	Far	Far	Absent	None	Isolated	None	High	*	None	815	0.25	Minimal
11080001cp001	0.094	Short-term	69.33	15.46	21.03	0.261	None	Invaded	Invaded	Far	None	Strong	Sporadic	High	*	None	10966	0.25	Minimal
11080001cp002	0.063	Short-term	11.94	13.12	19.24	0.0503	Complete	Invaded	Absent	Far	None	Isolated	None	High	*	None	1925	0.25	Minimal
11080001cp003	0.531	Short-term	3.08	10.85	16.43	0.0248	Complete	Invaded	Near	Absent	Annual	Isolated	None	High	*	None	708	0.25	Minimal
11080002cp001	0.019	Short-term	15.22	14.68	20.09	0.0461	None	Near	Far	Near	None	Isolated	None	High	Present	Yes	4718	0.25	{0.40, 0.60}
11080002cp002	0.563	Short-term	15.18	16.35	21.69	0.0399	Complete	Near	Far	Near	None	Isolated	None	High	*	None	4579	0.25	{0.1, 0.9}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
11080002cp003	0.761	Short-term	9.6	12.25	18.34	0.0389	Complete	Near	Near	Near	None	Isolated	None	High	*	None	1676	0.25	Minimal
11080002cp005	0.720	Short-term	7.51	15.43	21.17	0.02	Complete	Near	Far	Near	None	Moderate	None	High	*	None	2388	0.25	Minimal
11080004cp001	0.061	Short-term	6.77	12.52	17.98	0.0223	None	Invaded	Near	Absent	None	Isolated	Sporadic	High	Present	Yes	1108	0.25	{0.20, 0.80}
11080004cp002	0.024	Short-term	4.56	12.62	18.08	0.0229	Partial	Invaded	Near	Absent	None	Isolated	None	High	*	None	735	0.25	{0.1, 0.9}
11080004cp003	0.052	Short-term	6.75	14.62	19.03	0.0198	None	Near	Near	Absent	None	Moderate	None	High	*	None	2039	0.25	{0.1, 0.9}
11080004cp004	0.048	Short-term	6.55	13.01	17.62	0.0207	None	Near	Near	Absent	None	Isolated	None	High	*	None	1971	0.25	{0.1, 0.9}
13010001cp002	0.026	Short-term	7.17	10.43	14.89	0.0448	Partial	Invaded	Far	Far	None	Isolated	None	Moderate	*	None	107	0.25	{0.34, 0.66}
13010002cp001	0.142	Short-term	25.29	10.17	13.9	0.0818	Complete	Invaded	Absent	Near	None	Moderate	Sporadic	Moderate	*	None	4133	0.25	{0.31, 0.69}
13010002cp002	0.361	Short-term	7.63	13.09	17.03	0.0372	Partial	Far	Absent	Absent	None	Isolated	None	Moderate	Present	Yes	2868	0.25	{0.31, 0.69}
13010002cp003	0.428	Short-term	3.5	9.85	14.37	0.0191	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	594	0.25	{0.25, 0.75}
13010002cp004	0.029	Short-term	10.36	14.06	20.99	0.045	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	80	0.25	{0.1, 0.9}
13010002cp005	0.031	Short-term	6.67	12.91	19.31	0.0359	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1073	0.25	{0.40, 0.60}
13010002cp006	0.510	Short-term	6.06	10.59	13.66	0.0282	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1213	0.25	{0.15, 0.85}
13010002cp007	0.654	Short-term	9.25	10.34	14.37	0.0299	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2542	0.25	{0.15, 0.85}
13010002cp008	0.081	Short-term	6.23	13.49	16.91	0.0472	None	Invaded	Absent	Absent	None	Isolated	Sporadic	High	*	None	955	0.25	{0.25, 0.75}
13010002cp009	0.702	Short-term	13.23	12.88	15.99	0.0379	Complete	Far	Absent	Absent	None	Isolated	Sporadic	High	*	None	7682	0.25	{0.15, 0.85}
13010002cp010	0.038	Short-term	4.88	9.15	13.07	0.0357	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	764	0.25	{0.15, 0.85}
13010002cp011	0.031	Short-term	22.51	10.61	15.33	0.0537	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	593	0.25	{0.15, 0.85}
13010002cp012	0.020	Short-term	29.23	9.72	14.81	0.0828	None	Invaded	Absent	Far	None	Strong	None	High	*	None	641	0.25	{0.15, 0.85}
13010002cp014	0.044	Short-term	11.53	12.33	17.08	0.0649	Complete	Invaded	Absent	Far	None	Moderate	None	High	*	None	1779	0.25	{0.1, 0.9}
13010002cp015	0.042	Short-term	17.09	13.84	18.67	0.1186	Complete	Invaded	Absent	Near	None	Isolated	None	High	*	None	4944	0.25	{0.15, 0.85}
13010002cp016	0.068	Short-term	37.96	15.87	20.55	0.1432	None	Invaded	Far	Infected	None	Moderate	Sporadic	Moderate	Present	Yes	15590	0.25	{0.20, 0.80}
13010002cp017	0.675	Short-term	2.69	10.33	12.7	0.0503	Complete	Near	Near	Absent	None	Isolated	None	Moderate	*	None	819	0.25	Minimal
13010002cp018	0.112	Short-term	5.47	13.79	16.34	0.05	None	Near	Absent	Absent	None	Isolated	Sporadic	High	*	None	1677	0.25	{0.20, 0.80}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13010002cp019	0.126	Short-term	3.34	14.82	18.22	0.0613	None	Near	Absent	Absent	None	Isolated	Sporadic	Moderate	*	None	1025	0.25	{0.20, 0.80}
13010002cp020	0.099	Short-term	0.75	10.77	14.09	0.0416	Partial	Invaded	Absent	Far	None	Isolated	Consistent	Moderate	*	None	80	0.25	{0.15, 0.85}
13010002cp021	0.674	Short-term	31.76	14.39	19.52	0.0643	Complete	Near	Absent	Near	None	Strong	None	Moderate	*	None	9964	0.25	{0.1, 0.9}
13010002cp022	0.024	Short-term	5.56	9.15	13.95	0.0537	None	Invaded	Near	Absent	None	Isolated	None	High	*	None	194	0.25	{0.1, 0.9}
13010002cp023	0.232	Short-term	3.71	8.7	12.97	0.0295	Complete	*	Absent	Absent	None	Isolated	None	High	*	None	946	0.25	{0.1, 0.9}
13010002cp024	0.674	Short-term	14.39	13.02	18.25	0.0292	Complete	Near	Absent	Near	None	Strong	None	Moderate	*	None	5630	0.25	{0.1, 0.9}
13010003cp001	0.734	Short-term	28.78	11.73	15.69	0.0689	Complete	Far	Absent	Absent	None	Strong	Consistent	High	*	None	15906	0.25	{0.3, 0.70}
13010004cp001	0.302	Short-term	4.25	8.29	13.8	0.0238	Complete	Near	Far	Absent	None	Isolated	None	Moderate	*	None	281	0.25	{0.1, 0.9}
