

Norwood Water Commission
Tuesday July 9th, 2024- Regular Meeting
Norwood Community Center 7:00 P.M.

I) Call to Order:

Tony Daranyi called the regular meeting of the Norwood Water Commission to order at 7:00P.M. The Norwood Water Commission of San Miguel County, State of Colorado, met in regular session at the Norwood Community Center, 1670 Naturita Street, Norwood, Colorado. Those being present were as follows:

Present: **Chairman** – Tony Daranyi, **Vice Chairman** – Finn Kjome, Brad Campbell, Richard Nelson, Mike Grafmyer and Ray Cossey

Staff: Randy Harris – ORC and Shawny Darby – Secretary

Absent:

Others: Ryan Howe, Ellen Bradley, Mia Rupani, and Mandy Shirley

Via Zoom – Kattie Neesham, Ellen Metrick, Regan Tuttle, Alexander Pape, and Shawn Fallon

II) Public Walk-In Period:

III) Review/Consent Agenda

- a) *Minutes of June 13th, 2024***
- b) *June 2024 Bills & Accounts***

Mike Grafmyer made a **motion** to review the present agenda. Brad Campbell seconded the **motion. *Motion passed.***

Mike Grafmyer made a **motion** to approve the consent agenda as presented. Brad Campbell seconded the **motion. *Motion passed.***

Randy noted that he will review the Ferguson bill as it may have been for the Town of Norwood.

Mike Grafmyer made a **motion** to add to the agenda IV) Board Business a) 1. Refusal of Chairman Resignation. Ray Cossey seconded the **motion. *Motion passed.***

Mike Grafmyer made a **motion** to add a Discussion of Hiring Interim Employee to VII) Staff Reports/Announcements c). Finn Kjome seconded the **motion**. **Motion passed.**

Finn Kjome made a **motion** to add Appoint a Second NWC Board Member to the Personnel Committee to IV)Board Business b). Mike Grafmyer seconded the **motion**. **Motion passed.**

Brad Campbell made a **motion** to add a Discussion Regarding Retaining Staff to IV) Board Business c). Mike Grafmyer seconded the **motion**. **Motion passed.**

IV) Board Business:

a) SMWCD Appointment – Ryan Howe Introduction

The NWC Board welcomed Ryan Howe. Ryan introduced himself and let the Board know why he felt he would make a good asset for them, including his grant writing experience. The Board introduced themselves as well.

1. Refusal of Chairman Resignation

Mike Grafmyer let Tony Daranyi know that we needed him right now. Brad Campbell let Tony know that he is an asset to the NWC Board and the Norwood Water Commission. Ray Cossey reiterated what the others felt. Tony states that he appreciates the support. Tony feels that the politics are starting to overwhelm our to move forward with losing a team member and Town Manager. He feels that we all want the same but have reached a boiling point. Tony will take this under advisement.

Mike Grafmyer made a **motion** to not accept Tony Daranyi's resignation. Ray Cossey seconded the **motion**. Ryan Howe **abstained** as he has not been on the NWC Board until today. **Motion passed.**

b) Appoint a Second NWC Board Member to the Personnel Committee

c) Discussion Regarding Retaining Staff

d) Legal Firm Selection

The NWC Board discussed the legal firms they had narrowed down to and felt that Garfield and Hecht in Telluride stood out due to their extensive experience with government work as well as water experience.

Ray Cossey made a **motion** to accept Garfield and Hecht as our law firm. Brad Campbell seconded the **motion**. **Motion passed.**

Finn Kjome will let Garfield and Hecht know that we have decided on them.

e) Ellen Bradley Water Tap Discussion

Ellen Bradley discussed what has progressed regarding her water taps that had been originally approved by the NWC Board. She explained that \$186,000 was the estimated cost and that ACM Excavation would be the contractor. Randy Harris has been discussing it with them. ACM Excavation needs 3 to 4 months to get their permits together. Ellen is seeking reapproval for November 2024 as she is concerned about hitting bed rock. She is asking to be able to make both tap purchases of a total of \$24,000.00 thirty days after that. Ray Cossey asked about her right of way and if it has been recorded. She states that it will be recorded in Montrose County.

Finn Kjome made a **motion** to reapprove both taps for both properties as Ellen Bradley has asked. Ray Cossey seconded the **motion**. **Motion passed.**

f) Discussion Regarding System Upgrades (if any)

1. Update on Application for Redundant Line Grant Application

Finn Kjome gave an update regarding the grant for the redundant line. We should move forward on the environmental assessment. Mike Grafmyer asked how long it would take and Finn states he will ask and let the NWC Board know that Lauren Kirn is still helping us out. We have essentially gotten through the PNA but this is the next step. The PNA is in review. Finn had been trying to get ahold of Chad Hill but found out he has passed.

Ray Cossey made a **motion** to move forward on the environmental assessment. Finn Kjome seconded the **motion**. **Motion passed.**

g) Raw Water Replacement Cards Discussion

Mike Grafmyer made a **motion** to table this discussion until the next meeting. Ray Cossey seconded the **motion**. **Motion passed.**

h) Water Dispenser Update & Survey

1. Website Update

Tony Daranyi expressed concern regarding the verbiage for the Water Dispenser service boundaries.

Ray Cossey made a **motion** to change the verbiage to “special potable Water Dispenser boundary map” to differentiate between the regular NWC service boundaries and the Water Dispenser. Brad Campbell seconded the **motion**. **Motion passed.**

2. GIS Map Update

The NWC Board mentioned that this has gone out to the county GIS to get updated.

V) Board Member Reports and Announcements: (if any)

Brad Campbell states that his phone has been blowing up. He received Deana Sherrif's resignation last night and (Town) lost an employee this morning. Shawny Darby reached out for direction. Brad told her to just worry about her normal job and everything else beyond that gets tabled. Mike Grafmyer gave direction for Shawny to remain open other than for PTO on Wednesday.

Mike Grafmyer recommends hiring Amanda Pierce as the interim administrator for the NWC until we can get everything hashed out indefinitely. Ray Cossey asked if there would be a conflict of interest with her having been an employee of the Town of Norwood. Finn Kjome will ask the attorney.

Mike Grafmyer made a **motion** to hire Amanda Pierce as our Interim Administrator until we get everything figured out. Ray Cossey seconded the **motion**. **All voted yes. Motion passed.**

Brad Campbell will approach Amanda Pierce for discussion.

The NWC Board discussed the personnel committee. Finn Kjome is the existing member of the personnel committee. Richard Nelson was the other. Brad Campbell feels that Mike Grafmyer and Finn Kjome should be our representatives as they are familiar with our history. The Board discussed further.

Mike Grafmyer made a **motion** to nominate Ray Cossey to be the new member of the personnel committee. Brad Campbell seconded the **motion**. **All voted yes. Motion passed.**

VI) Executive Session:

For the purpose of determining positions relative to matters that may be subject to negotiations; developing strategy for negotiation; and instruction to negotiators under C.R.S. Section 24-6-402(4)(e).

