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TOWN OF MORRISON BOARD OF TRUSTEES
MORRISON TOWN HALL, 110 STONE STREET
MONDAY, APRIL 4, 2016
REGULAR MEETING TOWN BOARD MEETING AGENDA
6:00 – 9:00 P.M.

(ALL AGENDA ITEMS ARE ELIGIBLE FOR DISCUSSION AND POSSIBLE VOTE BY THE BOARD OF TRUSTEES.)

- 1) CALL TO ORDER
- 2) ROLL CALL
- 3) AMENDMENTS TO THE AGENDA
- 4) PUBLIC TO ADDRESS THE BOARD/COMMUNICATIONS
- 5) PRESENTATIONS AND HEARINGS
- 6) GENERAL BUSINESS
 - a) Code Change in CT District Allowing Brew Pubs with Board Approval
 - b) Rooney Valley IGA
 - c) Computer System for Water Treatment Plant
 - d) Hours for Outdoor Amplification
 - e) Prohibition of Roof Top Patios
 - f) Design of Multi-Use Trail
 - g) Storage of Equipment for Flood Recovery
 - h) Paving at Red Rocks Elementary
 - i) Easement Agreement for Pump Station
 - j) Jeffco Referral – 3664 Soda Lakes Road
- 7) DEPARTMENTAL REPORTS
 - a) Police Department
 - b) Museum
 - c) Utility
 - d) Town Administrator
 - e) Attorney
- 8) CONSENT AGENDA
 - a) Minutes
 - b) Payroll
 - c) Vouchers
- 9) BOARD MEMBER COMMENTS
- 10) WATER AVAILABILITY STUDY – with Cindy Covell and Alan Leak – 8:00 – 9:00
- 11) EXECUTIVE SESSION
 - a. For a conference with the Town Attorney for the purpose of receiving legal advice on specific legal questions under C.R.S. Section 24-6-402(4)(b), and for the purpose of determining positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and/or instructing negotiators, Concerning Red Rocks Centre , Water Availability and Utility Operations.
- 12) ADJOURNMENT

Reasonable accommodation will be provided upon requests for persons with disabilities. If you require any special accommodation in order to attend a Town Board of Trustee Meeting, please call the Town Clerk at 303-697-8749.
Next Board of Trustees Meeting, April 19, 2016.

Town of Morrison, Colorado

NOTICE OF CHANGE OF REGULAR BOARD OF TRUSTEES MEETING DATE

PUBLIC NOTICE IS HEREBY GIVEN that the meeting of the Regular Meeting of the Board of Trustees of the Town of Morrison, previously scheduled for April 5, 2016, has been rescheduled to:

Monday, April 4, 2016
Regular Meeting
Commencing at 6:00 pm
Morrison Town Hall
110 Stone Street
Morrison, Colorado 80465

GIVEN AND POSTED in the office of the Town Clerk this 29th day of March, 2016.

DELIVERED to all Board Members posted in 1 public place within the Town and on the Town's website on March 29, 2016.



A handwritten signature in black ink, appearing to read "Charla D. Bryant", is written over a horizontal line.

Charla D. Bryant, Town Clerk

TOWN BOARD MEETING
 ROLL CALL/AGENDA ITEMS
 6:00 P.M. TUESDAY, _____
 Call to Order At: _____
 Adjourned At:: _____

Amendments to the Agenda:

Roll Call

Present	Absent	Board Member
		Mayor Sean Forey
		Brewster Caesar
		Vanessa Angell
		Debora Jerome
		Ronald Metzler
		Allen Williams
		Christopher Wolfe

Present	Absent	Town Employee
		Matt Mossbrucker
		DeWayne Rhodig
		Anthony Joiner
		Rudy Sandoval
		Kathleen Dichter
		Gerald Dahl
		Kara Zabilansky
		Charla Bryant

Public to Address the Board:

TOWN OF MORRISON
BOARD OF TRUSTEES REGULAR MEETING
April 4, 2016
Board Action Form

SUBJECT: Due to El Mercado being put up for sale, the Town has received approximately 8 inquiries as to whether a brewery would/could be allowed in the CT District. Currently the code does not allow breweries but the code could be amended to allow them upon Board approval.

There have also been inquiries as to whether a tap house would be allowed. Currently a tap house would be allowed and I want the Board to understand how they work. Here is the definition found at www.thefreedictionary.com: *tap house - a building with a bar that is licensed to sell alcoholic drinks. tavern. beer garden - tavern with an outdoor area (usually resembling a garden) where beer and other alcoholic drinks are served.* For food they want to bring in delivery, which could include businesses not in Morrison. Would the Board want to allow this?

The process for a change in the code would be for the Board to direct Jerry to draft an ordinance, we would post and hold a public hearing.

TOWN ATTORNEY REVIEW: [x] YES [] NO

RECOMMENDED MOTIONS: Motion to direct staff to draft an ordinance allowing breweries in the CT District upon Special Review and set for public hearing.

TOWN OF MORRISON
BOARD OF TRUSTEES REGULAR MEETING
April 4, 2016
Board Action Form

SUBJECT: Morrison and Lakewood have worked through revisions to the Rooney Valley IGA. Attached is a draft IGA.

TOWN ATTORNEY REVIEW: YES NO

MOTION: Motion to enter into the Intergovernmental Agreement between the Town of Morrison, Colorado and the City of Lakewood, Colorado regarding the Rooney Valley.

INTERGOVERNMENTAL AGREEMENT

BETWEEN

THE TOWN OF MORRISON, COLORADO

AND

THE CITY OF LAKEWOOD, COLORADO

REGARDING

THE ROONEY VALLEY

April, 2016

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INTERGOVERNMENTAL AGREEMENT

BETWEEN

THE TOWN OF MORRISON, COLORADO

AND

THE CITY OF LAKEWOOD, COLORADO

REGARDING

THE ROONEY VALLEY

This Agreement is made and entered into as of the ___ day of April, 2016, by and between the CITY OF LAKEWOOD, a home rule city of the State of Colorado, whose address is 480 South Allison Parkway, Lakewood, Colorado 80226, sometimes hereinafter referred to as the "City" and the TOWN OF MORRISON, a home rule town of the State of Colorado, whose address is 321 Highway 8, Morrison, Colorado 80465, sometimes hereinafter referred to as the "Town," and together referred to as the parties.

WITNESSETH:

WHEREAS, pursuant to G.R.S §§ 29-1-201 *et seq.*, and 29-20-105, local governmental entities are authorized and encouraged to make the most efficient and effective use of their powers and responsibilities by cooperating and contracting with other governmental entities for the purposes of planning or regulating the development of land, including but not limited to the joint exercise of planning, zoning, subdivision, building and related regulations and revenue sharing; and,

WHEREAS, the City, Town and Jefferson County, Colorado have been involved since 1994 in master planning the Rooney Valley; and,

WHEREAS, joint planning to coordinate land use, open space, transportation and utilities has proven beneficial; and

WHEREAS, the Town and the City desire to jointly encourage quality development with construction of adequate Public Improvements and the provision of Municipal Services to serve

development in the Rooney Valley and to share Revenues generated by development in the Rooney Valley; and,

WHEREAS, the City and Town wish to encourage development in the Rooney Valley by providing a unified land entitlement process which results in cost efficient and timely processing of land use applications and minimal duplication of effort and expense by the Town, the City and Owners; and,

WHEREAS, the Town and the City plan to process development proposals for the Rooney Valley in a coordinated manner, reciprocally and promptly sharing all relevant information; and

WHEREAS, the Town and the City have agreed to work cooperatively, through contract or internal staff, in the review and processing of land development proposals by Owners and in project administration for development in the Rooney Valley; and

WHEREAS, local governmental entities may, pursuant to intergovernmental agreement, provide for revenue-sharing and are authorized to receive and expend funds from other governmental and private sources for the purposes of planning for or regulating the use of land within their respective jurisdictions; and

WHEREAS, the Town and the City desire to utilize Revenues generated by development in the Rooney Valley to assist with the payment of Municipal Services for development in the Rooney Valley, to assist in certain cases with the construction of onsite and offsite Public Improvements to serve development in the Rooney Valley, and to share such Revenues between the Town and the City; and

WHEREAS, the Town and the City desire to establish the standards, staffing and budget for the Municipal Services to be provided by the City or the Town and the scope of Public Improvements to be provided by any Owner, District or other entities; and

WHEREAS, the Town and City had entered into a previous Intergovernmental Agreement, dated May 5, 2000, and in effect until adoption of this agreement; and

WHEREAS, the parties desire to assure that the Town and the City each have adequate ability to enforce this Agreement pursuant to C.R.S. §29-20-105, which provides that each governing body that is a party to an intergovernmental agreement such as this has standing to enforce the terms thereof, including, but not limited to, specific performance and injunctive relief, even though the land is annexed or transferred to another jurisdiction.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

ARTICLE I.

DEFINITIONS AND SCOPE OF AGREEMENT

1.01 Definitions.

The following capitalized terms shall be defined as follows:

1. "Agreement" shall mean this Intergovernmental Agreement between the Town of Morrison, Colorado and the City of Lakewood, Colorado Regarding the Rooney Valley.
2. "Approving Municipality" shall mean the municipality possessing authority to approve a petition or application for disconnection, annexation, zoning or subdivision of property within the Rooney Valley.
3. "Bandimere Property" shall mean that property depicted and identified as such on Exhibit A.
4. "City" shall mean the City of Lakewood, Colorado.
5. "City Revenues" shall mean the Revenues collected by the City under its 3% sales and use tax as described at Paragraph 21 of this Section 1.01.
6. "District" shall mean any governmental entity other than the Town or the City which may provide or require an Owner to provide Public Improvements or Municipal Services.
7. "Event of Nonappropriation" shall mean the failure or determination not to distribute funds as required in Section 4.01.5.

8. “Final Court Action” shall mean a final order or opinion issued by a court of competent jurisdiction by which the City or Town is bound, and wherein no appeal can be taken or the time for filing an appeal has expired.

9. “Municipal Services” shall mean the types of services normally provided by municipalities, including but not limited to: police protection, traffic engineering, public way landscape maintenance, street maintenance (including street repair, drainage maintenance and repair, street cleaning and snow and ice removal), administrative functions relating to processing and review of applications, building inspections and related services, economic development and land use planning.

10. “Owner” or “Owners” shall mean any person or entity which owns or is the contract purchaser of real property in the Rooney Valley.

11. “Owner Agreement” shall mean any agreement entered into by the Town and/or the City with an Owner to provide economic incentives for such Owner to develop its property in the Rooney Valley.

12. “Peterson Property” shall mean that property depicted and identified as such on Exhibit A.

13. “Project” shall mean a specific undertaking for the construction of any Public Improvements, Public-Related Improvements and any public or private buildings and related amenities located within the Rooney Valley.

14. “Project Coordinator” or “Project Coordinators” shall mean the individual appointed by the Town and/or the individual appointed by the City pursuant to Section 2.03 to represent the Town and the City, respectively, on the Project Management Team.

15. “Project Management Team” shall mean the Town Project Coordinator and the City Project Coordinator.

16. “Public Improvement” or “Public Improvements” shall mean those rights-of-way, easements, access rights, and physical improvements which, upon formal acceptance by the Town or the City shall become the responsibility of the Town or the City for ownership and/or maintenance and repair, and shall include, but not be limited to, the following: curb and gutter, asphalt pavement, concrete pavement, streets of all types, survey monuments, pavement striping, sidewalks, pedestrian/bike paths, traffic signals, street lights, highways, freeways, rights-of-way, easements, landscaping in rights-of-way and easements, park and open space improvements, access rights, construction plans, medians, bridges, acceleration and deceleration lanes, culverts, storm drainage facilities, including necessary retention and detention structures and channels, water lines, sanitary sewer

lines, and all other improvements which upon acceptance by the Town, City or a District, are intended to be for the use and enjoyment of the public, and any other improvements dedicated or used for public purposes which are to serve the Rooney Valley and to ensure that the Project may be developed in accordance with an approved site plan.

17. "Public Improvement Agreement" or "PIA" shall mean one or more agreements between an Owner and/or District and the Town and/or the City describing the Public Improvements to be constructed by such Owner and/or District and any phasing or other details relative to the scope, timing and collateral to assure the completion of such Public Improvements.

18. "Public Improvement Costs" shall mean the costs incurred to design, finance, construct, acquire or otherwise provide Public Improvements.

19. "Public-Related Improvements" shall mean those improvements to the Rooney Valley which are open and accessible to the public, but located on private property and maintained by an Owner, including, but not limited to parking lots and landscaping on the parking lots, private roadways, culverts, storm drainage facilities, including necessary retention and detention structures and channels, architectural upgrades, and common areas within and outside buildings in the Rooney Valley.

20. "Public-Related Improvement Costs" shall mean the costs incurred to design, finance, construct, acquire or otherwise provide, and to maintain, Public-Related Improvements.

21. "Revenues" shall mean Sales Tax Revenue and Use Tax Revenue collected by the City and the Town for activities in the Rooney Valley only. The parties agree that the current Town of Morrison sales and use tax rate is 3.75%, of which .75% is reserved, by the terms of its authorizing documents, for capital improvements in the Town and is not considered part of "Town Revenues" hereunder, and thus also not a part of "Revenues" as hereby defined. The parties agree that the current Lakewood sales and use tax rate is 3%. To the extent either party shall increase its sales and use tax rate, such increase, and the revenues attributable to such increase, shall not be considered a part of "Revenues" under this Agreement, and shall be retained exclusively by the jurisdiction collecting the same, or in the case of Morrison, upon whose behalf the same are collected.

22. "Rooney Valley" shall mean the property depicted and identified as such on Exhibit A.

