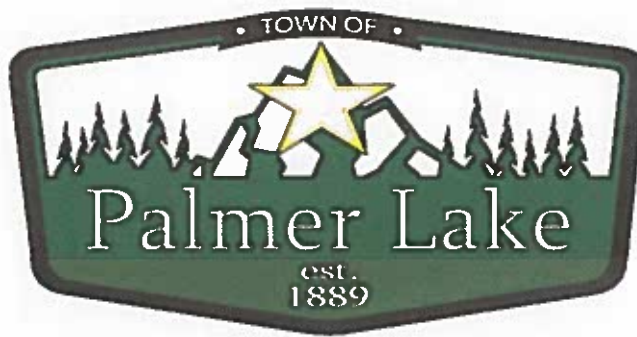




**Town Board of Trustees Regular Meeting
Thursday, March 28, 2019, 6:00 PM
Palmer Lake Town Hall – 28 Valley Crescent, Palmer Lake, Colorado**

**AGENDA
Amended Tuesday, March 26, 2019**

This agenda is subject to revision

1. Call to order
2. Pledge of Allegiance
3. Roll call
4. Approval of the Agenda
5. Approval of minutes from February 28, 2019
6. Council comments, reports, meetings attended
7. Douglas Ave. Project- Notice of Award and Agreement

Resolutions

8. Resolution NO.4 of 2019

A Resolution of the Board of Trustees of The Town of Palmer Lake, Colorado, Setting and Increasing the Water Tap Fees, Water Base Rates and Water Usage Rates for the Town

9. Resolution NO.5 of 2019

Public Hearing and Consideration of A Resolution Approving a Conditional Use Permit to Establish a Mixed Residential Dwelling and Commercial Uses Occurring in the Same Building on a Property Currently Zoned C-C Convenience Commercial Zone District and Located at 56 Highway 105

10. Resolution NO.6 of 2019

Public Hearing and Consideration of A Resolution Approving a Conditional Use Permit to Establish a Single-Family Use on a Property Currently Zoned C-1 General Business and Commercial Zone District and Located at 296 Spring Street- Applicant Richard Willian

11. Resolution NO.7 of 2019

Public Hearing and Consideration of A Resolution Approving a Conditional Use Permit to Establish a Day Care Home on a Property Currently Zoned R-3 Medium Density Residential and Located at 279 Walnut Ave- Applicant Maria Arefieva

12. Unscheduled Public Comments (At Mayor's discretion)- Reserved for members of the public to make a presentation to Council on items or issues that are not scheduled on the agenda. As a general practice, the Council will not discuss/debate these items, nor will Council make any decisions on items presented during this time, rather will refer the items to staff for follow up. Comments are limited to three (3) minutes per speaker.

13. Purchase of Water Truck – Jason Dosch

14. Council Presentation on Agenda standardization- Town Clerk

15. Manager comments

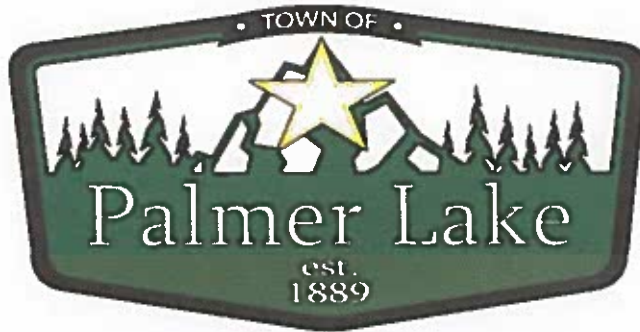
16. Executive Sessions

1. CRS 24-6-402 (4)(b) For the purposes of receiving legal advice on specific legal questions regarding liquor license transfers.
2. CRS 24-6-402 (4)(f) For the purpose of a personnel matter with the permission of the person that is the subject of the session.

17. Adjourn

Next Palmer Lake Board of Trustees Meeting will be held April 11, 2019

Please note: If you have a disability and need auxiliary aids or services, please notify the Town of Palmer Lake (719-481-2953) at least 48 hours in advance of when services are needed. The Town of Palmer Lake will make every effort to accommodate the needs of the public.



**RECORD OF MINUTES
THURSDAY FEBRUARY 28, 2019
PALMER LAKE TOWN HALL – 28 VALLEY CRESCENT**

Board of Trustees Present

- Mayor John Cressman
- Trustee Glant Havenar
- Trustee Paul Banta
- Trustee Gary Faust
- Trustee Bob Mutu
- Mayor Pro- Tem Mark Schuler

Staff Present

- Town Administrator Cathy Green
- Town Attorney Maureen Juran
- Finance Officer Valerie Remington
- Town Clerk Verla Bruner

Liquor License Authority

Mayor Cressman convenes into the Liquor License Authority at 6:04 PM announces the applicant Dex's Depot. Mayor Cressman states that due to some information we have not received he felt it would be best to re set the hearing until March 14, 2019 motion is made by Trustee Mutu to table Liquor License application until March 14, 2019 seconded by Trustee Schuler All Aye -Motion Passes (Trustee Banta recuses himself from voting)

1. Call to order

Mayor Cressman called meeting to order at 6:07 pm

2. Pledge of Allegiance

Pledge of allegiance- lead by Mayor Cressman

3. Roll Call

Trustee Mitch Davis -absent

4. Approval of Agenda

Trustee Havenar made motion to approve agenda seconded by Trustee Faust All Aye Motion Passes

5. Approval of Minutes from February 14, 2019

Trustee Faust made motion to approve minutes from January 24th, 2019 seconded by Trustee Havenar All Aye Motion Passes

6. Council Comments

Trustee Faust talks about his attendance in meeting with CDOT and was happy to see that they did not expect a huge impact on Palmer Lake traffic due to the GAP project.

7. Guest Speaker

Carl Brown with Getting Great Rates presents rate study findings, answers questions from council.

Trustees discuss a 5% rate increase annually and agree that would be the best course of action Mayor Cressman directs staff to have a resolution written approving water rate increase.

8. Approval for Checks over \$15,000

Trustee Faust makes motion to approve check for Mel Ro construction seconded by Trustee Havenar All Aye Motion Passes

9. Ordinance

Ordinance NO. 1 of 2019 An Ordinance of the Board of Trustees of the Town of Palmer Lake amending section 13.50.020 concerning mandatory connection to the public sanitary sewer system to allow an exception for lots of 5 acres or more within the service area of, and with the written permission of, the Sanitation District.

Mayor Pro Tem Schuler makes motion to approve Ordinance NO. 1 of 2019 seconded by Trustee Havenar Roll call vote:

- *Mayor Cressman- Yes*
- *Trustee Banta – Yes*
- *Trustee Havenar-Yes*
- *Trustee Faust- Yes*
- *Trustee Mutu- Yes*
- *Mayor Pro Tem Schuler- Yes*

All Aye Motion Passes

Unscheduled Public Comments

Darren Dawson with Awake the Lake addressed some of the recent concern's residents have had with their Nonprofit status that they hold, explained where they are and invited anyone that would like to look at the accounts that they would be more than happy to show them.

Carissa Gallardo inquired when the properties on County Line road will be asked to come into compliance with the New Ordinance, Mayor Pro-Tem Schuler responded explain the time frame and what has taken place.

Kathleen Wolford of 347 Largo Ave is asks as a formal request that the money raised for the Lantern Festival in 2018 be accounted for.

Mr. Kurt Ehrhardt of 813 Meadow Lane spoke about the Board of Variance and the need to review what their guidelines are.

Alicia Gatti with the Parks Committee spoke about the work the committee has been doing and how she appreciates the efforts.

10. Town Administrator/ Transition

Mayor Cressman announces that Cathy Green will be retiring soon and that him and the Trustee Davis as the Personnel committee have spoken to Valerie Remington and feel that she would be a good fit for the next Town Manager Trustee Faust believes that there are three options for succession planning:

- 1. Hire Valerie Remington as Town Manager*
- 2. Do a Local search and invite Valerie to apply as well*
- 3. Do a National Search and offer Valerie to apply*

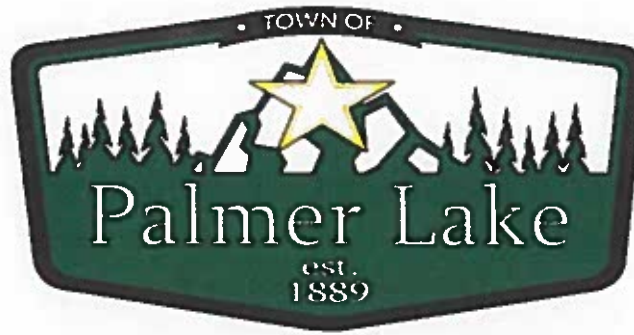
Entire board has open discussion regarding the hiring of the New Town Manager,

Trustee Faust makes motion to hire Valerie Remington the Town Manager on an Interim level for six months starting immediately seconded by Havenar All Aye- Motion Passes.

Adjourn at 8:11PM

Mayor John Cressman

Town Clerk Verla Bruner



Board of Trustees Summary Sheet

	Douglas Avenue
Title	Douglas Avenue Paving Project Notice of Award and Agreement
Action	Board Vote on two items
Date	March 28, 2019
Contact	Valerie Remington
Summary	The Douglas Avenue paving project advertised for bids and opened sealed bids in February. The apparent low bidder was Avery Asphalt, Inc. The bids were all submitted to CDOT and they have issued award notices to the Town of Palmer Lake approving Avery Asphalt as the contractor. The documents are the official notice of award and the contract with Avery Asphalt.
Issues	None
Budget Implications	The total project cost is \$596,292.00, a portion of which CDOT will pay and the Town will pay. The 2019 budget amount for this project is \$740,000
Other Actions	None
Motion #1	I make a motion to award the Douglas Avenue Roadway & Drainage Improvements CDOT Project #21150 to Avery Asphalt, Inc.
Motion #2	I make a motion to approve the agreement between the Town of Palmer Lake and Avery Asphalt, Inc. for the Douglas Avenue Roadway & Drainage Improvement CDOT Project # 21150.

NOTICE OF AWARD

To: Avery Asphalt, Inc.
7770 Venture Street
Colorado Springs, CO 80951

Project:

DOUGLAS AVENUE ROADWAY & DRAINAGE IMPROVEMENTS
CDOT PROJECT# 21150 (STE M026-033)

The Owner has considered the Bid submitted by you for the above-described work in response to its
Advertisement for Bids dated February 21, 2019

Avery Asphalt, Inc.

You are hereby notified that your Bid has been accepted Schedule Option _____ for items in the total
amount of \$ 596,292.00

You are hereby required to execute the Agreement and furnish the required Contractor's Performance
Bond, Payment Bond and certificates of insurance within fifteen (15) calendar days from the date of this
Notice to you.

If you fail to execute said Agreement and to furnish said Bonds within fifteen (15) days from the date
of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of
your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights
as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this 14th day of March, 2019.

By: _____

Title: _____
ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by:

this ____ day of ____, 20__

By _____

Title _____

Douglas Avenue Roadway &
Drainage Improvements
CDOT Project# 21150 (STE M026-033)

Contract Documents

CF-9



COLORADO

Department of Transportation

Division of Project Support

Engineering Contracts
2829 W. Howard Place, Suite 329
Denver, CO 80204

STE M026-033
Douglas Avenue Roadway & Drainage Improvements Project
Project Code 21150

March 7, 2019

Attn: Jason Dosch
Town of Palmer Lake
PO Box 208
Palmer Lake, CO 80133

Dear Mr. Dosch:

The Town's award of project STE-M026-033 (21150) to Avery Asphalt, Inc. is approved based on my review of the request for concurrence dated February 22, 2019, and supported by the associated financial statement along with the receipt of the following documents:

- CDOT Form 605, Contractors Performance Capability Statement
- CDOT Form 606, Anti-Collusion Affidavit
- CDOT Form 621, Assignment of Anti-Trust Claims and
- Documentation of conformance with CDOT DBE Contract Goal Policy

The reimbursement of Federal funds for this project is subject to the requirements of the Inter-Governmental Agreement (IGA) between the Town and the Colorado Department of Transportation. Any funding that may be required to complete the project beyond the funds approved under the IGA will be the responsibility of the Town.

Please be sure to include a copy of FHWA Form 1273 as part of your entity's contract with the above selected contractor. Your cooperation in this matter is appreciated.

Sincerely,

RB Simmons
CDOT Award Officer
PH: 303-757-9416

cc: Patricia Henschen, R-2
Region EEO Officer, R-2
Yehdego/Ngo, HQ-Accounting
Civil Rights
Central Files



COLORADO

Department of Transportation

Region 2

NOTICE TO PROCEED
Contract – 16-HA2-XC-00024

Date: March 7, 2019

PROJECT INFORMATION:

CODE: STE M026-003

NUMBER: 21150

SAP PO #: 400000992/40000870/400000548

DESCR: Douglas Avenue Roadway and
Drainage Improvements

Jason Dosch
Roads Supervisor
Town of Palmer Lake
PO Box 208
Palmer Lake, CO 80133

The option letter to authorize the design phase has been executed for Douglas Avenue Roadway and Drainage Improvements project subaccount # 21150, STE M026-003, PO 400000992/40000870/400000548; therefore, please consider this letter your Notice to Proceed. This authorization is effective **March 7, 2019**. You are hereby given permission to perform the work in accordance with the terms and conditions of the contract.

Important, please note: Work performed prior to the effective date or after the expiration date of the contract or FHWA end date, whichever comes first, may not be charged to CDOT and cannot be paid. The FHWA end date for construction is 12/31/2020. No phase costs will be reimbursed for work performed after this date.

In addition, any change in the character or complexity of the work must be discussed with CDOT Project Manager immediately.

If you have any questions, please call me at 719-640-6128 or email me at morrell@rocksol.com.

Sincerely,

Mike Morrell
Consultant CDOT Local Agency Coordinator



AGREEMENT

THIS AGREEMENT, made this _____ day of _____

by and between Town of Palmer Lake, hereinafter called, "Owner" and

Avery Asphalt, Inc.

hereinafter called "Contractor."

WITNESSETH: that for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the paving and construction of new concrete lined ditches along Sun Crest Road, Douglas Avenue and Forest View Road. Construction will also include new paving along limited portions of Trinidad Lane and Hilltop Lane and a stormwater pipe crossing and outlet structure at the southerly extents of the project, under Forest View Road. The construction will also entail the reconstruction of existing driveways and installation of new storm pipe crossings. The project will require the installation of approximately 2,627 LF of paved roadway with base course, rap/aggregate shoulders, concrete ditches, miscellaneous grading, and other work incidental for completion.
2. The Contractor will furnish all equipment, materials, supplies, labor and other services necessary for the construction and completion of the Project described herein.
3. The Contractor will commence the work in accordance with Contract Documents within 70 calendar days after the date of the Notice to Proceed and will complete the same within 70 working days, unless the period for completion is extended otherwise by the Contract Documents.
4. The Contractor agrees to perform all of the work as described in the Contract Documents and comply with the terms therein for the total sum of \$_____. Payments of said sum shall be based on approved monthly pay requests. \$596,292.00
5. The term "Contract Documents" means and includes the following:
 - (A) Advertisement for Bids
 - (B) Invitation to Bid
 - (C) Agreement
 - (D) Payment Bond
 - (E) Performance Bond
 - (F) Notice of Award
 - (G) Notice to Proceed
 - (H) Change Order
 - (I) Certificate of Substantial Completion
 - (J) Punch List
 - (K) Final Receipt
 - (L) General Conditions
 - (M) Supplementary Conditions

Douglas Avenue Roadway
& Drainage Improvements
CDOT Project# 21150 (STE M026-033)

General Conditions
CF-1

- (N) Special Provisions
- (O) Technical Specifications
- (P) Design Drawings
- (Q) CDOT Forms
- (R) Appendixes
- (S) Addenda:

No.: _____ Dated: _____

No.: _____ Dated: _____

6. The term "Engineer" shall mean Matrix Design Group, Inc., designer of the Project.
7. Each of the foregoing contract documents is incorporated herein, by reference, as though set out in full in this Agreement.
8. This Agreement shall be binding upon parties hereto and their respective heirs, executors, administrators, successors, and assigns.
9. This instrument contains the entire agreement between the parties, and no statement, or promises, or inducements made by any party or agent of any party that is not contained in this written contract shall be valid or binding; and this contract shall not be enlarged, modified or altered except in writing, signed by the parties.
10. General construction warranties and proprietary items referenced in this project manual shall not apply. Refer to Section 1.2 - CDOT SPECIFICATION REQUIREMENTS of the Special Provisions for further details about CDOT specifications on this project.
11. Contractor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this contract and that Contractor has confirmed or will confirm the employment eligibility of all employees who are newly hired for employment to perform work under this contract, through participation either in the E-Verify Program (which is the electronic employment verification program created and expounded by federal law and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or any federally administered successor program) the Department program [which is the program administered by the Colorado Department of Labor and Employment pursuant to and established pursuant to CRS §8-17.5-102(5)(c)]. Contractor shall not knowingly employ or contract with an illegal alien to perform work under this contract. Contractor shall not enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract.

In addition, Contractor:

- (a) shall not use the E-Verify Program or Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed;
- (b) shall notify the subcontractor and the Town within three days if Contractor has actual knowledge that a subcontractor is employing or contracting with an illegal alien for work under this contract;
- (c) shall terminate the subcontract if a subcontractor does not stop employing or contracting with the illegal alien within three days of receiving the notice (except that the Contractor shall not terminate the contract with the subcontractor if, during the three days, the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien); and
- (d) shall comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS §8-17.5-102(5), by the Colorado Department of Labor and Employment. If Contractor participates in the Department program, Contractor shall deliver to the Town a written, notarized affirmation, affirming that Contractor has examined the legal work status of such employee, and comply with all of the other requirements of the Department program. If Contractor fails to comply with any requirement of this provision or CRS §8-17.5-101 et seq., the Town may terminate this contract for breach of contract and, if so terminated, Contractor shall be liable for actual and consequential damages.

Note: If the addendum is not used, the foregoing language may be inserted into the body of a contract for public services to satisfy the requirements of CRS §8-17.5-101 and 102.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in (2 copies) each of which shall be deemed an original on the date first above written.

Owner:

Town of Palmer Lake:

By _____

Name: _____

Title: _____

ATTEST:

(SEAL)

Name: _____

Title: _____

Contractor:

By: _____

Name: _____

Address: _____

ATTEST:

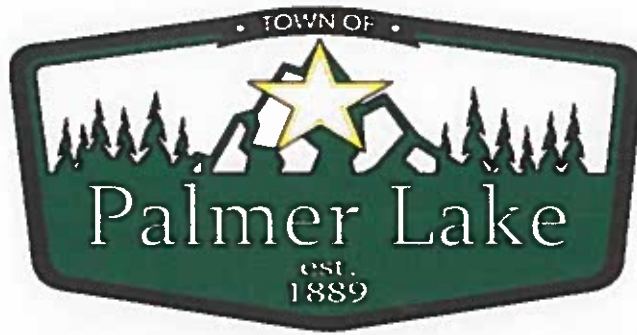
(SEAL)

Name: _____

Title: _____

Douglas Avenue Roadway
& Drainage Improvements
CDOT Project# 21150 (STE

Contract Documents
CF4



Board of Trustees Summary Sheet

	Resolution 4 of 2019
Title	A Resolution of the Board of Trustees of the Town of Palmer Lake, Colorado, Setting and Increasing the Water Tap Fees, Water Base Rates and Water Usage Rates for the Town
Action	Board Vote
Date	March 28, 2019
Contact	Valerie Remington
Summary	This is a follow up to the rate study which recommended that tap fees, base rates, and usage rates be increased to meet the costs of operating. This resolution increases rates each year for 5 years.
Issues	The cost of producing water, maintenance on the water system, and required infrastructure replacement has been increasing at a rate that exceeded our revenue. This recommended increase, with additional increases over the next 5 years should help the Town keep up with the financial requirements to run a water system.
Budget Implications	Additional revenue will be added to the enterprise system.
Other Actions	None
Motion #1	I move to approve Resolution # 4 of 2019, A Resolution of the Board of Trustees of the Town of Palmer Lake, Colorado, Setting and Increasing the Water Tap Fees, Water Base Rates and Water Usage Rates for the Town.

PALMER LAKE, COLORADO

RESOLUTION NO.4 OF 2019

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE, COLORADO, SETTING AND INCREASING THE WATER TAP FEES, WATER BASE RATES AND WATER USAGE RATES FOR THE TOWN

WHEREAS, pursuant to § 31-35-402(1)(f), C.R.S., the Town of Palmer Lake possesses the authority to prescribe, revise and collect fees for providing water service; and

WHEREAS, by Ordinance 5 of 2018, as codified in Section 13.02.020 of the Town of Palmer Lake Municipal Code, the Town has provided that the water base rates, tap fees and usage fees may be set by resolution of the Board of Trustees ("Board"); and

WHEREAS, the Board engaged a third-party consultant to review the Town's water utility rate structure and to make recommendations to the Board to ensure that the Town is adequately funding existing operations, equipment repair and replacement, other capital improvement plans and debt service; and

WHEREAS, based on recommendations presented to the Board at its February 28, 2018 meeting, the Board has determined that the water tap fees, water base and water usage rates for the Town should be modified and increased as needed to meet the financial demands of operating the system and servicing existing debt related to the system's capital improvements and to provide for adequate reserves for future capital needs; and

WHEREAS, the Board finds that the immediate revision of water tap fees, water base and usage rates will promote a financially sound water system, promote conservation of supplies, and promote the provision of adequate water to the Palmer Lake community, and will thereby promote the health, safety and general welfare of the Palmer Lake community.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE, EL PASO COUNTY, COLORADO:

Section 1. Water Tap Fees and Monthly Base Rate. In accordance with Section 13.02.020(A) of the Municipal Code, all water tap and service connections to the Town's water system shall pay one time tap fees (for new taps only) as follows, and, commencing with the next billing cycle following approval of this resolution, all customers shall pay monthly base rates dependent on tap size and meter type as follows:

<i>Tap Size in inches</i>	<i>Meter Type</i>	<i>Tap Fee (System Development Charge)</i>	<i>Monthly Base Rate (minimum monthly charge)</i>
.625	Displacement	\$ 10,000.00	\$62.27
.750	Displacement	\$10,000.00	\$62.27
1	Displacement	\$18,318.00	\$81.60
1.5	Displacement	\$32,181.00	\$113.82
2.0	Displacement	\$48,816.00	\$152.48
2.5	Displacement	\$73,768.00	\$210.48
3.0	Singlet	\$93,176.00	\$255.59
3.0	Compound, Class 1	\$93,176.00	\$255.59
3.0	Turbine, Class 1	\$101,494.00	\$274.92
4.0	Singlet	\$143,082.00	\$371.58
4.0	Compound, Class 1	\$143,082.00	\$371.58
4.0	Turbine, Class 1	\$176,352.00	\$448.91

The fees and rates set forth above shall be subject to annual adjustment in January of each ensuing year (commencing y January 2020) by a 3% inflationary factor.

Section 2. Water Usage Rates. In accordance with Section 13.02.020(B) of the Municipal Code, all water sold by the Town shall be sold at the following monthly 1000 gallon usage rate:

Monthly Water Usage Rate:

Volume Range	Unit Charge/1,000 gallons
0-4,999 gallons	\$ 7.37/1,000 gallons
5,000-9,999 gallons	\$8.84/1,000 gallons
10,000 and above gallons	\$10.61/1,000 gallons

The rates set forth above shall be subject to annual adjustment in January of each ensuing year (commencing y January 2020) by a 3% inflationary factor.

Section 3. Severability. It is hereby declared to be the intention of the Board of Trustees of the Town of Palmer Lake, Colorado that the sentences, clauses and phrases of this resolution are severable, and if any sentence, clause or phrase of this resolution be declared unconstitutional or invalid by the valid judgment or decree of Court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining sentences, clauses or phrases of this resolution since the

same would have been enacted by the Board of Trustees without the incorporation of any unconstitutional or invalid sentence, clause or phrase.

INTRODUCED, READ, AND ADOPTED AT A DULY NOTICED REGULAR MEETING OF THE TOWN BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE by a vote of _____ in favor and _____ against, this ____ day of March, 2019.

JOHN CRESSMAN, MAYOR

ATTEST:

VERLA BRUNER, TOWN CLERK

January 8, 2019

John E. Cressman, Jr., Mayor
Town of Palmer Lake
P O Box 208
Palmer Lake, CO 80133P

Subject: Water User Charge Rate Analysis Report

Dear Mr. Cressman:

Before I address the report package, I have some observations for you.

Rate analysis is data intensive, using large volumes of information and many kinds of data. I did not gather much of that data myself. Valerie Remington, your Finance Officer and Human Resources Director, did most of that work. Ms. Remington was so fast and accurate at gathering data and giving me guidance and input. She was wonderful to work with. The Town and its customers are very lucky to have her serving them.

Another observation: The Town is on the right track in many respects concerning rates. You recently increased debt service payments and got very close to fully funding the longer-term needs of the utility. You already have a conservation rates structure, which I commonly recommend in situations like yours. You are doing well. The analysis that I did and the rates that I recommend you adopt should help you get even closer to what I like to call, "great rates."

Now, to the report. Do not feel like you must understand or pick up on everything right away. Rate analysis is complex. When the Board is ready to consider the results and my recommendations, I will attend a Board meeting to go over everything you care to discuss. At that meeting, you, the Board, staff and the public (if that meeting is open) will probably learn many things about what needs to happen to your water rates and why. Knowledge of the facts goes a long way toward doing what needs to be done, even if that means paying higher rates. I look forward to that meeting and getting the Town started down that road.

Finally, I am sure you and the Board members know of other cities and districts that also need rate setting help. As you run into these folks at rural water association meetings and other venues, I hope you will tell them about my services. I get much of my business by referrals from past clients and I hope to be able to trace several future clients back to my work with Palmer Lake.

Best regards,
GettingGreatRates.com



Carl E. Brown
President

Enclosure

Palmer Lake, Colorado

Water Rate Analysis Report

Prepared January 8, 2019

Carl Brown, President
GettingGreatRates.com, LLC

Executive Summary

Analysis determined that to pay for current and soon to be incurred costs and maintain a positive water fund balance, overall, water rate revenues need to go up by 41.2 percent, as compared to the test year rates. However, the Town raised rates last year, so bill increases for most customers will be 21 percent or less. The bigger issue is rate structure fairness. The unit charges are well below being in a "cost-to-serve" structure, so bills for higher volume customers need to rise more.

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Introduction

Palmer Lake, Colorado, later called “the Town” or “you,” hired GettingGreatRates.com, later called “me,” “we” or “I,” to perform rate analysis of its water utility, produce a report of my findings and recommendations and provide guidance on rate setting.

Overall, water rate revenues need to go up somewhat substantially, at an average of 41.2 percent as compared to the test year (2017) rates. However, that is misleading. The Town increased rates rather substantially in 2018, to cover the added debt service it recently incurred for system improvements. Thus, when compared to the now current rates, the full-cost rates I calculated do not need to rise nearly so much.

“Test year” is the one year period from which data was used as the starting place for the analysis.

Having adequate rates is rate setting job one. But, having fairly structured rates is very important, too. Cost-to-serve rates are the clearest way to achieve both goals, thus, I am recommending such rates. Based on the nature of your costs, the basic minimum charge is nearly high enough, but unit charges are too low. That rate restructuring will cause bills to low-volume, small meter customers to rise slightly, while high-volume, larger meter customers’ bills will rise more.

I also recommend lowering the volume tiers at which the conservation rates “kick in.” That is because, currently, the first conservation rates tier does not start until 15,000 gallons. Only 0.3 percent of the customers use that much volume and only 19.5 percent of the total volume exceeds that level. The result is, your conservation rates have little opportunity to actually encourage conservation. The structure I recommend will better match the usage pattern of your customers.

As to the analysis methodology, this report is the culmination of a process where I submitted information and data requests to Valerie Remington, Finance Officer, Human Resources Director for the Town. Ms. Remington replied. We went through several iterations of this step. I subsequently modeled the Town’s finances and rates using that data and submitted those items for review and feedback. Ms. Remington reviewed those draft submittals to assure accuracy, and in some instances, she corrected data.

With that feedback, I prepared and submitted a draft full report. Again, Ms. Remington reviewed and gave me feedback, from which I revised the full report slightly to arrive at this final report.

