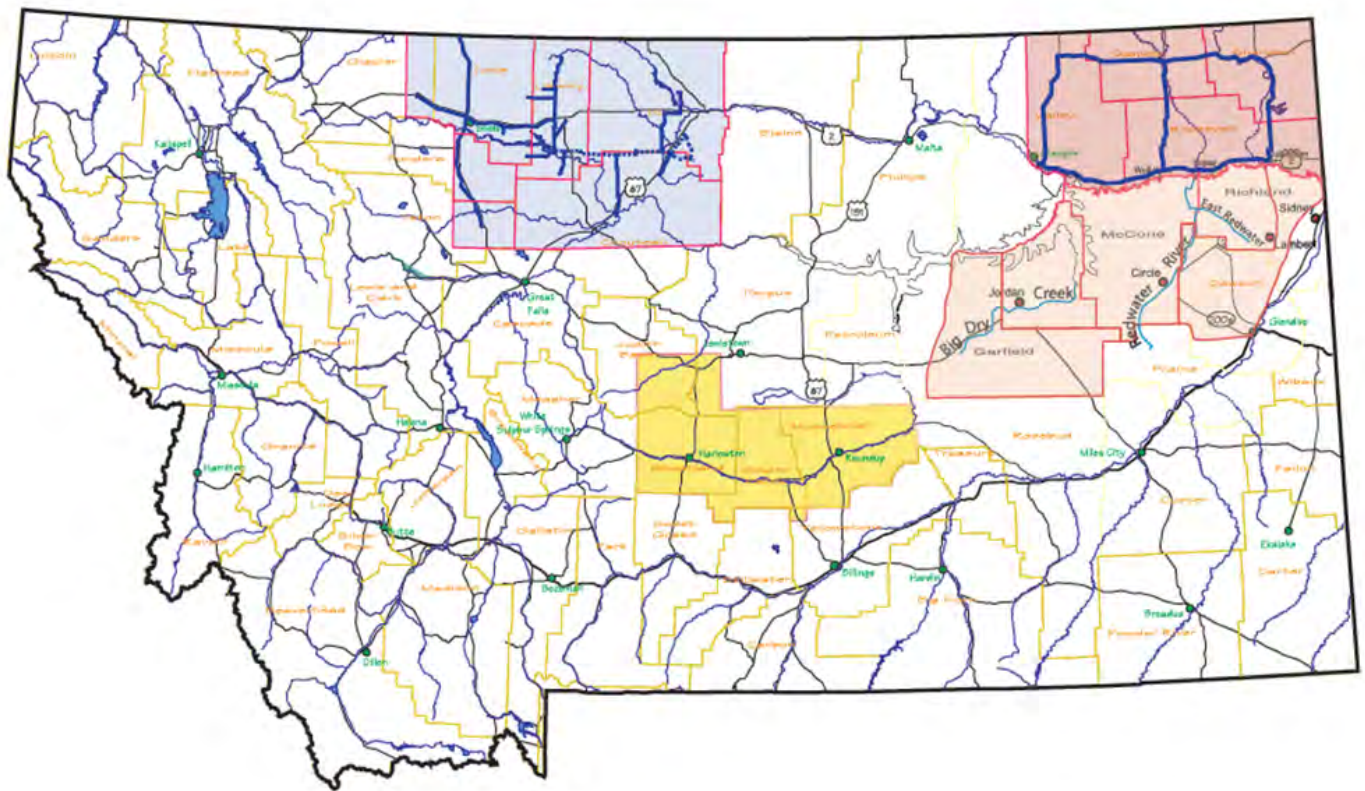


Montana's Regional Water Systems



Department of Natural
Resources and Conservation

January 2021

Montana's Regional Water Systems

Most of us have an ample supply of high quality drinking water. There are areas of Montana, however, where the tap water looks bad, smells or tastes worse, and does not meet federal drinking water standards. Some sources are highly mineralized or limited in quantity. Many rural water users and residents of some small communities haul their drinking water.

