

Technical Memorandum 5.1

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Platte River Basin Water Plan

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SUBJECT: Platte River Basin Water Plan
Section 5.1 – Issues Affecting Future Water Use Opportunities

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PURPOSE: The Platte River Basin Plan is a planning tool developed for the Wyoming Water Development Office. It presents estimated current and estimated future uses of water in Wyoming's Platte River Basin. The Plan is not used to determine compliance with or administration of state law, federal law, court decrees, interstate compacts, or interstate agreements.

5.1 ISSUES AFFECTING FUTURE WATER USE OPPORTUNITIES

5.1.1 Introduction

The purpose of this technical memorandum is to identify and briefly describe issues that may potentially impact or restrict future water use opportunities in the Platte River Basin. These issues vary significantly in nature, ranging from broad issues such as financing and political concerns to more specific issues such as state and federal regulatory requirements. Some of these issues are addressed in other Basin Plan technical memoranda, and as a result are referenced only briefly in this technical memorandum. Much of the information that is summarized in this technical memorandum was obtained from the internet sites that are referenced in the memorandum.

5.1.2 Water Availability

Water cannot be developed for beneficial use if it does not exist. In Wyoming, where water is a precious and sometimes scarce resource, water development for beneficial human use has been and will continue to be based on both the physical availability of water and conformance with Wyoming laws and regulations governing the allocation and use of state water. Throughout Wyoming history, both successful and unsuccessful attempts to develop water resources have been undertaken in an environment of competing interests, litigation, U.S. Supreme Court decrees, and interstate agreements.

Wyoming water law originated before statehood and is based on “the doctrine of prior appropriation.” Under this doctrine, the first person to obtain a permit from the Wyoming State Engineer’s Office (SEO) and to put the water to beneficial use has the first right, meaning, “first in time is first in right.” As a result, water rights and water use are regulated in the state by priority. In addition, the Wyoming Constitution states that waters from “all natural streams, springs, lakes, and other collections is the property of the state.” The Wyoming State Engineer is the chief administrator of Wyoming water.

Wyoming Water Law: A Summary is available from the SEO in Cheyenne and at seo.state.wy.us/docs.aspx. *A History of Water Law, Water Rights & Water Development in Wyoming, 1868-2002*, which is significantly longer and more detailed than the SEO water law summary, is available from the Wyoming Water Development Commission (WWDC) office in Cheyenne and at <http://wwdc.state.wy.us/waterlawhistory.html>.

5.1.3 Funding

If water is physically and legally available for development, future water use opportunities in the Platte River Basin will be implemented only if funding is available for planning, designing, constructing, and/or operating any of a variety of water-oriented facilities and structures. Several major sources of funding for water projects in Wyoming are discussed below.

Wyoming Water Development Commission (WWDC)

The Wyoming Water Development Commission (WWDC), including a 10-member appointed board and a professional staff, administers state funding of water development programs. WWDC administers:

- new water development programs, which are focused on development of unused and/or unappropriated water
- rehabilitation programs, which are focused on improving existing water systems
- water resource planning programs, of which this Basin Plan is one component

Projects begin with an application from a project sponsor. The applications are due by September 15th and must include a \$1,000.00 filing fee. A WWDC staff member will then tour the proposed project site and determine if it meets WWDC eligibility criteria. The new applications are then presented to the WWDC and the Wyoming legislature's Select Water Committee for funding approval from the New Development or Rehabilitation programs.

WWDC provides funding for a variety of new development water projects based on the following prioritized categories:

- multipurpose programs
- water storage projects
- new water supply projects
- new supply (conveyance) system projects
- hydropower projects
- purchase of existing storage projects
- watershed improvement projects
- recreation projects
- Drinking Water State Revolving Fund projects

WWDC projects may be categorized as Level I preliminary analyses and comparisons of alternatives; Level II feasibility studies which include design and technical services; and Level III construction projects. WWDC provides a detailed description of application procedures, eligibility criteria, and related information for use by entities wishing to apply for WWDC water project funding. Detailed information regarding WWDC funding of Wyoming water development projects may be found at: <http://wwdc.state.wy.us/opcrit>.