The report is in two parts. The first is this narrative report that tells readers what should be done to the utility’s rates and why. The second is a printout of the modeling spreadsheet, called “Palmer Lake, CO; Water Rates, Scenario 2019-1,” and later just called, “the Model.” The Model contains the rates I recommend.

The Model is a set of integrated calculations that mathematically depict the utility’s situation to arrive at a set of rates. A few tables from my modeling template were left out of this report. That was not an oversight. Those tables were not required for the calculation of your rates.

As you read this report, please keep this in mind. The report does not *direct* the Town to do anything. Actions you take or do not take are strictly up to you. The report is meant to inform and educate so you can then make well-informed decisions about actions to take. And the report and models are not legal recommendations. For legal issues consult your attorney.

Finally, a note about meter sizes and the rates.

You already have meter size-based system development (connection) fees. That is a good practice. I recommend you also assess meter size-based minimum charges from a five-eighths inch water meter up to a four-inch meter. (I calculated rates for larger meters, too, but because you currently have no meters larger than three inches, in the interest of brevity and preventing confusion, I left larger meters out of this report.)

Why different rates for different meter sizes? Quite simply, “big” customers cost the utility more, in terms of capacity-to-serve. Thus, “big” customers would be assessed higher minimum charges to recover part of those higher costs.

The same notion can be applied to system development costs. In fact, I was quite pleased to discover that your current meter size-based system development fee structure, for a certain level of cost recovery, is quite close to a cost-based structure. I will expand that discussion in a later sub-section.

Rate Setting Resources Beyond This Report

Over the years, I have found that several topics are common to lots of utilities. Others can be important to a particular utility at a particular time. I used to specifically write such things into each rate analysis report. Now, I cover such things in separate guides, all available for FREE download at <https://gettinggreatrates.com/freebies/freebies.shtml>. Following is a brief listing of several guides and resources:

1. How to Get Great Rates© (e-book)
2. Rate Setting Issues Guide©
3. Replacement Scheduler©
4. CIP Scheduler©

The first two give guidance on rate setting. The last two are spreadsheet applications that enable users to build their own equipment repair and replacement and capital improvement schedules, calculating their costs and calculating revenue needs to pay those costs. In fact, these spreadsheets were extracted from my model template and made a bit more user-friendly for do-it-yourselfers. You will see these same sheets in the Model in this report.

There are other guides and resources on that site. All are FREE, so I invite you to check them out.

Cost-based Rate Calculations

To give you a synopsis of rate analysis, as I do it, and to make it easier for you to read and understand my findings and recommendations, a tutorial on my methodology is in order.

When I analyze rates for a government-owned water-based utility, and other utilities that are empowered to assess cost-of-service rates, I use the cost-needs approach. The approach is

exhaustively described in the American Water Works Association's "M1 Manual, Principles of Water Rates, Fees and Charges," Seventh Edition. This manual, in use since the 1960s and periodically updated, is considered by many to be the "Bible" of water rate setting best practices. The cost-needs approach is a static (one year) rate calculation. I enhance that approach by projecting costs and revenues into the future.

Rate Analysis, in a Nutshell

At its simplest, rate analysis helps a utility arrive at rates and fees that are adequate – they will pay all the utility's costs. The next level of complexity is to arrive at rates that, on an average cost basis, will enable the utility to recover fixed and variable costs "fairly." Most small water and sewer utility need analysis only to this level of complexity – doing more results in rates that are overly complex.

Another level of complexity includes calculation of meter size-based minimum surcharges and system development (connection) fees. Another includes calculation of rates on a "marginal" cost basis, for special groups of customers. Yet another level is marginal cost basis calculation of rates for individual customers, such as a wholesale customer. These facets of analysis result in accurate but complex rate structures; appropriate for larger utility with diverse customers.

Analysis can and should provide a sound basis for advising the utility to "go or don't go" concerning various actions it might take. Some of these actions are purely financial. Some, like the decision to enter into, or not enter into, a wholesale supply agreement, for example, include "hassle factor" and other non-financial issues.

The cost-needs approach results in rates that are called, "cost-to-serve" or "cost-of-service" rates. Simply stated, the costs for a targeted time period, usually in the near future, are classified as "fixed," "variable," "capacity-to-serve," or some combination of the three. Fixed costs are converted to a minimum charge. Variable costs are converted to a unit charge. Capacity costs are converted to some combination of system development fees and surcharges to the minimum charge.

The classification process is done in Table 8, page 37. The "Average Fixed Cost/User/Month" from Table 8 of the Model is used for calculating the base minimum charge. Also, from that table, the "Average Variable Cost to Produce/1,000 gallons" is the basis for calculating unit charges.

The second cut at rate structuring is to arrive at capacity costs. These were calculated in Table 11, page 40, and were distributed as system development fees in Table 13, page 42, and surcharges to the minimum charge in Table 15, page 44. The capacity "share" of costs of each meter size is based upon the calculated shares in Table 12, page 41. This table derives from American Water Works Association studies of the maximum sustainable flow capacity of different water meter sizes and types.

The third cut is to project costs ten years into the future. Generally, this is done by applying an expected inflationary factor to each cost. Some expenses, like postage, treatment chemicals and electricity, rise with inflation plus growth in the customer base or use. Those were increased in future years by both factors. And, because the Town gave me projected budgets for 2018 and 2019, I used those incomes and costs, except for those incomes and costs that were determined in the course of this analysis.

The fourth cut is to set reserve goals and project those through the tenth year. Those goals will only be met if (primarily) rates are set high enough and/or (secondarily) grants and subsidized loans are large enough to enable the utility to generate net revenues.

The fifth cut is to arrive at the full suite of rates needed to fully fund the utility. This is a dynamic set of calculations, too complex to completely explain here. I will leave out some details. The "Cliff's Notes" version is this:

- The calculated bases for fixed costs and variable costs (Table 8) establish a ratio of the revenues that each rate component would generate in a cost-to-serve structure.
- To increase overall revenues to a target, each revenue stream is increased by the same percentage. Thus, the revenue streams remain in the same ratio to each other. They retain their cost-to-serve proportions.
- Once the overall revenue increase need is established, the base minimum charge is "back calculated" from the minimum charge revenue stream. The unit charge is "back calculated" from the unit charge revenue stream. The resulting rates are the starting rates, what you will (hopefully) adopt initially. In later years, you will increase these starter rates and fees across-the-board by an inflationary factor, to keep them tracking with rising costs.
- Of course, system development fees, minimum charge surcharges, investment earnings, penalties collected, and other income sources generate smaller revenues, which are added to rate revenues. And, I assumed future inflationary rate increases, so those revenues are added over the years, as well. Without explaining the details, you should have a sense that, while the math is complex, the rates are calculated to be proportionate to the costs each customer causes and the revenues will be adequate to cover all costs for the next ten years. That is, if our projection of costs and other things turn out to be accurate.

Cost-to-serve rates are considered by many, including me, to be the most mathematically fair and defensible rate structure. However, there are often good reasons to adopt rates that are at least somewhat different from true cost-to-serve rates.

I usually recommend meter size-based minimum charges composed of two parts:

- One is the basic cost to make any level of service available to any customer. These are the so-called, “fixed costs” that come from the classification exercise. Billing, general administration and similar costs that are the same for all customers, regardless of “size,” make up the base minimum charge. To make it easier to understand this concept, and related concepts, I use catch phrases. For this type of cost, the phrase is: *Fixed costs are related to the fact that you have customers.* For every customer, you incur one increment of this type of cost.
- The other part of the minimum charge is a surcharge intended to recover all or part of peak flow or unusual capacity costs. These are almost always based upon water meter size because the larger a meter is, the greater is its capacity to sustainably pass peak flows (as determined by American Water Works Association studies). This peak flow capacity relates well to the cost of building infrastructure “big enough” to handle peak flows. *Capacity costs are related to the fact that a particular customer has a certain capacity to demand flow or service, regardless of how much flow or service they actually use.* The surcharges are added to the base minimum charge to arrive at the surcharged, or full minimum charge for each meter size.

With this structure, the smallest meter size customer ends up paying the lowest minimum charge. As meter size goes up, a larger capacity surcharge is added to the base minimum charge resulting in ever higher total minimum charges for larger meter size customers. Remember: It’s not just how much water such customers use that determines how much they cost the utility. It’s how big and robust they cause the utility to be built, because the utility must be built robust enough to handle their maximum demand should they someday draw it.

Unit charges are related to the volume of service received. While unit charges can be structured in various ways, the revenues they generate should be adequate to pay those costs that are related to the flow that customers actually use.

There are three main unit charge structures that I recommend in different situations:

- Some systems need “conservation rates,” or, their administrations simply like the notion of encouraging customers to use less of the utility’s services. In this rate structure, the unit charge goes up as volume used goes up. Most of us respond to, or at least we think twice about it, when we are assessed a higher price to buy more of something. Conservation rates are most appropriate in areas with limited water supplies or in a utility that is bumping up against its capacity to produce water.

The City currently assesses conservation rates and I recommend you stay with that structure, albeit, in a structure more in tune with use by your customers.

- Most systems use, and should use, level unit charges – a unit charge that is the same regardless of how much volume a customer uses. With level unit charges, customers are assessed unit charges on an average unit cost basis. Such rates are the easiest to calculate, they are the easiest for a clerk to explain to a complaining customer on the phone and the revenues such rates will produce next year are the easiest to accurately predict. I like to tell most of my clients that if they are going to err either on the side of complex rates that precisely assess costs to each customer or simpler rates that round off some of the accuracy corners but are easier to administer, choose simple rates. Most water and almost all sewer service is assessed using level unit charges.
- The last major unit charge structure is called, “declining” rates. These are the reverse of conservation rates. I often call them, “use encouragement” rates. It is popular these days for many to belittle those who do not conserve resources at every opportunity. Declining rates are often scorned for that reason. However, if a system has an ample water supply and ample infrastructure to produce and distribute it, doing so will not cause unintended bad (mostly environmental) consequences; and if the governing body wants to encourage high use (which often entails such users hiring more or better paid workers), declining rates make good sense. Declining rates are most appropriate in areas that have a high concentration of high water using industry or in an area where folks want to attract such users.

For the techie reader, the analysis model we use – a Microsoft Excel spreadsheet application we call, “CBGreatRates” – is usually 3.8 mega-bites in size. Each rate analysis includes one of these sheets.

For a 1,000-connection utility, for example, we use another spreadsheet, 12.1 mega-bites in size, to sort and calculate customer volume use. We use one of these sheets for each rate class. There are usually five or so for the simplest rates. Each of these sheets is linked to the client's usage data file, usually a few mega-bites in size, for importing usage data. Thus, an analysis for a 1,000 connection utility totals 65 or so mega-bites in size.

For some of our larger client utilities with more rate classes and more customers, total size of all the linked spreadsheets runs over 250 mega-bites. We run computers with lots of RAM and memory but some of the calculations for a larger utility can take around 90 minutes to run. When usage data sheet runtimes get long we usually switch to a database format application to speed up the heavy number crunching.

To complicate the aforesaid just a bit, rate setting is, indeed, about recovering costs. Job one of utility rates is to pay the utility's costs. But usually proper rate setting is also about building adequate reserves; funding a capital improvements program (CIP); catching up on needed equipment repair and replacement (R&R); and covering similar needs. Thus, these soon-to-be-experienced costs or likely-to-be-experienced costs need to be factored into rates and fees, as well. Because time marches on and costs usually inflate over time, rate setting should take into account the need for future incremental increases to cover inflation. And, you cannot just assume that because the utility needs more revenue that your ratepayers will be glad to pay higher rates. Rate affordability, and the public's perception of affordability, must be addressed, too.

Even the simplest rates situation requires some complex and integrated calculations to account for these factors. For that reason, I build a spreadsheet for each analysis that depicts, in virtual reality, the utility's real-life financial and rates situation.

These models are dynamic. When the initial rate increase is set higher, future inflationary increases can be lower. When minimum charges are set lower, unit or other charges need to be set higher to make up the shortfall. When system development fees are assessed, the utility's other charges can be lower. When future expenses need to be higher, or lower, or of a different nature, the Model adjusts rates and fees accordingly. Such modeling enables me to do dynamic "what-if" scenario calculations. That enables me to arrive quickly at the "best fit" rates for the utility.

Coincidentally, such a dynamic model makes it easy to calculate rate and other changes over the next two or three years, too. If a change does not affect the cost structure drastically, I can do the same for almost any cost change. If, one, two or three years from now, you discover your costs or incomes will be different from what I had assumed, you can call me up, tell me what is different, I'll enter the changes into the Model and re-run the rates. If the change is small and quick to model, I do that for no charge. If it is more complex and will take some time, I do those projects on an hourly basis, which usually works out to an additional fee of \$500 – \$1,000. Some of my clients find that to be a very accurate and cost-effective way to maintain good rates.

Two final thoughts on the rate modeling and adjustment topic:

- Almost always, rate adjustments include bill increases. Thus, time is money, often big money, to the utility. A rate increase delayed is a rate increase that must be even higher to reach the same reserve target. Get to know this report well but do not spend months mulling it over. Time will not make your rate setting task easier. Proceed deliberately but quickly and make the needed changes. If you cannot make all the needed changes at the same time, make those that you can as soon as you can.
- You will get complaints about customers' bills going up. In my experience, most of the time, when the math is laid out for all to see, most people are understanding. Cost-to-serve rate analysis does not arrive at unfair rates. It arrives at fair rates. The degree by which some customers' bills change highlights the fact that rates are unfairly structured right now.

Please keep the above summary of cost-based rate calculations in mind as you read on.

Principles

I use several guiding principles when I help systems set their utility rates, fees and policies. As you read the report and models, keep in mind that my recommendations have been weighed against these principles:

1. Water, sewer and all other utilities are businesses, regardless of who owns them. Businesses must cash flow properly. Otherwise, they go out of business and your customers do not want that.

2. In addition to functioning in a business-like manner, a utility has a responsibility to its customers to strive to guarantee its long-term prosperity for their benefit. The customers expect the service to be there whenever they want to use it. Thus, a utility must err on the conservative side by building and maintaining strong reserves that will enable it to weather financial storms.
3. If a service costs the utility money, the utility should recover that cost from the most logical "person" if that makes good business and community administration sense. For example, generally "growth should pay for growth." Developers should fairly pay for their consumption of utility capacity by paying commensurate system development fees. Likewise, service users should pay for what they use. Each user or class of users should pay their fair share of service costs.
4. Sometimes contradicting point 3 above, if adjusting a rate, fee or policy will turn currently "good" customers into "bad" customers, or discourage development that the community desires, consider the necessity of the change carefully before making it. For example, while it may be warranted, raising the minimum charge markedly to your residential customers may make it very difficult for fixed, low-income customers to pay their utility bill. That may cause more of them to pay late or not pay at all. That may trigger the utility's attorney to write collection letters to those customers and eventually require shutoff of service. Thus, in the attempt to generate more net revenue by raising rates, net revenues may go down due to non-payment and payment collection costs. Likewise, stifling development with uncompetitive system development fees costs a utility in the form of additional paying customers. That forces existing customers to pay all the costs of the utility rather than sharing them with new customers.

General Issues

Concerning construction of the Model, it was built to match the system's actual financial statements and other data as much as possible. However, the intent of rate modeling is to see to it that the resulting rates are adequate to pay all system expenses for the next ten years, build and maintain responsible reserves and collect fees from customers on a fair basis. Because incomes and expenses in standard financial statements, and other data, are seldom grouped in such a way as to enable the required rate calculation methodology, the Model does not always match your statements.

For modeling purposes, it does not matter whether funds are held in the general system account, a debt service sinking fund, repair and replacement fund, etc. Therefore, the Model accounts for funds in a more simplified way than you probably will. When it comes to segregating funds, staff knows best how to do that, so the Model does little in this regard and leaves the segregating up to staff.

Several line graph charts in the Model graphically depict some things which would be difficult to pick out of the tables. In all the charts, the **blue line** represents what would happen under the **recommended** rates and the **red line** under the **current** rates. Financial trends for the red lines are (generally) bad. Those for the blue lines are (generally) good. Review the definitions section of the Model, to learn the meaning of terms used in the charts.

I will say it simply, like this. Chart 8 depicts reserve levels under the existing rates (red line) and the modeled rates (blue line). When the blue line goes up, that is a good thing for the utility. When the red line goes down, that is a bad thing, at least, if you decide to keep your current rates. If either line is headed down toward zero, that is a very bad thing that needs to change by reducing costs, if you prudently can, or increasing rates.

In contrast to Chart 8, Charts 3 and 4 in the Model depict user rates. When the Chart 3 and 4 blue lines go up, meaning rates are going up, customers don't like that. But the utility will be better funded as a result of those higher rates and that benefits ratepayers because it makes their utility more resilient and able to make improvements that will serve them better.

One thing you will notice in viewing the charts in the Model is this. Sometimes, only one of the lines shows up. When that occurs, it means that all the lines are taking the same path (one line is covering up the others). For example, sometimes Chart 5 shows only one line – the working capital goal amount. When that happens both the current rates and the modeled rates' net revenues are adequate to satisfy the goal, so those two lines are hidden by the line for the goal. That is because, in the Model, I programmed all funds that exceed what is needed to meet the working capital goal to "spill over" into the CIP and Debt Service fund reserve. When that happens, rest assured, the other two lines are underneath the goal line and that is a good thing.

Charts 6 and 7 can do the same thing, making it seem like the current rates are "just as good as" the modeled rates. But, Chart 8 will spell the difference between the two sets of rates. The modeled rates will generate more revenue and, thus, produce stronger total reserves. Since the working capital reserve gets truncated at a certain level, the differences in the total reserves show up in the CIP and Debt Service fund balances. These balances appear near the bottom of Table 6, page 35, and they are included in the Chart 8 amounts on page 52.

As you set and later reset rates, I suggest you follow the guidance I give in my book, "How to Get Great Rates." I gave a copy to Ms. Remington so check with her about reviewing it. Also, use the rate setting resources I mentioned earlier.

Action Recommendations for Policy and General Issues

Use the following as a checklist of “to-do” tasks. Many if not all these things you are already doing but they bear repeating:

1. Periodically determine how long, on average, it takes to perform the various services you provide in the field, such as after-hours service, meter disconnects and reconnects, special meter readings, etc. Be sure to include all the time you actually pay staff for performing these services. Then determine how much it costs the utility per hour, on average, to have staff perform these services. This includes benefits, taxes, use of utility vehicles, tools and minor equipment, etc. It should also include a fair amount to cover the time that office staff devotes to working on these services to track them, bill for them, etc. This should be the hourly rate or a set fee you will charge for these services. In addition, set a minimum that you will charge for showing up, whether the service takes an hour to perform or 10 minutes. In essence, set your fees in the same way plumbers and similar technicians do – a set fee for showing up, which buys the customer a set amount of time, and an hourly rate if the job takes longer than the show up charge will cover. While accounting for time and other investments in the various functions is important, do not make the process burdensome. For many functions you likely can just estimate your time occasionally and charge fees based upon those estimates.
2. Retain required funds in interest bearing debt service and debt reserve accounts when required by your lender(s).
3. Have me conduct a full rate analysis again when the actual financial performance and my projection of future performance diverge significantly. Conditions should dictate rate analysis frequency.
4. Fully adopt management strategies that are included in what is most commonly called, “advanced asset management.” These strategies can yield better service and reduced costs for a utility, especially those looking to build new facilities or replace existing facilities soon.
5. Track volume usage, incomes and expenses on a regular basis so the data and information you generate will support future rate analyses.
6. As a reminder, check with your attorney for language and legality of all charges and issues discussed.

The remainder of this report directly addresses the analysis findings and my recommendations.

Water Rates Discussion

Expected Incomes

Table 3, page 30, shows incomes to expect. A few incomes deserve discussion.

In Table 3, near the top, on the line called, "Rate Increases Projected for Future Years," note that I show no across the board rate increase in 2019. That is because rate adjustments for this year will not be on an across the board basis and they are calculated later in the Model.

However, starting in 2020, I assumed you would increase all major rates and fees by 3.0 percent. This is the rate of inflation I assumed for most costs, so future increases were modeled to match inflation in the costs to own and operate the system. Later, I will recommend "initial" rate adjustments. But in future years you will need to increase all major rates and fees by the inflationary factor to keep incomes rising in concert with inflation.

Lower in that table are a couple of yellow highlighted rows that cover system development fees and water meter sales revenues, both related to new connections. As mentioned before, you will have no such revenues until the new connections moratorium is lifted on your sewer service provider.

On the row called, "Revenue Loss Because Rate Adjustments Made # Months Late," I assumed you will adopt the recommended rates and begin collecting at those rates three months into 2019. Thus, the full year increased rate revenues calculated by the Model needed to be reduced to account for the late start with the new rates.

On the last income line called, "Revenue Loss (-) Due to Conservation," I assumed that lowering the volume levels at which you assess conservation rates, and the increased unit charges generally, will "cost" the utility five percent of the total rate revenues. That is approximately ten percent of unit charge revenues. Simply put, when you raise the price of something, customers buy less of it – they change their purchasing habits. This line reduces the total income to be generated by the new rates, so the final rates are commensurately higher to make up for that shortfall.

Expected Operating Costs

Table 4, page 31, shows expected operating costs. A few costs deserve discussion.

The first row of this table is the salary cost of system staff. Several following rows cover staff-related costs. Ms. Remington informed me that, due to escalating regulatory requirements, it is likely the system will need to hire an additional operator in 2019, and another in about 2024. These additional operators will cause two "jumps" in salary and related costs. Costs for those years are highlighted in green.

A bit lower in the table, utility and postage costs will begin to increase not only by inflation, but also by growth starting in 2023, when the new connections moratorium is expected to be lifted. Thus, these costs will grow by inflation and by the growth rate in new connections, too.

Several costs which you include in your operating budget are for debt service and capital improvements. On those rows, instead of showing dollar amounts, I show "Table 5." That means, I moved those costs to the table that covers capital improvements and debt. I did that to accurately calculate operating and coverage ratios in Table 17, page 46. Thus, those costs are in the Model, but accounted for differently than the way you do it.

Finally, the cost item called, "One-time Reduction of R&R Annuity" means this. The repair and replacement schedule in this Model started in 2017. But, you did not and still do not budget for R&R expenses in this way. Thus, during the first two years and one partial year during which you did not and will not have budgeted in that way, I reduced the annual annuity to account for that.

Capital Improvements

Capital improvements and debt are covered in Table 5, page 33. The Town plans to finish some substantial, already-started improvements. Debt is already in place for those things. The Town also has need of a new well. That will require new debt issuance. There might be other substantial capital improvement needs surface over the years, but those mentioned are the only ones included in the Model.

I assumed that the new well would be 100 percent funded with a State Revolving Fund (SRF) loan. That has rate affordability effects, to be discussed later.

In the "Existing Debt Payments" sub-section, I listed an item called, "20-81-3600 Fund Reserve Account." This is not debt, but a "payment" you will make to the CIP and debt service reserve account each year to build, primarily, debt coverage reserves. Thus, in the "Cash Reserves" sub-section, I "deposited" that amount each year, so these payments will fund up that reserve.

Actually, the rates I calculated will be high enough that you will be able to deposit a bit more than \$30,000 each year. But, I listed this item specifically to bring home the point that you should build a substantial CIP and debt coverage reserve. Your lender wants you to do that. And, I feel sure that new capital improvement needs will crop up over the years that have not been modeled and you may as well prepare for that likely event by building reserves.

System Development Fees and Capacity Surcharges

As mentioned before, the Town has a meter size-based system development fee program in place. That is a good practice. Unfortunately, growth will likely be stymied for a few years. That is because the sewer system that serves the Town is under a new connections moratorium by the permitting agency. Ms. Remington and I estimate that moratorium will be lifted in about 2022 and growth will resume at an average of five new connections, starting in 2023.

System development fees are calculated in Table 14, page 43. Revenues expected from these fees are shown in Table 3, page 30. You will note that there will be no such fees until 2023.

Minimum charge surcharges, later just called, “surcharges,” should also be used to recover capacity costs, so I modeled such surcharges to pay for system improvements on an on-going basis. Surcharges for peak capacity costs were modeled on a water meter size basis, and base capacity costs on a minimum charge surcharge basis, as further described in the following:

1. You should assess surcharges that recover those capacity costs not recovered with system development fees to new connections. That will be most such costs. I calculated these surcharges such that, each meter size would be assessed peak capacity costs based upon the sustainable peak flow capacity determined by AWWA studies. Those calculations and resulting fees appear first in the bottom left corner of Table 11, page 40. Peak capacity surcharges are calculated in Table 13, page 42. Base capacity surcharges are calculated in Table 15, page 44.
2. Customers outside of the Town, if there were any, would be assessed double the costs that are called, “Monthly Peak Capacity-only Costs (Surcharge per Capacity Share, Including Out of Town Multiplier)” and “Adjusted Field and Admin Costs (Fee) per New Connection.” Both are shown in Table 15. But they would be assessed the same basic administration and fixed costs as in-Town meters would be assessed, because those costs remain the same or about the same regardless of location.
3. Likewise, for base capacity costs in Table 15, out of Town customers would be assessed double the capacity costs but the same fee for basic fixed costs.

System Development Fees

In this report and elsewhere, you will see the terms like “tap fee,” “tap-on fee” and “connection charges.” There are other names for these and similar fees. I call them, “system development fees.”

Most small systems set such fees anecdotally, and almost always too low, as well. They almost never attempt to recover the full cost of the infrastructure capacity they dedicate to each customer when they authorize them to “tap on.” Rarely do they even have much of an idea what that capacity costs.

Failing to assess development costs to development is a problem because with each dedication of capacity to customers, the capacity of the utility gets “used up.” That hastens the day when new capacity must be built. If that capacity cost is not assessed to those who cause it, it will be assessed by default to all customers. That forces existing customers to subsidize development, and that is a rate structure fairness issue.

I recommend you handle system development costs with a combination of system development fees and surcharges to minimum charges based upon meter size. **And, in your ordinances and elsewhere: call such new connection charges by the name, “system development fees.”** This descriptively tells developers and new customers what they are paying for. It is not just an arbitrary fee. They are actually buying something of great value. Then, **assess as much of the full cost of system development as you can and still be competitive with comparable systems.**

Later in this report when you see “tap-on fee” and those other terms, think, “system development fee.” And when you talk with customers and others about this fee, make sure they know this is not just “government assessing another kind of tax.” This is a utility having customers fairly pay for what they are buying – capacity to serve them.

4. Revenue generated by minimum charge surcharge fees would amount to approximately 25 percent of total user charge revenues, so this is an important revenue component. The bigger issue is that each customer would pay proportionately for what they get from the utility. That is, capacity-to-serve each of their properties. For peak capacity, that is related to the size of their meter. In addition, you should be *seen* by all ratepayers as attempting to recover costs from each based upon the costs that each causes the utility to incur.

I recommend you assess the same minimum charge to five-eighths and three-quarter inch meter sizes (if you allow both) because these are the most common meter sizes for residential customers in most systems and almost all these meters are in use by residential customers. Setting the same minimum charge for these meter sizes will simplify administration of the fee program.

Equipment Repair and Replacement

Ms. Remington told me that the Town handles equipment repair and replacement (R&R) in its annual budgeting process. That process only plans on a short timeframe basis compared to R&R scheduling, which plans for at least 20 years.

I recommend you switch to a more refined R&R budgeting process. To do that, you should develop a schedule of R&R needs. From that you would calculate the annual savings (annuity) needed to pay those costs. That savings amount would go into your annual budget as a line item cost. From the R&R reserve, you would pay for R&R needs. This process markedly evens out the budget "hit" of widely varying R&R costs from year to year. And, it makes covering those widely varying costs much easier to handle because you will have reserves set aside to assure those needs will be met.

To start the scheduling process, I suggest you read Chapter 9 of the "Rate Setting Issues Guide," and use the "ReplacementScheduler©" spreadsheet mentioned earlier.

All that said, you are not there yet. Thus, for purposes of calculating rates now, Ms. Remington and I estimated your annual line replacement needs at \$100,000 and other equipment replacement needs at \$50,000. That shows in Table 6, page 35, and is used in Table 7, page 36, to calculate the annual annuity amount to include in future budgets, until you develop the R&R schedule.

Target Reserve Levels

Your current total reserves are stressed. The following spells out what goes into the reserves I recommend.