Four rural water systems are currently in various stages of development. The Fort Peck-Dry Prairie regional system has been under construction for more than 15 years, and Rocky Boy's-North Central for nearly 12 years. Currently (2021) in total, these systems deliver water to at least 26 communities or water districts, several public entities, and thousands of rural customers. The other two systems have progressed through planning and development stages and are currently designing or constructing pipeline projects. When these systems are all complete, tens of thousands of Montana households will receive clean and plentiful drinking water from regional water systems.

Every system is successful because of partnerships.

- The Dry Prairie Rural Water Authority began through efforts of local conservation districts and has teamed with the Assiniboine and Sioux Tribes of the Fort Peck Reservation; this system is slated for completion by 2023.
- The North Central Montana Regional Water Authority has teamed with the Chippewa Cree Tribe of the Rocky Boy's Reservation.
- The Dry-Redwater Regional Water Authority has received State Revolving Fund construction loans, and worked with county and local governments.
- The Central Montana Regional Authority is now Federally authorized and is in process of developing stronger relationships with State and Federal agencies.
- All four systems have relied on cooperation and funding from local communities, the U.S. Bureau of Reclamation, and the State of Montana.

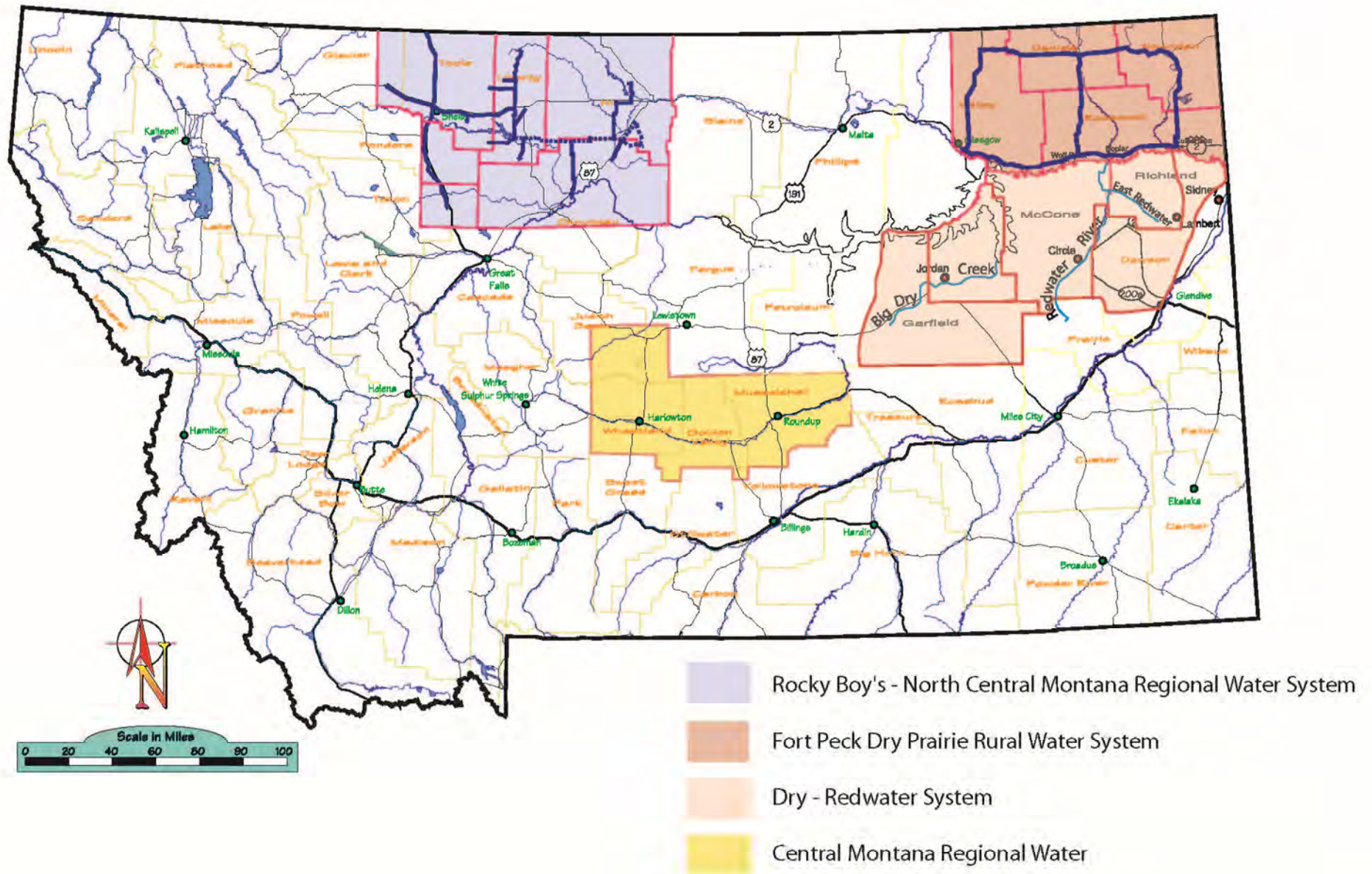


