

# Stream Management Plan Grantee Project Summary

## Yampa River Health Assessment and Streamflow Management Plan

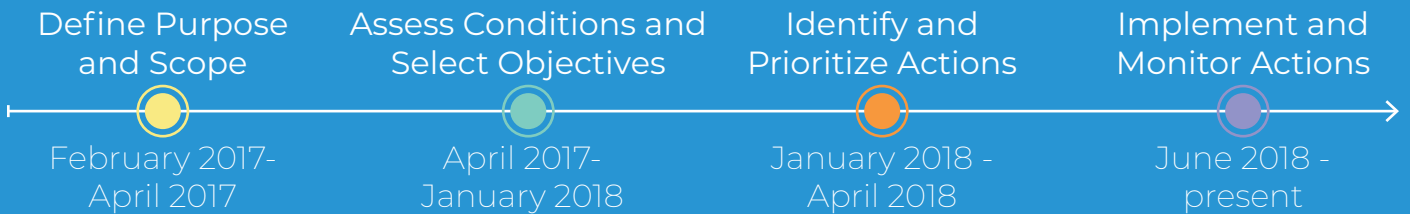
**Geographic Description:**  
Yampa-White-Green Basin:  
Yampa River through Steamboat

**Size:**  
12.5 river miles

**Project Homepage:**  
<http://bit.ly/YampaRHASMP>

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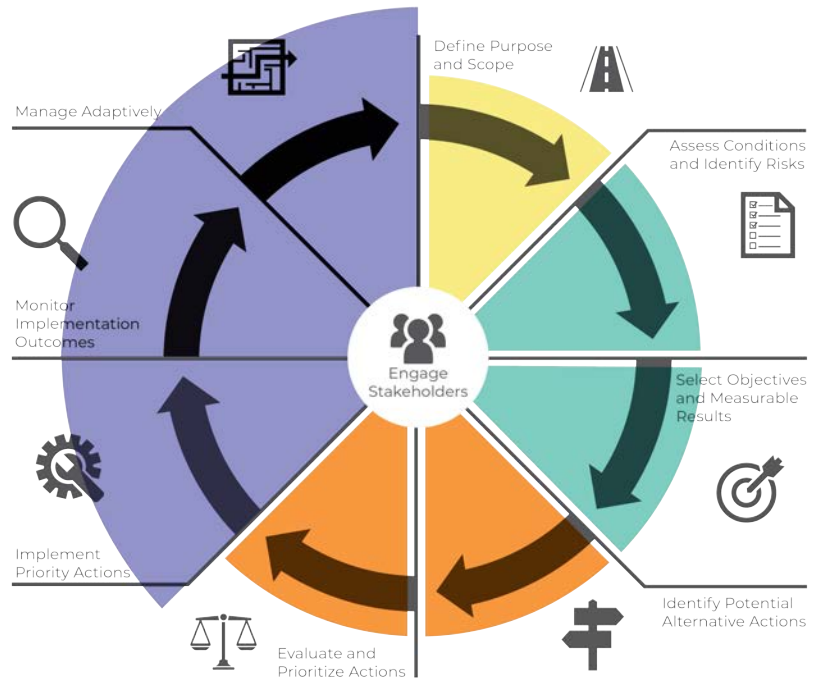
### Project Timeline



### 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

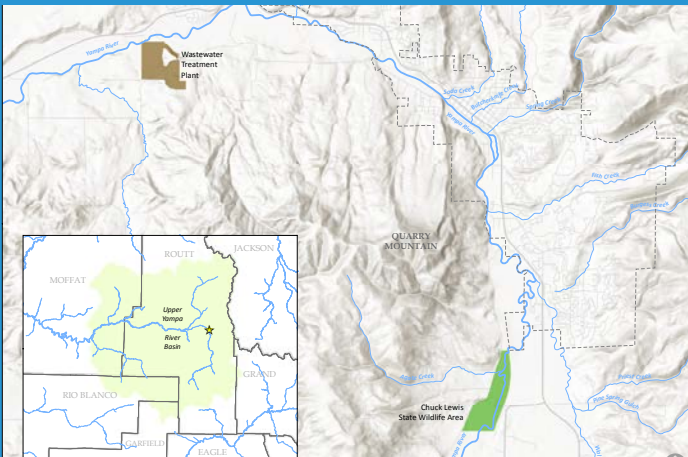
### Current Planning Phase



## Project Goals

- Build upon existing information to develop a science-based assessment of river system conditions and needs to inform decision-making and long-term monitoring
- Preserve and enhance healthy aquatic and riparian habitat by maintaining natural flow regimes, increasing floodplain connectivity, improving riparian vegetation, and promote native and sport fisheries
- Meet regulatory responsibilities including water quality and temperature standards
- Protect a strong local economy, particularly the agriculture and recreation sectors
- Establish integrated and flexible management strategies that align with other planning efforts and strengthen resilience and sustainability
- Foster a culture of shared stewardship of the Yampa River among stakeholders and community members

## Overview



### Geography:

The Yampa River is considered one of the most free-flowing rivers remaining in the Colorado River Basin system and it maintains a relatively natural flow pattern. The Yampa River Health Assessment and Streamflow Management Plan covers the stretch of the Yampa running through Steamboat, from the Chuck Lewis State Wildlife Area to the City of Steamboat Springs' wastewater treatment plant.