13010004cp002	0.621	Short-term	11.23	12.76	15.14	0.0422	Complete	Near	Absent	Near	None	Isolated	None	Moderate	*	None	785	0.25	{0.31, 0.69}
13010004cp003	0.044	Short-term	31.36	13.3	16.7	0.0473	Complete	Invaded	Near	Near	None	Moderate	None	Moderate	*	None	11149	0.25	{0.25, 0.75}
13010004cp004	0.557	Short-term	4.91	10.42	15.04	0.0124	Complete	Near	Near	Far	None	Isolated	None	Moderate	*	None	912	0.25	{0.1, 0.9}
13010004cp006	0.551	Short-term	4.07	14.51	17.78	0.0209	Complete	Near	Absent	Near	None	Isolated	None	Moderate	*	None	941	0.25	{0.25, 0.75}
13010004cp007	0.634	Short-term	11.3	12.86	17.41	0.0424	Complete	Near	Absent	Absent	None	Isolated	None	Moderate	*	None	621	0.25	{0.31, 0.69}
13010004cp010	0.146	Short-term	22.67	13.25	17.6	0.08	None	Near	Absent	Absent	None	Isolated	Sporadic	Moderate	*	None	2472.5	0.25	{0.35, 0.65}
13010004cp011	0.104	Short-term	12.97	10.85	15.49	0.022	Partial	Invaded	Invaded	Absent	None	Moderate	Sporadic	Moderate	*	None	2025	0.25	{0.22, 0.78}
13010004cp012	0.097	Short-term	10.17	12.55	16.01	0.0325	None	Invaded	Invaded	Absent	None	Isolated	Sporadic	High	*	None	1570	0.25	{0.25, 0.75}
13010005cp001	0.042	Short-term	7.64	14.33	20.81	0.0264	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1196	0.25	{0.1, 0.9}
13010005cp002	0.063	Short-term	4.47	16.09	22.71	0.0523	None	Invaded	Absent	Absent	None	Isolated	Sporadic	High	*	None	713	0.25	{0.1, 0.9}
13010005cp003	0.366	Short-term	2.95	13.48	20.38	0.0257	Complete	Invaded	Absent	Absent	Annual	Isolated	None	High	*	None	462	0.25	{0.1, 0.9}
13010005cp004	0.018	Short-term	5.06	13.75	21	0.0249	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	801	0.25	{0.20, 0.80}
13010005cp006	0.519	Short-term	5.9	13	18.65	0.0286	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	2007	0.25	{0.20, 0.80}
13010005cp007	0.326	Short-term	1.01	12.45	18.19	0.0267	Complete	Near	Near	Near	None	Isolated	None	High	*	None	217	0.25	{0.1, 0.9}
13010005cp008	0.634	Short-term	3.97	14	19.96	0.0391	Complete	Near	Near	Near	None	Isolated	Consistent	High	*	None	1466	0.25	{0.25, 0.75}
13010005cp009	0.175	Short-term	0.87	8.74	15.07	0.0287	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	138	0.25	{0.1, 0.9}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13010005cp010	0.510	Short-term	4.69	12.92	18.56	0.0255	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1499	0.25	{0.20, 0.80}
13020101cp001	0.786	Short-term	14.57	10.25	18.16	0.0316	Complete	Far	Far	Absent	None	Strong	None	High	*	None	2079	0.25	Minimal
13020101cp002	0.786	Short-term	15.19	12.17	20.44	0.0564	Complete	Near	Near	Absent	None	Strong	Sporadic	High	*	None	6350	0.25	Minimal
13020101cp003	0.510	Short-term	6.2	10.37	15.7	0.0208	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	1175	0.25	{0.1, 0.9}
13020101cp004	0.049	Short-term	2.09	12.59	17.84	0.0291	None	Invaded	Near	Absent	None	Isolated	Sporadic	High	*	None	327	0.25	{0.1, 0.9}
13020101cp005	0.048	Short-term	5.09	11.74	16.42	0.0213	None	Near	Near	Absent	None	Isolated	None	High	*	None	1603	0.25	{0.1, 0.9}
13020101cp006	0.659	Short-term	43.42	14.2	20.7	0.0352	Complete	Near	Near	Absent	None	Strong	None	High	Present	Yes	13688	0.25	{0.20, 0.80}
13020101cp007	0.021	Short-term	4.42	13.57	19.77	0.0196	None	Invaded	Near	Absent	None	Isolated	None	High	*	None	688	0.25	{0.20, 0.80}
13020101cp008	0.307	Short-term	13.82	11.83	17.23	0.0369	None	Far	Near	Absent	None	Moderate	None	High	*	None	4204	0.25	{0.20, 0.80}
13020101cp009	0.019	Short-term	13.72	11.01	16.85	0.0268	None	Invaded	Near	Far	None	Moderate	None	High	*	None	2126	0.25	{0.20, 0.80}
13020101cp010	0.201	Short-term	2.85	10.23	14.86	0.0233	Partial	Far	Near	Far	None	Isolated	None	High	*	None	878	0.25	{0.3, 0.70}
13020101cp011	0.012	Short-term	17.85	9.25	12.36	0.0275	Complete	Invaded	Far	Infected	None	Strong	None	High	*	None	3357	0.25	Minimal
13020101cp012	0.230	Short-term	6.46	9.6	12.14	0.0214	None	Far	Far	Far	None	Isolated	None	High	*	None	1966	0.25	Minimal
13020101cp013	0.037	Short-term	4.74	12.4	15.75	0.0183	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	765	0.25	Minimal
13020101cp015	0.637	Short-term	3.85	11.61	15.22	0.0178	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1213	0.25	Minimal
13020101cp016	0.029	Short-term	3.37	11.06	13.85	0.0202	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	549	0.25	Minimal
13020101cp017	0.036	Short-term	6.26	11.68	15	0.0242	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	994	0.25	Minimal
13020101cp018	0.018	Short-term	3.19	13.01	17.69	0.02	None	Invaded	Far	Absent	None	Isolated	None	High	*	None	513	0.25	{0.20, 0.80}
13020101cp019	0.024	Short-term	4.96	9.13	14.71	0.0174	Partial	Invaded	Far	Absent	None	Isolated	None	High	*	None	694	0.25	{0.20, 0.80}
13020101cp020	0.050	Short-term	3.94	10.17	15.3	0.0171	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	632	0.25	Minimal
13020101cp021	0.010	Short-term	4.27	8.88	13.53	0.0207	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	674	0.25	{0.40, 0.60}
13020101cp022	0.030	Short-term	14.84	10.46	15.9	0.0269	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	2352	0.25	{0.20, 0.80}
13020101cp023	0.510	Short-term	4.85	10.57	15.71	0.0207	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1335	0.25	{0.1, 0.9}
