



## FREQUENTLY ASKED QUESTIONS: DOMESTIC WATER IN PARK COUNTY

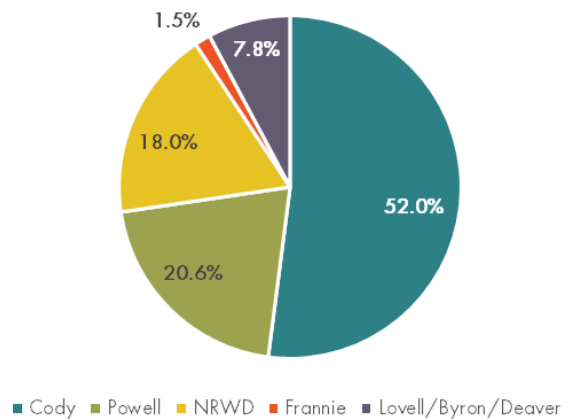
### Where does our domestic water come from?

Domestic water in Park County generally comes from one of three sources—the Shoshone Municipal Pipeline (SMP), the Town of Meeteetse, or individual wells. In 2020, 88.4 percent of households in Park County were served by the SMP. The SMP was formed as the Shoshone Municipal Water Joint Powers Board in 1986 as a partnership between the cities of Cody, Powell, Byron, Lovell, Deaver, and Frannie to address the need for an improved domestic water source. The regional collaboration began delivering treated domestic water from Buffalo Bill Reservoir to municipalities in 1991, and to the Northwest Rural Water District (NRWD) in 1993. While the Park County Land Use Plan focuses specifically on the *unincorporated* areas outside of the cities and towns, information regarding municipalities is provided below and throughout this document to help provide a more complete picture of domestic water in Park County.

### How is SMP water allocated to entities within Park County?

Each entity in the partnership receives a set allocation of year-round water, as outlined in SMP's original water service contract with the Bureau of Reclamation (illustrated at right). The terms of this agreement were renewed by SMP in July 2022 and extend through 2062. Allocations and 2022 usage for each entity are summarized below.

SMP Water Usage by Entity, July 2022



SMP Water Allowance and Usage (Million Gallons per Day), 2022						
Entity	Allowance	July 2022 (Highest Day)			July 2022 (Average Day)	
		Usage	% of Allowance	Usage	% of Allowance	
Cody	11.36	3.24	28.5%	2.80	24.6%	
Powell	4.95	1.50	30.3%	1.11	22.4%	
NRWD	2.16	1.14	52.8%	0.97	44.9%	
Lovell	1.74	0.44	25.3%	0.32	18.4%	
Byron	0.81	0.18	22.2%	0.08	9.9%	
Deaver	0.23	0.08	34.8%	0.02	8.7%	
Frannie	0.10	0.14 <sup>[1]</sup>	140.0% <sup>[1]</sup>	0.08	80.0%	
<b>Total</b>	<b>21.35</b>	<b>6.72</b>	<b>31.5%</b>	<b>5.38</b>	<b>25.2%</b>	

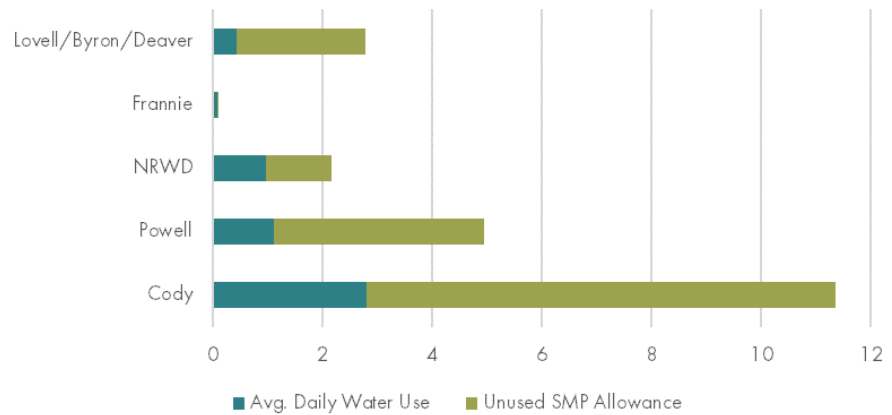
Source: SMP

Note [1]: Frannie experienced a well failure issue that resulted in the temporary use of SMP water for irrigation in July 2022.

## How much growth can SMP accommodate?

Initial SMP allocations in 1986 were based on water service population estimates for Park County prepared by the project engineer. These estimates forecast a water service population of 36,660 by 2020 and 41,350 by 2030 with over 90% of growth occurring within municipalities. Instead, Park County has grown more slowly than the projections with a

Avg. Daily Water Use and Allowance by Entity (MGD), July 2022



population of 29,624 in 2020 and unincorporated areas capturing a greater share of growth (having almost 45% of residents). Growth forecasts prepared by Economic and Planning Systems as part of the Land Use Plan update estimate that Park County will add between 2,311 and 3,778 residents and 1,666 to 2,327 households by 2040. Based on these forecasts, SMP does not anticipate shortages in water supply or treatment capacity within the planning horizon.