23. "Rooney Valley Development Standards" shall mean the Rooney Valley Development Standards as adopted by the Town on July 20, 1999 and by the City on February 22, 1999. Any differences in versions adopted by the Town and the City shall be reconciled by the Rooney Valley Zoning Commission, taking into consideration the recommendations of the Project Management Team. Future amendments may be approved by the Rooney Valley Zoning Commission following notice to the Town Board and City Council and a public hearing by the Rooney Valley Zoning Commission.

24. "Rooney Valley Master Plan" shall mean the Rooney Valley Master Plan as adopted by the Town on August 24, 1999 and by the City on May 26, 1998. Any differences in versions adopted by

the Town and the City shall be reconciled by the Rooney Valley Zoning Commission, taking into consideration the recommendations of the Project Management Team. Future amendments may be approved by the Rooney Valley Zoning Commission following notice to the Town Board and City Council and a public hearing by the Rooney Valley Zoning Commission.

25. "Rooney Valley Zoning Commission" shall mean a committee composed of six members initially, three of whom shall be appointed by the Town Mayor and three of whom shall be appointed by the City Manager. If an Event of Nonappropriation occurs and for so long as such Event of Nonappropriation continues, the other (non-defaulting) party shall be entitled to appoint a fourth member to the Commission.

26. "Sales Tax Revenue" shall mean the Revenue (as defined at Paragraph 21 of this Section 1.01) received by the City or the Town from the imposition of a municipal sales tax or any subsequently enacted tax imposed by or for the benefit of the City or Town on the price or value of goods or services and derived from transactions or business conducted, located or served within the Rooney Valley.

27. "Shared Revenues" shall mean thirty percent (30%) of Revenues collected by either municipality; which amount shall be shared by the Town and the City as described in Section 4.01.3 of this Agreement.

28. "Town" shall mean the Town of Morrison, Colorado.

29. "Town Revenues" shall mean the Revenues collected by the Town under its 3% unrestricted sales and use tax, as described at Paragraph 21 of this Section 1.01, and understanding that the Town's sales tax is locally imposed but collected on behalf of the Town by the State of Colorado.

30. "Use Tax Revenue" shall mean the Revenue (as defined at Paragraph 21 of this Section 1.01) received by the City or Town for the purchase, rental, or lease of tangible personal property that is stored, used, or consumed in the City or Town, respectively. Use Tax Revenue shall not include construction use tax.

1.02 Scope of Agreement.

1. In consideration of the terms and conditions of this Agreement, the Town and the City agree to jointly plan for the development of, and to share the Revenues from, the property located within the Rooney Valley in accordance with the provisions of this Agreement. It is the intent of the City and the Town to share the burdens and benefits of development within the Rooney Valley, to the full extent permitted by law, on a cooperative basis in accordance with the provisions of the Agreement.
2. Any development that crosses 50 feet or more into the Rooney Valley within the intergovernmental Agreement (IGA) boundary area as depicted and identified on Exhibit A will be subject in its entirety to all provisions of this Agreement.

ARTICE II.

LAND USE AND DEVELOPMENT REVIEW PROCESS

2.01 General Description of Project Development Process.

The parties agree that the provisions of this Agreement shall constitute a customized process for development of the Rooney Valley to be used by the Town and the City to administer and manage development of the Rooney Valley.

This Article II describes the procedures which shall apply to the development of any Project within the Rooney Valley. Pursuant to the provisions of C.R.S. §29-20-105, both the Town and the City shall participate fully in the land use and zoning review and approval of land development projects, in determining the scope and delivery of Municipal Services and in sharing Revenues derived from the Rooney Valley, all as described in greater detail in this Agreement, and, therefore, both the Town and the City shall have standing to enforce the provisions of this Agreement, all pursuant to the terms hereof.

2.02 Application of Ordinances, Regulations, Codes, Policies, Procedures.

1. **Joint Planning and Zoning.** The Town and the City recognize and agree that some of the regulations and procedures for land development stated in this Agreement differ from the customary and normal processes used by the Town and the City. Pursuant to C.R.S. §29-20-105, each party agrees that the specific regulations and procedures for development of the Rooney Valley expressly stated in this Agreement shall be applicable to the Rooney Valley in order to provide for uniformity and continuity in jointly processing land use matters that are subject to this Agreement.

2. **Zoning and Development.** While both the Town and the City have promulgated ordinances, regulation, codes, policies and procedures regarding the review and approval of land development within their communities, the Town and the City agree that procedures in the land use regulations of the Approving Municipality wherein the subject property lies shall be used to govern the land use actions identified in Section 2.05.1.

3. **Planning.** The principal policy and planning documents for the Rooney Valley shall be the Rooney Valley Master Plan and Rooney Valley Development Standards. Any modification to the policy and planning of the City or the Town which have been made applicable to development within the Rooney Valley shall only be effective after approval of such modification by the Rooney Valley Zoning Commission. Until such time, the policy and planning documents in the form existing as of the date of this Agreement shall continue to apply to the Rooney Valley

2.03 Project Management Team.

There shall be a Project Management Team. The Project Management Team shall consist of two Project Coordinators appointed as follows: (1) the City Manager of the City shall designate a person to act as the City Project Coordinator; and (2) the Board of Trustees of the Town shall designate a person to act as the Town Project Coordinator. The City and Town may also appoint others to assist the Project Coordinators. Each Project Coordinator shall be the primary contact person concerning the development

of any Project within the Rooney Valley. The City and Town may change or replace their appointee at any time at their sole discretion.

The Purpose of the Project Management Team is to provide day-to-day administrative oversight of the development process in the Rooney Valley and to ensure coordination between the City and the Town. The Project Management Team shall also coordinate the interaction and input from the City and Town administrative staff, consultants, and interested parties and organizations. The members of the Project Management Team will jointly and cooperatively coordinate the land use and development approval processes, the planning and development of Public Improvements, and the planning and provision of Municipal Services for the Rooney Valley and will keep each other informed throughout the process. Neither the City Project Coordinator nor the Town Project Coordinator shall possess the authority to enter into contractual agreements on behalf of their respective municipalities and all contractual agreements proposed by the Project Management Team shall be subject to approval of the normal contracting authority of the City and the Town. The Project Management Team will meet as needed, but not less often than monthly during the development of any Project. On an as needed basis, the participation or representatives from other organizations and agencies may be included in meetings of the Project Management Team. As an administrative body, the Project Management Team is not intended to be and shall not constitute a “local public body” within the meaning of C.R.S §24-6-402.

2.04 Rooney Valley Planning Commission.

There shall be a Rooney Valley Planning Commission. The Rooney Valley Planning Commission shall be composed of three members appointed by the City Council of the City and three members appointed by the Board of Trustees of the Town. If an Event of Nonappropriation occurs and is continuing the other (non-defaulting) party shall be entitled to appoint a fourth member. The members appointed by the Town shall be Town officials or employees or registered electors of the Town or both. The members appointed by the City shall be current members of the City’s planning commission. An appointed member of the Commission may be removed or replaced by the appointing municipality at any time without reason or cause. The Commission shall elect from their members a chairman and vice-chairman. Four members in attendance and eligible to vote shall comprise a quorum of the Commission.

The Commission shall hear all matters within the IGA area to the extent such matters are also within the scope of Section 2.05.A, and any amendment to the Rooney Valley Development Standards or the Rooney Valley Master Plan, or the adoption of any rules of procedure for the Commission. All decisions of the Commission shall require the affirmative vote of a majority of all votes attributed to all members of the committee regardless of the number of members in attendance (i.e., four affirmative votes are required to approve such actions). The Commission shall be subject to the Colorado Open Meetings and Colorado Open Records laws. The Commission may promulgate or adopt rules of procedure not inconsistent with this Agreement to guide and assist the committee in the conduct of its business. The City and the Town shall assist by making meeting facilities, materials and administrative support available to the Commission.

2.05 Joint Municipal Review Procedures.

1. **Development Approvals.** Any application for any development approvals shall follow the procedures in the land use regulations of the Approving Municipality wherein the subject property lies.

The Project Management Team shall be responsible for staff functions, the Rooney Valley Planning Commission shall serve as the Planning Commission or Board of Adjustment, and the City Council or Town Board shall have final approval authority for all actions under this Section.

2. Site Plan and Subdivision. Any application for site plan or subdivision shall be processed by the Approving Municipality in accordance with applicable local and state law. Each application received by either municipality, and all documentation related to an application received by either municipality, shall be mailed promptly or otherwise distributed to each member of the Project Management Team within three (5) business days following receipt. Prior to rendering any final decision concerning site development plan or subdivision, the Approving Municipality shall notify the other municipality in writing of the date and time of the meeting or hearing at which a final decision is expected to be rendered. Such notice shall also provide the other municipality a reasonable opportunity to prepare and submit comments and recommendations to the Approving Municipality concerning the application or petition, or a reasonable opportunity to prepare for attendance at the meeting or hearing, prior to the final decision. Failure to timely respond or otherwise submit comments or recommendations to the Approving Municipality following delivery of notice shall be deemed a waiver by the other municipality of its right to comment on the application.

3. Tie Votes on the Commission. If any motion before the Rooney Valley Zoning Commission to take action on a matter within the scope of Section 2.05.1, any amendment of the Rooney Valley Development Standards or the Rooney Valley Master Plan, results in a tie vote with the representatives of the Town voting on one side and representatives of the City voting on the other side, the decision will not be deemed a final decision, but will be continued for a period not to exceed thirty (30) days. The purpose of such continuance shall be to allow sufficient time to assure that decisions are made based upon their merits and not due to jurisdictional disputes. The Rooney Valley Zoning Commission shall then reconvene for the purpose of rendering a final decision. At that time, any motion resulting in a tie vote shall be deemed to have failed for lack of a majority. A tie vote on a motion relating to other matters or a tie vote with representatives of the Town and the City voting on both sides of the motion shall be deemed to have failed for lack of a majority.

2.06 Disconnection and Annexation.

1. Any application for disconnection or annexation shall follow the procedures of Title 31, Article 12 of Colorado Revised Statutes, and if disconnection from or annexation to the Town, the requirements of Title 10, Chapter 9 of the Morrison Municipal Code.

2. The Town and the City will encourage Owners of property within the Rooney Valley that is in unincorporated Jefferson County to annex such property to the Town. Specifically, the City agrees not to annex the Bandimere Property or the Peterson Property without the approval of the Town as expressed by resolution of the Town Board. The Town agrees that no unincorporated property in the Rooney Valley will be granted access to the Town's municipal water or sewer services unless the property annexes to either the Town or the City.

2.07 Building Codes and Permits.

Construction of any Project shall be in conformance with the version of building codes in effect in the Approving Municipality at the time of application for the relevant permit. Each municipality will review building plan submittals and issue building permits within their own jurisdiction.

2.08 Required Fees; Distribution of Fees.

Both the City and the Town impose fees and charges for the costs associated with certain administrative functions of each municipality. The standard fees of the Town or the City shall apply to administrative functions performed under this Agreement, unless otherwise provided herein or unless the Project Management Team determines that additional fees are necessary to pay the actual costs of the services provided. The Town and the City hereby authorize the other to perform the administrative functions described herein and to collect and utilize the fees collected as described herein. Fees shall be paid by the Owner at the time an application is submitted for which such fees is required.

2.09 Inspections.

The City and Town will each be responsible for making building inspections; private site improvement inspections including parking lots, landscaping, fencing and other site improvements; and Public Improvements inspections within their own jurisdiction.

The Town will be responsible for inspection of water and sewer systems within the Town's service area, which area may include property within the Rooney Valley that may in the future be annexed by Lakewood. West Metro Fire Protection District shall be responsible for fire code inspections and various county and state agencies shall conduct other inspections. The results of inspections shall be transmitted to the Project Coordinator.

ARTICLE III.

PROVISION OF MUNICIPAL SERVICES

3.01 Providers of Municipal Services Generally.

The parties have determined that Municipal Services for the Rooney Valley shall be provided and funded as described in this Article III. This Agreement does not alter or affect any other agreement or legal requirement pursuant to which a District or other entity provides or has agreed to provide Municipal Services, Public Improvements, Public-Related Improvements or other services or improvements to the Rooney Valley. In addition, until property in the unincorporated portions of the Rooney Valley is annexed by the Town or the City, it is the intent of the parties that Municipal Services be provided by Jefferson County or a District. If the provision of any Municipal Services by the City could cause the City to exceed its revenue or spending limits under Article X, Section 20 of the Colorado Constitution, the parties agree that the City may request that Municipal Services be provided by the Town or others.

It is the intent and expectation of the parties that Public Improvements and Public-Related Improvements will be installed or constructed by Owners or Districts within the Rooney Valley and that major utility services will be provided by entities other than the Town and the City. However, the parties agree that water and sanitary sewer services may be provided by the Town, subject to annexation of unincorporated property, and, as to property in the City, with the consent of the City, to the full extent of the Town's physical and legal capacity to do so.

3.02 Police Protection.

Police Protection in the City will be provided by the City and in the Town will be provided by the Town. Costs of these services will be paid by each municipality individually.

3.03 Traffic Engineering, Public Way Landscape Maintenance and Street Maintenance Services.

Traffic engineering, public way landscape maintenance and street maintenance services (including street repair, drainage maintenance and repair, street cleaning, and snow and ice removal for public streets), if not provided by a District, shall be provided by the City for all properties in the City and by the Town for all properties in the Town. The City and Town shall mutually determine an annual fee by separate agreement for the cost of the provision of these services, if needed. Any unresolved issues regarding performance of or payment for services will be referred to the City Manager of the City and the Mayor of the Town or his/her designee who will meet in an attempt to resolve the issues for which there may be disagreement. If no resolution by the Town Administrator and City Manager is reached within one month, the dispute resolution procedures of Article VII will apply.