13020101cp024	0.729	Short-term	8.77	12.88	16.64	0.0259	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2793	0.25	Minimal

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020101cp025	0.645	Short-term	6.4	9.27	14.48	0.0284	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2016	0.25	Minimal
13020101cp026	0.736	Short-term	9.57	10.22	16.06	0.0251	Complete	Near	Absent	Absent	None	Moderate	None	High	*	None	4434	0.25	Minimal
13020101cp027	0.053	Short-term	7	9.03	12.2	0.0219	Complete	Invaded	Far	Absent	None	Moderate	None	High	*	None	405	0.25	Minimal
13020101cp028	0.019	Short-term	4.1	8.04	12.63	0.0251	Partial	Invaded	Far	Absent	None	Isolated	None	High	*	None	655	0.25	Minimal
13020101cp029	0.050	Short-term	14.5	9.2	13.77	0.0372	None	Invaded	Far	Absent	None	Moderate	None	High	*	None	2344	0.25	Minimal
13020101cp030	0.087	Short-term	8.22	10.65	11.27	0.0209	None	Near	Near	Absent	None	Isolated	None	High	*	None	2588	0.25	Minimal
13020101cp031	0.116	Short-term	5.78	8.64	12.16	0.0171	Partial	Near	Near	Absent	None	Isolated	None	High	*	None	1852	0.25	Minimal
13020101cp032	0.280	Short-term	17.18	12.11	16.34	0.027	*	Near	Near	Absent	None	Moderate	None	High	*	None	5268	0.25	{0.20, 0.80}
13020101cp034	0.030	Short-term	16.81	10.81	14.72	0.027	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	2623	0.25	{0.1, 0.9}
13020101cp035	0.116	Short-term	4.08	8.74	12.43	0.0203	Partial	Near	Near	Absent	None	Isolated	None	High	*	None	1239	0.25	Minimal
13020101cp036	0.576	Short-term	2.8	10.56	14.52	0.0168	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	845	0.25	Minimal
13020101cp037	0.050	Short-term	13.13	9.99	13.63	0.0308	None	Invaded	Invaded	Absent	None	Moderate	None	High	*	None	2071	0.25	Minimal
13020101cp038	0.044	Short-term	12.55	9.78	13.26	0.0286	None	Invaded	Invaded	Absent	None	Moderate	None	High	*	None	1984	0.25	Minimal
13020101cp040	0.637	Short-term	5.6	11.26	14.63	0.0188	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	1795	0.25	Minimal
13020101cp041	0.736	Short-term	7.25	9.65	16.03	0.0283	Complete	Near	Near	Absent	None	Moderate	None	High	*	None	2272	0.25	Minimal
13020101cp042	0.021	Short-term	4.21	12.68	18.4	0.0166	None	Invaded	Invaded	Absent	None	Isolated	None	High	*	None	662	0.25	{0.20, 0.80}
13020101cp043	0.635	Short-term	3.62	11.25	17.12	0.0206	Complete	Far	Far	Far	None	Isolated	None	High	*	None	1129	0.25	Minimal
13020101cp044	0.622	Short-term	4.15	10.45	16.61	0.0252	Complete	Far	Far	Far	None	Moderate	None	High	*	None	742	0.25	Minimal
13020101cp045	0.575	Short-term	3.39	11.09	17.34	0.0234	Complete	Far	Far	Far	None	Isolated	None	High	*	None	1057	0.25	Minimal
13020102cp001	0.707	Short-term	5.87	14.55	18.59	0.0333	Complete	Near	Absent	Absent	None	Isolated	Sporadic	High	*	None	2172	0.25	Minimal
13020102cp002	0.397	Short-term	3.66	13.59	18.19	0.0335	Complete	*	Invaded	Absent	None	Isolated	None	High	*	None	1155	0.25	{0.1, 0.9}
13020102cp003	0.033	Short-term	3.94	12.65	17.57	0.0289	Complete	Invaded	*	Absent	None	Isolated	None	High	*	None	626	0.25	{0.1, 0.9}
13020102cp004	0.059	Short-term	7.96	12.69	18.19	0.029	None	Near	Far	Absent	None	Isolated	None	High	*	None	2446	0.25	{0.20, 0.80}
13020102cp005	0.270	Short-term	8.08	12.68	18.65	0.0221	None	Far	Absent	Absent	None	Isolated	None	High	*	None	2596	0.25	{0.3, 0.70}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020102cp006	0.610	Short-term	12.75	13.5	19.47	0.0258	Complete	Far	Absent	Absent	None	Moderate	None	High	*	None	2172	0.25	{0.1, 0.9}
13020102cp007	0.296	Short-term	5.31	16.35	22.59	0.0639	None	Far	Absent	Absent	None	Isolated	Sporadic	High	*	None	1714	0.25	{0.20, 0.80}
13020102cp008	0.655	Short-term	10.71	15.52	20.75	0.0592	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	3381	0.25	{0.1, 0.9}
13020102cp009	0.655	Short-term	13.07	14.1	19.51	0.0431	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	2600	0.25	{0.3, 0.70}
13020102cp010	0.219	Short-term	12.45	15.46	20.74	0.0408	None	Far	Absent	Far	None	Isolated	None	High	*	None	3866	0.25	{0.1, 0.9}
13020102cp011	0.023	Short-term	0.61	12.66	17.23	0.0373	Complete	Invaded	Invaded	Absent	None	Isolated	None	High	*	None	92	0.25	{0.25, 0.75}
13020102cp012	0.666	Short-term	3.71	12.15	16.85	0.0273	Complete	Near	Far	Absent	None	Moderate	None	High	*	None	1167	0.25	Minimal
13020102cp016	0.221	Short-term	10.74	14.64	19.58	0.0432	None	Far	Far	Far	None	Moderate	None	High	*	None	3473	0.25	{0.20, 0.80}
13020201cp001	0.393	Short-term	11.97	18.07	22.01	0.0412	None	Far	Absent	Absent	None	Isolated	None	High	*	None	2436	0.25	Minimal
13020201cp002	0.243	Short-term	0.7	15.74	20.65	0.0226	None	Far	Absent	Absent	None	Isolated	None	Moderate	*	None	218	0.25	Minimal
13020202cp001	0.502	Short-term	6.71	15.41	19.45	0.0454	Complete	Invaded	Absent	Absent	Annual	Isolated	None	High	*	None	3254	0.25	{0.20, 0.80}
13020202cp002	0.041	Short-term	6.87	13.14	20.01	0.0219	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1120	0.25	Minimal
13020202cp003	0.043	Short-term	19.95	11.47	16.88	0.0284	Complete	Invaded	Absent	Absent	None	Moderate	None	High	*	None	3241	0.25	{0.1, 0.9}
13020204cp001	0.048	Short-term	4.36	12.86	15.58	0.0265	None	Near	Absent	Absent	None	Isolated	None	High	*	None	1341	0.25	{0.1, 0.9}
13020204cp002	0.036	Short-term	2.32	11.42	14.2	0.0154	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	361	0.25	Minimal