Most systems serving fewer than 5,000 connections, including yours, should have reserves at least as high as the sum of the following:

1. Unobligated cash and cash equivalent reserves equal to at least 35 percent of the annual operating costs, not including debt service and general administration costs. *I recommend 50 percent in your case because your utility is small. That reserves goal shows in the bottom left corner of Table 4, page 31;*
2. A 20-year repair and replacement (R&R) schedule reserve, in the 20th year equal to at least one average year's cost of R&R, and
3. Capital improvement and debt reserves at the end of the tenth year, after debt is paid, equal to that year's debt payments plus cash-paid capital improvement expenses. *In your case, there are no expected cash-paid capital improvements in the tenth year, thus, this reserve goal is effectively a debt coverage reserve goal.*

The lines on the bottom of Table 17, page 46, and several of the charts at the end of the Model show your reserve balances expected for the next ten years. The last line of Table 17, the "Sum of All Reserves," is the critical one. You are projected to have positive total reserves during the next ten years and by the tenth year, you will be at the goal total reserve level.

Projecting budgets and ending balances for next year is difficult. Doing the same five years out, I can usually get close. Ten-years out, there are so many assumptions we must make now that will not pan out years from now that you should not bank on those numbers. But, they serve as good planning targets. In most cases, a utility will see big cost, income, growth, debt and other changes looming on the horizon a few years out. When that happens, it is time to do a new rate analysis to get rates back on track to meet those challenges. Thus, target balances give you something to aim for, but the target will move over time. With each new rate analysis, we will bring you back on course.

A Technical Note About How Reserves Are Shown in the Model

In Table 17, page 46, at the bottom of the table, you will find the reserve balances. These deserve a bit more discussion.

From your balance sheet, I extracted the operating reserve, and capital improvement and debt service reserves. (I disregard meter deposit and similar funds because those are restricted and self-funding.) As funds flow through the rate analysis Model, they first fund up the operating reserve. Funds exceeding those requirements flow into the CIP and debt service reserve.

The take-away is this. The “Sum of All Reserves” at the bottom of Table 17, is the key balance to track. That balance will remain positive and grow stronger for the next ten years.

Rate Affordability

Rate affordability, often measured by the Affordability Index, is an important indicator to which you should pay attention.

In Table 17, page 46, near the top, I show the estimated Affordability Index. The Affordability Index is also shown graphically in Chart 4, page 50.

In the table, the Affordability Index calculation for the test year was at 1.55 percent. That means, such a customer paid 1.55 percent of their monthly household income to pay their monthly water bill.

Under the recommended rates, this customer’s bill would go up, resulting in an Affordability Index of 1.91 percent. That is a significant increase and bill level for a few reasons, including this. Most grant programs that have an Affordability Index eligibility criterion attempt to keep rates, after a capital improvement is completed and debt is in place, below 2.0 percent. It looks like you are approaching that threshold with the recommended rates. And, once you acquire debt for the new well project, you likely will go over that threshold. You may well qualify for grants for that project.

An important note: In Table 17, I used the current rates, including the debt service surcharges, to compare against the recommended rates. Thus, this is an “apples to apples” comparison.

The affordability index is useful, but it does not depict how new rates will affect customer types or those using different volumes. Table 18, page 47, shows how customers’ bills at different volumes of use will be affected by the recommended rates. This table only depicts bills for the smallest meter ratepayers, but that describes almost all your customers. Table 18 gives ratepayers useful information. It is one of the few from the Model that I recommend you copy and bring to the board meeting where we will discuss rates. Because most customers are concerned about what will happen to their bills, you should give this table to everyone who wants a copy.

Affordability Index: The monthly charge for (typically) 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0, meaning a household pays one percent of its income to pay its bill for 5,000 gallons of service, is generally considered affordable. The Affordability index is a primary factor in determining grant and loan eligibility and grant amount.

Recommended Rate Structures

Your current unit charges are in a “conservation rate structure,” which is a good practice where water supply is an issue. “Conservation” just means, as use goes up, the unit charge rate goes up. Currently, you have three rate “blocks” or tiers.

- For the first block, from zero to 14,999 gallons, the rate is \$3.85 per 1,000 gallons,
- From 15,000 to 19,999 gallons, the rate is \$6.36, and
- For 20,000 or more gallons, the rate is \$7.35.

The stated purpose of conservation rates is to encourage customers to conserve; use less volume. The difficulty with your current structure is that only 19.5 percent of the volume used is above 15,000 gallons and only 14.8 percent exceeds 20,000 gallons. Your average customer uses 4,065 gallons per month. Thus, few bills and little volume is billed at the conservation rates – little conservation encouragement is occurring.

I recommend you bring the first unit charge increase down to the level of 5,000 gallons, which is close to the national average residential usage rate. At that level, 48.0 percent of the flow will be billable at or above the first conservation rate level. The second tier should start at 10,000 gallons, double the approximate national average residential use, with 28.4 percent of flow billable at that rate. These statistics, and more, can be viewed in Table 19 of the Model, page 48.

One more thing about conservation rates. Your current conservation rate increases are quite large. Your current conservation rates go up 63 percent at 15,000 gallons, and another 16 percent at 20,000 gallons. When you lower the volume level at which the first tier starts, more volume is billable, so the increase can be lower. I modeled conservation rate tiers at 20 percent each. The average customer still does not use enough volume to get into the first conservation rate tier. But, a bit of volume above that and again at about 2.5 times the average volume, the conservation rate tiers take effect.

Your current minimum plus debt service surcharges amount, at \$60.41, is almost adequate to pay expected fixed costs plus debt service costs. That fee needs to be \$62.27 for the smallest meter and graduate higher for larger meters. The recommended rates are calculated in Table 15, page 44, and are summarized in the recommended rates Table A, that soon follows.

Recommendations for Adjusting Water Rates

The Model contains all my rates-related recommendations and shows what they are built upon. However, the Model is complex, components of the rates and fees are calculated and shown in different tables and the Model does not spell out policy issues. Therefore, I have summarized most of my recommendations as follows:

1. You should continue to assess the debt service surcharges you currently assess. Table A, that follows this list, shows the total minimum charges including your current debt service surcharges.
2. As to system development fees for new connections, these fees only “buy” a new customer access to the utility. You should continue to bill new connections for out of pocket costs for supplies and equipment, meters, etc. that you provide them to make their connection to your lines.
3. Table B shows the unit charges you should adopt. These are in a conservation rates structure but the tiers start at lower levels than your current rate structure.
4. The calculations assumed you would have made these adjustments early enough to enable you to collect at these rates for the April 1, 2019, billing. If you delay making the increases longer than that, you will lose additional revenues.
5. You would need to satisfy all Statutory requirements for making rate adjustments in advance of the adjustment date. That is coming up soon, so if you want to make that date, you will need to move promptly.
6. If costs, incomes and balances accrue close to those I assumed in the Model, on or about January 1, 2020, and annually thereafter, raise all rates and important fees by 3.0 percent. Do this until you have raised rates and fees by a cumulative 20 percent. At that time, have me or another rate analyst of your choosing perform a new rate analysis, so rate structure and adequacy can be adjusted again. If you need to do significant capital improvements or repair and replacements, you will need a new rate analysis sooner than that.
7. In the future, if balances do not accrue as shown at the bottom of Table 17, page 46, but they are not egregiously too low, follow the instructions in Chapter 9 of the book, “How to Get Great Rates” for how to make inflationary increases correctly.

Palmer Lake, Colorado, Water Rate Analysis Report Correction

I issued a rate analysis report to the Town dated 1/8/19. Everything in that report stands as originally offered, with one very important exception. That exception is the minimum charges I presented in Table A of that report. The minimum charges were calculated correctly and the revenues they will generate are mathematically sound. I simply presented them incorrectly; too high by \$15.40, in Table A of that report. The corrected minimum charges are included in the following revised Table A.

Table A (Revised): Recommended System Development Fees and Minimum Charges

Water Meter Size in Inches	Meter Type	System Development Fee	Monthly Minimum Charge
0.625	Displacement	\$10,000	\$62.27
0.750	Displacement	\$10,000	\$62.27
1.000	Displacement	\$18,318	\$81.60
1.500	Displacement	\$32,181	\$113.82
2.000	Displacement	\$48,816	\$152.48
2.500	Displacement	\$73,768	\$210.48
3.000	Singlet	\$93,176	\$255.59
3.000	Compound, Class I	\$93,176	\$255.59
3.000	Turbine, Class I	\$101,494	\$274.92
4.000	Singlet	\$143,082	\$371.58
4.000	Compound, Class I	\$143,082	\$371.58
4.000	Turbine, Class I	\$176,352	\$448.91

I apologize for any consternation this may have caused. But I always strive to produce correct results, even if that means having to issue a correction later. The above minimum charges are the correct minimum charges to adopt. I look forward to meeting with the board tonight and I will remind them of this correction then.

Best regards,
GettingGreatRates.com



Carl E. Brown
President

Table A: Recommended System Development Fees and Minimum Charges

Table A: Palmer Lake, CO Water System Development Fees, and Minimum Charges That Include Debt Service Surcharges				
Water Meter Size in Inches	Meter Type	System Development Fee	Monthly Minimum Charge	
0.625	Displacement	\$10,000	\$77.67	
0.750	Displacement	\$10,000	\$77.67	
1.000	Displacement	\$18,318	\$97.00	
1.500	Displacement	\$32,181	\$129.22	
2.000	Displacement	\$48,816	\$167.88	
2.500	Displacement	\$73,768	\$225.88	
3.000	Singlet	\$93,176	\$270.99	
3.000	Compound, Class I	\$93,176	\$270.99	
3.000	Turbine, Class I	\$101,494	\$290.32	
4.000	Singlet	\$143,082	\$386.98	
4.000	Compound, Class I	\$143,082	\$386.98	
4.000	Turbine, Class I	\$176,352	\$464.31	

Table B: Recommended Unit Charges

Table B: Palmer Lake, CO Unit Charges			
Volume Ranges, in Gallons	Usage Allowance in Gallons	Unit Charge per 1,000 Gallons	
0 - 4,999	0	\$7.37	
5,000 - 9,999	0	\$8.84	
10,000 and greater	0	\$10.61	

Closing

I recommend you adopt the rates calculated in the Model and discussed in several sub-sections above, most of which are shown in the table immediately above. These rates are in a cost-to-serve and conservation rates structure and were calculated to fully fund the utility.

These rates would result in lower increases in bills to lower-volume, small meter customers. As volume used increases, bills would rise more. As meter size goes up, bills would be a bit higher still. For high volumes of use, bills would be markedly higher than they are now. However, your usage records show that there is the equivalent of only 15 customers using above 20,000 gallons per month, so few customers would see markedly higher bills on a dollar basis.

Conclusion

“Conclusion” is a misnomer here. This report provides information upon which the Town can make decisions. Thus, it begins the process by which you will initially adjust rates and fees and take other actions. I will continue to help you as you do that.

As time passes you will need to adjust rates incrementally as recommended in this report and as described in more detail in my book. Eventually, you will start this cycle over.

As you take on the initial adjustments, keep the following in mind.

- Everyone impacted by the Town’s water rates should at least be made aware of the results of this report.
- My default recommendation is to give any customer as much information as they want. If they want a copy of the full report, give them that.
- Give the media a copy of the full report so they can quote the report directly and accurately rather than be forced to “figure things out.” Much of this is very complex. Few people know how to, or have the time to, calculate utility rates. Make it easy for everyone to get the facts right.
- For most customers, what would happen to their water bills is as much as they will care to know about this analysis. To satisfy those information needs, the Town can publicize the current and recommended rates and/or the bill comparisons.
- A few customers will want to know more, especially high-volume customers. Give them the full report, if that is what they want.
- A good way to accomplish these things is to post the report on the Town’s Web site so everyone can see for themselves what the report says. That way, no one would have to print out a very long document, unless they wanted to. Publicize the Web posting widely and publicly. Information is a good thing. *Being seen* as trying hard to get information out to folks is also a good thing.

You have engaged me pay one visit to the board to discuss my findings and recommendations. That should take care of this part of the rate adjustments task, but if you need me to attend more than one public meeting, we can arrange that.

I look forward to meeting with the board and helping you get on your way to the next generation of water rates.

Palmer Lake, CO; Water Rates, Scenario 2019-1

This model assumes a cost-of-service and
conservation rates structure.

January 8, 2019

This rate analysis scenario was produced by

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Note: This document is a print out of the spreadsheet model used to calculate new user charge and other rates and fees for the next 10 years. These calculations are complex and are based upon many conditions and assumptions. These issues, and others, are described in a narrative report that accompanies this model.

CBGreatRates© Version 7.9

Index of Tables and Charts

Note: When a numbered table or chart listed below is not in the package, that was not a mistake. It simply means that table or chart from our master program was not needed in this situation so it was left out to prevent confusion.

Name	What Each is or Does
Definitions (List)	The meaning of terms used in this report and in rate setting generally
Return on Investment (Calculation)	A summary of financial outcomes enabled by the proposed rates
Table 1 - Rates	User rates in effect at the end of the test year. Unless rates were recently changed, these are the current rates.
Table 2 - Test Year Usage	Compilation of actual volume of service used by customers during the test year
Table 3 - Basic User Data and Operating Incomes	Basic user statistics and operating revenues, projected for 10 years, based on the assumption the modeled rates and future inflationary increases will be adopted
Table 4 - Operating Costs and Net Income	Operating costs projected for 10 years
Table 5 - Capital Improvements Program (CIP)	Capital improvements and how they will be paid over next 10 years, including debt service
Table 6 - Equipment Replacement Schedule - Detailed	Detailed schedule of equipment replacements for next 20 years, if applicable
Table 7 - Equipment Replacement Annuity Calculation	Calculation of the annual annuity (yearly savings amount) needed to pay for all equipment replacements as they come due and ending with the desired balance
Table 8 - Average Cost Classification	Sumation of a target year's costs and calculation of the "cost of service" rate structure basis for recovery of fixed costs and variable costs
Table 9 - Marginal Cost Classification	Calculation of costs incurred to serve a specified type of customer, if applicable
Table 10 - Initial Rate Adjustments and Resulting Revenues	These are the modeled user rates and the resulting "blended" revenues they, and the current rates, will generate during the rate adjustment year
Table 11 - Capacity Costs	Calculation of the various costs to build base and peak flow capacity to serve customers, when such fees will be based on water meter size
Table 12 - AWWA Safe Operating Capacities by Meter Size	This table calculates the meter equivalent ratio, which is used for calculating peak flow capacity-based system development fees, surcharges and revenues in Tables 13 through 16.
Table 13 - System Development Fees	Calculation of meter size-based system development fees needed to recover costs calculated in Table 11, when such fees will be based on water meter size
Table 14 - Revenues From System Development Fees	Calculation of total fee revenues that would be generated during one full year at the fees in Table 13.
Table 15 - Minimum Charge Fees, Including Capacity Surcharges	Calculation of meter size-based capacity surcharges and minimum charges to recover costs calculated in Table 11, when such fees will be based on water meter size
Table 16 - Revenues From Minimum Charges	Calculation of total fee revenues that would be generated during one full year at the fees in Table 15.
Table 17 - Financial Capacity Indicators and Reserves	Shows the financial effects of the modeled rates, costs, etc. on the utility and on the benchmark 5,000 gallon per month residential water or sewer customer, as appropriate
Table 18 - Comparison of Bills Before and After Rate Adjustments	Bills at the modeled rates are compared to those under the current rates. Note: the modeled bills do not include capacity surcharges to the minimum charges unless they are included in the minimum charges column of Table 10.
Table 19 - User Statistics	For volume ranges within each rate class, this table shows volumes and percentages of use, revenue generated and other statistics
Chart 1 - Operating Ratio	Graph of operating ratio for 10 years as a result of the modeled rates and the current rates
Chart 2 - Coverage Ratio	Graph of coverage ratios for 10 years of the modeled rates and the current rates
Chart 3 - 5,000 Gallon Residential User's Bill	Graph of the bill for the benchmark 5,000 gallon per month residential user, with smallest available meter size (used in grant and loan eligibility determinations) as a result of the modeled rates, and the current rates
Chart 4 - Affordability Index	Graph of the affordability index for 10 years of the benchmark residential user's bill (used in grant and loan eligibility determinations)
Chart 5 - Working Capital vs Goal	Graph for 10 years of total (unobligated) cash assets at modeled rates compared to the goal for total cash assets
Chart 6 - Value of Cash Assets Before Inflation	Graph for 10 years of unobligated cash assets NOT adjusted for inflation at modeled rates and current rates
Chart 7 - Value of Cash Assets After Inflation	Graph for 10 years of unobligated cash assets adjusted for inflation at modeled rates and current rates. This is the real buying power of cash reserves.
Chart 8 - Sum of All Reserves	Graph of all reserves of all kinds at the modeled rates and at the current rates

Definitions

Affordability Index	The monthly charge for (typically) 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0, meaning a household pays one percent of its income to pay its bill for 5,000 gallons of service, is generally considered affordable. Affordability index is often a factor in determining grant and loan eligibility and grant amount.
Analysis Year	The year following the "test year." Generally, rate analysis is done during the year following the "test year" and initial rate adjustments are done later still during the analysis year or sometime during the following year once the analysis shows how rates should be adjusted. See related "test year."
Capital Improvement Plan or Program (CIP)	A schedule of anticipated capital improvements. These are the more expensive items such as treatment plants, lines and other expensive infrastructure that generally requires bond or grant funding.
Capital Improvement Reserves	Cash reserves dedicated to funding the CIP
Comprehensive Rate Analysis	A thorough examination of a system's operating, capital improvement, equipment replacement and other costs, revenues, current rates, number of users and their use of the system, growth rates and all other key issues surrounding the system. This examination will determine how rates and fees should be set in the future to cash-flow the system properly, to build appropriate reserves and to be fair to ratepayers. It also will determine how policies should be adjusted to enable the system to operate well now, operate well in the medium-range future (about 10 years) and prepare for expected and expectable events such as capital improvements and equipment replacement.
Connection Charge	See system development fee
Conservation (Inclining) Rates	Unit charges that go up as the volume used goes up
Cost to Produce	There are several ways to define and calculate cost to produce. Each is acceptable for different purposes. Generally, cost to produce is the total of all variable costs required to get service to a utility's customers during one year divided by the total units of service delivered during that year. This calculation will yield the <u>average</u> cost to produce. In a proportional to use rate structure, this is the unit charge. See "Cost Calculations" at the bottom of Chart 19.
Cost to Serve Rates	Rates where fixed and variable costs generated by each user class are paid by that class with minimum and unit charges, respectively. Similar to and sometimes the same as "proportional to use" rates.
Cost Types, Fixed and Variable	The two main types of costs are fixed - those that are related to the fact that someone is a customer; and variable - those that are related to the volume of the commodity delivered to customers. Generally, fixed costs should be recovered with minimum charges and variable costs with unit charges.
Coverage Ratio (CR)	Incomes available to pay debt divided by the amount of the debt for that year. Most systems should have a CR of 1.25 or higher.
Current Position	For purposes of this report, for one year, the sum of all incomes and undedicated reserves minus all current financial obligations for that year. Future obligations (next year's loan payments) and depreciation are not included. Current position is a good measure of overall financial health.
Declining Rates	Rates where unit charges go down as the volume used goes up
Flat Rates	Rates where all users pay exactly the same fee regardless of the volume of service they use
Equivalent Dwelling Unit (EDU) or Equivalent Residential Unit (ERU)	Based upon number of water using fixtures, average flow, potential flow or similar criteria; the consumption rate of the average single family home is rated at one EDU. All other types of customers are then compared on this measuring basis and the EDUs are calculated. Generally the purpose of this exercise is to calculate fees that each EDU must pay.
Incremental Rate Increases (Inflationary Increases)	Rate increases done, generally annually, following the initial rate adjustment. The usual goal of such increases is to keep the system's incomes on track to meet reserve targets. Rate structure fairness is a small issue, if it is an issue at all. Such increases are usually small, in the two to five percent per year range.
Initial Rate Adjustments	Rate adjustments done in follow up to the comprehensive rate analysis. Generally, the goal of such adjustments is to establish rates that cover the system's short-term expected costs and do it with a structure that is fair to ratepayers. Initial adjustments should be followed in subsequent years with incremental rate increases.
Inflow & Infiltration (I&I)	In a sewer system, water that gets into the collection system by way of illicit connections (inflow) such as gutter downspouts, plus leaks in manholes and sewer lines (infiltration)
Infrastructure	Most commonly thought of as the hard assets, such as buildings, treatment plants and lines needed to provide service to customers connected to the system. In reality, staff, software and other "soft" assets should be thought of as infrastructure, as well.

Definitions

Life-cycle Cost	The total cost to design, build, operate, maintain and eventually dispose of an asset. One asset may cost less to build but it may be more expensive to operate and maintain, yielding a higher total life-cycle cost.
Marginal Costs	The parts of a utility's costs that are unavoidable in the course of serving a particular customer, a group of customers, more volume to all customers or some other marginal use of the system. Such customer(s) or extra use could be added at a discounted but still profitable fee, if desired. Generally marginal costs are less than the average costs but when extra use requires a system upsizing, they can be greater. These costs are especially useful when considering selling service at wholesale or charging "snow birds" while they are away.
Operating Costs	Definitions and calculations vary. For rate setting purposes operating costs are costs incurred because a system is operated. Such costs are usually recovered primarily through unit charges.
Operating Reserves or Working Capital	Analogous to current position, this is the net revenues retained to fund operating costs during times when costs exceed incomes.
Operating Revenues	Revenues collected in the form of user fees and similar operating cost-related fees.
Operating Ratio (OR)	Current incomes divided by current expenses, not including debt. An OR of 1.0 is "break even." Most systems should have an OR of 1.25 or higher.
Payback Period	In this case, time required for the investment made to get this analysis to return that investment through increased user and other fees.
Potential Demand	The volume of service that a user could demand for a short period of time at full volume use. The potential demand limiting factor is usually the size of the customer's meter or service line.
Proportional to Use Rates	Rates where the minimum charge recovers all fixed costs, the unit charge recovers all variable costs, the unit charge is the same for all volume sold, and there is no usage allowance in the minimum charge. This rate structure is similar to and often the same as cost to serve rates.
Replacement Schedule	A timetable that describes equipment replacement and important repairs that are too infrequent and/or too expensive to cover as annual operating costs but not so expensive that they need to be covered as capital improvements.
Replacement Reserves	Cash reserves used to fund the Replacement Schedule.
Return on Investment	In this case, the dollar amount or percentage of revenue gain enabled by this rate analysis. Related to payback period.
Snow Bird	A customer, usually residential, that goes away during part of the year. Most commonly, people of "means" who live in the north who "fly south" for the winter. But, this category includes everyone who is absent for a significant part of the year but returns to their permanent residence.
System Development Charge, or Fee	Fee assessed to pay for at least part of the cost to build system capacity. For purposes of this model, all charges related to connecting new customers will be "rolled together" into a system development charge, usually including a charge that buys a new customer system capacity. This combined charge may be a few hundred dollars for a residential customer, if little or no capacity costs are included, to many thousands of dollars for a large industrial customer with capacity costs included. Similar terms in common use include "tap-on fee," "connection fee or charge," "hook-up fee," "impact fee," "availability charge," and "capacity charge."
Test Year	The one year period from which data was gathered to be the basis of the rate analysis, which is usually the last completed fiscal year. See related "analysis year."
Usage Allowance	The volume, if any, that is "given away" with the minimum charge. Most systems give away no volume. Those that give away an unlimited volume have what are called "flat rates" - a minimum charge only.
User Fee, User Charge, User Rates	Fees assessed to customers for use of the system. Does not system development charges, late payment penalties or other types of charges.
Water Loss	Measured by volume or percent, the part of a water system's net water production that does not reach customers or is not billed to customers. This loss also includes billable volume lost due to under-registering customer meters.
Working Capital, Net Income	The amount left in the operating fund after paying all costs due during that month, year or other time period. Working capital of \$0 is "break even." Related to "current position."
Working Capital Goal or Operating Reserves Goal	The desired operating fund reserve, in dollars or percent, at a stated point in time. Small systems (1,000 connections) generally should target 35 percent or greater. Larger systems can target a lower percentage. The goal for each system should be based upon the needs of that system and the risk the customers are willing to take.

Return on Investment

Palmer Lake, CO; Water Rates, Scenario 2019-1

The rates depicted in this model will produce various returns on investment or paybacks. Usually the most important payback, at least to ratepayers, is a rate structure that is demonstrably fair. For the system, however, making sure that revenue will be adequate to pay all expected, expectable and many unexpected costs is the most important return. If revenue will increase as a result of this analysis, which is almost always the case, one can calculate a dollar and percentage return on investment.

The following calculations show what was invested and what the returns will be over two periods; five years and 10 years. Five years is a reasonable period for return projections. Ten years is a good basic planning horizon but you should not bank on amounts or returns projected that far out. Besides, most systems should have their analyses redone long before then.

Consider these key points about return on investment. Higher rates will fund more improvements, better repair and replacement and more. Most increases in revenue end up being used for such expenses. Thus, few systems end up with a dramatic increase in their cash reserves but they do markedly improve their financial position. In addition, fairer and higher rates generally enable systems to qualify for grant and loan funding that they otherwise would not. That increases the importation of "other people's money," which is a drain on the state and federal funds, where the money comes from, but it is very desirable at the utility level. The calculation below ignores any "outside" funds the utility may capture.

Also note that rates in this model have been modeled to be adjusted during the year following the test year or even later. That year is included in the first five-year return on investment calculation. Thus, the first year of returns calculated below include most or all of one year where rates will not have been changed yet. Thus, the real rate of return will be greater than the calculation reflects.

Calculations

\$5,887 Fees to GettingGreatRates.com

\$500 Estimated value of system staff time and incidentals to assemble needed information

\$6,387 Total Investment for This Analysis

\$2,698,603 Five-year Increase in Revenue Due at Least Partly to This Analysis

42,251% Five-year Return on Investment (increase in revenues / investment)

\$6,804,727 Ten-year Improvement in Cash Position Due at Least Partly to This Analysis

106,540% Ten-year Return on Investment (increase in revenues / investment)

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Table 1 - Rates**Palmer Lake, CO; Water Rates, Scenario 2019-1**

These rates were in effect at the end of the test year. If a volume range was left out of the table, in order to make it shorter, the unit charge that shows for the next lowest volume range also applies to the hidden volume range.