3.04 Processing of Applications, Building Inspections.

The processing and review of applications, building inspections and related services for which a fee is charged shall be performed, and fees charged for such services, in the manner described in Article II.

3.05 Joint Services.

Economic development and general land use planning not specifically related to site development, shall be provided jointly by the Town and the City. Both parties will use their own resources to encourage economically viable development in the Rooney Valley. All information regarding proposed developments in the Rooney Valley will be promptly shared with each party and, under the policy guidance of the Project Management Team, the Town and the City will determine whether development incentive arrangements are appropriate. The Project Management Team will assist an Owner as necessary and appropriate and will initiate the land use planning and development procedures described in Article II of this Agreement. As between the Town and the City, there will be no reimbursement or Revenue sharing for the cost of these services. Nothing herein shall preclude the Town and the City from seeking reimbursement from an Owner for the cost of providing certain services.

3.06 Other Services.

All other services which may be provided by either municipality, such as general administrative services, legal services, park and recreation services, liquor and other licenses, code enforcement, animal control, prosecution and judicial services, shall be provided by each municipality at its sole cost within its own jurisdiction. The Town or the City may contract with others for such services, but the cost of, responsibility, and fees or other charges for such services shall remain with each municipality and the parties recognize that the type and level of such services may differ in each municipality.

3.07 Supervision and Delegation of Authority.

The Town and City shall each be responsible for the employment, compensation, training and supervision of their own employees. To implement some services, however, the Town and the City may take such further action as may be necessary to delegate authority to the other to carry out the specified responsibilities.

ARTICLE IV.

REVENUE SHARING

4.01 Revenue Sharing.

1. Multiple-Fiscal Year Agreement of Town. This Agreement shall constitute a multiple-fiscal year agreement of the Town to share Net Sales and Use Tax Revenue with the City as approved by the electors of the Town on November 2, 1999 pursuant to the provisions of Article X, Section 20 of the Colorado Constitution. The Town shall share Net Sales and Use Tax Revenues with the City in accordance with the procedures described in this Article IV.

The Board of Trustees of the Town agrees not to take any action, without the express written consent of the City, to reduce the rate or base of any tax which is subject to sharing with the City, unless and only to the extent the Town is required by state law or home rule charter to do so. Future tax increases are not subject to this agreement.

2. Year-to-Year Agreement of City. The City has not held an election to authorize a multiple-fiscal year agreement with the Town pursuant to Article X, Section 20 of the Colorado Constitution and, therefore, the financial obligations of the City herein are subject to annual approval and appropriation by the City Council of the City. Subject to such annual approval and appropriation by the City Council of the City, the City shall share Net Sales and Use Tax Revenues with the Town in accordance with the procedures described in this Article IV.

The City Council of the City agrees not take any action, without the express written consent of the Town, to reduce the rate or base of any tax which is subject to sharing with the Town, unless and only to the extent the City is required by state law or home rule charter to do so. Future tax increases are not subject to this agreement.

3. Determination and Sharing of Revenues. The Town and City agree that sixty percent (60%) of Revenues collected will be used by the collecting municipality for the provision of general services provided by the collecting municipality including police service. The Town and City agree that ten percent (10%) of Revenues collected will be used by the Town or the City as appropriate for the purposes of servicing the residential uses within the Valley. It is the intent of the parties that this 10% shall be remitted to each jurisdiction in proportion to the fraction of the total number of residential units within the Valley located within each jurisdiction. For example, if 50% of the total units are in the Town and 50% in the City, the 10% of Revenues would be divided evenly. The Town and City further agree that the remaining thirty percent (30% of Revenues) will be considered Shared Revenues and will be shared equally. Although the City's authority to share with the Town the City's Revenues derived from that property in the Rooney Valley which is within the City is subject to an annual appropriation by the City Council, it is the present intent of the City to maintain and continue the cooperation and sharing of Revenue described in this Agreement.

a. Dispersal of Revenues. Subject only to an annual appropriation by the City, the City shall annually distribute to the Town fifty percent (50%) of all Shared Revenues collected within the Rooney Valley plus the required portion of the ten percent of revenues dedicated to residential services. The Town shall annually distribute to the City fifty percent (50%) of all Shared

Revenues collected within the Rooney Valley plus the required portion of the ten percent of revenues dedicated to residential services. Disbursals by the Town and the City to the other party shall take place no later than June 30 of the calendar year subsequent to the year in which the Net Sales and Use Tax Revenues were collected.

b. Example. By way of illustration and not limitation, **Exhibit B** demonstrates an example of the revenue sharing contemplated by this Agreement.

c. Record Keeping. The City and Town shall each maintain complete and accurate records sufficient to determine the amount of Revenues received from the Rooney Valley during each calendar year. On or before June 30th of each year throughout the term of this agreement, the City and the Town will each deliver to the other an audited statement of the amount of City Revenues or Town Revenues, as the case may be, received from that portion of the Rooney Valley located within the City and the Town, respectively, for the prior year.

4. Owner Agreements. The Town or City may unilaterally enter into Owner Agreements and agree to remit any or all of its portion of revenues from a specific Project to the Owner of such Project to assist in paying Public Improvement Costs or Public-Related Improvement Costs incurred by such Owner. The Town and City may mutually agree to jointly enter into an Owner Agreement to remit some or all Shared Revenues. Nothing in this Agreement shall prevent the Town or the City from sharing additional amounts of its portion of the Shared Revenues with one or more Owners, provided such sharing shall not reduce the amount of Shared Revenues to be remitted to the other party as provided herein.

5. Nonappropriation by City. For any year in which the City fails or determines not to make an appropriation prior to December 31st of such year to remit Shared Revenues to the Town, the Town shall be relieved of its obligation to remit any Town Revenues to the City during the following year. Following the occurrence of a City Event of Nonappropriation, the City may cure such Event of Nonappropriation by appropriating and remitting to the Town an amount equal to the City Revenues which would have been so remitted but for the Event of Nonappropriation and the Town shall then remit to the City any Town Revenues which were not remitted pursuant to the provisions of this Section 4.01.5 and the provisions of this Article IV relating to the sharing of Revenues shall be fully reinstated. Following the second and any subsequent City Event of Nonappropriation, however, the City's right to cure and reinstate the sharing of Revenues or the provision of Municipal Services by the City in the Town, as the case may be, shall only be with the consent of the Town. In addition, for any year in which a City Event of Nonappropriation has occurred and is continuing, the Town shall be entitled to appoint a fourth member to the Rooney Valley Zoning Commission.

6. Subsequent Elections. In the event the electors of the City authorize the City to share Revenues with the Town and/or one or more Owners, then the parties will modify this Agreement to reflect such absolute commitment and remove the Event of Nonappropriation consequences which would no longer be applicable.

10. City May Defer Receipt of Revenue. In order to comply with the revenue and spending limitations of Article X, Section 20 of the Colorado Constitution, the City may defer receipt of all or part of the Shared Revenues to be remitted to the City and request that such Shared Revenues be held by the Town until the City requests that all or part of such amounts be remitted to the City. Any Revenue by the

Town at the request of the City shall be invested and shall be credited to the City if and when remitted to the City.

4.02 Audit Rights

The City and the Town shall cause to be prepared, kept, and maintained, suitable financial records and other books and accounts as may be necessary to determine the amount of Revenues received and collected, and the amount to be remitted and shared pursuant to this Agreement. All such records, books, and accounts shall be maintained for a period of not less than six years after the date such Revenues should have been collected and shall be made available for inspection and audit at any time by either party to this Agreement.

ARTICLE V.

PUBLIC IMPROVEMENTS

5.01 Determination of Necessary Public Improvements:

The parties recognize and agree that the scope of Public Improvements and Public-Related Improvements (collectively herein, the "Improvements") necessary to serve any Project has not been and cannot be fully determined until additional planning, engineering and design work relating to a specific Project has been completed. If the Improvements will be located entirely within the City and serve a Project which is located entirely within the City, then the Public Improvements Agreement may be with only the City and the required collateral to assure satisfactory completion of such Public Improvements may be for the benefit of only the City. If the Improvements will be located entirely within the Town and serve a Project which is located entirely within the Town, then the Public Improvements Agreement may be with only the Town and the required collateral to assure satisfactory completion of such Public Improvements may be for the benefit of only the Town. Otherwise, if the Improvements serve a Project located within both the Town and the City, the Public Improvements Agreement shall be entered into by both the Town and the City and the collateral provided to assure satisfactory completion of such Improvements shall be for the benefit of and enforceable by both the Town and the City. The Public Improvement Costs for Improvements to serve the Project shall be the sole responsibility of the Owner or a District. Notwithstanding any ordinances or other regulations of the City or the Town to the contrary, the City and the Town shall not be obligated to share in any Public Improvements Costs. An Owner may use any portion of the Shared Revenues that may be allocated to the Owner pursuant to an Owner Agreement to pay Public Improvement Costs and any Public-Related Improvement Costs authorized by such Owner Agreement. To the extent such Public Improvement Costs and Public-Related Improvement Costs exceed the amount of any Shared Revenues paid to the Owner, the Owner shall nonetheless be responsible to pay such Public Improvement Costs and Public-Related Improvement Costs. With respect to Improvements that will be located both within the City and the Town, if the City and the Town determine that Public Improvements beyond those provided by an Owner or a District are necessary or desirable, the Town and the City may agree to provide or obtain such Public Improvements and pay or assess the cost thereof according to any lawful means. Otherwise, the determination of the degree, if any, to which an Owner may be permitted to use any portion of the Shared Revenues shall be solely the determination of the jurisdiction in which the Improvements are located.

5.02 Construction of Public Improvements and Public-Related Improvements.

The Owner or a District shall be required to construct, acquire or otherwise provide, all Public Improvements and Public-Related Improvements to serve the Owner's development. Although the City

and the Town have the obligation to operate, maintain, repair, replace and reconstruct Public Improvements that have been dedicated to and accepted by the City or the Town, Districts and utility providers may require other Public Improvements, Public-Related Improvements and/or utilities for the development of a Project, including, but not limited to, other transportation, drainage, water, sanitary sewer, gas, electricity, telephone, cable television, and ditch improvements, and the relocation of certain of such existing improvements or facilities. Owners shall be required to construct, acquire or otherwise provide such Public Improvements, Public-Related Improvements and/or public utilities as may be required by such Districts or utility providers and to coordinate its efforts in doing so with the City and the Town. Except for those Public Improvements and Public-Related Improvements dedicated to a District or utility provider and for which such District or utility provider assumes maintenance responsibility, after Public Improvements have been accepted by the City or the Town, such Public Improvements will be maintained either by the City or the Town as part of the Municipal Services provided pursuant to Article III. Such Public Improvements shall be constructed in accordance with applicable City or Town standards pursuant to this Agreement. Any land owned by an Owner which is necessary to provide easements or rights-of-way for Public Improvements or Public-Related Improvements shall be required to be donated or dedicated by the Owner at no cost to either the City, the Town or any District or utility.

ARTICLE VI.

ENFORCEMENT AND RESOLUTION OF DISPUTES

6.01 Enforcement.

Pursuant to the provisions of C.R.S. Section § 24-20-105(2)(g), the City and the Town shall each have standing to enforce terms of this Agreement. Such enforcement may be through an action for specific performance or injunctive relief or for any other remedy available at law or in equity and shall be brought pursuant to the provisions of Section 6.02 below.

6.02 Alternative Dispute Resolution.

To the extent permitted by law, should any dispute arise regarding the interpretation or implementation of this Agreement, or in connection with any covenant, obligation or act to be performed under this Agreement, or should any continuing event of default exist, the parties agree that such disputes and/or continuing events of default shall be resolved in the following manner:

1. The City and the Town shall continue in good faith to attempt to resolve such dispute or cure such continuing event of default for a period of not less than fifteen (15) days following the identification by either party and written notice to the other party of the existence of a dispute or a continuing event of default.

2. In the event such dispute is not resolved or such continuing event of default is not cured within the fifteen (15) day period set forth above, the City and the Town shall employ a mutually acceptable professional mediator to assist them in resolving the dispute or curing the event of default, and shall bear the fees and costs of such mediator equally among them. Such mediation efforts shall be pursued for not less than thirty (30) days.

3. In the event the dispute or the continuing event of default is not resolved by mediation within the thirty (30) day period set forth above, the parties shall submit the dispute to a mutually acceptable professional arbitrator, in accordance with the rules of the American Arbitration Association then in effect, to finally resolve the dispute. The arbitrator shall have authority to impose all available remedies at law or in equity, including but not limited to, specific performance, injunctive relief and damages. The arbitrator may, in his or her discretion, allocate the fees and costs of the arbitration, including attorneys' fees, equitably among the parties. The award or decision made or rendered by the arbitrator shall be final and binding upon the parties.

Alternative Dispute Resolution shall not be employed in such a manner as to constitute a delegation of the City Council's or Town Board's legislative authority or the Rooney Valley Zoning Commission's quasi-judicial responsibility.

ARTICLE VII

MISCELLANEOUS

7.01 Term of Agreement.

The term of this Agreement shall be perpetual.

7.02 Recordation of Agreement.

This agreement and any amendments thereto shall be recorded by the Clerk of the City with the Clerk and Recorder of Jefferson County, Colorado. Although this agreement has been authorized and executed following published notice and public hearing by each municipality, the Town and the City may prepare a memorandum of this Agreement for recording or take other steps to provide notice to Owners of the existence of this Agreement.

7.04 Legal Challenge and Defense of Agreement.

In the event of any legal challenge by a third party to the validity or enforceability of any provision of this Agreement, the parties agree to cooperate in the defense of such challenge and to bear their own cost and attorneys' fees. During the pendency of any such legal challenge, through and including a Final Court Action, the parties agree to abide by and carry out all of the terms of this Agreement.

