

Norwood Water Commission

Raw Water System Updates and Future Needs Assessment



Prepared for:

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Norwood Water Commission Raw Water Supply Analysis

1.0 INTRODUCTION

1.1 Location

The Norwood Water Commission (NWC) was formed on December 23, 1992, as a water activity enterprise of the Town of Norwood that operates a potable water system. See Appendix A for Resolution of the Town creating the Enterprise.

The Town of Norwood is generally located in an area known as Wrights Mesa on a bench south of the San Miguel River in western San Miguel County and south-western Montrose County (see Location Map, Figure 1). The NWC water system serves both the incorporated Town of Norwood and surrounding unincorporated areas of San Miguel and Montrose Counties.

The NWC service area is in the San Miguel River basin, Water Division 4, Water District 60. The service area is bound on the east by the Beaver Creek drainage basin, on the west by Naturita Creek, and on the north by the San Miguel River. The existing NWC service area, which encompasses approximately 40.5 square miles, as shown in Figure 2A, is supplied water solely by gravity pressure. The extent of the future NWC service area, determined during WWE meetings with the NWC Board of Directors, is shown in Figure 2B. The service area is projected to increase by 40 percent to approximately 56.4 square miles by 2060 or earlier.

1.2 Objectives/Purpose

The purpose of this study is to evaluate the current water supplies available to the NWC for both current and future demands through 2060 and to make recommendations to the NWC on how to meet projected future water needs. This project is partially funded through a grant from the Colorado Water Conservation Board (CWCB). Tasks identified in the grant include:

- Assess average and dry year water supply yield including the 2002 and 2003 drought.

- Incorporate the provisions of the latest NWC contract with the Farmers Water Development Company (Farmers) for Gurley Reservoir storage water into the supply analysis.
- Provide updated estimates of current and future water demand.
- Provide recommendations on protection and enhancement of the NWC portfolio of water rights and strategies for water measurement, conservation and management.

2.0 WATER DEMANDS

2.1 Current

The NWC currently serves approximately 780 taps (2009) in the NWC's existing service area (see Figure 2A). Of the 780 taps, 58 are industrial and commercial taps (or 7 percent of total taps), one is a community water station, and the remaining 721 are household taps (93 percent). While commercial and industrial tap growth tend to outpace residential tap growth, WWE has conservatively set the ratio of industrial and commercial taps to household taps constant over time. Tap growth over the 11-year period of record, from 1999-2009, averaged 2.02 percent per year (see Table 1) with a low of 0.13 percent annual growth in 2007 and a high of 5.45 percent in 2005.

Annual water production for the period of record (2001-2009) at the NWC water treatment plant, by month, is provided in millions of gallons and in acre-feet (AF) in Table 2. Average annual water production over the period of record was 215 AF and ranged from 181 AF (2002) to 241 (2004) AF for the same period (see Table 2).

Water production figures from the water treatment plant on a per tap basis, as provided in Table 3, indicate that the NWC average use of water is 289 gallons/day/tap (gpd/tap). The water demands represent a combination of indoor water use and outdoor landscape irrigation. Average summer water use (May-August) is 364 gpd/tap and winter water use (November – February) averages 230 gpd/tap (see Table 3). The maximum per tap demand was 581 gpd/tap in September 2008.

2.2 Drought

According to the CWCB, Office of Water Conservation and Drought Planning, short duration droughts, of up to three months, occur somewhere in Colorado 9 out of every 10 years. Severe droughts, those lasting multiple years and affecting most of the state, have occurred six times in the past 115 years.

During 2002 through 2003, western Colorado experienced a significant drought that put pressure on many rural water providers, including the NWC. As shown in Table 1, the NWC in 2002 and 2003 was serving 685 and 699 taps, respectively. Treated water production during the drought was 181 AF in 2002 and 194 AF in 2003, compared to an average annual production of 215 AF (see Table 2). According to the Town of Norwood Public Works Director, the bulk of the decrease in water demand came during the summer months when watering restrictions were in place to conserve available supplies.

In order to conserve limited supplies during the drought, the NWC suspended the sale of additional water taps from April of 2002 to October of 2002. Signs were posted at the public community water station in May 2002 to inform users that the water was restricted to indoor use only. Trees were watered with assistance from San Miguel County, delivering through water trucks. In June of 2002, NWC leased an additional 154 shares of water from Farmers, on a one year basis, to address water shortages, and informed customers that use of that water was restricted to indoor use only. From February of 2003 through October of 2003 the NWC instituted a Drought Relief Rate Structure, as a financial incentive for conservation, which raised rates for water use.

2.3 Future Water Demands

WWE evaluated future water demands through a review of the Colorado Water Conservation Board's (CWCB's) Statewide Water Supply Initiative (SWSI), population data from the Department of Local Affairs (DOLA), as well as historical tap growth data from the NWC.

2.3.1 Colorado Water Conservation Board – SWSI 2010

CWCB's SWSI 2010 Report quantified ranges for future Municipal and Industrial (M&I) water demands in the Southwest Basin of Colorado, which includes the NWC service area. For San Miguel County and the portion of Montrose County within the Southwest Basin combined, the projected Municipal and Industrial (M&I) demand increase ranges from 5,900 AF to 11,000 AF by the year 2050. SWSI also attempted to identify the gap in water supply, defined by SWSI as *“a future water supply need for which a project or method to meet that need is not presently identified.”* The projected M&I water supply gap for the same area by 2050 ranges from 4,500 AF to 10,000 AF. SWSI did not address M&I water supply gaps specifically for the NWC service area. Extrapolation of NWC specific data from SWSI 2010 was not carried out under the scope of this report.

2.3.2 Population Growth

WWE evaluated 2010 census data, as compiled by DOLA and growth projections for unincorporated San Miguel County. DOLA projects an average growth rate in unincorporated San Miguel County of 2.6 percent over the next 30 years. There are no projections for growth in the Town of Norwood specifically. The Town of Norwood population grew at an average annual rate of 1.7 percent from 2000 to 2010; and unincorporated San Miguel County population grew at an average annual rate of 1.1 percent over the same period. To project the future population of the Town of Norwood, WWE used the rate of 2.6 percent projected by DOLA for unincorporated areas of San Miguel County. This assumption is conservative since the Town of Norwood grew at a faster rate than San Miguel County over the previous decade.

WWE used the current ratios, of people per tap, to estimate population-based future residential tap numbers for both the Town of Norwood and the NWC, as shown in Table 4-B. Within the Town of Norwood, the ratio is approximately one tap per 1.7 people. In the unincorporated areas within the NWC, the ratio is one tap per 1.4 people. The resulting future population-based residential tap numbers are 1,273 taps in unincorporated NWC and 661 taps within the Town of Norwood by 2040. The combined Town and NWC future residential taps, within the future service area shown in Figure 2B, total 1,934 taps by 2040. It is important to note, this growth in

residential taps does not include growth in industrial or commercial taps. If commercial and industrial taps are assumed to grow at the same projected rate as the population (2.6%), there would be 2,059 taps in the future NWC service area by 2040.

2.3.3 Tap Growth

For the period from 1999 through 2009 (See Table 1), the historical growth in water tap numbers for the NWC averaged 2.02 percent per year, with growth as high as 5 percent (2005) and nearly zero in 2007. For this reason, growth scenarios were developed to evaluate water demands for a tap expansion of from 1 percent to 3 percent. Given the proposed expansion of the existing NWC service area of roughly 40 percent and the historical average growth rate of over 2 percent, for the purposes of long-term water supply planning, an average annual tap growth of 3 percent is used in this study.

Using NWC historical tap growth rates, WWE calculated total taps (industrial and commercial included) in 2040 would equal 1,950 taps (see Table 4-A). As discussed in section 2.3.2, population growth would result in 1,934 residential taps plus an additional 125 commercial and industrial taps, a total of 2,059 taps, by 2040.

2.3.4 Future Water Demands

With a three percent annual growth in tap demand over the next 50 years, based on current water use practices, the NWC will require 1,034 AF of firm annual supply to provide water to 3,522 taps by 2060 (Table 4-A). Projections of future water demand based on both population growth and tap increases are similar.

Based on a three percent tap growth scenario and the historical occurrence of drought, a future storage capacity with multiple years of carry-over storage is recommended. As shown in Table 5, to provide three years of supply to the NWC service area would require 4,000 AF of storage capacity. This figure assumes 7.5 percent dead storage as well as a 20 percent allowance for system losses, including conveyance and treatment plant losses.

Evaporative losses from the water surface of a reservoir vary based on pool size and reservoir elevation. Evaporation rates for the reservoir options, included in Section 5.0, below, based on CDSS evaporation contours, range from 2.9 to 3.75 feet per year. The reservoir options vary in surface area from 55 acres to 215 acres, assuming full pools. Therefore, full pool evaporation estimates would range from 159 AF per year to 806 AF per year.

2.4 Conservation

As a result of NWC actions taken during the drought of 2002 and 2003, per tap water demand was reduced by 16 percent. It is not uncommon for water conservation programs to generate up to 20 percent reductions in water demand. It is recommended that the NWC develop and adopt long-term conservation measures to realize measurable reductions in water demand during non-drought periods as well. The NWC should also evaluate water lost to the system between the treatment plant and points of delivery to identify where system improvements could conserve water supplies. Based on the results of these conservation measures and actions, long-term projections in demand growth should be adjusted accordingly.

3.0 WATER SUPPLY – EXISTING

The NWC uses adjudicated domestic/municipal water rights (see Figure 3) and contract storage water in Farmers' Gurley Reservoir to supply its customers with domestic water supplies. The existing adjudicated direct flow and storage water rights utilized by the NWC system are outlined in Table 6. Decrees are provided in Appendix B.

3.1 Gurley Reservoir

The NWC entered into the Water Supply Agreement (2005 Agreement) with Farmers on April 12, 2005, to receive up to 300 AF of raw water from Gurley Reservoir on an annual basis to provide water for domestic use in the “Norwood Domestic Water System,” (Appendix C). This water supply has first priority in Gurley Reservoir and, therefore, is unaffected by the volume of water available to Gurley Reservoir shareholders. The Agreement is perpetual and may be terminated only upon the written agreement of both parties, or unilaterally by Farmers, but only if

the NWC has not requested water for a 36-month period. Water rights for the Gurley system are shown in Appendix E.

In addition to the water available under the 2005 Agreement, the NWC holds 119 shares in the Farmers' system (see Share Certificates in Appendix D). Because these 119 shares are irrigation shares, however, they have not been utilized for domestic supply within the NWC service area and are currently leased for agricultural uses.

Development of a new parallel, raw water irrigation system in the Town of Norwood to utilize the 119 shares of Farmers' water could free up some potable water. Table 7 provides an estimate of future outdoor water use, ranging from 40 AF in year 2010 to 174 AF in year 2060. To obtain a more useable water supply, the NWC might also be able to exchange its 119 shares of Farmers' water with Lone Cone Ditch and Reservoir Company water users for the delivery of Lone Cone Reservoir water to the NWC system because a number of Lone Cone shareholders also own shares in Farmers.

3.2 Priority 214 (Case No. CA4348)

The Town of Norwood was adjudicated first claim to 0.25 cubic feet per second (cfs) of the original 1.0 cfs adjudication decreed to the Farmers Naturita Canal (Priority 214) on October 16, 1933, with an appropriation date of 10/21/1926, in CA4348 (see Appendix B). The point of diversion for NWC's 214 water right is in Gurley Canyon (also known as Maverick Gulch and utilized as the lower Gurley Ditch) (see Figure 3). The water for this right originates from springs and seeps from below the Gurley Dam to the point of the NWC intake. Because of operational limitations of the Gurley Reservoir outlet structure, this water has not historically been a dependable water source for the NWC.

Operational guidelines for NWC's 214 water right promulgated by Kenneth Knox, Division Engineer on November 12, 1996 are as follows (also see Appendix F):

- During spring runoff, the Town of Norwood may exercise its 214 entitlement if senior downstream demand is being met or if the releases from Gurley Reservoir are greater than the 200 cfs combined total of Naturita Canal decrees senior to the 214 right.

- During the irrigation season, when inflows to the Gurley Reservoir are not sufficient to meet senior irrigation water demands, the NWC's 0.25 cfs is deemed out of priority based on the senior direct flow irrigation rights in the Naturita Canal.
- During the post-irrigation season, defined as that period in which senior downstream irrigation demand does not exceed available supplies and the Gurley outlet gate remains partially open, Priority 214 may divert its full entitlement when there is a sufficient surface water supply.
- During the Gurley Reservoir storage season, in the late fall when the reservoir outlet gate is fully closed, Priority 214 may divert excess surface water accruing within Gurley Canyon below the dam that is not necessary to meet senior downstream demands.

Based on a site visit in 2010 with Aaron Todd, District 60 Water Commissioner, WWE's understands that NWC generally can divert its full amount (0.25 cfs) under the 214 water right in periods when Gurley Reservoir is not releasing water during the non-irrigation season. Thus, during the irrigation season, when Gurley Reservoir releases occur, NWC cannot divert water under its 214 water right.

Based on information from the Office of the State Engineer, the source of the water for the 214 water right is water accruing to Gurley Canyon downstream of Gurley Dam, limited to reservoir seepage and irrigation return flows. There are approximately 200 acres of irrigated land upgradient of the 214 water right. WWE's understanding is that:

- 1) The 214 water right is subject to curtailment during the irrigation season, and
- 2) The 214 water right relies upon seepage and irrigation return flows which are both subject to irrigation practices and drought.

It is WWE's opinion that the 214 water right is not a dependable water source to meet NWC future needs, especially in a dry year.

3.3 Gardner Pipeline

The Gardner Pipeline was decreed for up to 0.5 cfs in CA9042 with an adjudication date of 1/6/1967 (see Appendix B). This water is diverted into the NWC system via a perforated concrete pipeline. The NWC can pump this water into NWC Reservoir No. 1 (Section 3.6 below) or allow it to gravity flow either to NWC Reservoir No. 2 or directly into the NWC Water Treatment Plant.

The Gardner Pipeline water right is located in Gurley Canyon near the point of diversion for the 214 water right (see Figure 3) and, according to WestWater Engineering, the springs that serve the Pipeline are highly influenced by flow in Gurley Canyon and, historically, by return flows from approximately 188 acres of irrigated fields in the vicinity.

According to WestWater Engineering (1995), the yield of the Gardner Pipeline could be as high as 45,000 to 50,000 gallons per day (gpd) during the irrigation season, decreasing to 20,000 to 25,000 gpd during the winter. Recent conversions from flood to sprinkler irrigation in the 188 acres have decreased the yield at the Gardner Pipeline (per conversations with Town of Norwood Public Works Director). As in the case of the 214 water right, the Gardner Pipeline right may be subject to administration during the irrigation season, which was not accounted for in the WestWater analysis. Water available to the Gardner Pipeline depends upon seepage below Gurley Dam and return flows from irrigated lands and, therefore, the Pipeline water right is not considered a dependable water source for NWC future water supplies, especially during dry years.

3.4 Norwood Infiltration Pipeline

The Norwood Infiltration Pipeline, decreed in Case CA9042 (see Appendix B), has two priorities: Priority No. 513 for 0.57 cfs absolute and No. 513c for 0.18 cfs conditional (see Table 6). Water for this right is collected via an underground perforated pipeline which has had output of up to 0.57 cfs, according to WestWater Engineering (1995). The source is “springs and groundwater in Gurley Canyon.” Water in the Gurley Ditch, adjacent to the perforated pipeline, is a likely source of recharge. Per the order from Ken Knox on operation of the 214 right (Appendix F), if and when the production from the infiltration pipeline reaches 0.75 cfs

(approximately 540 AF/yr) the NWC must forego diversions under its Priority No. 214 water right.

The Norwood Infiltration Pipeline may be subject to administration during the irrigation season as are the 214 and Gardner Pipeline rights. The administration of the Norwood Infiltration Pipeline is not accounted for in the WestWater analysis.

In conversations with the Town of Norwood Public Works Director, WVE learned that diversions of this water right are not continuously measured. It is recommended that the NWC install a measuring device and establish an accurate yield for the infiltration pipeline.

As in the case of the 214 and Gardner Pipeline water rights, water available to this diversion depends upon seepage from Gurley Dam and return flows from irrigated lands and is not considered a dependable water source for NWC future water supplies, especially during dry years.

3.5 Town of Norwood Well

As an additional water supply, the Town of Norwood owns a well, with Permit No. 22706-F, issued in December of 1978 (See Appendix G). The well is located on land leased from the State Land Board for a term of 99 years (expiring December, 2077). Pump tests indicated that the well could produce a sustainable water supply of 50 gallons per minute but was limited in the permit to a maximum withdrawal of 28 acre-feet (AF) per year, from unknown reasons. Based on conversations with the Town of Norwood Public Works Director, the well was abandoned due to pumping costs and the limited supply available from the well. Therefore, all pumping and metering equipment has been removed from the well and the Town of Norwood Well is not considered a dependable water supply for future NWC growth.

3.6 NWC Raw Water Storage

The NWC was decreed, in Case 01CW270, raw water storage in the NWC Reservoirs 1 – 4 (see Table 6). Reservoirs 1 and 2 have been constructed with storage capacities of 18.4 AF and 91.0 AF, respectively. When constructed, Reservoirs 3 and 4 could create additional storage capacity

of 91.0 AF and 33.0 AF, respectively. Reservoirs 1 and 2 are filled using water from the 214 water right, the Gardner Springs and Pipeline, and water delivered from Gurley Reservoir under the 2005 water Agreement. Reservoirs 3 and 4, when constructed, would be filled by the same sources.

3.7 Current Water Rights Summary

Based on the analysis by WestWater Engineering, the estimated yield of the NWC's direct flow rights during a dry year is approximately 142 AF (see Appendix D). This estimated yield does not account for water rights administration during the irrigation season and overestimates the annual yield of these water rights. Because the yield of NWC water rights is not clear since there are no reliable long-term diversion records; the rights are highly dependent upon irrigation return flows and seasonal flows in the lower Gurley Ditch; the rights are all located in the same vicinity; and they are subject to administration by senior water rights, the NWC water system is considered vulnerable to supply shortages, especially during drought years. Therefore, the NWC direct flow water rights are not a reliable long term source of water supply during drought years.

4.0 UNDEVELOPED WATER SUPPLY

4.1 NWC River Diversion

The NWC River Diversion is a 5.0 cfs conditional water right on the San Miguel River at the mouth of Beaver Canyon, decreed in Case 94CW244, with a 11/1/1994 appropriation date (see Appendix B). This water right could provide a substantial amount of the water necessary for the future water needs of the NWC. The yield of this water right, however, is restricted by decreed limitations based on streamflow and administrative calls by downstream senior water rights. During drought periods, the full decreed amount would typically be available only during spring runoff.

Based on the timing of water available to this right, sufficient storage to meet future NWC water needs, in addition to that in NWC Reservoirs 1 through 4, would be required to utilize this water right to its full potential.

4.2 Norwood-Nelson Ditch

The Norwood-Nelson Ditch is a conditional water right for 10.0 cfs decreed in Case 91CW0065, with a 7/24/1991 appropriation date, on McCulloch Creek (see Table 6), which is tributary to Beaver Creek. It is senior to the CWCB instream flow on Beaver Creek and is, therefore, not subject to curtailment by the instream flow water right. The contributing area to the Norwood-Nelson Ditch is relatively small and is very high up in the basin. Water would typically be available during snowmelt in large quantities but the supply would be much less dependable later in the year. Therefore, sufficient storage, in addition to that in NWC Reservoirs 1 – 4, would be required to utilize this water right to its full potential.

4.3 NWC Gurley Diversion

The NWC Gurley Diversion is a conditional water right for 5.0 cfs on Maverick Draw near the NWC Reservoir No. 1, decreed in Case 94CW245 with an appropriation date of 11/1/1994 (see Appendix B). The contributing basin for this diversion extends from the outlet of Gurley Reservoir downstream to the point of diversion. It is possible that some water may be available to this right during the non-irrigation season when releases from Gurley Reservoir are not occurring. However, because the operations of Gurley Reservoir dictate the flow regime in Maverick Draw, this water right is not considered a dependable source for a sustainable future water supply to the NWC.

4.4 Shares in Farmers' Water Development Company

The NWC has 119 shares of irrigation water in the Farmers' Water Development Company's (FWDC) Gurley Reservoir that are currently leased to others (share certificates are in Appendix D). According to WestWater Engineering (1995), there are a total of 7,113 shares in the FWDC. With average Reservoir releases totaling 18,597 AF/yr, each share yields an average of 2.6 AF/yr (1978-2009). NWC's FWDC shares in Gurley Reservoir represent an average yield of 309.4 AF/yr (2.6 AF/share x 119 shares).

The average water demand per NWC tap during the summer (May - August) from 2000-2009 was 364 gpd/tap, 134 gpd/tap more than the average winter demand (November - February). The

majority of the additional water use is for landscape irrigation. Therefore, the NWC might be able to increase the amount of treated water available to meet future demand through the construction of a parallel raw water irrigation system designed to utilize NWC's FWDC shares for landscape irrigation. Such a parallel system could have increased current water available for indoor use by 41 AF/year during 2010 for the months of May-August (see Table 7). The NWC could potentially increase its treated water supply by 178 AF in 2060 by developing a parallel raw water system for outdoor use, also shown in Table 7. The feasibility and costs of this new raw water system have not been evaluated.

5.0 OPTIONS FOR FUTURE WATER SUPPLY TO THE NWC SERVICE AREA

In 2010, WVE developed a series of preliminary options to address NWC's future water supply needs. These options include various combinations of new surface and storage water rights and reservoir enlargements. The water storage volume needed to provide one year of supply and two years of carryover storage was determined to be 4,000 AF, as described in Section 2.3 and shown on Table 5. Because of the junior nature of any new water rights, their yield in dry years will be limited, necessitating carryover water storage capacity. The locations of the water rights for which applications have been filed with the Division 4 Water Court in Cases 10CW202 and 203 are shown in Figure 4 and the filings are summarized in Table 8.

In developing future water supply options, neither the yield of the 300 AF under the 2005 Agreement nor the 119 additional shares FWDC water in Gurley Reservoir were considered because of delivery issues during the non-irrigation season, legal water availability constraints, and aging Gurley system delivery facilities.

NWC's direct flow water rights were also not considered in the development of future water supply options because their yield is undetermined due to lack of historical diversion records, the connection of said water rights to irrigation practices and season, as well as the goal of creating redundancy in the water supply system for NWC. The calculated future water supply for the NWC is 4000 AF provided in one or a combination of alternatives to meet future demand.

5.1 Surface Diversions

Water availability was evaluated throughout the Fall Creek, Beaver Creek, and San Miguel River basins, through analyses of call records, streamflow records, amounts of existing CWCW instream flows and potential yield from the basins of interest. Prior reports were reviewed to help identify feasible options for the NWC.

Fall Creek (J. & M. Hughes Ditch)

During the development of the alternatives to the San Miguel Project (Bureau of Reclamation *Planning Report on the San Miguel Project*, Colorado, May 1982), Fall Creek was identified as a potential source for additional water. Therefore, WWC evaluated Fall Creek as a potential future supply for the NWC.

The primary diversion on Fall Creek is the J.&M. Hughes Ditch, which is decreed for 40 cfs (Case Nos. CA5882 and W0680). The Williams Ditch (CA4348) has also historically diverted water at the J.&M. Hughes Ditch point of diversion. The Ditch Company filed an application in Case 10CW210 for alternate points of diversion at newly surveyed points along the Ditch.

The CWCW holds a 5.0 cfs instream flow on Fall Creek in the vicinity of the J.&M. Hughes Ditch. An evaluation of the contributing basin, historical stream gage records, and the amount of the CWCW instream flow right revealed that additional water has historically been available on Fall Creek. The average monthly flows for the period of record, 1941 and 1959, at the Fall Creek gage near Fall Creek, CO (9172000) are presented in Table 9. Runoff modeling for the contributing basin to the J.&M. Hughes Ditch is also provided in Table 9. The NWC J.&M. Hughes Ditch Enlargement (applied for in Case No 10CW202) provides for both a use enlargement and a potential physical enlargement of the J.&M. Hughes Ditch to deliver an additional 40 cfs of water to various reservoirs, both current and future, as discussed in later sections herein. The actual need for a physical J.&M. Hughes enlargement will be assessed in a feasibility analysis of hydrology, ditch capacity, and institutional constraints and opportunities.

Beaver Creek

The 1988 *Interim Report for the San Miguel Project Feasibility Study*, prepared by Boyle Engineering, listed Beaver Creek as one of the proposed additional options for San Miguel Project water supplies, including an increase in diversion by the Naturita Canal of 175 cfs in the upper Beaver Creek drainage.

In Case 10CW202, NWC applied for the NWC Goat Creek Pump Station, with ten alternate points of diversion from the Farmers' Naturita Canal out of Beaver Creek. Beaver Creek is the primary source of water for the Farmers' Naturita Canal, which diverts water high in the Beaver Creek drainage, water for delivery to Gurley Reservoir and the Farmers' irrigation delivery system.

The CWCB holds an instream flow water right of 2.5 cfs from August 1 to May 31 and 5.0 cfs from June 1 to July 31 on the lower section of Beaver Creek which limits the amount of water which would be available to NWC in priority from Beaver Creek.

A water availability analysis, performed at the NWC Goat Creek Pimp Station location directly upstream of the instream flow on Beaver Creek, determined both average and dry year water availability. Table 10 shows the amount of water available at the Beaver Creek stream gage over the period of record (1941-1981) as well as for dry and average years. The analysis assumes an active call from downstream senior water rights and subtracts the decreed CWCB instream flow rates.

During 1977, the driest year for which there are gage records, 776 AF of water was available in Beaver Creek at the upstream terminus of the Beaver Creek instream flow in early spring. The 2002 dry water year is not included in the gage's period of record. After subtracting the CWCB instream flow amount, the average amount of available water over the period of record at the Beaver Creek Gage was 8,909 AF/yr (see Table 10). The average flow rate over the period of record was 12.3 cfs. In the April to July period, the available streamflow averaged 34.4 cfs during the period of record, after subtracting 5 cfs for the CWCB instream flow. The maximum available flow at the Beaver Creek stream gage for the period of record was 473 cfs on June 6, 1957. More recently, on June 8, 1979, 212 cfs was available after subtracting the 5 cfs CWCB

instream flow. These recorded flows, adjusted to meet the CWCB instream flow, are greater than the 175 cfs applied for in Case No. 10CW202.

San Miguel River: Naturita Pump Stations 1 and 2

In Case 10CW202, NWC applied for two additional pump station points of diversion directly out of the San Miguel River. The Naturita Gage on the San Miguel River near Naturita, CO is located downstream of large senior irrigation water rights. During an average water year (1978), nearly 227,000 AF of water was available at the Naturita Gage (see Table 11). The average annual amount of water available over the period of record (1917-1981) is slightly higher, with over 238,000 AF available at the gage. In 1977, the driest year of record, 48,954 AF of water was available at the Naturita Gage. In 1978, flows at the gage averaged 311 cfs. Over the period of record, flows averaged 328 cfs. In the driest year (1977), flows at the Naturita Gage averaged 67.5 cfs (see Table 11).

To meet an annual NWC demand of over 1000 AF in 2060, plus two years of carryover storage, the average flow rate at the two new San Miguel River points of diversion would need to be approximately 6.0 cfs.

A review of administrative records did not identify administration from senior calling water rights in the reach of the San Miguel River downstream of the Naturita Gage and proposed pump station options (PODs). Given the water available in priority, development of the new Naturita pump stations may not require NWC to construct 4,000 AF of storage. However, an analysis of the potential development of conditional water rights and existing water rights in the Uravan area would be required to fully assess the actual amount of water available in priority at the new NWC San Miguel River PODs.

5.2 Storage Reservoirs

Water availability in the NWC service area and contributing areas is driven primarily by snow-melt/spring runoff. During the spring and early summer there is more water available than there is demand and much of the available water is not diverted. This pattern of early season runoff

necessitates some level of new storage for the NWC to provide water to the service area later in the summer and through the winter months.

As discussed earlier (see Section 2.3 above), with a 3 percent growth in tap demand through 2060, the NWC will need to provide 1,034 AF of water per year to satisfy its customers' water demands. Assuming that droughts will continue to occur, as historically (see Section 2.2), WWE has estimated that NWC will need two years of carryover storage. Therefore, each reservoir site will need a capacity of 4,000 AF of storage, assuming 7.5 percent for dead space, 20 percent for system and water treatment losses (Table 5) and reservoir evaporation, as discussed in Section 2.3.3. The six reservoir sites that lie within the basins having an available water supply, in priority, that can deliver to the existing NWC infrastructure (see Figure 4 with locations noted by triangles) are discussed in following sections. Only one reservoir site or a combination of smaller reservoir sites is needed to provide the NWC with the calculated 4000 AF of water supply.

Beaver Park Reservoir – Case 10CW202

This reservoir site lies in Beaver Park, southeast of the Town of Norwood, below the Gurley collection system. The reservoir would receive its water supply primarily from the J.&M. Hughes Ditch, with contributions from Beaver Creek and its tributaries. The Bureau of Reclamation first evaluated this reservoir site in the *Planning Report on the San Miguel Project, Colorado*, May 1982. To convey water from the J.&M. Hughes Ditch to the reservoir would require the construction of approximately 5.5 miles of conveyance canal. Any new structures would require the proper acquisition of easements or authorizations for land use from private and/or public entities.

Huff Gulch Reservoir – Case 10CW202

The Huff Gulch Reservoir is an on-channel reservoir on Huff Gulch, southeast of the Town of Norwood. The reservoir's primary sources of water would be an extension of the J.&M. Hughes Ditch, Beaver Creek, and Huff Gulch itself.