Mike Grafmyer **moved** to go into executive session at this time for the purpose of determining positions relative to matters that may be subject to negotiations; developing strategy for negotiation; and instruction to negotiators under C.R.S. Section 24-6-402(4)(e). Finn Kjome seconded the **motion**. **All voted yes. Motion passed.**

Executive Session has begun. It is Tuesday, July 9th, 2024 and the time is now 8:20pm. For the record, I, Tony Daranyi, chairman of the Norwood Water Commission, am the presiding officer. As required by the Open Meetings Law, this executive session is being electronically recorded. This is an executive session for the purpose of determining positions relative to matters that may be subject to negotiations; developing strategy for negotiation; and instruction to negotiators under C.R.S. Section 24-6-402(4)(e).

Tony cautioned each participant to confine all discussion to the stated purpose of the executive session, and that no formal action may occur in the executive session. If at any

point in the executive session any participant believes that the discussion is going outside the proper scope of the above stated purpose of the session, please interrupt the discussion and make an objection. Additionally, all conversations within this executive session must remain confidential.

Tony states that he hereby attests that this recording reflects the actual contents of the discussion at the executive session and has been made in lieu of any written minutes to satisfy the recording requirements of Open Meeting Law. I will direct the NWC Secretary to retain the recording for a 90 day period.

The time is now 8:39pm and we conclude the executive session.

The time is now 8:40pm and the executive session has been concluded. For the record if any person who participated in the executive session believes that any substantial discussion of any matters not included in the motion to go into executive session occurred during the session, or that any improper action occurred during the executive session in violation of the Open Meetings Law, I would ask that you state your concerns for the record.

There were no concerns.

VII) Staff Reports/ Announcements

a) Public Works Directors Report
1. Randy Harris – Class 3 Water Distribution System Operator

Public Works report hereunto attached.

Randy Harris has earned his Class 3 Water Distribution System Operator certification.

b) Administrative Reports

Town Manager Norwood Water Commission report hereunto attached.

c) Discussion of Hiring Interim Employee

The NWC Board discussed recent events surrounding the termination of Town Clerk – Amanda Pierce which was subsequently followed last night by the immediate resignation of Town Manager – Deana Sherrif which was then followed with the immediate resignation of Deputy Town Clerk – Becky Hannigan this morning. The secretary for the Norwood Water Commission and Norwood Sanitation District, Shawny Darby, remained in the office. The NWC Board further discussed the need for an Interim Administrator for the Norwood Water Commission with the possibility of advertising for a permanent Administrator in the future.

VIII) Adjourn:

Ray Cossey made a **motion** to adjourn the meeting. Mike Grafmyer seconded the **motion**. **All voted yes. Motion passed.**

Approved:

Approved as Corrected:

Norwood Water Commission
Norwood Sanitation District
Tuesday July 16th, 2024- Joint Special Meeting
Norwood Community Center 7:00 P.M.

I) Call Joint Meeting to Order:

Tony Daranyi called the joint special meeting of the Norwood Water Commission to order at 7:10P.M. The Norwood Water Commission of San Miguel County, State of Colorado, met in regular session at the Norwood Community Center, 1670 Naturita Street, Norwood, Colorado. Those being present were as follows:

Present: **Chairman** – Tony Daranyi, **Vice Chairman** – Finn Kjome, Brad Campbell, Ryan Howe, Mike Grafmyer and Ray Cossey

Bernice White called the joint special meeting of the Norwood Sanitation District to order at 7:11P.M. The Norwood Sanitation District of San Miguel County, State of Colorado, met in regular session at the Norwood Community Center, 1670 Naturita Street, Norwood, Colorado. Those being present were as follows:

Present: **Chairman** – Bernice White, **Vice Chairman** –Brad Campbell, Mike Grafmyer, Tom Kyle, Kerry Welch

Staff: Randy Harris – ORC, and Shawny Darby – Secretary

Absent:

Others: Jessica Bicknase, Curtis Funke, and Mande Shirley

Via Zoom – Mia Rupani, Richard Nelson, and Amanda Pierce

II) Interim Administrator

Brad Campbell states that the Town of Norwood has the opportunity to rehire. If that happens, we are still without an administrator and we will need to ensure there is no conflict of interest. He feels we should not make an exact motion until after the Town of Norwood Board of Trustees meeting. Tony Daranyi discussed contract labor with no benefits, the amount of hours and what the projects would be. The Boards discussed the immediate projects involving the security grant that should be completed at the end of the month, the redundant line, the interim administrator supervising Shawny and willingness to attend board meetings. Higher wages were asked for at \$38.00 per hour. Amanda Pierce thought she would give 20 to 30 hours if she took this position. Randy Harris will continue

what he is doing. Finn Kjome states that the direction from the attorney was to just have a consensus until after the Town meeting without hiring tonight until we have everything in order.

The general consensus of both the Norwood Sanitation District and the Norwood Water Commission is that they are in agreement with hiring Amanda Pierce as the Interim Administrator for these two entities pending the Town of Norwood Board of Trustees meeting.

III) Third Party Investigation

Brad Campbell is concerned with the entire process regarding everything that is going on. There is an employee of all three entities that has resigned following the termination of a Town of Norwood employee and nobody knows why she was fired. The entire situation seems bizarre and blatantly nontransparent. Bernice White states that we can call Colorado Municipal League to see if they are able to help investigate. Mike Grafmyer wants the computer issues investigated. Ray Cossey states that he understood everything was being investigated. Both boards continued to discuss the matters at length.

Tony Daranyi expressed his interest in moving forward. Ray Cossey feels we should wait and see what the Town of Norwood does as he is concerned with possible legal jeopardy and Tony agrees. Tony also feels that if the Town needs to clean up, let them.

The general consensus is that we need to participate in discussions with CML and DOLA keeping in mind that the Mayor is on a board for CML.

Brad Campbell asked if we could come up with a list of items we feel should be investigated. Both boards feel there has been a breach of public trust. The list is as follows:

- Computers
- Finances/Legal Fees
- Listening/Recording Devices
- External Hard Drive

Mike Grafmyer feels it is odd timing that someone had been repeatedly attempting to log into Amanda's computer but it stopped after she was fired.

Randy Harris let the Boards know that we are as safe as possible for SCATA.

Mike Grafmyer states that the Town still has not done anything to begin an investigation.

Tony Daranyi feels that with the computer issues we should contact CBI.

NWC – Mike Grafmyer made a **motion** to write a letter to the Colorado Bureau of Investigation asking for an investigation of our computers, hard drive, etc. Ray Cossey seconded the **motion**. **All** voted **yes**. **Motion passed**.

NSD – Brad Campbell made a **motion** to write a letter to the Colorado Bureau of Investigation asking for an investigation of our computers, hard drive, etc. Mike Grafmyer seconded the **motion**. **All** voted **yes**. **Motion passed**.

Shawny was instructed to write separate letters specific to each entity and send them to each board for review.

NWC - Finn Kjome would like to discuss Garfield and Hecht.

Mike Grafmyer made a **motion** to add IV) Attorney to the agenda. Ray Cossey seconded the **motion**. **All** voted **yes**. **Motion passed**.