The Montana Department of Natural Resources and Conservation supports these systems by providing funding for all related activities including planning, community outreach, project coordination, design, construction and operational assistance.



Rick Duncan, DNRC
January 2021

AREAS TO BE SERVED BY REGIONAL WATER SYSTEMS



Fort Peck – Dry Prairie Regional Water System

The Fort Peck/Dry Prairie system is testimony that rural residents can work together to address long-standing drinking water problems.

– Clint Jacobs, Former General Manager of the
Dry Prairie Regional Water Authority (1997-2014)



*Wambdi Wahachanka Water Treatment Plant
near Wolf Point*

The Need

Northeast Montana has had an historical need for clean plentiful drinking water. Traditionally, groundwater has been the primary source of potable water in the area, with concentrations of dissolved solids and sulfates generally higher than secondary standards for drinking water. Consequently, tap water in the region has often been unusable for drinking and cooking. More recently, the region has experienced rapid population growth as development of oil reserves in the region intensified, increasing the demand for drinking water.

Formation of a Regional Water System

This system is the result of a successful joint venture between the Assiniboine and Sioux Tribes of the Fort Peck Reservation and nontribal individuals and communities adjacent to the reservation. The Assiniboine and Sioux Rural Water Supply Company partnered with the Dry Prairie Rural Water System to build a regional water system that is actively improving the quality of life for residents of northeast Montana. In October 2000, Congress authorized the Fort Peck - Dry Prairie regional water system. Construction began in 2003.