Upper Gurley Reservoir – Case 10CW202

This reservoir site is situated just above and south of the existing Gurley Reservoir and would receive water via the Farmers' Naturita Canal system. Since NWC does not own water rights in the Naturita Canal, it would have to provide a supplemental water source to fill the Upper Gurley Reservoir. The primary potential water sources for the reservoir would be the J.&M. Hughes Ditch and Beaver Creek. This reservoir site was evaluated in the *San Miguel Project Water Supply Study, Phase 1 Final Report — Technical Appendices* prepared by Boyle Engineering Corporation for the CWCB, June 1989. To deliver water to the Upper Gurley Reservoir from the J.&M. Hughes Ditch would require the construction of a siphon or trestle to convey water across Beaver Canyon. Water delivered to Upper Gurley Reservoir from Beaver Creek would require the construction of a pump station and pipeline, with appropriate land use authorization, or use of the Naturita Canal. Any use of the Naturita Canal would require appropriate authorization.

Enlarged Lone Cone Reservoir – Case 10CW203

Enlargement of the existing 1,800 AF Lone Cone Reservoir, directly south of the Town of Norwood, to accommodate an additional water supply, would benefit both the NWC and the Lone Cone Ditch and Reservoir Company. Water could be delivered to this enlarged reservoir via the J.&M. Hughes Ditch or at a point of diversion on Beaver Creek below the Gurley collection system. This reservoir site was evaluated in the November 1984 *Lone Cone Reservoir Enlargement Project Feasibility Study* prepared by Western Engineers, Inc. To deliver water to the Enlarged Lone Cone Reservoir from the J.&M. Hughes Ditch would require the construction of a siphon or trestle across Beaver Canyon. To deliver water to the Enlarged Lone Cone Reservoir from Beaver Creek would require the construction of a pump station and pipeline or use of the Naturita Canal, which would require appropriate authorizations.

Ed Joe Draw Reservoir – Case 10CW202

This on-channel reservoir is located in Ed Joe Draw, south of the Town of Norwood, and downstream of the Lone Cone Reservoir. It would receive storage water from the J.&M. Hughes Ditch or Beaver Creek below the Gurley collection system via the Lone Cone Reservoir and the Lone Cone Ditch and Reservoir Company's delivery system. This reservoir site was evaluated in

the *San Miguel Project Water Supply Study, Phase 1 Final Report — Technical Appendices*, June 1989, prepared by Boyle Engineering Corporation for the CWCB. To deliver water to the Ed Joe Draw Reservoir from the J.&M. Hughes Ditch would require the construction of a siphon or trestle across Beaver Canyon. To deliver water to Ed Joe Draw Reservoir from Beaver Creek would require the construction of a pump station and pipeline or use of the Naturita Canal. Use of the Naturita Canal would require appropriate authorizations.

Old Town Reservoir – Case 10CW202

This site, no longer in use for water storage, located due west of the Town of Norwood, was at one time filled with water from the Lone Cone Reservoir. A small 183 AF reservoir could be constructed at the site to provide water to the NWC service area. Water could be provided to this site via the J.&M. Hughes Ditch or from a point of diversion on Beaver Creek below the Gurley collection system. To deliver water to the Old Town Reservoir site from the J.&M. Hughes Ditch would require the construction of a siphon or trestle across Beaver Canyon. Water delivered to Old Town Reservoir from Beaver Creek would require the construction of a pump station and pipeline.

6.0 SUMMARY AND RECOMMENDATIONS

6.1 Summary

The NWC has water rights (conditional and absolute) as well as contract water in Gurley Reservoir to provide potable, industrial and irrigation water to the NWC's service area (see Figure 2A). The NWC currently serves 780 taps. With sustained tap growth, at rate of three percent, NWC would need to serve 3,522 taps by 2060, requiring 1,034 AF of water on an annual basis.

NWC's existing direct flow water rights are located in Gurley Canyon, which also serves as the Farmers' Lower Gurley Ditch. The existing direct flow rights are subject to administration during the irrigation season, rely on irrigation return flows and seepage from Gurley Reservoir

and/or Gurley Ditch and are not considered a reliable municipal source, especially during drought years.

In order to meet NWC's future water demand, as identified in this report and by the CWCB in the SWSI 2010 Report, NWC's current water supplies need to be protected and enhanced and additional water supplies need to be developed to serve the NWC service area. This report developed several options which include surface diversions, storage reservoirs, and a parallel raw water delivery system.

6.2 Recommendations

For the NWC to be able to serve its 2060 water demands, WWE recommends the following:

- To protect and enhance NWC's current water rights:
- Install monitoring equipment at points of diversion for existing absolute direct flow water rights to better quantify the yields of these rights.
- Continue diligence on conditional water rights held by the Town of Norwood and NWC
- Continue to work with the Division of Water Resources on the administration of the Priority 214 Water Right.
- Continue a strong working relationship with Farmers Water Development Company to maintain water supplies as well as to develop future opportunities to meet NWC's growing water demands.
- Improve upon existing metering at the community water station to better determine types of uses and user numbers.
- Evaluate the feasibility of a raw water irrigation system for all or part of the NWC service area, utilizing the 119 shares of Gurley Reservoir water, to free up potable water supplies and reduce treatment costs.
- Investigate the exchange potential between Gurley and Lone Cone Reservoirs.

- Implement long-term conservation measures to realize reductions in water demand during both drought and non-drought periods.

To meet NWC's future demand, WWE recommends that the Town develop future supplies to serve its customer base as follows:

- Work with area water rights holders, ditch companies and landowners to understand institutional constraints to the development of future water supplies.
- Develop a cost-benefit and engineering analysis of the options presented in this report to identify the most feasible options.
- Within institutional and cost-benefit constraints, identify the most feasible combination of existing and future water supply options to secure water to meet the NWC's future demands.
- Pursue water rights applications filed in Case Nos. 10CW202 and 10CW203.

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TABLES

Table 1
Norwood Water Commission
Water Tap Counts

Year	Taps Total	Taps Sold	Percent Change
1999	639		
2000	647	8	1.25%
2001	664	17	2.63%
2002	685	21	3.16%
2003	699	14	2.04%
2004	715	16	2.29%
2005	754	39	5.45%
2006	771	17	2.25%
2007	772	1	0.13%
2008	777	5	0.65%
2009	780	3	0.39%
Average		14.1	2.02%

Notes:

Data Received 7/21/2010 from Patti Grafmyer at the Town of Norwood

In 2007 NWC raised PIF fees from \$6000 to \$12000.

Table 2
Norwood Water Commission
Water Production Records
(Values in Millions of Gallons)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Monthly Average
Taps	664	685	699	715	754	771	772	777	780	
Jan.	5.6	5.4	4.1	4.5	4.2	4.6	5.6	2.2	4.4	4.5
Feb.	5.2	5.6	3.8	4.4	3.9	4.4	4.1	4.7	3.9	4.4
Mar.	5.3	5.7	4.6	4.9	4.9	4.7	5.2	4.8	4.5	4.9
April.	5.4	5.6	4.8	8.1	4.4	5.2	5.3	4.9	4.5	5.3
May	7.0	5.4	5.6	8.8	6.1	7.9	6.0	6.5	6.2	6.6
June	9.4	5.5	6.6	7.9	7.2	8.4	8.5	9.4	7.2	7.8
July	7.6	5.2	8.2	9.2	9.4	6.5	8.6	9.9	8.7	8.1
Aug.	6.9	5.3	7.3	7.0	7.2	5.6	6.6	10.4	8.3	7.2
Sept.	8.4	4.0	5.7	5.9	7.5	5.1	6.0	11.6	6.4	6.7
Oct.	5.7	3.9	4.7	5.7	6.0	4.9	5.0	5.2	4.9	5.1
Nov.	5.0	3.5	3.9	6.1	5.4	4.4	4.5	4.0	4.7	4.6
Dec.	5.2	4.0	3.8	6.0	4.6	5.0	4.9	4.3	5.1	4.8
Total	76.6	59.0	63.1	78.5	70.7	66.7	70.2	77.8	68.6	70.1
Production per Tap	0.12	0.09	0.09	0.11	0.09	0.09	0.09	0.10	0.09	0.10

Notes:

Data Received 7/21/2010 from Patti Grafmyer at the Town of Norwood

Water Production Records
(Values in Acre-Feet)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Monthly Average
Taps	664	685	699	715	754	771	772	777	780	
Jan.	17.2	16.6	12.6	13.8	12.9	14.2	17.3	6.6	13.4	13.8
Feb.	16.0	17.2	11.7	13.3	12.1	13.6	12.6	14.4	11.8	13.6
Mar.	16.2	17.5	14.1	14.9	14.9	14.4	15.8	14.6	13.8	15.1
April.	16.4	17.2	14.7	24.9	13.4	15.9	16.1	15.1	13.8	16.4
May	21.3	16.4	17.2	27.1	18.6	24.2	18.4	19.8	18.9	20.2
June	28.9	16.9	20.3	24.2	22.2	25.6	26.2	28.9	22.1	23.9
July	23.3	16.1	25.2	28.4	28.8	19.9	26.3	30.4	26.5	25.0
Aug.	21.2	16.2	22.4	21.4	22.1	17.2	20.2	31.8	25.4	22.0
Sept.	25.7	12.1	17.5	18.2	22.9	15.7	18.3	35.5	19.8	20.6
Oct.	17.3	11.8	14.4	17.5	18.5	15.0	15.3	15.9	14.9	15.6
Nov.	15.3	10.7	12.0	18.8	16.6	13.6	13.9	12.4	14.4	14.2
Dec.	16.0	12.3	11.7	18.3	14.0	15.5	14.9	13.2	15.7	14.6
Total	235	181	194	241	217	205	215	239	211	215
Production per Tap	0.35	0.26	0.28	0.34	0.29	0.27	0.28	0.31	0.27	0.29

Table 3
Norwood Water Commission
Historical Water Use per Tap
(All values in Gallons per Tap per Day)

Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average	Minimum	Maximum
JANUARY	273	263	199	219	204	224	274	105	212	219	105	274
FEBRUARY	278	298	203	232	210	237	219	251	206	237	203	298
MARCH	257	277	223	236	237	228	251	231	218	240	218	277
APRIL	269	282	241	407	220	261	264	246	226	268	220	407
MAY	338	260	272	429	294	383	291	314	299	320	260	429
JUNE	473	277	331	396	363	419	428	473	362	391	277	473
JULY	369	255	398	449	455	316	416	482	420	396	255	482
AUGUST	336	257	355	338	350	272	320	503	403	348	257	503
SEPTEMBER	421	198	286	298	374	256	300	581	323	338	198	581
OCTOBER	274	187	228	277	293	238	242	252	236	248	187	293
NOVEMBER	251	176	196	307	272	222	227	202	235	232	176	307
DECEMBER	253	194	185	290	222	245	236	208	248	231	185	290
Annual Average	316	244	260	323	291	275	289	321	282	289	244	323
Summer Average	379	262	339	403	366	347	364	443	371	364	262	443
Winter Average	264	233	196	262	227	232	239	192	225	230	192	264
July	369	255	398	449	455	316	416	482	420	396	255	482
January	273	263	199	219	204	224	274	105	212	219	105	274
TAPS	664	685	699	715	754	771	772	777	780			

Source: Town of Norwood

Notes:

1. Water use calculated by dividing water production records by number of taps in use
2. Summer defined as May - August
3. Winter defined as November - February

Table 4-A
Norwood Water Commission
Tap and Water Demand Growth Scenarios

Year	Number of Taps			Total Annual Water Demands						Average July Water Demands			Average January Water Demands		
				Acre-Feet			Millions of Gallons			Acre-Feet			Acre-Feet		
Growth Rate-->	1%	2%	3%	1%	2%	3%	1%	2%	3%	1%	2%	3%	1%	2%	3%
2010	788	796	803	231	234	236	75.3	76.1	76.8	28.7	29.0	29.3	15.9	16.0	16.2
2011	796	812	828	234	238	243	76.1	77.6	79.1	29.0	29.5	30.1	16.1	16.4	16.7
2012	804	828	852	236	243	250	76.9	79.2	81.5	29.3	30.1	31.0	16.2	16.7	17.2
2013	812	844	878	238	248	258	77.6	80.7	84.0	29.6	30.7	32.0	16.4	17.0	17.7
2014	820	861	904	241	253	265	78.4	82.4	86.5	29.9	31.4	32.9	16.5	17.4	18.2
2015	828	878	931	243	258	273	79.2	84.0	89.1	30.1	32.0	33.9	16.7	17.7	18.8
2016	836	896	959	245	263	282	80.0	85.7	91.7	30.5	32.6	34.9	16.9	18.1	19.4
2017	845	914	988	248	268	290	80.8	87.4	94.5	30.8	33.3	36.0	17.0	18.4	19.9
2018	853	932	1018	250	274	299	81.6	89.2	97.3	31.1	33.9	37.1	17.2	18.8	20.5
2019	862	951	1048	253	279	308	82.4	90.9	100.3	31.4	34.6	38.2	17.4	19.2	21.1
2020	870	970	1080	255	285	317	83.2	92.8	103.3	31.7	35.3	39.3	17.6	19.6	21.8
2021	879	989	1112	258	290	326	84.1	94.6	106.4	32.0	36.0	40.5	17.7	20.0	22.4
2022	888	1009	1145	261	296	336	84.9	96.5	109.5	32.3	36.7	41.7	17.9	20.4	23.1
2023	897	1029	1180	263	302	346	85.7	98.4	112.8	32.6	37.5	43.0	18.1	20.8	23.8
2024	906	1050	1215	266	308	357	86.6	100.4	116.2	33.0	38.2	44.2	18.3	21.2	24.5
2025	915	1071	1252	268	314	367	87.5	102.4	119.7	33.3	39.0	45.6	18.4	21.6	25.2
2026	924	1092	1289	271	321	378	88.3	104.5	123.3	33.6	39.8	46.9	18.6	22.0	26.0
2027	933	1114	1328	274	327	390	89.2	106.5	127.0	34.0	40.6	48.4	18.8	22.5	26.8
2028	942	1136	1368	277	334	401	90.1	108.7	130.8	34.3	41.4	49.8	19.0	22.9	27.6
2029	952	1159	1409	279	340	413	91.0	110.8	134.7	34.7	42.2	51.3	19.2	23.4	28.4
2030	961	1182	1451	282	347	426	91.9	113.1	138.8	35.0	43.0	52.8	19.4	23.8	29.3
2031	971	1206	1495	285	354	439	92.9	115.3	142.9	35.4	43.9	54.4	19.6	24.3	30.1
2032	981	1230	1539	288	361	452	93.8	117.6	147.2	35.7	44.8	56.1	19.8	24.8	31.1
2033	990	1255	1586	291	368	465	94.7	120.0	151.6	36.1	45.7	57.7	20.0	25.3	32.0
2034	1000	1280	1633	294	376	479	95.7	122.4	156.2	36.4	46.6	59.5	20.2	25.8	32.9
2035	1010	1305	1682	297	383	494	96.6	124.8	160.9	36.8	47.5	61.3	20.4	26.3	33.9
2036	1020	1331	1733	299	391	509	97.6	127.3	165.7	37.2	48.5	63.1	20.6	26.9	35.0
2037	1031	1358	1785	302	399	524	98.6	129.9	170.7	37.5	49.4	65.0	20.8	27.4	36.0
2038	1041	1385	1838	306	407	539	99.6	132.5	175.8	37.9	50.4	66.9	21.0	27.9	37.1
2039	1051	1413	1893	309	415	556	100.5	135.1	181.1	38.3	51.4	68.9	21.2	28.5	38.2
2040	1062	1441	1950	312	423	572	101.6	137.8	186.5	38.7	52.5	71.0	21.4	29.1	39.3
2041	1072	1470	2009	315	431	590	102.6	140.6	192.1	39.1	53.5	73.1	21.6	29.7	40.5
2042	1083	1499	2069	318	440	607	103.6	143.4	197.9	39.4	54.6	75.3	21.8	30.2	41.7
2043	1094	1529	2131	321	449	625	104.6	146.3	203.8	39.8	55.7	77.6	22.1	30.8	43.0
2044	1105	1560	2195	324	458	644	105.7	149.2	209.9	40.2	56.8	79.9	22.3	31.5	44.3
2045	1116	1591	2261	328	467	664	106.7	152.2	216.2	40.6	57.9	82.3	22.5	32.1	45.6
2046	1127	1623	2328	331	476	683	107.8	155.2	222.7	41.0	59.1	84.8	22.7	32.7	47.0
2047	1138	1655	2398	334	486	704	108.9	158.3	229.4	41.5	60.3	87.3	23.0	33.4	48.4
2048	1150	1689	2470	337	496	725	110.0	161.5	236.3	41.9	61.5	90.0	23.2	34.1	49.8
2049	1161	1722	2544	341	505	747	111.1	164.7	243.3	42.3	62.7	92.6	23.4	34.7	51.3
2050	1173	1757	2621	344	516	769	112.2	168.0	250.6	42.7	64.0	95.4	23.7	35.4	52.9
2051	1185	1792	2699	348	526	792	113.3	171.4	258.2	43.1	65.2	98.3	23.9	36.1	54.5
2052	1197	1828	2780	351	536	816	114.4	174.8	265.9	43.6	66.6	101.2	24.1	36.9	56.1
2053	1208	1864	2864	355	547	841	115.6	178.3	273.9	44.0	67.9	104.3	24.4	37.6	57.8
2054	1221	1902	2950	358	558	866	116.7	181.9	282.1	44.4	69.2	107.4	24.6	38.4	59.5
2055	1233	1940	3038	362	569	892	117.9	185.5	290.6	44.9	70.6	110.6	24.9	39.1	61.3
2056	1245	1978	3129	365	581	918	119.1	189.2	299.3	45.3	72.0	113.9	25.1	39.9	63.1
2057	1258	2018	3223	369	592	946	120.3	193.0	308.3	45.8	73.5	117.4	25.4	40.7	65.0
2058	1270	2058	3320	373	604	974	121.5	196.9	317.5	46.2	74.9	120.9	25.6	41.5	67.0
2059	1283	2099	3419	377	616	1004	122.7	200.8	327.0	46.7	76.4	124.5	25.9	42.3	69.0
2060	1296	2141	3522	380	629	1034	123.9	204.8	336.8	47.2	78.0	128.2	26.1	43.2	71.0

Notes:

1. All values using 0.29 AF/Tap/Month based on average year demand per Tap (2001-2009)

2. July and January demands calculated by using the average July and January demands 2001-2009 multiplied by number of taps in each potential growth scenario

Table 4-B
Norwood/San Miguel County Population and Residential Tap Growth 2000-2040

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Location	Average Population Growth Rate 2000-2010 (percent)	Population 2010 (people)	Average Projected Population Growth Rate 2010-2040 (percent)	Projected Population 2040 (people)	Residential Taps in NWC 2010 (units)	Persons per Tap - 2010 (people)	Projected Residential Taps in Current NWC Service Area 2040 (units)	Projected Residential Taps in Expanded NWC Service Area 2040 (units)
Unincorporated San Miguel County	1.1%	2,997	2.6%	6,473	421	1.4	909	1,273
Town of Norwood	1.7%	518	2.6%	1,119	306	1.7	661	661
Total					727		1,570	1,934

Notes:

- 1) Location
- 2) Average population growth from 2000 to 2010 based on DOLA Statistics "Colorado Census and Intercensal¹ Population Estimates by County and Municipality 2000-2010"
- 3) Population statistics from DOLA
- 4) Population projection based on average 2.6 percent annual growth rate (2010-2040) as projected by DOLA Updated "TABLE 1. PRELIMINARY POPULATION FORECASTS BY REGION, 2000-2040"
- 5) Column (3) population projected to the year 2040 at an annual growth rate of 2.6 percent.
- 6) Residential Taps served by the NWC, per NWC staff. 58 commercial/industrial taps removed from Town of Norwood total.
- 7) For unincorporated areas, it is assumed there is one tap per household. Value calculated by dividing total Unincorporated San Miguel County Population (2,997) by total Unincorporated San Miguel County Households (2,166) from DOLA. For the Town of Norwood, Column (2) divided by Column (6).
- 8) For unincorporated areas, Column (8) projected to 2040 at 2.6 percent tap growth per year, assuming taps grow at same rate as population. For Town of Norwood, Column (5) divided by Column (7).
- 9) Column (9) multiplied by 140 percent expansion in service area outside Town of Norwood. Norwood Tap numbers not affected.

¹ = 2001 -2009 are called intercensal estimates since they are based on censuses at each end of the time series and are therefore between two censuses. The major factor to bear in mind is that the intercensal estimates that DOLA produces are not only based on the two sets of data from the censuses, but also on the original set of postcensal estimates developed during the decade.

Table 5
Norwood Water Commission
Recommended Reservoir Volume

Projected Water Demands - 2060	Water Demands + 20% for system losses and water treatment	Reservoir Volume with 2 Years of Carry-over storage	Total Reservoir Volume
(1)	(2)	(3)	(4)
AF	AF	AF	Af
1,034	1,240	3,720	4,000

Notes

- (1) Projected NWC water demands given 3% growth rate
- (2) Column (1) + 20% to account for system and water treatment losses
- (3) Column (2) x 3 years for carry-over in a drought scenario
- (4) Column (3) + 7.5% for dead storage and siltation pool

Table 6
Town of Norwood and Norwood Water Commission
Water Rights

	Name	Amount	Use	Source	Adjudication Date	Appropriation Date	Priority	Case No.
Town of Norwood	Priority 214	0.25 c.f.s.	M	Maverick Draw	10/16/1933	10/21/1926	214	CA 4348
	Town of Norwood Pipeline	0.50 c.f.s.	M	Maverick Draw	7/10/1952	6/1/1935	385	CA5882
	Town of Norwood Pipeline	0.25 c.f.s.	M	Maverick Draw	7/10/1952	6/1/1948	425	CA5882, Absolute, 85CW150
	Norwood Infiltration Pipeline	0.57 c.f.s.	M	Maverick Draw, various springs and seeps	1/16/1967	6/10/1962	513	CA9042
	Norwood Infiltration Pipeline	0.18 c.f.s. conditional	M		1/16/1967	6/10/1962	513c	CA9042; Absolute; 85CW151
	Gardner Springs	0.25 c.f.s	D/S	Maverick Draw, various springs and seeps	1/16/1967	11/13/1950	478	CA9042
	Gardner Springs	0.50 c.f.s.	I/S		1/16/1967	11/1/1960	511	CA9042
Norwood Water Commission	Norwood Nelson Ditch	10 c.f.s.	M	McCulloch Ck	12/31/1991	7/24/1991		91CW0065
	NWC River Diversion	5.0 c.f.s., conditional	M	San Miguel R.	12/31/1994	11/1/1994		Case No. 94CW244; Diligence: Case No. 08CW55
	NWC Gurley Diversion	5.0 c.f.s., conditional	M	Beaver Creek	12/31/1994	11/__/1994		Case No. 94CW245
	NWC Reservoirs Nos. 1, 2, 3, & 4	#1: 18.4 af	M	Gurley Reservoir, Gardner Springs, Priority 214, Infiltration Pipeline, and Town of Norwood Pipeline	12/31/2001	12/1/1994		Case No. 01CW270
		#2: 91 af						
		#3: 91 af conditional						
		#4: 33 af conditional						

Reservoir Shares/Agreements	Name	Amount	Use	Comment
	Farmers Water Development Company Shares (Owned)	119 shares	I	Certificate
				716 (1)
				717 (50)
				721 (60)
				723 (6)
				727 (2)
	Farmers Water Development Company Shares (Contract)	300 a.f. minimum	D	

Use Codes: M - municipal, D - domestic, S - stock, I - irrigation

Table 7
Norwood Water Commission
Outdoor Water Use Estimates

	Gal/tap/day
Average Summer Use	364
Average Winter Use	230
Average Irrigation Use	134
Average Irrigation Use	0.0004 AF/tap/day

Year		2010	2020	2030	2040	2050	2060
(1)	Taps	803	1080	1451	1950	2621	3522
(2)	AF/Day	0.33	0.44	0.60	0.80	1.08	1.45
(3)	AF/Year	41	55	73	99	133	178

Notes:

- (1) Tap Estimate from Table 4.
- (2) Row (1) * 0.0004 AF/tap/day
- (3) Row (2) * 123 days (Irrigation season of May through August, 123 days)

Table 8
Norwood Water Commission
Water Rights Application Case 10CW202

Name	Amount	Source	Claimed Appropriation Date
Diversion	(cfs)		
J.&M. Hughes Enlargement	40	Fall Creek	5/1/1982
Goat Creek Pump	175	Beaver Creek	11/9/2010
Naturita Pumps 1 & 2	6	San Miguel River	11/9/2010
NWC River Diversion APOD	5	San Miguel River	11/1/1994
Storage	(AF)		
Beaver Park Reservoir	4000	J.&M. Hughes Ditch	5/1/1982
Huff Gulch Reservoir	4000	J.&M. Hughes Ditch, Huff Gulch	11/9/2010
Upper Gurley Reservoir	4000	J.&M. Hughes Ditch, Goat Creek Pump	6/1/1989
Lone Cone Enlargement	4000	J.&M. Hughes Ditch, Goat Creek Pump	11/1/1984
Ed Joe Draw Reservoir	4000	J.&M. Hughes Ditch, Goat Creek Pump	6/1/1989
Old Town Reservoir	183	J.&M. Hughes Ditch, Goat Creek Pump	11/9/2010

Note: Application restricts total combined storage to 4,000 AF and average annual yield to 1,034 AF.

Table 9
Norwood Water Commission
Water Availability at the J.&M. Hughes Ditch and Fall Creek Gage Near Fall Creek, CO

Month	(1)	(2)	(3)	(4)	(5)
	Fall Creek Gage		J.&M. Hughes Ditch		
	Average (1941-1959)	Fall Creek Gage Adjusted Using USGS Regression Analysis	Annual Discharge Using USGS Regression Analysis for the contributing basin to the J.&M. Hughes Ditch	Annual Discharge Using Fall Creek Gage Adjusted flows by the Ratio of Drainage Basin Areas	Annual Discharge Based on Adjusted Gage Data less 5 cfs Instream Flow
	cfs	cfs	cfs	cfs	cfs
October	5.3	13.2	6.9	3.9	0.0
November	2.8	8.6	4.5	2.0	0.0
December	1.0	6.0	2.9	0.7	0.0
January	0.1	4.9	2.3	0.1	0.0
February	0.0	5.5	3.0	0.0	0.0
March	0.4	12.0	9.1	0.3	0.0
April	16.6	40.6	29.3	12.1	7.1
May	67.2	104.3	82.6	48.9	43.9
June	89.5	95.3	75.2	65.1	60.1
July	33.3	31.2	13.3	24.2	19.2
August	14.3	17.6	8.6	10.4	5.4
September	2.7	13.8	6.8	1.9	0.0
Average Annual	19.4	29.4	20.4	14.1	11.3

Column Notes:

1. Based on average daily flows from period of record (1941-1959) for Fall Creek near Fall Creek, CO gage (9172000). Located downstream of J&M Hughes so gage is affected by J&M Hughes Diversions
2. Fall Creek Gage adjusted based on USGS Scientific Investigations Report 2009-5136 "Regional Regression Equations for Estimation of Natural Streamflow Statistics in Colorado" (using table values from Report).
3. Based on USGS Scientific Investigations Report 2009-5136 "Regional Regression Equations for Estimation of Natural Streamflow Statistics in Colorado" (24.3 sq. mi. basin, slope 0.22, Mean Elev. 10,199 ft., and 31.7 in. precip)
4. Column (1) x .728 (ratio of area contributing to Fall Creek Gage (33.4 sq. mi.) and area contributing to J.&M. Hughes Ditch (24.3 sq. mi.))
5. Column (4) less 5 cfs to account for the instream flow on Fall Creek (case no. 4-84CW436)

Table 10
Norwood Water Commission
Beaver Creek Water Availability

Month	(1)		(2)		(3)	
	Monthly Flow Rates and Volumes at USGS Beaver Creek Near Norwood Gage Adjusted for CWCB Instream Flow and San Miguel River Mainstem Call					
	Dry Year (1977)		Average Year (1943)		Average Over Period of Record	
	(AF)	(cfs)	(AF)	(cfs)	(AF)	(cfs)
October	1	0.0	61	1.0	162	2.7
November	0	0.0	276	4.5	102	1.7
December	0	0.0	215	3.5	83	1.3
January	0	0.0	167	3.0	55	1.0
February	0	0.0	277	4.5	60	1.0
March	31	0.5	387	6.5	143	2.4
April	650	10.6	3,435	55.9	1,818	29.6
May	93	1.6	2,755	46.3	4,174	70.1
June	0	0.0	715	11.6	2,312	37.6
July	0	0.0	0	0.0	0	0.5
August	0	0.0	0	0.0	0	0.1
September	0	0.0	0	0.0	0	0.2
Average		1.1		11.4		12.3
Total	776		8,288		8,909	

Column Notes:

1. Based on average daily flows from water year 1977, driest on record, assumes call from San Miguel River, June Through September.
2. Based on average daily flows from water year 1943, average year based on annual averages, assumes call from San Miguel River, July through September.
3. Based on average daily flows from period of record (1941-1981), assumes call from San Miguel River, July through September.

Source: USGS Gage 09173000, Beaver Creek Near Norwood Colorado, Period of Record 1941-1981.