IV) Attorney – Finn Kjome

Finn Kjome presented the contract from Garfield and Hecht.

Ray Cossey made a **motion** to engage Garfield and Hecht as the Norwood Water Commission attorney. Finn Kjome seconded the **motion**. **All** voted **yes**. **Motion passed**.

Shawny was instructed to keep a copy on file and email a copy to Finn immediately.

V) Adjourn:

NSD – Mike Grafmyer made a **motion** to adjourn the Norwood Sanitation District from the joint special meeting at 8:14pm. Tom Kyle seconded the **motion**. **All** voted **yes**. **Motion passed**.

NWC – Brad Campbell made a **motion** to adjourn the Norwood Water Commission from the joint special meeting at 8:27pm. Mike Grafmyer seconded the **motion**. **All** voted **yes**. **Motion passed**.

Norwood Water Commission
Norwood Sanitation District
Tuesday July 24th, 2024- Joint Special Meeting
Norwood Community Center 7:00 P.M.

I) Call Joint Meeting to Order:

Tony Daranyi called the joint special meeting of the Norwood Water Commission to order at 7:04P.M. The Norwood Water Commission of San Miguel County, State of Colorado, met in regular session at the Norwood Community Center, 1670 Naturita Street, Norwood, Colorado. Those being present were as follows:

Present: **Chairman** – Tony Daranyi, **Vice Chairman** – Finn Kjome, Brad Campbell, Mike Grafmyer and Ray Cossey

Bernice White called the joint special meeting of the Norwood Sanitation District to order at 7:07P.M. The Norwood Sanitation District of San Miguel County, State of Colorado, met in regular session at the Norwood Community Center, 1670 Naturita Street, Norwood, Colorado. Those being present were as follows:

Present: **Chairman** – Bernice White, **Vice Chairman** –Brad Campbell, Mike Grafmyer, Tom Kyle, Kerry Welch

Staff: Shawny Darby – Secretary

Absent: Ryan Howe and Randy Harris – ORC

Others: Curtis Funke, Amanda Pierce and Katherine Fry

Via Zoom – Hannah Browning, Jenny Russell, Sherri Reeder, Alexander Pape, Grace (last name unknown), and Candy Meehan

II) Ratify Contract with Amanda Pierce as Interim Administrator

Mike Grafmyer feels the Boards need professional board emails instead of using their personal emails. Amanda will discuss this with Jason LaFlamme and get the information the Boards need.

Tom Kyle feels we should revisit this when we have an attorney for the Norwood Sanitation District.

Amanda Pierce has no questions or concerns regarding being Interim Administrator. She did present a needs list as she has accepted the position.

NWC - Ray Cossey made a **motion** to ratify the contract with Amanda Pierce as Interim Administrator of the Norwood Water Commission. _____ seconded the **motion**. **All** voted **yes**. **Motion passed**.

NSD – Brad Campbell made a **motion** to ratify the contract with Amanda Pierce as Interim Administrator of the Norwood Sanitation District. _____ seconded the **motion**. **All** voted **yes**. **Motion passed**.

Of further note, Amanda has a computer and will contact Jason for access only to the Norwood Water Commission and the Norwood Sanitation District. Shawny is letting her borrow a printer, ink, and paper until she can supply her own. Shawny will need to help go through the bills and accounts. Mike Grafmyer directed Amanda to get new emails. Tom Kyle directed her to ensure the insurances are all paid and taken care of so there are no disruptions in coverage.

III) Intergovernmental Agreement between the Norwood Water Commission and the Norwood Sanitation District

NWC - Ray Cossey made a **motion** for the Norwood Water Commission to agree to the IGA with the Norwood Sanitation District. Mike Grafmyer seconded the **motion**. **All** voted **yes**. **Motion passed**.

NSD – Mike Grafmyer made a **motion** for the Norwood Sanitation District to agree to the IGA with the Norwood Water Commission. Tom Kyle seconded the **motion**. **All** voted **yes**. **Motion passed**.

IV) Letter to CBI

Tom Kyle asked if Amanda Pierce would be assisting in any fashion with the letters to Colorado Bureau of Investigation. Ray Cossey feels she should not be involved with any CBI things and that we should let the Boards handle it. Tony Daranyi feels that if he puts his name on something like this that he should have specifics but feels he does not have enough – with the possible computer hacking and bugging he does not have enough to send but he feels this should be on the list. Ray asked if CML could assist and Kerry Welch states that because Norwood Sanitation is a district that we can not go through CML. However, if the Norwood Water Commission were members of CML then they could go through CML. Finn Kjome agrees with Tony that we should hold off until we have more. Mike Grafmyer wants to know how we are supposed to get evidence without a Town Clerk. It was also pointed out that the Mayor brought in an IT person not associated with the Town of Norwood who put stuff on the computers. Tony would like information on the computer issues and the unauthorized recording. Tom Kyle will email Tony with a couple of

items. Currently, Kerry Welch only has the attorney fees. Amanda also made note that the servers are shared.

Jenny Russell feels that the Norwood Water Commission and the Norwood Sanitation District should separate off from the Town of Norwood.

Mike Grafmyer states that the actions of the Mayor may have jeopardized one of our grants.

V) Waterline Easements – NWC Only:

Finn Kjome discussed the waterline easements with the Norwood Water Commission board. He would like Amanda Pierce and Tony Daranyi to attend next week's meeting with DOLA. He reached out to Lauren Kirn to see there was a grant for the EPA. We were told that right now, Norwood does not seem like a good investment due to everything going on. SGM took what Jacqueline Franklin put together and plotted it. They found missing ones and some that had some falseness that showed up. The old map or survey had the original alignment of the waterline. Tony Daranyi signed the contract for SGM. The NWC would like to discuss this with all of our neighbors about this as well.

Tony Daranyi also updated the NWC Board on getting our new attorney and explained that she will be here August 13th, 2024 to meet with us and to take a tour. The will be tentatively at 2:30pm and we will notice the public of the office not having NWC staff that afternoon.