Construction Status

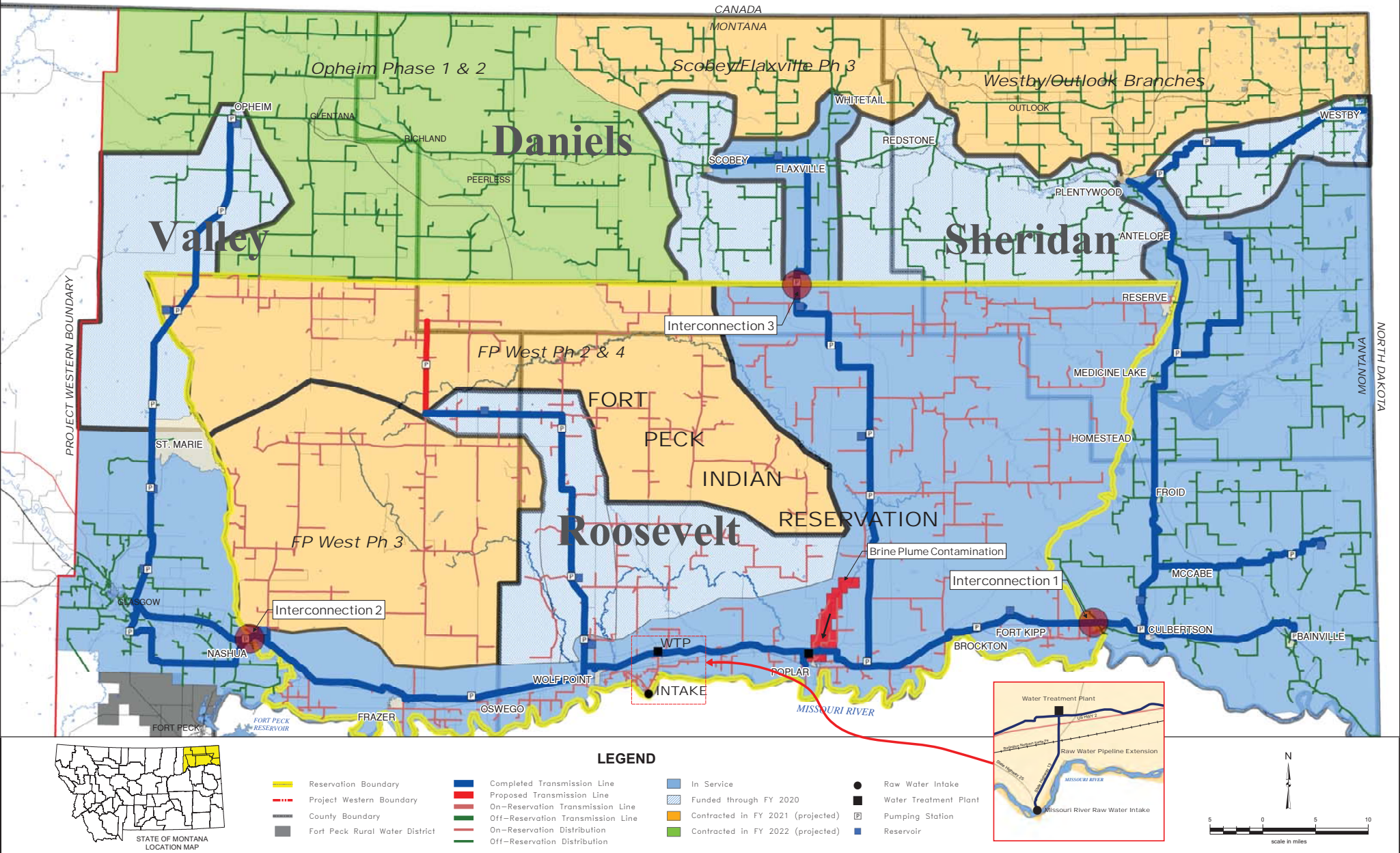
The Dry Prairie Rural Water System in 2021 is delivering water to about 3,500 service connections in ten communities and to 1,500 more rural households in Sheridan, Roosevelt, and Valley Counties. The Fort Peck Tribes constructed a raw-water intake from the Missouri River and a water treatment plant (WTP) near Wolf Point. Completed in 2012, the regional WTP soon began serving rural water users and communities in the southern portion of the system. When the entire regional project is finished, over 3,000 miles of pipeline will deliver drinking water to more than 20 communities and nearly 4,000 farms, ranches and rural homes.

The WTP several miles east of Wolf Point initially provided water to Poplar. With completion of the main transmission line to the Big Muddy, the southeastern boundary of the Reservation, in 2014, and conversion from chlorination to chloramination disinfection at the WTP in 2015, Dry Prairie began accepting water from the Fort Peck Tribes in mid-2015, including new service to the City of Plentywood. The Tribes also completed construction of the main transmission line to the southwestern boundary of the Reservation at Porcupine Creek in January 2016. In 2018 water was delivered to many more rural customers on the Reservation, and to Saint Marie and more housing developments around Glasgow. Early in 2021, service to Scobey, Flaxville, and Whitetail will begin, with service later in the year to Westby.