Rates in Effect at End of Test Year

Customer Type, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Billing Cycle Minimum Charge	Usage Allowance in 1,000 Gallons	Unit Charge per 1,000 Gallons
All Customers	0	\$38.85	0.000	\$3.89
	1,000	\$38.85	0.000	\$3.89
	2,000	\$38.85	0.000	\$3.89
	3,000	\$38.85	0.000	\$3.89
	4,000	\$38.85	0.000	\$3.89
	5,000	\$38.85	0.000	\$3.89
	6,000	\$38.85	0.000	\$3.89
	7,000	\$38.85	0.000	\$3.89
	8,000	\$38.85	0.000	\$3.89
	9,000	\$38.85	0.000	\$3.89
	10,000	\$38.85	0.000	\$3.89
	15,000	\$38.85	0.000	\$6.36
	16,000	\$38.85	0.000	\$6.36
	17,000	\$38.85	0.000	\$6.36
	18,000	\$38.85	0.000	\$6.36
	19,000	\$38.85	0.000	\$6.36
	20,000	\$38.85	0.000	\$7.35
	25,000	\$38.85	0.000	\$7.35
	30,000	\$38.85	0.000	\$7.35
	50,000	\$38.85	0.000	\$7.35
	75,000	\$38.85	0.000	\$7.35
	100,000	\$38.85	0.000	\$7.35
	150,000	\$38.85	0.000	\$7.35
	200,000	\$38.85	0.000	\$7.35
	300,000	\$38.85	0.000	\$7.35
	400,000	\$38.85	0.000	\$7.35
	500,000	\$38.85	0.000	\$7.35

Table 2 - Test Year Usage
Palmer Lake, CO; Water Rates, Scenario 2019-1

This table shows usage by all customers during the test year.				Residential meter readings per year: 12				Date this scenario created: 11/28/2018			
Test year = the one-year period being analyzed starts: 1/1/2017				Other customer meter readings per year: 12				Bills sent per year: 12			
Customer or Rate Class, or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Conversion Factor for Billable Units	Avg. Use in Each Volume Range in 1,000 Gallons	Count of Bills With ANY Volume in Each Range	Total Annual Use in Each Volume Range in Gallons	Count of Bills Where Volume "Maxed Out" in Each Range	Volume of Bills Where Volume "Maxed Out" in Each Range	# of Customers With Volume That "Maxed Out" in Each Range	% of Customers That Averaged This Volume of Use	% of Total Use at This Average Volume
All Customers	0	999	1,000	0.868	11,589	10,057,595	1,905	373,595	159	16.4%	0.8%
	1,000	1,999	1,000	0.912	9,684	8,832,200	1,672	2,492,200	139	14.4%	5.3%
	2,000	2,999	1,000	0.850	8,012	6,808,800	2,171	5,309,800	181	18.7%	11.3%
	3,000	3,999	1,000	0.816	5,841	4,767,800	1,868	5,398,800	156	16.1%	13.6%
	4,000	4,999	1,000	0.815	3,973	3,236,800	1,270	5,613,800	106	11.0%	11.9%
	5,000	5,999	1,000	0.829	2,703	2,240,300	791	4,283,300	66	6.8%	9.1%
	6,000	6,999	1,000	0.844	1,912	1,613,400	524	3,369,400	44	4.5%	7.2%
	7,000	7,999	1,000	0.877	1,388	1,216,800	312	2,324,800	26	2.7%	4.9%
	8,000	8,999	1,000	0.877	1,076	944,100	222	1,866,100	19	1.9%	4.0%
	9,000	9,999	1,000	0.882	854	753,300	179	1,689,300	15	1.5%	3.6%
	10,000	14,999	1,000	3.407	675	2,299,400	351	4,189,400	29	3.0%	8.9%
	15,000	15,999	1,000	0.933	324	302,300	35	538,300	3	0.3%	1.1%
	16,000	16,999	1,000	0.933	289	269,700	35	575,700	3	0.3%	1.2%
	17,000	17,999	1,000	0.953	254	242,100	21	366,100	2	0.2%	0.8%
	18,000	18,999	1,000	0.949	233	221,100	20	368,100	2	0.2%	0.8%
	19,000	19,999	1,000	0.950	213	202,400	19	369,400	2	0.2%	0.8%
	20,000	24,999	1,000	3.901	194	756,700	73	1,611,700	6	0.6%	3.4%
	25,000	29,999	1,000	3.933	121	475,900	50	1,370,900	4	0.4%	2.9%
	30,000	49,999	1,000	8.944	71	635,000	56	2,015,000	5	0.5%	4.3%
	50,000	74,999	1,000	19.073	15	286,100	5	286,100	0	0.0%	0.6%
	75,000	99,999	1,000	20.150	10	201,500	3	251,500	0	0.0%	0.5%
	100,000	149,999	1,000	43.043	7	301,300	1	101,300	0	0.0%	0.2%
	150,000	199,999	1,000	37.883	6	227,300	2	327,300	0	0.0%	0.7%
	200,000	299,999	1,000	45.325	4	181,300	3	681,300	0	0.0%	1.4%
	300,000	399,999	1,000	31.800	1	31,800	1	331,800	0	0.0%	0.7%
	400,000	499,999	1,000	0.000	0	0	0	0	0	0.0%	0.0%
	500,000	331,800	1,000	0.000	0	0	0	0	0	0.0%	0.0%
Monthly and Annual Subtotals					49,449	47,104,995	11,589	47,104,995	966	100.0%	100.0%
Grand Totals					49,449	47,104,995	11,589	47,104,995	966	100%	100%

**Table 3 - Operating Incomes
(and Basic User Data)**

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table depicts user statistics, customer growth, and system incomes and across the board "inflationary" rate increases through the 10th year.

Annual Median Household Income (AMHI)

\$81,236 Census Bureau estimate of AMHI for the year 2018

\$52,340 Census Bureau estimate of AMHI for the year 2000

\$8,898 AMHI growth during this time period

1.06% Simple annual income growth rate during this time period (used to project incomes into the future)

This model is programmed to assume that rates will be reset in the "Analysis (This Year)" column below (shading highlighted blue). Revenues will be collected at the non-current rates for the first part of the analysis year and the modeled rates for the last part of the analysis year. The change-over from the current rates to new rates is modeled to happen on the date near the top of Table 10. Thus, the revenues shown in the last column of that table are "blended" revenues, part collected at the old rates and part collected at the new rates. It was then assumed that all rate adjustments made after the initial (major) adjustment will be done annually on approximately the anniversary of the first adjustment.

Basic User (Customer) Data

(First year balances and incomes are actual, subsequent years are projected.)

	Inflation or Deflation (+/-) Factor	Test Year	Analysis (This Year)	Years Following the Analysis Year (for Which Results Have Been Projected)									
				1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
				Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting
		1/1/17	1/1/18	1/1/19	1/1/20	1/1/21	1/1/22	1/1/23	1/1/24	1/1/25	1/1/26	1/1/27	1/1/28
Rate Increases Projected for Future Years	N/A	N/A	N/A	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
The row above shows the rate at which user charge fees should be increased for each year beyond the initial rate adjustment year. Unless stated otherwise, these should be across-the-board increases to all rates and fees and that should continue until a new rate analysis is done.													
Average Number of Customers for the Year	N/A	988	973	972	972	972	972	977	982	987	992	997	1,002
Customers Added or Lost (+/-) During the Year	N/A	70	99	0	0	0	0	99	99	99	99	99	99
Customer Growth or Loss (+/-) Rate	N/A	0.72%	0.62%	0.00%	0.00%	0.00%	0.00%	0.51%	0.51%	0.51%	0.50%	0.50%	0.50%
Actual (Test Year) and Projected Volumes, in Gallons	N/A	47,104,895	47,387,848	47,387,848	47,387,848	47,387,848	47,387,848	47,841,328	47,885,404	48,129,282	48,373,160	48,617,037	48,860,915

Operating Incomes

User Charge Fees	N/A	\$672,011	\$672,311	\$1,142,388	\$1,178,630	\$1,211,836	\$1,248,298	\$1,282,327	\$1,327,678	\$1,384,885	\$1,433,737	\$1,484,157	\$1,536,312
Late Payment Charge	N/A	\$14,285	\$14,383	\$14,383	\$14,383	\$14,383	\$14,383	\$14,457	\$14,531	\$14,604	\$14,678	\$14,751	\$14,825
New Taps or Connections (Current Rate Structure)	% Above	\$70,000	\$58,838	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1	\$2
Meter Size-based System Development Fees (Table 14)	% Above	\$0	\$188	\$0	\$0	\$0	\$0	\$58,888	\$58,888	\$60,384	\$62,174	\$64,040	\$65,981
Interest Income	N/A	\$4,531	\$1,822	\$3,875	\$4,684	\$5,087	\$5,220	\$5,513	\$5,445	\$6,017	\$6,133	\$6,288	\$6,480
Water Meter Sales/Parts	N/A	\$3,470	\$2,874	\$0	\$0	\$0	\$0	\$2,478	\$2,478	\$2,478	\$2,478	\$2,478	\$2,478
Water Improvement Fee, From \$3.80 D.S. Surcharge	N/A	\$41,841	\$45,746	\$34,310	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Loan Revenue/WELL, From \$11.42 D.S. Surcharge (Since Raised to \$17.67)	N/A	\$122,788	\$188,913	\$187,178	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Loss Because Rate Adjustments Made 8 Months Late	3.0	\$0	\$0	-\$113,208	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Loss (-) Due to Conservation	3.0%	\$0	-\$85	-\$23,453	-\$1,714	-\$1,785	-\$1,818	-\$2,202	-\$2,277	-\$2,356	-\$2,437	-\$2,521	-\$2,608
Total Operating Incomes		\$926,746	\$968,086	\$1,258,206	\$1,184,002	\$1,229,823	\$1,268,082	\$1,389,272	\$1,416,658	\$1,484,102	\$1,518,763	\$1,565,196	\$1,623,480

Table 4 - Operating Costs (and Net Income)

Palmer Lake, CO. Water Rates, Scenario 2019-1

This table depicts expenses during the last year, this year and for the next 10 years. Some future costs will experience inflation. Those costs that go up as use goes up are increased by the cost inflation factor plus the growth rate in use.

(First year costs and real incomes are actual, subsequent years are projected.)

	Inflation or Deflation (%) Factor	Test Year Starting 1/1/17	Analysis (This Year) Starting 1/1/18	Years Following the Analysis Year (for Which Results Have Been Projected)									
				1st Year Starting 1/1/18	2nd Year Starting 1/1/20	3rd Year Starting 1/1/21	4th Year Starting 1/1/22	5th Year Starting 1/1/23	6th Year Starting 1/1/24	7th Year Starting 1/1/25	8th Year Starting 1/1/26	9th Year Starting 1/1/27	10th Year Starting 1/1/28
20-81-3111 Salaries / Wages Regular (Including Additional Operators Starting in 2019 & 2024)	3.0%	\$213,784	\$198,000	\$203,241	\$200,838	\$208,863	\$278,723	\$285,025	\$340,305	\$350,545	\$361,081	\$371,893	\$383,050
20-81-3112 Salaries / Wages Temp	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-81-3115 Overtime	3.0%	\$0	\$0	\$1,101	\$1,134	\$1,168	\$1,203	\$1,239	\$1,278	\$1,315	\$1,354	\$1,395	\$1,437
Vacation Payout	3.0%	\$0	\$0	\$10,801	\$11,125	\$11,458	\$11,803	\$12,157	\$12,619	\$13,000	\$13,402	\$13,828	\$14,279
20-81-3118 FICA Employer	3.0%	\$14,942	\$15,100	\$20,081	\$20,684	\$21,304	\$21,944	\$22,602	\$23,279	\$23,976	\$24,694	\$25,433	\$26,194
20-81-3120 Medicare Employer	3.0%	\$3,507	\$3,531	\$4,898	\$4,837	\$4,982	\$5,132	\$5,286	\$5,445	\$5,608	\$5,775	\$5,946	\$6,121
SUTA Employer	3.0%	\$0	\$0	\$2,000	\$2,068	\$2,130	\$2,194	\$2,260	\$2,328	\$2,397	\$2,468	\$2,540	\$2,613
FUTA Employer	3.0%	\$0	\$0	\$1,433	\$20,018	\$20,817	\$21,235	\$21,872	\$22,500	\$23,128	\$23,756	\$24,384	\$25,012
20-81-3125 Employee Benefits	3.0%	\$48,500	\$45,500	\$71,389	\$73,427	\$75,630	\$77,899	\$80,238	\$82,643	\$101,841	\$104,890	\$107,930	\$111,065
20-81-3127 Life Insurance Premiums	3.0%	\$208	\$227	\$437	\$451	\$464	\$478	\$492	\$505	\$524	\$542	\$562	\$581
20-81-3131 Workers Compensation	3.0%	\$6,510	\$8,400	\$8,083	\$8,285	\$8,453	\$8,647	\$8,848	\$9,045	\$9,238	\$9,433	\$9,631	\$9,832
20-81-3141 Employee Clothing	3.0%	\$292	\$400	\$512	\$527	\$543	\$559	\$578	\$598	\$619	\$641	\$663	\$687
20-81-3145 Employee Training	3.0%	\$0	\$250	\$384	\$395	\$407	\$419	\$432	\$451	\$471	\$493	\$515	\$538
20-81-3149 Employee Travel	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-81-3153 Memberships/Registrations	3.0%	\$18,738	\$18,000	\$12,790	\$13,174	\$13,569	\$13,978	\$14,395	\$14,820	\$15,255	\$15,700	\$16,155	\$16,620
20-81-3181 Professional Services-Legal	3.0%	\$1,782	\$10,000	\$30,000	\$30,800	\$31,627	\$32,482	\$33,365	\$34,278	\$35,222	\$36,196	\$37,199	\$38,233
20-81-3182 Professional Services-Acctg	3.0%	\$20,875	\$20,000	\$20,000	\$20,800	\$21,218	\$21,855	\$22,510	\$23,185	\$23,881	\$24,597	\$25,335	\$26,095
20-81-3183 Professional Services-Other	3.0%	\$14,047	\$10,000	\$12,000	\$12,800	\$12,731	\$13,113	\$13,508	\$13,911	\$14,329	\$14,758	\$15,201	\$15,657
20-81-3187 Payment Processing	3.0%	\$19,955	\$18,000	\$18,000	\$18,540	\$19,098	\$19,669	\$20,258	\$20,867	\$21,483	\$22,138	\$22,802	\$23,488
20-81-3189 Bank Fees and Services	3.0%	\$0	\$500	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633	\$652
20-81-3211 Contract Services	3.0%	\$3,115	\$2,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$6,149	\$6,334	\$6,524
20-81-3245 Utilities	3.0%	\$87,785	\$90,000	\$93,000	\$95,790	\$98,684	\$101,624	\$105,208	\$108,916	\$112,752	\$116,720	\$120,825	\$125,071
20-81-3253 Postage	3.0%	\$5,133	\$6,000	\$6,000	\$6,180	\$6,365	\$6,556	\$6,788	\$7,027	\$7,274	\$7,530	\$7,795	\$8,069
20-81-3281 Insurance	3.0%	\$14,058	\$13,500	\$17,000	\$17,510	\$18,035	\$18,578	\$19,134	\$19,708	\$20,299	\$20,908	\$21,535	\$22,181
20-81-3333 Publication/Legal Notices	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-81-3338 Communications	3.0%	\$468	\$0	\$3,500	\$3,605	\$3,713	\$3,825	\$3,939	\$4,057	\$4,179	\$4,305	\$4,434	\$4,567
20-81-3385 Advertising	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-81-3391 Misc. Expenses	3.0%	\$287	\$500	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633	\$652
20-81-3395 Electric Sren	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-81 Vehicle Loan-Principal	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-81 Vehicle Loan-Interest	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-81 CWRPDA 2009 Principle	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-81 CWRPDA 2009 Interest	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-81 CWRPDA 2018 Principle	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-81 CWRPDA 2018 Interest	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-81-3600 Fund Reserve Account	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-82-3223 Operating Supplies	3.0%	\$87,924	\$83,085	\$50,000	\$51,500	\$53,045	\$54,636	\$56,275	\$57,964	\$59,703	\$61,494	\$63,339	\$65,239
20-82-3225 Building Maintenance	3.0%	\$1,904	\$2,500	\$2,500	\$2,575	\$2,652	\$2,732	\$2,814	\$2,898	\$2,985	\$3,075	\$3,167	\$3,262
20-82-3228 Shop Maintenance	3.0%	\$17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-82-3233 Water Meters / Parts	3.0%	\$11,248	\$15,000	\$18,000	\$18,540	\$19,098	\$19,669	\$20,258	\$20,867	\$21,483	\$22,138	\$22,802	\$23,488
20-82-3259 Vehicle License / Fees	3.0%	\$0	\$0	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,230	\$1,267	\$1,305

**Table 4 - Operating Costs
(and Net Income)**

	Inflation or Deflation (+) Factor	Test Year Starting 1/1/17	Analysis (Test) Year Starting 1/1/18	1st Year Starting 1/1/19	2nd Year Starting 1/1/20	3rd Year Starting 1/1/21	4th Year Starting 1/1/22	5th Year Starting 1/1/23	6th Year Starting 1/1/24	7th Year Starting 1/1/25	8th Year Starting 1/1/26	9th Year Starting 1/1/27	10th Year Starting 1/1/28
20-82-3271 Vehicle Repair	3.0%	\$3,545	\$5,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$6,149	\$6,334	\$6,524
20-82-3273 Heavy Equipment Repairs	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-82-3275 Fuels/Lubricants	3.0%	\$4,688	\$4,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$6,149	\$6,334	\$6,524
20-82-3291 Capital Improvement Bldgs	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-82-3292 Capital Improvement-Water	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-82-3293 Capital Equipment/TANK	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
20-82-3294 Water Line Repair	3.0%	\$5,719	\$4,000	\$15,000	\$15,450	\$15,914	\$16,381	\$16,863	\$17,369	\$17,911	\$18,448	\$19,002	\$19,572
20-82-3313 Equipment Maintenance	3.0%	\$2,636	\$5,000	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,970	\$6,149	\$6,334	\$6,524
20-82-3338 Communications	3.0%	\$602	\$700	\$700	\$721	\$743	\$765	\$788	\$811	\$836	\$861	\$887	\$913
20-82-3411 Reservoirs/Dam Maintenance	3.0%	\$162,063	\$100,000	\$40,000	\$41,200	\$42,436	\$43,708	\$45,020	\$46,371	\$47,762	\$49,195	\$50,671	\$52,181
20-82-3431 Water Quality Tests	3.0%	\$34,540	\$40,000	\$35,000	\$36,050	\$37,132	\$38,245	\$39,393	\$40,575	\$41,792	\$43,046	\$44,337	\$45,667
25-25-3186 Water Loan Principal Repay-2008	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
25-25-3187 Water Loan Interest Repay-2008	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
25-25-9650 Water Loan Reserve	3.0%	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
One-time Reduction of R&R Annuity	0.0%	-\$204,207	-\$204,207	-\$91,052	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Payment to Repair & Replacement (Table 7)	0.0%	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207	\$204,207
User Charge Analysis Services	5.0%	\$0	\$5,887	\$0	\$0	\$8,490	\$0	\$0	\$7,156	\$0	\$0	\$7,889	\$0
Total All CIP-related Payouts	N/A	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5	Table 5
Total Operating Costs		\$797,029	\$735,090	\$938,711	\$1,013,330	\$1,044,094	\$1,062,605	\$1,088,928	\$1,203,381	\$1,226,591	\$1,257,886	\$1,298,028	\$1,323,378
Net Income (or Loss)		\$131,718	\$232,906	\$318,484	\$180,673	\$185,529	\$203,477	\$260,344	\$213,278	\$239,511	\$256,877	\$271,168	\$300,083
Working Capital Goal: 50%		In Dollars, That is	\$368,514	\$367,545	\$489,356	\$508,865	\$522,047	\$531,303	\$544,464	\$601,661	\$613,296	\$628,943	\$649,014

Notes: The Town will add one extra operator in 2019 and 2024, increasing staff-related costs in those two years (green highlighted items). In addition, utilities and postage costs (yellow highlighted items) will rise, once new connections are allowed. That is assumed to start in 2023.

Table 5 - Capital Improvement Program (CIP)

Palmer Lake, CO, Water Rates, Scenario 2019-1

The table depicts capital improvements and their funding. Costs reflect inflation.

	Years Following the Analysis Year (for Which Improvement Projects, Costs, Funding, etc. Have Been Projected)											
	Test Year	Analysis (The)	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
	Starting	Year	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting
	1/1/17	1/1/18	1/1/18	1/1/20	1/1/21	1/1/22	1/1/23	1/1/24	1/1/25	1/1/26	1/1/27	1/1/28
Planned Spending Debt-paid Portion of Projects (CIP costs to be funded with loans are shown in this section.)												
20-82-3291 Capital Improvement Bldg	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-82-3292 Capital Improvement-Water (Previously Loan-funded)	\$374,683	\$150,000	\$120,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-82-3293 Capital Equipment/TANK (Previously Loan-funded)	\$137,268	\$1,100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Drill New Well	\$0	\$0	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Closing Costs, Estimated at 2.5%	\$12,799	\$31,250	\$3,000	\$0	\$20,489	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Debt-paid Portion of Projects	\$524,771	\$1,281,250	\$123,000	\$0	\$770,489	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Planned Spending Grant-paid Portion of Projects (CIP costs to be grant-funded are shown here.)												
None	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Grant-paid Portion of Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Planned Spending Cash-paid Portion of Projects (CIP costs to be funded from reserves are shown here.)												
None	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cash-paid Portion of Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total CIP Costs	\$524,771	\$1,281,250	\$123,000	\$0	\$770,489	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Repayment												
Existing Debt Payments (Following is debt that was initiated during the test year or earlier.)												
25-25-3165 Water Loan Principal Repay-2009	\$11,818	\$137,340	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25-25-3167 Water Loan Interest Repay-2009	\$36,026	\$33,923	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25-25-5950 Water Loan Reserve	\$0	\$32,477	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vehicle Loan-Principal & Interest	\$0	\$0	\$6,540	\$6,540	\$6,540	\$6,540	\$6,540	\$6,540	\$6,540	\$6,540	\$6,540	\$6,540
20-81 CWRPDA 2009 Principle & Interest	\$0	\$0	\$104,971	\$104,971	\$104,971	\$104,971	\$104,971	\$104,971	\$104,971	\$104,971	\$104,971	\$104,971
20-81 CWRPDA 2018 Principle & Interest	\$0	\$0	\$5,584	\$68,168	\$68,168	\$68,168	\$68,168	\$68,168	\$68,168	\$68,168	\$68,168	\$68,168
20-81-3600 Fund Reserve Account	\$0	\$0	\$32,500	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
New Debt Payments (Following are payments for projects to be paid with new debt. It is assumed these will be loan/lease-financed for a term of 20 years at a 2.0% interest rate.)												
Loan Originated in 3rd Year (New Well)						\$47,121	\$47,121	\$47,121	\$47,121	\$47,121	\$47,121	\$47,121
Total Debt Payments	\$47,844	\$203,740	\$149,595	\$209,679	\$209,679	\$256,800	\$256,800	\$256,800	\$256,800	\$256,800	\$256,800	\$256,800
Total, All CIP-related Payouts	\$572,415	\$1,484,990	\$272,595	\$209,679	\$980,168	\$256,800	\$256,800	\$256,800	\$256,800	\$256,800	\$256,800	\$256,800
(This is the total cash required for the CIP and debt payment schedule. These amounts must come from utility income, reserves or outside sources, as shown in the next section.)												

Table 5 - Capital Improvement Program (CIP)

This table depicts capital improvements and their funding. Costs reflect inflation.											
	Years Following the Analysis Year (for Which Improvement Projects, Costs, Funding, etc. Have Been Projected)										
	Test Year	Analysis (Test)	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting
	1/1/17	1/1/18	1/1/18	1/1/20	1/1/21	1/1/22	1/1/23	1/1/24	1/1/25	1/1/26	1/1/27
CIP Fund Sources (Following are the sources and amounts of funds expected to pay for the above CIP schedule.)											
Cash Reserves (Internal Funds)											
Debt and CIP Reserves Starting Balance	\$305,108	\$257,482	\$139,038	\$239,408	\$207,879	\$202,504	\$173,975	\$217,838	\$151,445	\$155,579	\$175,121
Working Capital Transferred In	\$0	\$47,888	\$214,884	\$143,363	\$170,147	\$194,221	\$267,183	\$156,049	\$227,908	\$243,230	\$251,097
Debt and CIP Reserves Interest Earned (or Paid)	\$0	\$5,149	\$2,781	\$4,788	\$4,158	\$4,050	\$3,480	\$4,357	\$3,029	\$3,112	\$3,502
25-25-5050 Water Loan Reserve	\$0	\$32,477	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20-81-3600 Fund Reserve Account	\$0	\$0	\$32,500	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total Available Internal Funds	\$305,108	\$342,776	\$388,001	\$417,558	\$412,183	\$430,775	\$474,638	\$408,245	\$412,379	\$431,921	\$459,721
Grant and Loan Proceeds (External Funds)											
Loans Originated in or Before Test Year	\$524,771	\$1,281,250	\$123,090	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 3rd Year (New Well)					\$770,489	\$0	\$0	\$0	\$0	\$0	\$0
Total Available External Funds	\$524,771	\$1,281,250	\$123,090	\$0	\$770,489	\$0	\$0	\$0	\$0	\$0	\$0
Total Available Funds	\$829,877	\$1,624,026	\$512,091	\$417,558	\$1,182,672	\$430,775	\$474,638	\$408,245	\$412,379	\$431,921	\$459,721
Outcomes											
(The CIP spending and funding plan will result in the following cash needs and ending balances each year.)											
Total Available Funds	\$829,877	\$1,624,026	\$512,091	\$417,558	\$1,182,672	\$430,775	\$474,638	\$408,245	\$412,379	\$431,921	\$459,721
Total, All CIP-related Payouts	\$572,415	\$1,484,890	\$272,885	\$209,679	\$980,166	\$258,800	\$258,800	\$258,800	\$258,800	\$258,800	\$258,800
Debt and CIP Reserves Ending Balances	\$257,482	\$139,038	\$239,408	\$207,879	\$202,504	\$173,975	\$217,838	\$151,445	\$155,579	\$175,121	\$202,921

Notes: The Town originated several projects, and loan funding for those projects, in prior years. Those projects and their funding are occurring now and debt payments will commence in 2019. The Town has one additional project to loan fund, a new well. That will commence soon.

Table 6 - Equipment Replacement Schedule - Detailed
Palmer Lake, CO; Water Rates, Scenario 2019-1

Year Beginning	Reserve-paid Line Repairs and Replacements - Annual Average	Other Annual R&R Costs								Total Annual Replacement Costs
1/1/18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/19	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/20	\$150,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000
1/1/21	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/22	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/23	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/24	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/25	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/26	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/27	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/28	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/29	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/30	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/31	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/32	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/33	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/34	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/35	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/36	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/37	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/38	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/39	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/40	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/41	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000
1/1/42	\$100,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000

Table 7 - Equipment Replacement Annuity Calculation

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table calculates the annual annuity (savings deposit) needed to build replacement (R&R) reserves. This annuity amount should actually be deposited in a savings account. The annuity amount, called the "Required Annual Deposit (Annuity) to Replacement Account" below, should be included in the utility's general budget as a cost. As a result, all replacement and refurbishment scheduled in Table 6, the detailed replacement schedule, would be paid for out of R&R reserves and not out of the utility's general budget.

In simple terms, the annuity at the bottom of this table should be deposited into an account each year and R&R projects should be paid for out of that account.

3.00% Average Inflation Rate for the Following Water System Equipment for the Term of This Replacement Schedule

2.00% Average Interest Rate on Balances Invested for the Term of This Replacement Schedule

2.00% Average Interest Rate on Amounts Borrowed for the Term of This Replacement Schedule

Year Beginning	Schedule Year	This Year's Costs in Current Dollars	Future Annual Inflated Net Costs	Interest Earned on Prior Balance	End of Year Balance in Future Dollars	Minimum Desired End of Year Balance in Future Dollars
1/1/18	Analysis Year	\$0	\$0	\$0	\$0	\$137,500
1/1/19	1st Year	\$0	\$0	\$0	\$204,207	\$141,625
1/1/20	2nd Year	\$200,000	\$212,180	\$4,084	\$200,318	\$145,874
1/1/21	3rd Year	\$150,000	\$163,909	\$4,006	\$244,622	\$150,250
1/1/22	4th Year	\$150,000	\$168,826	\$4,892	\$284,895	\$154,757
1/1/23	5th Year	\$150,000	\$173,891	\$5,698	\$320,909	\$159,400
1/1/24	6th Year	\$150,000	\$179,108	\$6,418	\$352,426	\$164,182
1/1/25	7th Year	\$150,000	\$184,481	\$7,049	\$379,200	\$169,108
1/1/26	8th Year	\$150,000	\$190,016	\$7,584	\$400,975	\$174,181
1/1/27	9th Year	\$150,000	\$195,716	\$8,020	\$417,486	\$179,406
1/1/28	10th Year	\$150,000	\$201,587	\$8,350	\$428,455	\$184,789
1/1/29	11th Year	\$150,000	\$207,635	\$8,569	\$433,596	\$190,332
1/1/30	12th Year	\$150,000	\$213,864	\$8,672	\$432,610	\$196,042
1/1/31	13th Year	\$150,000	\$220,280	\$8,652	\$425,189	\$201,923
1/1/32	14th Year	\$150,000	\$226,888	\$8,504	\$411,012	\$207,981
1/1/33	15th Year	\$150,000	\$233,695	\$8,220	\$389,744	\$214,221
1/1/34	16th Year	\$150,000	\$240,706	\$7,795	\$361,039	\$220,647
1/1/35	17th Year	\$150,000	\$247,927	\$7,221	\$324,540	\$227,267
1/1/36	18th Year	\$150,000	\$255,365	\$6,491	\$279,872	\$234,085
1/1/37	19th Year	\$150,000	\$263,026	\$5,597	\$226,651	\$241,107
Starting Account Balance					\$0	\$137,500
Minimum Annual Annuity					\$194,284	Minimum Desired
Discretionary Annuity					\$9,923	Balance in Today's Dollars

Notes: The Town does not currently have a R&R schedule. R&R needs are thought to be backlogged. Therefore, this calculation is aimed at "catching up."