Table 11
Norwood Water Commission
Available Water at San Miguel River at Naturita, CO

Month	(1)		(2)		(3)	
	Dry Year Flow (1977)		Average Year Flow (1978)		Period Average Flow	
	(AF)	(cfs)	(AF)	(cfs)	(AF)	(cfs)
October	6,325	106	4,035	68	7,380	124
November	4,052	66	3,194	52	6,415	104
December	2,896	47	4,169	68	5,560	90
January	2,628	47	3,993	72	4,690	84
February	3,395	55	4,041	66	5,846	95
March	3,739	63	5,720	96	7,664	129
April	6,040	98	54,496	886	37,255	606
May	4,035	68	51,214	861	60,360	1,014
June	8,452	137	68,747	1,118	57,509	935
July	2,496	41	24,060	391	26,803	436
August	3,093	52	2,585	43	11,452	192
September	1,802	29	679	11	7,890	128
Average		68		311		328
Total	48,954		226,933		238,825	

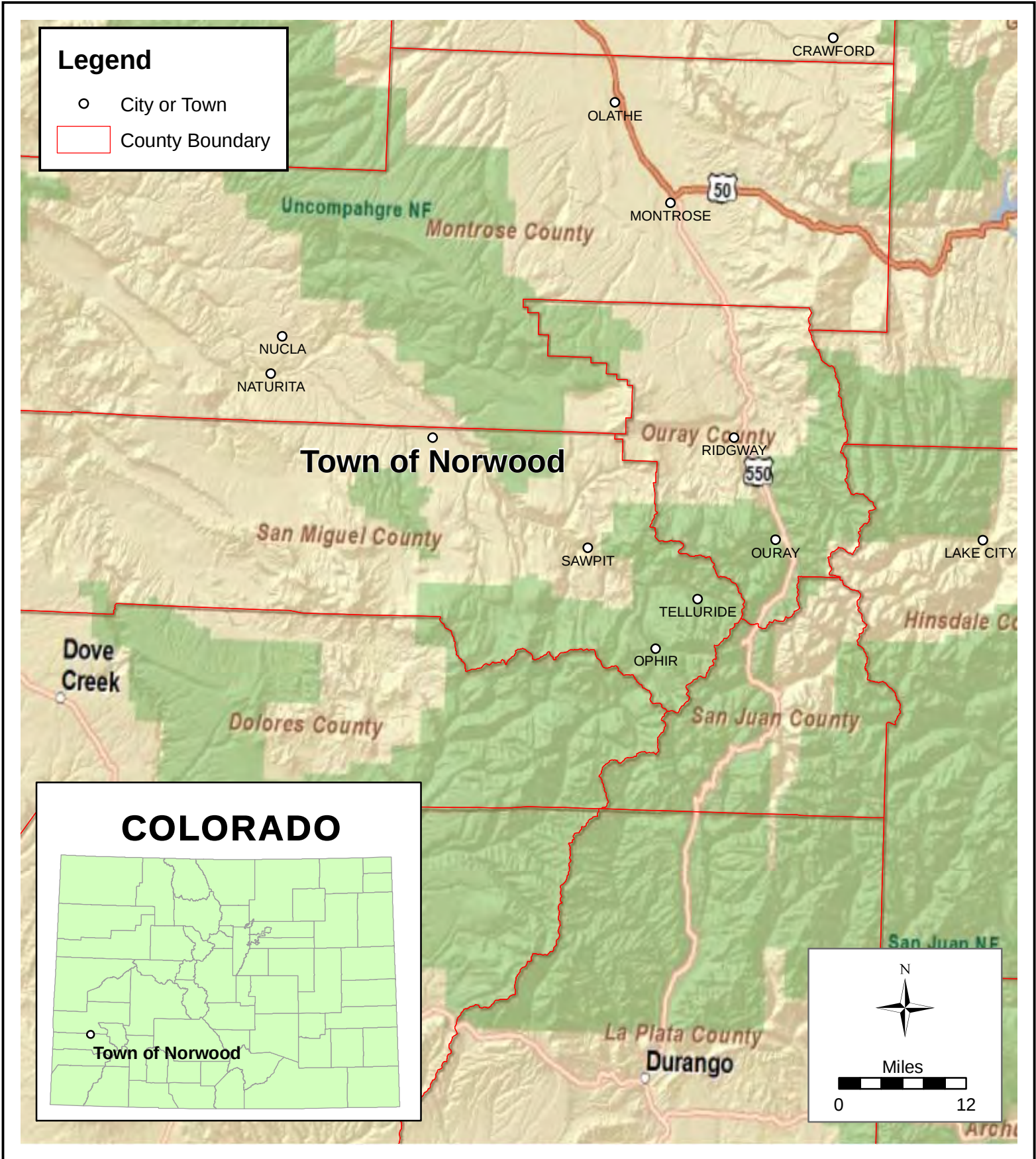
Column Notes:

1. Based on average daily flows from water year 1977, driest on record.
2. Based on average daily flows from water year 1978, average year based on annual averages.
3. Based on average daily flows from period of record (1917-1981).

Source: USGS Gage 09175500, San Miguel River at Naturita, Colorado, Period of Record 1917-1981.

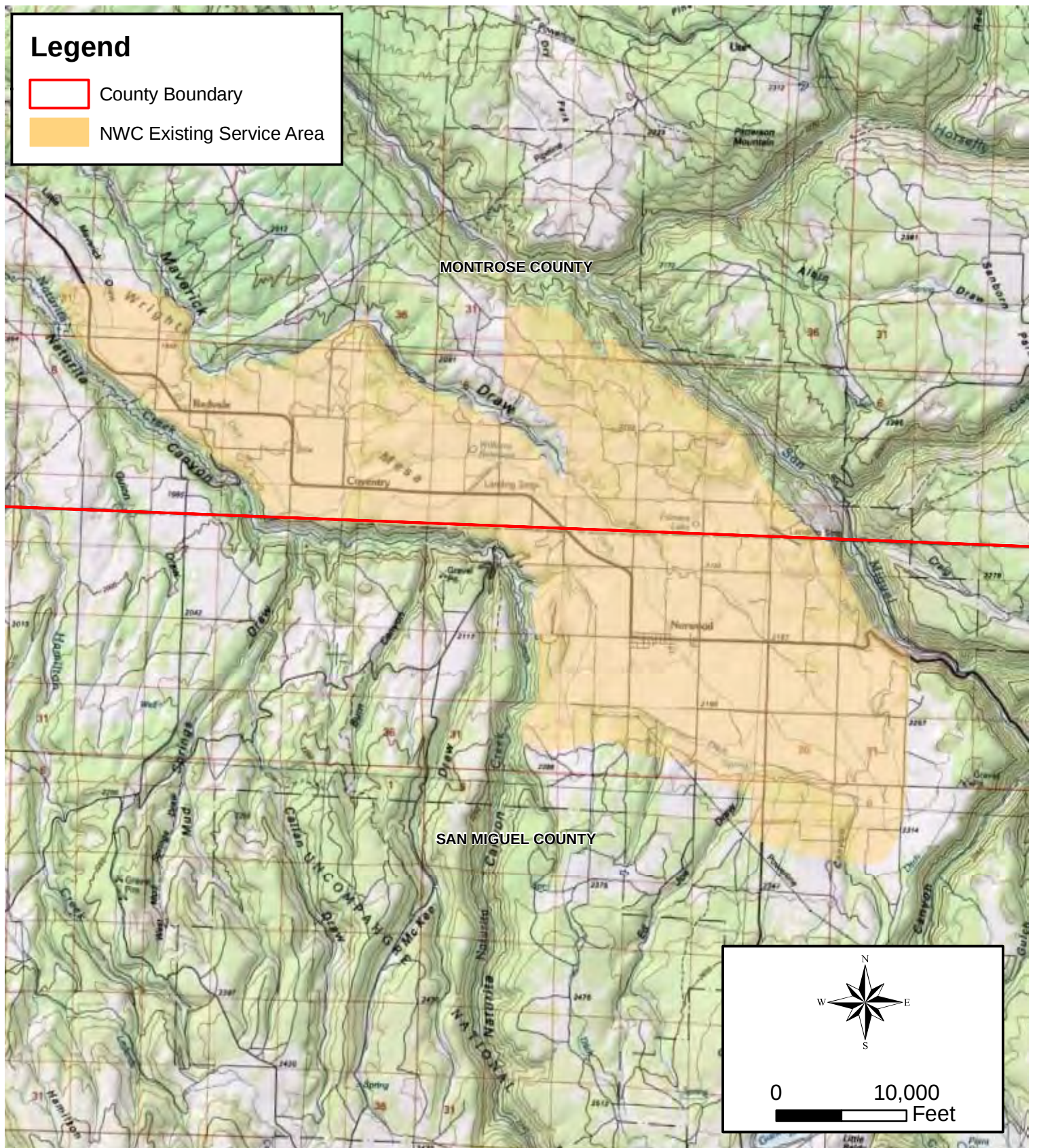
Based on stream administration from 1996 to 2010.

FIGURES



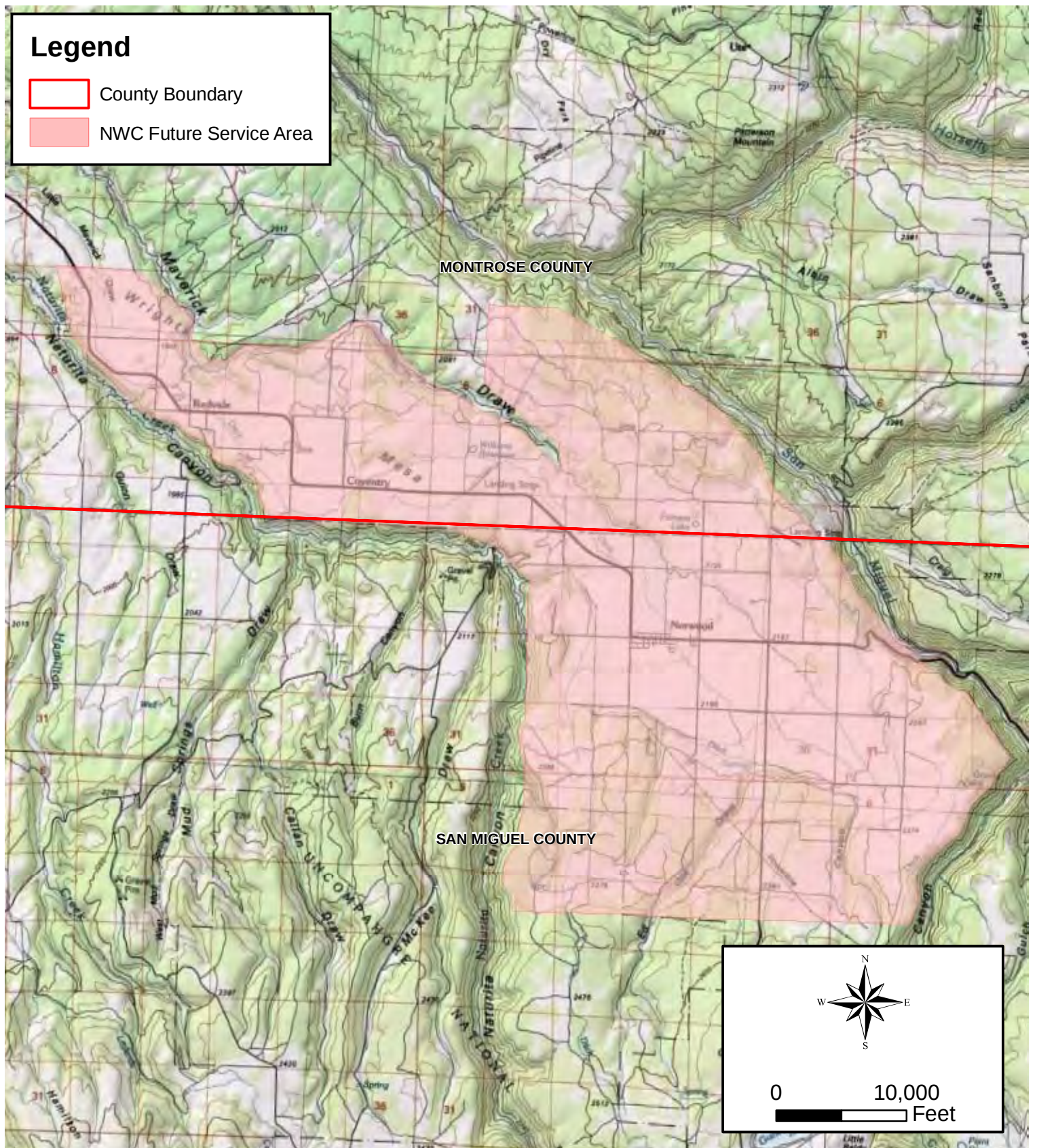
P:\091-039\010 - Raw Water System Update & Future Needs\Mapping\Figure 1 - Norwood Location Map.mxd

 WRIGHT WATER ENGINEERS, INC. 1666 N. Main Ave., Suite C Durango, CO. 81301 (970) 259-7411	SAN MIGUEL COUNTY, COLORADO LOCATION MAP NORWOOD WATER COMMISSION	PROJECT NO. 091-039.010	FIGURE 1
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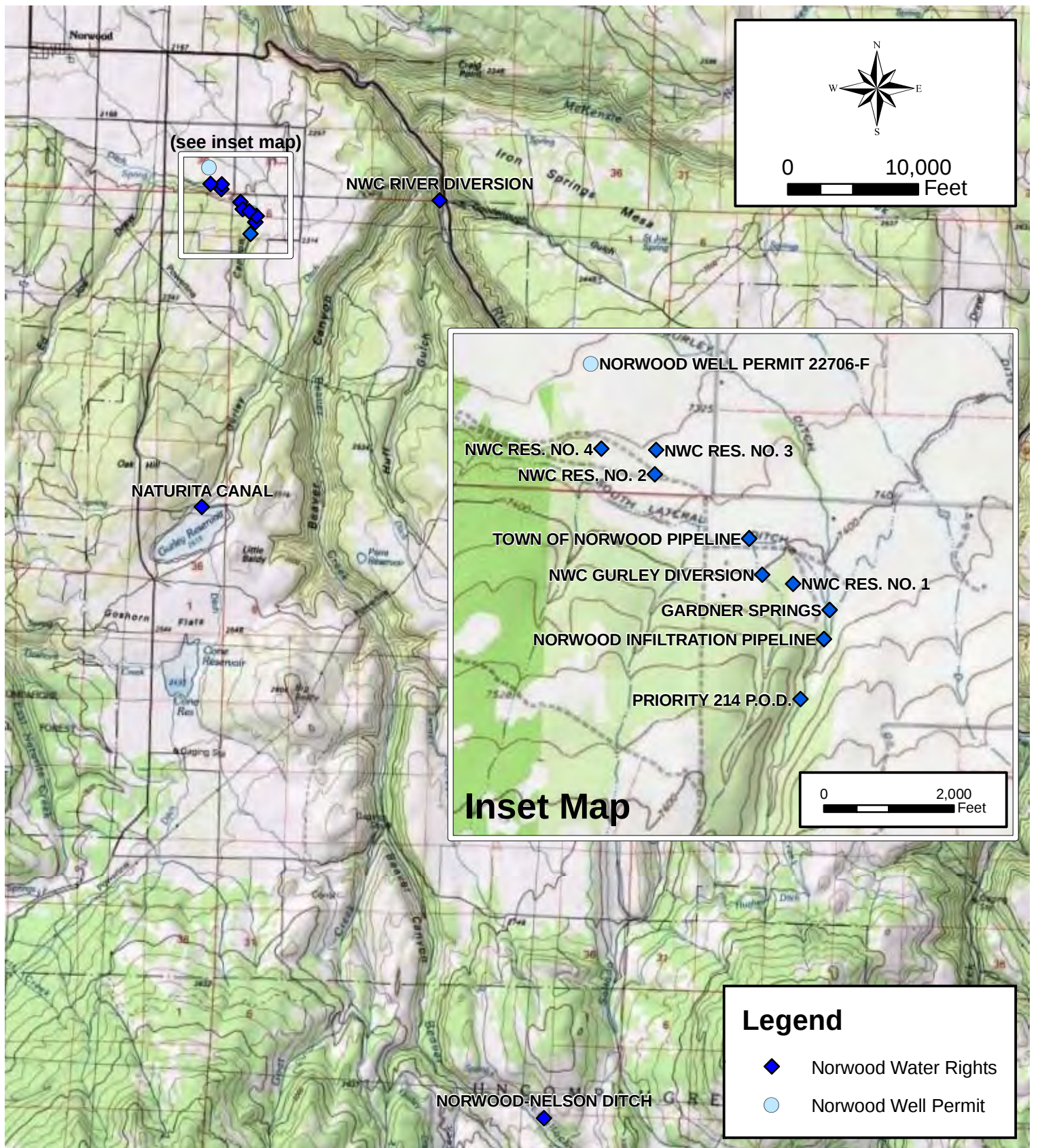
P:\091-039\010 - Raw Water System Update & Future Needs\Mapping\Figure 2A - Existing Service Area.mxd

WWE WRIGHT WATER ENGINEERS, INC. 1666 N. Main Ave., Suite C Durango, CO. 81301 (970) 259-7411	SAN MIGUEL & MONTROSE COUNTIES, COLORADO NORWOOD WATER COMMISSION EXISTING SERVICE AREA NORWOOD WATER COMMISSION	PROJECT NO. 091-039.010	FIGURE 2A
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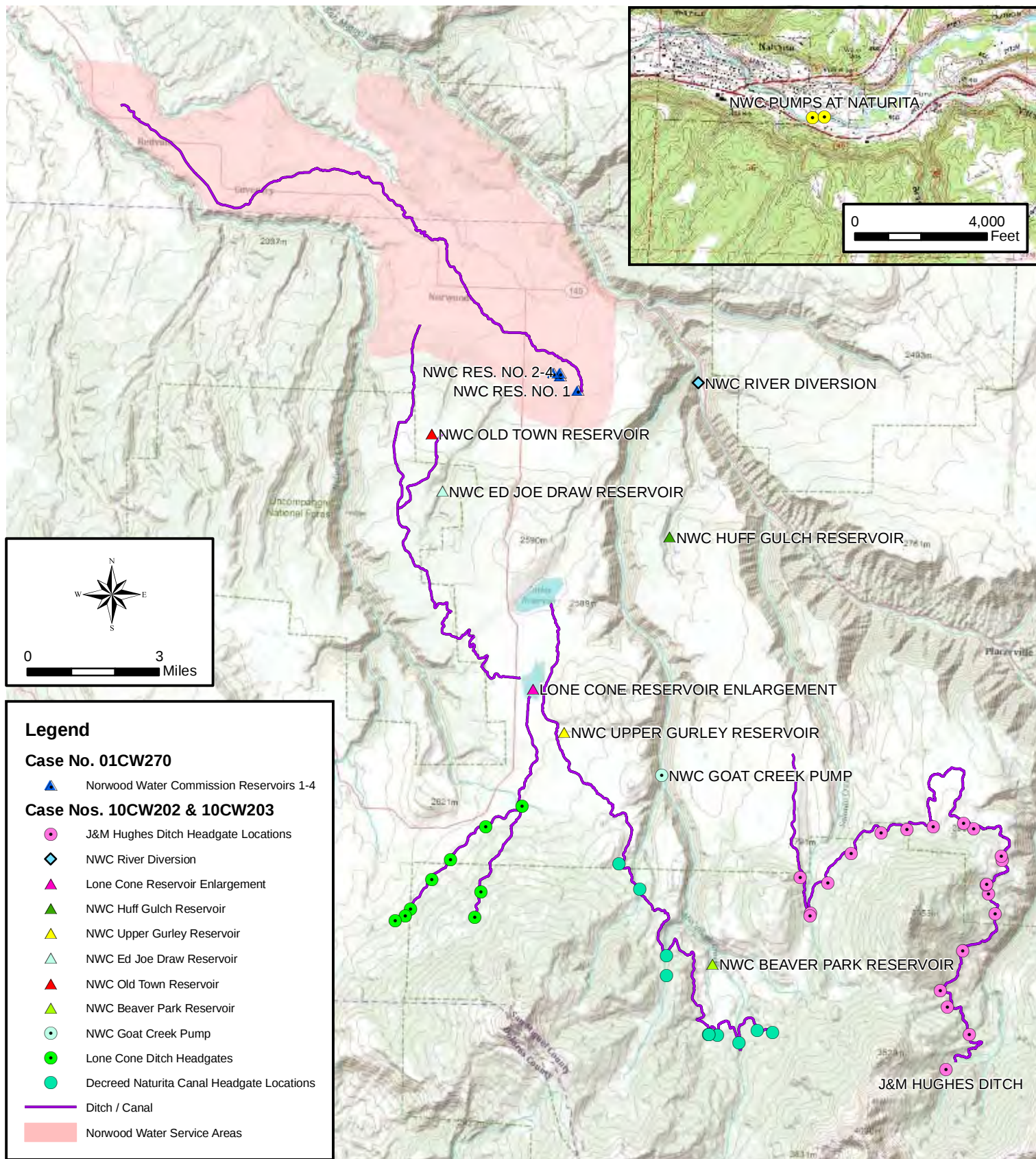
P:\091-039\010 - Raw Water System Update & Future Needs\Mapping\Figure 2B - Future Service Area.mxd

WWE WRIGHT WATER ENGINEERS, INC. 1666 N. Main Ave., Suite C Durango, CO. 81301 (970) 259-7411	SAN MIGUEL & MONTROSE COUNTIES, COLORADO NORWOOD WATER COMMISSION FUTURE SERVICE AREA NORWOOD WATER COMMISSION	PROJECT NO. 091-039.010	FIGURE 2B
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P:\091-039\010 - Raw Water System Update & Future Needs\Mapping\Figure 3 - Norwood WRs.mxd

WWE WRIGHT WATER ENGINEERS, INC. 1666 N. Main Ave., Suite C Durango, CO. 81301 (970) 259-7411	SAN MIGUEL COUNTY, COLORADO NORWOOD WATER COMMISSION WATER RIGHTS NORWOOD WATER COMMISSION	PROJECT NO. 091-039.010	FIGURE 3
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P:\091-039\010 - Raw Water System Update & Future Needs\Mapping\Figure 4 - Summary of 2010 Norwood WRs Filing.mxd

 WRIGHT WATER ENGINEERS, INC. 1666 N. Main Ave., Suite C Durango, CO. 81301 (970) 259-7411	SAN MIGUEL & MONTROSE COUNTIES, COLORADO NORWOOD WATER COMMISSION 2010 WATER RIGHTS FILING LOCATIONS NORWOOD WATER COMMISSION	PROJECT NO. 091-039.010	FIGURE 4
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APPENDICES

Appendix A

Resolution Creating NWC

**TOWN OF NORWOOD
BOARD OF TRUSTEES**

RESOLUTION: #0112 SERIES 1995

**RATIFICATION OF NORWOOD WATER COMMISSION AS
WATER ACTIVITY ENTERPRISE FUND**

WHEREAS, the Board of Trustees of the Town of Norwood (the "Town") hereby finds, determines, and declares that it is necessary and desirable to ratify the Town's establishment in 1993 of the Town of Norwood Water Activity Enterprise Fund (the "Norwood Water Commission"); and

WHEREAS, C.R.S. § 37-45.1-101 et seq., enacted into law on March 30, 1993, clarifies the terms and conditions under which a municipality may establish a Water Activity Enterprise Fund,

NOW, THEREFORE, BE IT RESOLVED, that the Board of Trustees of the Town hereby ratifies the establishment of the Town of Norwood - Water Activity Enterprise, the Norwood Water Commission, created for the purpose of pursuing and continuing water activities in connection with the provision of water to the Town and the rural Wright's Mesa area, including water acquisition and the construction, operation, repair, and replacement of water facilities; and

BE IT FURTHER RESOLVED, that, pursuant to and in accordance with Article 45.1 of Title 37, C.R.S., the governing body of the Norwood Water Commission is as set forth in the agreement among the Town of Norwood, the Wright's Mesa Rural Water System and the San Miguel Water Conservancy District dated December 23, 1992; and

BE IT FURTHER RESOLVED, that the Norwood Water Commission is entitled to exercise all powers, authority, rights, and responsibilities which are exercisable by it in accordance with Article 45.1 of Title 37, C.R.S., and other applicable law; and

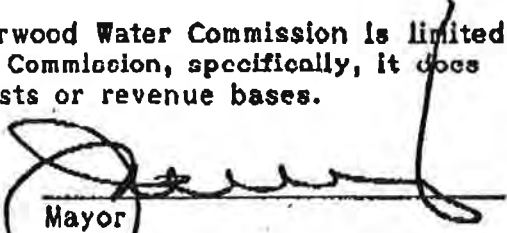
BE IT FURTHER RESOLVED, that all assets and liabilities of the Norwood Water Commission shall be accounted for in the Town of Norwood - Water Activity Enterprise Fund; and

BE IT FURTHER RESOLVED, that the Board of Trustees of the Town ratifies the authorization of the transfer of assets, liabilities and contractual rights to the Norwood Water Commission in accordance with Article 45.1 of Title 37, C.R.S.; and

BE IT FURTHER RESOLVED, the Board of Trustees of the Town ratifies the authorization of the Norwood Water Commission to borrow funds for water acquisition and the operation, repair, replacement and construction of Norwood Water Commission facilities.

BE IT FURTHER RESOLVED, that, pursuant to C.R.S. § 37-45.1-106, C.R.S., revenues which are assessed and collected by the Norwood Water Commission for services in connection with providing domestic water, upon receipt by the Norwood Water Commission, shall be deposited into the Norwood Water Commission Water Activity Enterprise Fund to be expended for activities of the Enterprise, including water acquisition and the operation, maintenance, repair, replacement and construction of the Norwood Water Commission Facilities.

BE IT FURTHER RESOLVED, that, the Norwood Water Commission is limited in its authority to pledge only assets of the Commission, specifically, it does not have authority to pledge other Town assets or revenue bases.


Mayor

C E R T I F I C A T I O N

I, Sonia Orozco, Secretary of the Board of Trustees of the Town of Norwood, do hereby certify that the above Resolution was adopted by the Board of Trustees by a vote of 5 to 1 at a meeting held on January 10, 1995.


Secretary

COPY

FINAL:12/23/92

AGREEMENT

THIS AGREEMENT, is effective ____December 23____, 1992, between the TOWN OF NORWOOD, Colorado, (the "TOWN"), and the SAN MIGUEL WATER CONSERVANCY DISTRICT, a Colorado quasi-municipal corporation, known as "SMWCD", and the Wright's Mesa Rural Water System, a rural water users association known as "WMRWS". WMRWS and SMWCD together are referred to herein as the "RURAL WATER USERS".

WHEREAS, in 1977, the TOWN and SMWCD determined that the water system in and to the TOWN was inadequate to serve the needs of TOWN residents and was dilapidated and in disrepair, and that use of TOWN water from the system was detrimental to the health, welfare and safety of the TOWN'S residents;

WHEREAS, the TOWN desired to construct a water system adequate to provide water for private, commercial and industrial consumption as well as fire protection;

WHEREAS, SMWCD desired to construct a water system to provide domestic water to the residents within the SMWCD outside the TOWN;

WHEREAS, the TOWN and SMWCD determined that neither TOWN nor SMWCD could obtain sufficient funds to construct the needed water system on its own;

WHEREAS, the TOWN and SMWCD determined that a jointly constructed, maintained and operated water system would enable each entity to do that which neither could afford to do alone;

WHEREAS, WMRWS is an association organized within the SMWCD to provide domestic water service to the rural Wright's Mesa Area in San Miguel and Montrose Counties;

WHEREAS, because WMRWS is not a public entity, SMWCD issued revenue bonds under the auspices of the Farmers Home Administration on behalf of WMRWS to provide the money for WMRWS to construct a rural distribution system and to construct, jointly with the TOWN, a water treatment plant;

WHEREAS, payments on the SMWCD water revenue bond, Case No. 05-057-0001328716 ("SMWCD Bond"), now held by General Electric Corporation ("GE") were rescheduled in 1985 and the maturity of the SMWCD Bond does not now come due until approximately the year 2017;

WHEREAS, capital improvements are needed for the TOWN - WMRWS combined system, and financing for such improvements can best be obtained by having one public entity responsible for the system;

WHEREAS, the Boards of Directors of SMWCD and WMRWS and Board of Trustees of the TOWN believe it would be in the best interest of the customers and property owners within the TOWN and the WMRWS Service Area to have water service provided to these areas by one public entity. The WMRWS Service Area is shown on Exhibit "A" attached hereto and made a part hereof.

NOW THEREFORE, the parties to this Agreement agree as follows:

I. CONTINGENT AGREEMENT

This Agreement is contingent upon GE approving the TOWN'S assumption of SMWCD's existing debt under the SMWCD Bond in the approximate amount of \$454,000, and the absolute release of SMWCD and WMRWS from any and all liability, current, or future, for repayment of that obligation.

II. TOWN ASSUMPTION OF WMRWS WATER SUPPLY RESPONSIBILITIES

The RURAL WATER USERS agree to transfer to the TOWN all of the assets of the WMRWS, including by example, but not by limitation, bank accounts, all real property and easements, all pipelines, whether in place or in storage, water tanks, pumps, valves, meters, machinery, accounts receivable, and any other property belonging to the WMRWS, including such office records, customer lists, plans, specifications, and files as may be deemed necessary to carry out the purposes of this Agreement. The real property assets of the Rural Water Users to be transferred to the TOWN are generally described in Exhibit "B" attached hereto and made a part hereof.

In exchange, the TOWN shall supply water and related water services to all present and future inhabitants within the WMRWS Service Area for so long a period of time and under the same terms and conditions, except as otherwise provided herein, as the TOWN supplies water and provides water related services to the inhabitants of the TOWN.

A. Water Rates: The TOWN and the RURAL WATER USERS acknowledge the rates for water charged to customers within the WMRWS Area are currently approximately 1.2 times those charged by the TOWN to water customers within the TOWN. The parties understand that such a discrepancy may continue after the assets of WMRWS are transferred to the TOWN, but it is not anticipated that this discrepancy will increase. Any property now in the WMRWS Area which is annexed into the TOWN will thereafter pay TOWN water rates.

B. Tap Fees: The tap fees currently charged by both the TOWN and WMRWS are the same. It is anticipated tap fees will continue to remain the same after the transfer of WMRWS assets to the TOWN for customers both within and outside the TOWN.

C. Shortage: In the event that the amount of water in the water system should become inadequate, all customers of the combined WMRWS/TOWN system shall share any water shortage equally, whether the customer be in the TOWN or outside the TOWN.

D. Other TOWN Services: This Agreement does not imply that the TOWN is in any way be obligated to supply any TOWN services other than water and water related services to the inhabitants of the WMRWS Area, unless obligated to do so by other agreements. Specifically, by way of example, the TOWN shall not be obligated to supply sewer, police, street repair or other utility services except as the TOWN may from time to time desire and as the TOWN may deem necessary in its sole discretion to carry out the purposes of supplying water and water related services to the inhabitants of the WMRWS Area.

E. Annexation: As a result of this Agreement, there is no implied consent to the annexation of any property within the WMRWS Area into the TOWN, nor is there any undertaking, implied or expressed, by the TOWN to annex any portion of the WMRWS Area. Further, this Agreement is not intended to affect in any way the TOWN'S ability to annex property within the WMRWS Area pursuant to state law, including, but not limited to, entering into pre-annexation agreements as provided for at 31-12-121, C.R.S.