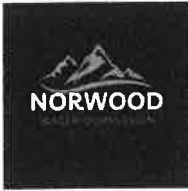
VI) Adjourn:

NSD – Mike Grafmyer made a **motion** to adjourn the Norwood Sanitation District from the joint special meeting at 7:40pm. Tom Kyle seconded the **motion**. **All** voted **yes**. **Motion passed.**

NWC – Brad Campbell made a **motion** to adjourn the Norwood Water Commission from the joint special meeting at 7:55pm. Finn Kjome seconded the **motion**. **All** voted **yes**. **Motion passed.**

NORWOOD WATER COMMISSION
ACCOUNTS PAYABLE JULY 2024

			NWC Portion	NSD Portion	TON Portion	
PD 1027	5140310	ACM Excavation	Main Repair 7/9/2024	\$ 2,122.50	\$ -	\$ -
PD 1186	5140132	CEBT	Employee Health Insurance	\$ 3,267.78	\$ 1,136.99	\$ 3,082.23
PD 110	5140280	Century Link	Monthly Service	\$ 95.83	\$ -	\$ -
PD 1138	5140280	Clearnetworx	Monthly Service	\$ 60.00	\$ -	\$ -
PD 992	5140245	Coach's Mother	Freight	\$ 218.75	\$ 109.95	\$ -
PD 1205	5140460	Dufford Waldeck	Substitution of Counsel/Paralegal Services/Correspondence/Research	\$ 615.00	\$ -	\$ -
PD 1019	5140620	FP Mailing Solutions	Postbase Rental	\$ 79.39	\$ 79.39	\$ 79.39
PD 335	5140630	Mesa County Public Health	E. Coli and Coliform Testing	\$ 25.00	\$ -	\$ -
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PD 335	5140630	Mesa County Public Health	E. Coli and Coliform Testing	\$ 25.00	\$ -	\$ -
PD DEBIT		PSI Services	Randy Harris - Class A Test	\$ 104.00	\$ -	\$ -
PD 375	5140255	Sam's Service - TON Account	Fuel	\$ 63.33	\$ -	\$ 807.56
PD 405	5140275	San Miguel Power	Treatment Plant	\$ 1,606.32	\$ -	\$ -
PD 405	5140275	San Miguel Power	Water Meter	\$ 28.10	\$ -	\$ -
PD 405	5140275	San Miguel Power	Blue Tank	\$ 25.00	\$ -	\$ -
PD 405	5140275	San Miguel Power	Coventry Tank	\$ 25.00	\$ -	\$ -
PD 405	5140275	San Miguel Power	Master Tank	\$ 75.39	\$ -	\$ -
PD 405	5140275	San Miguel Power	162 Gurley Drive	\$ 41.30	\$ -	\$ -
PD		Shawn Fallon	Deposit Refund	\$ 12.00	\$ -	\$ -
PD 1201	5140480	Timberline Ace Hardware/Capital One	Town Account - Maintenance Supplies	\$ 31.57	\$ 159.22	\$ 1,139.74
PD 21	5140480	Timberline Ace Hardware	Maintenance Supplies	\$ 84.32	\$ -	\$ -
PD 465	5140110	Town of Norwood - Monthly Wages	Randy Harris	\$ 2,561.82	\$ 2,195.86	
PD 465	5140110	Town of Norwood - Monthly Wages	Deana Sheriff	\$ 2,683.34	\$ 1,916.66	
PD 465	5140110	Town of Norwood - Monthly Wages	Cory Columbo	\$ 3,637.00	\$ -	\$ -
PD 465	5140110	Town of Norwood - Monthly Wages	Earl McWilliams	\$ 2,180.86	\$ 2,180.86	
PD 465	5140110	Town of Norwood - Monthly Wages	Shawntel Darby	\$ 1,622.50	\$ 1,622.50	
PD 465	5140110	Town of Norwood - Monthly Wages	Austin Overholt	\$ 954.00	\$ 954.00	
PD 465	5140240	Town of Norwood - Reimbursement	Amazon.com - Thumb Drives/Binder Clips	\$ 9.49	\$ 9.49	\$ 32.48
PD 465	5140270	Town of Norwood - Reimbursement	FICA	\$ 1,043.42	\$ 678.56	
PD 465	5140290	Town of Norwood - Reimbursement	Postage	\$ 150.00	\$ 150.00	\$ 100.00
PD 465	5140290	Town of Norwood - Reimbursement	Postage	\$ 150.00	\$ 150.00	\$ 100.00
PD 955	5140132	United Life Insurance Company	Employee Life Insurance	\$ 6.05	\$ 5.19	\$ 61.34
PD 1021	5140250	West Elk Supply	Chlorine	\$ 175.00	\$ -	\$ -
PD 1021	5140250	West Elk Supply	Chlorine	\$ 1,475.00	\$ -	\$ -
		TOTAL		\$ 25,279.06	\$ 11,348.67	\$ 5,402.74



NORWOOD WATER COMMISSION
 PO Box 528; 1670 Naturita St, Norwood, CO 81423
 Phone: 970-327-4288 www.norwoodtown.com

APPLICATION FOR NEW WATER SERVICE

I. PROCEDURES

A. Submit a completed Application for New Water Service, vicinity map of tap location, Proof of ownership, and a \$50 non-refundable Application Fee payable to "Norwood Water Commission."

B. The Public Works Director will review each new water service request. If the Director has technical concerns about the feasibility of service, he will request the Customer to submit an Engineering Feasibility Study together with a \$500 Deposit for Engineering Review.

C. Upon Commission determination that the requested service is feasible, a Customer shall submit a Water Service Contract, in a form provided by the Water Commission and pay the applicable Plant Investment Fee. The Plant Investment Fee does not include the cost of materials or installation of meter(s) or Service Line(s). The applicant has 30 days after date of approval to purchase the water tap.

OWNER/APPLICANT'S NAME Robert McKeever PHONE # 970 234 8637
 PARTY TO EXECUTE WATER SERVICE CONTRACT: Robert McKeever

WATER SERVICE ADDRESS: Intersection of South Market and Kiwi Street

(Attach vicinity locator map 8.5"X11") Project Location.

BILLING ADDRESS: Box 891 Norwood CO 81423

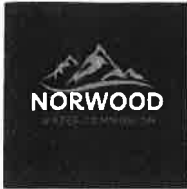
EMAIL: haverhanch1@yahoo.com

DESCRIBE THE TYPE OF SERVICE REQUESTED, INCLUDE: NUMBER OF BUILDINGS; SIZE OF EACH BUILDING, USE OF EACH BUILDING; IF A MOTEL OR HOTEL, NUMBER OF ROOMS; NUMBER OF BATHROOMS AND THEIR FIXTURES; TYPE OF AND NUMBER OF LAUNDRY FACILITIES; AND TYPE OF AND NUMBER OF OTHER WATER FIXTURES. (IF MORE ROOM IS NEEDED TO DESCRIBE THE PROPERTY, PLEASE USE REVERSE SIDE.)

NUMBER OF RESIDENCES TO BE SERVED? 1

PROPERTY LIEN: In the event any user of Commission water service fails to pay the rates, fees, and/or other charges fixed by the Commission for the connection to the facilities of the Commission, such rates, fees and/or charges may be certified by the Secretary of the Commission to the County to become a lien upon the real property served, and may be collected as if they were part of the taxes upon said real property.

WANTING TO HAVE WATER TO SMALL SHOP BUILDING ON 10 acre parcel



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OWNER/APPLICANT'S NAME Johann Lessard PHONE # 248-917-2863
 PARTY TO EXECUTE WATER SERVICE CONTRACT: _____

WATER SERVICE ADDRESS: TBD - Ragsdale Rd. Tract #22
 (Attach vicinity locator map 8.5"X11" Project Location.)