7.05 Notices.

Any notice, request, payment, consent, approval, demand or other communication required or permitted hereby shall be in writing and shall be deemed to have been given when personally delivered or when deposited in the United States Postal Service, certified, return receipt requested, postage prepaid, properly addressed to the persons to whom such notice is intended to be given at their respective addresses as follows:

If to the City: City of Lakewood
480 South Allison Parkway
Lakewood, Colorado 80226-3105
Attention: City Manager

If to the Town: Town of Morrison
321 Highway 8
Morrison, Colorado 80465
Attn: Town Administrator

7.06 Governing Law.

This Agreement shall be governed by the laws of the State of Colorado. To the extent any of the specific statutes, ordinances or regulations referred to herein are amended, the successor provisions shall apply following written approval by both parties.

7.07 No Third Party Beneficiaries

Nothing contained in this Agreement is intended to or shall create a contractual relationship with, cause of action in favor of, or claim for relief for, any third party, including any Owner. Absolutely no third party beneficiaries are intended by this Agreement. Any third party receiving a benefit from this Agreement is an incidental and unintended beneficiary only.

7.08 Severability.

Except as expressly provided for elsewhere in this Agreement, should any provision of this Agreement be held in a Final Court Action to be invalid, illegal or unenforceable, it shall not affect or impair the validity, legality or enforceability of any other provision of this Agreement. Furthermore, if a material provision of this Agreement is held invalid, illegal or unenforceable, the parties hereto agree to renegotiate that provision to be a valid, legal and enforceable provision which reflects as closely as possible the original intent of the parties hereto as expressed herein with respect to the subject matter of that provision.

7.09 Entire Agreement – Amendments.

This Agreement embodies the whole agreement of the parties. There are no promises, terms, conditions or obligations other than those contained herein, and this Agreement shall supersede all previous communications, representations or agreements, either verbal or written, among the parties hereto on this subject, specifically including the previous Intergovernmental Agreement between the parties dated May 5, 2000. This Agreement may be amended only by written agreement among the parties with the Town acting pursuant to Town Board authorization and the City acting pursuant to City Council authorization. Exhibits A and B to this Agreement are incorporated herein by this reference, as fully as if included in the body hereof.

By _____

Sean Forey, Mayor

ATTEST: [SEAL]

Charla Bryant, Town Clerk

CITY OF LAKEWOOD, COLORADO

By _____

Adam Paul, Mayor

ATTEST: [SEAL]

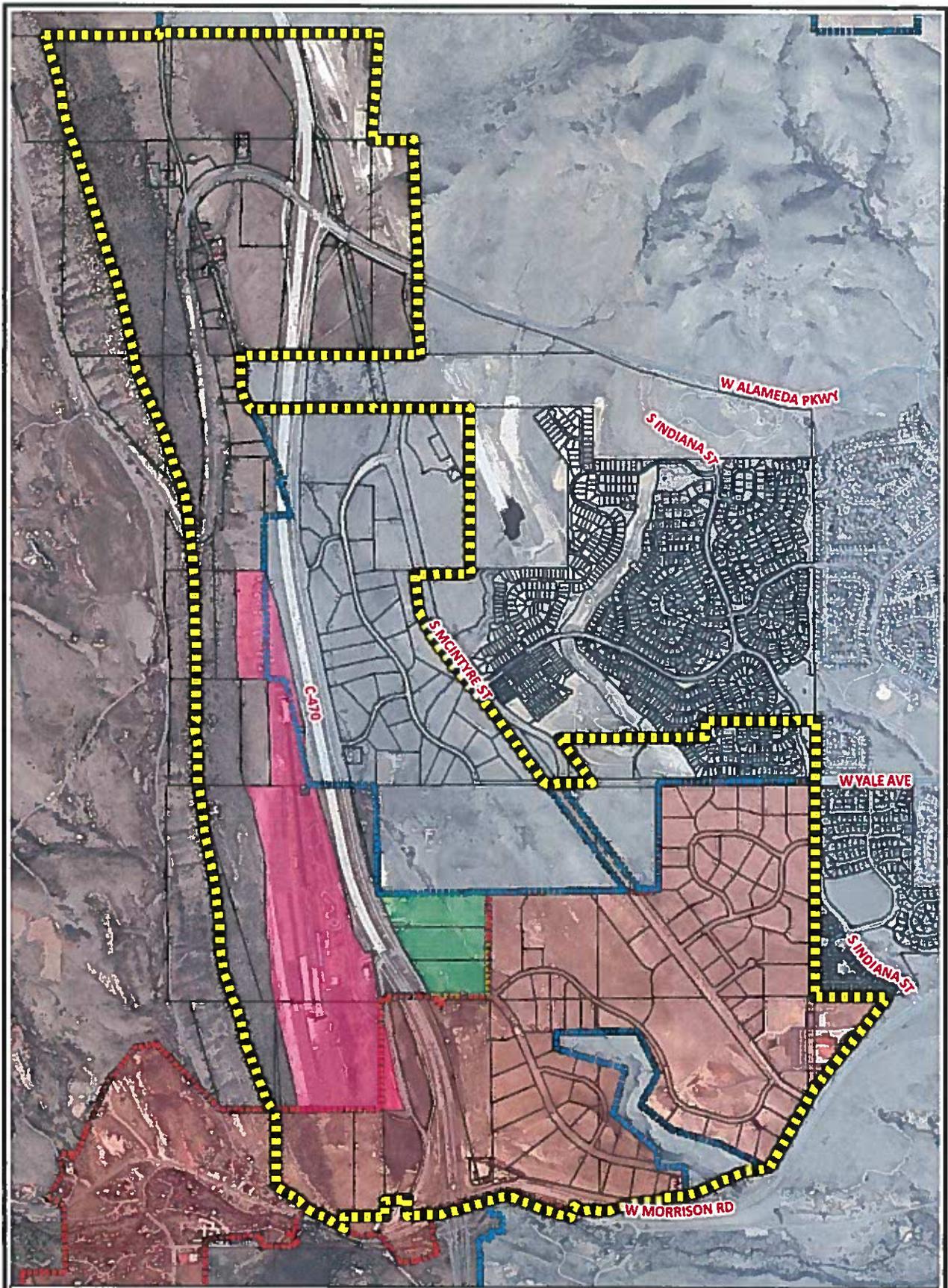
Margy Greer, City Clerk

DRAFT

EXHIBIT A

Map of Rooney Valley with identified jurisdictional lines
[Attached]

DRAFT



Rooney Valley IGA Boundary Map

-  Rooney Valley IGA
-  Lakewood City Boundary
-  Morrison City Boundary
-  Property Lines
-  Bandimere Property
-  Peterson Property



EXHIBIT B

Revenue Sharing Example

		<u>City</u>	<u>Town</u>	<u>Total</u>	
Revenues - Sales & General Use Taxes Collected by Entity		\$ 300,000	\$ 450,000	\$ 750,000	
Less: 60% retained by collection entity		(180,000)	(270,000)	(450,000)	
Net Revenue available (40%)		120,000	180,000	300,000	-
Servicing Residential Uses - 10% of Revenues	\$ 75,000				
Total number of residential units in each jurisdiction	1,750	1,500	250		
% in jurisdiction		85.71%	14.29%		
Amount Allocated for Servicing Residential Uses		64,286	10,714	75,000	-
Shared Revenue - 30% of Revenues	\$ 225,000				
50% shared by City & Town		112,500	112,500	225,000	
Net Revenue (40%)		176,786	123,214	\$ 300,000	-
Amount Due To (From) Entity		\$ 56,786	\$ (56,786)		

DRY

6c

TOWN OF MORRISON
BOARD OF TRUSTEES REGULAR MEETING
April 4, 2016
Board Action Form

SUBJECT: The water treatment plant is in need of a new computer and backup system. The current system continues to fail leading to violations with the State. We have received one bid and are waiting on another one.

TOWN ATTORNEY REVIEW: YES NO

MOTION: Motion to authorize the purchase of a new computer and backup system not to exceed \$18,000.

**TOWN BOARD MEETING
MORRISON TOWN HALL
110 STONE STREET
TUESDAY AUGUST 15, 2006**

CALL TO ORDER: Mayor Williams called the meeting to order at 7:05 p.m.

ROLL CALL: Clerk Hedberg called the roll. Mayor Williams, Trustees Aukland, Paul, and Price were present. Trustees Mikity, and Oswald were absent. A quorum was declared. Trustee Dichter arrived at 7:08.

AMENDMENTS TO THE AGENDA: EDS Waste Solutions trash disposal contract was removed, as the revised contract was not available for consideration. Trustee Price asked that employee salary increases be added. The item was placed under General Business.

PUBLIC TO ADDRESS THE BOARD: Kim Congello, 300 Spring Street, reiterated her request that Morrison have a 24 hour 7 day per week police department in order to increase response time. She inquired about the status of the proposal submitted by the Police Department to increase the service. Mayor Williams indicated that the matter was still under consideration; that it has not been fully explored, and would be evaluated at the next budget session. Mayor Williams advised that citizen input is welcome during Town budget discussions.

Bill Leonard, 116 South Park Avenue, brought the following issues to the Board's attention: Concerns over unresolved issues that he believed should be settled prior to any sale of the TnT Country Kitchen; Trail embankment maintenance; Town Hall maintenance; Trail fencing at the Blue Cow; Two Creek Park embankments; Fire engine being included in the Centennial Celebration; Reactivating the fire siren; Parking in the alley between Stone Street and the Mill Street Bridge; Heritage Square and Walker Square maintenance including refurbishing the bust of Helen Jordan; Bottled water from the Bradley well; Public access to the Bradley parking lot; and Dedication of the Memorial Plaza to George Morrison as part of the Centennial Celebration.

PRESENTATIONS/HEARINGS: Mayor Williams opened a public hearing for comments on Ordinance 340 "Amending Section 10-1B-2 and Section 10-1G-8 of Title 10 of the Morrison Municipal Code to Permit the Erection of Storage Sheds Meeting Certain Bulk and Height Criteria Within Side and Rear Setbacks in the R-1 and R-2 Residential Zone Districts in the Town of Morrison". No public comment was given. Attorney Miller advised deleting the words, "not affixed to the ground" from the Ordinance due to wind speeds. Illegal structures and structure size was reviewed. **MOTION** by Aukland, **SECOND** by Paul to adopt Ordinance 340 as amended. **VOTE:** Mayor Williams, Trustees Aukland, and Paul **IN FAVOR**. Trustees Dichter and Price **AGAINST**. **MOTION PASSED.**

Mayor Williams convened the Morrison Liquor Licensing Authority for the purpose of reviewing a Retail License Application for Transfer of Ownership, Permit Application and Report of Changes for Modification of Premises, and Temporary Liquor License Application for DYK, Inc. d/b/a Morrison Holiday Bar, 403 Bear Creek Avenue. David Killingsworth and Mark Richardson were present to represent the applicant. Impact, needs, and desires of the neighborhood were addressed. Proposed construction with regard to the flood plain, parking spaces, lighting, and noise were discussed. **MOTION** by Aukland, **SECOND** by Dichter to approve the liquor license transfer. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.** Manager approval was considered. **MOTION** by Dichter, **SECOND** by Aukland to approve Mark Richardson as the manager. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.** The Temporary Liquor License was addressed. **MOTION** by Dichter, **SECOND** by Aukland to approve issuance of a temporary liquor license. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.** The request for modification of the premises was examined. Conditions were discussed including: Allowing outdoor amplified music Sunday through Thursday until 11:00 p.m. and Friday and Saturday until 12:00 p.m.; Requiring outdoor lighting to be downcast; Requiring any issues with the sewer line location to be resolved prior to construction; and requiring the Licensee to comply with all applicable codes and ordinances prior to use of the modified premises. **MOTION** by Dichter, **SECOND** by Aukland to approve the modification with the aforementioned conditions. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.** It was noted that the noise restrictions attached were not uniform for other Town restaurants. Attorney Miller suggested sending a letter to Town restaurants advising that the Board will consider modifying noise restrictions at their next board meeting. Mr. Miller cautioned the applicant not to close on the sale of the business until their liquor license transfer is approved by the State.

APPROVALS: Minutes of August 1, 2006 were reviewed. Minor editorial corrections were made. **MOTION** by Aukland, **SECOND** by Paul to approve the minutes as corrected. **VOTE:** Mayor Williams, Trustees Aukland, Paul, and Price voting **IN FAVOR**. Trustee Dichter absent from voting. **MOTION PASSED.**

Vouchers in the amount of \$35,128.66 were considered. **MOTION** by Price, **SECOND** by Paul to approve the vouchers as presented. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.**

Payroll was discussed. **MOTION** by Price, **SECOND** by Paul to approve payroll not to exceed \$30,000. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.** It was noted that the exact payroll amount should be approved and ratified at the September 5, 2006 board meeting.

DEPARTMENTAL REPORTS:

ATTORNEY: Mr. Miller reported on statewide problems caused by the recently passed immigration bills and the effect they would have on local businesses. He provided an update on development in the Rooney Valley.

POLICE DEPARTMENT: A complaint filed by Gary Conte to the Police Department in regard to officer conduct was addressed. T.A. Smith and Chief Wasko to provide more information at the September 5, 2006 board meeting. A discussion was held regarding a high-speed pursuit by Jefferson County Sheriff's Department during the late evening of August 4, 2006. T.A. Smith to investigate further and report back to the Board.

UTILITIES: The report from WRC Engineering, Inc. concerning an analysis of historically available water rights was examined. It was the consensus of the Board to authorize spending up to \$1,000 to obtain an opinion from Cindy Covell, Town Water Attorney, advising risks associated with filing an application for a change in water rights. Mr. Wenger stated that if the Town were to utilize its maximum water portfolio, he estimates it could service 12,000 individuals. It was noted that the utility fund was under the budgeted expense amount and over the budgeted revenue amount to-date. U.D. Wenger recommended that irrigation restrictions be lifted at the end of August. Other issues contemplated included Café Prague taps, the EQR schedule from Black & Vetch, and a process to adjust taps as a result of consumption.

