MEMORANDUM

To: Ms. Patti Grafmyer
Town Manager
Norwood Town Hall
1670 Naturita Street
Norwood, CO, 81423

From: Chad Hill, P.E.
Project Manager

Date: August 31, 2022

Re: **Town of Norwood/Norwood Water Commission Water Supply Adequacy**

Dear Patti,

SGM has prepared this memorandum to evaluate and summarize the physical and legal water supply adequacy of the Norwood Water Commission's (NWC) water portfolio as it relates to current and future growth.

Introduction

In the 2020 NWC Water Master Plan (Water Master Plan), SGM discussed supply and capacity issues using a 2% growth rate and a 20-year planning horizon to 2040. Recent development approvals, including a 24-lot subdivision (Pinon Park Subdivision) and early planning of a 75-100 lot subdivision (Employee Housing Project) suggest that the growth rate may be occurring faster than envisioned in the 2020 Water Master Plan. The attached Figure 1 provides an overview of the NWC service area and the location of the proposed developments. SGM evaluated varying growth rate scenarios and their impacts on the future of NWC's water supply, treatment capacity, and storage capacity.

Potential Growth Rate

In the 2020 Water Master Plan, a growth rate of 2% was used to project future water demands. This data was based on the Colorado Department of Local Affairs State Demography Office (DOLA), which projects growth rates in all counties in Colorado. According to DOLA, between the years 2010 and 2020, San Miguel County grew at a rate of 1.6%. A slightly higher growth rate of 2% was used in the Water Master Plan to ensure adequate potable water is available.

SGM evaluated this growth rate by assessing US Census Bureau data of San Miguel County's population and the Town of Norwood's (Town) population from 2010 through 2020, calculating growth rate per year, and calculating overall growth rate from 2010 through 2020. The overall growth rate for the Town was calculated at 0.33% and the overall growth rate for San Miguel County was calculated at 0.97% from 2010 through 2020 using US Census Bureau data (see Tables 1a and 1b). The maximum growth rate the Town experienced was 21.24% from 2010 to 2011, when the population increased from 518 to 628 people. Based on previous trends and data, the 2% growth rate used in the Water Master Plan was appropriate and conservative to project future demands.

SGM evaluated the addition of the Pinon Park Subdivision and the Mountain Village Employee Housing Project to the growth rate used in the Water Master Plan. It was assumed that the projects would be completed by 2025, and Norwood could expect an additional 124 taps. Using an estimate of 2.5 people per additional tap, these projects would add an additional 310 people by 2025, or an increase of 11.59% from 2020 to 2025 (see Table 1a). This equates to approximately 2% growth rate per year from 2020 through 2025. This does not account for additional growth from other developments within the NWC service area; therefore, SGM evaluated 3% and 4% growth rates and their associated demands as described in the next section.

Table 1a.
Population Growth Rate of the Town of Norwood (2010 - 2020)

Year	Population	Growth per year
2010	518	-
2011	628	21.24%
2012	632	0.64%
2013	636	0.63%
2014	536	-15.72%
2015	595	11.01%
2016	712	19.66%
2017	624	-12.36%
2018	619	-0.80%
2019	581	-6.14%
2020	535	-7.92%
2025	845	11.59%
Overall Growth Rate (2010 – 2020):		**0.33%**
Average Growth Rate (2010 – 2020):		**1.02%**

Notes:
Population Data gathered from US Census Bureau. Projected population (highlighted) based on development of Pinon Park Subdivision and Mountain Village Property. Assumed increase of additional 124 taps and 2.5 people per tap. Full buildout by 2025.

Table 1b.
Population Growth Rate of San Miguel County (2010 - 2020)

Year	Population	Growth per year
2010	7,359	-
2011	7,383	0.33%
2012	7,432	0.66%
2013	7,496	0.86%
2014	7,597	1.35%
2015	7,676	1.04%
2016	7,767	1.19%
2017	7,804	0.48%
2018	7,968	2.10%
2019	8,049	1.02%
2020	8,072	0.29%
Overall Growth Rate (2010 – 2020):		**0.97%**
Average Growth Rate (2010 – 2020):		**0.93%**

Notes:
Population Data gathered from US Census Bureau.