Wyoming Department of Environmental Quality (WDEQ)

Several types of funding for watershed management projects are available from the Wyoming Department of Environmental Quality (WDEQ), including:

- 205j Funds, named for Section 205j of the federal Clean Water Act, to establish water quality monitoring programs when available existing water quality data are inadequate to assess local water quality conditions
- 319 Funds, named for Section 319 of the federal Clean Water Act, to implement new non-point source pollution water quality improvement projects or to evaluate the effectiveness of ongoing projects

In addition, WDEQ administers the State Revolving Fund for publicly owned drinking water, wastewater, stormwater, and non-point pollution remediation projects. Information regarding WDEQ watershed management programs is available at <http://deq.state.wy.us/wqd/watershed>, and information regarding the WDEQ State Revolving Fund program is available at <http://deq.state.wy.us/wqd/srf/revolvingfunds.asp>.

U.S. Department of Agriculture Rural Development Programs

The U.S. Department of Agriculture (USDA), with Platte River Basin offices in Torrington and Casper, administers several grant and loan programs for rural water projects, including:

- Water and waste disposal direct and guaranteed loans for development of water and waste disposal systems in rural areas and small towns, and
- Water and waste disposal grants covering up to 75 percent of the costs of eligible rural water and waste disposal projects.

Additional information regarding the USDA and its programs in Wyoming is available at <http://www.rurdev.usda.gov/wy>.

National Resources Conservation Service

The Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service, SCS) of the U.S. Department of Agriculture (USDA) administers a wide variety of programs that provide funding for water-related programs, including but not limited to the:

- Wildlife Habitat Incentives Program (WHIP) to improve wildlife and fish habitat on private lands
- Wetlands Reserve Program to protect, restore, and enhance wetlands on private lands

- Watershed Program to protect and restore watersheds from damage caused by erosion and flooding and to conserve and develop water resources on a watershed basis

Information regarding the NRCS and the various funding and assistance programs that the agency administers is available at <http://www.nrcs.usda.gov/programs>.

5.1.4 Public Involvement

Public involvement, public opinion, and political activity at all levels are important but impossible to quantify or predict. These are issues that have affected and will continue to affect the development and implementation of water policies and programs in Wyoming's Platte River Basin. Government agencies and programs typically specify required opportunities for public input and involvement. Even when such involvement is not required, the public typically becomes aware of and involved in programs that directly affect the public. Given the essential role of water in all aspects of human activity in the Basin, public involvement will continue to play an important role in the development of the water resources of the Platte River Basin.

5.1.5 Court Decrees

Litigation and resultant court decrees have played a major role in allocation and use of Platte River Basin water resources. The 1945 North Platte River Decree, the 2001 Modified North Platte River Decree, and the Laramie River Decree are three major examples of court decrees that have significantly influenced water use in the basin. These decrees are discussed in Technical Memorandum 2.1.2.

5.1.6 Platte River Recovery Implementation Program

The Platte River Recovery Implementation Program (PRRIP) is a proposed federal and state program that was initiated in 1997 with the signing of the *Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitat Along the Central Platte River, Nebraska* (Cooperative Agreement). The Cooperative Agreement is the framework for an ongoing process, including:

- formation of a Cooperative Agreement Governance Committee
- development of a program to address endangered species issues in the Platte River Basin in central Nebraska
- preparation of a Draft Environmental Impact Statement (DEIS) under the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 through 4370e

The PRRIP will impact water development activities in Wyoming's Platte River Basin. The PRRIP is discussed in more detail in Technical Memorandum 2.5.

5.1.7 Water Quality Issues

Beneficial use of water resources is often dependent on the water quality of the resource – the types and concentrations of various chemical, biological, and physical water constituents. Water quality issues and ongoing efforts to measure and improve water quality in the Platte River Basin are discussed in Technical Memorandum 5.3.

5.1.8 Regulatory Issues

Numerous federal and state laws have been developed which could affect development of water resources in the Platte River Basin, in all of Wyoming, and throughout the United States. Major statutes pertaining to water resource development and use, not including Wyoming Statutes Annotated Title 41 which covers the authority of the Wyoming State Engineer's Office (SEO) and the Wyoming Water Development Commission (WWDC), are summarized below.

Wyoming Environmental Quality Act

The Wyoming Environmental Quality Act provides the statutory basis for the activities of the Wyoming Department of Environmental Quality. The Wyoming Department of Environmental Quality, Water Quality Division (WDEQ/WQD) administers and enforces a wide variety of rules and regulations pertaining to water quality. WDEQ/WQD rules and regulations include:

- Chapter 1 – Surface Water Quality Standards
- Chapter 2 – NPDES (National Pollutant Discharge Elimination System) Permitting Regulations
- Chapter 3 – Regulations for Permit to Construct, Install or Modify Public Water Supplies, Wastewater Facilities and other Facilities Capable of Causing or Contributing to Pollution
- Chapter 4 – Regulations for Release of Oil and Hazardous Substances into Waters of the State
- Chapter 5 – Certification of Operators of Public Water and Public Wastewater Treatment Plants, Public Collection and Public Distribution Systems
- Chapter 6 – Salinity Standards/Criteria for the Colorado River Basin
- Chapter 7 – currently not used
- Chapter 8 – Quality Standards for Wyoming Groundwater
- Chapter 9 – Wyoming Groundwater Pollution Prevention Program
- Chapter 10 – currently not used
- Chapter 11 – Design and Construction Standards for Sewerage Systems, Treatment Works, Disposal Systems or other Facilities Capable of Causing or Contributing to and Mobile Home Park and Campground Sewerage and Public Water Supply Distribution Systems
- Chapter 12 – Design and Construction Standards for Public Water Supplies
- Chapter 13 – Class I Hazardous Waste and Non-Hazardous Waste Wells: Underground Injection Control Program
- Chapter 14 – Financial Assurance Program
- Chapter 15 – Standards for the Use or Surface Disposal of Biosolids
- Chapter 16 – Class V Injection Wells and Facilities
- Chapter 17 – Underground Storage Tanks
- Chapter 18 – currently not used
- Chapter 19 – Financial Responsibility for Underground Storage Tanks
- Chapter 20 – Permitting, Design and Operation Standards – Confined Swine Feeding Operations

- Chapter 21 – Standards for Reuse of Treated Wastewater
- Chapter 22 – Capacity Development Standards for Public Water Supplies
- Chapter 23 – Minimum Standards for Subdivision Applications

These regulations are available from WDEQ/WQD Platte River Basin offices in Cheyenne or Casper or at <http://deq.state.wy.us/wqd/WQDrules/index.asp>.

Endangered Species Act

The federal Endangered Species Act (ESA), 16 U.S.C. §§ 1531 through 1544, was adopted in 1973 based on the intent to protect plant and animal species that are believed to be on the “brink of extinction” by protecting ecosystems that are inhabited by such species. The ESA is administered primarily by the U.S. Fish and Wildlife Service (USFWS) of the U.S. Department of the Interior (USDOI) and by the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce (USDC). Under the ESA, plant and animal species may be listed as either “endangered” or “threatened” based on assessment of the imminent or foreseeable risk of extinction. More specifically, the 1973 ESA:

- authorizes the determination and listing of species as endangered or threatened
- prohibits unauthorized taking, possession, sale, and transport of endangered species
- provides authority to acquire land for the conservation of listed species, using land and water conservation funds
- authorizes establishment of cooperative agreements and grants-in-aid to states that establish and maintain active and adequate programs for endangered and threatened wildlife and plants
- authorizes the assessment of civil and criminal penalties for violating the ESA or regulations
- authorizes the payment of rewards to anyone furnishing information leading to the arrest and conviction for any violation of the ESA or any regulation issued under the ESA

The Act also required that federal agencies insure that any action authorized, funded, or carried out by the federal agencies would not likely jeopardize the continued existence of listed species or modify their critical habitats. Numerous laws and regulations amending and revising the ESA have been implemented since its original adoption in 1973. (<http://laws.fws.gov/lawsdigest/esact.html>)

National Environmental Policy Act

The federal National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 through 4370e, requires federal agencies to “integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions” and by doing so on the basis of a “systematic interdisciplinary approach.” To meet this requirement, federal agencies prepare or require preparation of Environmental Impact Statements (EIS) for a wide variety of projects in which the federal government is involved, including many water development projects and related activities such as coal bed natural gas production. In addition to defining the EIS process, NEPA established the federal Council on Environmental Quality (CEQ), which oversees NEPA and develops NEPA policies and programs.

The NEPA process requires evaluation of the “environmental effects” of a federal project and assessment of alternative approaches to completing the project, including doing nothing. A project may not require a detailed environmental analysis if it meets criteria which have been determined by a federal agency to indicate that the project would not significantly impact the environment. If a project is anticipated to impact the environment, the first level of analysis required is preparation of an Environmental Assessment (EA). If the findings of the EA indicate that the project will not significantly impact the environment, the U.S. Environmental Protection Agency issues a Finding of No Significant Impact (FONSI). If an EA indicates potential project impacts to the environment, an Environmental Impact Statement (EIS) is required. An EIS is a more detailed evaluation of the project than is an EA and includes assessment of alternative approaches to completing the project. An EIS may be prepared without previous preparation of an EA if a pending project is considered likely to impact the environment. Additional information regarding NEPA is available at <http://www.epa.gov/compliance/resources/faqs/nepa/index.html>.