Cost

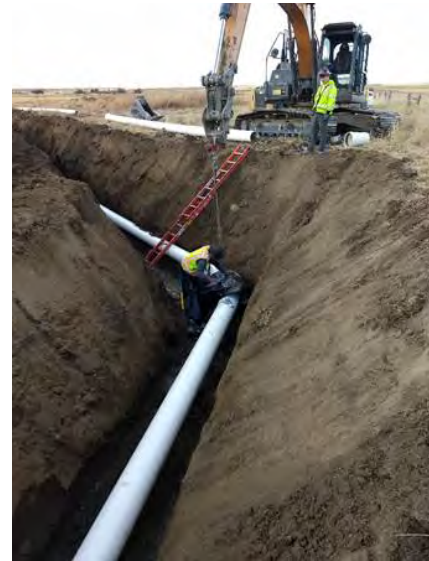
Total estimated project cost indexed to 2021 is \$342 million dollars. The Dry Prairie RWS indexed cost is \$120 million. The federal share will be \$91 million. The combined State and local share, or 24%, is \$29 million, of which the State has paid over \$18.2 million.

ASSINIBOINE AND SIOUX AND DRY PRAIRIE RURAL WATER SYSTEMS



Rocky Boys – North Central Regional Water System

*Pipe fitting Installation on
Shelby to Oilmont pipeline, 2018
-KLJ Engineering*



The Need

Poor quality and/or insufficient quantity of drinking water, aging infrastructure, and increasing costs for communities to comply with State and Federal public water supply requirements drive the need for the Rocky Boy's – North Central Montana shared drinking water system. Numerous member communities have either been out of compliance with drinking water requirements, or anticipate difficulty meeting future standards.

The Partnership

A water rights compact between the Chippewa - Cree Tribe of the Rocky Boy's Reservation and the State of Montana allocates water to the Tribe from Tiber Reservoir located south of Chester. The North Central Montana Regional Water Authority (NCMRWA) was formed to partner with the Tribe in managing off-reservation water delivery systems.