Projected Water Demands

SGM analyzed the daily flow and monthly flow from 2016 through 2021(Study Period) to calculate the average daily flow and monthly flow demands (see Tables 2a and 2b, respectively). The average daily flow was calculated at 176,343 gallons per day (gal/day) and the average monthly flow was calculated at 64.4 million gallons from 2016 through 2021. The Water Master Plan used 2020 average daily flow rates to project future demands. Compared to previous years and 2021, the demands in 2020 appear to be anomalously high and SGM believes that the work from home policy enacted in the Spring of 2020 due to the COVID-19 pandemic may have caused this spike in demands (see Figure 2).

Therefore, using the average daily flow and average monthly flow demands, SGM evaluated 1%, 2%, 3%, and 4% growth rates and projected average annual water demands from 2022 through 2042 (see Table 3). SGM assumed a start number of taps to be equal to 787 taps in 2021. As Table 3 shows in 2042, the number of taps may range between 970 (1% growth) to 1,793 (4% growth) with average daily demands ranging from 217,000 to 401,000 gal/day.

Figure 2. Average Daily Flow (2016 – 2021)

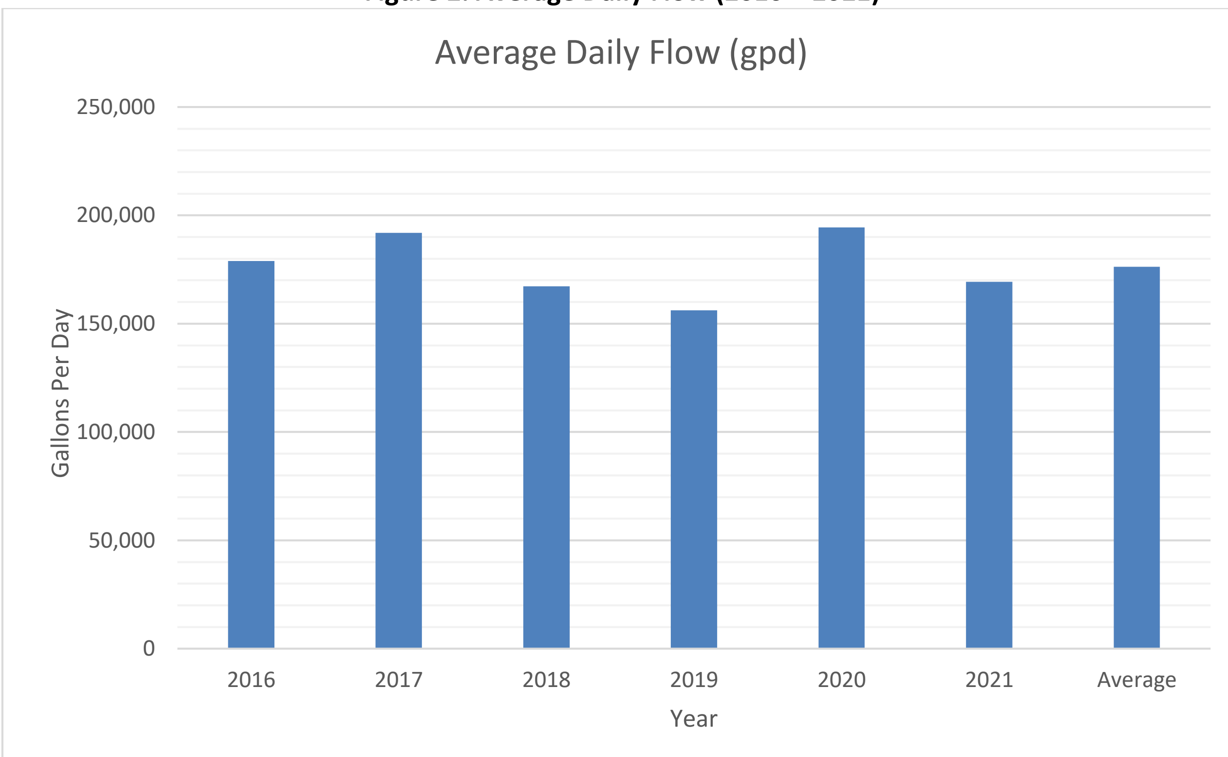

Table 2a. Average Daily Flow (2016 – 2021)