13020204cp003	0.060	Short-term	14.39	11.04	15.28	0.0221	None	Near	Absent	Absent	None	Moderate	None	High	*	None	4492	0.25	{0.1, 0.9}
13060001cp001	0.016	Short-term	2.43	8.88	13.5	0.0218	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	397	0.25	Minimal
13060001cp002	0.026	Short-term	3.23	9.66	13.91	0.0157	Partial	Invaded	Far	Far	None	Isolated	None	High	*	None	528	0.25	Minimal
13060001cp003	0.025	Short-term	3.66	8.38	13.07	0.0166	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	594	0.25	Minimal
13060001cp004	0.051	Short-term	6.33	9.57	16.24	0.0205	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	1013	0.25	Minimal
13060001cp005	0.059	Short-term	9.94	9.24	13.7	0.0247	Complete	Invaded	Far	Far	None	Moderate	None	High	*	None	1620	0.25	Minimal
13060001cp006	0.014	Short-term	2.48	10.44	13.94	0.0164	None	Invaded	Far	Far	None	Isolated	None	High	*	None	375	0.25	Minimal
13060001cp007	0.055	Short-term	11.34	11.21	14.57	0.0276	Complete	Invaded	Far	Near	None	Isolated	None	High	*	None	1850	0.25	Minimal
13060001cp008	0.023	Short-term	2.71	9.25	12.15	0.0156	*	Invaded	Far	Far	None	Isolated	None	High	*	None	418	0.25	Minimal

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13060001cp009	0.693	Short-term	4.46	15.2	17.6	0.0471	Complete	Near	Far	Near	None	Isolated	None	High	*	None	1077	0.25	Minimal
13060001cp010	0.641	Short-term	6.74	13.94	16.77	0.0208	Complete	Near	Far	Near	None	Isolated	None	High	*	None	2122	0.25	Minimal
13060001cp011	0.635	Short-term	5.64	10.57	13.95	0.0226	Complete	Near	Far	Far	None	Isolated	None	High	*	None	1772	0.25	Minimal
13060005cp001	0.200	Short-term	3.85	21.1	24.4	0.0352	Complete	Far	Far	Absent	None	Isolated	None	High	*	None	815	0.25	Minimal
11080001cp001	0.029	Long-term	69.33	16.03	21.31	0.2453	None	Invaded	Invaded	Far	None	Strong	Sporadic	High	*	None	10966	0.25	Minimal
11080001cp002	0.000	Long-term	11.94	13.69	19.52	0.0503	Complete	Invaded	Absent	Far	None	Isolated	None	High	*	None	1925	0.25	Minimal
11080001cp003	0.473	Long-term	3.08	11.42	16.71	0.0248	Complete	Invaded	Near	Absent	Annual	Isolated	None	High	*	None	708	0.25	Minimal {0.40, 0.60}
11080002cp001	0.004	Long-term	15.22	15.3	20.45	0.0461	None	Near	Far	Near	None	Isolated	None	High	Present	Yes	4718	0.25	0.60}
11080002cp002	0.512	Long-term	15.18	16.97	22.06	0.0383	Complete	Near	Far	Near	None	Isolated	None	High	*	None	4579	0.25	{0.1, 0.9}
11080002cp003	0.697	Long-term	9.6	12.87	18.7	0.0373	Complete	Near	Near	Near	None	Isolated	None	High	*	None	1676	0.25	Minimal
11080002cp005	0.714	Long-term	7.51	16.05	21.54	0.0292	Complete	Near	Far	Near	None	Moderate	None	High	*	None	2388	0.25	Minimal {0.20, 0.80}
11080004cp001	0.030	Long-term	6.77	13.12	18.31	0.0326	None	Invaded	Near	Absent	None	Isolated	Sporadic	High	Present	Yes	1108	0.25	0.80}
11080004cp002	0.000	Long-term	4.56	13.22	18.42	0.0334	Partial	Invaded	Near	Absent	None	Isolated	None	High	*	None	735	0.25	{0.1, 0.9}
11080004cp003	0.011	Long-term	6.75	15.2	19.32	0.0289	None	Near	Near	Absent	None	Moderate	None	High	*	None	2039	0.25	{0.1, 0.9}
11080004cp004	0.012	Long-term	6.55	13.58	17.92	0.0302	None	Near	Near	Absent	None	Isolated	None	High	*	None	1971	0.25	{0.1, 0.9}
13010001cp002	0.000	Long-term	7.17	11.13	15.26	0.0346	Partial	Invaded	Far	Far	None	Isolated	None	Moderate	*	None	107	0.25	{0.34, 0.66}
13010002cp001	0.066	Long-term	25.29	11.03	14.44	0.0608	Complete	Invaded	Absent	Near	None	Moderate	Sporadic	Moderate	*	None	4133	0.25	{0.31, 0.69}
13010002cp002	0.092	Long-term	7.63	13.95	17.57	0.0284	Partial	Far	Absent	Absent	None	Isolated	None	Moderate	Present	Yes	2868	0.25	{0.31, 0.69}
13010002cp003	0.380	Long-term	3.5	10.71	14.91	0.0148	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	594	0.25	{0.25, 0.75}
13010002cp004	0.000	Long-term	9.56	14.7	21.1	0.0339	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	80	0.25	{0.1, 0.9}
13010002cp005	0.000	Long-term	6.67	13.77	19.85	0.0271	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1073	0.25	{0.40, 0.60}
13010002cp006	0.466	Long-term	6.06	11.17	13.94	0.0289	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1213	0.25	{0.15, 0.85}
13010002cp007	0.632	Long-term	9.25	10.92	14.65	0.0303	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2542	0.25	{0.15, 0.85}
13010002cp008	0.031	Long-term	6.23	14.07	17.2	0.0485	None	Invaded	Absent	Absent	None	Isolated	Sporadic	High	*	None	955	0.25	{0.25, 0.75}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13010002cp009	0.682	Long-term	13.23	13.45	16.27	0.0387	Complete	Far	Absent	Absent	None	Isolated	Sporadic	High	*	None	7682	0.25	{0.15, 0.85}
13010002cp010	0.000	Long-term	4.88	9.72	13.35	0.0357	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	764	0.25	{0.15, 0.85}
13010002cp011	0.000	Long-term	22.51	11.19	15.63	0.0537	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	593	0.25	{0.15, 0.85}
13010002cp012	0.000	Long-term	29.23	10.39	15.15	0.0725	None	Invaded	Absent	Far	None	Strong	None	High	*	None	641	0.25	{0.15, 0.85}
13010002cp014	0.000	Long-term	11.53	13	17.42	0.0568	Complete	Invaded	Absent	Far	None	Moderate	None	High	*	None	1779	0.25	{0.1, 0.9}
13010002cp015	0.000	Long-term	17.09	14.51	19.01	0.1038	Complete	Invaded	Absent	Near	None	Isolated	None	High	*	None	4944	0.25	{0.15, 0.85}