### Users:

Primary water uses in the Yampa River Basin through Steamboat Springs include:

- Agricultural uses for crops and pasture
- Recreational uses, including

tubing, boating, and fishing

- Domestic and municipal uses
- Snow-making
- Environmental to protect healthy ecosystem functions

### Need for planning:

In 2003, the City of Steamboat Springs adopted a Yampa River Management Plan, but policy changes, subsequent management, and increasing stress necessitated an update to the plan. Some of these increasing stressors include:

- Significantly depleted flows and such warm stream temperatures as to degrade water quality, aquatic habitat, and recreational value
- Climate change projected to result in warmer temperatures and potentially more drought and more short-duration intense rainfall events
- Population growth and increasing demand for water, which may exacerbate the conditions that placed the Yampa River on the State's 303(d) Impaired Waterbody List for temperature.

## Approach

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The City of Steamboat Springs initiated the plan and convened an advisory committee, representative of major stakeholder groups, to advise on the process. Advisory committee members included representatives from: Steamboat Springs Parks and Recreation, Steamboat Springs Public Works, Routt County Environmental Health, Colorado Parks and Wildlife, Community Agriculture Alliance, Friends of the Yampa, Upper Yampa River Watershed Group, Upper Yampa Water Conservancy District, Yampa Valley Fly Fishers/ Trout Unlimited Chapter, Colorado Water Trust, Trout Unlimited-Colorado Water Project, The Nature Conservancy, Colorado State University Extension, and River Network. The advisory committee hired Acclivity Associates to manage the project.

To evaluate the management alternatives available to the City of Steamboat Springs, an interdisciplinary team of scientists from EcoMetrics, Lotic Hydrological, and

Acclivity Associates conducted a river health assessment. They incorporated information from existing reports, available data, field surveys, and scientific models into a holistic assessment of river function. For the assessment, the 12.5-mile study area was divided into five segments, and each segment is further divided into 19 assessment reaches.



## Outcomes

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The plan recommendations focus on opportunities to meet management objectives, improve flow regimes and restore riparian and aquatic habitat:

- Streamflow management strategies using the city's water rights
- Land and stream restoration projects
- Land Use & Planning strategies related to managing where and how development occurs to help protect riparian areas and water quality. Examples are open space acquisition, conservation easements, incentive programs, water conservation measures, and zoning, floodplain, and setback ordinances.
- Education & Outreach opportunities including developing a K-12 Yampa River curriculum, establishing a Yampa River Water Fund, and improving education and awareness about river health and actions people can take to leverage existing programs and organizations.

A full list of prioritized actions can be found on the [Yampa River Health Assessment and Streamflow Management Plan website](#).

## 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 is 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 Yampa River Health Assessment and Streamflow Management Plan assessed 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	More Precise
●	Sediment Regime	More Precise
●	Water Quality	More Precise
●	Network Connectivity	More Precise
●	Floodplain Hydrology	More Precise
●	Riparian Vegetation	More Precise
●	Stream Corridor Dynamics	More Precise
●	Structural Complexity	More Precise
●	Aquatic Biota	More Precise
Regulating and Maintenance:		
	Flood Regulation	
	Groundwater Recharge	
	Erosion Control	
	Pest Regulation	
●	Regulatory Compliance	More Precise
Provisioning:		
	Agricultural Production	
	Drinking Water Supply	
	Industrial Processing	
	Hydropower Production	
Cultural:		
●	Aesthetics and Intrinsic Values	Less precise
●	Symbolic/Emblematic Species	Less precise
●	Boating Recreation	Less precise
●	Angling Recreation	Less precise

## Budget

Contributing Entity	Amount and Form of Match
CWCB Watershed Restoration Fund	\$51,875 cash
Yampa-White-Green Basin Roundtable	\$21,000 cash
City of Steamboat Springs	\$31,060 cash
Routt County	\$5,000 cash
Yampa Valley Flyfishers (TU Chapter)	\$5,000 cash
City of Steamboat Springs	\$12,000 in-kind
<b>Total</b>	<b>\$125,935</b>

Photo credits: City of Steamboat Springs



**COLORADO**  
Colorado Water  
Conservation Board  
Department of Natural Resources