

## CHAPTER 1: INTRODUCTION AND BACKGROUND

The Dolores River begins in the San Juan Mountains of southwestern Colorado at Lizard Head Pass and continues in a southwesterly direction downstream through the small mountain town of Rico and the unincorporated community of Stoner. From Stoner the river continues to Dolores before discharging into McPhee Reservoir, which is located on the western boundary of the Town of Dolores. After the reservoir, the Dolores River has a much different character, flowing in a northwesterly direction through the plains before discharging into the Colorado River in Utah. The focus of this report is the Upper Dolores River, specifically through the Town of Rico at about elevation 8,700 feet.

Rico is a small historic mining town with a population of less than 200 people. The town holds true to its roots as a mining town, and there are many remnants of the historic mining and ore processing. The mine tunnels, adits, tailings piles, and settling ponds are clearly evident throughout the valley.

The Dolores River Valley through the Town of Rico has experienced, and will continue to experience manmade impacts from mining and development, prompting the need for watershed protection and preservation. Problems with mine tailings and seeps, bank erosion and encroachment into the river corridor are being experienced in the Dolores River Valley, leading to water quality degradation, loss of aquatic life, reduction in riparian vegetation and habitat, and loss of floodplain function.

The reach area of focus for this study includes 37,000 feet (7 miles) along the Dolores River beginning at the upstream point about 2 miles upstream of Rico at the new municipal well site, downstream to the Montezuma County line. The “urbanized” reach of the Dolores River within the Rico Town boundaries is about 7,800 feet (1½ miles). Although Silver Creek, an east bank tributary of the Dolores River through Rico, is significant to the Town, the scope of this project was limited primarily to the main stem of the Dolores River.

### BACKGROUND

The Town of Rico submitted a “Colorado Watershed Protection Fund” (CWPF) grant application in 2003 to the CWCB to obtain funding for analysis of stream restoration along the Dolores River through the town of Rico. Although that application was not selected, funding from another source was made available through the Colorado Water Conservation Board (CWCB), and the town of Rico was awarded a grant. Rico was provided with the services of a State on-call engineering firm as a grant to assess watershed protection. On April 22, 2004, the CWCB contracted with Matrix Design Group, Inc. (Matrix) to study watershed protection for the Town of Rico.

The Dolores River and its tributaries are of concern to the residents of the Town of Rico and other downstream communities, along with state and federal regulatory agencies. The following meetings were held with those stakeholders to develop this Watershed Plan:

April 5, 2004	Discuss Scope of Work and Project Plan with the EPA
May 19, 2004	Town Board Meeting and Initial Site Meeting in Rico, Colorado
June 8, 2004	Coordination Meeting with the EPA
June 14, 2004	Coordination Meeting with the EPA to discuss the St. Louis Ponds
June 18, 2004	CWCB Site Meeting with Town of Rico to refine the Project Scope
June 25, 2004	Coordination Meeting with the CWCB to finalize initial report
July 7, 2004	Coordination Meeting with the EPA
July 26, 2004	Coordination Meeting with Town of Rico
August 24, 2004	Presentation to the Town Planning Commission and Stakeholders

## WATERSHED ISSUES

The Dolores River Watershed Workshop on August 24, 2004 at the Rico Town Hall was sponsored by the Town of Rico to review Matrix's initial work, including the preliminary list of issues of watershed protection. Approximately 20 stakeholders, officials and concerned citizens attended the workshop. Stakeholders, residents, community officials and regulators in the Dolores Valley finalized a list of river corridor issues which included:

- River water quality
- Mine tailings adjacent to the river
- Heavy metals inflows
- Mine seepage
- Hot springs discharges
- Preservation of wetlands and riparian vegetation
- Fishing and wildlife habitat
- Public access for fishing, boating and other recreation
- Channel instability
- Flooding
- Development pressure

Based upon needs identified by members of the Dolores River Valley stakeholders, this project addresses concerns of river management through the Town of Rico. This purpose of this study is to look at the river comprehensively and to make management recommendations without regard for jurisdictional boundaries.

In the course of the meetings, the following river issues were generally ranked as major concerns on the Dolores River and its tributaries to be addressed in this regional study:

### Hierarchy of River Issues

#### *High Priority Issues:*

- Protection/improvement of river water quality
- Reduction of direct mine seepage into the river
- Maintenance and protection of the wetlands and riparian corridor
- Protection/restoration of riparian and aquatic habitat

#### *Medium Priority Issues:*

- Bank stabilization using "biological" approaches versus "hard controls"
- Protection of existing infrastructure, such as roads, sewage treatment facilities and water delivery facilities
- Clarification of existing regulatory requirements for work along the river

#### *Moderate Priority Issues*

- Maintenance and protection of the floodplain
- Provisions for public access to the river

## **GUIDING PRINCIPLES**

The goal of this study is Watershed Protection. Guiding Principles for the development of this assessment of the Dolores River include:

- Adopt a watershed-based approach whereby the resources of the river system are managed in a holistic manner.
- Encourage public involvement through the planning processes and respond to concerns raised.
- Enhance aquatic and wildlife habitat along riparian areas and promote recreational benefits to galvanize public support for channel improvement programs and encourage multiple use of river resources.
- Devise strategies that improve water quality in the Dolores River.
- Promote protection of property from inherent river flood hazards. This includes identification of flood prone areas, tributary watersheds that experience instability or sediment loading problems, and channel instability hazards.
- Select mitigation strategies that fit into a comprehensive plan to address all identified watershed issues to the fullest extent possible.

## **SCOPE OF THE PROJECT**

The residents of the valley recognize the need to rely upon the river and live in harmony with it, and therefore support the need to gain a greater understanding of these issues. The overall purpose of the Dolores River Watershed Project is to compile information on important river issues, to identify causes of problems and conflicts, and to develop potential strategies for addressing those issues. This watershed report is organized into the following areas:

- Chapter I - Introduction and Background
- Chapter II – Reach Descriptions
- Chapter III - Environmental Issues
- Chapter IV - River and Floodplain Issues
- Chapter V – Habitat and Recreation
- Chapter VI - Potential River Restoration