III. OPERATION OF TOWN WATER SYSTEM

A. Upon the transfer of the WMRWS assets to the TOWN, the Agreements between the Board of Trustees of the TOWN and the SMWCD, dated June 1, 1979 and May 20, 1977, shall be null and void. The TOWN shall assume liability for SMWCD debt to GE and SMWCD and WMRWS shall be released from all liability for that debt.

B. Following the transfer of the WMRWS assets to the TOWN, the TOWN'S water system will be operated by a commission of six members to be entitled: the TOWN of Norwood Water Commission ("Water Commission"), and the budget and accounts for the water system for the TOWN shall be accounted for separately from other TOWN revenues and expenditures.

1. Three members of the Water Commission will be appointed by the TOWN and three members of the Water Commission to be appointed by the SMWCD. The appointments shall be reflected in the minutes of the Board of Directors of the SMWCD or the minutes of the TOWN Board of Trustees as the case may be.

2. Water Commission members shall serve for a term of two (2) years. Three members appointed by the TOWN shall serve as follows: 2 members shall serve for one (1) year. 1 member shall serve for two (2) year. The same shall apply for the members appointed by SMWCD. Subsequent terms shall be two (2) years.

3. Water Commission members can be replaced by their appointing bodies pursuant to rules of the appointing body. The replacements shall be reflected in the minutes of the Board of Directors of the SMWCD or the minutes of the TOWN Board of Trustees as the case may be.

4. The Water Commission shall elect one of its members Chairman, one Vice Chairman, and one of its members Secretary/Treasurer.

5. A quorum for the conduct of business by the Water Commission shall consist of four (4) members of the Water Commission.

6. The Water Commission shall meet at least monthly; and shall in its records fix a time and place for such regular meetings.

7. The Water Commission shall keep records of its acts.

8. The Water Commission may hold special meetings upon such notice and at such times and places as it shall by its records fix and determine.

9. All members of the Water Commission shall serve without any compensation.

10. The Water Commission shall have the power to prescribe such rules and regulations in regard to the management of its business as it may deem necessary consistent with the Agreement.

11. Because the Water System will pay a significant portion of the salaries of TOWN employees, the TOWN will consult with the Water Commission prior to taking and personnel actions concerning those employees.

12. If the Water Commission members are deadlocked on an issue, that issue shall be referred to the TOWN Council for resolution.

13. It is anticipated fifty percent (50%) of TOWN employee compensation will be paid by the Water System. Within 90 days of the GE approval of assumption of the SMWCD Bond by the TOWN, the TOWN, and the Water Commission will, and the Norwood Sanitation District may negotiate the percentage of TOWN employee compensation to be paid by each entity.

C. After the transfer of WMRWS assets to the TOWN, TOWN ordinances, rules and regulations with regard to the TOWN water utility shall apply to customers in the WMRWS Area in the same manner as they apply to TOWN water customers within the TOWN, with the following exceptions: the differential between water rates inside the TOWN and outside of the TOWN shall be no more than 20%; rules and regulations with regard to customers outside the TOWN, shall be no more onerous than the current WMRWS rules and regulations.

IV. TOWN ASSUMPTION OF WMRWS LIABILITY

Upon the transfer of WMRWS assets to the TOWN, the TOWN shall assume all liabilities of, and make all payments owed by WMRWS insofar as they specifically arise out of obligations to and for the WMRWS, excluding liabilities arising from the review and implementation of this Agreement.

V. CAPITAL IMPROVEMENTS

A. WMRWS does not intend to make any major capital improvements to the WMRWS system or incur any indebtedness other than in the ordinary course of business prior to the transfer of the assets to the TOWN without the approval of the TOWN until a GE disapproval of the assumption of the WMRWS loan by the TOWN or termination of this Agreement.

B. After the transfer of WMRWS assets to the TOWN, the TOWN agrees to make water system improvements to allow development within the WMRWS Area in a manner consistent with the development and water supply needs of the WMRWS Area.

C. The TOWN acknowledges that there may be WMRWS system water distribution lines, other than service lines, within the WMRWS Area which do not meet current TOWN water distribution line standards, just as may be water distribution lines within the TOWN which do not meet current TOWN standards. Improvement of such nonstandard WMRWS lines after dissolution of the WMRWS will be at the discretion of the TOWN and at the expense of the surviving water system, not the expense of the WMRWS customers served by the nonstandard lines.

VI. TAP FEES

A. The TOWN shall not charge tap fees to any existing customer/property owner within the WMRWS Area for water service to the facilities existing on the property occupied by the WMRWS customer at the time of the transfer of WMRWS assets to the TOWN.

B. The TOWN shall not charge a tap fee to any property owner who has already paid a WMRWS a tap fee for the purposes for which the fee was paid.

C. The parties to this Agreement acknowledge that WMRWS sold taps to support the development of the TOWN - WMRWS water system, which are not now being used on a specific property ("Floating Taps"). All parties acknowledge the validity of these Floating Taps and their transferability for use at a specific property, if evidenced by a contract with the TOWN, WMRWS or SMWCD.

VII. ENACTMENT

The TOWN and SMWCD shall enact ordinances and resolutions necessary to implement the provisions of this Agreement.

VIII. TERM OF AGREEMENT

A. Both the TOWN and the WMRWS are committed to the takeover of WMRWS facilities by the TOWN and anticipate that the takeover will occur by February 28, 1993. The TOWN and the WMRWS commit to an appropriate extension of this Agreement if the process of takeover is proceeding and takeover has not been disapproved by July 31, 1993, but the process is taking longer than anticipated.

B. It is understood by all parties to this Agreement that if the TOWN takes over the assets of the WMRWS in exchange for providing water and water related services to the WMRWS Area, the commitments contained herein regarding water system operations, governance, and rules and regulations are binding on the TOWN and successor entities.

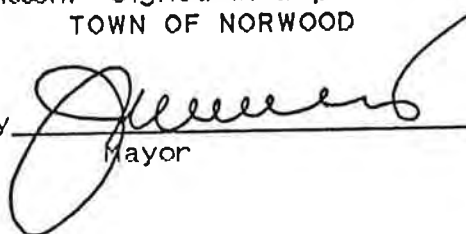
IX. AMENDMENTS

This Agreement constitutes the entire agreement of the parties hereto. This Agreement shall not be considered modified, altered, changed or amended in any respect unless such amendment is in writing and signed by SMWCD and the TOWN.

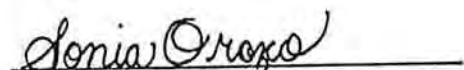
IN WITNESS WHEREOF, the said parties have hereunto set their hands and seals the day and year first above written. Signed in triplicate.

TOWN OF NORWOOD

Date: 12/28/92

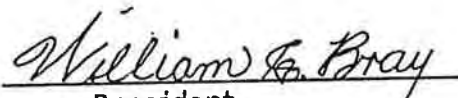
By 
Mayor

ATTEST:

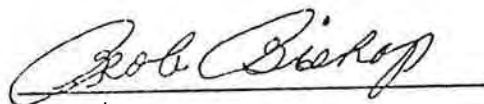

Town Clerk

SAN MIGUEL WATER CONSERVANCY
DISTRICT

Date: 12-29-92

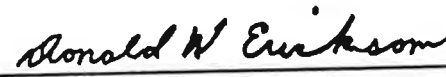
By 
President

ATTEST:


Secretary

WRIGHT'S MESA RURAL WATER
SYSTEM

Date: 12 - 29 - 92

By 
President

ATTEST:


Secretary

varvsagr.doc

EXHIBIT "B"

- I. A tract of land situate in the E½ SW¼ of Section 6, Township 44 North, Range 12 West, N.M.P.M. and more particularly described as follows: BEGINNING at a point on the west line of said E½ SW¼ from whence the northwest corner of said Section 6 bears N36°08'47"W, 2283.94 ft.; thence N00°55'27"W along said west line, 600.00 ft.; thence N90°00'00"E, 408.18 ft.; thence S13°10'15"E, 65.00 ft.; thence S19°13'28"E, 277.39 ft.; thence S02°38'30"E, 152.81 ft.; thence S06°39'17"W, 220.12 ft.; thence 46.37 ft. along the arc of a curve to the right through a central angle of 53°08'05" with a radius of 50.00 ft. and a long chord bearing S33°13'19"W, 44.72 ft.; thence 34.72 ft. along the arc of a curve to the left through a central angle of 39°47'22" with a radius of 50.00 ft. and a long chord bearing S39°53'.1"W, 34.03 ft.; thence 70°00'00"W, 468.09 ft. to the point of beginning containing 7.57 acres. Recorded at Reception No. 206346.
- II. A tract of land situate in the E½ SW¼ of Section 6, Township 44 North, Range 12 West, N.M.P.M. and more particularly described as follows: BEGINNING at a found rebar, said point being the northeast corner of a tract previously conveyed to the Town of Norwood, from whence the northwest corner of said Section 6 bears N40°51'47"W, 3128.53 ft.; thence N69°51'17"W (N70°W recorded), 200.00 ft. to the northwest corner of said tract conveyed to Town of Norwood; thence N05°11'43"W, 226.78 ft.; thence 68.20 ft. along the arc of a curve to the left through a central angle of 78°09'20" with a radius of 50.00 ft. and a long chord bearing N45°43'57"W, 63.04 ft.; thence N06°39'17"E, 305.00 ft.; thence N87°39'12"E, 231.69 ft.; thence S12°33'07"E, 667.10 ft.; thence S90°00'00"W, 248.67 ft. to the point of beginning containing 5.00 acres. Recorded at Reception No. 206346.
- III. Interest in certain unrecorded lease between the Colorado State Board of Land Commissioners and the Board of Trustees of the Town of Norwood, Colorado and the San Miguel Water Conservancy District dated March 1, 1978, No. S-36750. Recorded at the State Board of Land Commissioners, Denver, Colorado.
- IV. Easement and right-of-way dated July 29, 1986, recorded with the San Miguel County Clerk and Recorder, Reception No. 245601, Book 430, Pages 759-760, for a water pipeline over and across land as situated in the State of Colorado, and more particularly described as a TRACT 2 DES. IN PLAT IN BK. 1 P.28-32 IN SW COR SW 1/4 SEC. 27-45-13 ALSO TRACT IN NW COR NW1/4 SEC. 34-45-13 Cont. 10A (the "Described Land"). The easement and right-of-way in the Described Land begins approximately from the southeast corner of said land going north west behind metal shop across Cone Ditch through fenced gate still going northwest until getting to Cone Ditch again and without crossing cutting north to northwest corner of the Described Land, together with such reasonable rights of entry upon, and passage over the Described Land in order to maintain and repair such water pipeline. Recorded at Reception No. 245601.
- V. Utility Easement in perpetuity pursuant to an Agreement dated March 2, 1987, for the installation, use and maintenance of a potable water line, to-wit:

Easement Width: 20 ft.

Section 9, Township 45 North, Range 13 West, N.M.P.M.

Description:

SW $\frac{1}{4}$ NE $\frac{1}{4}$

40.70 acre

Tract 7

Deer Mesa Ranch

Beginning in the NE corner, bearing West for 1320 feet to the NW corner. Recorded at Reception No. 583327.

- VI. Utility Easement in perpetuity pursuant to an Agreement dated January 17, 1980, for the installation, use and maintenance of a potable water line, to-wit:

Easement Width: 20 ft.

Section 3, Township 45 North, Range 14, N.M.P.M.

Description:

A tract of land in the E $\frac{1}{2}$ SW $\frac{1}{4}$ Section 3, Township 45 North, Range 14 West, New Mexico Principal Meridian, described as beginning at the Northwest corner, Thence West quarter corner of said Section 3 bears south 89°55' west 1981.00 feet; thence south 2651.21 feet to the Southwest corner; thence North 89°55', east 660.00 feet to the Southeast corner; thence north 2657.21 feet to the Northeast corner; thence south 89°55' west 660 feet to the Northwest corner, the place of beginning. Recorded at Reception No. 583328.

- VII. Easement and right-of-way dated September 11, 1984, for a water pipe or water conveyance over and across lands as situated in the State of Colorado, and more particularly described as the NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 31, Township 45 North, Range 12 West, N.M.P.M. for the sole purpose of locating, establishing, constructing, and maintaining, over and across the easterly 4 feet of the described land beginning approximately from the Southeast corner of said NE $\frac{1}{4}$ along the County Road Numbered 46X in a northerly direction for approximately 440 yards and an easement in the described lands together with such reasonable rights of entry upon, and passage over, in order to deposit excavated earth and store materials and equipment on such area as may be reasonably necessary or useful to the construction, maintenance, and repair of such water way or water pipeline or water conveyancing device. Recorded at Reception No. 281508.

- VIII. Easement and right-of-way dated October 10, 1984, recorded with the San Miguel County Clerk and Recorder, Reception No. 236236, Book 414, Pages 811-813, for a water pipe or water conveyance over and across lands as situated in the State of Colorado, and more particularly described as a tract of land SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 31, Township 45 North, Range 12 West N.M.P.M., described as beginning of the NE Corner of said SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 31, Township 45 North, Range 12 West, N.M.P.M., thence West along $\frac{1}{2}$ $\frac{1}{2}$ section line 660 feet, thence South 660 feet, thence East in a parallel direction to the North $\frac{1}{4}$ $\frac{1}{4}$ section line 660 feet, thence North along East $\frac{1}{4}$ $\frac{1}{4}$ section line 660 feet to a point of beginning for the sole purpose of locating, establishing, constructing, and maintaining, over and across the easterly 4 feet of the described land beginning approximately from the Southeast corner of said SE $\frac{1}{4}$ along the County Road Numbered

46X in a northerly direction for approximately 660 feet and an easement in the described lands together with such reasonable rights of entry upon, and passage over, in order to deposit excavated earth and store materials and equipment on such area as may be reasonably necessary or useful to the construction, maintenance, and repair of such water way or water pipeline or water conveyancing device. Recorded at Reception No. 236236.

- IX. Utility Easement in perpetuity pursuant to an Agreement dated October 4, 1977, for the installation, use and maintenance of a potable water pipeline, to-wit:

Easement Width: 20 ft.

Section 11, Township 45 North, Range 14 West, N.M.P.M.

Description:

Situated in the $W\frac{1}{2}E\frac{1}{2}NE\frac{1}{4}$ of Section 11, Township 45 North, Range 14 West, N.M.P.M., and adjacent to the west and south right of way of Montrose County Road and more particularly described as follows:

Beginning at a point 30 ft. south of the $N\frac{1}{4}$ corner of Section 11; thence East 1300 ft.; thence South 1900 ft. Recorded at Reception No. 583326.

- X. Utility Easement in perpetuity pursuant to an Agreement dated October 12, 1977, for the installation, use and maintenance of a potable water pipeline, to-wit:

Easement Width: 20 ft.

Section 23, Township 45 North, Range 13 West, N.M.P.M.

Description:

Situated in the $S\frac{1}{2}$ of Section 23, Township 45 North, Range 13 West, N.M.P.M. and more particularly described as follows: Beginning at a point approximately 1550 ft. west and 30 ft. north of the southeast corner of Section 23; thence west to the west property line. Recorded at Reception No. 583329.

- XI. Utility Easement in perpetuity pursuant to an Agreement dated December 16, 1977, for the installation, use and maintenance of a potable water pipeline, to-wit:

Easement Width: 15 ft.

Section 22, Township 45 North, Range 13 West, N.M.P.M.

Description:

Situated in the $NW\frac{1}{4}$ of Section 22, Township 45 North, Range 13 West, N.M.P.M., and adjacent to the easterly right of way of Colorado Highway 145, and more particularly described as follows: Beginning at a point 30 ft. west of the $W\frac{1}{4}$ corner of Section 22; thence North 2,000 ft. Recorded at Reception No. 281507.

- XII. Right-Of-Way Easement dated July 20, 1977, for the right to enter upon the lands situated in the State of Colorado, and more particularly described as follows:

A tract of land in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 12, Township 45 North, Range 14 West, N.M.P.M., and more particularly described as beginning at the southwest corner of said Section 12; thence along the south line of said Section 12, East 366 feet; thence North 0°, 30 feet to true point of beginning; thence North 0° 290.4 feet; thence East 90°, 150 feet; thence South 0°, 290.4 feet; thence West 90°, 150 feet to point of beginning, containing 1.0 acre,

and to place, construct, operate, repair, maintain, replace, and/or remove thereon and in or along all streets, roads, or highways abutting said lands, a water pipe line. Recorded at Reception No. 583330.

- XIII. Underground Utility Permit and Grant of Right of Way dated May 23, 1977, to install, operate, and maintain a water distribution system and appurtenances along and/or across County road or road rights of way in accordance with Plans and Specifications prepared by Mesa Engineering, Inc. in Montrose County, Colorado. Certified by Montrose County Clerk and Commissioners upon execution.

wmrwsexh.Doc

COPY

Ordinance No. #93-0514

AN ORDINANCE CONCERNING THE WATER SYSTEM OF
THE TOWN OF NORWOOD

WHEREAS, the Town of Norwood, a municipal corporation organized and existing under the General Statutes of the State of Colorado, located in the County of San Miguel in said State of Colorado, by agreement with the San Miguel Water Conservancy District, a Colorado quasi-municipal corporation, and the Wright's Mesa Rural Water System, a rural water users association, did obtain all the assets of the Wright's Mesa Rural Water System, including by example, but not by limitation, bank accounts, all real property and easements, all pipelines, whether in place or in storage, water tanks, pumps, valves, meters, machinery, accounts receivable, and any other property belonging to the Wright's Mesa Rural Water System, including such office records, customer lists, plans, specifications, and the files as may be deemed necessary to carry out the provision of domestic water services to property owners within the Wright's Mesa Rural Water System service area; and

WHEREAS, said agreement establishes certain requirements for the Town to implement in incorporating such assets into the Town of Norwood Water System and to operate such combined water system; now

THEREFORE, be it ordained by the Board of Trustees of the Town of Norwood in the State of Colorado as follows:

1. The Town of Norwood hereby accepts the transfer to the Town of all the assets of the Wright's Mesa Rural Water System as outlined above and in that agreement executed on December 29, 1992, incorporates such assets into the Town of Norwood water system, and hereby declares that the Town of Norwood water system shall henceforth include any and all assets previously owned by the Town of Norwood, the Wright's Mesa Rural Water System, or any entity created by and existing under any previous agreements between these entities or between the Town of Norwood and the San Miguel Water Conservancy District.

2. There shall be hereby created a Board of Water Commissioners in accordance with Section III of that agreement executed December 29, 1992. The Mayor of the Town of Norwood shall be appointed to this Board of Water Commissioners for the term of two years. The Vice Mayor and one other resident of the Town appointed by of the Board of Trustees shall be appointed for a term of one year. The Board of Water Commissioners shall always include as members the Mayor, the Vice Mayor, and one other resident of

the Town appointed by the Board of Trustees, which resident may be a member of the Board of Trustees of the Town of Norwood.

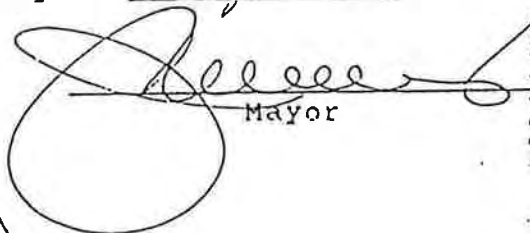
3. The Board of Water Commissioners shall meet at least monthly, in accordance with Section III of that agreement dated December 29, 1992. At its first meeting, the Board will commence development of rules and regulations for the operation of the Town of Norwood Water System, and said rules and regulations shall be adopted no later than the third meeting of said Board. All rules and regulations adopted by said Board shall not be in violation of the agreement dated December 29, 1992, and shall include a regulation requiring the Board to reserve one water tap for the Town for each water tap issued for property outside the Town boundary.

4. The Board of Trustees of the Town of Norwood shall have the power and authority to accept loans or grants or both from the United States and the State of Colorado, to issue revenue bonds to finance in whole or in part the cost of reconstruction, improvement, betterment, or extension of the water facilities now owned by the Town of Norwood, and to do any and all other things legally authorized by the Statutes of the State of Colorado. Any bonds issued pursuant to this Section shall not constitute an indebtedness of the municipality within the meaning of any constitutional or statutory limitation. Said bonds shall be payable solely from the revenues of the water system pledged to the payment thereof.

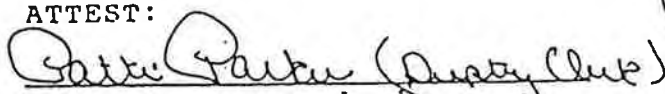
5. All Ordinances or parts of Ordinances inconsistent with this Ordinance are hereby repealed.

6. This Ordinance shall become effective on the 14 day of May, 1993 after proper publication.

Introduced, read in full and passed on first reading, and ordered published at an open meeting of the Board of Trustees of the Town of Norwood this 14 day of May, 1993.


Mayor

ATTEST:


Town Clerk

Appendix B

Decrees

O. A. Pugh, The Redlands Townsite Company, a corporation, W. H. Ray, Charles Redd, Maude B. Rogers, Jessie M. Rogers, Charles E. Ross, J. M. Rowe, Grace Saunders, San Miguel Irrigation & Land Company, a Corporation, Shenandoah L. T. L. S., J. J. Shingler, Joe Shomin, John Shomin, Anton Skalla Estate, T. L. Smith, W. H. Smith, A. Spaniock, Rebecca Spillman, Dorothy Sternberg, Edna Sternberg, Emma Sternberg, Guy V. Sternberg, Frank Sullivan, T. H. Sullivan, J. E. Van Liew, C. E. Wakefield, L. I. Walker, Lena B. Warren, H. K. Waring, Mrs. W. E. Wheeler, W. I. Wilson, D. L. Williams, R. L. Williams, D. Williams, Pete Zunich, and all of the unknown shareholders and holders of liens on stock of said defendant corporation,

Defendants.

CONDEMNATION
ORDER

Condemnation
1/4 CFS

Right ☒ Z14

This matter coming on to be heard before the District Court in and for the County of San Miguel, at Telluride, Colorado on this the 29th day of June, 1936, for trial on the merits thereof pursuant to a stipulation by and between plaintiff and its attorneys, Fairlamb & Fairlamb, and the defendants, The Farmers Water Development Company, a corporation, and Edith Pitman Bishop, on behalf of herself and all others similarly situate, and their attorneys, Moynihan, Hughes & Knous, and the court hereby finds that service of the summons and petition in said matter has been made on all of the above named defendants, and that the greater part of said defendants are stockholders of and represented by The Farmers Water Development Company, a corporation, and that all of said defendants are represented by Moynihan, Hughes & Knous, excepting the defendants who have failed to appear herein, although duly summoned, and as to such defendants who have failed to appear, their default has heretofore been entered by the court, and the court having heard the evidence in said cause, it having been stipulated by and between petitioner and respondents that the court could proceed to hear and try said cause without the necessity of having a commissioner or a jury, both petitioner and respondents having expressly waived such trial by commissioners or jury, and from the evidence in said cause the court finds;

First. That the petitioner filed suit in condemnation against the above named defendants under the eminent domain act of the State of Colorado, on or about the 18th day of March 1935, and that thereafter a summons was duly issued out of the above entitled court as shown by the files in the above cause, and said defendants were thereafter duly served with process.

Second. And the Court further finds that an accurate description of the property sought to be taken by this suit in condemnation is the first and prior right to take and use one-fourth of one cubic foot of water per second of time from the waters of Maverick Gulch, which is sometimes called No-Name Gulch at a point at the intake of a pipe line constructed by the Town of Norwood, Colorado, approximately five miles southeast of the town of Norwood, Colorado, on the lands of one Paul Cornforth and Ioye Cornforth, more particularly described as follows, to wit:

The East one half of the Southwest Quarter (E 1/2 SW 1/4) and the West one half of the Southeast Quarter (W 1/2 SE 1/4) of Section Six (6) in Township forty-four (44) North of Range Twelve (12) West of the New Mexico Principal Meridian where the pipe line of the town of Norwood, Colorado taps said Maverick Gulch.

The Court finds from the answer of The Farmers Water Development Company that the only water claimed by it, and which arises in ~~the name~~ Gulch or the head of Maverick Draw, is that water right evidenced by Priority 214, awarded to The Farmers Water Development Company upon the 16th day of October, 1933, from ditch No. 162, a copy of which decree is recorded in Record Book 20, at Page 108, in the office of the Clerk of the District Court of Montrose County, Colorado.

The Petitioner seeks only to condemn the first one-quarter of one cubic foot of water per second of time from Priority No. 214, that is to say, the Petitioner desires to have the right continually to appropriate and use from January 1st to December 31st, inclusive, of each year, the first one-quarter of one cubic foot of water per second of time from Priority 214 aforesaid.

Third. The Court further finds that the value of the property actually taken was and is the sum of Two Thousand Five Hundred and no/100 (\$2500.00) Dollars.

The Court further finds that the defendants, who are the only ones damaged by reason of the taking of said water, are The Farmers Water Development Company, a corporation, and its shareholders, for and on whose behalf the Farmers Water Development Company, a mutual irrigation company, duly organized and existing under and by virtue of the laws of the State of Colorado, acts as trustee, and that its shareholders each and all consent to payment being made to the Farmers Water Development Company as trustee for and on their behalf, and in their right and interest, and that no substantial damage is done to anyone else save and excepting said Farmers Water Development Company and its stockholders.

The Court further finds that the petitioner has limited its claim in this proceeding to one-fourth of one cubic foot of water per second of time, and has dismissed its proceeding and disclaimed any intention of asking for more than one-fourth of one cubic foot of water per second of time, which water is sought to be taken for the use of the inhabitants of the town of Norwood, Colorado, which is petitioner herein, and for domestic uses of said municipality and its inhabitants and citizens.

The Court further finds that considering the fact that the plaintiff asks and seeks to condemn said water for domestic purposes and for the use of the inhabitants of the town of Norwood, Colorado, said petitioner shall have the right to the first claim and use of said water, which shall first be taken from the first one-fourth of one cubic foot of water per second of time out of and from a certain priority adjudged to flow in the ditch or ditches of the Farmers Water Development Company as and from Priority No. 214. That is to say, that if at any time the water flow in said No Name Gulch, also known as Maverick Gulch, under said Priority No. 214 does not exceed one-fourth of one cubic foot of water per second of time petitioner shall be entitled to the whole thereof, and it is further provided that if and when said water to which said Priority No. 214 is entitled is flowing in excess of one-fourth of one cubic foot of water per second of time at said place where the said taking is to be had, as hereinbefore stated the defendant, The Farmers Water Development Company, or its grantees shall

have the free and unrestricted use of the balance of said decree, but that should there not be sufficient in said decree No. 2114 to at all seasons equal one-fourth of one cubic foot of water per second of time nothing herein contained or stated shall prevent the Petitioner from taking and diverting from No Name Gulch (at the present point of diversion, or from any other point further up the creek or gulch, as may hereafter be determined by the petitioner) the first one-quarter of one cubic foot of water per second of time arising therein, regardless of the ownership of said water, it being the intention of this decree, and it is so decreed, to award petitioner prior right to use one-quarter of one cubic foot of water per second of time out of No Name Creek or Gulch aforesaid, irrespective to whomsoever it may belong or regardless of claim thereof or thereto.

The Court finding that certain priorities have heretofore been awarded to the predecessors in interest of The Farmers Water Development Company, for the use and benefit of the consumers thereof, from Goat Creek, Galloway Creek and the Beaver Creeks and their tributaries, some twenty-six miles above No Name Gulch - the waters through which under said priorities next hereinabove described flowing throughout the irrigation season in No Name Gulch on their way to the lands of the consumers under the Farmers Water Development Company Ditch, It Is Ordered ^{and Decreed} in view of the pleadings of the petitioner herein, that this decree shall not be taken or interpreted as taking any waters whatever from any of the defendants under priority or priorities where the natural streams which furnish the supply of water under such priority or priorities are named as Goat Creek, Galloway Creek, the different Beavers and their tributaries, or any source of natural stream supply other than No Name Gulch.

The Court further finds that after the water flowing from the spring aforesaid runs into No Name Gulch, or the head of Maverick Draw Gulch, the defendant, The Farmers Water Development Company, uses said gulch, which is the same gulch into which is discharged the water of defendant, The Farmers Water Development Company, and the other water users, impounded in the Farmers Water Development Company reservoir, certain superintendence is re
state of the pipe line of the petiti

hereinabove referred to. From the evidence the court determines that Ten Dollars (\$10.00) yearly is a fair amount and sum to be paid by the petitioner to The Farmers Water Development Company for conducting said water, after it reaches the ditch system of the defendant, The Farmers Water Development Company, to the intake of said petitioner's pipe line as hereinbefore set out.

The Court further finds that all defendants herein, save and except The Farmers Water Development Company are consumers of water from The Farmers Water Development Company's ditch and own a water right decreed to said ditch prior to the time the same was acquired by The Farmers Water Development Company, defendant. That said decrees were awarded to the Naturita Cattle and Land Company's ditch, also known as the Gurley Ditch, also known as the Naturita Canal, also known as the enlarged Gurley Ditch, but said ditches, by whatever name they are called, are the same identical ditch as the ditch now owned by the defendant, The Farmers Water Development Company. That at the time the said The Farmers Water Development Company acquired said ditch to which said decree and priority were awarded, the defendants other than the Farmers Water Development Company, were by decree of court given an easement in said ditch for the right to have water run there-through under said previous priorities. That the Farmers Water Development Company acquired said ditch on or about the ____ day of 19__ and that said company issued stock and sold stock to various and diverse persons and with the proceeds of said sale began to enlarge said ditch and secure priorities; as a result of said enlargement and by reason of appropriation made by the stockholders of said The Farmers Water Development Company. That as shown by the records, Priority No. 214 was awarded to The Farmers Water Development Company.