Required Annual Deposit (Annuity) to Replacement Account \$204,207

(This amount is included in Table 4 as an operating cost.)

Table 8 - Average Cost Classification

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table distributes costs from a representative year (the "average rate structure basis year" to fixed and variable categories (see Definitions) in order to calculate the "cost of service" rate structure for that year.

The average rate structure basis year runs from: 1/1/2022 through 12/31/2022						
Cost Items	Cost During Average Rate Structure Basis Year	Fixed Cost Percentage	Variable Cost Percentage	Average Fixed Cost	Average Variable Cost	
20-81-3111 Salaries / Wages Regular (Including Additional Operators Starting in 2019 & 2024)	\$276,723	50.0%	50.0%	\$138,362	\$138,362	
20-81-3112 Salaries / Wages Temp	\$0	50.0%	50.0%	\$0	\$0	
20-81-3115 Overtime	\$1,203	50.0%	50.0%	\$602	\$602	
Vacation Payout	\$11,803	50.0%	50.0%	\$5,901	\$5,901	
20-81-3119 FICA Employer	\$21,944	50.0%	50.0%	\$10,972	\$10,972	
20-81-3120 Medicare Employer	\$5,132	50.0%	50.0%	\$2,566	\$2,566	
SUTA Employer	\$2,194	50.0%	50.0%	\$1,097	\$1,097	
FUTA Employer	\$21,235	50.0%	50.0%	\$10,618	\$10,618	
20-81-3125 Employee Benefits	\$77,899	50.0%	50.0%	\$38,950	\$38,950	
20-81-3127 Life Insurance Premiums	\$478	50.0%	50.0%	\$239	\$239	
20-81-3131 Workers Compensation	\$6,647	50.0%	50.0%	\$3,323	\$3,323	
20-81-3141 Employee Clothing	\$559	100.0%	0.0%	\$559	\$0	
20-81-3145 Employee Training	\$419	100.0%	0.0%	\$419	\$0	
20-81-3149 Employee Travel	\$0	100.0%	0.0%	\$0	\$0	
20-81-3153 Memberships/Registrations	\$13,976	100.0%	0.0%	\$13,976	\$0	
20-81-3161 Professional Services-Legal	\$32,782	100.0%	0.0%	\$32,782	\$0	
20-81-3162 Professional Services-Acctg	\$21,855	100.0%	0.0%	\$21,855	\$0	
20-81-3163 Professional Services-Other	\$13,113	100.0%	0.0%	\$13,113	\$0	
20-81-3167 Payment Processing	\$19,669	54.3%	45.7%	\$10,680	\$8,989	
20-81-3169 Bank Fees and Services	\$546	54.3%	45.7%	\$297	\$250	
20-81-3211 Contract Services	\$5,464	100.0%	0.0%	\$5,464	\$0	
20-81-3245 Utilities	\$101,624	0.0%	100.0%	\$0	\$101,624	
20-81-3253 Postage	\$6,556	100.0%	0.0%	\$6,556	\$0	
20-81-3281 Insurance	\$18,576	100.0%	0.0%	\$18,576	\$0	
20-81-3333 Publication/Legal Notices	\$0	100.0%	0.0%	\$0	\$0	
20-81-3338 Communications	\$3,825	100.0%	0.0%	\$3,825	\$0	
20-81-3365 Advertising	\$0	100.0%	0.0%	\$0	\$0	
20-81-3391 Misc. Expenses	\$546	100.0%	0.0%	\$546	\$0	
20-81-3395 Electric Siren	\$0	100.0%	0.0%	\$0	\$0	
20-82-3223 Operating Supplies	\$54,636	50.0%	50.0%	\$27,318	\$27,318	
20-82-3225 Building Maintenance	\$2,732	50.0%	50.0%	\$1,366	\$1,366	
20-82-3228 Shop Maintenance	\$0	100.0%	0.0%	\$0	\$0	
20-82-3233 Water Meters / Parts	\$19,669	50.0%	50.0%	\$9,835	\$9,835	
20-82-3269 Vehicle License / Fees	\$1,093	100.0%	0.0%	\$1,093	\$0	
20-82-3271 Vehicle Repair	\$5,464	100.0%	0.0%	\$5,464	\$0	

Table 8 - Average Cost Classification

Cost Items	Cost During Average Rate Structure Basis Year	Fixed Cost Percentage	Variable Cost Percentage	Average Fixed Cost	Average Variable Cost
20-82-3273 Heavy Equipment Repairs	\$0	100.0%	0.0%	\$0	\$0
20-82-3275 Fuels/Lubricants	\$5,464	100.0%	0.0%	\$5,464	\$0
20-82-3294 Water Line Repair	\$16,391	100.0%	0.0%	\$16,391	\$0
20-82-3313 Equipment Maintenance	\$5,464	100.0%	0.0%	\$5,464	\$0
20-82-3338 Communications	\$765	100.0%	0.0%	\$765	\$0
20-82-3411 Reservoirs/Dam Maintenance	\$43,709	50.0%	50.0%	\$21,855	\$21,855
20-82-3431 Water Quality Tests	\$38,245	100.0%	0.0%	\$38,245	\$0
Annual Payment to Repair & Replacement (Table 7)	\$204,207	50.0%	50.0%	\$102,103	\$102,103
User Charge Analysis Services	\$0	54.3%	45.7%	\$0	\$0
Grand Total Costs, Weighted Avg Percentages	\$1,062,605	54.3%	45.7%	\$576,638	\$485,968

Bases for Cost to Serve Rate Structure

Number of Customers During Year Defined Above =	972	100%	\$1,062,605
Billed Volume, in Gallons, During Year Defined Above =	47,397,648	Unbilled-for Water is Estimated at	29%
Average Fixed Cost per User per Month During Year Defined Above =	\$49.45	Unbilled-for Water is Estimated at This Percentage of Average Cost	70%
Average Variable Cost to Produce per 1,000 Gallons During Year Defined Above =	\$10.25	Resulting Cost of Unbilled-for Water	\$140,150
Gallons per Billing Cycle Used by Average Residential Customer =	4,065	Test Year Customer Metered Volume, in Gallons	47,104,995
		+ Test Year Unbilled-for Water, in Gallons	19,367,280
		Total Test Year Volume, in Gallons, From Master Meter Readings	66,472,275

Table 10 - Initial Rate Adjustments and Resulting Revenues

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table calculates a new set of user charge rates and the revenues they would generate.

Out of Town Multiplier	200%	Conservation Rate Block Multiplier	120%	Other Multiplier	100%
If there are no special costs to consider and before capacity costs are added, if appropriate, rates for a 5/8" meter would be in a "cost to serve" structure when: there is no usage allowance,					
the base minimum charge is \$35.55 Monthly, and the unit charge is \$7.37 per 1,000 Gallons.					

After rate adjustments are made, customers will be billed monthly.

Sales to be billed this year: Sales at the current (Test Year) rates (gray highlighted column) will apply until rates are adjusted. Sales at the modeled rates (yellow highlighted column) would apply if the modeled rates are adopted. The grand total "blended" sales revenues are the total revenues generated by the two different sets of rates. Those revenues show in the right-most column.

Customer Class, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Sales This Year at Current Rates	Customers Within This Volume Range	New Minimum Charge Including Surcharges ¹	New Usage Allowance in 1,000 Gallons	New Unit Charge per 1,000 Gallons	Sales This Year at Modeled Rates	Grand Total "Blended" Sales This Year
All Customers	0	999	\$112,823	159	\$62.27	0.000	\$7.37	\$528	\$113,351
	1,000	1,999	\$99,042	139	\$62.27	0.000	\$7.37	\$464	\$99,506
	2,000	2,999	\$110,526	181	\$62.27	0.000	\$7.37	\$508	\$111,034
	3,000	3,999	\$90,869	156	\$62.27	0.000	\$7.37	\$415	\$91,284
	4,000	4,999	\$61,761	106	\$62.27	0.000	\$7.37	\$282	\$62,043
	5,000	5,999	\$39,337	66	\$62.27	0.000	\$8.84	\$189	\$39,526
	6,000	6,999	\$26,561	44	\$62.27	0.000	\$8.84	\$128	\$26,689
	7,000	7,999	\$16,808	26	\$62.27	0.000	\$8.84	\$83	\$16,891
	8,000	8,999	\$12,284	19	\$62.27	0.000	\$8.84	\$61	\$12,324
	9,000	9,999	\$9,857	15	\$62.27	0.000	\$8.84	\$49	\$9,906
	10,000	14,999	\$22,519	29	\$62.27	0.000	\$10.61	\$127	\$22,646
	15,000	15,999	\$3,273	3	\$62.27	0.000	\$10.61	\$15	\$3,288
	16,000	16,999	\$3,067	3	\$62.27	0.000	\$10.61	\$14	\$3,080
	17,000	17,999	\$2,349	2	\$62.27	0.000	\$10.61	\$11	\$2,360
	18,000	18,999	\$2,177	2	\$62.27	0.000	\$10.61	\$10	\$2,187
	19,000	19,999	\$2,020	2	\$62.27	0.000	\$10.61	\$9	\$2,029
	20,000	24,999	\$8,375	6	\$62.27	0.000	\$10.61	\$34	\$8,409
	25,000	29,999	\$5,425	4	\$62.27	0.000	\$10.61	\$22	\$5,448
	30,000	49,999	\$6,824	5	\$62.27	0.000	\$10.61	\$28	\$6,852
	50,000	74,999	\$2,291	0	\$62.27	0.000	\$10.61	\$9	\$2,300
	75,000	99,999	\$1,593	0	\$62.27	0.000	\$10.61	\$6	\$1,600
	100,000	149,999	\$2,247	0	\$62.27	0.000	\$10.61	\$9	\$2,256
	150,000	199,999	\$1,744	0	\$62.27	0.000	\$10.61	\$7	\$1,751
200,000	299,999	\$1,445	0	\$62.27	0.000	\$10.61	\$6	\$1,451	
300,000	399,999	\$272	0	\$62.27	0.000	\$10.61	\$1	\$273	
400,000	499,999	\$0	0	\$62.27	0.000	\$10.61	\$0	\$0	
500,000	331,800	\$0	0	\$62.27	0.000	\$10.61	\$0	\$0	
Total Rate Revenue at Current Rates			\$645,470	Total Rate Revenue at Modeled Rates				\$3,014	
Total Blended Rate Revenues for the Year ²									\$648,484

Note 1, New Minimum Charge Base Rates: If meter or connection size-based minimum charges are to be used, and the user classes modeled above include meter or connection sizes, the amounts shown in this column include meter or connection size surcharges as calculated in Table 16. Either way, the narrative report includes the rates and surcharges to assess.

Note 2, Blended Rate Revenues: During the year when rates will be adjusted, rate revenues generated will be "blended" revenues - part collected at the current rates and part collected at the adjusted rates. The table above calculates both kinds of revenue and totals them in the right-most column. Therefore, the anticipated timing of rate adjustment shown at the top of this table will cause rates to be charged as follows:

12.0 months at the old user charge rates	and	0.0 months at the new user charge rates.
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Table 11 - Capacity Costs

Palmer Lake, CO, Water Rates, Scenario 2019-1

System capacity and connection costs WILL be recovered in one way by default, or a combination of ways by design. That could be through regular user fees, in which case existing customers pay the costs to bring on new customers. It could be through system development or connection fees, in which case new customers pay "up front" for the capacity they are granted. It could be through on-going capacity surcharges added to minimum charges, preferably based on meter or connection size, in which case each customer pays for the capacity they are granted over time. Or, it could be by a combination of these. This table shows capacity costs to expect. From these costs, system development fees and surcharges were developed in Tables 13 through 18.

Peak and Base Flow Capacity Costs

	Fixed Assets Original Value (Capacity Cost)	% of Value Attributable to Peak Flow Capacity	Peak Flow Capacity Cost	Annual Peak Flow Capacity Cost (40-year Depreciation)	% of Value Attributable to Base Flow Capacity	Base Flow Capacity Cost	Annual Base Flow Capacity Cost (40-year Depreciation)
	\$6,469,418	50.0%	\$3,234,709	\$188,513	50.0%	\$3,234,709	\$188,513
Totals	\$6,469,418		\$3,234,709	\$188,513		\$3,234,709	\$188,513

How Capacity Costs Will Be Recovered

These costs are modeled to be recovered from system development fees in Table 14

Peak Flow Capacity Costs to be Recovered by System Development Fees

18.00% Target Percentage of Costs to Recover
 \$33,932 Target Portion of Costs to Recover
 \$5,545 Cost per Peak Flow Capacity Share

Base Flow Capacity Costs to be Recovered by System Development Fees

13.70% Target Percentage of Costs to Recover
 \$25,832 Target Portion of Costs to Recover
 \$4,305 Base Capacity Cost per New Customer Connected

In addition to calculation of the capacity cost for each new connection based on the unit cost above, the system development fee for each new connection should also include recovery of the following costs:

\$100 Average Field Cost per New Connection
 \$50 Average Administration Cost per New Connection
 \$150 Field and Admin Cost per New Connection
 \$4,455 Base Cost to Recover per New Connection

These costs are modeled to be recovered from minimum charge surcharges in Table 16

Peak Flow Capacity Costs to be Recovered by Minimum Charge Surcharges

82.00% Target Percentage of Costs to Recover
 \$154,581 Target Portion of Costs to Recover in One Full Year
 \$12,882 Target Portion of Costs to Recover in Monthly Surcharges
 \$12.89 Monthly Surcharge per Peak Flow Capacity Share

Base Flow Capacity Costs to be Recovered by Minimum Charge Surcharges

86.30% Target Percentage of Costs to Recover
 \$162,681 Target Portion of Costs to Recover in One Full Year
 \$13,557 Target Portion of Costs to Recover in Monthly Surcharges
 \$13.83 Monthly Base Flow Surcharge per Bill

Note: Non-capital costs, such as field costs for inspection of connections and administration costs, should be recovered by fees charged for providing the services involved. These costs are in addition to peak flow capacity costs. If your system's basic costs to sign up and connect new customers is different than assumed above, adjust your final fees accordingly.

Table 12 - AWWA Safe Operating Capacities by Meter Size
Palmer Lake, CO; Water Rates, Scenario 2019-1

Data source: Table VII.2-5, page 338, AWWA Manual M1 Principles of Water Rates, Fees and Charges, Seventh Edition

This table calculates the meter equivalent ratio, which is used for calculating peak flow capacity-based system development fees, surcharges and revenues in Tables 13 through 16.

Meter Size, in Inches	Meter Type	Maximum-Rated Safe Operating Flow, in gallons per minute	Meter Equivalent Ratio (Capacity Shares)
Five Eighths	Displacement	20	1.0
Three Quarters	Displacement	30	1.5
One Inch	Displacement	50	2.5
One & a Half Inch	Displacement	100	5.0
Two Inch	Displacement	160	8.0
Three	Singlet	320	16.0
Three	Compound, Class I	320	16.0
Three	Turbine, Class I	350	17.5
Four	Singlet	500	25.0
Four	Compound, Class I	500	25.0
Four	Turbine, Class I	630	31.0
Six	Singlet	1,000	50.0
Six	Compound, Class I	1,000	50.0
Six	Turbine, Class I	1,300	65.0
Eight	Compound, Class I	1,600	80.0
Eight	Turbine, Class I	2,800	140.0
Ten	Turbine, Class II	4,200	210.0
Twelve	Turbine, Class II	5,300	265.0

Table 13 - System Development Fees

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table calculates system development fees to charge each meter size.

Note: Larger meter sizes are available in two or more types, each having different flow capacities. To be conservative when projecting revenues, it was assumed all meters in use are of the lowest capacity types. However, when setting fees, they should be based upon the type of meter in use at each location.

Meter Size	Meter Type	AWWA Capacity "Share" Factor, Compared to 5/8 inch Meter	Foot Notes	Capacity Shares, Including Out of Town Multiplier and Economy of Scale Adjustments	Adjusted Peak Capacity Cost Each Meter Size	Base Capacity Cost per New Customer Connected, as Adjusted by the Out of Town Multiplier	Capacity-only Cost (Fee)	Field and Admin Cost per New Connection	Uniform Adjustment to Field and Admin Costs	Adjusted Field and Admin Costs (Fee) per New Connection	System Development Fee
In-Town Meters											
Five Eighths	Displacement	1.0		1.0	\$5,545	\$4,305	\$9,850	\$150	\$0.00	\$150	\$10,000
Three Quarters	Displacement	1.0	¹	1.0	\$5,545	\$4,305	\$9,850	\$150	\$0.00	\$150	\$10,000
One Inch	Displacement	2.5		2.5	\$13,863	\$4,305	\$18,168	\$150	\$0.00	\$150	\$18,318
One & a Half Inch	Displacement	5.0		5.0	\$27,725	\$4,305	\$32,031	\$150	\$0.00	\$150	\$32,181
Two Inch	Displacement	8.0		8.0	\$44,360	\$4,305	\$48,666	\$150	\$0.00	\$150	\$48,816
Two & a Half Inch	Displacement	12.5	²	12.5	\$69,313	\$4,305	\$73,618	\$150	\$0.00	\$150	\$73,768
Three Inch	Singlet	16.0		16.0	\$88,721	\$4,305	\$93,026	\$150	\$0.00	\$150	\$93,176
Three Inch	Compound, Class I	16.0		16.0	\$88,721	\$4,305	\$93,026	\$150	\$0.00	\$150	\$93,176
Three Inch	Turbine, Class I	17.5		17.5	\$97,038	\$4,305	\$101,344	\$150	\$0.00	\$150	\$101,494
Four Inch	Singlet	25.0		25.0	\$138,626	\$4,305	\$142,932	\$150	\$0.00	\$150	\$143,082
Four Inch	Compound, Class I	25.0		25.0	\$138,626	\$4,305	\$142,932	\$150	\$0.00	\$150	\$143,082
Four Inch	Turbine, Class I	31.0		31.0	\$171,897	\$4,305	\$176,202	\$150	\$0.00	\$150	\$176,352
Out of Town Meters											
Five Eighths	Displacement	1.0		1.0	\$11,090	\$8,611	\$19,701	\$150	\$0.00	\$150	\$19,851
Three Quarters	Displacement	1.0	¹	1.0	\$11,090	\$8,611	\$19,701	\$150	\$0.00	\$150	\$19,851
One Inch	Displacement	2.5		2.5	\$27,725	\$8,611	\$36,336	\$150	\$0.00	\$150	\$36,486
One & a Half Inch	Displacement	5.0		5.0	\$55,451	\$8,611	\$64,061	\$150	\$0.00	\$150	\$64,211
Two Inch	Displacement	8.0		8.0	\$88,721	\$8,611	\$97,331	\$150	\$0.00	\$150	\$97,481
Two & a Half Inch	Displacement	12.5	²	12.5	\$138,626	\$8,611	\$147,237	\$150	\$0.00	\$150	\$147,387
Three Inch	Singlet	16.0		16.0	\$177,442	\$8,611	\$186,052	\$150	\$0.00	\$150	\$186,202
Three Inch	Compound, Class I	16.0		16.0	\$177,442	\$8,611	\$186,052	\$150	\$0.00	\$150	\$186,202
Three Inch	Turbine, Class I	17.5		17.5	\$194,077	\$8,611	\$202,687	\$150	\$0.00	\$150	\$202,837
Four Inch	Singlet	25.0		25.0	\$277,253	\$8,611	\$285,863	\$150	\$0.00	\$150	\$286,013
Four Inch	Compound, Class I	25.0		25.0	\$277,253	\$8,611	\$285,863	\$150	\$0.00	\$150	\$286,013
Four Inch	Turbine, Class I	31.0		31.0	\$343,793	\$8,611	\$352,404	\$150	\$0.00	\$150	\$352,554

Foot Notes, which apply to Tables 14, 15 and 16, as well:

¹ The Three-Quarter-Inch meter capacity share factor is 1.5. However, it was set equal to the Five-eighths-Inch meter because most such meters are used for residential connections. This enables a uniform system development fee for almost all residential customers.

² These meter sizes were not included in AWWA study results, so these values are estimates.

Economy of Scale Adjustments: As meter size rises, capacity to pass peak flow rises. However, costs to build that capacity do not rise as rapidly. Therefore, peak flow capacity shares were adjusted downward by an estimated cost savings factor to account for that savings. Economy of scale savings do not apply to base costs because all connections are afforded the same level of base flow capacity.

Table 14 - Revenues From System Development Fees

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table calculates total fee revenues that would be generated during one full year at the fees in Table 13.

Meter Size	Meter Type	Mix of New Taps in a Typical Year	Capacity Shares, Including Out of Town Multiplier and Economy of Scale Adjustments	Projected Annual Growth in Capacity Shares, Adjusted for Economy of Scale	Adjusted Peak Capacity Cost Fees for One Full Year	Base Capacity Cost Fees for One Full Year	Combined Capacity-only Fee Revenues to Collect in One Year	Adjusted Admin and Field Cost Fees to Collect in One Year	System Development Fee Revenues for One Full Year
In-Town Meters									
Five Eighths	Displacement	0.0	1.0	0.0	\$0	\$0	\$0	\$0	\$0
Three Quarters	Displacement	6.0	1.0	6.0	\$33,067	\$25,674	\$58,740	\$894	\$59,635
One Inch	Displacement	0.0	2.5	0.0	\$255	\$79	\$334	\$3	\$336
One & a Half Inch	Displacement	0.0	5.0	0.1	\$339	\$53	\$392	\$2	\$394
Two Inch	Displacement	0.0	8.0	0.0	\$272	\$26	\$298	\$1	\$299
Two & a Half Inch	Displacement	0.0	12.5	0.0	\$0	\$0	\$0	\$0	\$0
Three Inch	Singlet	0.0	16.0	0.0	\$0	\$0	\$0	\$0	\$0
Three Inch	Compound, Class I	0.0	16.0	0.0	\$0	\$0	\$0	\$0	\$0
Three Inch	Turbine, Class I	0.0	17.5	0.0	\$0	\$0	\$0	\$0	\$0
Four Inch	Singlet	0.0	25.0	0.0	\$0	\$0	\$0	\$0	\$0
Four Inch	Compound, Class I	0.0	25.0	0.0	\$0	\$0	\$0	\$0	\$0
Four Inch	Turbine, Class I	0.0	31.0	0.0	\$0	\$0	\$0	\$0	\$0
Subtotal:		6.0		6.1	\$33,932	\$25,832	\$59,764	\$900	\$60,664
Out of Town Meters									
Five Eighths	Displacement	0.0	1.0	0.0	\$0	\$0	\$0	\$0	\$0
Three Quarters	Displacement	0.0	1.0	0.0	\$0	\$0	\$0	\$0	\$0
One Inch	Displacement	0.0	2.5	0.0	\$0	\$0	\$0	\$0	\$0
One & a Half Inch	Displacement	0.0	5.0	0.0	\$0	\$0	\$0	\$0	\$0
Two Inch	Displacement	0.0	8.0	0.0	\$0	\$0	\$0	\$0	\$0
Two & a Half Inch	Displacement	0.0	12.5	0.0	\$0	\$0	\$0	\$0	\$0
Three Inch	Singlet	0.0	16.0	0.0	\$0	\$0	\$0	\$0	\$0
Three Inch	Compound, Class I	0.0	16.0	0.0	\$0	\$0	\$0	\$0	\$0
Three Inch	Turbine, Class I	0.0	17.5	0.0	\$0	\$0	\$0	\$0	\$0
Four Inch	Singlet	0.0	25.0	0.0	\$0	\$0	\$0	\$0	\$0
Four Inch	Compound, Class I	0.0	25.0	0.0	\$0	\$0	\$0	\$0	\$0
Four Inch	Turbine, Class I	0.0	31.0	0.0	\$0	\$0	\$0	\$0	\$0
Subtotal:		0.0		0.0	\$0	\$0	\$0	\$0	\$0
Total:		6.0		6.1	\$33,932	\$25,832	\$59,764	\$900	\$60,664

This is the amount used to calculate the "Meter Size-based System Development Fees" income in Table 3.

Table 15 - Minimum Charge Fees, Including Capacity Surcharges

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table does, essentially, the same thing as Table 13, except costs are recovered over time as minimum charge surcharges.

Uniform Adjustment to Peak Capacity Cost		\$0.00		Uniform Adjustment to Base Capacity Cost		\$0.00			
Meter Size	Meter Type	Monthly Peak Capacity-only Costs (Surcharge per Capacity Share, Including Out of Town Multiplier)	Uniform Adjustment to Peak Capacity Cost	Capacity-only Cost (Fee)	Monthly Base Capacity-only Costs (Surcharge per Customer, Including Out of Town Multiplier)	Uniform Adjustment to Base Capacity Cost	Adjusted Field and Admin Costs (Fee) per New Connection	Monthly Minimum Charge	Monthly Snowbird Fee
In-Town Meters									
Five Eighths	Displacement	\$12.89	\$0.00	\$12.89	\$13.83	\$0.00	\$13.83	\$62.27	\$49.93
Three Quarters	Displacement	\$12.89	\$0.00	\$12.89	\$13.83	\$0.00	\$13.83	\$62.27	\$49.93
One Inch	Displacement	\$32.22	\$0.00	\$32.22	\$13.83	\$0.00	\$13.83	\$81.60	\$65.43
One & a Half Inch	Displacement	\$64.44	\$0.00	\$64.44	\$13.83	\$0.00	\$13.83	\$113.82	\$91.27
Two Inch	Displacement	\$103.11	\$0.00	\$103.11	\$13.83	\$0.00	\$13.83	\$152.48	\$122.27
Two & a Half Inch	Displacement	\$161.10	\$0.00	\$161.10	\$13.83	\$0.00	\$13.83	\$210.48	\$168.78
Three Inch	Singlet	\$206.21	\$0.00	\$206.21	\$13.83	\$0.00	\$13.83	\$255.59	\$204.95
Three Inch	Compound, Class I	\$206.21	\$0.00	\$206.21	\$13.83	\$0.00	\$13.83	\$255.59	\$204.95
Three Inch	Turbine, Class I	\$225.54	\$0.00	\$225.54	\$13.83	\$0.00	\$13.83	\$274.92	\$220.45
Four Inch	Singlet	\$322.20	\$0.00	\$322.20	\$13.83	\$0.00	\$13.83	\$371.58	\$297.96
Four Inch	Compound, Class I	\$322.20	\$0.00	\$322.20	\$13.83	\$0.00	\$13.83	\$371.58	\$297.96
Four Inch	Turbine, Class I	\$399.53	\$0.00	\$399.53	\$13.83	\$0.00	\$13.83	\$448.91	\$359.96
Out of Town Meters									
Five Eighths	Displacement	\$25.78	\$0.00	\$25.78	\$27.67	\$0.00	\$27.67	\$88.99	\$71.36
Three Quarters	Displacement	\$25.78	\$0.00	\$25.78	\$27.67	\$0.00	\$27.67	\$88.99	\$71.36
One Inch	Displacement	\$64.44	\$0.00	\$64.44	\$27.67	\$0.00	\$27.67	\$127.65	\$102.36
One & a Half Inch	Displacement	\$128.88	\$0.00	\$128.88	\$27.67	\$0.00	\$27.67	\$192.09	\$154.03
Two Inch	Displacement	\$206.21	\$0.00	\$206.21	\$27.67	\$0.00	\$27.67	\$269.42	\$216.04
Two & a Half Inch	Displacement	\$322.20	\$0.00	\$322.20	\$27.67	\$0.00	\$27.67	\$385.42	\$309.05
Three Inch	Singlet	\$412.42	\$0.00	\$412.42	\$27.67	\$0.00	\$27.67	\$475.63	\$381.39
Three Inch	Compound, Class I	\$412.42	\$0.00	\$412.42	\$27.67	\$0.00	\$27.67	\$475.63	\$381.39
Three Inch	Turbine, Class I	\$451.09	\$0.00	\$451.09	\$27.67	\$0.00	\$27.67	\$514.30	\$412.39
Four Inch	Singlet	\$644.41	\$0.00	\$644.41	\$27.67	\$0.00	\$27.67	\$707.62	\$567.41
Four Inch	Compound, Class I	\$644.41	\$0.00	\$644.41	\$27.67	\$0.00	\$27.67	\$707.62	\$567.41
Four Inch	Turbine, Class I	\$799.07	\$0.00	\$799.07	\$27.67	\$0.00	\$27.67	\$862.28	\$691.42

Table 16 - Revenues From Minimum Charges

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table calculates total minimum charge surcharge revenues that would be generated during one full year at the fees in Table 15.