13010002cp016	0.022	Long-term	37.96	16.54	20.89	0.1253	None	Invaded	Far	Infected	None	Moderate	Sporadic	Moderate	Present	Yes	15590	0.25	{0.20, 0.80}
13010002cp017	0.640	Long-term	2.69	11.06	13.04	0.0618	Complete	Near	Near	Absent	None	Isolated	None	Moderate	*	None	819	0.25	Minimal
13010002cp018	0.044	Long-term	5.47	14.36	16.62	0.049	None	Near	Absent	Absent	None	Isolated	Sporadic	High	*	None	1677	0.25	{0.20, 0.80}
13010002cp019	0.052	Long-term	3.34	15.4	18.5	0.063	None	Near	Absent	Absent	None	Isolated	Sporadic	Moderate	*	None	1025	0.25	{0.20, 0.80}
13010002cp020	0.044	Long-term	0.75	11.34	14.37	0.0416	Partial	Invaded	Absent	Far	None	Isolated	Consistent	Moderate	*	None	80	0.25	{0.15, 0.85}
13010002cp021	0.620	Long-term	31.76	15.06	19.86	0.0641	Complete	Near	Absent	Near	None	Strong	None	Moderate	*	None	9964	0.25	{0.1, 0.9}
13010002cp022	0.000	Long-term	5.56	9.73	14.26	0.047	None	Invaded	Near	Absent	None	Isolated	None	High	*	None	194	0.25	{0.1, 0.9}
13010002cp023	0.311	Long-term	3.71	9.33	13.28	0.0259	Complete	*	Absent	Absent	None	Isolated	None	High	*	None	946	0.25	{0.1, 0.9}
13010002cp024	0.620	Long-term	14.39	13.69	18.59	0.0336	Complete	Near	Absent	Near	None	Strong	None	Moderate	*	None	5630	0.25	{0.1, 0.9}
13010003cp001	0.714	Long-term	28.78	12.4	16.03	0.0847	Complete	Far	Absent	Absent	None	Strong	Consistent	High	*	None	15906	0.25	{0.3, 0.70}
13010004cp001	0.477	Long-term	4.25	9.06	14.17	0.0238	Complete	Near	Far	Absent	None	Isolated	None	Moderate	*	None	281	0.25	{0.1, 0.9}
13010004cp002	0.546	Long-term	11.23	13.47	15.52	0.0422	Complete	Near	Absent	Near	None	Isolated	None	Moderate	*	None	785	0.25	{0.31, 0.69}
13010004cp003	0.000	Long-term	31.36	14.01	17.07	0.0473	Complete	Invaded	Near	Near	None	Moderate	None	Moderate	*	None	11149	0.25	{0.25, 0.75}
13010004cp004	0.514	Long-term	4.91	11.13	15.42	0.0212	Complete	Near	Near	Far	None	Isolated	None	Moderate	*	None	912	0.25	{0.1, 0.9}
13010004cp006	0.486	Long-term	4.07	15.27	18.05	0.0209	Complete	Near	Absent	Near	None	Isolated	None	Moderate	*	None	941	0.25	{0.25, 0.75}
13010004cp007	0.588	Long-term	11.3	13.56	17.78	0.0424	Complete	Near	Absent	Absent	None	Isolated	None	Moderate	*	None	621	0.25	{0.31, 0.69}
13010004cp010	0.065	Long-term	22.67	13.95	17.98	0.08	None	Near	Absent	Absent	None	Isolated	Sporadic	Moderate	*	None	2472.5	0.25	{0.35, 0.65}
13010004cp011	0.044	Long-term	12.97	11.55	15.87	0.022	Partial	Invaded	Invaded	Absent	None	Moderate	Sporadic	Moderate	*	None	2025	0.25	{0.22, 0.78}

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13010004cp012	0.039	Long-term	10.17	13.25	16.39	0.0325	None	Invaded	Invaded	Absent	None	Isolated	Sporadic	High	*	None	1570	0.25	{0.25, 0.75}
13010005cp001	0.000	Long-term	7.64	14.97	21.18	0.0199	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1196	0.25	{0.1, 0.9}
13010005cp002	0.014	Long-term	4.47	16.74	23.08	0.0395	None	Invaded	Absent	Absent	None	Isolated	Sporadic	High	*	None	713	0.25	{0.1, 0.9}
13010005cp003	0.319	Long-term	2.95	14.12	20.75	0.0194	Complete	Invaded	Absent	Absent	Annual	Isolated	None	High	*	None	462	0.25	{0.1, 0.9}
13010005cp004	0.000	Long-term	5.06	14.39	21.37	0.0188	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	801	0.25	{0.20, 0.80}
13010005cp006	0.490	Long-term	5.9	13.8	19.17	0.0216	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	2007	0.25	{0.20, 0.80}
13010005cp007	0.270	Long-term	1.01	13.31	18.73	0.0206	Complete	Near	Near	Near	None	Isolated	None	High	*	None	217	0.25	{0.1, 0.9}
13010005cp008	0.581	Long-term	3.97	14.86	20.5	0.03	Complete	Near	Near	Near	None	Isolated	Consistent	High	*	None	1466	0.25	{0.25, 0.75}
13010005cp009	0.270	Long-term	0.87	9.54	15.59	0.0217	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	138	0.25	{0.1, 0.9}
13010005cp010	0.466	Long-term	4.69	13.71	19.08	0.0193	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1499	0.25	{0.20, 0.80}
13020101cp001	0.767	Long-term	14.57	10.82	18.44	0.0316	Complete	Far	Far	Absent	None	Strong	None	High	*	None	2079	0.25	Minimal
13020101cp002	0.767	Long-term	15.19	12.75	20.72	0.0564	Complete	Near	Near	Absent	None	Strong	Sporadic	High	*	None	6350	0.25	Minimal
13020101cp003	0.466	Long-term	6.2	10.96	16.02	0.02	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	1175	0.25	{0.1, 0.9}
13020101cp004	0.014	Long-term	2.09	13.16	18.12	0.0279	None	Invaded	Near	Absent	None	Isolated	Sporadic	High	*	None	327	0.25	{0.1, 0.9}
13020101cp005	0.010	Long-term	5.09	12.34	16.74	0.0204	None	Near	Near	Absent	None	Isolated	None	High	*	None	1603	0.25	{0.1, 0.9}
13020101cp006	0.559	Long-term	43.42	14.8	21	0.0318	Complete	Near	Near	Absent	None	Strong	None	High	Present	Yes	13688	0.25	{0.20, 0.80}
13020101cp007	0.000	Long-term	4.42	14.19	20.14	0.0188	None	Invaded	Near	Absent	None	Isolated	None	High	*	None	688	0.25	{0.20, 0.80}
13020101cp008	0.050	Long-term	13.82	12.41	17.51	0.0354	None	Far	Near	Absent	None	Moderate	None	High	*	None	4204	0.25	{0.20, 0.80}
13020101cp009	0.000	Long-term	13.72	11.63	17.22	0.0311	None	Invaded	Near	Far	None	Moderate	None	High	*	None	2126	0.25	{0.20, 0.80}
13020101cp010	0.052	Long-term	2.85	10.85	15.23	0.0223	Partial	Far	Near	Far	None	Isolated	None	High	*	None	878	0.25	{0.3, 0.70}