Average Daily Flow							
Month	2016 gal/day	2017 gal/day	2018 gal/day	2019 gal/day	2020 gal/day	2021 gal/day	Average
Jan	148,387	174,194	154,839	137,785	183,008	115,346	152,260
Feb	157,143	157,143	153,571	146,080	165,094	120,895	149,988
Mar	135,484	154,839	154,839	110,636	162,674	123,118	140,265
Apr	130,000	156,667	166,667	127,435	164,594	139,506	147,478
May	164,516	167,742	222,581	136,659	176,230	194,249	176,996
Jun	273,333	286,667	223,333	183,327	279,732	235,148	246,923
Jul	232,258	251,613	158,065	217,091	242,905	235,156	222,848
Aug	200,000	241,935	177,419	200,299	232,737	229,627	213,669
Sept	196,667	206,667	160,000	205,147	195,684	214,457	196,437
Oct	174,194	177,419	158,065	148,695	186,397	167,276	168,674
Nov	166,667	170,000	133,333	135,306	178,602	131,001	152,485
Dec	167,742	158,065	145,161	124,981	166,063	126,540	148,092
Average Fall Daily Demand	170,431	173,710	145,699	142,000	182,500	149,139	160,580
Average Daily Flow	**178,866**	**191,913**	**167,323**	**156,120**	**194,477**	**169,360**	**176,343**
Median Daily Flow	167,205	172,097	158,065	141,933	180,805	153,391	162,249
Average Day Non-Irrigation	150,904	161,818	151,402	130,370	170,006	126,068	148,428
Maximum Daily Demand	357,732	383,825	334,646	312,240	388,953	338,720	352,686
Peak Hour Demand	536,598	575,738	501,968	468,360	583,430	508,080	529,029
Average Annual Demand AF	200	215	188	175	218	190	198

Average Fall Demand [Average demand for October and November]

Average Daily Demand [Calculated by dividing annual production by 365]

Median Daily Demand [Calculated median of average monthly daily flow]

Average Day Non-Irrigation [Average daily demand for November through April]

Maximum Day Demand [Multiplier of 2 assumed based on previous project experience, is somewhat conservative]

Peak Hour Demand [Multiplier of 3 assumed based on previous project experience, is somewhat conservative]

Table 2b. Average Monthly Flow (2016 – 2021)

Average Monthly Flow							
Month	2016 gal/month	2017 gal/month	2018 gal/month	2019 gal/month	2020 gal/month	2021 gal/month	Average
Jan	4,599,997	5,400,014	4,800,009	4,271,348	5,673,248	3,575,740	4,720,059
Feb	4,400,004	4,400,004	4,299,988	4,090,232	4,622,632	3,385,065	4,199,654
Mar	4,200,004	4,800,009	4,800,009	3,429,708	5,042,894	3,816,643	4,348,211
Apr	3,900,000	4,700,010	5,000,010	3,823,050	4,937,820	4,185,172	4,424,344
May	5,099,996	5,200,002	6,900,011	4,236,428	5,463,130	6,021,726	5,486,882
Jun	8,199,990	8,600,010	6,699,990	5,499,812	8,391,960	7,054,427	7,407,698
Jul	7,199,998	7,800,003	4,900,015	6,729,827	7,530,055	7,289,832	6,908,288
Aug	6,200,000	7,499,985	5,499,989	6,209,274	7,214,847	7,118,423	6,623,753
Sept	5,900,010	6,200,010	4,800,000	6,154,414	5,870,520	6,433,700	5,893,109
Oct	5,400,014	5,499,989	4,900,015	4,609,534	5,778,307	5,185,566	5,228,904
Nov	5,000,010	5,100,000	3,999,990	4,059,188	5,358,060	3,930,023	4,574,545
Dec	5,200,002	4,900,015	4,499,991	3,874,405	5,147,953	3,922,753	4,590,853
Total Annual Demand	65,300,025	70,100,051	61,100,017	56,987,220	71,031,426	61,919,070	64,406,302
Average Fall Monthly Demand	5,200,012	5,299,995	4,450,003	4,334,361	5,568,184	4,557,795	4,901,725
Average Monthly Demand	5,441,669	5,841,671	5,091,668	4,748,935	5,919,286	5,159,923	5,367,192
Median Monthly Demand	5,149,999	5,300,008	4,850,012	4,253,888	5,568,189	4,685,369	4,967,911
Average Month Non-Irrigation	4,550,003	4,883,342	4,566,666	3,924,655	5,130,435	3,802,566	4,476,278
Peak Monthly Demand	12,299,985	12,900,015	10,049,985	8,249,718	12,587,940	10,581,641	11,111,547