ACCOUNTING: Mayor Williams informed that issues with the former CPA have been resolved. He provided an update on the status of the audit. T.A. Smith indicated that he is in the process of hiring a part-time CPA and hiring a knowledgeable QuickBooks consultant. T.A. Smith, Mayor Williams, and Treasurer Price to provide oversight.

COURT: The amount of citations issued and revenue received were reviewed.

T.A. Smith stated that he was very pleased with Town Office staff.

MUSEUMS: Trustee Paul provided an update on the Gala scheduled for August 26th and informed Board members that the Foundation expressed a desire for their attendance as a show of support for the Morrison Natural History Museum. Trustee Paul has been working with Russ Ahrens to collect donations for the silent auction. **MOTION** by Dichter, **SECOND** by Paul to donate \$200 in the form of gift certificates to be redeemed at local businesses for the Gala Silent Auction. **VOTE:** All present voting **IN FAVOR**. **MOTION PASSED.**

Jamee Chambers advised on Centennial Celebration preparations indicating that the next MAC meeting is scheduled for August 24, 2006. Obtaining a Special Events License for the sale of beer was discussed.

STREETS AND GROUNDS: DeWayne Rhodig advised that he attended a Colorado Department of Transportation (CDOT) pre-construction meeting with regard to repair of C470 bridge expansion joints. Completing the sidewalk and curb project at Highway 8 and Market Street was addressed. T.A. Smith to discuss monetary participation with the owner of Beso de Arte and to inquire about extending the construction permit with CDOT.

Mr. Rhodig indicated that rattlesnakes have been sighted in Town. Clerk Hedberg directed to post a public notices.

Hiring Garlan Mellberg as a part-time employee to assist in the Streets and Grounds Department was reviewed.

The status of removal of encroachments from Cottage Street was addressed. By consensus, Mr. Rhodig was given permission to assist in moving the shed if requested. Rhodig directed to locate the culvert in the vacated portion of Cottage Street.

ADMINISTRATOR: T.A. Smith provided an update on the engineering work on the school parking lot, a proposal received regarding signage at the East end of Town, budget scheduling, and medical leave.

TOWN CLERK: No additions to her report.

GENERAL BUSINESS: Treasurer Price requested that the Board consider employee merit raises. Mayor Williams stated that the Town needed to stay competitive to retain valuable employees. Treasurer Price and T.A. Smith to present a recommendation at the September 5, 2006 board meeting.

The Town's cash management policy was reviewed. Attorney Miller advised that the Town should have a procedure and practice in place to avoid legal exposure. Treasurer Price and Mayor Williams to meet for further discussion in order that a resolution is prepared.

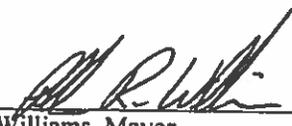
Time limits for public to address the board were reviewed. By consensus it was agreed to limit pre-scheduled public to a ten (10) minute time limit and unscheduled public to a five (5) minute time limit.

APPOINTMENTS: Jamee Chambers, Chairperson of the Planning Commission, indicated that Sandy Weeks had expressed interest in filling the vacancy on the Planning Commission. **MOTION by Aukland, SECOND by Price to appoint Sandy Weeks as a Commissioner. VOTE: All present voting IN FAVOR. MOTION PASSED.**

ADJOURNMENT: There being no further business, Mayor Williams adjourned the meeting at 9:55 p.m.



TOWN OF MORRISON



Allen Williams, Mayor

ATTEST:



Elizabeth A. Hedberg, Town Clerk

PRELIMINARY DESIGN PHASE - SCOPE OF SERVICES

SCOPE OF SERVICES

The Town of Morrison intends to evaluate the required infrastructure improvements and associated costs to extend a 10-foot wide multi-use trail south along Highway 8 approximately 1100-feet from the Post Office to the Morrison Natural History Museum linking with the Mt. Falcon Trail Head. The improvements would be part of the recommended improvements of the South Trail segment identified in the Community Trails Master Plan prepared for the Town. The Trails Master Plan had preliminarily identified utilizing the east side of Highway 8 for the trail, but with the vertical drop on the east side and the desire to improve the pedestrian crossing at Red Rocks Vista Drive, our focus will be on the west side of Highway 8. This scope of services is to provide preliminary design and cost estimating for the purpose of pursuing funding for the project. Subsequent phases of the work including final design, bidding/negotiating, and Construction Services will be addressed as the funding is identified for the project.



PRELIMINARY DESIGN PHASE - SCOPE OF SERVICES

PRELIMINARY DESIGN PHASE

- 1.0 Base File Work \$1,000
Utilizing the Town Supplied Chambers Inc. surveying work, TTG will adapt the base material into a better organized AutoCAD file for use in developing design alternatives. In the course of refining the drawing, TTG will identify if the existing survey information needs augmented with additional survey work for utility locates etc.
- 2.0 Preliminary Drainage Considerations \$2,000
TTG Staff will coordinate with CDOT to obtain and review any existing Drainage Reports or Studys for the project area, and through such review identify the design flows being conveyed along the East side of Highway 8.
- 3.0 Trail Plan & Profile and Drainage Improvements Plans \$6,000
Prior to developing any preliminary plans, TTG along with Town Staff will meet with CDOT to discuss preliminary design concepts and considerations that should be implemented into the development of preliminary plans. With this input, TTG will design preliminary alignments, profiles, and critical cross sections of the trail improvements, along with preliminary plans/exhibits reflecting the proposed improvements. Additionally TTG will develop a brief Technical Memorandum that will include preliminary calculations to size drainage improvements (piping/swales/etc.) required.
- 4.0 Design and Coordination with CDOT for Crosswalk Improvements \$2,500
Concurrently with the meeting to discuss the preliminary trail alignment and design concepts, TTG will meet with CDOT staff to identify preferred alternatives for the trail crossing enhancements at Red Rocks Vista Drive to promote pedestrian safety including potential signage changes, actuated beacon improvements, or hardscape options such as the addition of a median in that area to provide an intermediate refuge etc. After identifying the preferred approach with CDOT, TTG will develop preliminary plans for such improvements.
- 5.0 Establish Preliminary Quantities and Cost Estimates \$2,500
With the preliminary plans complete TTG will provide detailed quantity take-offs and generate preliminary opinions of cost on the above described improvements. Plans, estimates, and other deliverables will be provided to the Town to pursue funding options.

TOTAL COMPENSATION

For services as noted Town shall pay the Engineer for basic services rendered on an hourly basis not to exceed \$14,000.

2013 Storms and Flooding

From September 9 - 15, 2013, very heavy rains created massive flooding along Bear Creek and Mt. Vernon Creek through Morrison. Bear Creek peaked at a flow of about 3,200 cfs in Morrison as reported by the Division of Water Resources, which is likely a 10 to 15-year storm event. The Bear Creek at Morrison gaging station recorded a 3' rise in water surface. Upstream of Hwy. 8 near Morrison Park, the Bear Creek flooding caused damages to the channel banks and trail. Downstream of the Hwy. 8 crossing, an existing sewer main below the Canon Street bridge was threatened and the Ward Ditch diversion dam and adjacent concrete bike path were undermined. The State Engineers' Office was concerned that the Evergreen dam located upstream of Morrison would reach its capacity. As a result, for several days Morrison was under an evacuation alert status.

? exceed its capacity? fail?
it's always full?

Vulnerability to Specific Hazards

This section details vulnerability to specific hazards, where quantifiable, and where it differs from that of the overall County. The results of detailed GIS analyses used to estimate potential for future losses are presented here, in addition to maps of hazard areas. For a discussion of the methodology used to develop the loss estimates refer to Section 4.3 of the Base Plan.

Flood

According to the GIS vulnerability assessment conducted for this plan update, Morrison has the highest flood risk, based on loss ratio (see Section 4.3), in the planning area in terms of the potential for loss of life and severe damage to the downtown area. Note that this is based on computer modeling that may not reflect site specific mitigation activities.

part of
agenda

Morrison town shops are located adjacent to Bear Creek in a flood zone. Equipment necessary for flood recovery is stored in these shops. Relocation to safer location would protect equipment from damage/loss due to flash flooding.

Table 5

Table 4 shows the total parcels and buildings at risk to the 1% annual chance flood and ~~Error~~ **Reference source not found**. shows the values at risk in the same flood scenario. For this analysis, content values were estimated based on prevailing land use and a multiplier was applied to building and content values to estimate losses to each. See Section 4 Hazard Profiles for details on methodology. According to the analysis, 56 buildings (30 of which are Commercial) are at risk, totaling \$3.8 million in damage to buildings and contents.

Table 4. Town of Morrison Buildings At-Risk to 1% Annual Chance Flood

Property Type	Improved Parcels	Building Count
Commercial	21	30
Mixed Use	5	11

6h

TOWN OF MORRISON
BOARD OF TRUSTEES REGULAR MEETING
April 4, 2016
Board Action Form

SUBJECT: Jeffco Schools want the Town to help pay for the paving at the elementary school. As part of the Red Rocks Amphitheatre water project we had \$25,000 for asphalt work in the budget which can be applied to this effort. The school allows the Town to use the parking for public parking. The total amount they are asking for is \$78,000.

TOWN ATTORNEY REVIEW: [] YES [x] NO

MOTION: Motion to authorize \$XX,XXX to help Jeffco Schools pave the elementary school parking lot.

Kara Zabilansky

From: Huxley Robert B <rhuxley@jeffco.k12.co.us>
Sent: Friday, March 25, 2016 2:36 PM
To: Kara Zabilansky
Subject: FW: Red Rocks ES
Attachments: Red Rocks.pdf; GB-SURVEYREV-031116.pdf

Kara,

This is a follow-up on my e-mail to you and Glendon on March 1st (included in this e-mail chain).

Jeffco Schools would like to propose the following to the Town of Morrison for partial reimbursement of the district's repaving project at Red Rocks:

The Main Parking Lot bid came in at \$54,000. Since the new water line is cutting through this parking lot, I had previously discussed with Glendon that the district does not want a trench patch, so we asked Glendon to pave at least a portion of the lot. Jeffco Schools would like to ask the Town for reimbursement of 50% of the lot paving cost, or \$27,000.

The Main Drive bid came in at \$179,500. I believe the City uses the drive to park their vehicles during events and weekends. Jeffco Schools would like to ask the Town for reimbursement of 2/7th of the cost (weekend use). This would come to ~\$51,000.

Jeffco Schools' total ask would be \$78,000.

Please let me know if you have any questions or require additional information. We will gladly share our bid results if you would like to examine them.

Thanks again for your consideration in this matter and do not hesitate to contact me at 303-982-2340 or via e-mail at rhuxley@jeffco.k12.co.us.

Bruce

Bruce Huxley, Architect
LEED AP, CEFPI
Director, Planning and Property
Facility Management
Jeffco Public Schools
Office: 303-982-2340



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From: Huxley Robert B
Sent: Tuesday, March 01, 2016 9:15 AM

To: Kara Zabilansky (kara@town.morrison.co.us) (kara@town.morrison.co.us); Glendon Berrett (GBerrett@ttgcorp.com)
Cc: Martin Gregory J
Subject: FW: Red Rocks ES

Kara and Glendon,

I've attached our construction documents for the drive and parking lot paving work at Red Rocks E.S. to occur this summer. We have received bids for this work and the breakdown of the lowest responsible bid is as follows:

1. Main Parking lot (Drawing RES-C1.0)=\$54,000.00: 1-1/2" mill, overlay and restripe - asphalt work only.
2. Main Entry Drive (Drawing RES-C1.2)=\$179,500.00: 6" repave and stripe – asphalt work only.

Greg Martin, Jeffco's Project Manager, will be in contact with you to coordinate schedules and work.

As we discussed on site a few weeks ago, Jeffco Schools would like to ask the City of Morrison to partially contribute to the funding of this work. I will contact you at a later date to review some thoughts on this and to present a proposal.