Clean Water Act

The Federal Water Pollution Control Act was passed in 1972 and amended in 1977, when this law became known as the Clean Water Act (CWA), 33 U.S.C. §§ 1251 through 1387. The CWA “established the basic structure for regulating discharges of pollutants into the waters of the United States.” Administered and enforced by the U.S. Environmental Protection Agency (USEPA) and corresponding state environmental agencies, the CWA provides legislation pertaining solely to protection of surface water, not to groundwater. CWA policies and programs have typically been adopted, sometimes enhanced, and enforced by state environmental agencies that are comparable to the Wyoming Department of Environmental Quality (WDEQ). Significant changes to the original 1977 CWA have included expanding regulatory focus from water chemistry to biological and physical properties and from point sources of potential water pollution to both point and non-point sources of pollution. (<http://www.epa.gov/watertrain/cwa/rightindex.htm>)

CWA regulation of point source water pollution is administered by the State of Wyoming through the Wyoming Pollutant Discharge Elimination System (WPDES). This permitting system provides site-specific discharge criteria for municipal wastewater treatment plants, animal feeding operations, industrial and commercial wastewater treatment plants, stormwater discharges in larger municipalities, and erosion and sedimentation control at construction sites. Additional information regarding the various WPDES programs can be obtained at <http://deq.state.wy.us.wqd>.

Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300F through 300J-26, was originally passed in 1974 and is the major federal law that is intended to protect public health by regulating the quality of public drinking water supplies and systems in the United States. Administered by the U.S. Environmental Protection Agency (USEPA) and corresponding state environmental agencies, the original 1974 SDWA was amended in 1986 and 1996. Under the SDWA, USEPA has established and continues to develop health-based “primary” maximum contaminant levels (MCLs) for a wide variety of water constituents. Public water supply systems are legally required to provide water in

which primary constituent concentrations are below MCL concentrations. Primary constituents or contaminants include a variety of microorganisms, disinfectants, chemical by-products of water disinfection processes, inorganic chemicals, organic chemicals, and radionuclides. The SDWA also identifies “secondary” or cosmetic/aesthetic maximum contaminant levels. Secondary MCLs are not health-related or legally enforceable and include recommended MCLs for water constituents that may negatively impact water taste, odor, or color.

In addition to regulating public drinking water supply constituents, the SDWA regulates source water protection, water supply system operator training, funding for water system improvements, and required dissemination of public information regarding local public water supplies. SDWA regulations apply to about 160,000 public water supply systems in the United States. Additional information regarding the SDWA is available at <http://www.epa.gov/safewater/index.html>.

5.1.9 Conclusions

Future development and use of water in Wyoming’s Platte River Basin may be limited or otherwise impacted by a variety of factors, including:

- Water availability: Future Basin water development and use will be based on both the physical availability of water and the legal right to utilize water under Wyoming’s doctrine of prior appropriation for a planned beneficial use.
- Funding: Water development and use typically require financial expenditure to determine the physical availability of water, to obtain the legal right to develop water, and to design and construct the infrastructure required to beneficially use the water. A number of agencies and programs provide funding for water projects, including the Wyoming Water Development Commission (WWDC), the Wyoming Department of Environmental Quality (WDEQ), the U.S. Department of Agriculture Rural Development Program, and the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture.
- Public involvement: Public involvement has impacted and will continue to impact future Basin water development as people holding differing views on the allocation of limited Basin water resources participate in hearings and other components of the decision-making process regarding future Basin water development and use.
- Court decrees: Development and use of Platte River Basin water has been—as seen in the provisions of the 1945 North Platte River Decree, the 2001 Modified North Platte River Decree, and the Laramie River Decree—and may continue to be the basis for a significant amount of litigation, arbitration, and/or the issuing of decrees that directly affect Basin water development and use.
- Platte River Recovery Implementation Program (PRRIP): This ongoing federal and state program, which has been developed as part of the 1997 *Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitat Along the Central Platte River, Nebraska*, will certainly impact future Basin water use and development.

- Water quality: Successful beneficial use of water for many purposes is directly related to the quality of available water; the quality of available water will certainly impact future Basin water development and use.
- Regulatory issues: Federal and state regulations are enforced to manage and control water development and use via regulations pertaining to design, construction, and operation of water-use facilities; the federal Endangered Species Act (ESA); the National Environmental Policy Act (NEPA); the federal Clean Water Act (CWA); and the federal Safe Drinking Water Act.