Total Annual Demand is sum of monthly demand from January through December

Average Fall Demand [Average demand for October and November]

Average Monthly Demand [calculated by dividing annual production by no. of months]

Median Monthly Demand [Calculated median of monthly flow]

Average Month Non-Irrigation [Average monthly demand for November through April]

Peak Monthly Demand [Maximum Water Produced in a Given Month multiplied by factor of 1.5]

Table 3. Projected Tap and Annual Water Demands (2022-2042)

Year	No. of Taps (1)				Total Annual Water Demands (2)											
					AF				Millions of Gallons				Average Gallons per Day (3)			
Growth Rate	**1%**	**2%**	**3%**	**4%**	**1%**	**2%**	**3%**	**4%**	**1%**	**2%**	**3%**	**4%**	**1%**	**2%**	**3%**	**4%**
2022	795	803	811	818	199.63	201.61	203.59	205.56	65.05	65.69	66.34	66.98	178,106	179,870	181,633	183,397
2023	803	819	835	851	201.63	205.64	209.69	213.78	65.70	67.01	68.33	69.66	179,887	183,467	187,082	190,733
2024	811	835	860	885	203.64	209.75	215.98	222.34	66.36	68.35	70.38	72.45	181,686	187,137	192,695	198,362
2025	819	852	886	921	205.68	213.95	222.46	231.23	67.02	69.72	72.49	75.35	183,503	190,879	198,476	206,296
2026	827	869	912	958	207.74	218.23	229.14	240.48	67.69	71.11	74.66	78.36	185,338	194,697	204,430	214,548
2027	835	886	940	996	209.82	222.59	236.01	250.10	68.37	72.53	76.90	81.49	187,192	198,591	210,563	223,130
2028	844	904	968	1,036	211.91	227.04	243.09	260.10	69.05	73.98	79.21	84.75	189,064	202,563	216,880	232,055
2029	852	922	997	1,077	214.03	231.59	250.38	270.51	69.74	75.46	81.59	88.14	190,954	206,614	223,386	241,338
2030	861	941	1,027	1,120	216.17	236.22	257.90	281.33	70.44	76.97	84.04	91.67	192,864	210,746	230,088	250,991
2031	869	959	1,058	1,165	218.33	240.94	265.63	292.58	71.14	78.51	86.56	95.34	194,792	214,961	236,990	261,031
2032	878	979	1,089	1,212	220.52	245.76	273.60	304.28	71.86	80.08	89.15	99.15	196,740	219,260	244,100	271,472
2033	887	998	1,122	1,260	222.72	250.68	281.81	316.45	72.57	81.68	91.83	103.12	198,708	223,646	251,423	282,331
2034	896	1,018	1,156	1,310	224.95	255.69	290.26	329.11	73.30	83.32	94.58	107.24	200,695	228,118	258,966	293,624
2035	905	1,038	1,190	1,363	227.20	260.80	298.97	342.28	74.03	84.98	97.42	111.53	202,702	232,681	266,735	305,369
2036	914	1,059	1,226	1,417	229.47	266.02	307.94	355.97	74.77	86.68	100.34	115.99	204,729	237,334	274,737	317,584
2037	923	1,080	1,263	1,474	231.77	271.34	317.18	370.21	75.52	88.42	103.35	120.63	206,776	242,081	282,979	330,287
2038	932	1,102	1,301	1,533	234.08	276.77	326.69	385.01	76.28	90.18	106.45	125.46	208,844	246,923	291,468	343,499
2039	941	1,124	1,340	1,594	236.43	282.30	336.50	400.41	77.04	91.99	109.65	130.48	210,932	251,861	300,212	357,239
2040	951	1,147	1,380	1,658	238.79	287.95	346.59	416.43	77.81	93.83	112.94	135.69	213,042	256,898	309,218	371,528
2041	960	1,169	1,421	1,724	241.18	293.71	356.99	433.09	78.59	95.70	116.32	141.12	215,172	262,036	318,495	386,389
2042	970	1,193	1,464	1793	243.59	299.58	367.70	450.41	79.37	97.62	119.81	146.77	217,324	267,277	328,050	401,845