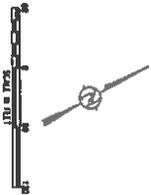
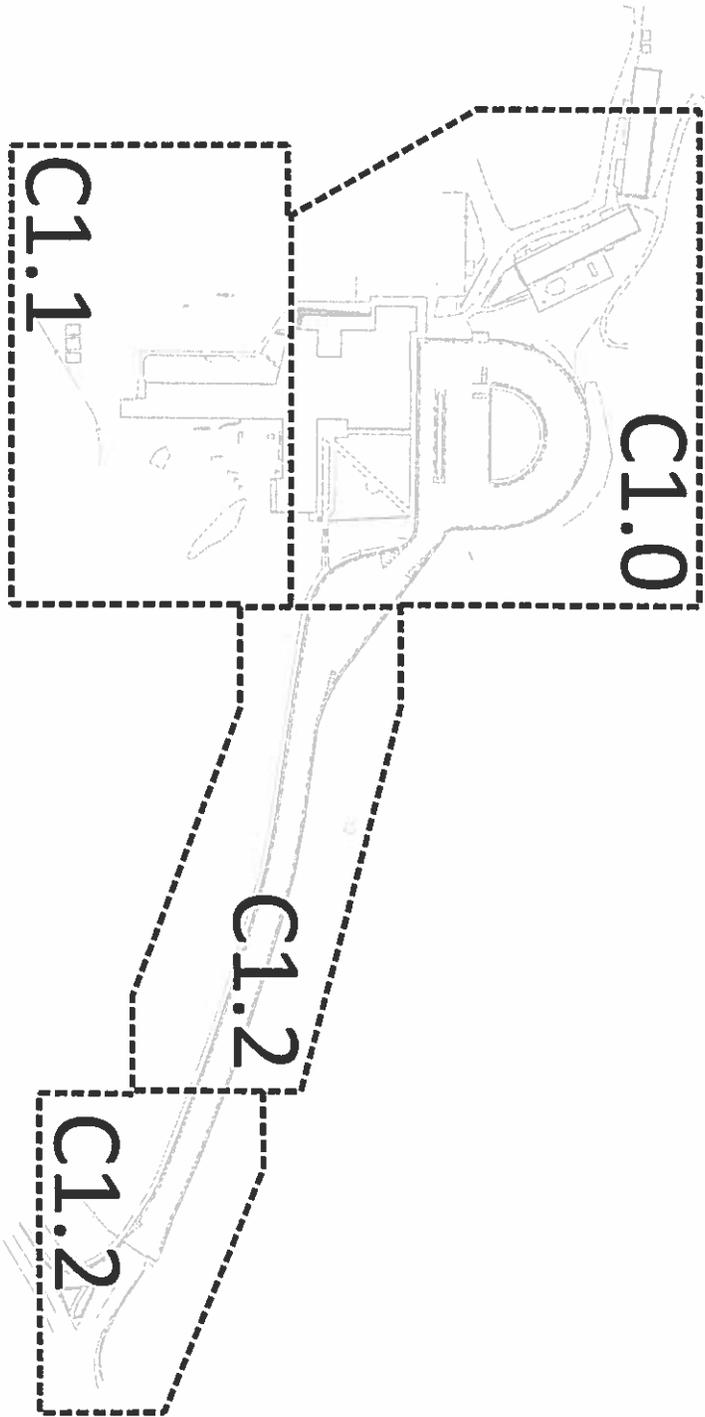
Let me know if you have any questions or if you need additional information.

Thanks,
Bruce

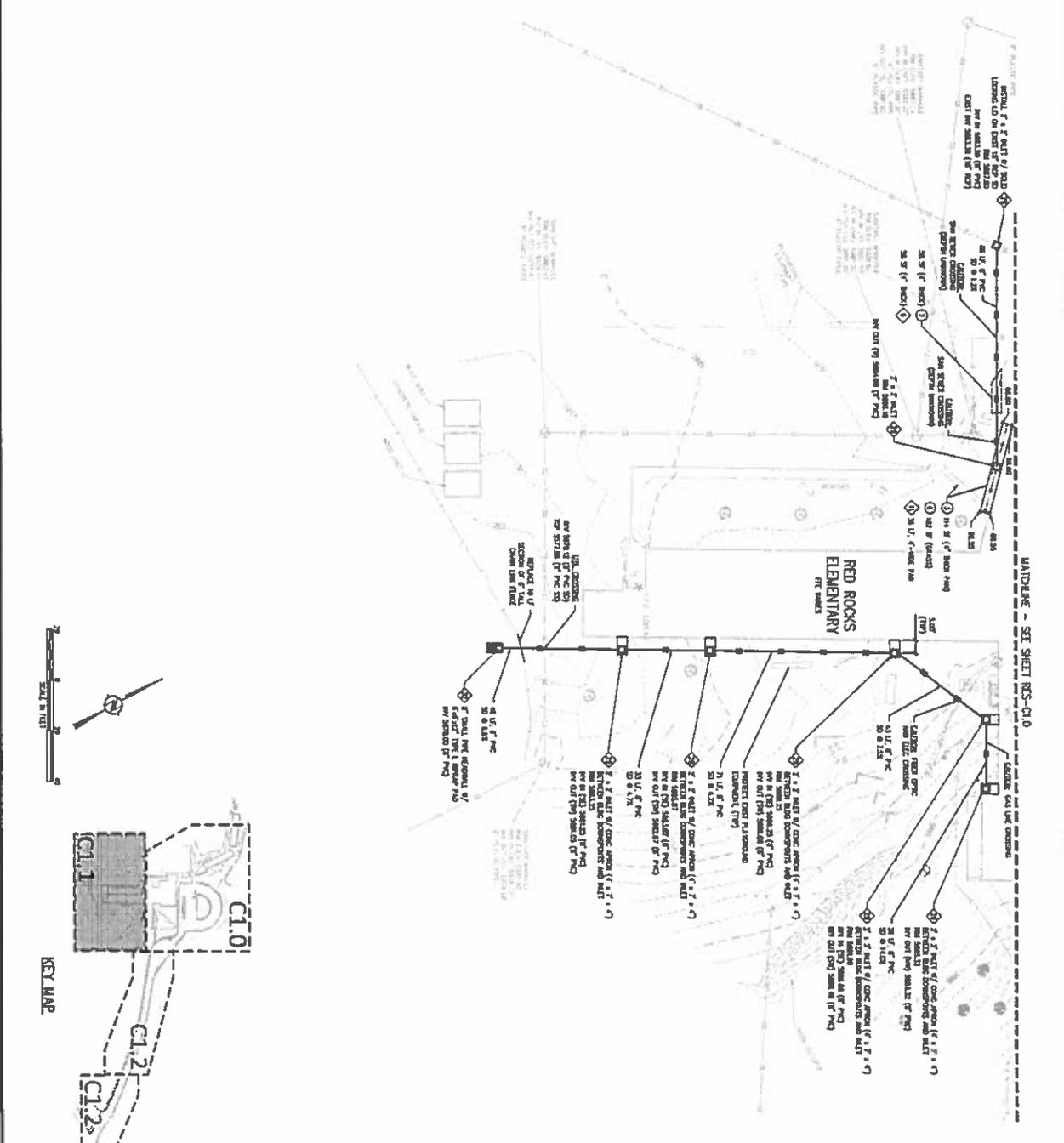
Bruce Huxley, Architect
LEED AP, CEFPI
Director, Planning and Property
Facility Management
Jeffco Public Schools
Office: 303-982-2340



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RES-00.0 <small>PROJECT NO.</small>	JEFFERSON COUNTY PUBLIC SCHOOLS 2016 DISTRICT-WIDE PAVING AND CONCRETE REPLACEMENT PROJECT		<small>NO.</small> <small>DATE</small> <small>REVISED</small> <small>BY</small> <small>DESCRIPTION</small>	
	RED ROCKS ELEMENTARY SCHOOL 17199 HIGHWAY 74, MORRISON, CO 80465 KEY MAP			
<small>DESIGNED BY</small> <small>DATE</small> <small>DESIGNED BY</small> <small>DATE</small> <small>DATE</small> <small>APPROVED BY</small> <small>DATE</small>				



- SHEET GENERAL NOTES:**
- VERIFY LIMITS OF CONSTRUCTION AND MATERIAL QUANTITIES FROM 2-D CONSTRUCTION. CONFIRMATION MUST BE OBTAINED FROM SUBCONTRACTORS PRIOR TO CONSTRUCTION.
 - PROTECT EXISTING UTILITIES AND STRUCTURES FROM CONSTRUCTION. VERIFY EXISTING UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION.
 - VERIFY EXISTING UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION. VERIFY EXISTING UTILITIES AND STRUCTURES PRIOR TO CONSTRUCTION.
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- DEMOLITION/REMOVAL NOTES:**
- REMOVE EXISTING CONCRETE DRIVE AND CURBS.
 - REMOVE EXISTING CONCRETE DRIVE AND CURBS.

- CONSTRUCTION NOTES:**
- CONCRETE DRIVE AND CURBS.
 - CONCRETE DRIVE AND CURBS.

- KEY MAP:**
- C1.0, C1.1, C1.2

JEFFERSON COUNTY PUBLIC SCHOOLS
2016 DISTRICT-WIDE PAVING AND CONCRETE REPLACEMENT PROJECT
RED ROCKS ELEMENTARY SCHOOL
17199 HIGHWAY 74, MORRISON, CO 80465
SITE PLAN

RESC-1.1

NO.	DATE	DESIGN	BY	CHK	REVISION/DESCRIPTION

61

**TOWN OF MORRISON
BOARD OF TRUSTEES REGULAR MEETING
April 4, 2016
Board Action Form**

SUBJECT: An easement agreement for the pump station has been agreed upon by Jefferson County School District.

TOWN ATTORNEY REVIEW: YES NO

MOTION: Motion to enter into the Non-Exclusive Easement Agreement with Jefferson County School District R-1 for an Underground Water Line.

**NON-EXCLUSIVE
EASEMENT AGREEMENT
UNDERGROUND WATER LINE**

THIS EASEMENT AGREEMENT is made this ____ day of _____ 2016, between Jefferson County School District R-1, a quasi-municipal corporation of the State of Colorado, whose legal address is 1829 Denver West Drive, Building 27, Golden CO 80401, "Grantor," and the TOWN OF MORRISON, a home rule town and political subdivision of the State of Colorado (the "Town"), whose legal address is 321 Highway 8, Morrison, Colorado 80465.

WITNESSETH:

For good and valuable consideration, receipt whereof is acknowledged, Grantor hereby grants to the Town, its successors and assigns, a permanent right to enter, reenter, occupy and use the hereinafter described property (the "Property") to construct, lay, install, inspect, monitor, maintain, repair, renew, substitute, change the size of, replace, remove, and operate a four (4) inch diameter underground water line, pumping station, access drive and electric service line to the same and all underground and surface appurtenances thereto, in and across the Property, which is situate in the County of Jefferson, State of Colorado, and more fully described on Exhibit A attached hereto and incorporated herein by reference.

IT IS HEREBY MUTUALLY COVENANTED AND AGREED by and between the parties as follows:

1. Upon reasonable advance notice the Town shall have and may exercise the right of ingress and egress in, to, over, through and across the Property for any purpose needful for the full enjoyment of any other right of occupancy or use provided for herein.

2. Grantor shall neither cause nor permit the construction or placement of any structure or building, temporary or permanent, or the planting of any tree, woody plant or nursery stock, of any kind on those portions of the Property occupied by the underground water line, pumping station, access drive and electric service line, all as shown on Exhibit A. Grantor shall not, however, construct or install new fencing across or within the Property without the written approval of the Town, of which approval shall not be unreasonably denied.

3. After any construction or other operations by the Town which disturb the surface of the Property, the Town will restore the general surface of the ground, as nearly as may reasonably be done to the grade and condition it was in immediately prior to construction, except as necessarily modified to accommodate the underground water line permitted hereby. Fences, trails, or other improvements existing as of the date hereof which are disturbed or destroyed by the Town in the exercise of its rights hereunder shall be replaced by the Town to their original condition as nearly as may reasonably be done. The Town shall restore all disturbed asphalt pavement to the full drive width in the disturbed area at a minimum depth matching the existing pavement. Topsoil shall be replaced in cultivated and agricultural areas, and any excess earth resulting from installations by the Town shall be removed from the Property at the sole expense of the Town. The Town will maintain the surface elevation and quality of the soil by correcting any settling or subsiding that may occur as a result of the work done by the Town.

4. The Town shall have and may exercise the right of subjacent and lateral support to whatever extent is necessary or desirable for the full, complete and unmolested enjoyment of the rights herein granted. It is specifically agreed that Grantor shall neither take nor permit any action which would impair the earth cover over, or the lateral or subjacent support for, the water line or appurtenances within the Property.

5. Grantor retains the right to the undisturbed use and occupancy of the Property insofar as such use and occupancy is consistent with and does not impair any grant or covenant herein contained.

6. If the Town by recorded written instrument terminates or releases its rights herein granted and ceases to use the same, all right, title and interest of the Town hereunder shall cease and terminate, and the Grantor shall hold the Property, as the same may then be, free from the rights so abandoned and shall own all material and structures of the Town so abandoned, but nothing herein shall be construed as working a forfeiture or abandonment of any interest derived hereunder and not owned by the Town at the time of the abandonment of the Town's rights.

7. Grantor warrants that it has full right and lawful authority to make the grant herein contained, and promises and agrees to defend the Town in the exercise of its rights hereunder against any defect in title or in Grantor's right to make said grant.

8. Each and every one of the benefits and burdens of this Agreement shall inure to and be binding upon the respective legal representatives, heirs, executors, administrators, successors and assigns of the parties hereto.

9. Grantor reserves the right to authorize other public utilities such as sanitary or storm sewer, gas, electric, telephone, and cable TV lines, to be installed in the Property, provided that they do not interfere with the Town's rights herein granted, that public utilities crossing the Property cross at approximately right angles, and that no utilities be permitted to parallel the Town's facilities within ten feet thereof. Except for utilities as herein authorized and for roadways and parking lots, all surface and subsurface uses of the Property must be approved in writing by the Town before installation. Town approval shall not be unreasonably denied. Unauthorized or non-conforming utility installations may be removed by the Town without liability for damages arising therefrom.

10. This writing constitutes the whole agreement between the parties and no additional or different oral representation, promise or agreement shall be binding on any of the parties hereto with respect to the subject matter of this instrument.

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the day and year first above written.

GRANTOR: JEFFERSON COUNTY PUBLIC SCHOOLS

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me by _____ this ____ day of _____, 2016 by _____ as _____ of Jefferson County Public Schools, Grantor.

My commission expires:

Witness my hand and official seal.