The Court finds that the defendants, other than the said the Farmers Water Development Company have not acquired nor now have any interest of any kind or nature in or to Priority No. 214 aforesaid, nor in and to the first right to take and use one-fourth of one cubic foot of water per second of time, whether surface or subsurface flow from said No

The Court Finds that the

defendants other than The Farmers Water Development Company have claims and water rights in No Name Gulch and arising therein of very questionable, if any, value. However, said defendants having been served, the court having heard the evidence and taken into consideration the value of said water rights owned by the defendants other than the Farmers Water Development Company, jointly and severally, together with benefits and damages to be considered in connection therewith, have a possible value, if determined, not in excess of Ten Dollars, for which judgment is hereby rendered.

Petitioner is directed to pay to the Clerk of the District Court in and for San Miguel County, the sum of Ten Dollars for the use and benefit of all of the defendants named in the above entitled proceedings other than The Farmers Water Development Company, the said Ten Dollars to be distributed among such defendants as shall establish their rights and their pro rata rights thereto.

The Court finds that Edith Pitman Bishop, one of the consumers of water under one of the decrees awarded to said ditch prior to the time the same was acquired by The Farmers Water Development Company, is in the same identical situation as are all defendants other than The Farmers Water Development Company and as such consumers of water and holders of priority decreed to said ditch prior to the time The Farmers Water Development Company acquired the same, they have no interest in or to the priority No. 214 awarded to The Farmers Water Development Company.

That the water herein condemned from Priority No. 214 is the sole and exclusive property of The Farmers Water Development Company and belongs to no one else.

The Court being fully advised in the premises, doth find that the value of the property in controversy, to wit, prior right to use of one-fourth of one cubic foot of water per second of time out of Priority No. 214 aforesaid, which is an accurate description of the property taken, the value thereof actually taken, and taking into consideration damages to the residue and the amount of value of any benefits, by the said taking and condemnation thereof, is Twenty Five Hundred Dollars (\$2500.00).

THEREFORE IT IS ORDERED, ADJUDGED AND DECREED By the Court,

which has taken into consideration each and every requirement of the Statutes of the State of Colorado, plaintiff and defendants consenting that the court so do, the full compensation for the taking of the above described property and for all damages to the defendant, The Farmers Water Development Company, a corporation, shall be the sum of Twenty-five Hundred Dollars (\$2500.00).

It is further ordered that upon depositing with the Clerk of the District Court in and for the County of San Miguel in the State of Colorado, an additional sum of ^{Fifteen} ~~Twenty-five~~ Hundred Dollars (\$1500.00) that said sum of Fifteen Hundred Dollars (\$1500.00) together with the sum of One Thousand Dollars (\$1000.00) which has been previously deposited by the petitioner shall be, and it is hereby ordered by the court that the said Clerk be and she hereby is directed to pay to the said Farmers Water Development Company the sum of \$2500.00, and upon the payment into court of said sum of \$2500.00 it is hereby ORDERED, ADJUDGED AND DECREED That petitioner shall have the exclusive right to take and use the first one-fourth of one cubic foot of water per second of time from the waters of Maverick Gulch, also known as No Name Gulch, from either the surface flow or subsurface flow thereof at the point hereinbefore mentioned.

IT IS FURTHER DECREED That petitioner pay to defendant, The Farmers Water Development Company the sum of \$10.00 each year hereafter, on or before May 1st, thereof, and that said charge shall be considered and construed as a covenant and obligation running with the water right acquired by the petitioner herein and the obligation of petitioners to pay the same shall be perpetual.

IT IS FURTHER ORDERED AND ADJUDGED That to the extent of said one-fourth of one cubic foot of water per second of time the prayer of petitioner's petition is hereby sustained, and the exclusive title and right to take in perpetuity the said one-fourth of one cubic foot of water per second of time as hereinbefore described from the water of said stream be and the same hereby is vested in petitioner, its heirs, and assigns, and the title quieted in it against the claims of each and all of said respondents, and each and all of said respondents are hereby barred and interest, claim or demand in and to said

one-fourth of one cubic foot of water per second of time.

This decree shall take effect and the title and the right to possession of said one-fourth of one cubic foot of water per second of time fixed as of the payment into the registry of this court of said additional sum of \$1500.00 as hereinbefore recited, and it is hereby directed that said additional sum of \$1500.00 shall be paid into the registry of this court within five days from the date of this decree.

By the Court :

George W. Bruce
Judge.

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CLERK'S CERTIFICATE OF COPY—Out West Printing and Stationery Co., Colorado Springs, Colo. K924

STATE OF COLORADO,
County of San Miguel } ss.

I, Alice N. Erickson

Clerk of the District Court of San Miguel County, the same being a Court of Record, in the State aforesaid, do hereby certify the above and foregoing to be a true, perfect and complete copy of ORDER and RULE in a certain cause wherein The Town of Norwood, Colorado, a Municipal Corporation, petitioner vs. The Farmers Water Development Company, et al., as the same appears in the files of my office remaining.

In Witness Whereof, I have hereunto set my hand and affixed the seal of

said Court, at Telluride, Colorado this

19th day of July, A. D. 1921.

Alice N. Erickson
Clerk.

By _____ Deputy Clerk.

Said water being used upon all or a portion of each forty acres included in the foregoing described lands.

WHEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Court that there be allowed to flow in said ditch from the said Trail Creek, Williams Creek, No-Name Creek, and Little Cone Creek for the uses aforesaid, and for the benefit of the parties lawfully entitled thereto, under and by virtue of said appropriation by construction, Priority No. 213, so much water as will flow in said ditch as the same is now constructed, not to exceed 11.9 cubic feet of water per second of time, as of date of October 21st, 1926.

THE FARMERS WATER DEVELOPMENT COMPANY DITCH
(Formerly The Naturita Canal and Reservoir Company Ditch.)

DITCH NO. 162

PRIORITY No. 214.

That said Ditch is entitled to Priority No. 214.

The Claimant is The Farmers Water Development Company, a Corporation.

That it is a ditch used for the irrigation of lands taking its supply of water from No-Name Natural Draw, a tributary of the San Miguel River. Its headgate is located at a point on the North Bank of the Company's reservoir, being located in Sections 36 and 25, Township 44 North, Range 13 West N.M.P.M., and runs in a general Northerly direction for a distance of approximately 6 miles; its carrying capacity is 1 cubic foot of water per second of time.

The Court finds that construction was begun on said ditch on the 1st day of December, 1900 and in the exercise of due diligence and within a reasonable time thereafter said ditch was completed to the carrying capacity of 1.0 cubic foot of water per second of time, and 1.0 cubic foot of water per second of time was diverted to said ditch and applied to a beneficial use for the irrigation of lands thereunder.

WHEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Court that there be allowed to flow in said ditch from the said No-Name Natural Draw for the uses aforesaid, and for the bene-

fit of the parties lawfully entitled thereto, under and by virtue of said appropriation by construction, Priority No. 214, so much water as will flow in said ditch as the same is now constructed, not to exceed 1.0 cubic foot of water per second of time, as of date of October 21st, 1926, which is in addition to all other waters adjudicated to said ditch.

THE F. H. BUSS DITCH

DITCH NO. 163

PRIORITY No. 214

That said Ditch is entitled to Priority No. 215

The Claimant is F. H. Buss.

That it is a ditch used for the irrigation of lands taking its supply of water from a Natural Spring located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 23, Township 45 North, Range 13 West N.M.P.M., and seepage waters from lands in the NW $\frac{1}{4}$, Section 26; S $\frac{1}{2}$ SW $\frac{1}{4}$, Sec. 23, Township 45 North, Range 13 West N.M.P.M., a tributary of the San Miguel River. Its headgate is located at a point at approximately the center or middle point of the said SW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 23, Township 45 N., R. 13 West N.M.P.M., at said spring, and runs in a general Westerly direction for a distance of approximately 700 feet; its carrying capacity is 4.0 cubic feet of water per second of time.

The Court finds that construction was begun on said ditch on the 1st day of June, 1903, and in the exercise of due diligence and within a reasonable time thereafter said ditch was completed to the carrying capacity of 4.0 cubic feet of water per second of time, and 4.0 cubic feet of water per second of time was diverted to said ditch and applied to a beneficial use for the irrigation of lands thereunder.

WHEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Court that there be allowed to flow in said ditch from said Natural Spring for the uses aforesaid, and for the benefit of the parties lawfully entitled thereto, under and by virtue of said appropriation by construction, Priority No. 215, so much water as will flow in said ditch as the same is now constructed, not to exceed 4.0 cubic feet of water per second of time, as of date of October 21st, 1926.

of said pipeline. That the water supplied for said pipeline is
all of which are contemplated at the beginning of construction
prior to the installation of the presence of other water users.
After the said pipeline is installed and operation of the

THE TOWN OF NORWOOD PIPELINE

Ditch No. 282

Priority No. 385 ✓
and
Priority No. 425 Con-
ditional ✓

THE COURT FINDS:

That said pipeline is numbered 282, and it is
entitled to Absolute Priority No. 385, and Conditional Prio-
rity No. 425.

That the claimant thereof is The Town of Norwood,
Colorado. Address Norwood, Colorado.

That it is a pipeline used for all municipal purposes
required by claimant.

That the headgate, or intake, of said pipeline is
located on the West bank of Maverick Draw, a tributary of the
San Miguel River in Water District No. 60, Colorado, at a point
whence the NW corner of Sec. 6, Twp. 44 N., R. 12 W., N.M.P.M.
bears N. 45° W. approximately 1000 feet. From its intake the
pipeline runs north 270 feet to a chlorination Plant, thence
westerly approximately 3 miles to the regulation reservoir,
thence northerly 6,200 feet to the Town of Norwood;-total length
of pipeline 22,260 feet; 6 inch line from headgate to regula-
tion reservoir, and 8 inch line from the reservoir to the Town
of Norwood; grade of line 10 feet per 100 feet and carrying
capacity in excess of 1.00 cubic feet of water per second of
time. The Town claims to have .25 of a second foot of decreed
water, which is insufficient for the present needs of claimant's
water users and other municipal purposes.

That work of enlargement was begun on or about June
1, 1935, and completed diligently.

That claimant further enlarged a portion of its dis-
tribution system beginning June 1, 1948 to divert and carry
an additional .25 of a second foot of water, and proposes to

Priority
219

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THE TOWN OF NORWOOD PIPELINE

complete the entire system to that capacity. That at present the regulatory reservoir has a capacity of only 810,000 gallon of water, which is insufficient to permit of the full diversion of 1.00 second foot of water.

That under the first enlargement .50 of a second foot of water was, when available, at the intake of said pipeline, diverted and used continuously since the completion thereof.

That Norwood is a town of some 800 people, and to provide its ordinary water requirements, and an adequate reserve for emergencies, 1.00 cubic foot of water per second of time is not more than sufficient to meet the ordinary needs of the inhabitants of a town of that size, and to provide a satisfactory reserve for emergencies.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED that, subject to all of the several limitations in the preamble to this decree expressed, there be allowed to flow in said pipeline from said Maverick Draw, for the uses aforesaid, and for the benefit of the parties lawfully entitled thereto, under and by virtue of appropriation by original construction and beneficial use, and Absolute Priority No. 385, so much water as will flow therethrough as now constructed, not to exceed .50 of a cubic foot of water per second of time, as of Historic date June 1, 1935, and Decreed date February 19, 1939.

AND IT IS FURTHER ORDERED, ADJUDGED AND DECREED that there be allowed to flow in said pipeline and water distribution system, when and if enlarged as hereinabove proposed, from said Maverick Draw, for the uses aforesaid, and for the benefit of the parties lawfully entitled thereto, under and by said constructive appropriation, and Conditional Priority No. 425, so much water as will flow therein as so hereafter constructed, not to exceed .25 of a cubic foot of water per second of time, as

of 1.00 second foot of water.

of water' upon is insufficient to benefit of the full utilization
the reservoirs reservoirs use a capacity of only 810,000 gallon
combine the entire system to proper capacity. Just as present

of date June 1, 1945. CONDITIONED, however, upon proof of the
completion of the enlargement of said distribution system to a
capacity sufficient for, and the diversion and beneficial use
said additional .25 of a second foot of water, or such part
thereof as can be satisfactorily shown, within the time and in
the manner provided by law.

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NORWOOD INFILTRATION PIPELINE
DIRECT FLOW
DIVERSION STRUCTURE NO. 331

Priority No. 513, ✓
ABSOLUTE,
AND
Priority No. 513,
CONDITIONAL

THE COURT FINDS:

That the name of said diversion structure is the
NORWOOD INFILTRATION PIPELINE.

That the name and post office address of the claimant thereof is the TOWN OF NORWOOD, COLORADO, Norwood, Colorado.

That said pipeline derives its supply of water from springs, seepage and underground water in the E $\frac{1}{2}$ SW $\frac{1}{4}$ and W $\frac{1}{2}$ SE $\frac{1}{4}$, Section 6, Township 44 North, Range 12 West, N.M.P.M., tributary to Maverick Draw, a tributary of the San Miguel River, in Water District No. 60.

That the headgate of said pipeline is located on the north edge of said spring area at a point whence the northwest corner of Section 6, Township 44 North, Range 12 West, N.M.P.M. bears North 39° 27' West 2,912 feet.

That said diversion structure is an infiltration line laid in the natural gravel about 7 feet below the surface of the ground. That it consists of concrete tile 8 and 10 inches in diameter, with a short feeder line 6 inches in diameter. That the computed carrying capacity thereof is 1.00 cubic foot of water per second of time.

And the Court further Finds from the evidence and from the Findings and Report of the referees filed herein, which Findings and Report are hereby approved and confirmed,--that work was started on said pipeline by survey on June 10, 1962, and completed in the Spring of 1963, and thereafter water collected thereby along its course and delivered into claimant's distribution system and used for domestic, municipal and lawn

...ing purposes. That the largest amount of water developed by said line was measured by parshall flume at 0.57 of a cubic foot per second of time. And claimant hopes by a little additional work to develop 0.18 of a second foot more.

And it further appears to the Court that claimant has been using 0.25 of a cubic foot of water per second of time out of Priority No. 214 awarded to the Gurley Ditch, which was condemned in 1936, and said water had long since become inadequate to meet the demands of claimant's inhabitants and for municipal purposes. And further said water had never been of a quality which was entirely satisfactory for domestic use. Because of these conditions claimant, after determining the quality of the water flowing in said natural gravel bed^{installed} its infiltration line.

That for the domestic requirements of the people supplied with water from said infiltration line, and for municipal purposes and the watering of lawns claimant introduced evidence which satisfactorily shows the full capacity of said line, or 0.75 of a cubic foot of water per second of time is necessary and can be beneficially used without waste.

And it further appears that claimant is under contractual obligation to the owner of the land across which claimant's pipeline easement runs not to divert thereby in excess of said 0.75 of a second foot of said spring and underground water; and with the Farmers Water Development Company, the owner of said Gurley Ditch, that so long as claimant takes the 3/4 foot of water to be developed, it shall relinquish its right to use out of said ditch said 0.25 of a second of a foot of water previously condemned by it.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED BY THE COURT that, subject to the several limitations and provisions in the preamble to this decree expressed, there be al-

lowed to flow into and through said infiltration line from said springs, seepage and underground water tributary to Maverick Draw, for the benefit of the parties lawfully entitled thereto, under and by virtue of appropriation by construction, diversion and beneficial use for domestic, municipal and Lawn watering purposes, and as the Absolute portion of said Priority No. 513, so much water as will flow therethrough as now constructed, not to exceed 0.57 of a cubic foot per second of time, as of appropriation date June 10, 1962.

AND IT IS FURTHER ORDERED, ADJUDGED AND DECREED BY THE COURT that, subject to said several limitations and provisions, there be allowed to flow into and through said infiltration line from said spring, seepage and underground water tributary to Maverick Draw, for the benefit of the parties lawfully entitled thereto, under and by virtue of appropriation further proposed diversion and application to beneficial use for domestic, municipal and lawn watering purposes, and as the Conditional Portion of said Priority No. 513, so much additional water as will flow therethrough, not to exceed 0.18 of a cubic foot of water per second of time, as if appropriation date June 10, 1962. CONDITIONED, However, upon the completion of said diversion and application to beneficial use as aforesaid, within the time and in the manner provided by law, or such portion thereof as may be by proof shown to have been done. PROVIDED that so long as said infiltration line provides ^{sufficient water} for claimant's use no part of said 0.25 of a second foot of water out of the Gurley Ditch heretofore condemned by claimant, shall be used by it.

DATE OF MAILING

2-2-87

Filed In The District Court
Water Division Four

DISTRICT COURT, WATER DIVISION NO. 4, COLORADO

FEB 2 1987

CASE NO. 85CW151 (Ref. 81CW12, W-611 and W-156)

Kay Phillips, Clerk

FINDINGS AND RULING OF REFEREE AND DECREE

WD 4 C

IN THE MATTER OF THE APPLICATION FOR WATER RIGHTS OF:

THE TOWN OF NORWOOD

In the SAN MIGUEL River, SAN MIGUEL County, Colorado.

Applicant, the Town of Norwood, by their attorney, Dan E. Wilson, P.O. Box 791, Telluride, Colorado 81435, requests to Make Absolute a Conditional Water Right by Amended Application filed October 2, 1986.

FINDINGS OF FACT

1. All notices required by law of the filing of this Application have been given. The Referee has jurisdiction of this case. The time for filing of statements of opposition has expired and no such statements have been filed.

2. Applicant requests to make absolute a conditional water right for the NORWOOD INFILTRATION PIPELINE, which is located at a point in the E1/2 SW1/4 and in the W1/2 SE1/4 of Section 6, Township 44 North, Range 12 West of the N.M.P.M.; the headgate of said pipeline is located on the North edge of said spring area at a point where the Northwest corner of said Section 6 bears North 39° 27' West 2,912 feet, and is tributary to Maverick Draw and the San Miguel River. The decree for this right was entered in case 81CW12 on June 11, 1981. The Court finds that Applicant has completed the appropriation as required in the conditional decree, and has placed .18 c.f.s. of water to the beneficial use of municipal purposes.

RULING

Applicant is hereby GRANTED an ABSOLUTE water right for .18 c.f.s. of water for municipal purposes from the NORWOOD INFILTRATION PIPELINE, located as above-described, with an appropriation date of June 10, 1962, Priority No. 513.

DONE THIS 2nd DAY OF February, 1987.

No protest was filed in this matter.
The foregoing ruling is considered
and approved, and is made the
Judgment and Decree of this court.

Attest:

2-25-87

Robert A. Brown
Water Judge

Aaron R. Clay
Aaron R. Clay
Water Referee
Division 4

Mailed-A Copy of this Document
to all parties in this case.

Dated 2-27-87

SW
Kay Phillips, Water Clerk

GARDNER PIPELINE

LUTHER M. GARDNER and DOROTHY J. GARDNER,
Claimants.

DIRECT FLOW
DIVERSION STRUCTURE No. 315

Domestic Priority No. 478,
and
Irrigation Priority No. 511.

THE COURT FINDS:

That the name of said diversion structure is the
GARDNER PIPELINE.

That the names and post office address of the claimants thereof are LUTHER M. GARDNER and DOROTHY J. GARDNER,
P. O. Box 47, Norwood, Colorado.

That the records of the District Court of Montrose County, Colorado, the court having jurisdiction of the adjudication of water rights in Water District No. 60, do not show that said pipeline has heretofore been presented for decree.

That said diversion structure is an infiltration line, and derives its supply of water from a spring area and underground water tributary to Maverick Draw, a tributary of the San Miguel River in Water District No. 60.

That its intake, or point of diversion in said spring area is located on the north edge of said spring area at a point whence the Northwest corner of Section 6, Township 44 North, Range 12 West, N.M.P.M. bears North 47° 05' West 2650 feet. That from its intake said line extends in a northerly direction, and derives by means of infiltration an additional supply of water along its course.

That the length of said pipeline is 570 feet;

The diameter of the line is 6 inches;

The grade thereof is 7 feet per 1000 feet;

And its carrying capacity is 0.50 of a cubic foot

of water per second of time, as computed by the engineer.

And the Court Further Finds from the Findings and Report of the Referee filed herein,--which Findings and Report are hereby approved and confirmed,--that the construction of said pipeline was commenced the First day of November, 1960. However, from the testimony of claimant, Luther Gardner, the pipeline was put in to replace an open ditch which had been used for domestic and stockwatering purposes to his knowledge ever since 1926, which ditch ran approximately 0.25 of a cubic foot of water per second of time. That prior to the installation of the pipeline a spring came to the surface in said spring area and the water was carried out in an open ditch.

That these claimants acquired the land on which this spring area is located in 1960, and in order to improve the flow therefrom installed said infiltration line, which is 6 inches in diameter, made of concrete and buried in a gravel trench 4 feet deep. That said concrete line is porous and is penetrated by water along its course, which water in addition to water diverted through the intake of said line, is discharged into an open ditch and used for the irrigation of approximately 16 acres of land owned by claimants thereunder.

And the Court Further Finds the evidence does not show that any of the water originally diverted from said spring area through the original open ditch was ever used for irrigation purposes, but was used for domestic and stockwatering purposes by claimants' predecessors in ownership.

And it further appears from the evidence that claimants pasture approximately 300 head of cattle on their land during the winter months, and that said livestock is dependant upon the water in, or from the Gardner Pipeline

shows, none of it will be used on the land under the infiltration line.

And the Court Further Finds from the evidence that claimants this property on August 26, 1960, and there is no testimony that any work was done on said pipeline until subsequent to that time.

IT IS THEREFORE ORDERED, ADJUDGED AND DECREED BY THE COURT that, subject to the several limitations and provisions in the preamble to this decree expressed, there be allowed to flow into and through said Pipeline from said spring area and underground water tributary to Maverick Draw, for domestic and stockwatering purposes during the non-irrigation season, and at such time or times as irrigation water may not be flowing therein during the irrigation season, for the benefit of the parties lawfully entitled thereto, under and by virtue of appropriation by original construction, diversion and application to beneficial use, and Absolute Priority No. 478, so much water as will flow therethrough as now constructed, not to exceed 0.25 of a cubic foot per second of time, as of Historic, original, appropriation date ~~March~~ ~~March~~ May 1, 1925. and decreed, or effective date November 13., 1950.

56 937-937

... by virtue of appropriation by original construction, diversion and application to beneficial use, and Absolute Priority No. 511, so much water as will flow therethrough as now constructed, not to exceed 0.50 of a cubic foot per second of time, as of appropriation date November 1, 1960.

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ST

938

DATE OF MAILING

7-27-92

Filed in The District Court

Water Division No. 4

JUL 27 1992

DISTRICT COURT, WATER DIVISION NO. 4, COLORADO Key Phillips, Clerk

CASE NO. 91CW65

FINDINGS AND RULING OF REFEREE AND DECREE

IN THE MATTER OF THE APPLICATION FOR WATER RIGHTS OF:

TOWN OF NORWOOD

In the San Miguel River, San Miguel County, Colorado.

Applicant, Town of Norwood, Box 528 Norwood CO 81423,
requests a Surface Water Right by Amended Application filed
October 21, 1991.

FINDINGS OF FACT

1. All notices required by law of the filing of this Application have been given. The Referee has jurisdiction of this case. The time for filing of statements of opposition has expired and no such statements have been filed.

2. Applicant requests a conditional water right for the NORWOOD-NELSON DITCH, which is located at a point 300 feet west of the east line and 200 feet south of the north line, Section 14, Township 42 North, Range 12 West, N.M.P.M., and is tributary to McCulloch Creek and the San Miguel River. Applicant desires to have conditional flow rights for 10.0 c.f.s. for the municipal purposes of Applicant. The Court finds that the Norwood-Nelson Ditch will carry 10.0 c.f.s., and that Applicant has shown the requisite intent and plan to place this water to municipal use.

RULING

Applicant is hereby GRANTED a conditional water right for 10.0 c.f.s. of water for municipal purposes from the NORWOOD-NELSON DITCH, located as above-described, with an appropriation date of July 24, 1991, adjudication date of 1991.

91CW65

Prior to or during the month of February, 1998, and every six years thereafter until the conditional right is decreed absolutely, the owner or user thereof, if it is desired to maintain the same, shall file an application for finding of reasonable diligence with this Court. Applicant shall notify this Court of any change in mailing address.

Dated this 27th day of January, 1992.

No protest was filed in this matter.
The foregoing ruling is confirmed
and approved, and is made the
Judgment and Decree of this court.

Aaron R. Clay
Aaron R. Clay
Water Referee
Division 4

Dated: 2-21-92
Robert A. Brown
Water Judge

Mailed-A Copy of this Document to
all parties in this case.

Dated 2-24-92
Kay Philips
Kay Philips, Water Clerk Deputy

DISTRICT COURT, WATER DIVISION 4, COLORADO Court Address: 1200 N. Grand Ave., Bin A Montrose, CO 81401-3146 IN THE MATTER OF THE APPLICATION FOR WATER RIGHTS OF TOWN OF NORWOOD IN THE SAN MIGUEL RIVER, SAN MIGUEL COUNTY	60 Filed in the District Court Water Division 4 JUN 03 2005 Filed in the District Court Water Division 4 JUN 23 2005 Case Number: 04CW181 Ref. 91CW65
RULING OF REFEREE AND DECREE	

Applicant, The Town of Norwood, Box 528, Norwood CO 81423, requests a finding of reasonable diligence by Application filed November 15, 2004.

FINDINGS OF FACT

1. All notices required by law of the filing of this Application have been given. The Referee has jurisdiction of this case. The time for filing of statements of opposition has expired, and no such statements have been filed.

2. Applicant requests a finding of reasonable diligence in the completion of the conditional water right for the NORWOOD-NELSON DITCH, which is located 300 feet west of the east section line and 200 feet south of the north section line, Section 14, Township 42 North, Range 12 West, N.M.P.M. This diversion will take water which is tributary to the San Miguel River, as decreed in case No. 91CW65. In support of this request, Applicant states that continued development of the ditch has been done. The Court finds that the statements are true, and that this activity constitutes reasonable diligence in the completion of the diversion.

RULING

The conditional water rights decreed for 10.0 c.f.s. to the NORWOOD-NELSON DITCH, identified above, for municipal use are **HEREBY CONTINUED**, in full force and effect.

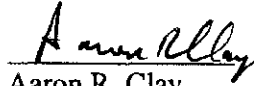
04CW181

Prior to or during the month of June, 2011, and every six years thereafter until the conditional right is decreed absolutely, the owner or user thereof, if it is desired to maintain the same, shall file an application for finding of reasonable diligence with this Court. Applicant shall notify this Court of any change in mailing address. Upon the sale or other transfer of this conditional right, the transferee shall file with this Court a notice of transfer which shall state:

1. The title and case number of this case;
2. The description of the water right transferred;
3. The name of the transferor;
4. The name and mailing address of the transferee

Applicant shall notify any transferee of the requirements of this paragraph.

Dated this 28th day of June, 2005.


Aaron R. Clay
Water Referee

No protest was filed in this matter. The foregoing ruling is confirmed and approved, and is made the judgment and decree of this Court.

DONE this 23rd day of June, 2005


J. Steven Patrick
Water Judge

DATE OF MAILING

5-17-02

DISTRICT COURT, WATER DIVISION 4, COLORADO	60
Court Address: 1200 N. Grande Avenue Bin A Montrose, Colorado 81401-3146	Filed in the District Court Water Division 4
CONCERNING THE APPLICATION FOR WATER RIGHTS OF NORWOOD WATER COMMISSION	MAY 16 2002 ✓
IN SAN MIGUEL COUNTY, COLORADO	▲ COURT USE ONLY ▲
	Case Number: 94CW244
	Division: 4
FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, JUDGMENT AND DECREE	

This application for water rights having been filed with the Water Clerk, Water Division 4, on December 28, 1994, and amended on December 10, 2001, and all matters contained the Application having been reviewed and evidence presented as was necessary, and otherwise being fully advised in the premises, the following is hereby the Ruling of the Referee:

FINDINGS OF FACT

1. The name and address of the Applicant is as follows:

Norwood Water Commission
P. O. Box 528
Norwood, CO 81423
2. Statements of Opposition: Timely statements of opposition were filed by the United States Bureau of Land Management, Darrell Bell, Gary Walker, Allen L. Todd and Dorothy C. Doll, and the Town of Naturita. No other statements of opposition have been filed in this matter, and the time for filing such statements has expired.
3. Jurisdiction: Timely and adequate notice of the pendency of these proceedings has been given in the manner required by law. This Court has jurisdiction over the subject matter of these proceedings and over all who have standing to appear as parties, whether they have appeared or not.

4/16/02

APPROVAL OF SURFACE WATER RIGHTS

4. Name of Structure: NWC River Diversion.
5. Legal description of the NWC River Diversion:

Located in the SE 1/4 SE 1/4 of Section 33, T-45-N, R-12-W of the N.M.P.M., at a point approximately 5 feet north from the south section line and 5 feet west from the east section line of said Section 33.
6. Source: San Miguel River.
7. Amount: 5.0 cfs, conditional.
8. Appropriation Date: November 1, 1994 by intent to appropriate and initiation of feasibility study.
9. Proposed use: Municipal.
10. Terms and Conditions. The water right decreed herein is subject to the following terms and conditions:
 - a. Applicant's diversions shall be subject to the following terms and conditions:
 - (1) The annual (calendar year) water diversion volume of San Miguel River water diverted pursuant to this decree and the storage decree in Case No. 01CW207, combined, will not exceed 723 acre-feet.
 - (2) Applicant's diversion rate will be based on the flow of the San Miguel River, calculated as specified below, in accordance with the following schedule, which shall be administered on a year round basis.

San Miguel River Flow CFS	Applicant's Maximum Diversion Rate CFS
<30	1.0
31 to 60	1.5
61 to 85	3.5
>85	5

The flow of the San Miguel River for purposes of administration of this schedule shall be measured at a point immediately downstream from its confluence with Beaver Creek (the "Administration Point"). Unless and until a measuring device is installed at the Administration Point, the flow of the San Miguel River shall be calculated based on the relationship between the flows at the Administration Point and the flows at the following two existing gages: Gage #09172500 (San Miguel River near Placerville, CO) and Gage #09175600 (San Miguel River at Brooks Bridge near Nucla, CO).

