

## **Final Report**

**GRANTEE and FISCAL AGENT (if different): Routt County Conservation District**

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**PROJECT NAME: Upper Yampa River State of the Watershed Report**

**GRANT AMOUNT: \$15,000.00**

### **Project Progression**

The Upper Yampa River State of the Watershed Report (SOTWR) process began with the Upper Yampa River Technical Committee's (TC) review of other SOTWRs throughout the west. From this review, the committee was able to scope our needs and desired outcomes. The United States Geological Survey's (USGS) [Water-Quality Assessment and Macroinvertebrate Data for the Upper Yampa River Watershed, Colorado, 1975 through 2009](#) was the main source of data for the report as it compiled data over thirty years and determined the different influences and factors to the water quality of our Basin. Through this report and the discussions that took place at a committee level, much additional information was required.

The TC utilized the assistance of both the Colorado Dept. of Public Health and Environment's (CDPHE) Water Quality Control Commission (WQCC) and the USGS researchers that wrote the aforementioned report. The TC made sure it understood the process that the CDPHE WQCC took to list impaired water bodies on Regulation 93 303(d) list and how that process and data compared to the science that USGS had collected.

Through this process of understanding, the Technical Committee learned a lot about what we don't know, and how little we did know. The TC recorded data gaps, which were deduced by reviewing the period of record, and the seasonal variability of that data, and the locations. In many circumstances, impaired segments on the 303(d) list did not have sufficient data to inform a trend analysis.

Prior to the watershed group formation, several entities funded the Upper Yampa River Water Quality Monitoring Program through USGS and collection began in 2010. In 2015, after five years of collection, the TC will recommend that USGS preform analysis, and the TC will be part

of this review process. This analysis will give a better understanding of trending and current water quality.

The TC held four sub-basin meetings, one in each of the subbasins with the exception of a combined meeting for the less populated region of the Middle Yampa and Elkhead Creek subbasin (fig. 1). The intent of the meetings was to speak candidly with water users and land managers about their observations of issues impacting both water quality and quantity. The meetings were well attended and diverse and the TC received good information for both the SOTWR and future watershed planning.

#### Meeting Listing:

- Bear River subbasin Colorado Parks & Wildlife (CPW), United States Forest Service (USFS), private & public water providers, Colorado Division Water Resources (DWR), private landowners, Routt County)
- Town of Oak Creek
- Town of Yampa
- Walton Cr. Subbasin (Private and public water and waste water treatment providers, CPW, USFS, Routt County, private landowners, Restoration contractors)
- Ski Corp.
- Yampa River Legacy Partnership (USFS, CPW, Routt County, The Wilderness Society, The Nature Conservancy (TNC), Conservation Colorado, Bureau Land Management, Yampa State Park, City of Steamboat, City of Craig, Moffat County, Friends of the Yampa, Yampa White Green Roundtable)
- City of Steamboat Springs Stormwater Task Force
- Elk River subbasin (Private and public water and waste water treatment providers, CPW, USFS, Routt County, private landowners)
- Middle Yampa & Elkhead Creek subbasins: (Private and public water and waste water treatment providers, CPW, USFS, Routt County, private landowners, Yampa Valley Flyfishers, Peabody Energy, Excel Energy)
- Morgan Bottom water users (private landowners, TNC, restoration contractors)

- Yampa White Green Basin Roundtable
- Routt County Board of Commissioners
- Yampa Valley Sustainability Council “Talking Green” event

Observations of watershed health issues and understandings of further water quality impairments were discussed at length during these meetings, as was the intent of the report and the following watershed planning process.

Because the TC had decided at an early stage to only include quality controlled data, observations through the group for a loop. At the end, the TC determined that observational information, when stated as such, was an acceptable and necessary inclusion to the document.

The TC engaged the work of several technical ArcView contractors to create maps that would document the factors that influence water quality throughout the watershed. This was a trying process as well, as there are not many local contractors who perform this work, and it became clear that we needed someone who could attend our meetings. Finally, we were able to work with a GIS student to perform necessary work that would meet our expectations of the report.

