Stream Management Plan
Grantee Project Summary

Rio Grande, Conejos River, and Saguache Creek Stream Management Plans

Geographic Description:
Rio Grande Basin:
Rio Grande, Conejos River, and Saguache Creek

Size:
About 340 river miles

Project Homepage:
www.riograndeheadwaters.org/stream-management-plans.html

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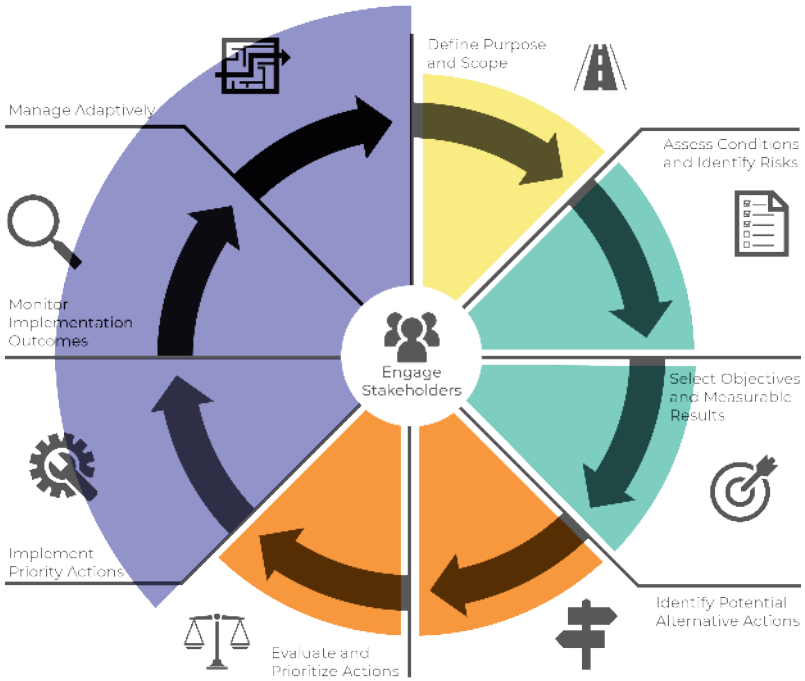
Project Timeline

Define Purpose and Scope	Assess Conditions and Select Objectives	Identify and Prioritize Actions	Implement and Monitor Actions
June 2018-August 2018	September 2018-September 2019	March 2019-September 2019	October 2019–onward

Stakeholder Groups Involved in Planning Process

●	Agricultural producers
●	Riparian landowners
●	Aquatic and riparian science
●	Environmental advocacy
	Utilities or other water management
●	Recreation & tourism
	Local government & land use planners
●	State and federal agencies

Current Planning Phase



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Colorado Water Conservation Board
Department of Natural Resources

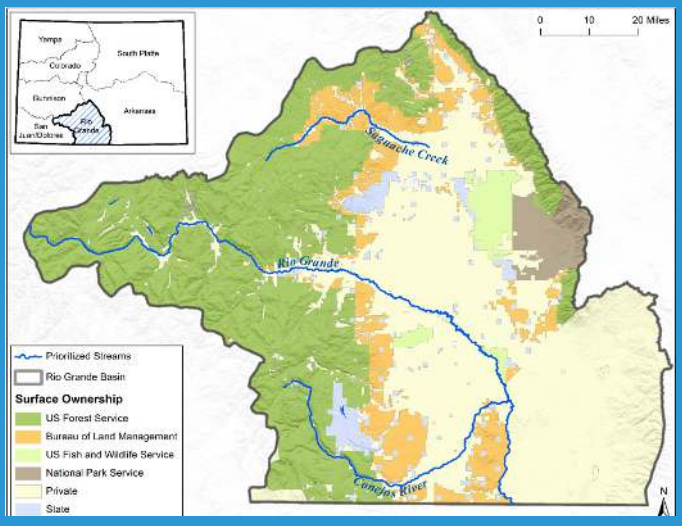
Project Goals

- Engage stakeholders throughout the planning process to inform community values and priorities.
- Summarize and obtain information regarding the biological, hydrological, and geomorphological condition of identified stream reaches in the Rio Grande watershed.
- Define and prioritize environmental, recreational, and community values.
- Develop goals to improve flows and physical conditions needed to support values.
- Outline actions to achieve measurable progress toward maintaining or improving goals.
- Identify opportunities and constraints for implementation of projects, and additional data needed to inform project development.

Overview

Geography:

The Rio Grande Basin is in southern Colorado and consists of a high desert valley floor surrounded by mountains to the east and west. Limited reservoirs exist throughout the Basin to help moderate fluctuations in streamflow and to provide agricultural users water in the irrigation season. The geographic scope includes the mainstem Rio Grande, Conejos River, and Saguache Creek. These priority areas were chosen based on the enthusiasm of local stakeholders.



