

## 5.9 AIRPORT LINE

The Airport Line may provide service to five potential participants in the probable service boundary: Lakeview Mobile Home Park, Means Water and Sewer District, Hoy Mobile Home Park, Section 4 Water System, Inc., and Campbell County Airport. Two segments compose the Airport Line. The first segment delivers water to Lakeview Mobile Home Park, Hoy Mobile Home Park, Section 4 Water System, Inc. and Campbell County Airport (see Mapbook “Airport Line 1”) and the second segment delivers water to Means Water and Sewer District (see Mapbook “Airport Line 2”).

The proposed Airport Line has one tap on the existing 12-inch City distribution system pipeline located near the intersection of North Gillette Avenue and East Warlow Drive.

### 5.9.1 AIRPORT LINE 1

Airport Line 1 provides service to four Airport Line potential participants and feeds Airport Line 2. A master PRV station with a 4-inch PRV is necessary on Airport Line 1 at Station 121+00 where pressures exceed 180 psi. The downstream setting has been preliminarily designed to be 70 psi.

#### LAKEVIEW MOBILE HOME PARK

This system is located north of the Gillette city limits. Lakeview Mobile Home Park disinfects their water using sodium hypochlorite. They have collected water quality data that is available.

The returned inventory form provided the following information about Lakeview Mobile Home Park. This is a private system and is reported to be in fair condition. The piping within the well house is small diameter PVC pipe. This system does not have standby power and does not provide fire protection. Adequate supply is the largest issue that this system faces. Table 46 presents the existing water system summary for Lakeview Mobile Home Park from the inventory form (Appendix E). Figures 72 through 74 are photos of the existing pump station, tank, and well.

**TABLE 46 LAKEVIEW MOBILE HOME PARK EXISTING SYSTEM SUMMARY**

<b>Tank</b>	<b>Volume (gallons)</b>	
1	18,000	
<b>Well</b>	<b>Production Rate (gpm)</b>	
1	11	
<b>Number of Existing Water Taps</b>	<b>Number of Planned Future Water Taps</b>	
19	Not given	
<b>Annual Water Usage (gallons)</b>	<b>Peak Day Summer Usage (gallons)</b>	<b>Peak Day Winter Usage (gallons)</b>
1,233,000	4,871	3,194
<b>Operating Pressure (psi)</b>	<b>Optimum Operating Pressure (psi)</b>	
30-50	Not given	

**FIGURE 72 LAKEVIEW MOBILE HOME PARK PUMP STATION**



**FIGURE 73 LAKEVIEW MOBILE HOME PARK PUMP STATION AND TANK**



**FIGURE 74 LAKEVIEW MOBILE HOME PARK WELL**



The system may be connected to the City’s distribution system by the Airport Line (see Mapbook “Airport Line 1” – Sheet 1). One 6-inch connection of approximately 550 ft of dedicated and 2,700 ft of shared waterlines would provide service to the existing tank. A service isolation valve would be provided on the connection line and a standard master meter and altitude valve would be required. Table 47 summarizes the future connection requirements.

**TABLE 47 LAKEVIEW MOBILE HOME PARK  
FUTURE CONNECTION SUMMARY**

<b>Class of Service</b>	
<b>Interim:</b>	<b>Future:</b>
Class D	Class E
<b>Delivery Requirements</b>	
<b>Connection Size:</b> 6-inch	
<b>Average Day Demand:</b>	<b>Peak Day Average Demand:</b>
3 gpm	30 gpm
<b>Preferred Delivery Point</b>	
<b>Connection to:</b>	<b>Estimated Pressure at Delivery Point:</b>
Existing Storage Tank	90 psi (reduced by Altitude Valve into Tank)
<b>Infrastructure Needs to Establish Connection</b>	
Service isolation valve, standard master meter, altitude valve, and approximately 550 feet of dedicated 6-inch pipe.	

**HOY MOBILE HOME PARK**

This system is located north of the City. Hoy Mobile Home Park does not have individual water meters for its customers. Their customers pay a bulk water charge and they disinfect their water using sodium hypochlorite. They have collected water quality data that is available.

The returned inventory form provided the following information about Hoy Mobile Home Park. This is a small, private system which does not currently provide fire protection. The well is located in a pasture away from the storage tank. The storage tank is located near the homes that are served. There is one welding shop that is also connected to the system. Currently, no water quality issues associated with this system have been reported. Table 48 presents the existing water system summary for Hoy Mobile Home Park from the inventory form (Appendix E). Figures 75 through 77 are photos of the existing pump station, tank, and well house.