Uniform Adjustment to Peak Capacity Cost		\$0.00		Uniform Adjustment to Base Capacity Cost		\$0.00	
Meter Size	Meter Type	Capacity Shares, Including Out of Town Multiplier and Economy of Scale Adjustments	Current Number Meters This Size	Total Adjusted Capacity Shares	Adjusted Annual Peak Capacity-only Surcharge Revenues	Annual Base Capacity-only Surcharge Revenues	Capacity Surcharges for One Full Year
In-Town Meters							
Five Eighths	Displacement	1.0	0	0	\$0	\$0	\$0
Three Quarters	Displacement	1.0	974	974	\$150,637	\$161,685	\$312,322
One Inch	Displacement	2.5	3	8	\$1,160	\$498	\$1,658
One & a Half Inch	Displacement	5.0	2	10	\$1,547	\$332	\$1,879
Two Inch	Displacement	8.0	1	8	\$1,237	\$166	\$1,403
Two & a Half Inch	Displacement	12.5	0	0	\$0	\$0	\$0
Three Inch	Singlet	16.0	0	0	\$0	\$0	\$0
Three Inch	Compound, Class I	16.0	0	0	\$0	\$0	\$0
Three Inch	Turbine, Class I	17.5	0	0	\$0	\$0	\$0
Four Inch	Singlet	25.0	0	0	\$0	\$0	\$0
Four Inch	Compound, Class I	25.0	0	0	\$0	\$0	\$0
Four Inch	Turbine, Class I	31.0	0	0	\$0	\$0	\$0
Total:			980	1,000	\$154,581	\$162,681	\$317,262

Table 17 - Financial Capacity Indicators and Reserves

Palmer Lake, CO, Water Rates, Scenario 2019-1

This table depicts the affordability of future rates, the financial health of the system and the ending balances in various (assumed) accounts for the test year and the next 10 years.

		Analysis (Test)												
		Test Year	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year		
		Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting		
		1/1/17	1/1/18	1/1/19	1/1/20	1/1/21	1/1/22	1/1/23	1/1/24	1/1/25	1/1/26	1/1/27	1/1/28	
Capacity Indicators	The Normal Affordability Index													
	Equivalent Final Monthly Bill for a 5,000 gal per Month Residential Customer	\$79.86	\$100.59	\$100.59	\$103.61	\$106.72	\$109.92	\$113.22	\$118.61	\$120.11	\$123.71	\$127.43	\$131.25	
	Annual Median Household Income (AMHI) Within Service Area (Projected from last available Census survey or estimated income data)	\$61,889	\$62,546	\$63,211	\$63,882	\$64,561	\$65,247	\$65,940	\$66,641	\$67,349	\$68,065	\$68,788	\$69,519	
	Affordability Index: Current Rates First Column, Then Proposed Rates	1.55%	1.93%	1.91%	1.95%	1.98%	2.02%	2.06%	2.10%	2.14%	2.18%	2.22%	2.27%	
		Affordability Index (AI) goes to the willingness and ability of customers to pay. AI is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%. The above index is only for a 1 share customers but it should be fairly representative of all residential customers.												
Low-income, Low-volume Affordability Index														
	Equivalent Final Monthly Bill for a 2,000 gal per Month, Low-income Residential Customer	\$68.19	\$77.01	\$77.01	\$79.32	\$81.70	\$84.15	\$86.67	\$89.27	\$91.95	\$94.71	\$97.55	\$100.48	
	Income at One-half the AMHI Above	\$30,944	\$31,109	\$31,274	\$31,440	\$31,607	\$31,775	\$31,944	\$32,114	\$32,284	\$32,456	\$32,628	\$32,801	
	Affordability for Low-income, Low-volume: Current Rates First Column, Then Proposed Rates	2.64%	2.97%	2.95%	3.03%	3.10%	3.18%	3.26%	3.34%	3.42%	3.50%	3.58%	3.65%	
		This additional indicator of affordability assumes a residential customer with income at one-half of the median household income above, that income is growing at one-half the rate of the median household income and the customer uses 2,000 gallons per month. Such a customer is likely either a minimum wage, or near-minimum wage worker or is retired and living on Social Security-only.												
		Estimated Operating Ratio:												
		Current Rates First Column, Then Proposed Rates	1.17	1.32	1.34	1.18	1.18	1.19	1.26	1.18	1.20	1.21	1.23	
		Operating ratio (OR) goes to the ability of the utility to pay its operating expenses. A 1.0 OR is break even. Below 1.0 indicates operating in the "red." Generally, the OR should be at least 1.15 for large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems. Note: If the utility has or will have reserves (below.) It has more ability to pay its operating costs than the OR implies.												
		Estimated Coverage Ratio:												
		Current Rates First Column, Then Proposed Rates	0.00	0.23	1.44	0.88	0.81	0.76	1.04	0.81	0.89	0.95	0.98	1.12
		Coverage Ratio (CR) goes to the ability of the utility to pay its debt payments. OR applies only to years with debt service. 1.0 is break even. Generally, the CR should be at least 1.25. Note: If the utility has or will have reserves (below.) It has more ability to make debt payments than the CR implies.												
Reserves		Balance Ending on 12/31/16	Balance Ending on 12/31/17	Balance Ending on 12/31/18	Balance Ending on 12/31/19	Balance Ending on 12/31/20	Balance Ending on 12/31/21	Balance Ending on 12/31/22	Balance Ending on 12/31/23	Balance Ending on 12/31/24	Balance Ending on 12/31/25	Balance Ending on 12/31/26	Balance Ending on 12/31/27	Balance Ending on 12/31/28
	Cash and Cash Equivalents	\$50,519	\$182,237	\$367,545	\$469,356	\$506,665	\$522,047	\$531,303	\$544,464	\$601,691	\$613,296	\$628,943	\$649,014	\$661,689
	Other Liquid Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Undedicated Cash Assets	\$50,519	\$182,237	\$367,545	\$469,356	\$506,665	\$522,047	\$531,303	\$544,464	\$601,691	\$613,296	\$628,943	\$649,014	\$661,689
	Total Cash Assets Discounted for Inflation (Future Unrestricted Purchasing Power)	\$50,519	\$182,237	\$367,545	\$455,275	\$476,721	\$476,458	\$470,358	\$467,550	\$501,192	\$495,532	\$492,930	\$493,400	\$503,036
	Repair & Replacement	\$0	\$0	\$204,207	\$200,318	\$244,622	\$284,895	\$320,909	\$352,426	\$379,200	\$400,975	\$417,486	\$428,455	\$433,596
	Debt and CIP Reserves	\$305,106	\$257,462	\$139,036	\$239,406	\$207,879	\$202,504	\$173,975	\$217,838	\$151,445	\$155,579	\$175,121	\$202,821	\$267,587
	Sum of All Reserves	\$355,625	\$439,699	\$710,788	\$909,080	\$959,165	\$1,009,448	\$1,026,187	\$1,114,728	\$1,132,335	\$1,168,850	\$1,221,550	\$1,280,389	\$1,362,871

Table 18 - Comparison of Bills Before and After Rate Adjustments

Palmer Lake, CO; Water Rates, Scenario 2019-1

The weighted-average revenue (bill) increase, as compared to the test year rates, for all customers combined will be 41.2%

Note: Rates were increased in 2018, after the test year closed. Therefore, bill increases shown below are in comparison to the now current rates, not the test year rates.

Note: The bill increases in this table are for 3/4 inch meter customers only, they include meter size-based capacity surcharges calculated in Table 13, and they include the current loan repayment surcharges.

Customer or Rate Class, or Meter Size	Gallons of Use	Customers at or Above This Volume and Below Next	Cumulative Customers	Current Bill for This Volume, Including D.S. Surcharges	Modeled Bill for This Volume, Including Now Current D.S. Surcharges	Bill Increase or Decrease (-)	Percent Increase or Decrease (-)
Customers With 3/4 Inch Meters	0	159	159	\$60.41	\$62.27	\$1.86	3%
	1,000	139	298	\$64.30	\$69.64	\$5.34	8%
	2,000	181	479	\$68.19	\$77.01	\$8.82	13%
	3,000	156	635	\$72.08	\$84.38	\$12.30	17%
	4,000	106	741	\$75.97	\$91.75	\$15.78	21%
	5,000	66	806	\$79.86	\$100.59	\$20.73	26%
	6,000	44	850	\$83.75	\$109.44	\$25.69	31%
	7,000	26	876	\$87.64	\$118.28	\$30.64	35%
	8,000	19	895	\$91.53	\$127.12	\$35.59	39%
	9,000	15	910	\$95.42	\$135.97	\$40.55	42%
	10,000	29	939	\$99.31	\$146.58	\$47.27	48%
	15,000	3	942	\$131.11	\$199.64	\$68.53	52%
	16,000	3	945	\$137.47	\$210.26	\$72.79	53%
	17,000	2	946	\$143.83	\$220.87	\$77.04	54%
	18,000	2	948	\$150.19	\$231.48	\$81.29	54%
	19,000	2	950	\$156.55	\$242.10	\$85.55	55%
	20,000	6.08	956	\$163.90	\$252.71	\$88.81	54%
	25,000	4.17	960	\$200.65	\$305.77	\$105.12	52%
	30,000	4.67	965	\$237.40	\$358.84	\$121.44	51%
	50,000	0.42	965	\$384.40	\$571.09	\$186.69	49%
	75,000	0.25	965	\$568.15	\$836.41	\$268.26	47%
	100,000	0.08	965	\$751.90	\$1,101.73	\$349.83	47%
	150,000	0.17	965	\$1,119.40	\$1,632.37	\$512.97	46%
	200,000	0.25	966	\$1,486.90	\$2,163.01	\$676.11	45%
	300,000	0.08	966	\$2,221.90	\$3,224.29	\$1,002.39	45%
	400,000	0.00	966	\$2,956.90	\$4,285.57	\$1,328.67	45%
	500,000	0.00	966	\$3,691.90	\$5,346.85	\$1,654.95	45%

Table 19 - User Statistics

Palmer Lake, CO; Water Rates, Scenario 2019-1

This table shows measures of equitability, or "fairness," of the rates as modeled in Table 10. If system development fees or capacity surcharges were also calculated but not included in Table 10, this table does not take those fees into account.

If your rates are absolutely proportional to use on a volumetric basis, your % of usage and % of revenues figures will be the same within all the classes. That is not possible if you have any minimum charge and having no minimum charge is almost unheard of.

Normally, the % of usage figure will be lower than the % of revenue for the lower volumes of use. That will switch for the higher volumes of use. Even for declining rate structures, this switch should occur near the volume of the average residential user, typically near 5,000 gallons/month (668 cu ft).

In urban and suburban areas the average monthly use for residential or general customers can be twice that used by their rural and "old town" counterparts. Use is largely dependent upon who lives in a community. Older people living in longer established neighborhoods tend to use less volume than younger people living in more recently developed areas. As you make comparisons between different customers and customer classes, keep that, and the following in mind:

4,065 Gallons: This is the average residential customer's usage per Monthly billing cycle.

Usage allowance is the volume "given away" with the minimum charge. The higher the allowance, the less volume the utility can sell to generate income.

47,104,995 Gallons: This is the volume metered through customer meters that was available to be sold by the utility during the test year.

0 Gallons: This is the volume metered through customer meters that was given away as a usage allowance during the test year.

\$0 Loss: At the unit charge rate in effect during the test year, the utility failed to collect this much revenue due to the usage allowance.

\$0 Loss: At the modeled (recommended) unit charge rates and usage allowance (if any), over a full year this is the amount of revenue the utility would fail to collect due to the usage allowance as modeled (if any).

Customer or Rate Class, or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Avg. Use in Each Volume Range in 1,000 Gallons	Total Annual Use in Each Volume Range in Gallons	Customers Within This Volume Range	% Users	% Usage	Cumulative Use in This Class From Low to High Volume	Cumulative Use in This Class From High to Low Volume	% Revenue at Current Rates, Not Including D.S. Surcharges	% Revenue at Modeled Rates, Not Including D.S. Surcharges
All Customers	0	999	0.868	373,595	158.8	16.4%	0.8%	0.8%	100.0%	17.5%	17.5%
	1,000	1,999	0.912	2,492,200	139.3	14.4%	5.3%	6.1%	99.2%	15.3%	15.4%
	2,000	2,999	0.850	5,309,800	180.9	18.7%	11.3%	17.4%	93.9%	17.1%	16.8%
	3,000	3,999	0.816	6,398,800	155.7	16.1%	13.6%	30.9%	82.6%	14.1%	13.8%
	4,000	4,999	0.815	5,613,800	105.8	11.0%	11.9%	42.9%	69.1%	9.6%	9.4%
	5,000	5,999	0.829	4,283,300	65.9	6.8%	9.1%	52.0%	57.1%	6.1%	6.3%
	6,000	6,999	0.844	3,369,400	43.7	4.5%	7.2%	59.1%	48.0%	4.1%	4.3%
	7,000	7,999	0.877	2,324,800	26.0	2.7%	4.9%	64.0%	40.9%	2.6%	2.7%
	8,000	8,999	0.877	1,866,100	18.5	1.9%	4.0%	68.0%	36.0%	1.9%	2.0%
	9,000	9,999	0.882	1,689,300	14.9	1.5%	3.6%	71.6%	32.0%	1.5%	1.6%
	10,000	14,999	3.407	4,189,400	29.3	3.0%	8.9%	80.5%	28.4%	3.5%	4.2%
	15,000	15,999	0.933	538,300	2.9	0.3%	1.1%	81.6%	19.5%	0.5%	0.5%
	16,000	16,999	0.933	575,700	2.9	0.3%	1.2%	82.8%	18.4%	0.5%	0.5%
	17,000	17,999	0.953	366,100	1.8	0.2%	0.8%	83.6%	17.2%	0.4%	0.4%
	18,000	18,999	0.949	368,100	1.7	0.2%	0.8%	84.4%	16.4%	0.3%	0.3%
	19,000	19,999	0.950	369,400	1.6	0.2%	0.8%	85.2%	15.6%	0.3%	0.3%
	20,000	24,999	3.901	1,611,700	6.1	0.6%	3.4%	88.6%	14.8%	1.3%	1.1%
	25,000	29,999	3.933	1,370,900	4.2	0.4%	2.9%	91.5%	11.4%	0.8%	0.7%
	30,000	49,999	8.944	2,015,000	4.7	0.5%	4.3%	95.8%	8.5%	1.1%	0.9%
	50,000	74,999	19.073	286,100	0.4	0.0%	0.6%	96.4%	4.2%	0.4%	0.3%
	75,000	99,999	20.150	251,500	0.3	0.0%	0.5%	96.9%	3.6%	0.2%	0.2%
	100,000	149,999	43.043	101,300	0.1	0.0%	0.2%	97.2%	3.1%	0.3%	0.3%
	150,000	199,999	37.883	327,300	0.2	0.0%	0.7%	97.8%	2.8%	0.3%	0.2%
	200,000	299,999	45.325	681,300	0.3	0.0%	1.4%	99.3%	2.2%	0.2%	0.2%
	300,000	399,999	31.800	331,800	0.1	0.0%	0.7%	100.0%	0.7%	0.0%	0.0%
	400,000	499,999	0.000	0	0.0	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	500,000	331,800	0.000	0	0.0	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Grand Totals				47,104,995		100.00%	100.00%			100.00%	100.00%