BILLING ADDRESS: PO Box 1186 Norwood, CO 81423

EMAIL: pnewton52@gmail.com

DESCRIBE THE TYPE OF SERVICE REQUESTED, INCLUDE: NUMBER OF BUILDINGS; SIZE OF EACH BUILDING, USE OF EACH BUILDING; IF A MOTEL OR HOTEL, NUMBER OF ROOMS; NUMBER OF BATHROOMS AND THEIR FIXTURES; TYPE OF AND NUMBER OF LAUNDRY FACILITIES; AND TYPE OF AND NUMBER OF OTHER WATER FIXTURES. (IF MORE ROOM IS NEEDED TO DESCRIBE THE PROPERTY, PLEASE USE REVERSE SIDE.)

NUMBER OF RESIDENCES TO BE SERVED? 1

PROPERTY LIEN: In the event any user of Commission water service fails to pay the rates, fees, and/or other charges fixed by the Commission for the connection to the facilities of the Commission, such rates, fees and/or charges may be certified by the Secretary of the Commission to the County to become a lien upon the real property served, and may be collected as if they were part of the taxes upon said real property.

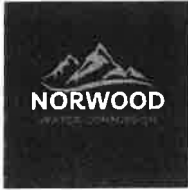
RULES & REGULATIONS OF THE NORWOOD WATER COMMISSION: All Applicants for water service are deemed to have read the Commission's Rules & Regulations of the Water Commission PRIOR to applying for service. By signing the application, the new customer agrees to all the Rules and Regulations of the Water Commission as the same are amended from time to time. The Rules are incorporated by reference in this Application.

The facts stated in this Application are accurate to the best of my knowledge.

By: Johanne Luyard
Property Owner/Applicant

Date: June 3, 2024

FOR OFFICE USE ONLY	
DATE APPLICATION RECEIVED: _____	ACCOUNT #: _____
APPLICATION FEE PAID: \$ _____	
DATE RECORDS UPDATED: _____	INITIALS: _____



NORWOOD WATER COMMISSION
PO Box 528; 1670 Naturita St, Norwood, CO 81423
Phone: 970-327-4288 www.norwoodtown.com

APPLICATION FOR WATER SERVICE EXTENSION

I. PROCEDURE

- A. Customer shall submit a completed Application for Water Service, together with an engineering feasibility study, a \$50 Application Fee payable to the "Norwood Water Commission," and a \$500 Deposit for Engineer's Review.
- B. The Applicant is responsible for reimbursing the Water Commission for the Actual Cost of review of the Feasibility Study by the Commission's engineer. If the cost is less than \$500, any balance of the Deposit for Engineer's Review shall be refunded to the Applicant. If the cost is more than \$500 deposit, the Deposit will be applied against the cost of engineering review and the Applicant shall be responsible for the additional cost.
- C. As soon as possible, the Commission's engineer and the Public Works Director will complete a review of the proposed water line extension and make a determination of service feasibility consistent with the Water Commission's Rules and Regulations.
- D. Upon a determination that the requested service is feasible, a Customer shall submit a Water Service Contract, in a form provided by the Water Commission and pay the applicable Plant Investment Fee(s).
- E. The Plant Investment Fee does not include the cost of the acquisition of easement(s), materials or the installation of water main(s), distribution line(s), meter(s), Service Line(s) or first year's maintenance of main and/or distribution line(s). In addition, looping of lines may be required at Developer's expense.

OWNER/APPLICANT'S NAME: MJRummel Investments, LLC

PHONE #: 970-729-1724 EMAIL: RummelMorgan1@gmail.com

BILLING ADDRESS: 1215 S Aspen St. Norwood, CO 81423
PO Box 671 Norwood, CO 81423

PROJECT LOCATION: 41923 HWY 145 Norwood, CO - WEST OF THE FAIRGROUNDS
(attach vicinity locator map 8.5" by 11")

ENGINEERING FEASIBILITY STUDY (MANDATORY) ATTACHED? YES

DESCRIPTION OF PROJECT: Describe the Property including number of buildings; size of each building; if a motel or hotel, number of rooms; number of bathrooms and their fixtures; type of and number of laundry facilities; and type of and number of other water features (If more room is needed to describe the Property, please use reverse side or attach additional sheets).

I attached the civil engineering drawings with the water lines shown as part of this submission.

- 6" main line extension that will connect to the existing main line heading towards Redvale and go below Hwy 145 into the 12 lot subdivision. The 6" line will Tee at the intersection of the proposed roads 6" lines will extend to the fire hydrants as requested by the Norwood Fire Marshall. We are planning to the property lines or each of the 12 lots and ending the line with a curbstop per the NWC details.
- All construction and materials will be per the NWC's material list.
- We are not purchasing the water taps before we sell the lots because we do not know if the lots will sell or what size of water service will be needed by the future owners given the many different allowed uses for these lots.
- We have been in contact with Norwood Public Works as we have been putting this plan together and even early conversations we had with the water commission about a year ago made it seem like there are no concerns about the ability to serve these 12 lots.

PROPERTY LIEN: In the event a Customer applying for water service pursuant to this application fails to pay the rates, fees, and/or other charges fixed by the Board of the Water Commission for the Connection to and use of the facilities of the Commission, such rates, fees and/or charges due may be certified by the Secretary of the Commission to the County and shall become a lien upon the real property served, and collected as if they were part of the taxes upon said real property.

RULES & REGULATIONS OF THE NORWOOD WATER COMMISSION: All Applicants for water service are deemed to have read the Commission's Rules and Regulations Prior to applying for service. By applying for Commission water service, Customers agree to the terms and conditions contained therein, which are incorporated by reference in this Application.

The facts stated herein are accurate to the best of my knowledge.



PROPERTY OWNER/APPLICANT

8/4/24

DATE

FOR OFFICE USE ONLY	
DATE APPLICATION RECEIVED: _____	ACCOUNT #: _____
APPLICATION FEE PAID: \$ _____	RECEIPT #: _____
DEPOSIT FOR ENGINEERS REVIEW: \$ _____	
DATE RECORDS UPDATED: _____	INITIALS: _____

MEMORANDUM

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

From: Chad Hill, P.E.
Project Manager

Date: August 31, 2022

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

Dear Patti,

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

Introduction

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

Potential Growth Rate

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

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

SGM evaluated the addition of the Pinon Park Subdivision and the Mountain Village Employee Housing Project to the growth rate used in the Water Master Plan. It was assumed that the projects would be

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

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

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

Notes:

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

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

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

Notes:

Population Data gathered from US Census Bureau.

Projected Water Demands

SGM analyzed the daily flow and monthly flow from 2016 through 2021(Study Period) to calculate the average daily flow and monthly flow demands (see Tables 2a and 2b, respectively). The average daily flow was calculated at 176,343 gallons per day (gal/day) and the average monthly flow was calculated at 64.4 million gallons from 2016 through 2021. The Water Master Plan used 2020 average daily flow rates to project future demands. Compared to previous years and 2021, the demands in 2020 appear to be

anomalously high and SGM believes that the work from home policy enacted in the Spring of 2020 due to the COVID-19 pandemic may have caused this spike in demands (see Figure 2).