System Design

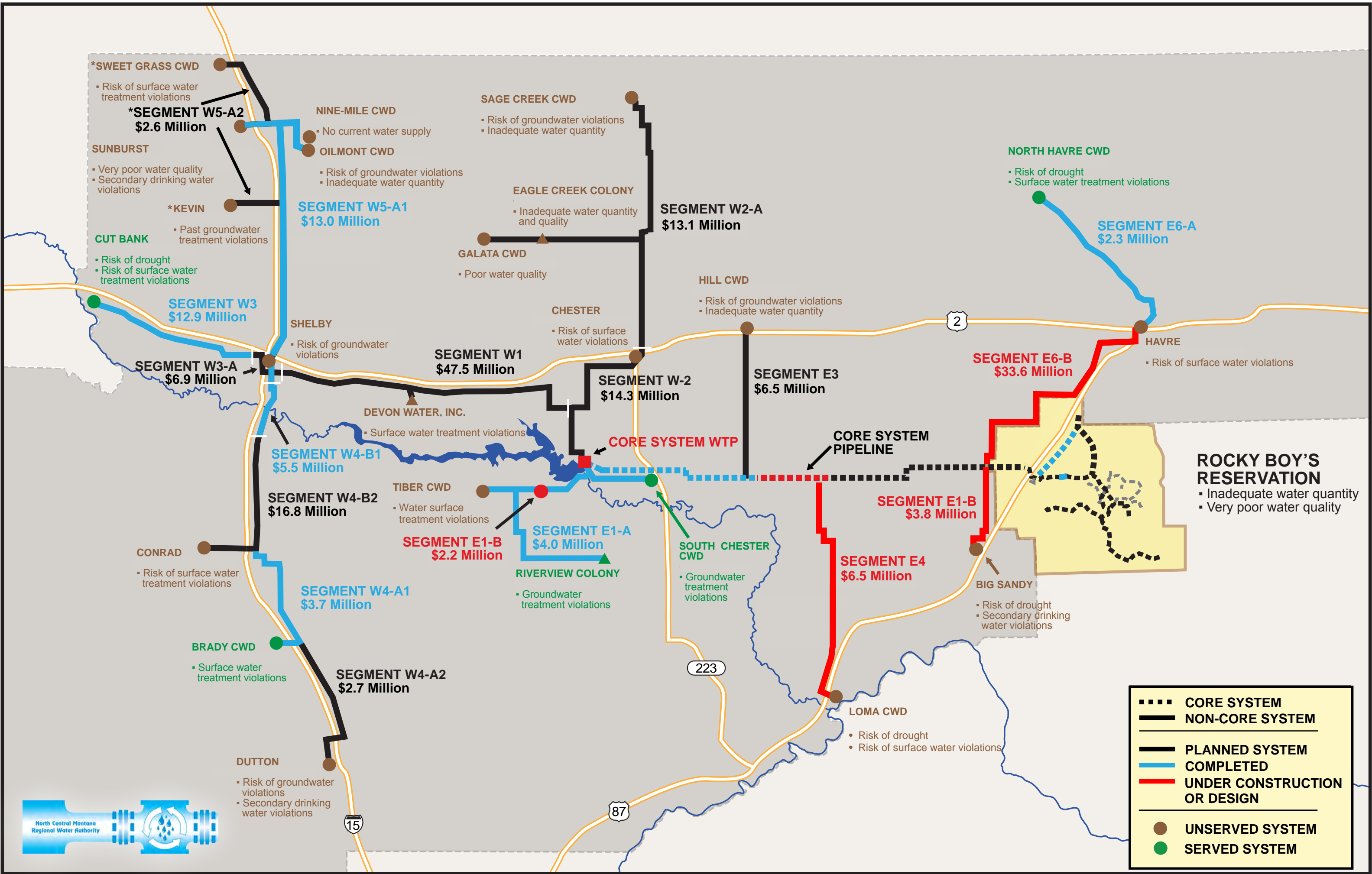
The entire system when constructed will consist of: shared infrastructure, including the raw water intake in Tiber Reservoir, the water treatment plant and main pipeline; and, two separately-managed systems that will distribute to on- and off-reservation communities and county water districts (CWD). The on-reservation system is managed by the Chippewa – Cree Tribe, which will also wholesale water to NCMRWA for distribution to off-reservation users. When complete, the entire system will serve over 10,000 households with a total estimated population of 28,000.

Construction Status

The Chippewa Cree Construction Company has finished construction on approximately 40% of the shared pipeline which will deliver water from the regional treatment plant to the Rocky Boy's reservation. Until the regional WTP is constructed, NCMRWA supplies drinking water to North Havre (City of Havre), Riverview Hutterite Colony & South Chester CWD (Tiber CWD), and Brady CWD (Conrad) using interim water supplies (as noted). These temporary solutions have helped alleviate numerous compliance and historical supply issues. NCMRWA finished construction of a pipeline from Shelby to Cut Bank, and another which will soon deliver water from Shelby's wellfield to the new Nine Mile CWD, Oilmont CWD and other area users.

Cost

Total estimated project cost indexed to 2021 is \$409 million. Combined State and local share of that is over \$48 million, with the Federal Government responsible for \$361 million of the cost of the shared infrastructure and Tribal water system.



Dry-Redwater Regional Water System



*DRWA Sidney Circle Water Improvements, Nov 2018
– Photo by Interstate Engineering*

Purpose and Need

The Dry-Redwater Regional Water Authority was formed in 2005 to own and operate a regional water system that would provide household and livestock water to the proposed service area. The project was established due to interest from local officials and residents of the counties of Garfield, McCone, Richland, north Dawson and a portion of Prairie in Montana and McKenzie County in North Dakota. The System as planned would serve over 15,000 residents, primarily utilizing water from Fort Peck Reservoir on the Missouri River.