Physical and Legal Water Supply

The main physical water supply for the NWC is through Gurley Reservoir. A second smaller supply is through Gardiner Springs which is considered seepage from Gurley Reservoir. The NWC has contract water in Gurley Reservoir to provide 300 AF of raw untreated water on an annual basis for domestic use. The agreement was consummated on April 1, 2005, between the NWC and the Farmers Water Development Commission. The water supply is considered firm. The agreement is perpetual and may only be terminated upon the written agreement of both parties. The reservoir physical supply, however, is subject to and vulnerable to drought conditions based upon the inflow and fill into the reservoir. The NWC physical water supply lacks redundancy and is subject to variability within a single watershed.

Other supplies such as Gardner Springs and Pipeline are not considered a firm physical supply due to drought, dropping levels in Gurley Reservoirs, and changing irrigation patterns from flood to sprinkler irrigation. These rights may be subject to administration during the irrigation season.

Based on the updated water demand estimate, the current total use of the Gurley supply is approximately 198 AF per year and will increase with additional taps. As shown in Table 3 using a 2% growth rate, it is expected that 300 AF from Gurley will be reached in the year 2042 based upon sole reliance on Gurley Reservoir. Using a 3% growth rate, the 300 AF capacity is reached in 2036. As discussed in the Water Master Plan, the adjudication of a new water right, or the change of a water right in a basin like the San Miguel, that is contested with opposition can take years. SGM continues to recommend that the NWC begin to firm up other water rights including the San Miguel River diversion decreed for 5 cfs. (Case No. 94CW244: Diligence Case No. 08CW55)

Additional water may also be procured through the implementation of a Water Rights Dedication Ordinance. This ordinance will require that future development or annexations dedicate all or a part of the water rights to the commission to offset the consumptive demand of the potable water system. Many factors would have to be considered for an ordinance that would work for the NWC. Other water providers on the Western Slope have developed a very robust water supply through these ordinances in lieu of purchase of augmentation water or future water rights. The NWC would need to file a change of use in water court to change the rights from agricultural to domestic rights.

Treatment System and Storage Capacity Analysis

Raw Water Reservoirs

The NWC has two raw water reservoirs known as Reservoirs 1 and 2. The Gurley Reservoir provides water to them from April through November. These reservoirs are an important non irrigation or winter supply of water. Raw Water Reservoir 1 was constructed in 1978 and was originally designed with a capacity of 10,000,000 gallons (30 AF). Physical conditions encountered during construction and administrative actions subsequent to construction have resulted in a capacity much less than the 10,000,000 gallons. Reservoir 2, with a capacity of 30,000,000 gallons (92 AF) is located immediately west and adjacent to the WTP. The addition of a third reservoir is recommended to capture additional raw when available for added reliability of supply. Project design initiation as soon as funds are available is recommended. Having the construction of reservoir 3 shovel ready may provide a higher priority for State and/or Federal funding.

Water Treatment

The NWC WTP has a capacity of 0.56 MGD. The current average daily flow on an annual basis is approximately 176,000 gpd. Water Treatment plants are required to deliver MDD. The current MDD occurs in June and is projected to be 352,686 gpd. Currently MDD is 63% of the plant capacity. The MDD in the year 2042 is projected at 513,640 gpd which is 92% of capacity. Planning, designing and construction for a new WTP can take up to 5 years. Establishing a fund that is specific to financing the plant can take 10 years or more. SGM recommends that planning of the new WTP begin in the early 2030's. Further changes in rate structures should occur at least 10 years prior to begin to finance the construction of the facility, as it is not certain that loan and grant sources will be available at that time. Therefore, it is prudent to evaluate the current rate structure in the next year or two and determine if changes are needed.