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

Figure 2. Average Daily Flow (2016 – 2021)

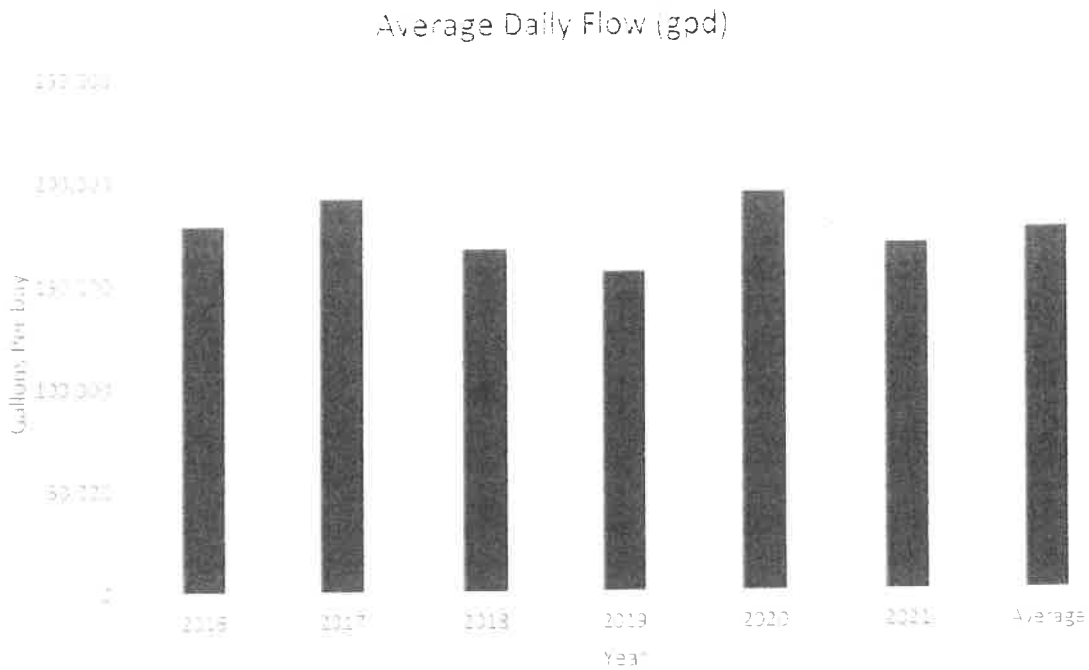


Table 2a. Average Daily Flow (2016 – 2021)

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

Average Fall Demand [Average demand for October and November]

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

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

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

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

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

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

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

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

Average Fall Demand [Average demand for October and November]

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

Median Monthly Demand [Calculated median of monthly flow]

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

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



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

Year	No. of Taps ⁽¹⁾				Total Annual Water Demands ⁽²⁾											
					AF				Millions of Gallons				Average Gallons per Day ⁽³⁾			
	Growth Rate	1%	2%	3%	4%	1%	2%	3%	4%	1%	2%	3%	4%	1%	2%	3%
2022	795	803	811	818	199.63	201.61	203.59	205.56	65.05	65.69	66.34	66.98	178,106	179,870	181,633	183,397
2023	803	819	835	851	201.63	205.64	209.69	213.78	65.70	67.01	68.33	69.66	179,887	183,467	187,082	190,733
2024	811	835	860	885	203.64	209.75	215.98	222.34	66.36	68.35	70.38	72.45	181,686	187,137	192,695	198,362
2025	819	852	886	921	205.68	213.95	222.46	231.23	67.02	69.72	72.49	75.35	183,503	190,879	198,476	206,296
2026	827	869	912	958	207.74	218.23	229.14	240.48	67.69	71.11	74.66	78.36	185,338	194,697	204,430	214,548
2027	835	886	940	996	209.82	222.59	236.01	250.10	68.37	72.53	76.90	81.49	187,192	198,591	210,563	223,130
2028	844	904	968	1,036	211.91	227.04	243.09	260.10	69.05	73.98	79.21	84.75	189,064	202,563	216,880	232,055
2029	852	922	997	1,077	214.03	231.59	250.38	270.51	69.74	75.46	81.59	88.14	190,954	206,614	223,386	241,338
2030	861	941	1,027	1,120	216.17	236.22	257.90	281.33	70.44	76.97	84.04	91.67	192,864	210,746	230,088	250,991
2031	869	959	1,058	1,165	218.33	240.94	265.63	292.58	71.14	78.51	86.56	95.34	194,792	214,961	236,990	261,031
2032	878	979	1,089	1,212	220.52	245.76	273.60	304.28	71.86	80.08	89.15	99.15	196,740	219,260	244,100	271,472
2033	887	998	1,122	1,260	222.72	250.68	281.81	316.45	72.57	81.68	91.83	103.12	198,708	223,646	251,423	282,331
2034	896	1,018	1,156	1,310	224.95	255.69	290.26	329.11	73.30	83.32	94.58	107.24	200,695	228,118	258,966	293,624
2035	905	1,038	1,190	1,363	227.20	260.80	298.97	342.28	74.03	84.98	97.42	111.53	202,702	232,681	266,735	305,369
2036	914	1,059	1,226	1,417	229.47	266.02	307.94	355.97	74.77	86.68	100.34	115.99	204,729	237,334	274,737	317,584
2037	923	1,080	1,263	1,474	231.77	271.34	317.18	370.21	75.52	88.42	103.35	120.63	206,776	242,081	282,979	330,287
2038	932	1,102	1,301	1,533	234.08	276.77	326.69	385.01	76.28	90.18	106.45	125.46	208,844	246,923	291,468	343,499
2039	941	1,124	1,340	1,594	236.43	282.30	336.50	400.41	77.04	91.99	109.65	130.48	210,932	251,861	300,212	357,239
2040	951	1,147	1,380	1,658	238.79	287.95	346.59	416.43	77.81	93.83	112.94	135.69	213,042	256,898	309,218	371,528
2041	960	1,169	1,421	1,724	241.18	293.71	356.99	433.09	78.59	95.70	116.32	141.12	215,172	262,036	318,495	386,389
2042	970	1,193	1,464	1,793	243.59	299.58	367.70	450.41	79.37	97.62	119.81	146.77	217,324	267,277	328,050	401,845

Physical and Legal Water Supply

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

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

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

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

Treatment System and Storage Capacity Analysis

Raw Water Reservoirs

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

Water Treatment

The NWC WTP has a capacity of 0.56 MGD. The current average daily flow on an annual basis is approximately 176,000 gpd. Water Treatment plants are required to deliver MDD. The current MDD occurs in June and is projected to be 352,686 gpd. Currently MDD is 63% of the plant capacity. The MDD in the

year 2042 is projected at 513,640 gpd which is 92% of capacity. Planning, designing and construction for a new WTP can take up to 5 years. Establishing a fund that is specific to financing the plant can take 10 years or more. SGM recommends that planning of the new WTP begin in the early 2030's. Further changes in rate structures should occur at least 10 years prior to begin to finance the construction of the facility, as it is not certain that loan and grant sources will be available at that time. Therefore, it is prudent to evaluate the current rate structure in the next year or two and determine if changes are needed.