13020101cp011	0.000	Long-term	17.85	9.87	12.73	0.0402	Complete	Invaded	Far	Infected	None	Strong	None	High	*	None	3357	0.25	Minimal
13020101cp012	0.035	Long-term	6.46	10.23	12.51	0.0313	None	Far	Far	Far	None	Isolated	None	High	*	None	1966	0.25	Minimal
13020101cp013	0.000	Long-term	4.74	13.02	16.12	0.0267	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	765	0.25	Minimal
13020101cp015	0.588	Long-term	3.85	12.24	15.59	0.026	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1213	0.25	Minimal

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020101cp016	0.000	Long-term	3.37	11.69	14.22	0.0295	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	549	0.25	Minimal
13020101cp017	0.000	Long-term	6.26	12.3	15.36	0.0354	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	994	0.25	Minimal
13020101cp018	0.000	Long-term	3.19	13.61	18.02	0.0291	None	Invaded	Far	Absent	None	Isolated	None	High	*	None	513	0.25	{0.20, 0.80}
13020101cp019	0.000	Long-term	4.96	9.73	15.05	0.0254	Partial	Invaded	Far	Absent	None	Isolated	None	High	*	None	694	0.25	{0.20, 0.80}
13020101cp020	0.000	Long-term	3.94	10.77	15.63	0.0249	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	632	0.25	Minimal
13020101cp021	0.000	Long-term	4.27	9.48	13.86	0.0302	None	Invaded	Absent	Absent	None	Isolated	None	High	*	None	674	0.25	{0.40, 0.60}
13020101cp022	0.000	Long-term	14.84	11.06	16.23	0.0392	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	2352	0.25	{0.20, 0.80}
13020101cp023	0.531	Long-term	4.85	11.17	16.04	0.0302	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	1335	0.25	{0.1, 0.9}
13020101cp024	0.756	Long-term	8.77	13.48	16.98	0.0378	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2793	0.25	Minimal
13020101cp025	0.679	Long-term	6.4	9.87	14.82	0.0414	Complete	Near	Absent	Absent	None	Isolated	None	High	*	None	2016	0.25	Minimal
13020101cp026	0.761	Long-term	9.57	10.82	16.4	0.0367	Complete	Near	Absent	Absent	None	Moderate	None	High	*	None	4434	0.25	Minimal
13020101cp027	0.000	Long-term	7	9.67	12.53	0.032	Complete	Invaded	Far	Absent	None	Moderate	None	High	*	None	405	0.25	Minimal
13020101cp028	0.000	Long-term	4.1	8.64	12.96	0.0367	Partial	Invaded	Far	Absent	None	Isolated	None	High	*	None	655	0.25	Minimal
13020101cp029	0.000	Long-term	14.5	9.8	14.1	0.0543	None	Invaded	Far	Absent	None	Moderate	None	High	*	None	2344	0.25	Minimal
13020101cp030	0.021	Long-term	8.22	11.3	11.6	0.0305	None	Near	Near	Absent	None	Isolated	None	High	*	None	2588	0.25	Minimal
13020101cp031	0.086	Long-term	5.78	9.24	12.49	0.0249	Partial	Near	Near	Absent	None	Isolated	None	High	*	None	1852	0.25	Minimal
13020101cp032	0.248	Long-term	17.18	12.71	16.68	0.0394	*	Near	Near	Absent	None	Moderate	None	High	*	None	5268	0.25	{0.20, 0.80}
13020101cp034	0.000	Long-term	16.81	11.4	15.04	0.0394	None	Invaded	Absent	Absent	None	Moderate	None	High	*	None	2623	0.25	{0.1, 0.9}
13020101cp035	0.099	Long-term	4.08	9.34	12.77	0.0296	Partial	Near	Near	Absent	None	Isolated	None	High	*	None	1239	0.25	Minimal
13020101cp036	0.535	Long-term	2.8	11.16	14.86	0.0245	Complete	Near	Near	Absent	None	Isolated	None	High	*	None	845	0.25	Minimal
13020101cp037	0.000	Long-term	13.13	10.56	13.92	0.045	None	Invaded	Invaded	Absent	None	Moderate	None	High	*	None	2071	0.25	Minimal
13020101cp038	0.000	Long-term	12.55	10.35	13.55	0.0418	None	Invaded	Invaded	Absent	None	Moderate	None	High	*	None	1984	0.25	Minimal
13020101cp040	0.589	Long-term	5.6	11.83	14.92	0.0274	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	1795	0.25	Minimal
13020101cp041	0.700	Long-term	7.25	10.22	16.31	0.0286	Complete	Near	Near	Absent	None	Moderate	None	High	*	None	2272	0.25	Minimal

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020101cp042	0.000	Long-term	4.21	13.31	18.77	0.0159	None	Invaded	Invaded	Absent	None	Isolated	None	High	*	None	662	0.25	{0.20, 0.80}
13020101cp043	0.585	Long-term	3.62	11.83	17.39	0.0208	Complete	Far	Far	Far	None	Isolated	None	High	*	None	1129	0.25	Minimal
13020101cp044	0.557	Long-term	4.15	11.03	16.89	0.0251	Complete	Far	Far	Far	None	Moderate	None	High	*	None	742	0.25	Minimal
13020101cp045	0.533	Long-term	3.39	11.67	17.61	0.024	Complete	Far	Far	Far	None	Isolated	None	High	*	None	1057	0.25	Minimal
13020102cp001	0.612	Long-term	5.87	15.06	18.98	0.0251	Complete	Near	Absent	Absent	None	Isolated	Sporadic	High	*	None	2172	0.25	Minimal
13020102cp002	0.311	Long-term	3.66	14.39	18.71	0.0253	Complete	*	Invaded	Absent	None	Isolated	None	High	*	None	1155	0.25	{0.1, 0.9}
13020102cp003	0.000	Long-term	3.94	13.44	18.09	0.0219	Complete	Invaded	*	Absent	None	Isolated	None	High	*	None	626	0.25	{0.1, 0.9}
13020102cp004	0.013	Long-term	7.96	13.34	18.56	0.0283	None	Near	Far	Absent	None	Isolated	None	High	*	None	2446	0.25	{0.20, 0.80}
13020102cp005	0.049	Long-term	8.08	13.31	19.02	0.0323	None	Far	Absent	Absent	None	Isolated	None	High	*	None	2596	0.25	{0.3, 0.70}
13020102cp006	0.640	Long-term	12.75	14.13	19.84	0.0377	Complete	Far	Absent	Absent	None	Moderate	None	High	*	None	2172	0.25	{0.1, 0.9}
13020102cp007	0.065	Long-term	5.31	16.98	22.95	0.0932	None	Far	Absent	Absent	None	Isolated	Sporadic	High	*	None	1714	0.25	{0.20, 0.80}
13020102cp008	0.559	Long-term	10.71	16.14	21.12	0.0863	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	3381	0.25	{0.1, 0.9}