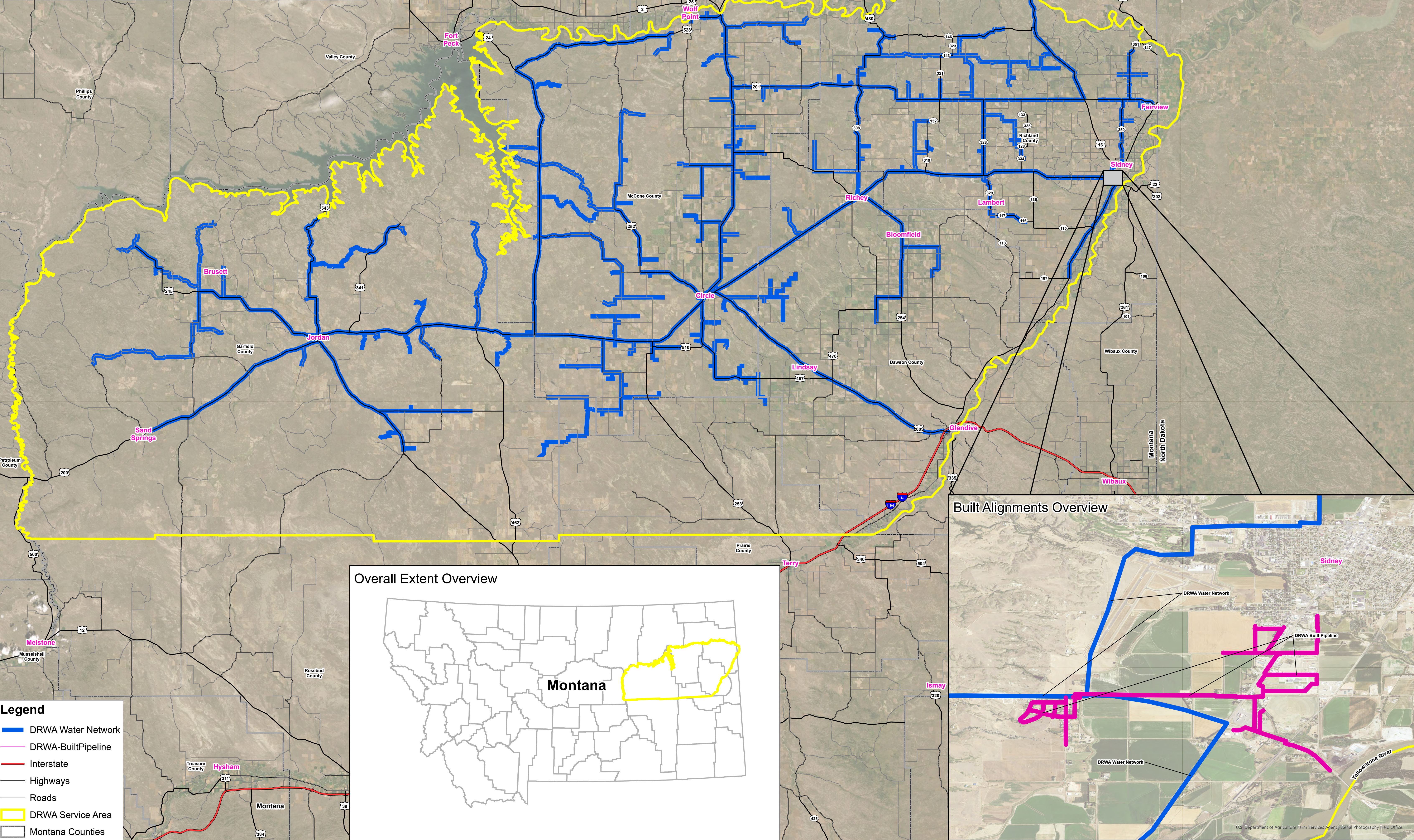
Authorization Status

A bill to authorize both Dry-Redwater and Central Montana regional systems, co-sponsored by Senators Daines and Tester, was introduced in 2015 and again in 2017 and 2019. The Water and Power Sub-committee of the Senate Energy and Natural Resources Committee held hearings on these bills. Companion bills were introduced in the House. The legislation was incorporated into other bills also intended to address larger western water issues. Following considerable efforts on the part of the Congressional delegation and by a D.C.-based lobbyist for the two regional water authorities, legislation which included directives to the US Bureau of Reclamation to resume work on feasibility studies and related work with the Dry-Redwater Authority was passed late in the 116th Congress, and signed into law by the President on December 27, 2020.

Construction Status and Cost

Dry-Redwater negotiated with the U.S. Army Corps of Engineers for a water intake location on the Dry Arm of Fort Peck Reservoir and obtained a purchase option for 40 acres in McCone County for a water treatment plant site. Cost estimates for the system have varied, from \$270 million upward for infrastructure including a surface water treatment plant, and pipeline installation from Sand Springs to Fairview, from south of the Missouri to just north of the Yellowstone. The Authority, at Richland County's request, has assumed responsibility for construction, operation and maintenance of small pipeline projects south and southwest of the City of Sidney. Water supply and sewage treatment are being provided by Sidney. Several pipeline projects have been completed in the area. Included are construction of water supply pipelines to businesses and rural homes south of Sidney in 2014, north of and adjacent to the Yellowstone River in 2016, and to Sidney-Circle area rural subdivisions for water service in 2018; and construction of a sanitary sewer main project beginning in 2020.

DRY-REDWATER REGIONAL WATER AUTHORITY
SYSTEM MAP



0 25 50 100 Miles



Updated: 12/23/2020

Interstate Engineering, Inc.
P.O. Box 648
2177 Lincoln Ave SE
Sidney, MT 59270
(406) 433-5617

DRY-REDWATER REGIONAL