Notary Public

[SEAL]

TOWN OF MORRISON, COLORADO

By: _____
Sean Forey, Mayor

ATTEST:

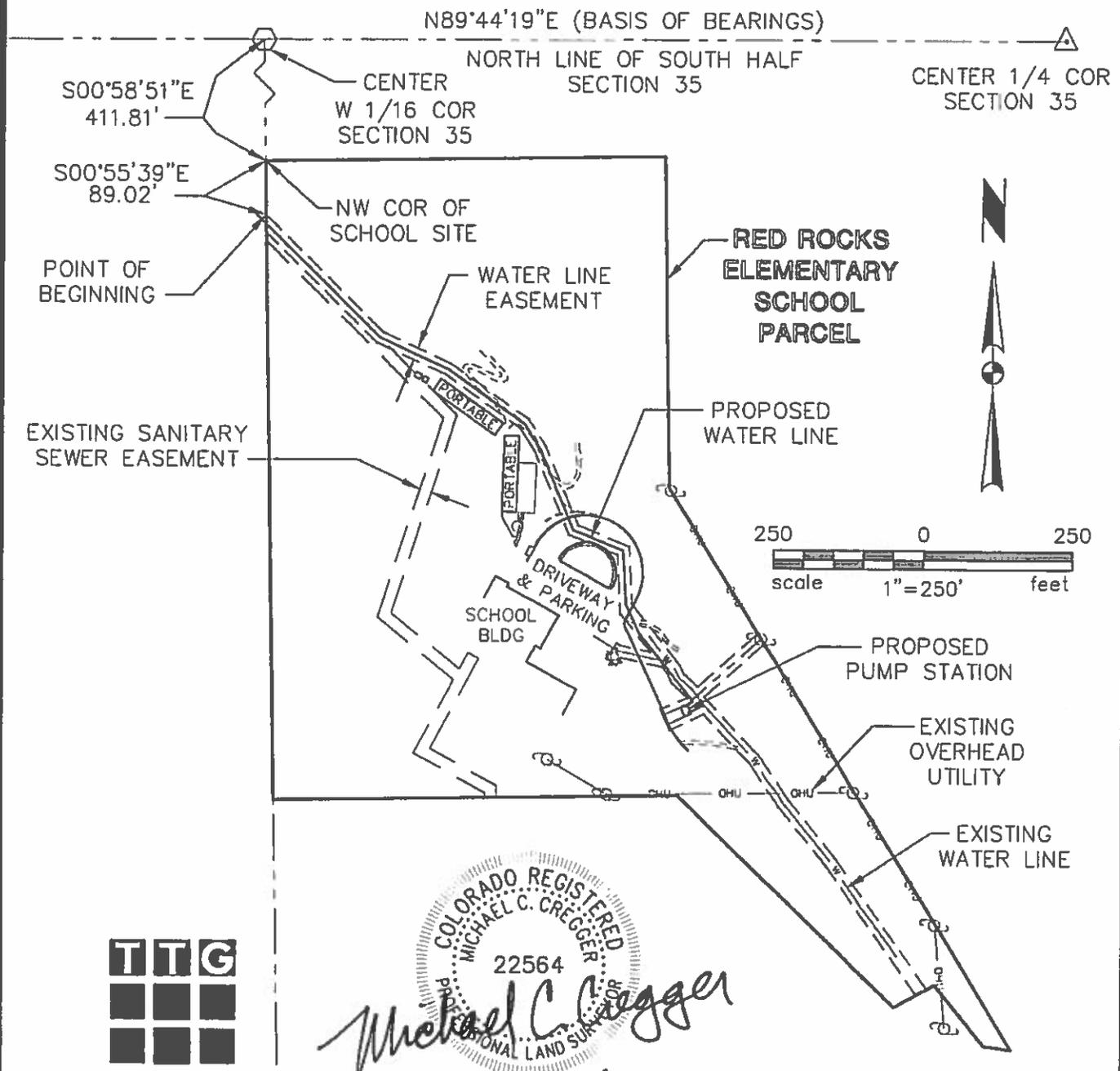
Char Bryant, Town Clerk

[TOWN SEAL]

EXHIBIT A

Legal Description Exhibit - attached

EXHIBIT A
WATER LINE EASEMENT
RED ROCKS ELEMENTARY SCHOOL
S 1/2 SECTION 35, T.4 S., R.70 W. OF 6TH P.M.,
JEFFERSON COUNTY, COLORADO

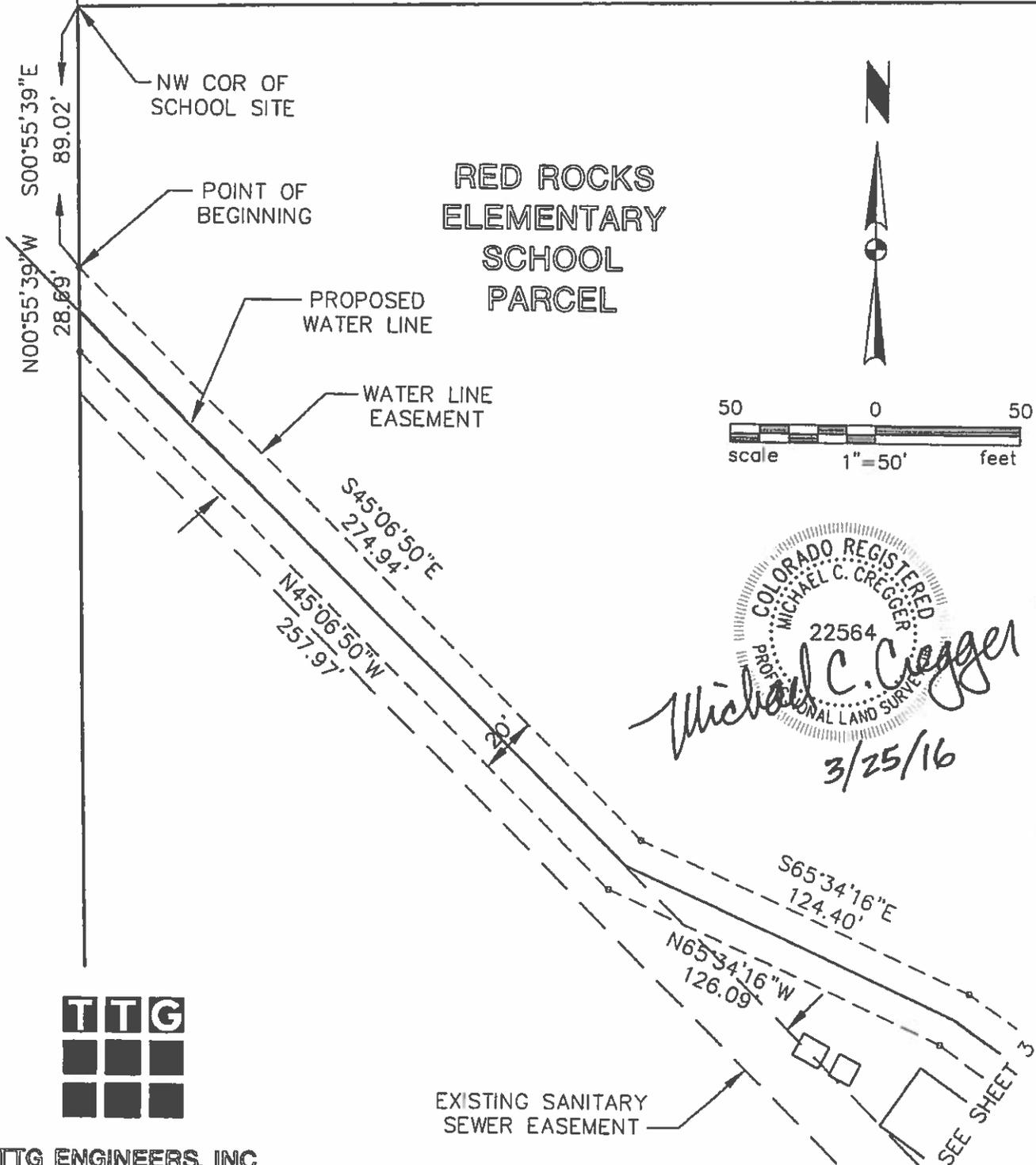


TTG ENGINEERS, INC.

COLORADO REGISTERED
 MICHAEL C. CREGGER
 22564
Michael C. Cregger
 PROFESSIONAL LAND SURVEYOR
 3/25/16

SHEET 1 OF 8

EXHIBIT A WATER LINE EASEMENT RED ROCKS ELEMENTARY SCHOOL



Michael C. Ciegger
 3/25/16



TTG ENGINEERS, INC.