The plant is a conventional plant with coagulation, flocculation, sedimentation, and mixed media filtration. The plant currently meets all regulatory requirements according to NWC staff. WTP regulatory compliance is based upon the State of Colorado "Design Criteria for Potable Water Systems" and the Water Quality Control Commission "Colorado Primary Drinking Water Regulations". According to NWC staff the plant does have challenges meeting these regulations.

The following information regarding the WTP was presented in the 2020 Master Plan and remains unchanged, however is provided below as an overall summary related to the plant.

Deficiencies

The water source is a high-quality headwater source, however the long detention times in Gurley Reservoir and Raw Water Reservoirs 1 and 2 result in high organic concentrations and Total Organic Carbon (TOC). The high TOC levels can be attributed to natural water quality from the watershed and from algae blooms in the reservoirs. Disinfection through chlorine combined with elevated organics and TOC can create (DBP) precursors that are the natural organic and inorganic compounds that react with chemical disinfectants in water to form DBP's.

At the same time the NWC must comply with minimum disinfection residuals concentrations in order to meet disinfection requirements in the finished water and in the finished water pipelines. In order to comply with these two competing regulations, chlorine is fed to the water after it leaves the mixed media filter and before it is pumped to the two on site water tanks in order to comply with required detention times. Once the water leaves the tanks ammonia is added in order to form chloramines which are then used in the pipelines to keep bacterial growth eliminated. Chloramines do not dissipate as quickly as free chlorine in the pipelines.

In order to meet the DBP rules total chlorine is kept to a minimum. The Primary Drinking Water Regulations require keeping a minimum chlorine residual of 0.2 mg/l in all pipelines. The combination of a large service area, long transmission lines, dead end lines, and limited taps on certain sections, the water age is very high, and the chlorine residuals fall below the minimum 0.2 mg/l requirement. SGM recommends that an in-depth study be undertaken to determine improvements in the WTP processes and chemical feed additions to decrease the formation of DBP's.

Modifications to the raw water reservoirs can be made to reduce the formation of organics, such as aeration and the addition of Carp to keep algae levels lower.

Another deficiency exists in the spent backwash water. When filters and tube settlers are backwashed or flushed, spent backwash water is sent to backwash ponds. If Backwash ponds overflow, they must have a discharge permit in order to protect surface water sources, much like wastewater treatment plants. The WTP does not hold a discharge permit for the backwash ponds and theoretically are non-discharging and rely upon evaporation. The capacity of the backwash ponds to evaporate water is less than the amount of spent backwash water, and thus either a discharge permit must be applied for or other solutions considered. One solution is to recycle the backwash water through the water plant by filtering the backwash water and pumping to one of the raw water reservoirs. Recycling backwash water is common practice. SGM recommends that the NWC research the requirements of a small package filter system and recycle backwash water. This has the added benefit of increasing the water supply available to the WTP.

Other Regulatory Requirements

The NWC is required to meet a required inactivation of giardia and viruses as part of the treatment, distribution and storage system. Log removals are required and are based upon treatment type, disinfection levels, contact time, and other parameters. This section will discuss compliance with the Primary Drinking Water Regulations for log removal criteria. The Surface Water Treatment Rule outlines general treatment requirements as stated below:

At a point where the source water is not subject to recontamination and the entry point, the supplier must install and properly operate water treatment processes that reliably achieve at least the following levels of treatment: (I) 99 percent (2-log) removal of Cryptosporidium. (II) 99.9 percent (3-log) treatment, including filtration and disinfection, of Giardia lamblia. (III) 99.99 percent (4-log) treatment, including filtration and disinfection, of viruses.

This removal criteria is met through a combination of the WTP treatment process and the addition and detention time with a disinfectant. CDPHE field staff regularly performs field investigations to verify that log inactivation and disinfection levels are in compliance and are known as Disinfection and Outreach Verification Effort (DOVE) requirements.

SGM has entered the system parameters of water quality, chlorine levels, treatment plant type, and contact time in the 500,000- and 100,000-gallon tanks into a Contact Time (CT) model template and has verified that DOVE requirements are met.

The log removal requirements for Giardia are a three-log removal. The credit for giardia removal for the WTP processes is 2.5 log. The disinfection after the plant was determined to be 1.76 log removal through the contact time in the two tanks. This results in a total log removal credit of 4.3 log removal which is greater than the required 3 log removal.

