

23. Nonpoint Source Assessment

The Chico Creek Watershed covers about 736 square miles and about 37 square miles are in crop production. Most of the land owned by the state is used for livestock rangeland. The primary nonpoint source issue of concern in this region is from increasing urbanization in El Paso County.

The five biggest nonpoint source issues are:

- Livestock and grazing;
- Agriculture;
- Natural resource management; and
- Onsite Wastewater Treatment Systems.

23.1. Livestock and Grazing

Most of the livestock and grazing is currently within the Chico Creek Basin and is limited to the two main ranches, Bohart and Chico Basin. The Chico Basin Ranch is a working cattle ranch on the high prairie and is owned by the State of Colorado. It is leased by Duke and Janet Phillips and their family for a 25-year term that began November 1, 1999. Its sprawling ranges of shortgrass and sand sage prairie, spring-fed lakes, meandering creeks, and hidden pools are home to a diverse wildlife population of birds, pronghorn, deer, fish, prairie dogs, coyote, badgers, and more. The Chico Basin Ranch is dedicated to the enhancement and preservation of the natural world and western heritage. The mission of the ranch is to create a working model that views the ranch as an ecological resource base. This base supports a complementary mix of enterprises that emphasize sustainability, innovative management, and diversification as the keys to economic and ecological viability.

23.2. Agriculture

There currently appears to be limited agriculture activities, and potential sources of agriculture contamination include:

- Pesticides and fertilizer storage, mixing, loading, and inappropriate application practices;
- Back-siphoned agriculture chemicals (application of agriculture chemicals through irrigation systems is regulated by the Colorado Department of Agriculture

<https://www.colorado.gov/pacific/agconservation/groundwaterprotection> and their rules require backflow prevention be installed and inspected;

- Animal waste stockpiles or lagoons; and
- Daily barn wastes.

23.3. Natural Resource Management

Some of the problem statements identified through the Chico Basin Conservation Leadership Initiative (2002), which focused on concerns and issues in the Chico Creek Subwatershed, are:

- Growth; fragmentation; encroachment impacts to the land, ecosystems, plants and animals.
- Ecological and economic viability of basin without water.
- Proper management and mitigation.
- Economics of land development and options and opportunities to generate dollars to develop land and develop a vision and action to change economics.
- Lack of knowledge/understanding and ability to value the area.

23.4. Onsite Wastewater Treatment Systems (OWTS)

Onsite wastewater systems effluent is the most common water quality concern in rural areas that do not rely on central wastewater services. This is largely a result of OWTSs that are improperly installed or poorly maintained and may cause bacterial and chemical contamination. Groundwater contamination is especially important because of the number of groundwater wells in the area that are utilized for drinking water. Because Fountain Creek and Chico Creek Watersheds are within El Paso County, the OWTS issues associated with the Chico Creek Watershed are included in the Nonpoint Source Assessment Section of the Fountain Creek Watershed (Section 8.4).

23.5. Urban and Construction Activities

Urban and construction activities planned in the watershed, especially in the Upper Black Squirrel Creek Drainage, could have the following effects if not closely monitored:

- New development can decrease the recharge rates of the aquifers by replacing

pervious surfaces with impervious surfaces.

- Impervious surfaces can lead to increased stormwater runoff and increased velocity.
- Impacts to riparian and wetland areas.
- Pollutants such as oil and grease in stormwater runoff from urban activities.