### WATER SUPPLY

Based on the terms of its 2022 agreement with the Bureau of Reclamation, SMP has ample water supply to serve current and forecast customers without the need for conservation mandates, despite recent growth trends in Park County and higher water use during the latest hotter and drier years (2020-2021). If a water shortage due to severe drought conditions were to occur in the future, allocations for all members would be cut proportionately.

### TREATMENT CAPABILITY

The SMP Water Treatment Plant was completed in 1991 and has a capacity of 16.5 million gallons per day (MGD). The plant was designed with the potential to expand capacity to 22 MGD by 2010, but capacity remains well below original estimates and no expansions are planned as of 2022. Plans for expansion of the plant would be triggered when water usage reaches 10 MGD during peak days.

### TAPS

SMP's main Treated Water Pipeline runs from the treatment facility near Cody to Lovell with a spur line running to Deaver and Frannie. The main transmission line was designed to accommodate 18 community-sized taps. Of those used so far, all are used by the municipalities and NRWD. The potential to add additional taps exists; however, the cost to install a single new tap in the main line could easily exceed \$500K. Based on cost alone, the likelihood of a private entity pursuing additional taps is small. Any request would probably be associated with a sizable development proposal and would likely require approval from the state for the formation of a new water district. The spur line running to Deaver and Frannie has 30 individual residence taps that are not designed for larger service areas. The Wyoming Department of Environmental Quality, which is responsible for monitoring and protecting surface and groundwater in the state, is not in favor of expanding beyond the existing number of taps on the spur line to Deaver and Frannie.

## How much growth can individual entities that serve Park County accommodate?

### NORTHWEST RURAL WATER DISTRICT

Northwest Rural Water District (NRWD) was formed to deliver treated domestic water to rural homes in areas outside of Cody, Powell, Lovell, Garland, Deaver, and Frannie. The SMP provides water to NRWD, but NRWD is a separate entity that was established by the State of Wyoming with the powers of a public or quasi-municipal corporation. NRWD is governed by a Board of Directors elected by the resident landowners of the District and is generally tasked with serving smaller properties (less than 50 acres). Although NRWD is able to levy taxes on properties within the district to finance operations and infrastructure development, it currently relies on user fees, including fees on extending service lines and taps.

NRWD provides water to ten service areas, nine of which are individual distribution systems. NRWD's 2017 Master Plan identifies recommended improvements for each service area. However, growth rates in recent years have far exceeded the factors used in the plan.<sup>i</sup> Between 2018 and 2021, NRWD saw a 2.65 percent increase in active accounts. Between 2020 and 2021, NRWD saw a 3.99 percent increase in active accounts overall. During the same period, increases in active accounts were greatest in the North End (10.66%), O'Donnell (7.65%), and O'Donnell/Garland (5.52%).

Growth and development trends in the past few years have created challenges for NRWD. Demand to extend service lines and taps for individual properties have increased dramatically, as has demand for larger subdivisions. Responding to this increased demand has been made more challenging by infrastructure constraints. Since the completion of the 2017 Master Plan, NRWD has invested in approximately \$7 million in infrastructure improvements, and has also been working to address a historic disconnect between user fees and the actual cost of sustaining and expanding the NRWD system.

NRWD is not required to serve every user within its service areas, but anyone within its service areas can request service. NRWD has historically tried to honor individual requests regardless of location (although some areas are more challenging to serve than others). Rapid growth in recent years led NRWD to temporarily suspended the addition of new transmission mains districtwide between March of 2022 and April 2023. Additionally, NRWD has paused providing additional, new services in the rural Powell service areas (O'Donnell, Garland, and North End) to allow time for completion of a planned capacity expansion project for the area. The O'Donnell Storage project, which is anticipated for completion in 2024, will result in a 75% storage capacity increase for that site—enough to serve about 300 new (average) users in the area—and is expected to result in an end to the pause in expanding services in O'Donnell, Garland, and North End areas.<sup>ii</sup> NRWD's average July daily usage of 0.97 million gallons (MG) represents less than half (44.9%) of its SMP allowance; however, current storage and distribution capabilities (due to variations in the size and consistency of the lines) are limiting factors for development in a number of service areas.<sup>iii</sup>

### MUNICIPALITIES

**Cody.** The City of Cody provides both treated water and raw water service to residents within its municipal boundaries, the latter of which is used for landscape irrigation. Without the use of the raw water system, much of the City's treated water system would need to be upsized to accommodate the demands of summer irrigation. The City has a storage capacity of approximately 3.792 MG and a peak average daily usage of 2.80 MG.<sup>iv</sup> The City's maximum allocation from SMP is adequate to provide treated water to 25,586 equivalent dwelling units (EDUs)—four times the current number Cody has and three times the number needed to accommodate the City's 2042 population projections. Cody has a policy to not extend water infrastructure outside of municipal boundaries unless the extension is associated with a proposed annexation. The City has identified the following potential annexation areas: The North-West Cody Residential Area, North Cody Annexation Area, Sage Creek Annexation Area, South Cody Industrial Area, Panorama View Expansion Area, West End Annexation Area, and Cooper Lane Area. While the availability

of water has been verified by the City as available at potential connection points, the extension of treated water infrastructure to serve these areas would be triggered and paid for by the parties developing these areas.<sup>v</sup>