- b. Applicant shall monitor and document both the river flow and diversion rate on an average daily basis when the San Miguel River flow at the Administration Point is 85 cfs or less and on an average weekly basis when the flow at said Point is more than 85 cfs.

CONCLUSIONS OF LAW

11 The foregoing Findings of Fact are fully incorporated herein by reference. This Court has jurisdiction over the subject matter of these proceedings and over all who may be affected thereby, whether they have chosen to appear or not pursuant to §§ 37-92-302 and 37-92-305, C.R.S.

12. Timely and adequate notice of the pendency of this action was given in the manner provided by law.

13. The request for water rights decreed herein is, as a matter of law, permissible and come within the definitions authorized by statute.

14. The terms and conditions as set forth in this decree are adequate to prevent injury to the owners of, or persons entitled to use, water under a vested water right or a decreed conditional water right pursuant to § 37-92-305(8), C.R.S.

15. Pursuant to § 37-92-305(8), C.R.S. the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.

JUDGMENT AND DECREE

16. The foregoing Findings of Fact and Conclusions of Law are fully incorporated herein.

17. Applicant is hereby granted a conditional water right for the NWC River Diversion in the amount of 5.0 cfs, at the point of diversion as above described in paragraph 5 for municipal use. The application in this case was originally filed in the Water Court for Water Division 4 in the year 1994. The 1994 priority awarded herein shall be administered as having been filed in that year and shall be junior to all priorities awarded in earlier years for water derived from the same source. As between water rights awarded in the same calendar year, priorities shall be determined by the date of appropriation as decreed and shall not be affected by the date of this decree.

18. The conditional rights associated with the NWC River Diversion shall continue in full force and effect until June, 2008. If Applicant desires to maintain such conditional decree, an application for a finding of reasonable diligence shall be filed on or before June, 2008, or a showing made on or before such date that the conditional water rights have become absolute water rights by reason of the completion of the appropriation.

DATED this 17th day of May, 2002.

Aaron Clay
Aaron Clay, Water Referee
Water Division 4

THE COURT FINDS THAT NO PROTEST WAS FILED IN THIS MATTER, THEREFORE THE FOREGOING RULING IS CONFIRMED AND APPROVED AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: 6/12/02
Steven Patrick
The Hon. Steven Patrick, Water Judge
Water Division 4

Mailed-A Copy of this Document to
all parties in this case.

Dated 6-19-02
Valerie Incha
Water Clerk

Submit original plus three copies

Mailed
5-26-08

District Court, Water Division San Miguel County, Colorado Court Address: 1200 N. Grande Avenue Bin A Montrose CO 81401-3146		▲ COURT USE ONLY ▲
CONCERNING THE APPLICATION FOR WATER RIGHTS OF Applicant: Norwood Water Commission		
IN SAN MIGUEL COUNTY		
If Represented by an Attorney, Attorney's Name and Address:		Case Number: 94CW244 08CW44
Phone Number:	E-mail:	Division: 4 Courtroom:
FAX Number:	Atty. Reg. #:	
APPLICATION: ☒ FOR FINDING OF DILIGENCE ☐ TO MAKE ABSOLUTE		

1. Name, address, and home telephone number of applicant(s):

Name of Applicant	Address	Home Phone Number
Norwood Water Commission	P.O. Box 528 Norwood, CO 81423	970-327-4288

2. Name of structure: NWC River Diversion Type:
- ☐
- well
- ☐
- spring
- ☐
- ditch
- ☐
- reservoir
- ☒
- other: _____

3. Describe conditional water right (as to each structure) giving the following from the Referee's Ruling and Judgment and Decree: 5.0 cfs, conditional

A. Date of Original Decree: 06-17-02 Case No. 94 CW244 Court: _____

B. Legal description: (include distance and bearing from established government section corner or quarter corner; or distances from section lines, and indicate 1/4 1/4, section number, township, range and meridian; include map). The location may include UTM coordinates based on Zone 12 or 13, measured in meters, and NAD83 datum. In urban areas, include street address, lot, block, and subdivision.

Required Description: County	SE 1/4 of the	SE 1/4	Section 33	Township 45 N or S ☒ ☐	Range 12 E or W ☐ ☒	Principal Meridian N.M.P.M.
Distance from section lines (section lines are typically not property lines) _5_ Feet from N ☒ S and _5_ Feet from X E ☐ W						
Street Address: _____						
Subdivision:	Lot	Block				

Optional Additional Description: GPS location information in UTM format.

Required settings for GPS units are as follows: Format must be UTM; Zone must be 12 or 13; Units must be Meters; Datum must be NAD83; and Units must be set to true north.

Were points averaged? ☐ Yes ☐ No	Northing _____ Easting _____ ☐ Zone 12 ☐ Zone 13
---	---

Submit original plus three copies

C. Source: San Miguel RiverD. Appropriation Date: 11-01-94Amount: 5.0 cfs ConditionalE. Use: Municipal

F. Depth: (if well) N/A

4. Provide a detailed outline of what has been done toward completion or for completion of the appropriation and application of water to a beneficial use as conditionally decreed, including expenditures: (add additional sheets if necessary.)

Norwood Water Commission ("NWC") has continued to pursue, develop and perfect the NWC River Diversion conditional water right. Since June 17, 2002, NWC has expended significant amounts of money to improve its overall water supply and delivery system, including treatment plant and distribution system upgrades. On November 21, 2003, NWC obtained a conditional water right decrees in Case No. 2001 CW 270 for four raw water reservoirs in which to receive and hold water for treatment from the NWC River Diversion, as well as other water rights owned or controlled by the NWC. The NWC continues to budget monies for the NWC River Diversion as part of the NWC Capital Improvement Plan. During the drought of 2002 the NWC did pump and haul water from the point of diversion to enable outside watering by NWC customers within the NWC Service Area. NWC recently conducted meetings, including a meeting with United States Bureau of Land Management ("BLM") representatives, to plan for application to the BLM for a special use permit to install the NWC River Diversion pump station and pipeline.

5. ☐ If claim to make absolute.

A. Date water applied to beneficial use: N/A

Amount: _____

Use: _____

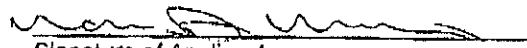
B. Description of place of use where water is applied to beneficial use:

6. Names(s) and address(es) of owner(s) or reputed owners of the land upon which any new diversion or storage structure, or modification to any existing diversion or storage structure is or will be constructed or upon which water is or will be stored, including any modification to the existing storage pool:

Name of Owner	Address

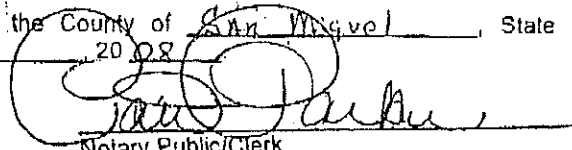
Please Note: The owner of any conditional water right shall notify the clerk of the court that decreed the conditional water right of any change in mailing address.

I, Mark Muniz, Chairman, state under oath that I have read this application and verify its content.

Date: 5/27/08

 Signature of Applicant
Date: 5-29

 Signature of Attorney, if Applicable

Subscribed and affirmed, or sworn to before me, in the County of San Miguel, State of CO, this 27 day of May, 2008.

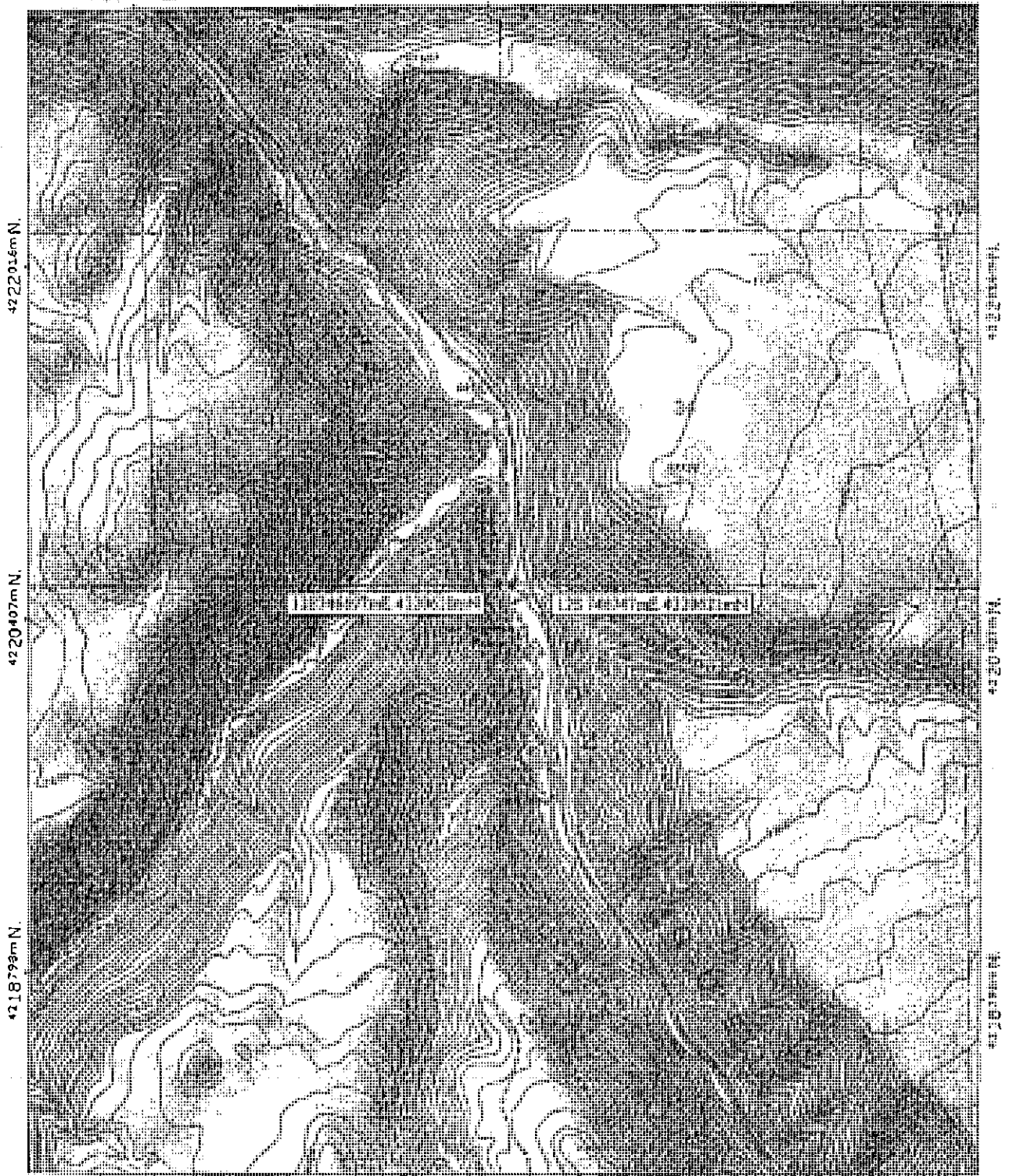
My Commission Expires: 05-01-09

 Notary Public/Clerk

Town of Norwood point of diversion is on west bank of river

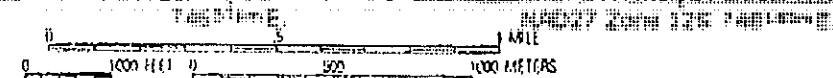
744267mE.

746376mE.

NAD27 Zone 12S 748195mE.



TN 11° MN



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DATE OF MAILING

4-29-97

Filed in The District Court
Water Division Four

DISTRICT COURT, WATER DIVISION NO. 4, STATE OF COLORADO APR 29 1997

Case No. 94CW245

Kay Phillips, Clerk

FINDING OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, AND JUDGMENT AND DECREE

CONCERNING THE APPLICATION FOR WATER RIGHTS OF:

NORWOOD WATER COMMISSION, in San Miguel County, Colorado

The above-entitled Application was filed on December 28, 1994, and was referred to the undersigned as Water Referee for Water Division No. 4, State of Colorado, by the Water Judge of said Court in accordance with Article 92 of Chapter 37, C.R.S. 1973, known as the Water Right Determination and Administration Act of 1969.

The undersigned Referee, having made such investigations as are necessary to determine whether the statements in the Application are true, and having become fully advised with respect to the subject matter of the Application, does hereby make the following Findings of Fact, Conclusions of Law, and Ruling as the Referee in this matter, to-wit:

FINDINGS OF FACT

1. The name and address of the Applicant is:

Norwood Water Commission
c/o June Estep, Secretary
P.O. Box 528
Norwood, CO 81423

c/o Caloia & Houpt, P.C.
1204 Grand Ave.
Glenwood Springs, CO 81601
Phone (970) 945-6067

2. Timely and adequate notice of the filing of the Application was given as required by law.
3. A Statement of Opposition was filed in this matter by Earl Reams II and H. Neil Reams. The time for filing Statements of Opposition has expired.

cc Campbell & ...

Water Div. 4
Case No. 94CW245
Referee's Ruling

4. The Applicant has requested approval of an Application for Surface Water Rights, as follows:
 - A. Name of structure: NWC Gurley Diversion.
 - B. Legal description of point of diversion: 1,155 feet from North line and 825 feet from West line in Section 6, Township 44 N., Range 12 W., N.M.P.M.
 - C. Source: Water from Gurley Canyon, a/k/a Maverick Gulch/Maverick Draw/Maverick Draw Gulch, a/k/a No-Name Gulch/No-Name Creek, a/k/a Lower Gurley Ditch; tributary to Naturita Creek; tributary to San Miguel River.
 - D.
 1. Date of initiation of appropriation: November 1994.
 2. Date water applied to beneficial use: NA.
 3. How appropriation was initiated: Feasibility Study.
 - E. Amount claimed: 5.0 c.f.s., conditional.
 - F. Use: Municipal

CONCLUSIONS OF LAW

5. The statements in the Application are true.
6. The Application filed herein is complete, covering all applicable matters required under C.R.S. §37-92-302.
7. All notices required by law have been given, and no further notice need be given.
8. The Court has jurisdiction of this matter and of all persons, whether they have appeared or not. C.R.S. §37-92-301(2) and -303(1).
9. The Court has authority to grant the water rights requested in the application. C.R.S. §37-92-301(2), -302 and -303(1).
10. In order for the Court to grant a conditional water right, the Applicant must show an intent to appropriate and some open, physical demonstration of that intent. Injury is not at issue in an application for conditional water right. Therefore the opposition as filed

Water Div. 4
Case No. 94CW245
Referee's Ruling

is without merit.

RULING OF THE REFEREE

11. The foregoing Findings of Fact and Conclusions of Law are incorporated herein by this reference, and the Referee concludes that the Application should be granted.
12. The Applicant has taken the requisite first step toward appropriation and is entitled to a conditional water right as requested in Paragraph 4, above.
13. The Referee does therefore conclude that the conditional water right requested for the NWC Gurley Diversion, as more fully set forth in Paragraph 4., above, is hereby GRANTED, and that 5.0 c.f.s. with an appropriation date of Nov. 30, 1994, is hereby awarded to the NWC Gurley Diversion, conditional, for municipal uses. *RAB*
14. The water right granted in Paragraphs 13 above is conditional and, should the Applicant desire to maintain the conditional water right contained herein, an Application for Reasonable Diligence shall be filed in the sixth calendar year after the calendar year in which a finding of reasonable diligence has been decreed, unless a determination has been made prior to that date that such conditional right has been made absolute by reason of the completion of the appropriation, or is otherwise disposed of.
15. The Referee does further conclude that such right is SUBJECT, HOWEVER, TO ALL EARLIER PRIORITY RIGHTS OF OTHERS, and to the integration and tabulation by the Division Engineer of such priorities and changes or rights in accordance with law.

Water Div. 4
Case No. 94CW245
Referee's Ruling

It is ORDERED that this Ruling shall be filed with the Water Clerk subject to Judicial review.

It is further ORDERED that a copy of this Ruling shall be filed with the appropriate Division Engineer and the State Engineer.

Dated this 29th day of April, 1997.

BY THE REFEREE

Arnon M. May
Water Referee, Water Division No. 4,
State of Colorado

JUDGMENT AND DECREE

No protest was filed in this matter, and accordingly, the foregoing Ruling is confirmed and approved, and is made the Judgment and Decree of this Court. The month and year for filing an Application for Finding of Reasonable Diligence shall be "June 2003".

Dated this 2nd day of June, 1997.

Robert A. Francis
WATER JUDGE

Mailed-A Copy of this Document to
all parties in this case.

Dated June 5, 1997
Kay Phillips
Kay Phillips, Water Clerk

60

DISTRICT COURT, WATER DIVISION 4, COLORADO Court Address: 1200 N. Grande Avenue Bin A Montrose, Colorado 81401-3146 CONCERNING THE APPLICATION FOR WATER RIGHTS OF NORWOOD WATER COMMISSION IN THE SAN MIGUEL RIVER, SAN MIGUEL COUNTY, COLORADO	Filed in the District Court Water Division 4 NOV 21 2003 ▲ COURT USE ONLY ▲ Case Number: 01CW270
FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, JUDGMENT AND DECREE	

This application for water rights having been filed with the Water Clerk, Water Division 4, on December 31, 2001, and all matters contained the Application having been reviewed and evidence presented as was necessary, and otherwise being fully advised in the premises, the following is hereby the Ruling of the Referee:

FINDINGS OF FACT

1. The name and address of the Applicant and its attorney are as follows:

Norwood Water Commission
Mike Grafmyer, Chairperson
P. O. Box 528
Norwood, CO 81423

Stephen B. Johnson
Box 726
Telluride CO 81435

2. Statements of Opposition: Timely statements of opposition were filed by the United States of America, Bureau of Land Management by Amelia S. Whiting, 755 Parfet St., Wuite 151, Lakewood CO 80215. No other statements of opposition have been filed in this matter, and the time for filing such statements has expired.
3. Jurisdiction: Timely and adequate notice of the pendency of these proceedings has been given in the manner required by law. This Court has jurisdiction over the subject matter

at file

of these proceedings and over all who have standing to appear as parties, whether they have appeared or not.

APPROVAL OF STORAGE RIGHT

4. Name of Reservoirs: NWC Reservoir Nos. 1, 2, 3, and 4.
5. Legal Descriptions of the Reservoirs:
 - A. Reservoir No. 1: The existing raw water Reservoir No. 1 Outlet Works is located in Section 6, T-44-N, R-12-W, N.M.P.M., in San Miguel County, beginning at the northwest corner of Section 6, thence south 44° 30' east 1,970 feet more or less to the reservoir outlet.
 - B. Reservoir No. 2 : The raw water reservoir is located within a tract of land in Section 36, T-45-N, R-13-W, N.M.P.M., in San Miguel County, bordered by a dike 1,160 feet in length, located approximately 40 feet north of the south section line of Section 36, then by a dike 390 feet in length, located approximately 1,480 feet west of the east section line of Section 36, then by a dike 1,160 feet in length, located approximately 430 feet north of the south section line of Section 36, and then by a dike 390 feet in length, located approximately 320 feet west of the east section line of Section 36.
 - C. Reservoir No. 3 : The raw water reservoir is located within a tract of land in Section 36, T-45-N, R-13-W, N.M.P.M., in San Miguel County, bordered by a dike 1,160 feet in length, located approximately 430 feet north of the south section line of Section 36, then by a dike 390 feet in length, located approximately 1,480 feet west of the east section line of Section 36, then by a dike 1,160 feet in length, located approximately 820 feet north of the south section line of Section 36, and then by a dike 390 feet in length, located approximately 320 feet west of the east section line of Section 36.
 - D. Reservoir No. 4 : The raw water reservoir is located within a tract of land in Section 36, T-45-N, R-13-W, N.M.P.M., in San Miguel County, bordered by a dike 460 feet in length, located approximately 430 feet north of the south section line of Section 36, then by a dike 390 feet in length, located approximately 1,940 feet west of the east section line of Section 36, then by a dike 460 feet in length, located approximately 820 feet north of the south section line of Section 36, and then by a dike 390 feet in length, located approximately 1480 feet west of the east section line of Section 36.
6. Capacity and Description of diversion used to fill reservoirs: NWC San Miguel River Pipeline with a capacity of approximately 5 cfs pursuant to the conditional surface water right being sought for the NWC River Diversion in Case No. 94CW244, as amended, Water Division 4. The NWC River Diversion is located in the SE 1/4SE 1/4 of Section 33, T-45-N, R-12-W of

the N.M.P.M., at a point approximately 5 feet north of the south section line and 5 feet west of the east section line of said Section 33.

7. Source: San Miguel River.

8. Appropriation:

A. Date of appropriation: December 1, 1994.

B. How appropriation was initiated: Preparation of Feasibility Report by WestWater Engineering.

C. Date water applied to beneficial use: Not Applicable.

9. Amount claimed for the Reservoirs:

A. Reservoirs

(1) Reservoir No.1: 18.4 acre feet, fill and refill, Conditional.

(2) Reservoir No.2: 91 acre feet, fill and refill, Conditional.

(3) Reservoir No.3: 91 acre feet, fill and refill, Conditional.

(4) Reservoir No. 4: 33 acre feet, fill and refill, Conditional.

B. Rate of diversion for filling the Reservoirs: Not to exceed 5 cfs. conditional.

10. Use: Municipal.

11. Surface areas of high water line:

A. Reservoirs

(1) Reservoir No.1: 3.0 acres

(2) Reservoir No.2: 9.3 acres

(3) Reservoir No.3: 9.3 acres

(4) Reservoir No.4: 3.5 acres

B. Maximum height of dams (dikes): less than 10 feet.

C. Length of dams (dikes): See dike descriptions in Paragraph 4 above.

12. Total capacity of Reservoirs in acre feet:

A. Active capacity of Reservoirs:

(1) Reservoir No.1: 18.4 acre feet.

(2) Reservoir No.2: 91 acre feet.

(3) Reservoir No.3: 91 acre feet.

(4) Reservoir No.4: 33 acre feet.

B. Dead storage of each Reservoir: None.

13. Applicant's diversions into storage shall be subject to the following terms and conditions:

A. Pursuant to the Stipulation Between Norwood Water Commission and the United States Bureau of Land Management dated January 17, 2002 as filed in Case No. 94CW244, District Court Water Division 4, the annual (calendar year) water diversion volume for San Miguel River water diverted pursuant to Case No. 94CW224 and this storage Decree, combined, will not exceed 723 acre-feet. This term and condition can be enforced by the Division Engineer without the need for further action by the Bureau of Land Management.

B. Applicant's diversion rate will be based on the flow of the San Miguel River, calculated as specified below, in accordance with the following schedule, which shall be administered on a year round basis.

San Miguel River Flow CFS	Applicant's Maximum Diversion Rate CFS
<30	1.0
31 to 60	1.5
61 to 85	3.5
>85	5

The flow of the San Miguel River for purposes of administration of this schedule shall be measured at a point immediately downstream from its confluence with Beaver Creek (the "Administration Point"). Unless and until a measuring device is installed at the Administration Point, the flow of the San Miguel River shall be calculated based on the relationship between the flows at the Administration Point and the flows at the following two existing gages: Gage #09172500 (San Miguel River near Placerville, CO) and Gage #09175600 (San Miguel River at Brooks Bridge near Nucla, CO).

C. Applicant shall monitor and document both the river flow and diversion rate on an average daily basis when the San Miguel River flow at the Administration Point is 85 c.f.s. or less and on an average weekly basis when the flow at said Point is more than 85 c.f.s. Applicant shall provide summary of these data, along with the annual diversion volume, to the Division Engineer and to the BLM at the end of each calendar year.

CONCLUSIONS OF LAW

14. The foregoing Findings of Fact are fully incorporated herein by reference. This Court has jurisdiction over the subject matter of these proceedings and over all who may be affected thereby, whether they have chosen to appear or not pursuant to §§ 37-92-302 and 37-92-305, C.R.S.

15. Timely and adequate notice of the pendency of this action was given in the manner provided by law.

16. The request for storage rights decreed herein is, as a matter of law, permissible and come within the definitions authorized by statute.

JUDGMENT AND DECREE

17. The foregoing Findings of Fact and Conclusions of Law are fully incorporated herein.

18. Priority. Applicant is hereby granted conditional storage water rights for NWC Reservoirs Nos. 1, 2, 3 and 4 as above described for municipal use. Pursuant to the Stipulation Between Norwood Water Commission and the United States Bureau of Land Management dated January 17, 2002 as filed in Case No. 94CW244, District Court Water Division 4, the annual (calendar year) water diversion volume for San Miguel River water diverted pursuant to the alternate Point of Diversion decreed in Case No. 94CW244 and this storage Decree, combined, shall not exceed 723 acre-feet. This term and condition can be enforced by the Division Engineer without the need for further action by the Bureau of Land Management. The application in this case was filed in the Water Court for Water Division 4 in the year 2001, and the priority awarded herein shall be administered as having been filed in that year and shall be junior to all priorities

awarded in earlier years for water derived from the same source. As between water rights awarded in the same calendar year, priorities shall be determined by the date of appropriation as decreed and shall not be affected by the date of this decree.

19. Measurement and Accounting. In order to assure that the vested water rights of others are protected from injury and to assure proper administration of this decree, prior to diversion of water by Applicant under any right decreed or approved herein, Applicant shall install measuring devices and provide accounting as required by the Division Engineer. The Applicant shall also file an annual report of the amounts and dates of water diversion to the Water Commissioner.

20. The conditional rights associated with Reservoirs Nos. 1, 2, 3 and 4 shall continue in full force and effect until Dec., 2009. If Applicant desires to maintain such conditional decree, an application for a finding of reasonable diligence shall be filed on or before that date, or a showing made on or before such date that the conditional water rights have become absolute water rights by reason of the completion of the appropriation.

DATED this 2/15 day of November, 2003.

Aaron Clay
Aaron Clay, Water Referee
Water Division 4

THE COURT FINDS THAT NO PROTEST WAS FILED IN THIS MATTER, THEREFORE THE FOREGOING RULING IS CONFIRMED AND APPROVED AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: 12/15/03

Steven J. Patrick
Steven J. Patrick, Water Judge
Water Division 4

Mailed-A Copy of this Document to
all parties in this case.

Dated 12-16-03
William J. Jack
Water Clerk

Appendix C

2005 Domestic Water

Supply Agreement

DOMESTIC WATER SUPPLY AGREEMENT

THIS AGREEMENT, entered into this 12 day of April, 2005, is made by and between FARMERS WATER DEVELOPMENT COMPANY ("Farmers"), and the NORWOOD WATER COMMISSION ("Norwood").

Recitals

- A. Farmers holds the water rights for domestic water under decree number 391 DECREE
- B. Norwood Water Commission is a board that controls the domestic water for the Norwood area.
- C. Norwood currently uses water from Gurley Reservoir for domestic purposes but seeks to enter into an agreement which will provide it a guaranteed amount.
- D. Farmers desires to make available to Norwood up to 300 acre feet of raw, untreated water on an annual basis.
- E. Norwood desires to purchase up to 300 acre feet of raw, untreated water from Farmers for domestic use in the Norwood Domestic Water System.

Agreement

NOW THEREFORE, in consideration of the terms and conditions set forth herein, the parties agree as follows:

1. **Domestic Water.** Farmers shall make available the 300 Acre Feet at all times for use by Norwood. The 300 Acre Feet shall be delivered, upon the request of Norwood, at either of two locations: (i) Norwood Headgate #5; or (ii) South Lateral Norwood Headgate ("Point of Delivery"). If the Straw Dam is constructed for Gurley Reservoir the Point of Delivery may be changed to a new location to be mutually agreed upon by the parties. Deliveries shall be made to the Point of Delivery within 48 hours of written notice of the amount of water requested. Deliveries shall not be made in quantities of less than 20 cubic feet per second. Except during irrigation deliveries, when smaller quantities can be delivered.
2. **Purchase Price.** Norwood shall pay \$100.00 per acre foot for the amount of water delivered upon request for the year preceding October 1. Five years from the date this Agreement is executed, the price per acre foot shall increase by the average of the United States Consumer Price Index for the preceding five years. The price per acre foot shall be increased in the same manner for each successive five-year period.
3. **Additional Water and Right of First Refusal.** Norwood may purchase additional raw, untreated water from Farmers and shall have a right of first refusal to purchase raw, untreated water, as follows:
 - a. **Additional Water to Norwood.** In the event Norwood desires to purchase more raw, untreated water from Farmers, the parties shall negotiate in good faith another agreement with terms and conditions that may vary from the terms and conditions of this Agreement.
 - b. **Right of First Refusal.** In the event Farmers desires to sell other raw, untreated water to third parties, it shall provide Norwood with a right of first refusal to purchase the other raw, untreated water on the same terms and conditions offered by a bona fide third party purchaser. Norwood shall have 30 days from the date it receives written notice of, and a copy of, the bona fide third party offer, in which to exercise its right of first refusal. Written notice by Norwood, exercising of its right of first refusal, received by Farmers within the 30-day period

shall effect a binding agreement between the parties for a purchase of the additional water upon the terms and conditions set forth in the bona fide third party offer. If Farmers does not receive written notice from Norwood exercising its right of first refusal within the 30-day period, it may sell the additional water to the bona fide third party purchase upon the same terms and conditions presented to Norwood.

4. **Term.** The term of this Agreement shall begin in 2005 and shall be perpetual. This Agreement may be terminated only upon the written mutual agreement of the parties, or unilaterally by Farmers if Norwood has not requested water for a 36-month period.

5. **Force Majeure.** Farmers shall not be liable under this Agreement if it can not deliver any portion of the 300 Acre Feet because of acts of God or nature, including but not limited to drought or shortages of water beyond the control of Farmers. Farmers shall promptly notify Norwood in writing if deliveries can not be made pursuant to this section.

6. **Farmers Warranties.** Farmers warrants that it holds the water rights represented in this Agreement and that it has the water supplies necessary to deliver up to and including the 300 Acre Feet annually upon request by Norwood. Farmers extends no warranties regarding the quality of the 300 Acre Feet, including pollution and contamination, and affirmatively states that the water to be delivered shall be raw and untreated water.

7. **Condition Precedent.** This Agreement must be approved by the Board of Directors of Farmers and by the Norwood Water Commission, and shall not take effect until such time as approval is given by the shareholders of Farmers by a majority vote of those attending the annual meeting in February 2005.