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

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

Deficiencies

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

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

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

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

Another deficiency exists in the spent backwash water. When filters and tube settlers are backwashed or flushed, spent backwash water is sent to backwash ponds. If Backwash ponds overflow, they must have a discharge permit in order to protect surface water sources, much like wastewater treatment plants. The WTP does not hold a discharge permit for the backwash ponds and theoretically are non-discharging and rely upon evaporation. The capacity of the backwash

ponds to evaporate water is less than the amount of spent backwash water, and thus either a discharge permit must be applied for or other solutions considered. One solution is to recycle the backwash water through the water plant by filtering the backwash water and pumping to one of the raw water reservoirs. Recycling backwash water is common practice. SGM recommends that the NWC research the requirements of a small package filter system and recycle backwash water. This has the added benefit of increasing the water supply available to the WTP.

Other Regulatory Requirements

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

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

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

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

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

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

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

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

Recommendations Future Expansion, Research, and Capital Projects

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

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

DBP/Chlorine Residual Study

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

Figures:

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

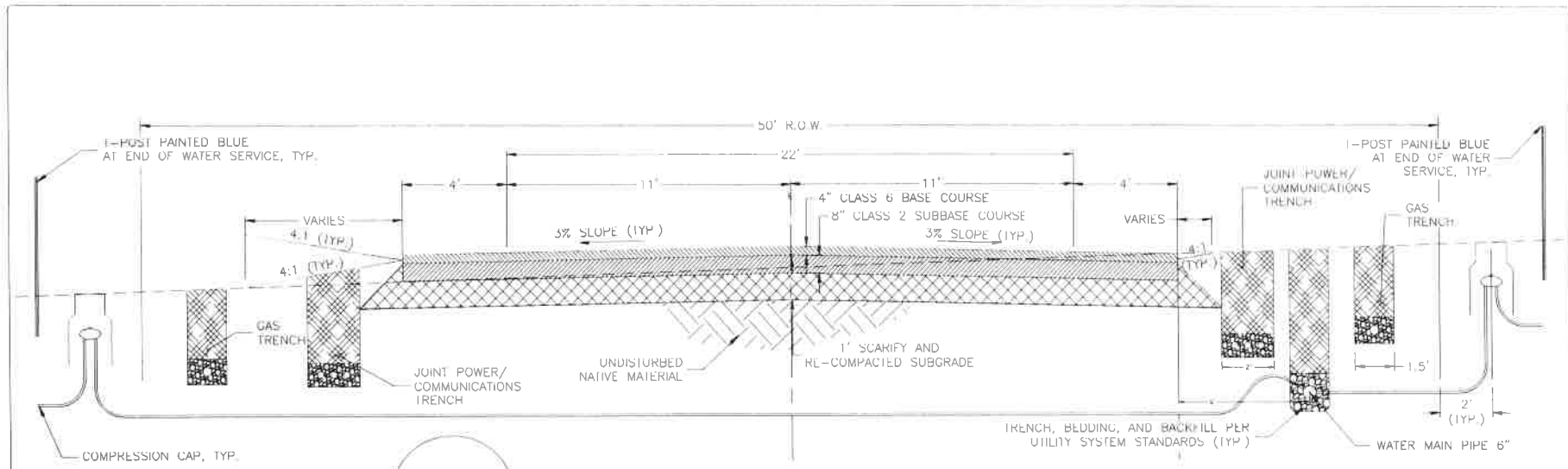
Tables:

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

Attachments:

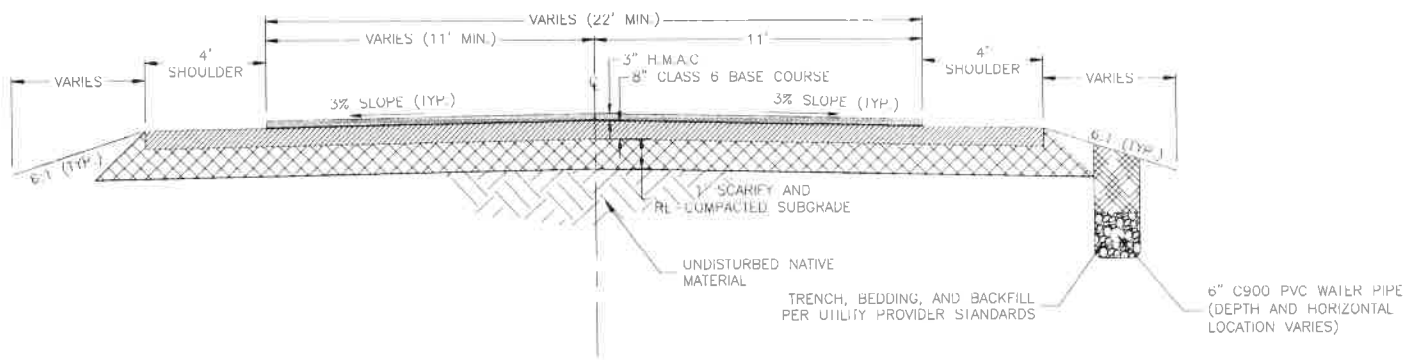
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TYPICAL CROWNED ROAD SECTION

N.T.S.



**TYPICAL PAVED ROAD SECTION - IN RIGHT OF WAY
(FIRST 4 FEET FROM HIGHWAY EDGE)**

N.T.S.