By the end of the process, many additional people began taking interest in the process and we had about 13 people reviewing and suggesting. Overall, the process was smooth, but lasted longer than expected. However, the TC believes the outcome was worth the wait. The goal of the report was to give the public a general understanding of watershed health in our basin, which could additionally serve to inform their participation in upcoming planning stages. The TC believes that upon the July delivery of the Report online and by hard-copy, this goal will be accomplished. The report is currently in final production stages.

## OBJECTIVES

- **Activities:** The inventory will rely heavily upon existing data that has been collected by the USGS Water Quality Assessment, the 208 Plan, and the CDPHE water quality monitoring data. A data call will be conducted for additional data that will include GIS maps, data documents, and summaries of existing studies and reports. **Accomplished**

The State of the Watershed Report will analyze inventory data to assess existing/baseline conditions. The SOTWR did not analyze data because the TC felt that the analysis USGS did through the Water Quality Assessment was complete. The Report will identify known, emerging and perceived issues, as well as the causes and/or sources of nonpoint source pollution. Accomplished and expanded to include general water quality health.

- **Target Results:** Well-organized, publicly accessible and comprehensible data; increased access to information; documentation of data needs/gaps. Accurate characterization of known, emerging, and perceived conditions; shared understanding of watershed needs and threats to water quality; Accomplished. Assessment of the extent of problems to be addressed; and identification of the causes or sources that will need to be controlled to achieve load reductions: Because of the data gaps, the extent of problems was not addressed and the identification of sources was not found to be determinable at this stage. This will likely be a prioritized project of the upcoming watershed planning process.
- **Products:** State of the Watershed Report that summarizes existing data and includes maps; prioritization of data needs. Accomplished. An Information Management Plan that describes how information is stored, backed up, and shared. At this time, the UYRWG is relying on the USGS collection and storage of all data as per the contract for the Upper Yampa Water Quality Monitoring Program.

## TASKS

Provide a detailed description of each task using the following format. Detailed descriptions are only required for CWCB funded tasks. Other tasks should be identified but do not require details beyond a brief description.

### TASK 1 –Watershed Inventory

#### Description of Task

The inventory will rely heavily upon existing data that has been collected by the USGS Water Quality Assessment, the 208 Plan, and the CDPHE water quality monitoring data.

### Method/Procedure

A data call will be conducted for additional data that will include GIS maps, data documents, and summaries of existing studies and reports. Additional quality controlled and quality assessed data was not available for our basin. Instead thorough review and comprehension of USGS data as well as observational data was prioritized.

### Deliverable

An Information Management Plan that describes how information is stored, backed up, and shared. At this time, the UYRWG is relying on the USGS collection and storage of all data as per the contract for the Upper Yampa Water Quality Monitoring Program.

## **TASK 2 –State of the Watershed Report**

### Description of Task

The State of the Watershed Report will analyze inventory data to assess existing/baseline conditions. The Report will identify known, emerging and perceived issues, as well as the causes and/or sources of nonpoint source pollution.

### Method/Procedure

Accurate characterization of known, emerging, and perceived conditions; shared understanding of watershed needs and threats to water quality; assessment of the extent of problems to be addressed; and identification of the causes or sources that will need to be controlled to achieve load reductions. Using the results of Task 1 to complete these efforts. Because of the data gaps, the extent of problems was not addressed and the identification of sources was not found to be determinable at this stage. This will likely be a prioritized project of the upcoming watershed planning process. Additionally, the compilation of geologic and land-use information within said boundary, and a summary of water management will be included. Accomplished.

### Deliverable

A State of the Watershed Report that summarizes existing data and includes maps; prioritization of data needs. Well-organized, publicly accessible and comprehensible data; increased access to information; documentation of data needs/gaps. Accomplished.