**TABLE 48 HOY MOBILE HOME PARK EXISTING SYSTEM SUMMARY**

<b>Tank</b>	<b>Volume (gallons)</b>	
1	16,000	
<b>Well</b>	<b>Production Rate (gpm)</b>	
Not given	Not Given	
<b>Number of Existing Water Taps</b>	<b>Number of Planned Future Water Taps</b>	
50	Not Given	
<b>Annual Water Usage (gallons)</b>	<b>Peak Day Summer Usage (gallons)</b>	<b>Peak Day Winter Usage (gallons)</b>
5,705,000	19,258	11,677
<b>Operating Pressure (psi)</b>	<b>Optimum Operating Pressure (psi)</b>	
30-50	Not Given	

**FIGURE 75 HOY MOBILE HOME PARK PUMP STATION**



**FIGURE 76 HOY MOBILE HOME PARK TANK**



**FIGURE 77 HOY MOBILE HOME PARK WELL HOUSE**



The system may be connected to the City’s distribution system by the Airport Line (see Mapbook “Airport Line 1” – Sheets 1 to 6). One 6-inch connection of approximately 500 ft of dedicated and 18,650 ft of shared waterlines would provide service to the existing tank. A service isolation valve would be provided on the connection line and a standard master meter and altitude valve would be required. Table 49 summarizes the future connection requirements.

**TABLE 49 HOY MOBILE HOME PARK  
FUTURE CONNECTION SUMMARY**

<b>Class of Service</b>	
<b>Interim:</b>	<b>Future:</b>
Class D	Class E
<b>Delivery Requirements</b>	
<b>Connection Size:</b> 6-inch	
<b>Average Day Demand:</b>	<b>Peak Day Average Demand:</b>
10 gpm	20 gpm
<b>Preferred Delivery Point</b>	
<b>Connection to:</b>	<b>Estimated Pressure at Delivery Point:</b>
Existing Storage Tank	80 psi (reduced by Altitude Valve into Tank)
<b>Infrastructure Needs to Establish Connection</b>	
Service isolation valve, standard master meter, altitude valve, and approximately 500 feet of dedicated 6-inch pipe.	

**SECTION 4 WATER SYSTEM INC.**

This system is located north of the Gillette city limits. Section 4 Water System, Inc. disinfects their water using sodium hypochlorite. They have collected water quality data that is available.

The returned inventory form provided the following information about Section 4 Water System Inc. This is a privately owned system, reported to be in good condition. This system does not have standby power and does not provide fire protection. There are no residential taps in this system, only business taps. Table 50 presents the existing water system summary for Section 4 Water System, Inc. from the inventory form (Appendix E). Figures 78 through 80 are photos of the existing pump station, tank, and well.

**TABLE 50 SECTION 4 WATER SYSTEM INC  
EXISTING SYSTEM SUMMARY**

<b>Tank</b>	<b>Volume (gallons)</b>	
1	Not given	
<b>Well</b>	<b>Production Rate (gpm)</b>	
1	Not given	
<b>Number of Existing Water Taps</b>	<b>Number of Planned Future Water Taps</b>	
42	Not given	
<b>Annual Water Usage (gallons)</b>	<b>Peak Day Summer Usage (gallons)</b>	<b>Peak Day Winter Usage (gallons)</b>
2,321,000	7,710	6,968
<b>Operating Pressure (psi)</b>	<b>Optimum Operating Pressure (psi)</b>	
50	Not given	

**FIGURE 78 SECTION 4 WATER SYSTEM, INC. PUMP STATION**



**FIGURE 79 SECTION 4 WATER SYSTEM, INC. PUMP STATION AND TANK**



**FIGURE 80 SECTION 4 WATER SYSTEM, INC. WELL**



The system may be connected to the City’s distribution system by the Airport Line (see Mapbook “Airport Line 1” – Sheets 1 to 6). One 6-inch connection of approximately 800 ft of dedicated and 18,650 ft of shared waterlines would provide service to the existing tank. A service isolation valve would be provided on the connection line and a standard master meter and altitude valve would be required. Table 51 summarizes the future connection requirements.

**TABLE 51 SECTION 4 WATER SYSTEM, INC.  
FUTURE CONNECTION SUMMARY**

<b>Class of Service</b>	
<b>Interim:</b>	<b>Future:</b>
Class D	Class E
<b>Delivery Requirements</b>	
<b>Connection Size:</b> 6-inch	
<b>Average Day Demand:</b>	<b>Peak Day Average Demand:</b>
5 gpm	40 gpm
<b>Preferred Delivery Point</b>	
<b>Connection to:</b>	<b>Estimated Pressure at Delivery Point:</b>
Existing Storage Tank	80 psi (reduced by Altitude Valve into Tank)
<b>Infrastructure Needs to Establish Connection</b>	
Service isolation valve, standard master meter, altitude valve, and approximately 800 feet of dedicated 6-inch pipe.	

## CAMPBELL COUNTY AIRPORT

This system is located north of the Gillette city limits. Campbell County Airport disinfects their water using chlorine gas and the system appears to be in good condition. They have collected water quality data that is available. The returned inventory form provided the following information about Campbell County Airport. Table 52 presents the existing water system summary for Campbell County Airport from the inventory form (Appendix E). Figures 81 through 84 are photos of the existing pump station, tank, and well.