DMG	REV	2024-08-02

SUBMITTAL SET
33071 FOR
CONSTRUCTION

MORGAN RUMMEL
LA SAL SUBDIVISION
DRAWING 24107-03
TYPICAL ROAD SECTIONS

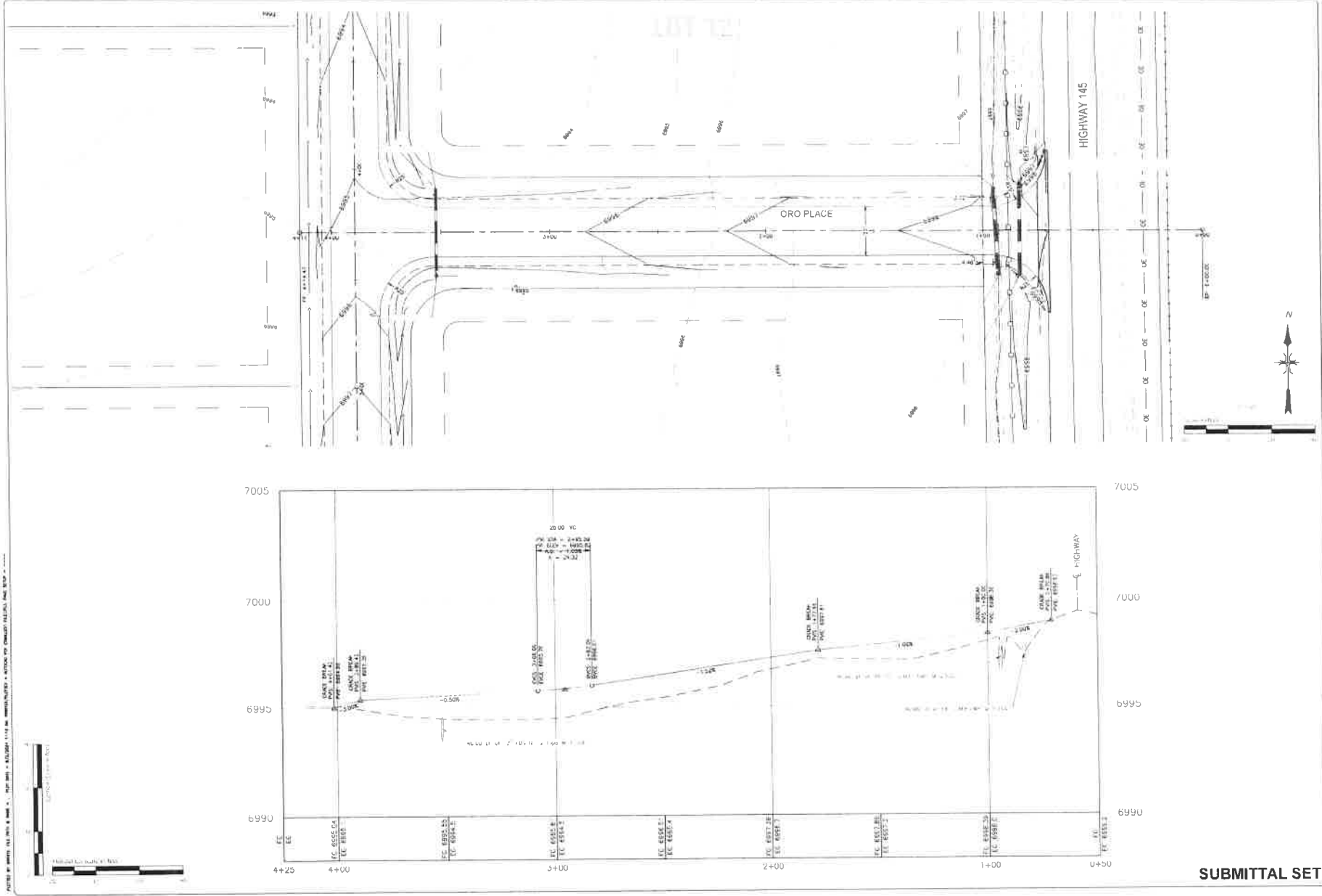
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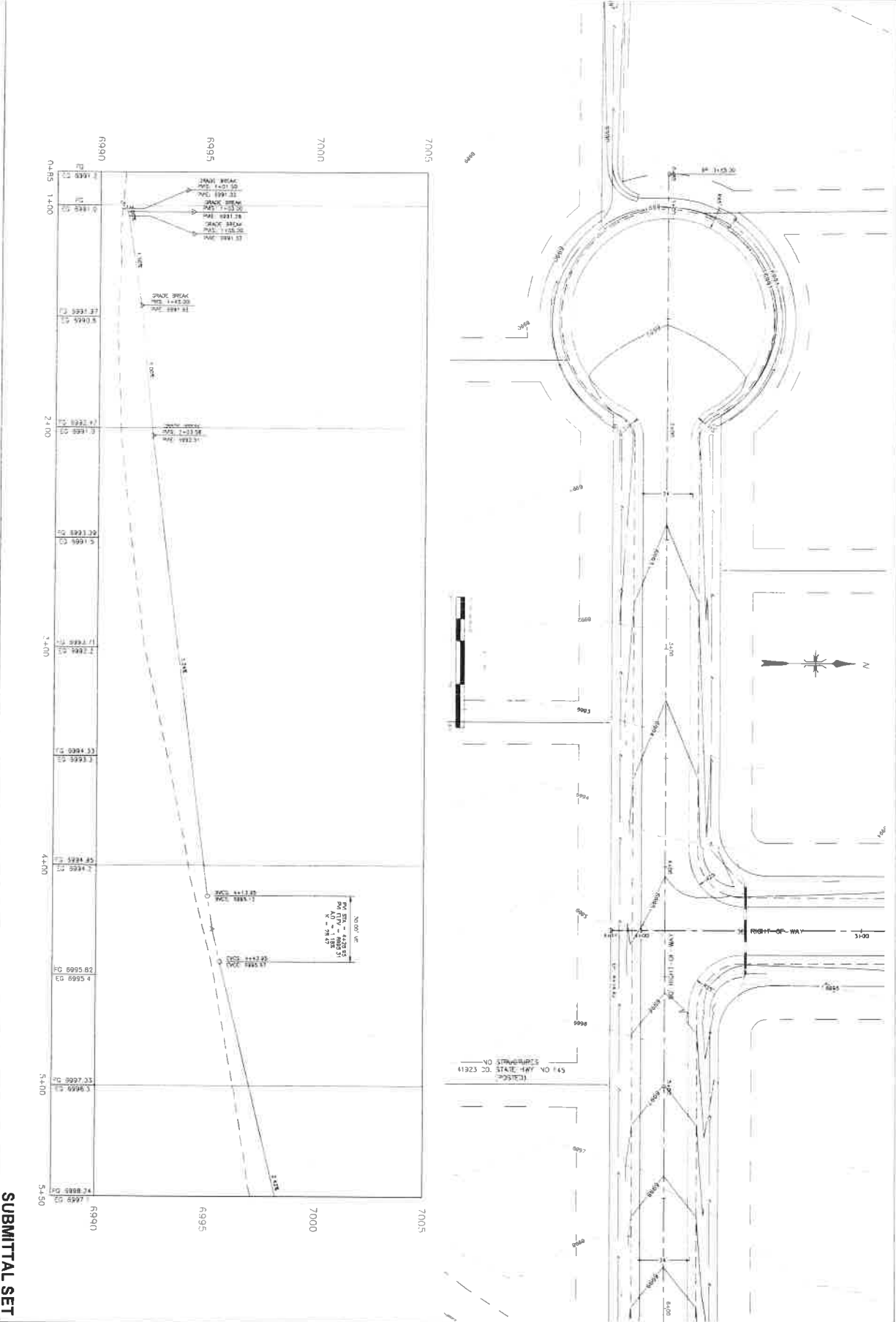
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PROJECT NO. 24107, SHEET NO. 05, DATE: 01/20/2024, 1:18 IN. HORIZONTAL SCALE, 1/8" = 1'-0" VERTICAL SCALE, 1/8" = 1'-0" VERTICAL SCALE, 1/8" = 1'-0" VERTICAL SCALE



		SUBMITTAL SET PROJECT FOR CONSTRUCTION	
MORGAN RUMMEL LA SAL SUBDIVISION 1/25/2024		MDN MGV	NEE 2024-05-02
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SUBMITTAL SET



SUBMITTAL SET

06

24107

MORGAN RUMMEL
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13460000 001 24107
ORO COURT
PLAN AND PROFILE

SUBMITTAL SET
NOT FOR
CONSTRUCTION

DMG	
MGW	NEB
MGW	2024-08-02

NO.	DATE	REVISIONS	BY