Chart 1 - Operating Ratio

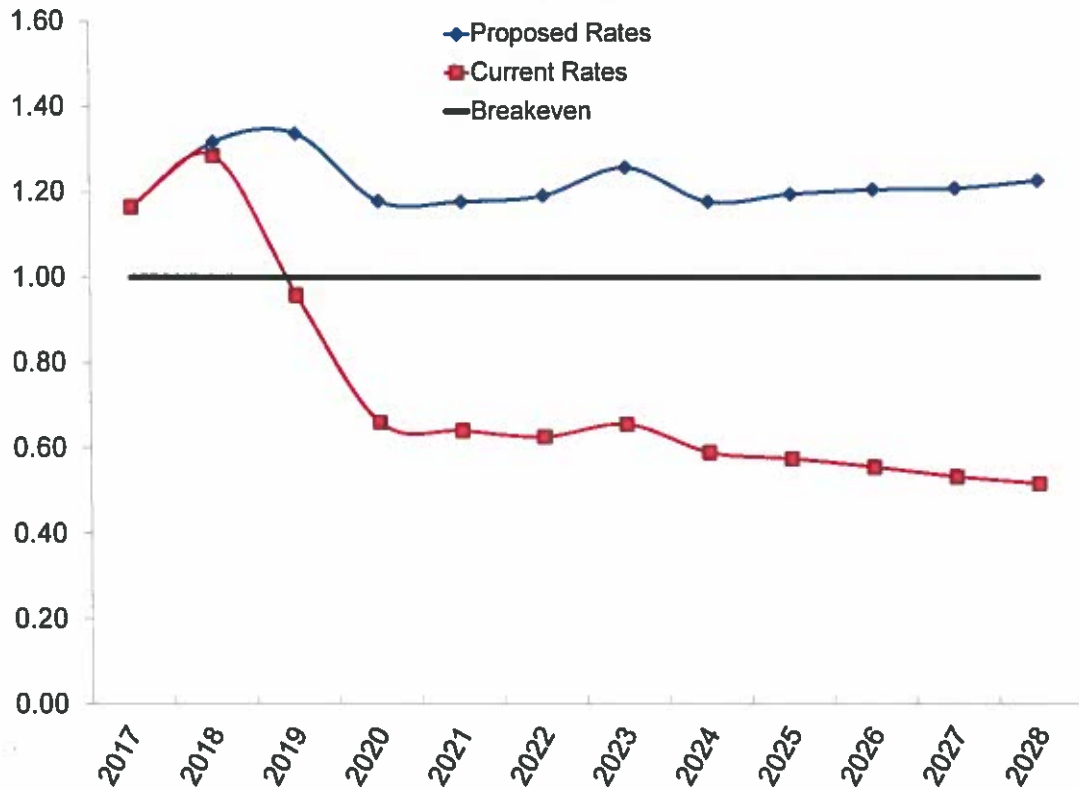


Chart 2 - Coverage Ratio

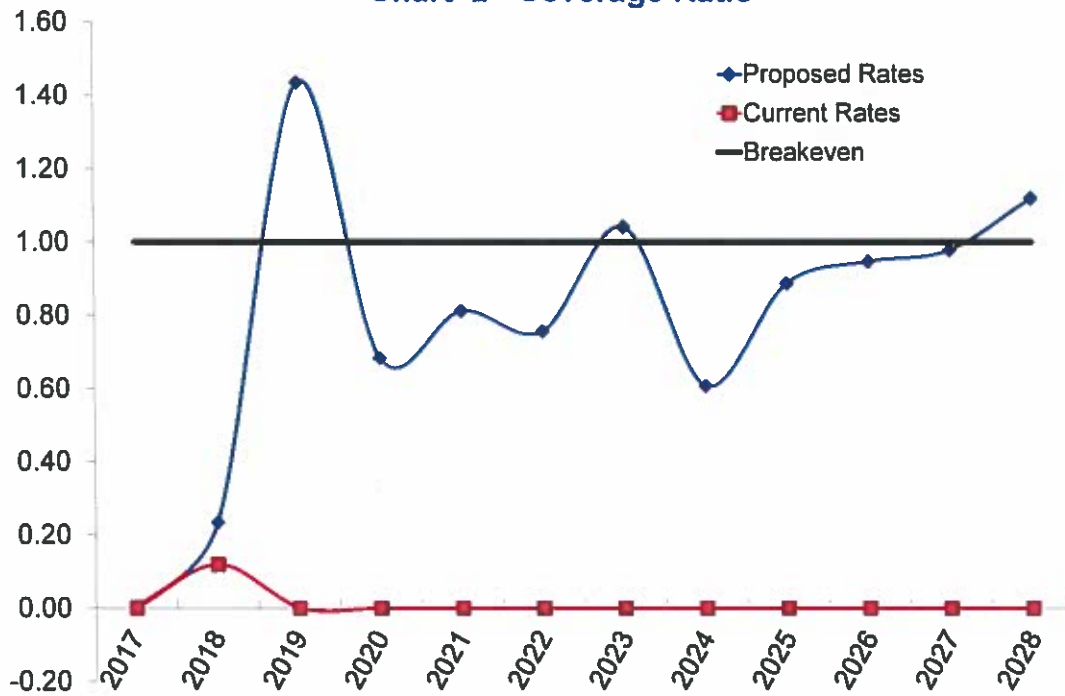


Chart 3 - Residential Users' Bills

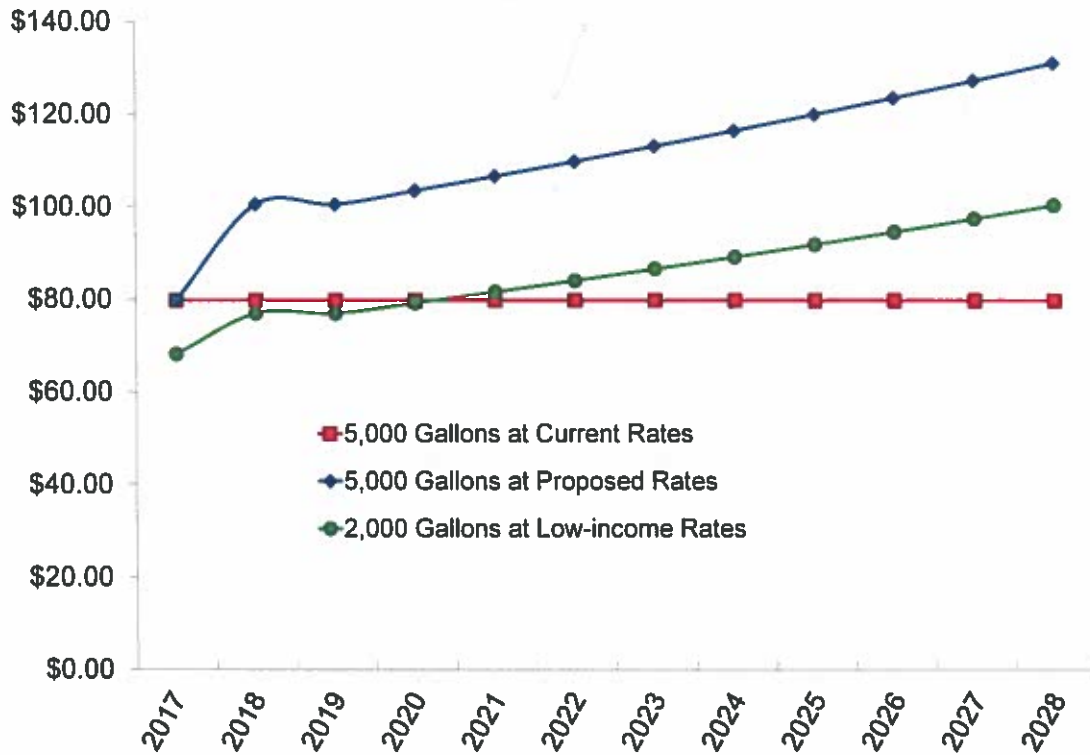


Chart 4 - Affordability

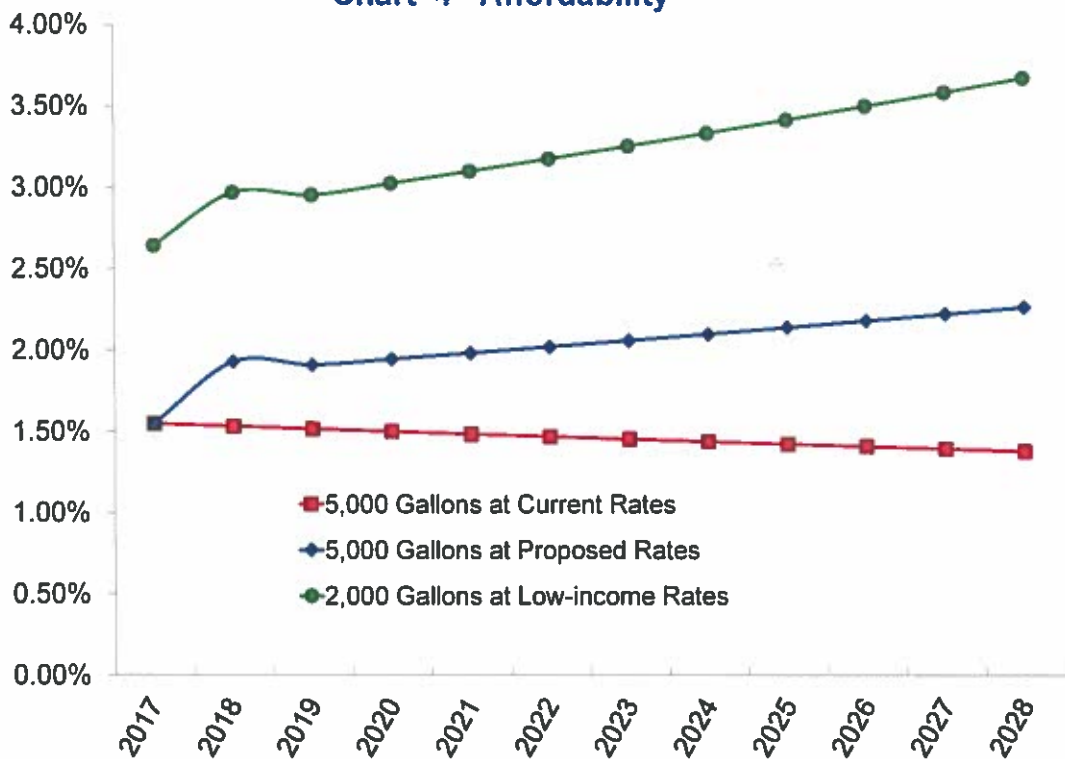


Chart 5 - Working Capital vs Goal

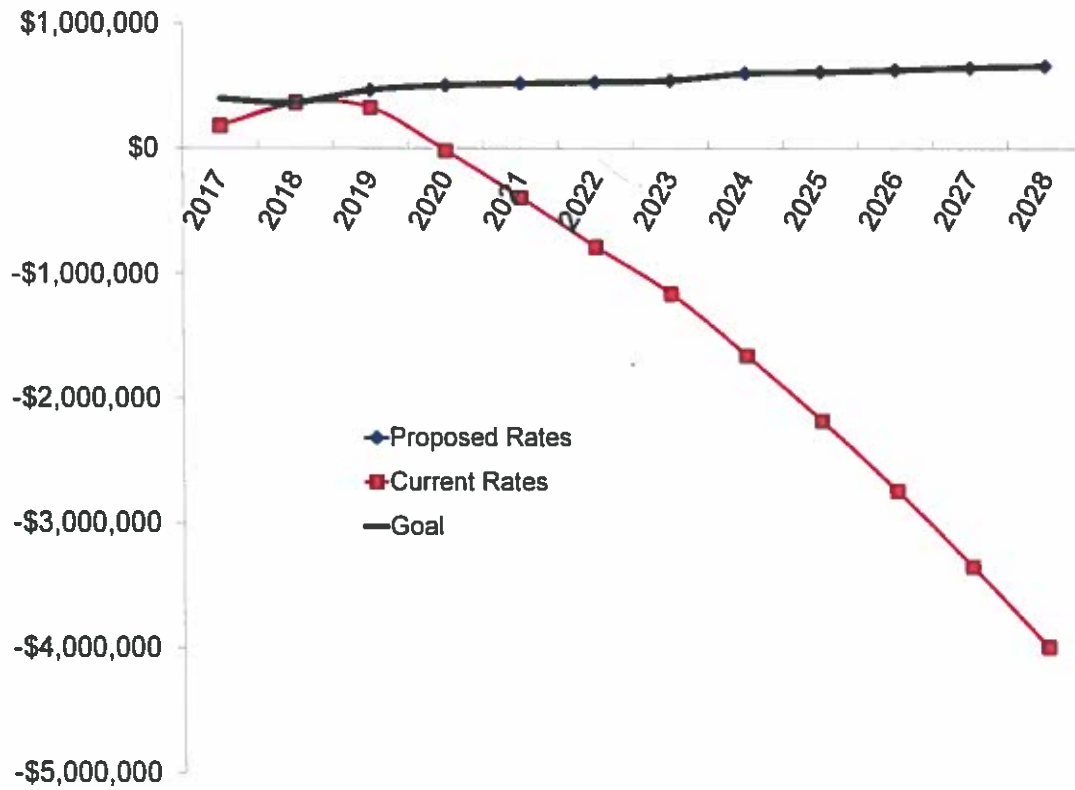


Chart 6 - Value of Cash Assets Before Inflation

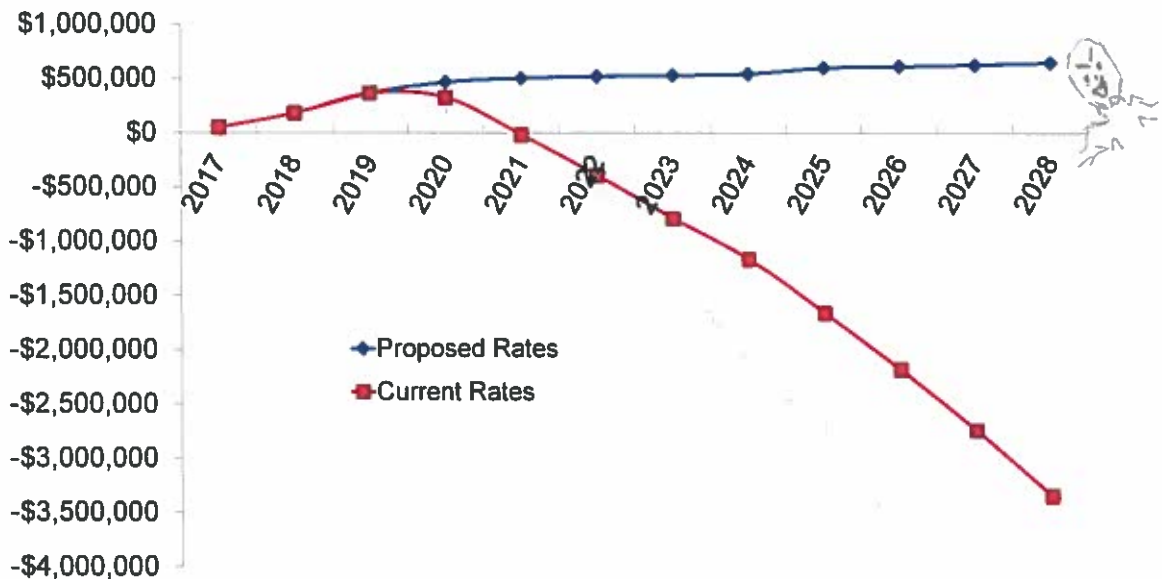


Chart 7 - Value of Cash Assets After Inflation

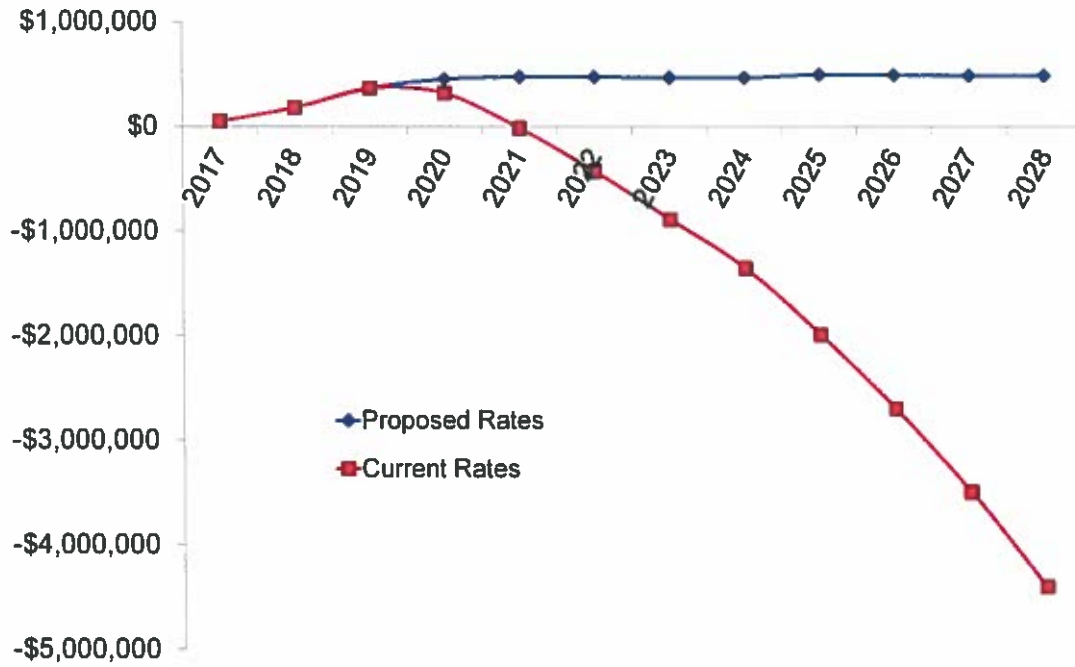


Chart 8 - Sum of All Reserves

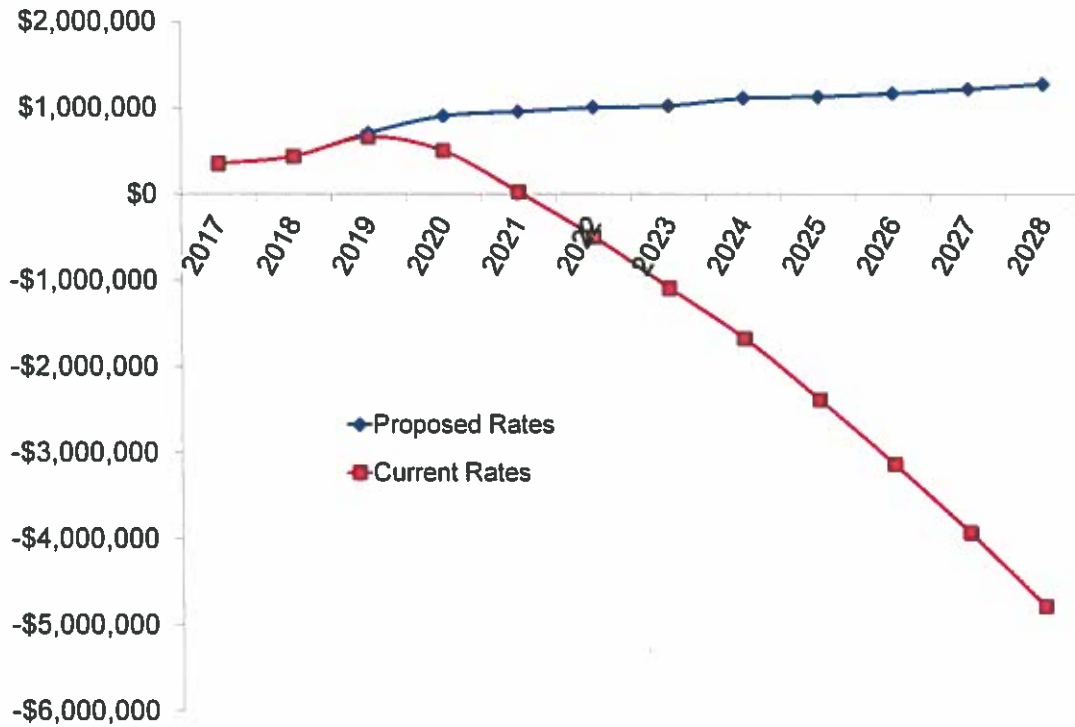


Table 6 - Equipment Replacement Schedule - Detailed

Douglas, WY; Water Rates, Model 2018-1

Year Beginning	Misc R&R	Cleaning Water Tanks	Line Locator	Filter sand replacement	Replace Soft smart motor controller	SCADA System replacement - 10 sites	Pickup (Replace #4) 50%	Pickup w/ Utility box - 50% (Replace #176)	Compressor - 50%
7/1/17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/18	\$0	\$0	\$8,500	\$415,000	\$0	\$275,000	\$17,500	\$0	\$0
7/1/19	\$0	\$0	\$0	\$0	\$95,000	\$0	\$0	\$0	\$0
7/1/20	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,000
7/1/22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0
7/1/23	\$0	\$0	\$8,500	\$0	\$0	\$0	\$0	\$0	\$0
7/1/24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/25	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/26	\$0	\$0	\$0	\$415,000	\$0	\$0	\$0	\$0	\$0
7/1/27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/28	\$0	\$0	\$8,500	\$0	\$0	\$275,000	\$17,500	\$0	\$0
7/1/29	\$0	\$0	\$0	\$0	\$95,000	\$0	\$0	\$0	\$0
7/1/30	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,000
7/1/32	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0
7/1/33	\$0	\$0	\$8,500	\$0	\$0	\$0	\$0	\$0	\$0
7/1/34	\$0	\$0	\$0	\$415,000	\$0	\$0	\$0	\$0	\$0
7/1/35	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Table 6 - Equipment Replacement Schedule - Detailed

Year Beginning	Vac Truck (Replace #174) 50%	Loader - 50% (Replace 1998)	Backhoe - 50% (Replace #184) (1996)	Loader - 50% (Replace #188)	Painting Water Tanks - 3	Pickup w/ Utility box - 50% (Replace #178)	Loader - 50% (Replace 1996)	Total Annual Replacement Costs
7/1/17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/18	\$0	\$0	\$0	\$0	\$130,000	\$20,000	\$0	\$866,000
7/1/19	\$0	\$70,000	\$65,000	\$0	\$0	\$0	\$70,000	\$300,000
7/1/20	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$85,000
7/1/21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,000
7/1/22	\$160,000	\$0	\$0	\$0	\$0	\$0	\$0	\$185,000
7/1/23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500
7/1/24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000
7/1/26	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$415,000
7/1/27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$301,000
7/1/29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$95,000
7/1/30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000
7/1/31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,000
7/1/32	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000
7/1/33	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500
7/1/34	\$0	\$70,000	\$65,000	\$0	\$0	\$0	\$0	\$550,000
7/1/35	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$85,000
7/1/36	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Table 6 - Equipment Replacement Schedule - Detailed

Cowley County, KS RWD #5, Water Rates, Scenario 2018-2

Year Beginning	Pipe rack	Line & valve replacement, 5,400' @ 7.50/ft	Meter replacement, Benefit units, replace 8%/yr = 64 @ \$206 ea	Meter replacement, Area meters, 4 @ \$2,500 ea	Meter replacement, Laptop, software & equipment for meter reading	Towers: Clean & inspect every 3 yrs	Line & valve replacement, \$2,000 for valves	Towers, Interior (sandblast & paint)	Towers, Exterior (wash & overcoat)	Tower valve pits	Towers, Anti- access ladder	Booster stations, Pumps, 400 GPM, type 411 BF, size 3x4x14, 2 @ \$18,000 each
1/1/18	\$4,000	\$8,100	\$13,184	\$0	\$0	\$10,200	\$2,000	\$51,000	\$51,000	\$0	\$0	\$0
1/1/19	\$0	\$8,100	\$13,184	\$2,500	\$0	\$0	\$0	\$135,000	\$38,000	\$0	\$0	\$0
1/1/20	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,000
1/1/21	\$0	\$8,100	\$13,184	\$2,500	\$0	\$10,200	\$0	\$0	\$0	\$0	\$0	\$0
1/1/22	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/23	\$0	\$8,100	\$13,184	\$2,500	\$35,000	\$0	\$0	\$0	\$0	\$36,000	\$45,000	\$0
1/1/24	\$0	\$8,100	\$13,184	\$0	\$0	\$10,200	\$0	\$0	\$0	\$0	\$0	\$0
1/1/25	\$0	\$8,100	\$13,184	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/26	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/27	\$0	\$8,100	\$13,184	\$0	\$0	\$10,200	\$0	\$0	\$0	\$0	\$0	\$0
1/1/28	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$2,000	\$51,000	\$51,000	\$0	\$0	\$0
1/1/29	\$0	\$8,100	\$13,184	\$2,500	\$0	\$0	\$0	\$135,000	\$38,000	\$0	\$0	\$0
1/1/30	\$0	\$8,100	\$13,184	\$0	\$0	\$10,200	\$0	\$0	\$0	\$0	\$0	\$36,000
1/1/31	\$0	\$8,100	\$13,184	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/32	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/33	\$0	\$8,100	\$13,184	\$2,500	\$35,000	\$10,200	\$0	\$0	\$0	\$36,000	\$0	\$0
1/1/34	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/35	\$0	\$8,100	\$13,184	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/36	\$0	\$8,100	\$13,184	\$0	\$0	\$10,200	\$0	\$0	\$0	\$0	\$0	\$0
1/1/37	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/38	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$2,000	\$51,000	\$51,000	\$0	\$0	\$0
1/1/39	\$0	\$8,100	\$13,184	\$2,500	\$0	\$10,200	\$0	\$135,000	\$38,000	\$0	\$0	\$0
1/1/40	\$0	\$8,100	\$13,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,000
1/1/41	\$0	\$8,100	\$13,184	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/42	\$0	\$8,100	\$13,184	\$0	\$0	\$10,200	\$0	\$0	\$0	\$0	\$0	\$0

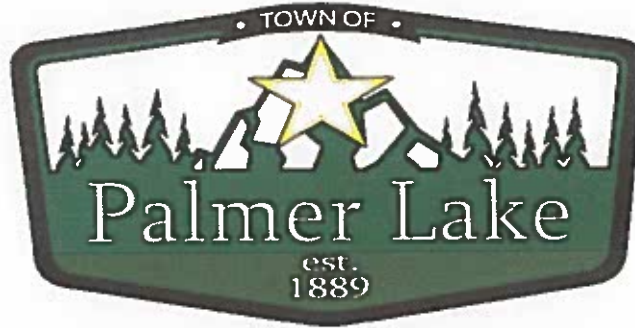
Table 6 - Equipment Replacement Schedule - Detailed

Year Beginning	Booster stations, 40 HP motors, 220V 3 Phase, 1765 rpm 2 @ \$2,500	Booster stations, Telemetry controls (upgrade system)	Booster stations, VFD Drive, 2 drives @ \$4,500 ea	Booster stations, Chlorinator, 3 @ \$1,200 ea	6550 - Vehicle Replacement Maintenance In-between Years	Booster Station #1, Generator - permanent	Booster Station #1, Building, housing for generator	Booster Station #1, Cables & switches	Booster Station # 2, 4 & 5, Generator - mobile	Booster Station # 2, 4 & 5, Switches & cables	BS #5 By pass	System Hydraulic audit	Total Annual Replacement Costs
1/1/18	\$0	\$0	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$155,484
1/1/19	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$6,000	\$5,000	\$5,300	\$30,000	\$245,581
1/1/20	\$5,000	\$26,000	\$9,000	\$3,600	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,381
1/1/21	\$0	\$0	\$0	\$0	\$4,497	\$8,000	\$3,000	\$2,700	\$0	\$0	\$0	\$0	\$52,181
1/1/22	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,781
1/1/23	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$144,281
1/1/24	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,981
1/1/25	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,281
1/1/26	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,781
1/1/27	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,981
1/1/28	\$0	\$0	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$141,284
1/1/29	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$199,281
1/1/30	\$5,000	\$26,000	\$9,000	\$3,600	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$115,581
1/1/31	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,281
1/1/32	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,781
1/1/33	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$109,481
1/1/34	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,781
1/1/35	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,281
1/1/36	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,981
1/1/37	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,781
1/1/38	\$0	\$0	\$0	\$0	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$141,284
1/1/39	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$6,000	\$5,000	\$5,300	\$30,000	\$255,781
1/1/40	\$5,000	\$26,000	\$9,000	\$3,600	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,381
1/1/41	\$0	\$0	\$0	\$0	\$4,497	\$8,000	\$3,000	\$2,700	\$0	\$0	\$0	\$0	\$41,981
1/1/42	\$0	\$0	\$0	\$0	\$4,497	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35,981

RESIDENTIAL WATER RATE COMPARISON FOR 2019

SINGLE FAMILY HOMES

	DONALA	FOREST LAKES METRO	FOREST VIEW ACRES	MONUMENT	TOWN OF PALMER LAKE	TRIVIEW	WOODMOOR	WOODMEN HILLS
Monthly Service Fee	\$ 26.00	\$ 10.00	\$ 90.00	\$ 31.00	\$ 60.50	\$ 22.68	\$ 50.31	\$ 54.40
WATER INCREMENTAL INCREASE / 1000 GALLONS - ON MONTHLY BASIS								
	zero - 10,000 \$ 6.94	4.50 / 1000	zero - 4,000 \$ 8.00	1,001 - 6,000 \$ 6.00	0 - 15,000 \$ 3.89	zero - 6,000 \$ 4.00	zero - 6,000 \$ 5.90	zero - 7,500 \$ 3.00
	10,001 - 20,000 \$ 11.55		4,001 - 7,000 \$ 12.00	6,001 - 12,000 \$ 9.00	15,001 - 20,000 \$ 6.36	6,001 - 20,000 \$ 4.95	6,001 - 25,000 \$ 9.73	7,501 - 10,000 \$ 4.30
	20,001 - 30,000 \$ 15.43		7,001 & over \$ 16.00	12,001 - 24,000 \$ 11.00	20,001 & over \$ 7.35	20,001 - 30,000 \$ 8.75	25,001 & over \$ 15.56	10,001 - 20,000 \$ 12.80
	30,001 - 40,000 \$ 23.15			24,001 & over \$ 12.25		30,001 - 40,000 \$ 9.88		20,001 - 30,000 \$ 17.10
	40,001 - 50,000 \$ 30.88					40,001 & over \$ 11.99		30,001 & over \$ 21.20
	50,000 & over \$ 38.59							



Board of Trustees Summary Sheet

	Resolution 5 of 2019
Title	A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ESTABLISH A MIXED RESIDENTIAL DWELLING AND COMMERCIAL USES OCCURRING IN THE SAME BUILDING ON A PROPERTY CURRENTLY ZONED C-C CONVENIENCE COMMERCIAL ZONE DISTRICT AND LOCATED AT 56 HIGHWAY 105 ("PROPERTY")
Action	Board Vote
Date	3.28.19
Contact	Catherine Green
Summary	This is a request to grant a conditional use in a C-C zone district for a :Mixed Residential Dwellings with Commercial Use In The Same Building". The applicant is proposing a multi-story building with commercial on the ground floor, and residential on the upper floor(s). The applicant and owner of this property wishes to raze the current one-story buildings and develop a mixed commercial and residential complex. After working with consultants to determine what type of development would best serve the community and maximize the potential use of the location, the applicant has identified a mixed-use development as the highest and best use.
Budget Implications	None
Other Actions	The Planning Commission voted unanimously to recommend approval of this conditional use with the following conditions: 1. The use will comply with all zoning regulations listed in the CC zone district.
Motion #1	I move to approve A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ESTABLISH A MIXED RESIDENTIAL DWELLING AND COMMERCIAL USES OCCURRING IN THE SAME BUILDING ON A PROPERTY CURRENTLY ZONED C-C CONVENIENCE COMMERCIAL ZONE DISTRICT AND LOCATED AT 56 HIGHWAY 105 with the following condition(s): 1.-----

PALMER LAKE, COLORADO

RESOLUTION NO. 5 OF 2019

**A RESOLUTION APPROVING A CONDITIONAL USE PERMIT
TO ESTABLISH A MIXED RESIDENTIAL DWELLING AND COMMERCIAL USES OCCURRING IN
THE SAME BUILDING ON A PROPERTY CURRENTLY ZONED C-C CONVENIENCE
COMMERCIAL
ZONE DISTRICT AND LOCATED AT 56 HIGHWAY 105 ("PROPERTY")**

WHEREAS, PALMER LAKE IS A STATUTORY TOWN ORGANIZED UNDER AND AUTHORIZED PURSUANT TO PART 3 OF ARTICLE 4 OF TITLE 31 OF THE COLORADO REVISED STATUTES; AND

WHEREAS, SECTION 17.38.020 OF THE PALMER LAKE MUNICIPAL CODE PROVIDES THAT A MIXED RESIDENTIAL WITH COMMERCIAL USE IS A CONDITIONAL USE IN THE C-C CONVENIENCE COMMERCIAL ZONE DISTRICT; AND

WHEREAS, SECTION 17.08.090 PROVIDES THAT THE PLANNING COMMISSION SHALL MAKE RECOMMENDATIONS OF APPROVAL OR DENIAL OF CONDITIONAL USES TO THE BOARD OF TRUSTEES, WHICH HAS THE FINAL AUTHORITY TO GRANT OR DENY SUCH APPLICATIONS; AND

WHEREAS, SECTION 17.08.090 FURTHER PROVIDES THAT THE APPLICANT FOR A CONDITIONAL USE SHALL FOLLOW THE SAME PROCEDURE AS IS REQUIRED FOR AN APPLICATION FOR A ZONING DESIGNATION CHANGE, INCLUDING THE POSTING AND PUBLICATION OF LEGAL NOTICE; AND

WHEREAS, CHAPTER 17.76 SETS FORTH THE PROCEDURE FOR ZONING AMENDMENTS ALSO APPLICABLE TO CONDITIONAL USE APPLICATIONS; AND

WHEREAS, PUBLISHED AND POSTED NOTICE OF THE PUBLIC HEARINGS BEFORE THE PLANNING COMMISSION AND BOARD OF TRUSTEES AS REQUIRED BY SECTION 17.76.10 WAS DULY AND TIMELY ACCOMPLISHED; AND

WHEREAS, THE PALMER LAKE PLANNING COMMISSION RECOMMENDED APPROVAL OF THIS CONDITIONAL USE.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE, EL PASO COUNTY, COLORADO, AS FOLLOWS:

Section 1. The application pursuant to Section 17.38.020 for a Conditional Use Permit to establish a mixed residential with commercial use on property currently zoned "CC" Convenience Commercial, and located at 56 Highway 105 is hereby approved, subject to the following conditions:

1. The use will comply with all zoning regulations listed in the CC zone district.

Section 2. This Resolution shall be effective immediately.

APPROVED AND ADOPTED ON THIS 28th DAY OF March 2019, BY A VOTE OF __ FOR AND __ AGAINST.

JOHN CRESSMAN, MAYOR

ATTEST:

VERLA BRUNER, TOWN CLERK

Approved as to Form:

MAUREEN JURAN, TOWN ATTORNEY



PLANNING COMMISSION STAFF REPORT

Z.1.19

Conditional Use at 56 Highway 105

LOCATION OF PROPERTY: 56 Highway 105, Palmer Lake, CO 80133

ZONING: C-C, Convenience Commercial Zone District

LEGAL DESCRIPTION :

LOT 1 BLK 1 MORONI SUB REPLAT FIL NO 2, EX THAT PT
DESC AS FOLS: BEG AT MOST ELY COR OF SD LOT 1, TH
S 68<11'55" W 17.28 FT, S 00<00'00" W 30.00 FT,
S 90<00'00" W 28.63 FT, N 43<39'38" E 34.00 FT M/L
TO A PT, N 00<00'00" W 27.53 FT TO A PT ON NE LN
OF SD LOT 1, TH S 50<38'54" E 32.00 FT M/L TO POB

APPLICANT : Sylvia Amos
56 Highway 105
Palmer Lake, CO

NOTICING:

Property posted: January 26, 2019
Published in the Gazette – January 30, 2019
Contact: Catherine Green
cathy@palmer-lake.org

PROJECT DESCRIPTION

This is a request to grant a conditional use in a C-C zone district for a Mixed Residential Dwellings with Commercial Use. The applicant is proposing a multi-story building with commercial on the ground floor, and residential on the upper floor(s).

BACKGROUND

The applicant and owner of this property wishes to raze the current one-story buildings and develop a mixed commercial and residential complex. After working with consultants to determine what type of development would best serve the community and maximize the potential use of the location, the applicant has identified a mixed-use development as the highest and best use.



Town of Palmer Lake
Minutes of the Planning Commission

February 20, 2019 @ 6:00 PM

28 Valley Crescent/ Town Office

Planning Commissioners Present:

Chairman Cooper

Commissioner Bruce

Commissioner Padgett

Commissioner Ihlenfeld

Commissioner Mettler

Commissioner Brown

Planning Commissioners Absent:

Commissioner Fisher

Agenda:

1. Call to Order

Chairman Cooper called the meeting to order at 6:00pm.

2. Approval of Minutes (January 16, 2019)

Commissioner Mettler made a motion to approve minutes from 1.16.19. seconded by Commissioner Ihlenfeld. Motion passed 6-0.

3. V-1-19. An Application for a Street Vacation and Replat for parts of Trinity Addition, Palmer Lake, CO.

Chairman Cooper asked that V-1-19 be tabled until the March 20, 2019 meeting. Commissioner Ihlenfeld made the motion to table V-1-19, Commissioner Bruce seconded. Motion passed 6-0.

4. Z-1-19. An Application for a Conditional Use Permit for a Mixed Residential/Commercial Development in a CC Zone District. Applicant Sylvia Amos.

Staff explained that this request was for a conditional use permit to build a mixed use building with both residential and commercial in the same building, and that it was not to be taken as an approval of any specific floor plans, site plans or illustrations of buildings. Also, developments on this site must first show proof of water and sewer service, and conform with the requirements of the zone district and



any conditions that the Commission and/or Council place on the proposed permit.

Applicant Sylvia Amos described her vision of what the development would look like with commercial on the ground floor and residential units on the second and third floor. She said that she had been working with Pikes Peak Community College to possibly lease space to their culinary school. She does not yet know how many taps she would need or if they are available.

Matt Stephens spoke and asked that the Commission consider it's location on HWY 105 and require that a sidewalk be placed in front of the building.

Commissioner Ihlenfeld made a motion to recommend approval of Z-1-19, seconded by Commissioner Bruce. Motion passed 6-0.

5. Z-2-19. An Application for a Conditional Use Permit for a Single Family Home in a C-1 Zone District. Applicant Richard Willian.

Applicant Richard Willian explained where the property was located and said that he wants to build a single family home. He has the required taps to build one home. He would like to add up to 3 more homes on the property in the future, however he will have to first subdivide the property.

Commissioner Padgett made a motion to recommend approval of Z-2-19, seconded by Commissioner Mettler. Motion passed 6-0.

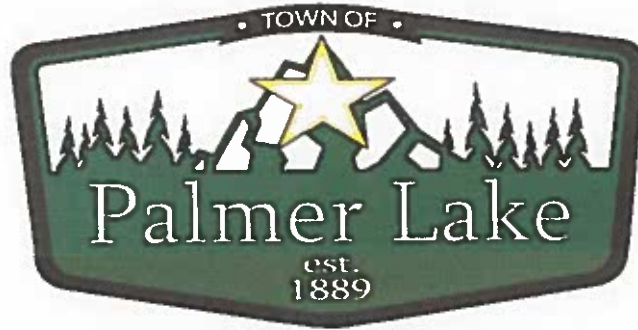
6. Z-3-19. An Application for a Conditional Use Permit for a Day Care Home in an R-3 Zone District. Applicant Maria Arefieva.

Staff explained the general concept of a Day Care as a conditional use in a residential zone district. Applicant Maria Arefieva explained the concept of a Forest School which is common in Europe. These are day schools where children are in a natural area with trees and grass instead of plastic and concrete.

Jim Adams who live across the street, spoke in favor of the application but had the following concerns:

- **Traffic at the trailhead can be dangerous. Applicant described where and how they would cross streets.**
- **Should there be concerns about registered sex offenders? (PD was asked and said no)**
- **Bears. Will there be enough supervision to protect against wildlife. Applicant answered yes that state requires one adult per 12 children and they will have 1 adult per 8 children.**
- **Will private residents be restricted from growing cannabis if the live close the day care. No.**
- **Gate closure on driveway. There was a discussion about how the driveway gate would be opened and closed, especially during snow events.**

Commissioner Mettler made a motion to recommend approval of Z-3-19 with two conditions: 1. A children at play sign be installed in



Board of Trustees Summary Sheet

	Resolution 6 of 2019
Title	A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ESTABLISH A SINGLE-FAMILY USE ON A PROPERTY CURRENTLY ZONED C-1 GENERAL BUSINESS AND COMMERCIAL ZONE DISTRICT AND LOCATED AT 296 SPRING STREET ("PROPERTY")
Action	Board Vote
Date	3.28.19
Contact	Catherine Green
Summary	This is a request to grant a conditional use in a C-1 (Commercial and Business) zone district for a Single Family Home. At one time this property was used for a home and dog kennel. The applicant has torn down these uses and is proposing a single family home. Staff believes this property was wrongly or inadvertently identified as commercial when it should have been identified as residential on the official zoning map. Staff is working on a rezoning ordinance to correct the zoning map.
Budget Implications	None
Other Actions	The Planning Commission voted unanimously to recommend approval of this conditional use permit with no conditions
Motion #1	I move to approve A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ESTABLISH A SINGLE-FAMILY HOUSE ON A PROPERTY CURRENTLY ZONED C-1 GENERAL BUSINESS AND COMMERCIAL ZONE DISTRICT AND LOCATED AT 296 SPRING STREET .