13020102cp009	0.635	Long-term	13.07	14.72	19.87	0.0628	Complete	Far	Absent	Absent	None	Isolated	None	High	*	None	2600	0.25	{0.3, 0.70}
13020102cp010	0.025	Long-term	12.45	16.08	21.1	0.0595	None	Far	Absent	Far	None	Isolated	None	High	*	None	3866	0.25	{0.1, 0.9}
13020102cp011	0.000	Long-term	0.61	13.45	17.75	0.0281	Complete	Invaded	Invaded	Absent	None	Isolated	None	High	*	None	92	0.25	{0.25, 0.75}
13020102cp012	0.615	Long-term	3.71	12.94	17.37	0.0206	Complete	Near	Far	Absent	None	Moderate	None	High	*	None	1167	0.25	Minimal
13020102cp016	0.031	Long-term	10.74	15.26	19.95	0.063	None	Far	Far	Far	None	Moderate	None	High	*	None	3473	0.25	{0.20, 0.80}
13020201cp001	0.063	Long-term	11.97	18.7	22.37	0.0602	None	Far	Absent	Absent	None	Isolated	None	High	*	None	2436	0.25	Minimal
13020201cp002	0.039	Long-term	0.7	16.37	21.01	0.0329	None	Far	Absent	Absent	None	Isolated	None	Moderate	*	None	218	0.25	Minimal
13020202cp001	0.472	Long-term	6.71	15.67	19.72	0.0663	Complete	Invaded	Absent	Absent	Annual	Isolated	None	High	*	None	3254	0.25	{0.20, 0.80}
13020202cp002	0.000	Long-term	6.87	13.4	20.29	0.032	Partial	Invaded	Absent	Absent	None	Isolated	None	High	*	None	1120	0.25	Minimal
13020202cp003	0.000	Long-term	19.95	11.73	17.16	0.0415	Complete	Invaded	Absent	Absent	None	Moderate	None	High	*	None	3241	0.25	{0.1, 0.9}
13020204cp001	0.012	Long-term	4.36	13.12	15.86	0.0386	None	Near	Absent	Absent	None	Isolated	None	High	*	None	1341	0.25	{0.1, 0.9}
13020204cp002	0.000	Long-term	2.32	11.68	14.48	0.0224	Complete	Invaded	Absent	Absent	None	Isolated	None	High	*	None	361	0.25	Minimal

ConPopID	Prob Persist	Time Period	PatchSize	M30AT	MWMT	Baseflow Discharge	Barrier	ProxCom pPop	Prox Hybrids	ProxWD Source	Nonnative Control	PopConnectivity	Dem Support	Wildfire DebrisRisk	Drought Refugia	Intermittency Evid	Adult PopEst	NeN	Anthro Influence
13020204cp003	0.015	Long-term	14.39	11.3	15.55	0.0323	None	Near	Absent	Absent	None	Moderate	None	High	*	None	4492	0.25	{0.1, 0.9}
13060001cp001	0.000	Long-term	2.43	9.46	13.79	0.0318	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	397	0.25	Minimal
13060001cp002	0.000	Long-term	3.23	10.24	14.2	0.0229	Partial	Invaded	Far	Far	None	Isolated	None	High	*	None	528	0.25	Minimal
13060001cp003	0.000	Long-term	3.66	8.95	13.37	0.0242	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	594	0.25	Minimal
13060001cp004	0.000	Long-term	6.33	10.14	16.53	0.03	Complete	Invaded	Far	Far	None	Isolated	None	High	*	None	1013	0.25	Minimal
13060001cp005	0.000	Long-term	9.94	9.81	14	0.036	Complete	Invaded	Far	Far	None	Moderate	None	High	*	None	1620	0.25	Minimal
13060001cp006	0.000	Long-term	2.48	11.01	14.23	0.0239	None	Invaded	Far	Far	None	Isolated	None	High	*	None	375	0.25	Minimal
13060001cp007	0.000	Long-term	11.34	11.79	14.86	0.0403	Complete	Invaded	Far	Near	None	Isolated	None	High	*	None	1850	0.25	Minimal
13060001cp008	0.000	Long-term	2.71	9.82	12.45	0.0228	*	Invaded	Far	Far	None	Isolated	None	High	*	None	418	0.25	Minimal
13060001cp009	0.625	Long-term	4.46	15.77	17.89	0.0687	Complete	Near	Far	Near	None	Isolated	None	High	*	None	1077	0.25	Minimal
13060001cp010	0.652	Long-term	6.74	14.51	17.06	0.0304	Complete	Near	Far	Near	None	Isolated	None	High	*	None	2122	0.25	Minimal
13060001cp011	0.647	Long-term	5.64	11.14	14.24	0.0329	Complete	Near	Far	Far	None	Isolated	None	High	*	None	1772	0.25	Minimal
13060005cp001	0.126	Long-term	1.3	21.1	24.2	0.0318	Complete	Far	Far	Absent	None	Isolated	None	High	*	None	815	0.25	Minimal

Appendix D. Progress toward 10 year goals (2014-2024) identified in the Rio Grande Cutthroat Trout Conservation Strategy.

Conservation Actions		GMU				
		Rio Grande Hdws.	Lower Rio Grande	Pecos	Canadian	Caballo
Objective 1: Identify and characterize all RGCT Core and Conservation Populations and Occupied Habitat.						
1.1	Population Monitoring	Monitor 10 populations/year	Monitor 10 populations	Monitor 8 populations	Monitor 5 populations	Monitor one population every couple of years
	Progress toward Conservation Strategy Goals	Completed: Monitored an average 11.5 populations/year.	Completed: Monitored 16 populations.	In Progress: Monitored 3 populations.	In Progress: Monitored 3 populations.	In Progress: Monitoring will occur in Las Animas Creek after stocking efforts are completed.
1.2	Genetic Analysis	Collect genetic specimens as necessary to determine purity of populations	Collect genetic specimens as necessary to determine purity of populations	Collect genetic specimens as necessary to determine purity of populations	Collect genetic specimens as necessary to determine purity of populations	Collect genetic specimens as necessary to determine purity of populations
	Progress toward Conservation Strategy Goals	Completed: Determined genetic purity in 16 populations.	Completed: Determined genetic purity in 15 populations.	Completed: Determined genetic purity in 1 population.	Completed: Determined genetic purity in 1 population.	Completed: Determined genetic purity of translocated fish during restoration.

Conservation Actions		GMU				
		Rio Grande Hdws.	Lower Rio Grande	Pecos	Canadian	Caballo
Objective 2: Secure and enhance conservation populations.						