**Powell.** The City of Powell provides water services to residents within its municipal boundaries. Powell has two overhead towers and one ground storage tank with a combined capacity of approximately 1.9 MG. The City’s peak average daily usage is 1.11 MG, representing 22.4 percent of Powell’s SMP allowance.<sup>vi</sup> Powell has historically encouraged but not required annexation as a condition of providing water service, but is exploring a change in policy due to challenges associated with cases where utilities were extended without requiring annexation.

**Meeteetse.** The Town of Meeteetse’s water system is not served by the SMP and instead draws water from the Lower Sunshine Reservoir. Meeteetse has about 203 water taps available within Town limits and 12 outside of the boundary. The Town has a storage capacity of approximately 700,000 gallons, delivery capacity of about 576,000 gallons, and peak daily usage of about 120,000 gallons.<sup>vii</sup>

**Frannie.** The Town of Frannie’s municipal boundary straddles the dividing line between Park County and Big Horn County. The Town’s municipal water system was completely replaced in 2003—including all water distribution lines, valves, fire hydrants, and other appurtenances. As a component of the system upgrade, the original potable water distribution system was converted to a non-potable water distribution system that is intended to be primarily used as a source of irrigation water for public and private landscaping.<sup>viii</sup> This system is not in use at this time. The Town has a 250,000-gallon water storage capacity and a peak average daily usage of 0.08 MG. This represents 80 percent of the Town’s SMP allowance.<sup>ix</sup>

### How reliable are individual wells in Park County?

Properties located outside of municipal boundaries and outside of the NRWD service area (or that do not meet criteria for NRWD service) are typically served by individual wells that rely on groundwater. The USGS notes that the availability of groundwater and viability of wells can vary greatly by the location and depth of wells, which makes some properties unable to access sufficient groundwater.<sup>x</sup> Individual wells are permitted by the Wyoming State Engineer’s Office, Ground Water Division. While the location of wells is tracked, their productivity and the quality of water that is extracted over the life of the well are not. As a result, individual property owners must rely on their own due diligence to assess and validate the feasibility and long-term viability of new wells.

### What other options exist for future development in areas not covered by existing service providers?

Some developments in more remote areas of Park County operate small-scale water systems that serve the residents of that unincorporated area. An example of this is the Copperleaf Subdivision in the Wapiti area, which has its own water system to serve 155 properties because it is outside of the service area of other water providers. While not alone a water source, cisterns—fed by wells or SMP water that is trucked in—are used as a means to provide water to properties in some areas of Park County.

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<sup>i</sup> Northwest Rural Water District Master Plan, Level 1 Study, Executive Summary, 2017. <http://library.wrds.uwyo.edu/wwdcrept/Northwest/Northwest-Rural-Water-District-Master-Plan-Executive-Summary-2017.pdf>

<sup>ii</sup> Northwest Rural Water District, 2022. <https://nrwdcodywy.com/>

<sup>iii</sup> Shoshone Municipal Pipeline Water Allowance and Usage (Million Gallons per Day), 2022. <http://www.shoshonemunicipalpipeline.org/>

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- <sup>iv</sup> Shoshone Municipal Pipeline Water Allowance and Usage (Million Gallons per Day), 2022.
- <sup>v</sup> City of Cody Water Master Plan, Level 1 Study, Executive Summary, 2021.  
[http://library.wrds.uwyo.edu/wwdcrept/Cody/Cody-City of Cody Master Plan Level 1 Study-Executive Summary-2021.html](http://library.wrds.uwyo.edu/wwdcrept/Cody/Cody-City_of_Cody_Master_Plan_Level_1_Study-Executive_Summary-2021.html)
- <sup>vi</sup> Shoshone Municipal Pipeline Water Allowance and Usage (Million Gallons per Day), 2022.
- <sup>vii</sup> Town of Meeteetse Master Plan, 2014. [http://www.townofmeeteetse.org/Meeteetse Master Plan - May 2014 - Final Version.pdf](http://www.townofmeeteetse.org/Meeteetse_Master_Plan_-_May_2014_-_Final_Version.pdf)
- <sup>viii</sup> Town of Frannie Community Development Plan, 2005.  
<https://library.wyo.gov/downloads/services/planning/docs/PD-FR-CD-2005.pdf>
- <sup>ix</sup> Shoshone Municipal Pipeline Water Allowance and Usage (Million Gallons per Day), 2022.
- <sup>x</sup> USGS. Hydrology of Park County, Wyoming, Exclusive of Yellowstone National Park. 1993.  
<https://pubs.usgs.gov/wri/1993/4183/report.pdf>