PALMER LAKE, COLORADO

RESOLUTION NO. 6 OF 2019

**A RESOLUTION APPROVING A CONDITIONAL USE PERMIT
TO ESTABLISH A SINGLE-FAMILY USE
ON A PROPERTY CURRENTLY ZONED C-1 GENERAL
BUSINESS AND COMMERCIAL ZONE DISTRICT
AND LOCATED AT 296 SPRING STREET ("PROPERTY")**

WHEREAS, PALMER LAKE IS A STATUTORY TOWN ORGANIZED UNDER AND AUTHORIZED PURSUANT TO PART 3 OF ARTICLE 4 OF TITLE 31 OF THE COLORADO REVISED STATUTES; AND

WHEREAS, SECTION 17.36.020 OF THE PALMER LAKE MUNICIPAL CODE PROVIDES THAT A A SINGLE FAMILY HOUSE IS A CONDITIONAL USE IN THE C-1 CENTRAL BUSINESS AND COMMERCIAL ZONE DISTRICT; AND

WHEREAS, SECTION 17.08.090 PROVIDES THAT THE PLANNING COMMISSION SHALL MAKE RECOMMENDATIONS OF APPROVAL OR DENIAL OF CONDITIONAL USES TO THE BOARD OF TRUSTEES, WHICH HAS THE FINAL AUTHORITY TO GRANT OR DENY SUCH APPLICATIONS; AND

WHEREAS, SECTION 17.08.090 FURTHER PROVIDES THAT THE APPLICANT FOR A CONDITIONAL USE SHALL FOLLOW THE SAME PROCEDURE AS IS REQUIRED FOR AN APPLICATION FOR A ZONING DESIGNATION CHANGE, INCLUDING THE POSTING AND PUBLICATION OF LEGAL NOTICE; AND

WHEREAS, CHAPTER 17.76 SETS FORTH THE PROCEDURE FOR ZONING AMENDMENTS ALSO APPLICABLE TO CONDITIONAL USE APPLICATIONS; AND

WHEREAS, PUBLISHED AND POSTED NOTICE OF THE PUBLIC HEARINGS BEFORE THE PLANNING COMMISSION AND BOARD OF TRUSTEES AS REQUIRED BY SECTION 17.76.10 WAS DULY AND TIMELY ACCOMPLISHED; AND

WHEREAS, THE PALMER LAKE PLANNING COMMISSION RECOMMENDED APPROVAL OF THIS CONDITIONAL USE.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE, EL PASO COUNTY, COLORADO, AS FOLLOWS:

Section 1. The application pursuant to Section 17.36.020 for a Conditional Use Permit to establish a single family home on property currently zoned "C1" General Business and Commercial, and located at 296 Spring Street is hereby approved, subject to the following conditions:

1. Single Family house will be subject to all requirements listed in the R-3, Medium Residential Zone District.

Section 2. This Resolution shall be effective immediately.

APPROVED AND ADOPTED ON THIS 28th DAY OF MARCH 2019, BY A VOTE OF __ FOR AND __ AGAINST.

JOHN CRESSMAN, MAYOR

ATTEST:

VERLA BRUNER, TOWN CLERK

Approved as to Form:

MAUREEN JURAN, TOWN ATTORNEY



PLANNING COMMISSION STAFF REPORT

Z.2.19

Conditional Use at 296 Spring Street

LOCATION OF PROPERTY: 296 Spring Street

ZONING: C1 General Business and Commercial Zone District

APPLICANT: Richard Willan
670 Eisenhower
Palmer Lake, CO 80133

PROPERTY OWNER: Richard Willan

NOTICING:

Property posted: January 26, 2019
Published in the Gazette – January 30, 2019
Contact: Catherine Green
cathy@palmer-lake.org

PROJECT DESCRIPTION

This is a request to grant a conditional use in a C-1 zone district for a Single Family Residential Unit.

BACKGROUND

The applicant and owner of this property wishes to build a single family home on the north end of the property and possibly subdivide the remainder of the property for other residential units at a future date. Staff believes that this property was erroneously zone C-1 and that it should have been zoned R-3.

ANALYSIS – TITLE 17. ZONING. The Planning Commission shall make a recommendation to the Board of Trustees, who shall approve the designation of the proposed conditional use if it finds the following:

- A. **The proposed use complies with the Palmer Lake Comprehensive Plan.** *The proposed use complies with the Comprehensive Plan which envisioned this land as residential.*
- B. **The proposed use meets the required standards of the C-1 Zone District.** *The proposed meets the conditions of the C-1 Zone District.*

- C. The developer is proposing the following development standards to reduce or alleviate the impacts on surrounding properties. *The proposed use has no impact on surrounding properties.*

Staff proposes the following conditions be placed on this conditional use request:

1. All development plans meet the height and set back regulations for the R-3, medium density residential zone district.



Town of Palmer Lake
Minutes of the Planning Commission
February 20, 2019 @ 6:00 PM
28 Valley Crescent/ Town Office

Planning Commissioners Present:

Chairman Cooper

Commissioner Bruce

Commissioner Padgett

Commissioner Ihlenfeld

Commissioner Mettler

Commissioner Brown

Planning Commissioners Absent:

Commissioner Fisher

Agenda:

1. Call to Order

Chairman Cooper called the meeting to order at 6:00pm.

2. Approval of Minutes (January 16, 2019)

Commissioner Mettler made a motion to approve minutes from 1.16.19. seconded by Commissioner Ihlenfeld. Motion passed 6-0.

3. V-1-19. An Application for a Street Vacation and Replat for parts of Trinity Addition, Palmer Lake, CO.

Chairman Cooper asked that V-1-19 be tabled until the March 20, 2019 meeting. Commissioner Ihlenfeld made the motion to table V-1-19, Commissioner Bruce seconded. Motion passed 6-0.

4. Z-1-19. An Application for a Conditional Use Permit for a Mixed Residential/Commercial Development in a CC Zone District. Applicant Sylvia Amos.

Staff explained that this request was for a conditional use permit to build a mixed use building with both residential and commercial in the same building, and that it was not to be taken as an approval of any specific floor plans, site plans or illustrations of buildings. Also, developments on this site must first show proof of water and sewer service, and conform with the requirements of the zone district and

any conditions that the Commission and/or Council place on the proposed permit.

Applicant Sylvia Amos described her vision of what the development would look like with commercial on the ground floor and residential units on the second and third floor. She said that she had been working with Pikes Peak Community College to possibly lease space to their culinary school. She does not yet know how many taps she would need or if they are available.

Matt Stephens spoke and asked that the Commission consider it's location on HWY 105 and require that a sidewalk be placed in front of the building.

Commissioner Ihlenfeld made a motion to recommend approval of Z-1-19, seconded by Commissioner Bruce. Motion passed 6-0.

5. Z-2-19. An Application for a Conditional Use Permit for a Single Family Home in a C-1 Zone District. Applicant Richard Willian.

Applicant Richard Willian explained where the property was located and said that he wants to build a single family home. He has the required taps to build one home. He would like to add up to 3 more homes on the property in the future, however he will have to first subdivide the property.

Commissioner Padgett made a motion to recommend approval of Z-2-19, seconded by Commissioner Mettler. Motion passed 6-0.

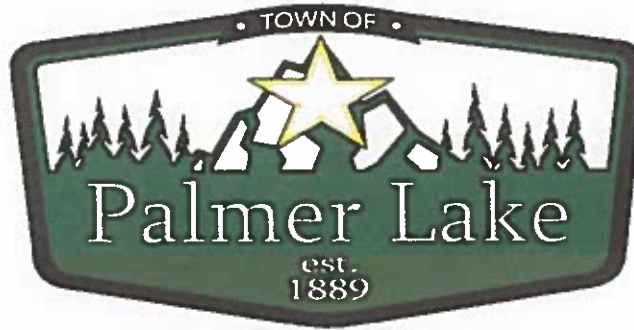
6. Z-3-19. An Application for a Conditional Use Permit for a Day Care Home in an R-3 Zone District. Applicant Maria Arefieva.

Staff explained the general concept of a Day Care as a conditional use in a residential zone district. Applicant Maria Arefieva explained the concept of a Forest School which is common in Europe. These are day schools where children are in a natural area with trees and grass instead of plastic and concrete.

Jim Adams who live across the street, spoke in favor of the application but had the following concerns:

- Traffic at the trailhead can be dangerous. Applicant described where and how they would cross streets.**
- Should there be concerns about registered sex offenders? (PD was asked and said no)**
- Bears. Will there be enough supervision to protect against wildlife. Applicant answered yes that state requires one adult per 12 children and they will have 1 adult per 8 children.**
- Will private residents be restricted from growing cannabis if the live close the day care. No.**
- Gate closure on driveway. There was a discussion about how the driveway gate would be opened and closed, especially during snow events.**

Commissioner Mettler made a motion to recommend approval of Z-3-19 with two conditions: 1. A children at play sign be installed in



Board of Trustees Summary Sheet

	Resolution 7 of 2019
Title	A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ESTABLISH A DAY CARE HOME ON A PROPERTY CURRENTLY ZONED R-3 MEDIUM DENSITY RESIDENTIAL AND LOCATED AT 279 WALNUT AVENUE ("PROPERTY")
Action	Board Vote
Date	3.28.19
Contact	Catherine Green
Summary	In the R-3 zone district, a day care home is a conditional use. This means that the use is appropriate for the area but may require some additional conditions to blend into the neighborhood. The applicant wishes to run a day care home for less than 8 children and only during the day; no overnight stays. The applicant refers to the school as a "forest school" where most of the activities are conducted outdoors in a natural setting. The home and the teacher will all be appropriately state licensed.
Budget Implications	None
Other Actions	The Planning Commission voted unanimously to recommend approval of this conditional use with the following conditions: 1. A "Children at Play" sign to be posted on Walnut Ave. near entrance 2. The sign identifying the day care have a shingled roof that reflects the architecture of the house.
Motion #1	I move to approve A RESOLUTION APPROVING A CONDITIONAL USE PERMIT TO ESTABLISH A DAY CARE HOME ON A PROPERTY CURRENTLY ZONED R-3 MEDIUM DENSITY RESIDENTIAL AND LOCATED AT 279 WALNUT AVENUE with the following conditions: 1.---- 2.----

PALMER LAKE, COLORADO

RESOLUTION NO. 7 OF 2019

**A RESOLUTION APPROVING A CONDITIONAL USE PERMIT
TO ESTABLISH A DAY CARE HOME
ON A PROPERTY CURRENTLY ZONED R-3 MEDIUM DENSITY RESIDENTIAL
AND LOCATED AT 279 WALNUT AVENUE ("PROPERTY")**

WHEREAS, PALMER LAKE IS A STATUTORY TOWN ORGANIZED UNDER AND AUTHORIZED PURSUANT TO PART 3 OF ARTICLE 4 OF TITLE 31 OF THE COLORADO REVISED STATUTES; AND

WHEREAS, SECTION 17.28.020 OF THE PALMER LAKE MUNICIPAL CODE PROVIDES THAT A DAY CARE HOME IS A CONDITIONAL USE IN THE R-3 MEDIUM RESIDENTIAL ZONE DISTRICT; AND

WHEREAS, SECTION 17.08.090 PROVIDES THAT THE PLANNING COMMISSION SHALL MAKE RECOMMENDATIONS OF APPROVAL OR DENIAL OF CONDITIONAL USES TO THE BOARD OF TRUSTEES, WHICH HAS THE FINAL AUTHORITY TO GRANT OR DENY SUCH APPLICATIONS; AND

WHEREAS, SECTION 17.08.090 FURTHER PROVIDES THAT THE APPLICANT FOR A CONDITIONAL USE SHALL FOLLOW THE SAME PROCEDURE AS IS REQUIRED FOR AN APPLICATION FOR A ZONING DESIGNATION CHANGE, INCLUDING THE POSTING AND PUBLICATION OF LEGAL NOTICE; AND

WHEREAS, CHAPTER 17.76 SETS FORTH THE PROCEDURE FOR ZONING AMENDMENTS ALSO APPLICABLE TO CONDITIONAL USE APPLICATIONS; AND

WHEREAS, PUBLISHED AND POSTED NOTICE OF THE PUBLIC HEARINGS BEFORE THE PLANNING COMMISSION AND BOARD OF TRUSTEES AS REQUIRED BY SECTION 17.76.10 WAS DULY AND TIMELY ACCOMPLISHED; AND

WHEREAS, THE PALMER LAKE PLANNING COMMISSION RECOMMENDED APPROVAL OF THIS CONDITIONAL USE.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE, EL PASO COUNTY, COLORADO, AS FOLLOWS:

Section 1. The application pursuant to Section 17.28.020 for a Conditional Use Permit to establish a day care home on property currently zoned "R3" Medium Density Residential, and located at 279 Walnut Avenue is hereby approved, subject to the following conditions:

1. The applicant installs or have installed a "Children At Play" sign on Walnut Avenue
2. The Day Care sign be designed to reflect the house with the top resembling a roof pitch.

Section 2. This Resolution shall be effective immediately.

APPROVED AND ADOPTED ON THIS 28th DAY OF March 2019, BY A VOTE OF __ FOR AND __ AGAINST.

JOHN CRESSMAN, MAYOR

ATTEST:

VERLA BRUNER, TOWN CLERK

Approved as to Form:

MAUREEN JURAN, TOWN ATTORNEY



PLANNING COMMISSION STAFF REPORT

Z.3.19

Conditional Use at 279 Walnut Avenue

LOCATION OF PROPERTY 279 Walnut Avenue, Palmer Lake, CO

ZONING: R-3, Medium Density Residential Zone District

APPLICANT : Maria Arefieva
1126 Crystal Basin Dr.
Colorado Springs, CO

NOTICING:

Property posted: February 10, 2019
Published in the Gazette – February 9, 2019
Contact: Catherine Green
cathy@palmer-lake.org

PROJECT DESCRIPTION

This is a request to grant a conditional use in a R-3 zone district for a Day Care Home which is defined as a family care home receiving two or more children not related to each other or children from more than one family for less than 24 hours per day care. A day care home must be licensed or be accepted to be licensed by the Department of Social Services. The applicant is proposing a day care for up to 8 children, two of which are her own children.

ANALYSIS – TITLE 17. ZONING. The Planning Commission shall make a recommendation to the Board of Trustees, who shall approve the designation of the proposed conditional use if it finds the following:

- A. **The proposed use complies with the Palmer Lake Comprehensive Plan.** *The proposed use complies with the Comprehensive Plan which envisioned this land as residential.*
- B. **The proposed use meets the required standards of the R-3 Zone District.** *The proposed use will be in keeping with the surrounding single family homes.*
- C. **The developer is proposing the following development standards to reduce or alleviate the impacts on surrounding properties.** *The yard is fenced.*

Staff proposes the following conditions be placed on this conditional use request:

Recommended Conditions:

1. Confirm property ownership. The owner's signature is different than the owner listed in the assessor's files.
2. Show proof of a Day Care license.
3. After two complaints, the conditional use will be brought back to the Planning Commission for review.



Town of Palmer Lake
Minutes of the Planning Commission
February 20, 2019 @ 6:00 PM
28 Valley Crescent/ Town Office

Planning Commissioners Present:

Chairman Cooper

Commissioner Bruce

Commissioner Padgett

Commissioner Ihlenfeld

Commissioner Mettler

Commissioner Brown

Planning Commissioners Absent:

Commissioner Fisher

Agenda:

1. Call to Order

Chairman Cooper called the meeting to order at 6:00pm.

2. Approval of Minutes (January 16, 2019)

Commissioner Mettler made a motion to approve minutes from 1.16.19. seconded by Commissioner Ihlenfeld. Motion passed 6-0.

3. V-1-19. An Application for a Street Vacation and Replat for parts of Trinity Addition, Palmer Lake, CO.

Chairman Cooper asked that V-1-19 be tabled until the March 20, 2019 meeting. Commissioner Ihlenfeld made the motion to table V-1-19, Commissioner Bruce seconded. Motion passed 6-0.

4. Z-1-19. An Application for a Conditional Use Permit for a Mixed Residential/Commercial Development in a CC Zone District. Applicant Sylvia Amos.

Staff explained that this request was for a conditional use permit to build a mixed use building with both residential and commercial in the same building, and that it was not to be taken as an approval of any specific floor plans, site plans or illustrations of buildings. Also, developments on this site must first show proof of water and sewer service, and conform with the requirements of the zone district and

any conditions that the Commission and/or Council place on the proposed permit.

Applicant Sylvia Amos described her vision of what the development would look like with commercial on the ground floor and residential units on the second and third floor. She said that she had been working with Pikes Peak Community College to possibly lease space to their culinary school. She does not yet know how many taps she would need or if they are available.

Matt Stephens spoke and asked that the Commission consider it's location on HWY 105 and require that a sidewalk be placed in front of the building.

Commissioner Ihlenfeld made a motion to recommend approval of Z-1-19, seconded by Commissioner Bruce. Motion passed 6-0.

5. Z-2-19. An Application for a Conditional Use Permit for a Single Family Home in a C-1 Zone District. Applicant Richard Willian.

Applicant Richard Willian explained where the property was located and said that he wants to build a single family home. He has the required taps to build one home. He would like to add up to 3 more homes on the property in the future, however he will have to first subdivide the property.

Commissioner Padgett made a motion to recommend approval of Z-2-19, seconded by Commissioner Mettler. Motion passed 6-0.

6. Z-3-19. An Application for a Conditional Use Permit for a Day Care Home in an R-3 Zone District. Applicant Maria Arefieva.

Staff explained the general concept of a Day Care as a conditional use in a residential zone district. Applicant Maria Arefieva explained the concept of a Forest School which is common in Europe. These are day schools where children are in a natural area with trees and grass instead of plastic and concrete.

Jim Adams who live across the street, spoke in favor of the application but had the following concerns:

- Traffic at the trailhead can be dangerous. Applicant described where and how they would cross streets.*
- Should there be concerns about registered sex offenders? (PD was asked and said no)*
- Bears. Will there be enough supervision to protect against wildlife. Applicant answered yes that state requires one adult per 12 children and they will have 1 adult per 8 children.*
- Will private residents be restricted from growing cannabis if the live close the day care. No.*
- Gate closure on driveway. There was a discussion about how the driveway gate would be opened and closed, especially during snow events.*

Commissioner Mettler made a motion to recommend approval of Z-3-19 with two conditions: 1. A children at play sign be installed in

the roadway, and 2. The business's sign be built with a shingled roof to reflect the design of the house.

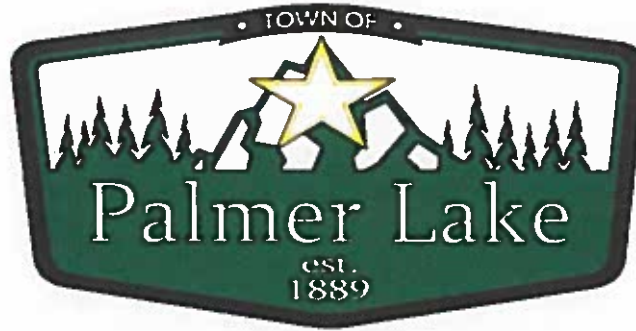
Motion was seconded by Commissioner Bruce. Motion carried 6-0

7. Commissioner Comments

Commissioner Ihlenfeld asked that the Commission consider recommending an ordinance amendment to require larger lots. A discussion followed regarding how this could and couldn't be done. It was decided that staff should plan a Planning Commission dinner/workshop to discuss this and other topics. If any Commissioner has an idea for discussion, it should be emailed to Cathy.

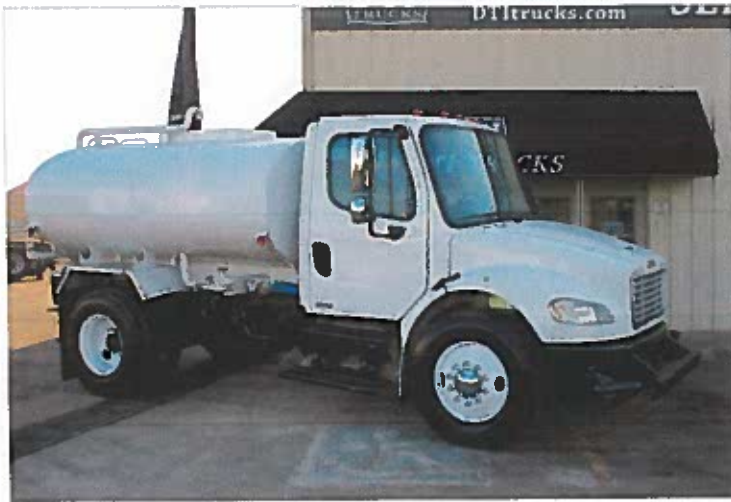
8. Adjourn

At 7:45 Commissioner Mettler made a motion to adjourn, seconded by Commissioner Brown. Motion passed 6-0.



Board of Trustees Summary Sheet

	Water Truck
Title	2005 Freightliner M2-106 Water Truck
Action	Board Vote to approve purchase of truck and sale of old truck
Date	3-28-19
Contact	Jason Dosch
Summary	The current water truck is well past its useful life and unrepairable. The proposed water truck is a replacement and the old truck will be sold as is or as scrap.
Issues	The current water truck is unsafe to operate.
Budget Implications	The 2019 budget allowed for \$40,000 to replace the water truck. The total amount of the new truck is \$41,750. Expected revenue from the sale of the old truck is expected to be \$1000-\$2000.
Other Actions	Board Vote to approve a check over \$15,000
Motion #1	I move to approve the purchase of a 2005 Freightliner M2-106 in the amount of \$41,750.00 and the sale of the current water truck.
Motion #2	I move to approve the check to DTI Trucks in the amount of \$41,750.00



2005 Freightliner M2-106

Price: \$ 42,750.00

Condition	Used
Stock Number	12211
VIN	1FVACXDD85HN87787
Miles	10558

Available at Denver

Specifications

General

Manufacturer	Freightliner
Category	Tanker Trucks
Subcategory	Water Truck
Model	M2-106
Year	2005
Condition	Used
Stock Number	12211
VIN	1FVACXDD85HN87787
Miles	10558
Class	Class 6 (GVW 19,501-26,000 lbs)
Cab Style	Standard Cab
CDL Required	No
Gross Vehicle Wt Rating Gvwr	26000
Air Conditioning	YES
Power Steering	Yes
Tank Description	Valew
Tank Capacity	2000

Operational

Suspension	Spring
Tires	11R22.5
Wheels	All Steel
Wheelbase	150

Description

2005 Freightliner M2 Water Truck, 7.2L CAT C7 Engine With Only 10,558 Miles

2005 Freightliner M2 Water Truck, 7.2L CAT C7 Engine With Only 10,558 Miles, 6 Speed Manual Transmission, Hydraulic Brakes, 26K GVWR, 7K Front & 19K Rear (UNDER CDL) 11R22.5 Tires On Steel Wheels, 4.78 Ratio, Spring Suspension, 150" WB, 84" CTA, Single 50 Gallon Diesel Fuel Tank, Single Horizontal Exhaust, A/C, Cruise Control, AM/FM Radio, Manual Locks & Windows, Driver & Passenger Fixed Seats, 2000 Gallon Valew Water Tank With In Cab Manual Controls, Dual Front & Rear Sprayers With Additional Side Sprayer, Rear Bumper With Option To Add Fireman's Hose. This Low Mileage Water Truck Is Available @ Our 68th & Washington Location In Denver, CO. Stock #12211D

Operational

Number Of Rear Axles	1
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Engine Drivetrain

Engine Make	CAT
Engine Model	C7
Engine Brake	No
Horsepower	190
Fuel Type	Diesel
Fuel Tank Capacity	50





DTI Trucks

710 E 68th Ave
Denver, CO 80229
(303)339-3001

BUYERS ORDER AND INVOICE

Salesman ROMAN CARSON & BRENT DEMLING

Stock # 12211D

Purchaser The Town Of Palmer Lake

Date: 03-29-19

Address 42 Valley Crescent

Yr. & Make 2005 FRHT

City/ State/Zip Palmer Lake, CO 80133

Model M2 Body

Phone No. 719 479-3030 Work Ph

Color White Mileage 10568

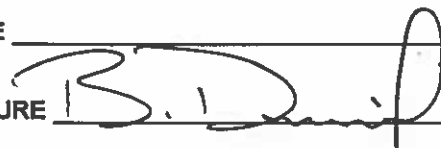
Drivers Lic. No Permit No.

VIN 1FVACXDD85HN87787

Date of Birth Source

Cyl FuelType D

ALL USED VEHICLES SOLD "AS IS" WITH NO WARRANTY EXPRESSED OR IMPLIED
ALL TRANSACTIONS ARE SUBJECT TO SELLER SECURING FINANCING APPROVAL ON ANY DEFERRED BALANCE

SALES PRICE				Selling Price	41251.00
				Trade Allowance	N/A
Trade In				TOTAL	41251.00
Yr. & Make		Dealer Prep & Handling *			499.00
Model		TAXABLE Amount			41750.00
Body		State Tax 0.00 %			N/A
VIN		City Tax 0.00 %			N/A
Mileage		County Tax 0.00 %			N/A
Used Vehicle Allowance		N/A	RTD Tax 0.00 %		N/A
Balance Owed		N/A	Plus Pay Off		N/A
Equity		0.00	TOTAL		41750.00
OTHER FEES				TOTAL OTHER FEES	N/A
		Deposit with order		N/A	
		Cash on Delivery		N/A	
				TOTAL CASH DOWN PAYM'T	N/A
		N/A	AMOUNT TO FINANCE		41750.00
TOTAL OTHER FEES		N/A	Delivery of the vehicle is to be taken within <u>One</u> days. Failure to do so shall be a breach of this agreement and the seller may retain as liquidated damages any cash and other considerations paid by purchaser. Seller accepts checks and drafts, given in whole or partial payment, conditionally only. Seller reserves title to motor vehicle until all payment(s) have been paid by bank on which drawn. Any breach of contract by the buyer shall be sufficient cause for seller to declare contract void and/or to seek any redress for damages seller may deem buyer has committed by virtue of said breach of contract. Except for liens & payoffs noted herein, Buyer guarantees to deliver a clear, good title to the traded vehicle. Buyer authorizes seller to supply and charge for collision insurance in contract in event there is no such insurance transferable or forthcoming from buyer.		
		All promises, verbal understandings, or agreements of any kind pertaining to this purchase not specified herein are not binding on the seller. Buyer acknowledges receipt of a copy of this order.			
		I, the purchaser, state that I am over eighteen years of age and have legal right to transact business.			
		I hereby acknowledge I have received evidence necessary for transfer of vehicle title. Seller does not guarantee delivery date on new vehicle. Buyer further authorizes seller to make payoff on the traded vehicle and to endorse buyer's name to any rebates on buyers' behalf. Buyer authorizes seller to correct and/or alter figures herein where amounts owing on trade is incorrect and/or where errors of arithmetic occur, and to change any/all figures affected therein, including payments, accordingly. Buyer acknowledges he/she supplied information regarding liens/payoffs owing on traded vehicle(s). Buyer authorizes seller to correct typographical errors herein.			
		THE INFORMATION YOU SEE ON THE WINDOW FORM FOR THIS VEHICLE IS PART OF THIS CONTRACT. INFORMATION ON THE WINDOW FORM OVERRIDES ANY CONTRARY PROVISIONS IN THE CONTRACT OF SALE.			
		BUYER'S SIGNATURE _____			
Customer has received Emissions Test		BUYER'S SIGNATURE _____			
X		MANAGER'S SIGNATURE 			
* This charge represents costs and additional profit to the seller / dealer for items such as Inspecting, cleaning, and adjusting new and used vehicles and preparing documents related to the sale.		THIS ORDER MUST BE SIGNED BY AN OFFICIAL OF THE COMPANY			

Old Truck



Old Truck