WATER AUTHORITY



Central Montana Regional Water System



Drilling the first Ubet Well – 2012

Purpose and Need

The Central Montana Regional Water Authority (Authority) was established in September 2005, with a board of directors representing each community to be served. The Authority was organized to help towns and rural residents in Central Montana that have been plagued for decades by poor water quality and quantity. Communities along the Musselshell River drainage have long had difficulty in obtaining drinking water from reliable sources.

A Groundwater Supply System

Motivated by prolonged drought, the City of Roundup and Musselshell County began work eighteen years ago on a project to explore the Madison Aquifer on the northeast end of the Little Belt Mountains as a potential water source. Using groundwater to supply a regional water system will save the cost of building and maintaining a surface water treatment plant, and will provide more source diversity throughout the system than a conventional surface water supplied system. A ground water study of the Judith Basin, authorized by the 2015 Legislature, ran for three monitoring years, with data used to verify that the Madison Aquifer will adequately supply this project.

Construction Status and Cost

One exploratory test well into the Madison was drilled near Utica in 2003. The Regional Authority drilled and tested a second well at the Ubet location west of Judith Gap in 2012. A third well, and the second at Ubet, was drilled and developed late in 2019. After completion of a feasibility study and alternatives analysis, the Authority began pursuing congressional authorizing legislation. This legislation, the Clean Water for Rural Communities Act, passed late in 2020, and was signed into law by the President on December 27th, 2020. The Musselshell-Judith Central Montana Regional Water System project's estimated cost is \$87 million (2014 dollars) for well development and the distribution pipeline system. Combined State and local share will be about \$30 million, or 35% of the total. The State's share of the non-Federal portion would be a minimum of \$15 million.

Musselshell Judith Rural Water Project

Proposed Project Phasing