8. **Indemnification.** Norwood shall indemnify, hold harmless and defend Farmers from any and all claims made against Farmers by customers of Norwood regarding the quality or quantity of water to be delivered, or for negligent acts made by Norwood, its employees, agents or authorized representatives arising from and by virtue of this Agreement.

9. **Default/Remedies.** A party defaults under this Agreement if it fails to perform an obligation as set forth herein. In the event of default, the non-defaulting party shall give the defaulting party written notice of the default ("Notice of Default") and the defaulting party shall have fifteen (15) days from the date Notice of Default is delivered, either by hand delivery or from the date of mailing the Notice by certified mail, in which to cure the default. Default by Farmers during a non-delivery season may be cured by a sworn affidavit by Farmers that it shall perform upon the commencement of the delivery season. If the defaulting party fails to cure the default or challenges the merits of the Notice of Default, the parties shall mediate the matter in good faith. Mediation may be initiated by either party by submitting a written notice of mediation to the other party ("Notice of Mediation"). Upon the issuance of a Notice of Mediation, the parties shall agree upon a mediator and shall mediate the matter within 45 days of the Notice of Mediation with the parties sharing the costs of mediation. In the event the parties fail to resolve the dispute through mediation, either party shall have the right to file the matter with the San Miguel County District Court and seek any and all remedies allowed at law, including but not limited to injunctive relief, termination of this Agreement for cause, and/or damages.

10. **No Third-party Beneficiary; No Assignments.** This Agreement is and shall be binding upon and inure to the benefit of the parties and their respective successors and assigns. The provisions of this Agreement are solely for the benefit of the parties and are not intended to confer upon any person or entity except the parties and their successors and assigns any rights or remedies hereunder. This Agreement is not assignable without the written consent of the non-assigning party and states the entire agreement between the parties as to its subject matter and merges and supersedes all previous communications and agreements, if any, with respect to their obligations of confidentiality.

11. **Modification.** No amendments, additions or modifications of this Agreement shall be binding on either party, unless reduced to writing and signed by each party.

12. **No Waiver.** Except as otherwise expressly provided in this Agreement, no failure or delay of either party in exercising any power, right or remedy under this Agreement will operate as a waiver thereof, nor will any single or partial exercise of any such right or power, or any power, preclude any other or further exercise thereof or the exercise of any other right, power or remedy.

13. **Severability.** Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be legal, valid, and enforceable under applicable law, but if any provision of this Agreement shall be held by a court having jurisdiction to be illegal, invalid, or unenforceable in any jurisdiction, the remaining provisions of this Agreement will remain in full force and effect as if it had never contained such illegal, invalid, or unenforceable provision. If necessary to effect the intent of the parties, the parties shall negotiate in good faith to amend this Agreement to replace the illegal, invalid or unenforceable language with legal, valid and enforceable language which as closely as possible reflects such intent.

14. **Governing Law.** This Agreement shall be governed and construed in accordance with the laws of the State of Colorado and the United States of America, as applicable, without regard to principles of conflict or choice of laws.

15. **Notices.** All notices and statements required to be delivered under this Agreement shall be deemed delivered as of the date of the hand delivery or the certified mail to the other party.

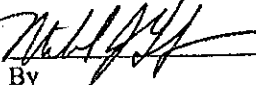
16. **Attorney Fees.** After mediation as set forth in section 9 has been completed without success, the prevailing party in any litigation to resolve disputes under this Agreement shall be entitled to recover the reasonable attorney fees and court costs incurred from the losing party.

17. **Recording Agreement.** The parties shall cause this Agreement to be recorded with the San Miguel County Clerk and Recorder upon execution.

18. **Authorized Representatives.** The individuals who execute this Agreement below are representatives of the respective parties authorized to sign and bind the parties to the terms and conditions of this Agreement.

THIS AGREEMENT is executed as if done so on the date first above mentioned and becomes effective upon the approvals set forth in section 6 above.

NORWOOD WATER COMMISSION



By

Title *CHAIRMAN*

FARMERS WATER DEVELOPMENT COMPANY



By
Title

President

STATE OF COLORADO)
)
COUNTY OF SAN MIGUEL)

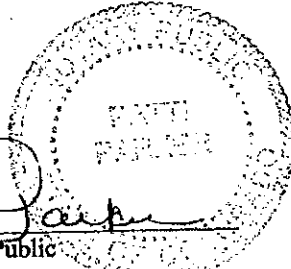
ss.

The foregoing instrument was acknowledged before me this 12 day of

April, 2005 by Michael G. Goff - Chairman of the Norwood Water
Commission.

Witness my hand and official seal.

My commission expires: 05-05-05


Tanya Kenned
Notary Public

STATE OF COLORADO)

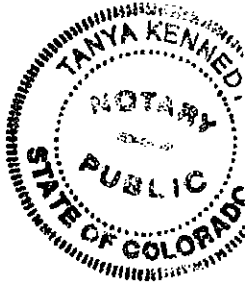
) ss.

COUNTY OF SAN MIGUEL)

The foregoing instrument was acknowledged before me this 1st day of
April, 2005 by David Alexander of the Farmers Water Development
Company.

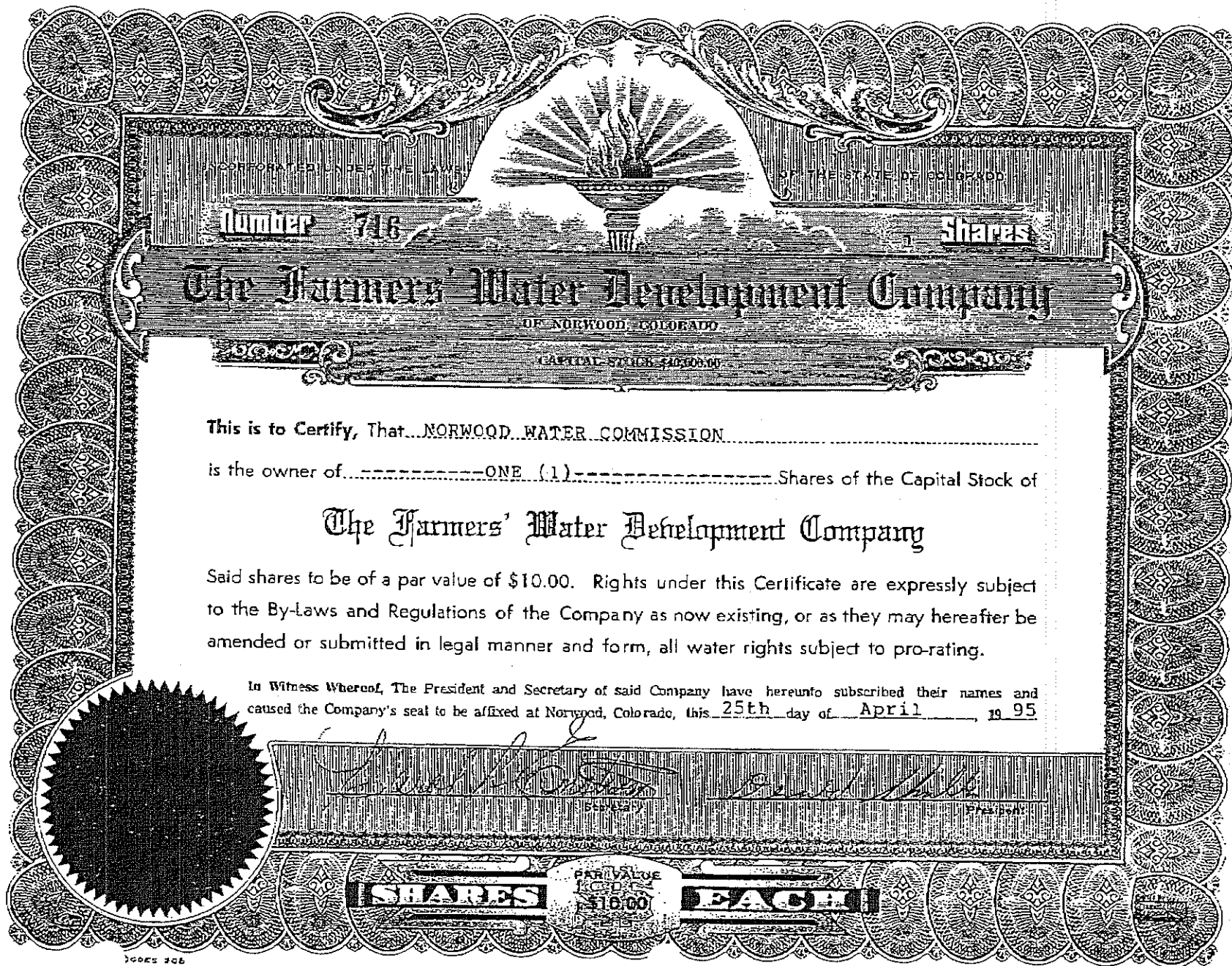
Witness my hand and official seal.

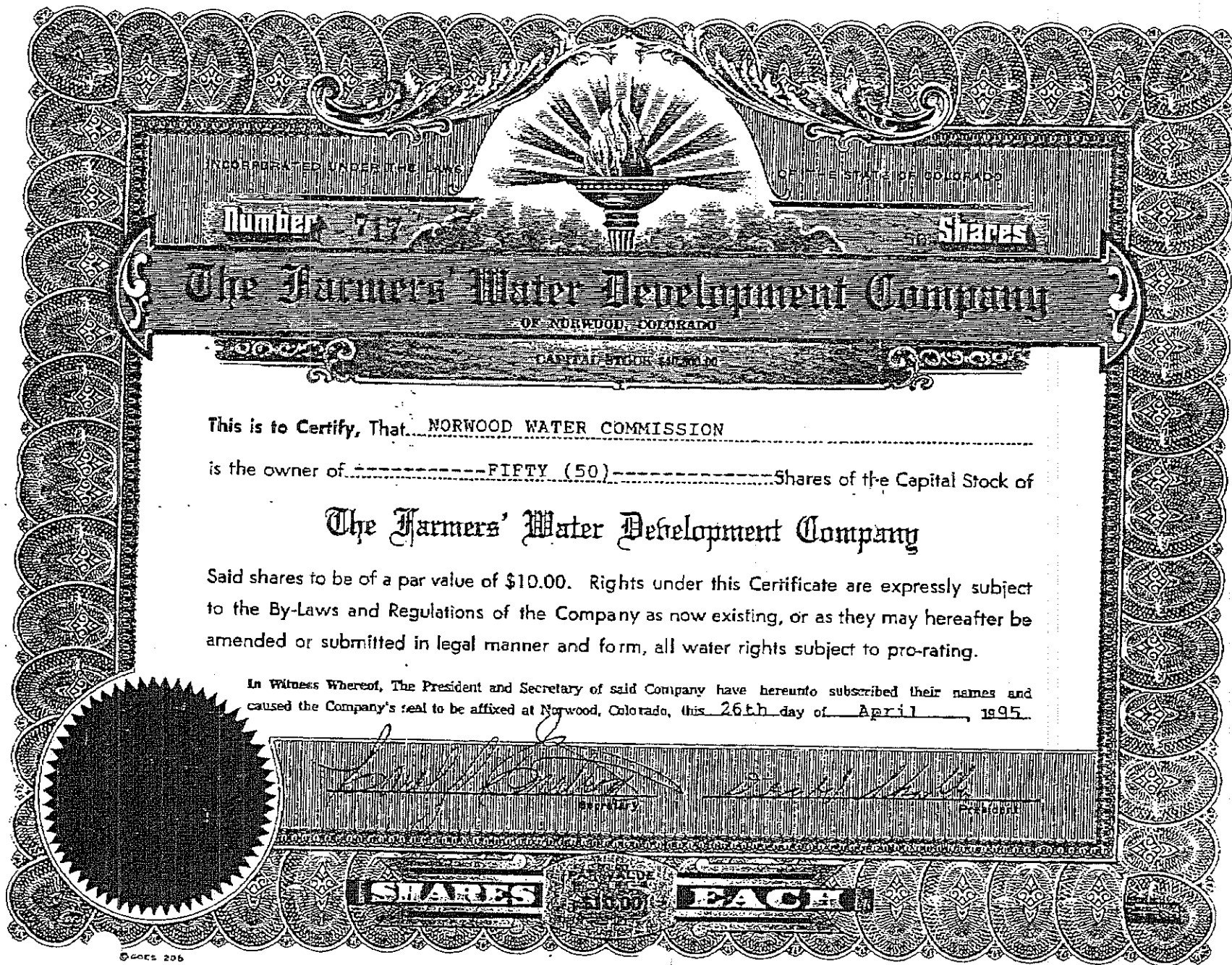
My commission expires: My Commission Expires 1/22/2008

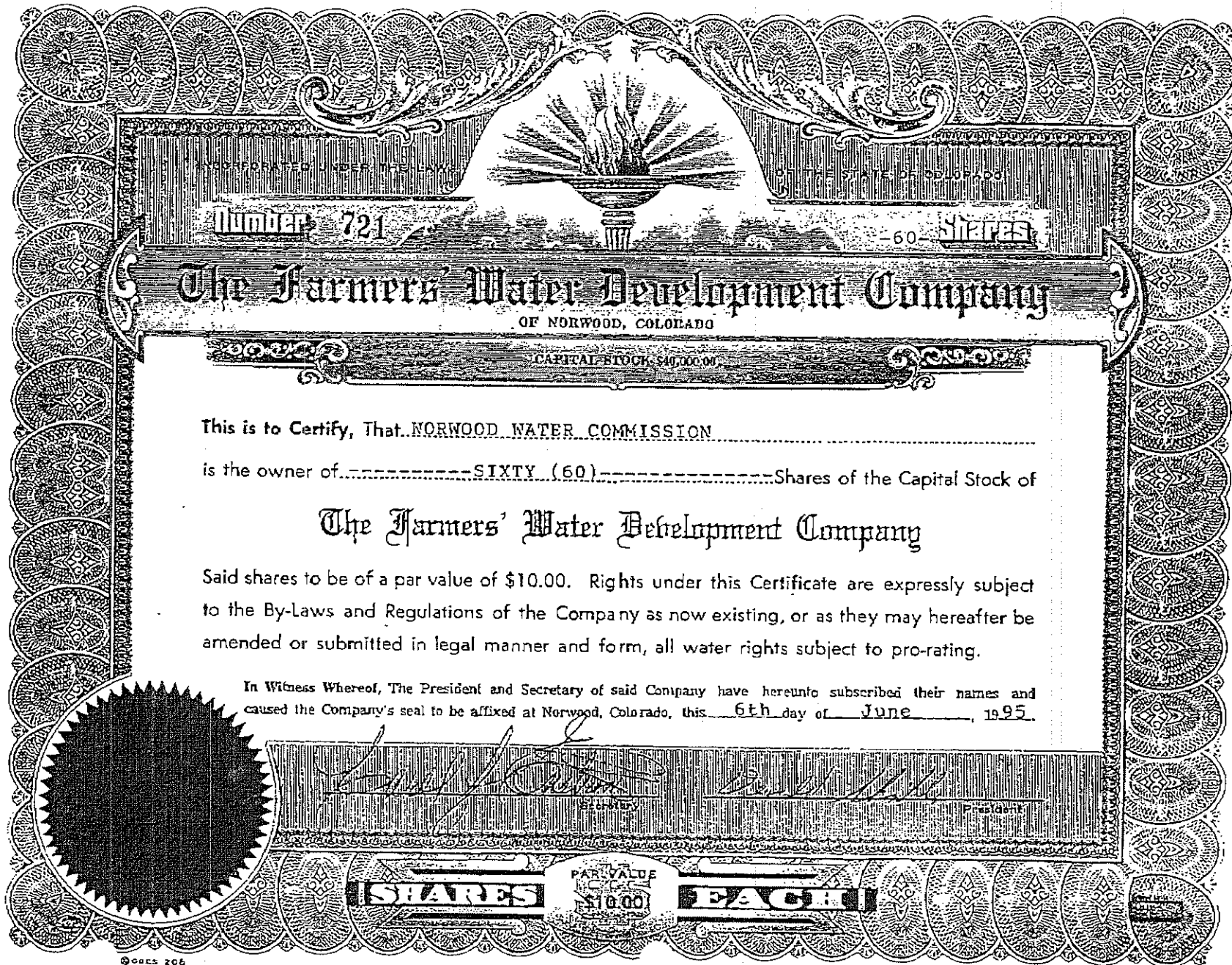

Tanya Kenned
Notary Public

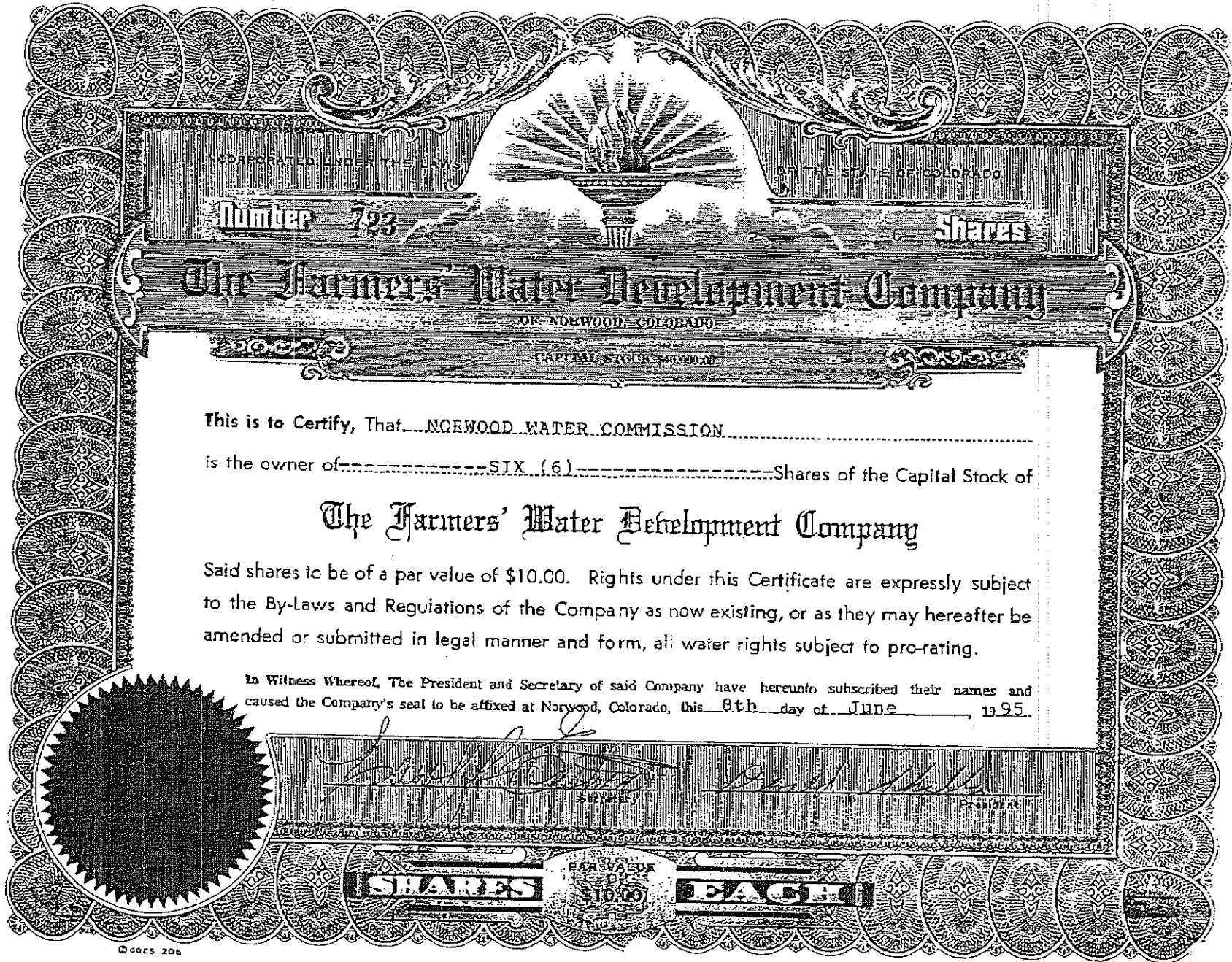
Appendix D

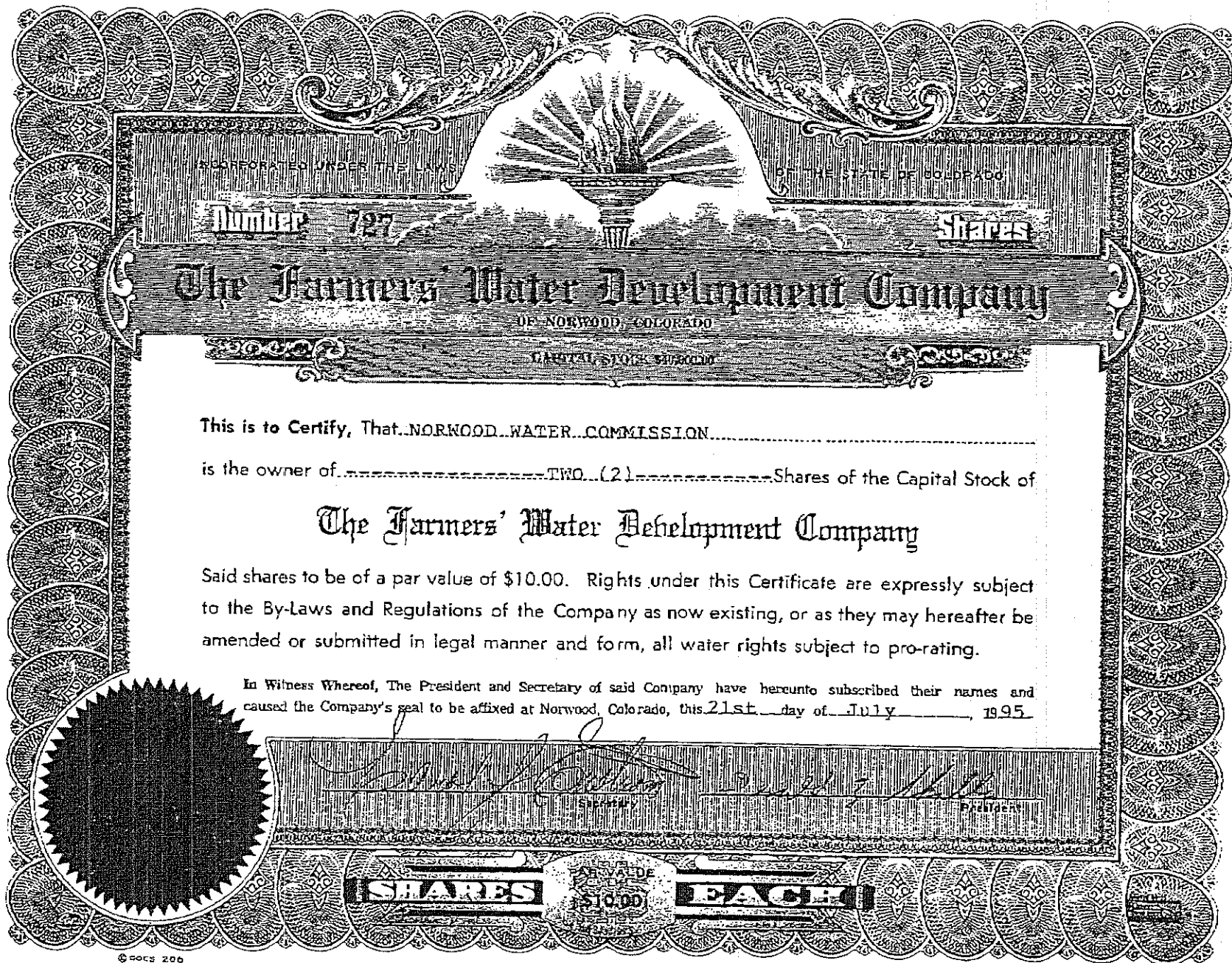
Norwood/NWC Share Certificates











Appendix E

Gurley Reservoir Water Rights

Appendix E
Norwood Water Commission
Gurley Reservoir Water Rights

Case Number	Adjudication Date	Appropriation Date	Priority Number	Decreed Amount (AF)	Uses
CA0898	6/11/1897	5/30/1888	1	199	1
CA2207	9/30/1916	5/30/1906	5	702	1
		10/15/1913	6	2298	1
CA5882	7/10/1952	11/11/1936	393	5801	1,9
CA9042	1/16/1967	11/15/1961	512	1216	1,8,9
81CW0088	1/16/1967	9/5/1965		1216	1,8,9
CA9042	1/16/1967	9/5/1965	530	1216	1,8,9
94CW0214	12/31/1994	6/1/1968		11532	5
96CW0263	12/31/1996	7/1/1993		10039	1,9

Appendix F

Knox Order - 214 Right

Water Production Records

Administration of Naturita Canal - Priority 214

1. Source of Supply

Water available to this surface water decree is limited to accretion of seeps and springs arising in Gurley Canyon from the Gurley dam to the point of municipal intake. Norwood Water Commission retains no authority to affect operations of senior Naturita Canal decrees that provide tributary inflow to the reservoir, storage and subsequent releases of Gurley Reservoir water, nor the ability to require flow through Gurley Reservoir.

2. The Water Right

Priority 214 is a viable and vested water right that is to be administered in accordance with the judicial decree and the Colorado Doctrine of Prior Appropriation. In the 1936 condemnation the court gave Norwood first claim to 0.25 cfs of the original 1.0 cfs adjudication. The civil action does not convey superiority or privilege against any other water right. Town of Norwood may use this water for any municipal function that applies the water to a beneficial purpose.

3. Administration of Priority 214

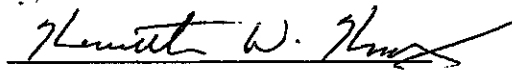
- a. Spring runoff - is defined as that period in which Naturita Canal inflows to Gurley Reservoir exceed the amount of water designated for storage and are passed through the reservoir. Norwood may exercise its entitlement to Priority 214 if senior downstream demand is being met or if the flow through amount exceeds 200 cfs which is the combined total of Naturita Canal decrees senior to Priority 214.
- b. Irrigation season - defined as that period in which Naturita Canal inflows are not sufficient to meet irrigation demand and reservoir storage releases are made to supplement the flow. Priority 214 is not available to Norwood during this period based upon restrictive outlet capacity in conjunction with demand exceeding supply. Maximum Gurley Reservoir outlet capacity is 190 cfs. As previously described, the amount or fraction of direct flows passed through the reservoir is designated to fulfilling senior Naturita Canal direct flow decrees. The remaining amount or fraction of the total outflow is comprised of reservoir storage releases designated in time, amount, and destination to meet individual Farmers' Water Development Co. shareholder(s) demand.
- c. Post irrigation season - defined as that period in which senior downstream irrigation demand does not exceed available supplies and the Gurley Reservoir outlet gate remains partially open. Priority 214 is able to divert its full entitlement if there is sufficient surface water supply.
- d. Reservoir storage season - occurs in the late fall and typically lasts until spring runoff and is instigated by fully closing the reservoir outlet gate and storing all

tributary Naturita Canal inflows. Priority 214 is able to divert excess surface waters accruing within Gurley Canyon below the dam that are not necessary to meet senior downstream demands. The amount of water available varies from a measured low of .04 cfs to high flows resulting from storm events.

4. Norwood Infrastructure Restriction

Pursuant to Priority 214 adjudicated as a surface water right and restrictive judicial language in Case CA 9042 the Town of Norwood is limited to surface water only under this decree. Subsurface or groundwater captured in the infiltration galleries is available only under the Norwood Infiltration Pipeline decree (CA 9042) which retains a January 16, 1967 adjudication date.

The Water Commissioner for Water District 60 is hereby ordered to administer Naturita Canal Priority 214 in a manner consistent with these findings.

A handwritten signature in black ink, appearing to read "Kenneth W. Knox", is written over a horizontal line.

Kenneth W. Knox
Division Engineer

Appendix G

Town of Norwood Well Permit

ALL INFORMATION
IN BLACK INK
MUST BE ACCEPTED
BY THE MAILING
AGENCY

COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St.

Denver, Colorado 80203

720
RECEIVED
SEP 13 '78

STATE OF COLORADO

COUNTY OF SAN MIGUEL

SS.

AFFIDAVIT WATER RESOURCES
STATE ENGINEER
C.D.S.

Best Copy Available

STATEMENT OF BENEFICIAL USE OF GROUND WATER

AMENDMENT OF EXISTING RECORD

LATE REGISTRATION

22706 F 50
217 28

PERMIT NUMBER 22706 - F

LOCATION OF WELL

AFFIANT(S) TOWN OF NORWOOD

County SAN MIGUEL

Address mailing

P. O. Box 528

NW 1/4 of the SE 1/4, Section 36

Norwood, Colorado

81423

Twp. 45 N Rng. 13 W 6th P.M.

(STATE)

(ZIP)

(N OR S)

(E OR W)

I, James D. O'Connell, sworn upon oath, deposes and says that he (they) is (are) the owner(s) of the well described hereon; the well is

located as described above, at distances of 2350 feet from the South section line and 2200 feet from the

(NORTH OR SOUTH)

East section line; water from this well was first applied to a beneficial use for the purpose(s) described herein on the 5th

of December, 19 77; the maximum sustained pumping rate of the well is 50 gallons per minute; the pumping

claimed hereby is 50 gallons per minute; the total depth of the well is 217 feet; the average annual amount

water to be diverted is 28 acre-feet; for which claim is hereby made for Domestic & Agriculture

Cultural & Industrial purpose(s); the legal description of the land on which the water from this well is used is

Potable water system for Town of Norwood & Wrights Mesa Rural Water System of which

known acres are irrigated and which is illustrated on the map on the reverse side of this form; that this well was completed in compliance with the permit approved therefor; this statement of beneficial use of ground water is filed in compliance with law; he (they) has (have) read the statements made hereon; knows the content thereof; and that the same are true of his (their) knowledge.