**TABLE 52 CAMPBELL COUNTY AIRPORT  
EXISTING SYSTEM SUMMARY**

<b>Tank</b>	<b>Volume (gallons)</b>	
1	350,000	
<b>Well</b>	<b>Production Rate (gpm)</b>	
1	80	
<b>Number of Existing Water Taps</b>	<b>Number of Planned Future Water Taps</b>	
18	Not given	
<b>Annual Water Usage (gallons)</b>	<b>Peak Day Summer Usage (gallons)</b>	<b>Peak Day Winter Usage (gallons)</b>
2,089,000	15,871	8,290
<b>Operating Pressure (psi)</b>	<b>Optimum Operating Pressure (psi)</b>	
Not given	Not given	

**FIGURE 81 CAMPBELL COUNTY AIRPORT PUMP STATION**



**FIGURE 82** CAMPBELL COUNTY AIRPORT PUMP STATION



**FIGURE 83** CAMPBELL COUNTY AIRPORT TANK



**FIGURE 84** CAMPBELL COUNTY AIRPORT WELL



The system may be connected to the City’s distribution system by the Airport Line (see Mapbook “Airport Line 1” – Sheets 1 to 8). One 12-inch connection of approximately 6,550 ft of dedicated and 18,650 ft of shared waterlines would provide service to the existing tank. A service isolation valve would be provided on the connection line and a standard master meter and altitude valve would be required. Table 53 summarizes the future connection requirements.

**TABLE 53    CAMPBELL COUNTY AIRPORT  
FUTURE CONNECTION SUMMARY**

<b>Class of Service</b>	
<b>Interim:</b>	<b>Future:</b>
Class D	Class E
<b>Delivery Requirements</b>	
<b>Connection Size:</b> 6-inch	
<b>Average Day Demand:</b>	<b>Peak Day Average Demand:</b>
5 gpm	15 gpm
<b>Preferred Delivery Point</b>	
<b>Connection to:</b>	<b>Estimated Pressure at Delivery Point:</b>
Existing Storage Tank	80 psi (reduced by Altitude Valve into Tank)
<b>Infrastructure Needs to Establish Connection</b>	
Service isolation valve, standard master meter, altitude valve, and approximately 6,550 feet of dedicated 6-inch and 12-inch pipe.	

## 5.9.2 AIRPORT LINE 2

Airport Line 2 is fed by Airport Line 1 at Station 82+00 and serves Means Water and Sewer District.

### MEANS WATER AND SEWER DISTRICT

This system is located to the north of the Gillette city limits. Means Water and Sewer District has individual water meters for its customers and disinfects their water using chlorine gas. They have collected water quality data that is available.

The returned inventory form provided the following information about Means Water and Sewer District. This is one of the larger systems surveyed and is governed by a Water and Sewer District. The type of users is not stated in the survey, but knowledge of this coverage area suggests that this system serves a mix of residential and commercial users. Table 54 presents the existing water system summary for Means Water and Sewer District from the inventory form (Appendix E). Figures 85 through 90 are photos of the existing pump station, tanks, and wells.

**TABLE 54 MEANS WATER AND SEWER DISTRICT  
EXISTING SYSTEM SUMMARY**

<b>Tank</b>	<b>Volume (gallons)</b>	
1	167,000	
2	Unknown	
<b>Well</b>	<b>Production Rate (gpm)</b>	
1	88	
2	88	
<b>Number of Existing Water Taps</b>	<b>Number of Planned Future Water Taps</b>	
108	Not given	
<b>Annual Water Usage (gallons)</b>	<b>Peak Day Summer Usage (gallons)</b>	<b>Peak Day Winter Usage (gallons)</b>
30,411,000	139,097	45,452
<b>Operating Pressure (psi)</b>	<b>Optimum Operating Pressure (psi)</b>	
Not given	Not given	

**FIGURE 85 MEANS WATER AND SEWER DISTRICT PUMP STATION**



**FIGURE 86 MEANS WATER AND SEWER DISTRICT PUMP STATION**



**FIGURE 87 MEANS WATER AND SEWER DISTRICT TANK #1**



**FIGURE 88** MEANS WATER AND SEWER DISTRICT TANK #2



**FIGURE 89** MEANS WATER AND SEWER DISTRICT WELL #1



**FIGURE 90** MEANS WATER AND SEWER DISTRICT WELL #2



Means Water and Sewer District may be connected to the City’s distribution system by the Airport Line (see Mapbook “Airport Line 2” – Sheet 1). One 8-inch connection of approximately 2,300 ft of dedicated and 8,300 ft of shared waterlines would provide service to the existing tanks. A service isolation valve would be provided on the connection line and a standard master meter and altitude valve would be required. Table 55 summarizes the future connection requirements.

**TABLE 55 MEANS WATER AND SEWER DISTRICT  
FUTURE CONNECTION SUMMARY**

<b>Class of Service</b>	
<b>Interim:</b>	<b>Future:</b>
Class D	Class E
<b>Delivery Requirements</b>	
<b>Connection Size:</b> 8-inch	
<b>Average Day Demand:</b>	<b>Peak Day Average Demand:</b>
60 gpm	100 gpm
<b>Preferred Delivery Point</b>	
<b>Connection to:</b>	<b>Estimated Pressure at Delivery Point:</b>
Existing Storage Tanks	80 psi (reduced by Altitude Valve into Tank)
<b>Infrastructure Needs to Establish Connection</b>	
Service isolation valve, standard master meter, altitude valve, and approximately 2,300 feet of dedicated 8-inch pipe.	