2.1	Restricting introduction of nonnative fish species	CPW Regulations: Chapter 0, Article VII, #013 Release of Aquatic Wildlife; Appendix C Cutthroat Trout Waters NMAC 19.35.7: Importation of live non-domestic animals, birds, and fish				
2.2	Restricting spread of disease and invasive species	Colorado Parks and Wildlife Commission Police D-9; CPW Regulations: Chapter 0, Article VII, #014 NMAC 19.30.14: Providing for the control and prevention of the spread of aquatic invasive species in New Mexico				
2.3	Removing nonnative fish species	Conduct non-native trout removals as necessary.	Conduct nonnative fish removals on an annual or biannual basis			
	Progress toward Conservation Strategy Goals		Completed: Non-native removals occurred in three populations.		Completed: Non-native removals occurred in three populations.	
2.4	Regulating angling and enforcement	CPW Regulations: Chapter 1, Article II, #108 Special Regulation Waters NMAC 19.31.4.11: Daily bag, possession limits, and requirements or conditions				
2.5	Constructing in-channel barriers	Improve or install barriers to facilitate possible restoration projects	Improve or install barriers to facilitate possible restoration projects	Improve or install barriers to facilitate possible restoration projects	Improve or install barriers to facilitate possible restoration projects	Improve or install barriers to facilitate possible restoration projects
	Progress toward Conservation Strategy Goals	Completed: Installed one barrier.	Completed: Installed one barrier.	In Progress: Planning and engineering work are underway.	In Progress: Planning is underway.	
2.6	Maintaining sources of genetically pure RGCT	Maintain genetic purity of broodstocks	Continue field and hatchery spawn operations	Continue field and hatchery spawn operations	Continue field and hatchery spawn operations	Continue field and hatchery spawn operations

Conservation Actions		GMU				
		Rio Grande Hdws.	Lower Rio Grande	Pecos	Canadian	Caballo
	Progress toward Conservation Strategy Goals	Completed: Haypress Lake reclaimed and RGCT broodstock program reestablished by CPW.	Completed: NMDGF Seven Springs Hatchery continues RGCT broodstock program.			

Objective 3: Restore RGCT Populations						
3.1	Establishing and/or maintaining RGCT populations (Table 3)	Restore 6-8 conservation populations,	Restore 3-5 conservation populations	Restore 1-3 conservation populations	Restore 1-3 conservation population	Restore 1 conservation population
	Progress toward Conservation Strategy Goals	In Progress: Haypress Lake and Roaring Fork completed. Planning for other restoration projects underway.	Completed: Allen Creek, Beaver Creek, Long Canyon, Casias Creek, Costilla Creek, and Costilla Reservoir completed.	In Progress: Planning for restoration projects underway.	In Progress: Planning for restoration projects underway.	Completed: Las Animas Creek completed.
3.2	Maintain genetic purity of the species among the basins	Conduct genetic analysis on selected populations, continued use of triploid rainbow trout throughout New Mexico, broodstock developed to maintain basin-scale lineages				
	Progress toward Conservation Strategy Goals	Completed: Genetic analysis occurred on several populations in all basins. Triploid rainbow trout continue to be stocked in New Mexico. Broodstock development developed and maintained in Colorado and New Mexico.				

Conservation Actions		GMU				
		Rio Grande Hdws.	Lower Rio Grande	Pecos	Canadian	Caballo
Objective 4: Secure and enhance watershed conditions						
4.1	Enhancing and protecting instream and riparian habitat	Habitat enhancement on up to 5 miles of RGCT stream, continue culvert & barrier assessments, repairs, and replacements	Habitat enhancement on 5 miles of RGCT stream; 20 acres of watershed/riparian protection	Habitat enhancement on 5 miles of RGCT stream; 20 acres of watershed/riparian protection		
	Progress toward Conservation Strategy Goals	In Progress: Two miles of riparian fencing completed.	In Progress: 4.5 miles restored in Rio Costilla and 1.5 miles restored in Comanche Creek.	In Progress: Planning for restoration projects underway.	Completed: Elk exclosures constructed along 3 miles of stream.	
4.2	Developing and implementing habitat monitoring protocol	Implement habitat monitoring protocol Fish & habitat monitoring for RGCT streams impacted by wildfire Fish and habitat monitoring on RGCT streams associated with forest management activities.				
	Progress toward Conservation Strategy Goals	In Progress: Post-wildfire surveys occurred in several waters affected the Las Conchas, Silver, and Little Bear fires.				

Conservation Actions		GMU			
		Rio Grande Hdws.	Lower Rio Grande	Pecos	Canadian
Objective 5: Public Outreach					
5.1	Public Outreach	<p>Trout in the Classroom RGCT rearing and release, "Respect the Rio" program on Santa Fe NF, publicize fishing opportunities for RGCT, present information at NGO and other public meetings</p> <p>Rio Grande cutthroat trout lifecycle curriculum at Water Festivals in Albuquerque, Rio Rancho, Santa Fe (annually ~ 1,000 kids & adults); local community events (annually ~ 300 kids & adults); updated Forest website with curriculum and education materials</p> <p>Rio Grande Hdws.: Oral presentations to San Luis Valley chapter of Trout Unlimited, Beaver Creek, Conejos County and Costilla County Youth Naturally conservation camps. Update RGCT conservation brochure. Publish conservation strategy and agreement on CPW website.</p>			
	Progress toward Conservation Strategy Goals	Completed: All of the above. In addition, RGCT outreach events occurred at youth camps, high schools, Universities, radio shows, tribal youth programs, and professional meetings. RGCT awareness posters and signs were designed, printed, and distributed.			
Objective 6: Data Sharing					
6.1	Annual meeting will be held for database updates	Attend annual database update meeting			
	Progress toward Conservation Strategy Goals	Completed: GMU leaders met annually to enter data and ensure data quality and accuracy.			
6.2	Maintaining and sharing database between signatories.	Maintain, improve, and update range-wide database			
	Progress toward Conservation Strategy Goals	Completed: Database is maintained and shared annually.			

Conservation Actions		GMU				
		Rio Grande Hdws.	Lower Rio Grande	Pecos	Canadian	Caballo
Objective 7: Coordination						
7.1	Attending annual range-wide coordination meeting	Attend annual range-wide coordination meeting				
	Progress toward Conservation Strategy Goals	Completed: Range-wide meeting occurred annually and is widely attended by signatories, supporting organizations, and other interested stakeholders.				
7.2	Coordinating annual work plan among agencies	Maintain relationships and coordinate annual work plans among agencies through personal communication and meeting attendance				
	Progress toward Conservation Strategy Goals	Completed: Signatories coordinated work through personal communications and meetings.				
7.3	Reporting results of monitoring	Compile Accomplishments Reports, enter monitoring data into range-wide database				
	Progress toward Conservation Strategy Goals	Completed: Accomplishment Reports were written and data entered into range-wide database annually.				
7.4	Assessing success of Conservation Strategy and making changes as needed	Complete 5 year Status Assessment Report; Renew Conservation Agreement				
	Progress toward Conservation Strategy Goals	In Progress: Status Assessment Report completed in 2018, Conservation Agreement renewal in 2023.				