(COMPLETE REVERSE SIDE OF THIS FORM)

Signature of James D. O'Connell

Subscribed and sworn

before me on this 7 day of September, 19 78

Commission expires: May 6, 1981

James F. Campbell
NOTARY PUBLIC

RECEIVED FOR FILING BY THE STATE ENGINEER OF COLORADO
SUBJANT TO THE FOLLOWING CONDITIONS:

THAT THOSE CONDITIONS OF APPROVAL AS STATED ON THE
PERMIT ARE COMPLIED WITH.

FOR OFFICE USE ONLY

Court Case No. _____

Prior. _____ Mo. _____ Day _____ Yr. _____

Div. 4 Cty. 57

Sec. _____ 1/4 _____ 1/4 _____ 1/4 _____

Well Use 8

Dist. 60 Basin _____ Man. Dis. _____

DEC 21 1978

STATE ENGINEER

BY

TYPE OR
PRINT IN BLACK INK
COPY OF ACCEPTED
STATEMENT MAILED
ON REQUEST.

COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St.

Denver, Colorado 80203

RECEIVED

SEP 13 '78

STATE OF COLORADO

COUNTY OF SAN MIGUEL

SS.

AFFIDAVIT WATER RESOURCES
STATE ENGINEER
C.D.B.

STATEMENT OF BENEFICIAL USE OF GROUND WATER
AMENDMENT OF EXISTING RECORD
LATE REGISTRATION

22706 F 50
217 28

PERMIT NUMBER

LOCATION OF WELL

THE AFFIANT(S) TOWN OF NORWOOD

County SAN MIGUEL

whose mailing
address is

P. O. Box 528

NW 1/4 of the SE 1/4, Section 36

City Norwood, Colorado 81423
(STATE) (ZIP)

Twp. 45 N, Rng. 13 W, 6th P.M.
(N OR S) (E OR W)

being duly sworn upon oath, deposes and says that he (they) is (are) the owner(s) of the well described hereon; the well is located as described above, at distances of 2350 feet from the South section line and 2200 feet from the East section line; water from this well was first applied to a beneficial use for the purpose(s) described herein on the 5th day of December, 19 77; the maximum sustained pumping rate of the well is 50 gallons per minute, the pumping rate claimed hereby is 50 gallons per minute; the total depth of the well is 217 feet; the average annual amount of water to be diverted is 28 acre-feet; for which claim is hereby made for Domestic & Agriculture Cultural & Industrial purpose(s); the legal description of the land on which the water from this well is used is Potable water system for Town of Norwood & Wrights Mesa Rural Water System of which

unknown acres are irrigated and which is illustrated on the map on the reverse side of this form; that this well was completed in compliance with the permit approved therefor; this statement of beneficial use of ground water is filed in compliance with law; he (they) has (have) read the statements made hereon; knows the content thereof; and that the same are true of his (their) knowledge.

(COMPLETE REVERSE SIDE OF THIS FORM)

Signature(s)

Subscribed and sworn
to before me on this

7 day of September, 19 78

My Commission expires

May 6, 1981

ACCEPTED FOR FILING BY THE STATE ENGINEER OF COLORADO
PURSUANT TO THE FOLLOWING CONDITIONS:

THAT THOSE CONDITIONS OF APPROVAL AS STATED ON THE
PERMIT ARE COMPLIED WITH.

FOR OFFICE USE ONLY

Court Case No. _____

Prior. _____ Mo. _____ Day _____ Yr. _____

Div. 4 City. 57

Sec. _____ 1/4 _____ 1/4 _____ 1/4 _____

Well Use 8

Dist. 60 Basin _____ Man. Dis. _____

DEC 21 1978

DATE

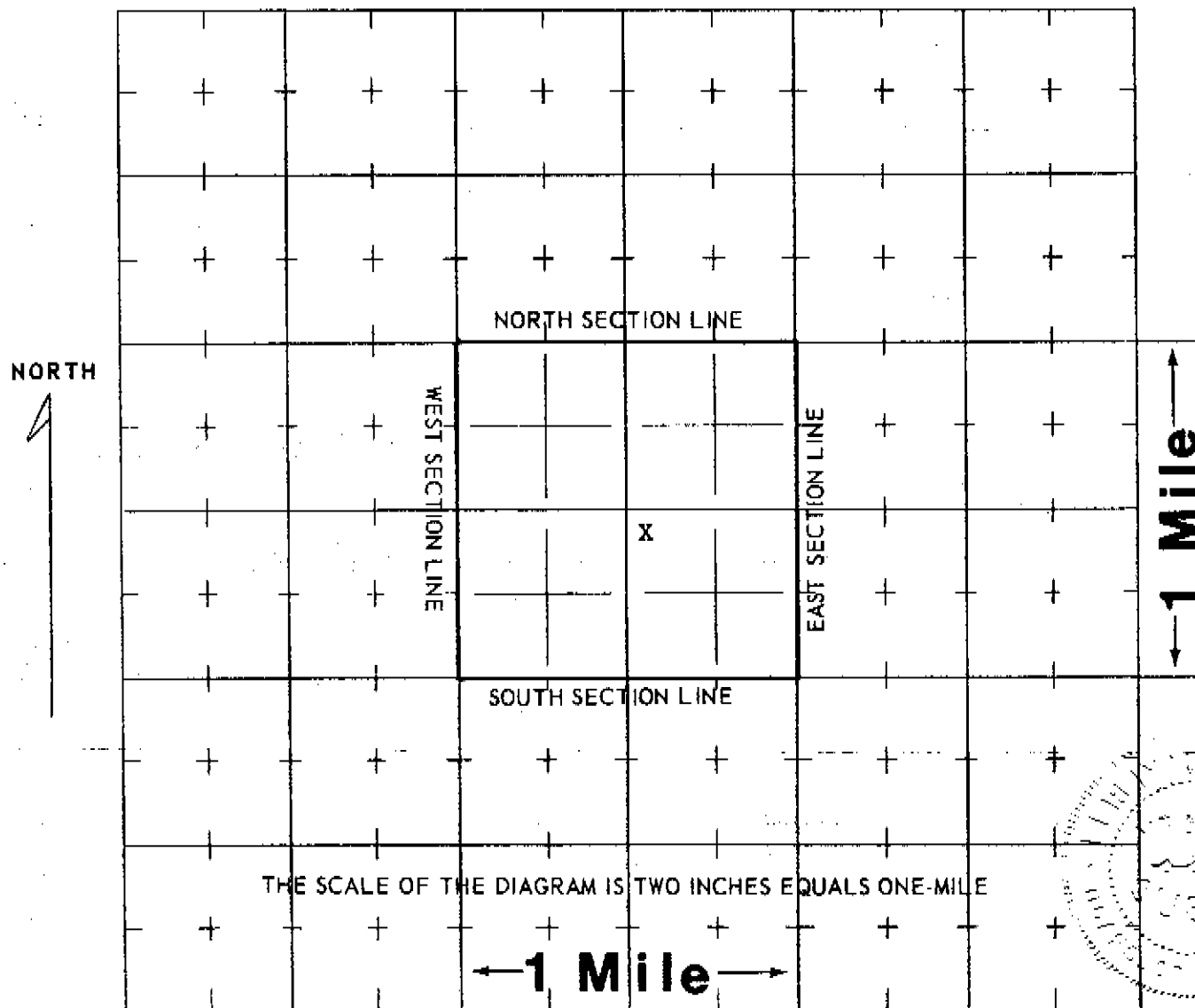
STATE ENGINEER

BY

Well drilled by Allison Drilling, Gunnison, Colorado Lic. No. 581
 Permanent
 Pump installed by Allison Drilling, Gunnison, Colorado Lic. No. 581
 Meter Serial No. 1728831 Hays ☒ Flow Meter Date Installed 7-15-78
 Owner of land on which Town of Norwood, Co. Lease from Board of Land Commissioners
 water is being used Lease No. S-36750

THE LOCATION OF THE WELL MUST BE SHOWN AND FOR LARGE CAPACITY IRRIGATION WELLS THE AREA ON WHICH THE WATER IS USED MUST BE SHADED OR CROSS-HATCHED ON THE DIAGRAM BELOW.

This diagram represents nine (9) sections. Use the **CENTER SQUARE** (one section) to indicate the location of the well, if possible.



WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep.
 1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm).
 1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
 1,000 gpm pumped continuously for one day produces 4.42 acre-feet.
 100 gpm pumped continuously for one year produces 160 acre-feet.

(WHITE AND PINK COPY TO BE FILED WITH THE STATE ENGINEER
 PINK COPY WILL BE RETURNED TO OWNER)

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

COLORADO DIVISION OF WATER RESOURCES

300 Columbine Bldg., 1845 Sherman St.
Denver, Colorado 80203

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 22706-F

RECEIVED

FEB 01 '78

WATER RESOURCES
STATE ENGINEER
C.O.D.

WELL OWNER City of Norwood,

SE 1/4 of the 36 1/4 of Sec. 36

ADDRESS P.O. Box 130,
Norwood, Colo. 81423

T. 45 R. 13-W N.M. P.M.

DATE COMPLETED Dec. 5, 1977

HOLE DIAMETER

12 1/2 in. from 0 to 34 ft.

10 in. from 34 to 103 ft.

8 in. from 103 to 217 ft.

DRILLING METHOD Cable Tools

CASING RECORD: Plain Casing

Size 8" & kind Steel from 0 to 103 ft.

Size 7" & kind Steel from 0 to 217 ft.

Size & kind from to ft.

Perforated Casing

Well screens (Johnson's)
Size 7" & kind Stainless from 103 to 199 ft.

Size 7" & kind Stainless from 126 to 136 ft.

Size & kind from to ft.

GROUTING RECORD

Material Gravel & Cement

Intervals Solid, outside 8" Casing.

Placement Method Hand Poured

GRAVEL PACK: Size Pea.

Interval Outside 8" Casing.
Cemented to bottom of Pitless
Adapter.

TEST DATA

Date Tested Oct. 27, 19 77

Static Water Level Prior to Test Flowing ft.

Type of Test Pump Bailing Test.

Length of Test 4 Hours.

Not metered.
Sustained Yield (Metered) Estimated 70-80 gpm.

Final Pumping Water Level 60-70'.

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	10	Clay & Cobblestone	
10	31	Very hard Flint Rock	
31	40	Lime & Sandrock	
40	55	Sand & Shale, Black	
55	60	Shale, black with Coal	
60	63	Sand Stone, hard	
63	70	Shale, Grey	
70	82	Sand Stone, Grey & Hard	
82	110	Shale, grey	
110	136	Sand, Grey (Artesian water)X	
136	195	Shale, grey & Green	
195	199	Lime, Hard, grey with sand	
199	203	Shale, grey, sandy	
203	217	Shale, grey	
TOTAL DEPTH <u>217</u>			

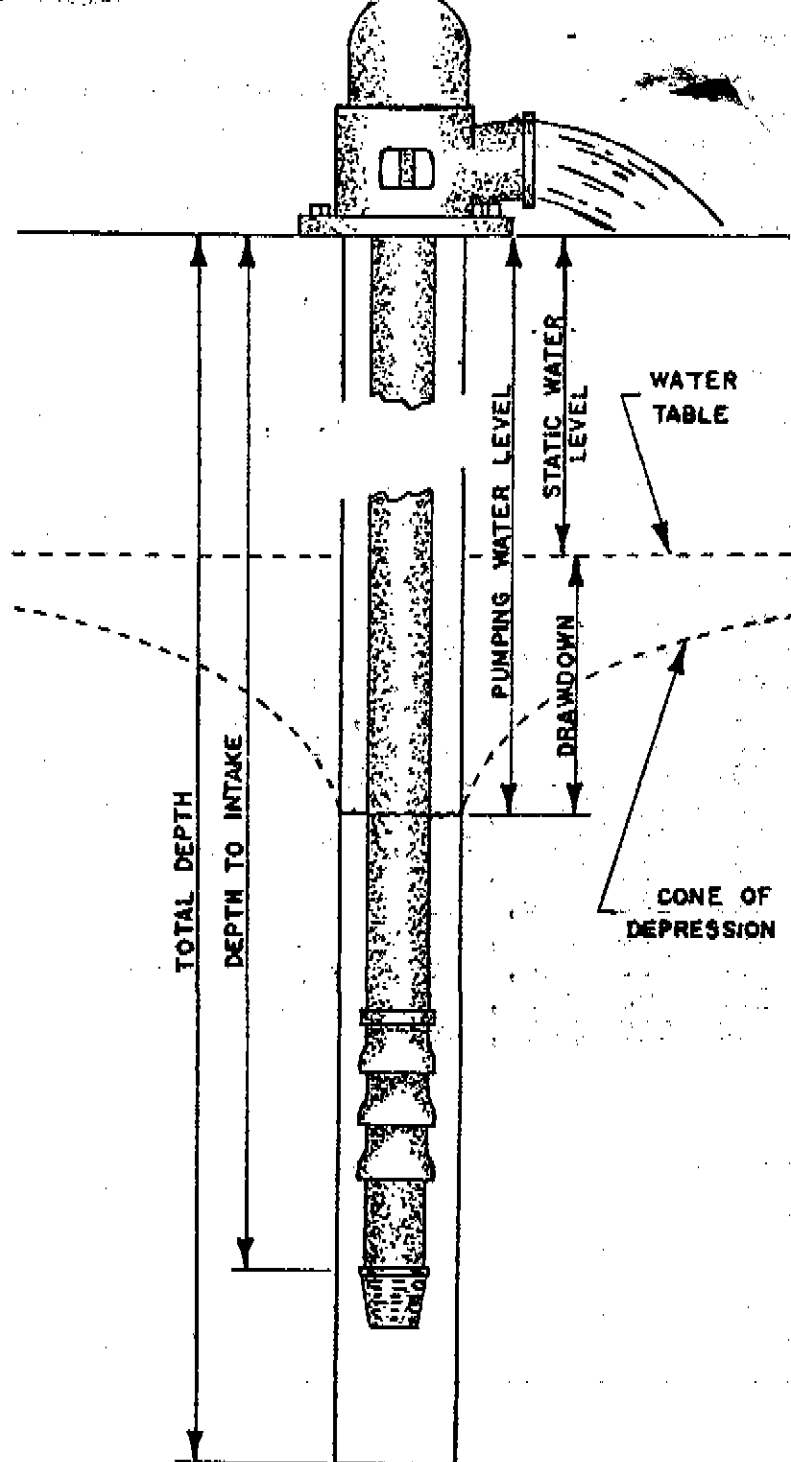
Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make Gould
 Type 3 Phase
 Powered by 10 h.p. 3 phase HP 10
230 volts.
 Pump Serial No. UH66LT32-2106
 Motor Serial No. Missing.
 Date Installed Dec. 1, 1977
 Pump Intake Depth 200'
 Remarks Pump capacity 80 gpm.
Pump set on 3" tubing.

WELL TEST DATA WITH PERMANENT PUMP

Date Tested January, 1978
 Static Water Level Prior to Test Flowing
 Length of Test 2 Weeks Hours
 Sustained yield (Metered) 50 GPM
 Pumping Water Level 50'.
 Remarks



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Wayne N. Allison

License No. 581

Supervised by Robert F. Williams

648

State of Colorado, County of Gunnison

SS

Subscribed and sworn to before me this 30 day of Jan, 19 78

My Commission expires 2-7-8, 19 81

Notary Public Ellen M. Steen

WRS-100 76

COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

S-35945

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

- (X) A PERMIT TO USE GROUND WATER
(X) A PERMIT TO CONSTRUCT A WELL
FOR: (X) A PERMIT TO INSTALL A PUMP
() REPLACEMENT FOR NO. _____
() OTHER _____
WATER COURT CASE NO. _____

RECEIVED

AUG 18 '77

PR
WATER RESOURCES
STATE ENGINEER
COLO.

(1) **APPLICANT** - mailing address
State of Colorado, acting by & thru
NAME The State Board of Land Commissioners
STREET 1313 Sherman Street, Room 620
CITY Denver, Colorado 80203
(State) (Zip)
TELEPHONE NO. 892-3454

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. _____ / _____

Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

(SEE ATTACHED SHEET)

(2) **LOCATION OF PROPOSED WELL**
County San Miguel
NW 1/4 of the SE 1/4, Section 36
Twp. 45 N., Rng. 13 W., 6th P.M.
(N.S) (E.W)

(3) **WATER USE AND WELL DATA**
Proposed maximum pumping rate (gpm) 60
Average annual amount of ground water to be appropriated (acre-feet): 97
Number of acres to be irrigated: _____
Proposed total depth (feet): 400 ft.
Aquifer ground water is to be obtained from: _____
Owner's well designation _____

GROUND WATER TO BE USED FOR:

- () HOUSEHOLD USE ONLY - no irrigation (0)
(X) DOMESTIC (1) () INDUSTRIAL (5)
() LIVESTOCK (2) () IRRIGATION (6)
() COMMERCIAL (4) (X) MUNICIPAL (8)
() OTHER (9) _____
DETAIL THE USE ON BACK IN (11)

(4) **DRILLER**
Name Licensed (M. Glaser?)
Street _____
City _____
(State) (Zip)
Telephone No. _____ Lic. No. _____

APPLICATION APPROVED

PERMIT NUMBER 22706-F

DATE ISSUED SEP 14 1977

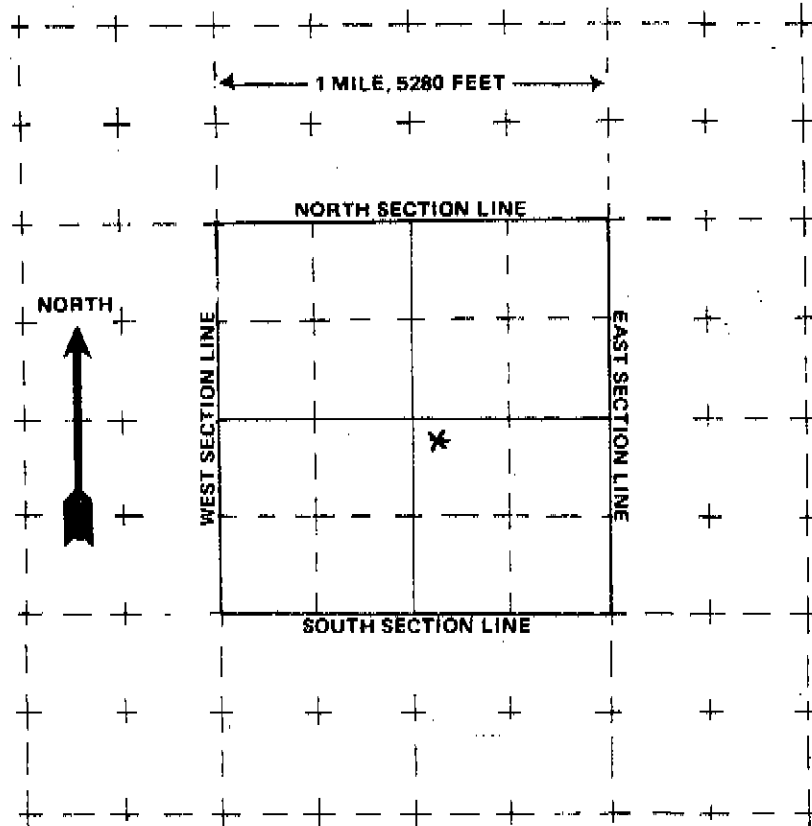
EXPIRATION DATE SEP 14 1978

BY E. J. Snipes
(STATE ENGINEER)

BY Bruce E. DeBunia

I.D. 4-60 COUNTY 57

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) ... 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot ... 43,560 cubic feet ... 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

2350 ft. from South sec. line
(north or south)

2200 ft. from East sec. line
(east or west)

LOT _____ BLOCK _____ FILING # _____

SUBDIVISION _____

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Land Board

No. of acres 560 Will this be the only well on this tract? Yes

(8) **PROPOSED CASING PROGRAM**

Plain Casing

8 in. from 0 ft. to 360 ft.

 in. from ft. to ft.

Perforated casing

8 in. from 360 ft. to 400 ft.

 in. from ft. to ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Land Board No. of acres: 560

Legal description: Town of Norwood

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used.

Additional water for San Miguel Water Conservancy District

NE 1/4, E 1/2 NW 1/4 & S 1/2 of Sec 36, T45 N R13W

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right	Used for (purpose)	Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

Samuel Deal
SIGNATURE OF APPLICANT(S)

22706 - F

CONDITIONS OF APPROVAL

State of Colorado Well Permit
San Miguel County

- 1) Ground water production from this well shall be limited to the Salt Wash member of the Morrison formation.
- 2) Solid casing shall be installed to the top of the Salt Wash member of the Morrison formation and an approved seal placed to separate the Salt Wash from the overlying formations. The overlying formations shall also be separated by the methods acceptable to Water Well and Pump Installation Contractors Rules and Regulations.
- 3) A lithologic log of this well shall be prepared by either a competent water well contractor or a qualified geologist.
- 4) The pumping rate of this well shall be limited to 60 gallons per minute or the actual yield of the aquifer, whichever is less. An aquifer test of sufficient length, at least 48 hours, shall be conducted with the permanent pump equipment installed. Test data and results of all aquifer tests that are conducted on this well shall be submitted to the Division of Water Resources.
- 5) Average annual appropriation from this well shall not exceed 28 acre-feet.
- 6) Records of the pumping rate and time pumped along with the water levels shall be kept and shall be submitted to the Division of Water Resources.
- 7) Totalizing flow meter must be installed on the well discharge when the water is put to beneficial use. Diversion records shall be submitted, upon request, to the Division of Water Resources.



DIVISION OF WATER RESOURCES

Department of Natural Resources
1313 Sherman Street - Room 818
Denver, Colorado 80203
Administration (303) 892-3581
Ground Water (303) 892-3587

August 17, 1977

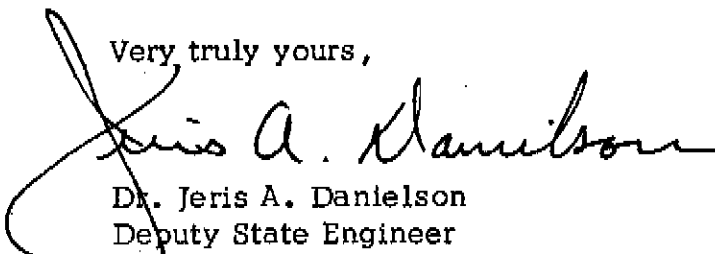
Mr. William L. Raley, Secretary
San Miguel Water Conservancy District
P. O. Box 130
Norwood, CO 81423

Re: Water Supply Development

Dear Mr. Raley:

We wish to thank you for your letter of August 3, 1977 which outlines the joint venture project being built by the District and the Town of Norwood. In the letter reference is made to two new wells to be drilled by the District in mid-August. As of this date, we have not received applications for permits for these wells and would urge that you contact Mr. Ralph Stallman of our Ground Water Section concerning the procedure for obtaining a well permit.

Very truly yours,



Dr. Jeris A. Danielson
Deputy State Engineer

JAD/GDV:mvf

cc: Ralph Stallman ✓
Bill Killip, Land Board

Best Copy Available

RECEIVED

JUN 22 1977

WATER RESOURCES
STATE ENGINEER
COLORADO

JK

Application must
be complete where
applicable. Type or
print in **BLACK**
INK. No overstrikes
or erasures unless
initiated.

PERMIT APPLICATION FORM

(X) A PERMIT TO USE GROUND WATER
(X) A PERMIT TO CONSTRUCT A WELL
FOR: (X) A PERMIT TO INSTALL A PUMP

() REPLACEMENT FOR NO. _____
() OTHER _____
WATER COURT CASE NO. _____

(1) **APPLICANT** - mailing address

NAME Ayers Ranch
STREET Box 25
CITY Bedrock Colo. 81411
(State) (Zip)
TELEPHONE NO. 854-7399

(2) **LOCATION OF PROPOSED WELL**

County Montrose
SW 1/4 of the SW 1/4, Section 17
Twp 47 N. Rng. 18 W. NM P.M.
(N.S.) (E.W.)

(3) **WATER USE AND WELL DATA**

Proposed maximum pumping rate (gpm) 30
Average annual amount of ground water
to be appropriated (acre-feet): 4.0
Number of acres to be irrigated: 0
Proposed total depth (feet): 25
Aquifer ground water is to be obtained from:
Paradox Formation
Owner's well designation _____

GROUND WATER TO BE USED FOR:

() HOUSEHOLD USE ONLY - no irrigation (0)
() DOMESTIC (1) () INDUSTRIAL (5)
() LIVESTOCK (2) () IRRIGATION (6)
(X) COMMERCIAL (4) () MUNICIPAL (8)
() OTHER (9) _____

DETAIL THE USE ON BACK IN (11)

(4) **DRILLER**

Name Licensed
Street _____
City _____ (State) (Zip)
Telephone No. _____ Lic. No. _____

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 82320
Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

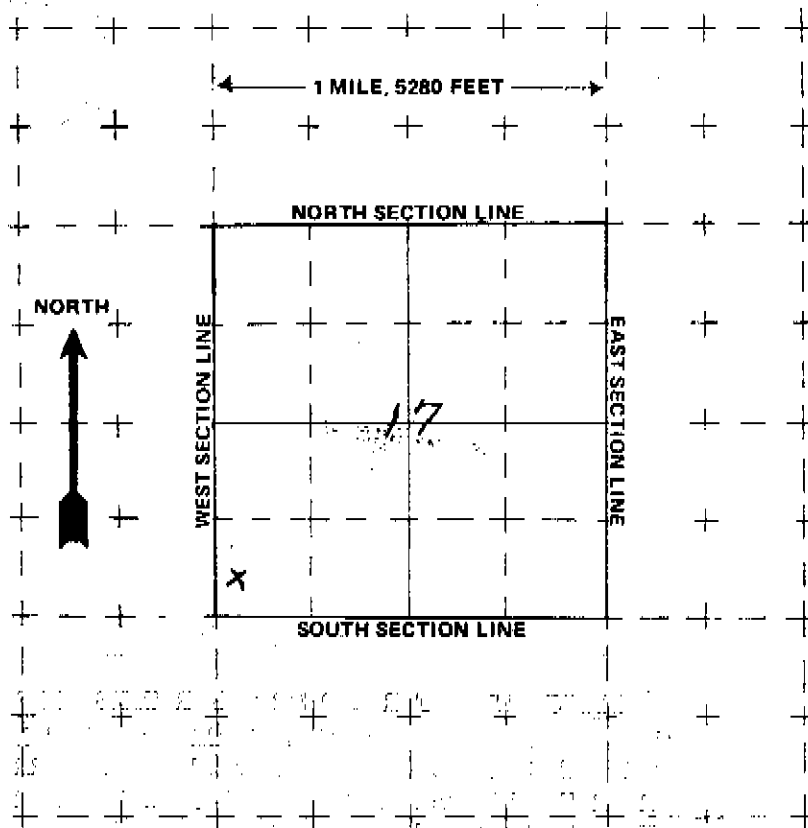
- 1) APPLICATION FOR A DECREE FOR THIS APPROPRIATION MUST BE MADE TO THE DISTRICT COURT IN AND FOR WATER DIVISION NO. 4, STATE OF COLORADO, PRIOR TO THE USE OF THIS WELL. THIS APPROVAL IS SUBJECT TO THE TERMS OF SAID DECREE.
- 2) THE PUMPING RATE OF THIS WELL SHALL BE LIMITED TO 30 GALLONS PER MINUTE OR THE ACTUAL YIELD OF THE AQUIFER, WHICHEVER IS LESS.
- 3) TOTALIZING FLOW METER MUST BE INSTALLED ON THE WELL DISCHARGE WHEN THE WATER IS PUT TO BENEFICIAL USE. DIVERSION RECORDS SHALL BE SUBMITTED, UPON REQUEST, TO THE DIVISION OF WATER RESOURCES. RA

APPLICATION APPROVED

PERMIT NUMBER 22707-F
DATE ISSUED SEP 14 1977
EXPIRATION DATE SEP 14 1978

BY E. J. Snipes (STATE ENGINEER)
Bruce E. O'Brien
I.D. 4-61 COUNTY 43

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep.
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm).
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

925 ft. from 5 sec. line
(north or south)
200 ft. from W sec. line
(east or west)

LOT _____ BLOCK _____ FILING # _____

SUBDIVISION _____

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Ayers

No. of acres 40 Will this be the only well on this tract? Yes

(8) **PROPOSED CASING PROGRAM**

Plain Casing

6 in. from 0 ft. to 40 ft.

Perforated casing

6 in. from 40 ft. to 75 ft.

_____ in. from _____ ft. to _____ ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Ayers Ranch No. of acres: 40

Legal description: SW 1/4 Sec 17 T 47N R 18W NMPM

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used.

Water for a dairy barn for washing down and live stock

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right

Used for (purpose)

Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

Otho S. Ayers
SIGNATURE OF APPLICANT(S)

Appendix H

Water Rights Yield Estimate

Appendix H
Norwood Water Commission
WestWater Engineering Water Rights Yield Estimate

Water Right	Decreed Amount	Yield					
		Dry Year		Annual Volume (AF)	Average Year		Annual Volume (AF)
		Summer	Winter		Summer	Winter	
214	0.25						
Town of Norwood Pipeline	0.75	0.13	0.067	71.2	0.3	0.2	166.2
Gardner Springs and Pipeline	0.75						
Norwood Infiltration Pipeline	0.75	0.13	0.067	71.2	0.2	0.1	115.6
Subtotal		0.26	0.134	142.4	0.5	0.3	281.9
Gurley 119 Shares				477.6			477.6
Gurley Contract Water				300.0			300.0
Total*				442.4			581.9

Notes:

Summer Defined as 1/2 of the calendar year

Winter Defined as 1/2 of the calendar year

*Total does not include 119 shares of Gurley water held by the NWC (assumed to produce 2.4 AF/share).
Values in this table are based on the work done by WestWater Engineering in the 1995 Raw Water Supply System Feasibility Study. Does not include impact from reduction in return flows from changes in irrigation practices, calls from downstream water rights, or reduced seepage from Gurley Reservoir.

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Phone: 970.945.7755
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DURANGO

1666 N. Main Avenue Suite C
Durango, Colorado 81301
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www.wrightwater.com



Wright Water Engineers, Inc.