The log removal requirement for viruses is a 4-log removal. The credit for virus removal for the WTP process is 2 log. The disinfection credit after the plant was determined to be well in excess of the required log removal and therefore is in compliance.

SGM does recommend that the 500,000 tank be retrofitted with baffles in order to prevent short circuiting and to increase the effective CT time.

A final regulatory challenge is keeping a minimum of 0.2 mg/l chlorine residual in the far reaches of the distribution system and in remote storage tanks including the Coventry Tank and the 200,000-gallon Blue tank. SGM recommends using the hydraulic model to determine water age and the dissipation of total chlorine from the chloramines to determine locations of the low free chlorine residuals. Chloramine chemical feed additions to the distribution system or to tanks can added.

Recommendations Future Expansion, Research, and Capital Projects

Recommendation on future steps and projects at the WTP are as follows:

- Undertake a study to determine filtration requirements necessary to recycle backwash water back through the WTP. This can be compared with applying for a discharge permit and discharging to an approved location.
- Undertake a study to ensure compliance with the DBP and minimum chlorine residual requirements by considering modifications to the WTP processes, addition to aeration or carp to the raw water reservoirs, and the addition of distribution chloramine chemical feed stations. Implement the following DBP/Chlorine residual study.

  <u>DBP/Chlorine Residual Study</u>

- Review historic DBP and chlorine residual data.
- Review WTP monitoring/performance data. Determine WTP process efficiency by monitoring the following at the WTP effluent [with SGM spectrometer].
  - pH
  - Temperature
  - Total Chlorine
  - Free Chlorine
  - Monochloramine
  - Free Ammonia as N
- If required, sample the following parameters at a number of sites during one day (WTP effluent, Storage Tanks, and PRVs or TCR monitoring points).
  - pH
  - Temperature
  - Total Chlorine
  - Free Chlorine
  - Monochloramine
  - Free Ammonia as N
  - TTHMs
  - HAAs? [likely not]
- Consider measuring TOC removal at the existing WTP.
  - Could also quantify TOC in San Miguel River (or proposed second source)
- If needed, use individual billing records to more accurately distribute demands. Run EPS modeling runs to estimate water age at locations throughout distribution system.
- Develop recommendations for
  - Operational improvements to reduce water age [Control valve recommendations from current master plan]
  - WTP process improvements for chloramine generation
  - Chloramine Boosting in Tanks
  - TTHM stripping in tanks or at the WTP
- Begin planning for a WTP plant expansion when demand exceeds 70% of plant capacity.
- Begin pursuit of the San Miguel River supply project.
- Consider adopting a water rights dedication ordinance.
- Install baffles in the 500,000 tank.
- Work with the SWBRT to ensure that these projects are included in the Colorado Water Plan update as IPP’s.

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Figures:

Figure 1. Water System Overview
Figure 2. Average Daily Flow (2016 – 2021)

Tables:

Table 1a: Town of Norwood Population Growth Rate (2010 – 2020)
Table 1b: San Miguel County Population Growth Rate (2010 – 2020)
Table 2a: Average Daily Flow (2016 – 2021)
Table 2b: Average Monthly Flow (2016 – 2021)
Table 3: Projected Tap and Annual Water Demands (2022-2042)

Attachments:

cc.

P:\Project Files\2015-440.009-WaterSupplyAdequacy\E-Reports\SGM\TownOfNorwood_WaterSupplyAdqMemo.docx

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Figure 1. Water System Overview

Town of Norwood

Date: 02/26/2019	Job No.	2015-440.001	Map by: RZM	Checked By: DSS	Scale: 1:5,400

Data Sources: ESRI, Basemap, Division of Wildlife - Streams/Rivers, San Miguel County GIS

P:\Project Files\2015-440.009-WaterSupplyAdequacy\H-Dwgs\GIS\MXDs\WaterSupply-Overview-

The information displayed above is intended for general planning purposes. Refer to legal documentation/data sources for descriptions/locations.

0 2,000 4,000 6,000 8,000 10,000 12,000 Feet

1 inch = 2,000 feet

N