Users:

Agriculture accounts for 99% of the water used in the Valley. While municipal and industrial water use is low, it is also dependent on available surface water. In addition, water is critical to the recreation and environmental values of the Basin. The Basin's tourism industry, much of which is water-dependent, accounts for 11% of employment in the area. Popular recreational activities include angling, hunting, wildlife and bird watching, winter sports, and boating activities.

Need for planning:

A number of stressors precipitate the need for stream management planning in the basin. Upland forests, providing the source waters for the Rio Grande have faced numerous disturbances in recent years, which pose cascading impacts to the rivers and their tributaries. Riparian areas in the basin have degraded over time, impacting their ability to provide critical habitat, buffer ecosystems and moderate hydrological function. While local stakeholders recognize the vital need to implement projects to address diverse concerns, the current condition of many rivers in the Basin is largely undocumented. This project will engage stakeholders to better understand the environmental, recreational, and community water needs and identify opportunities to improve the health of the Basin's streams for future generations.

Approach

Leadership and stakeholder engagement:

The Rio Grande, Conejos River, and Saguache Creek Stream Management Plans were initiated by the Stream Management Planning subcommittee of the Rio Grande Basin Roundtable, which prioritized reaches and developed the scope of work. The effort is managed by the Rio Grande Headwaters Restoration Project, which has a long history of working collaboratively with stakeholders in the region.

The Rio Grande, Conejos River, and Saguache Creek Stream Management Plans were completed through the following tasks:

1. Stakeholder Engagement: Throughout the planning process, the above partners and other community stakeholders were engaged through public meetings, surveys, and other events.
2. Summarize Existing Information: The technical advisory group and project coordinator partnered with stakeholders to compile existing information, including all relevant studies and land management plans, and identifed where additional data was needed to further the stream management planning efforts.
3. Physical Conditions Assessment: The physical conditions assessment included assessments of the following: riparian vegetation condition, hydrologic regimes, geomorphology, water quality, macroinvertebrate diversity, and an inventory and assessment of diversion infrastructure. Where possible, targeted sampling was used to meet identified data gaps where possible.
4. Identify and Prioritize Ecological, Recreational, and Community Values: Using information from the physical conditions assessment, project partners collected community feedback and identified recreation opportunities, ecological needs, and community values.
5. Develop Goals and Identify Methods for Implementation: Partners developed goals and methods to improve and protect the identified ecological, recreation, and community values.

The final deliverable, the Rio Grande, Conejos River, and Saguache Creek SMPs, list potential projects, including limits, constraints, and opportunities for implementation. Project partners and other stakeholders are using final SMP documents to guide the implementation of improvement projects.

Variables and Inventory Assessment Level

Depending on the purpose and scope determined by local stakeholders, assessments employ different methodologies to evaluate a suite of specific parameters related to stream health and ecosystem goods and services. The comprehensiveness of the data will vary depending on what is needed to answer core questions addressed by the SMP, ranging from less precise (general, often anecdotal or third-party information) to more precise (data-driven, quantitative metrics). The Rio Grande, Conejos River, and Saguache Creek Stream Management Plans are assessing the following variables to evaluate watershed health and delivery of ecosystem services.

	Variable	Assessment Level
Ecological Integrity:		
●	Existing Flow Regime	More precise
●	Future Flow Regime	Less precise
●	Sediment Regime	More precise
●	Water Quality	Moderate
	Network Connectivity	
●	Floodplain Hydrology	Moderate
●	Riparian Vegetation	More precise
●	Stream Corridor Dynamics	More precise
●	Structural Complexity	Moderate
●	Aquatic Biota	Moderate
Regulating and Maintenance:		
●	Flood Regulation	Moderate
●	Groundwater Recharge	Less precise
●	Erosion Control	Moderate
●	Pest Regulation	Moderate
●	Regulatory Compliance	Less precise
Provisioning:		
●	Agricultural Production	Less precise
●	Drinking Water Supply	Less precise
	Industrial Processing	
	Hydropower Production	
Cultural:		
●	Aesthetics and Intrinsic Values	Moderate
	Symbolic/Emblematic Species	
●	Boating Recreation	More precise
●	Angling Recreation	More precise

Budget

Contributing Entity	Amount and Form of Match
CWCB Watershed Restoration Fund	$118,000 cash
American Whitewater	$50,960 cash
CWCB CO Water Plan Grant	$39,200 cash
WaterSMART (Bureau of Reclamation)	$35,000 cash
San Luis Valley Conservation and Connection Initiative	$30,000 cash
San Luis Valley Water Conservancy District	$5,000 cash
Rio Grande Headwaters Restoration Project	$4,500 cash
Technical advisory team	$15,600 in-kind
Conejos Water Conservancy District	$5,000 in-kind
Total	$303,260

Photo credit by page: (1) Rio Grande near Hogback Mountain, D. Boyes, (3) Leah Weaver Collecting Macroinvertebrates on Conejos River, D. Boyes