EXISTING SANITARY SEWER EASEMENT

SEE SHEET 3
SHEET 2 OF 8

EXHIBIT A

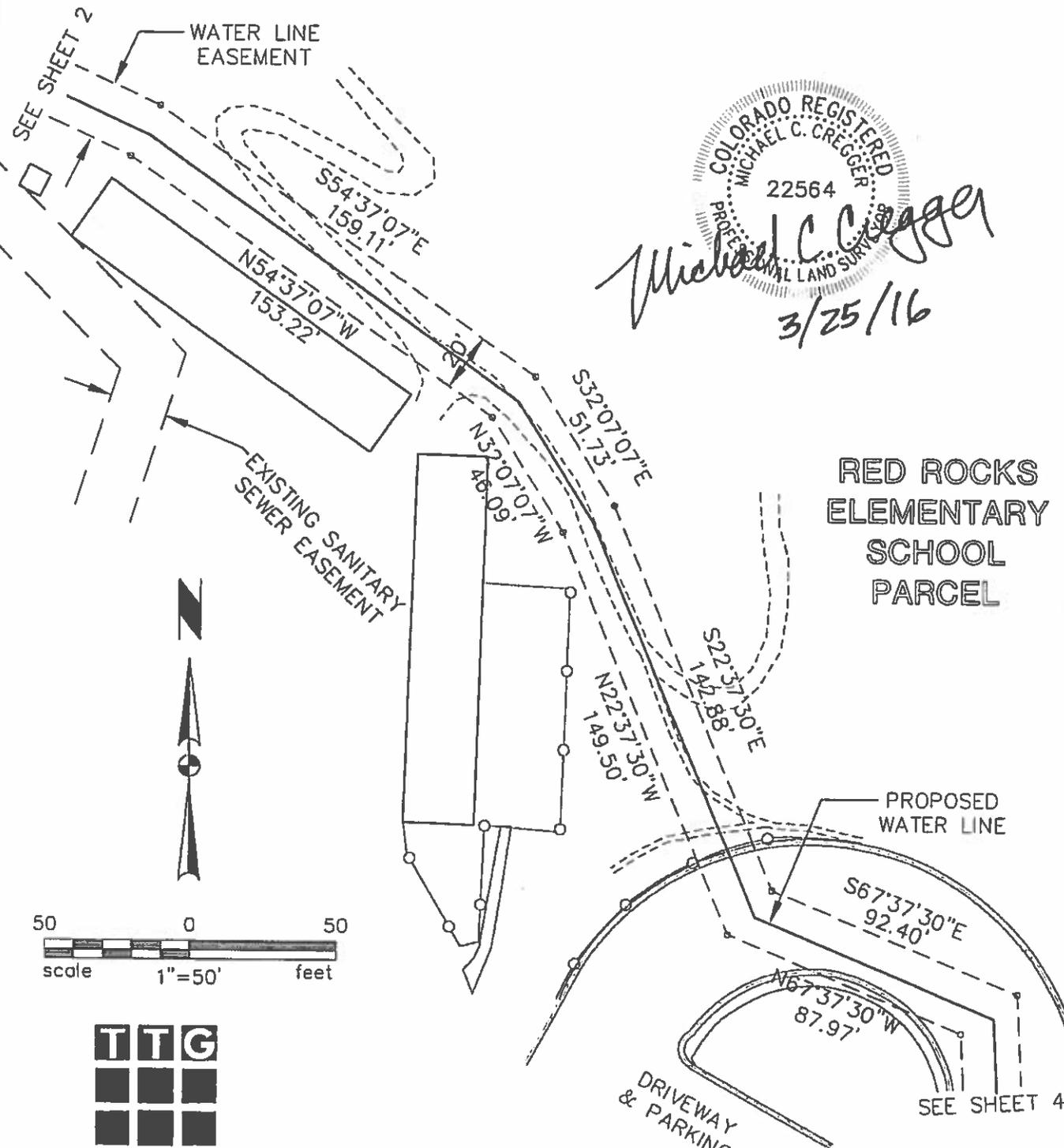
WATER LINE EASEMENT

RED ROCKS ELEMENTARY SCHOOL



Michael C. Cregger

3/25/16



RED ROCKS
ELEMENTARY
SCHOOL
PARCEL

SEE SHEET 2

SEE SHEET 4



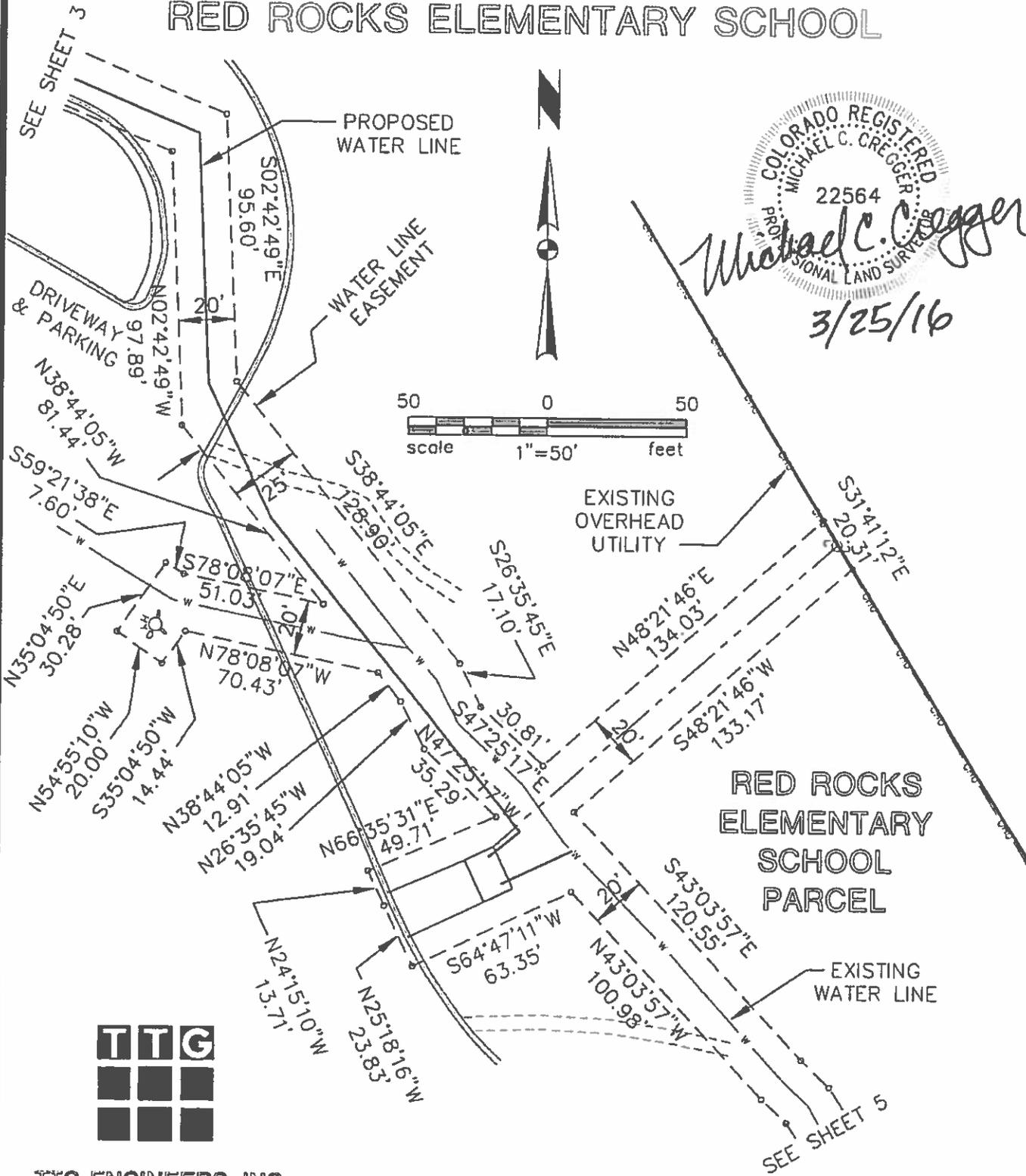
TTG ENGINEERS, INC.

SHEET 3 OF 8

EXHIBIT A

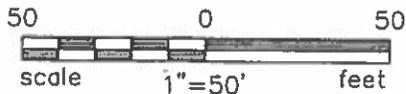
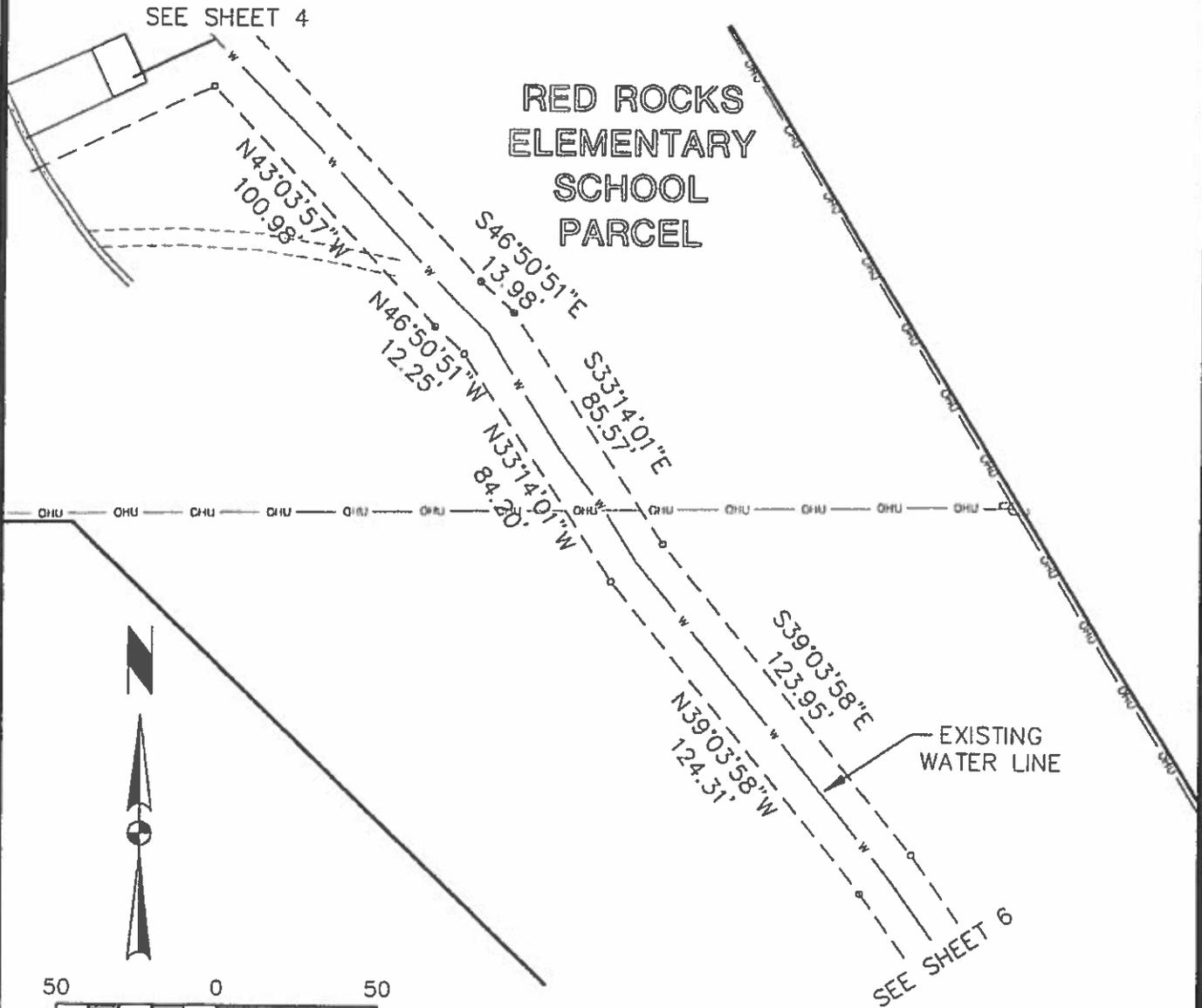
WATER LINE EASEMENT

RED ROCKS ELEMENTARY SCHOOL



TTG ENGINEERS, INC.

EXHIBIT A WATER LINE EASEMENT RED ROCKS ELEMENTARY SCHOOL



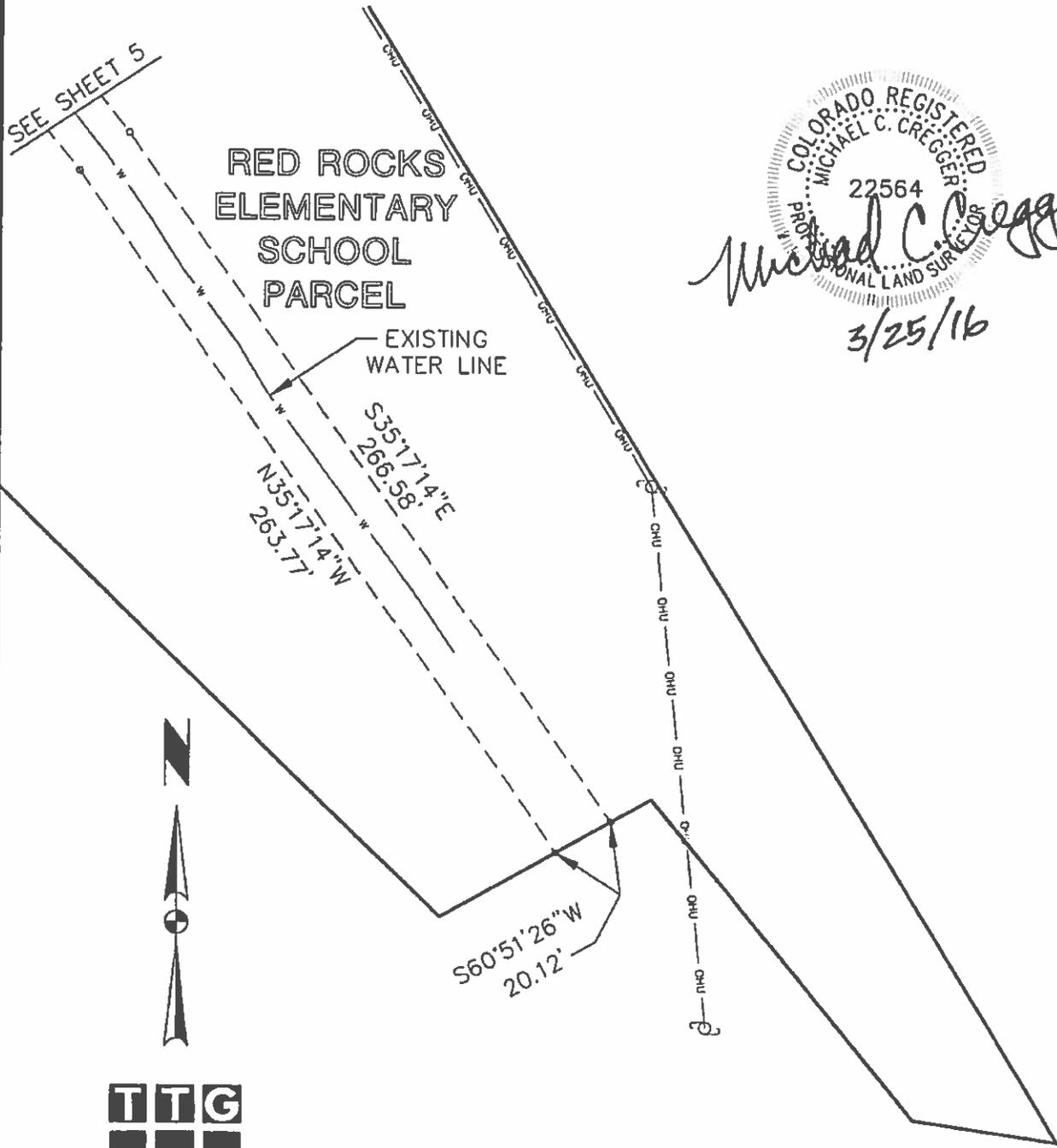
TTG ENGINEERS, INC.

COLORADO REGISTERED
 MICHAEL C. CREGGER
 22564
Michael C. Cregger
 PROFESSIONAL LAND SURVEYOR
 3/25/16

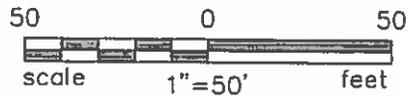
EXHIBIT A

WATER LINE EASEMENT

RED ROCKS ELEMENTARY SCHOOL



COLORADO REGISTERED
 MICHAEL C. CREGGER
 22564
Michael C. Cregger
 PROFESSIONAL LAND SURVEYOR
 3/25/16



TTG ENGINEERS, INC.

SHEET 6 OF 8

EXHIBIT A

WATER LINE EASEMENT

RED ROCKS ELEMENTARY SCHOOL

LEGAL DESCRIPTION

A PORTION OF THE PARCEL DESCRIBED IN THE SURVEY PLAT OF RED ROCKS ELEMENTARY SCHOOL, RECORDED AT RECEPTION NO. F0000712, LOCATED IN THE SOUTH HALF OF SECTION 35, TOWNSHIP 4 SOUTH, RANGE 70 WEST OF THE 6TH P.M., JEFFERSON COUNTY, COLORADO, BEING DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER-WEST-ONE-SIXTEENTH CORNER OF SAID SECTION 35, AS MONUMENTED BY A REBAR WITH A 3.25 INCH CAP STAMPED: "CHAMBERS PLS 16099", AND CONSIDERING THE EAST-WEST CENTERLINE OF SAID SECTION 35 TO BEAR NORTH 89°44'19"EAST, TO THE CENTER QUARTER CORNER OF SAID SECTION 35, AS MONUMENTED BY A PIPE WITH A 3.5 INCH CAP STAMPED: "CHAMBERS PLS 16099", WITH ALL BEARINGS CONTAINED HEREIN, RELATIVE THERETO; THENCE SOUTH 00°58'51"EAST, 411.81 FEET TO THE NORTHWEST CORNER OF SAID RED ROCKS ELEMENTARY SCHOOL PARCEL; THENCE ALONG THE WEST LINE OF SAID PARCEL, SOUTH 00°55'39"EAST, 89.02 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 45°06'50"EAST, 274.94 FEET; THENCE SOUTH 65°34'16"EAST, 124.40 FEET; THENCE SOUTH 54°37'07"EAST, 159.11 FEET; THENCE SOUTH 32°07'07"EAST, 51.73 FEET; THENCE SOUTH 22°37'30"EAST, 142.88 FEET; THENCE SOUTH 67°37'30"EAST, 92.40 FEET; THENCE SOUTH 02°42'49"EAST, 95.60 FEET; THENCE SOUTH 38°44'05"EAST, 128.90 FEET; THENCE SOUTH 26°35'45"EAST, 17.10 FEET; THENCE SOUTH 47°25'17"EAST, 30.81 FEET; THENCE NORTH 48°21'46"EAST, 134.03 FEET TO THE EASTERLY LIMITS OF SAID PARCEL; THENCE ALONG SAID EASTERLY LIMITS, SOUTH 31°41'12"EAST, 20.31 FEET; THENCE DEPARTING SAID EASTERLY LIMITS, SOUTH 48°21'46"WEST, 133.17 FEET; THENCE SOUTH 43°03'57"EAST, 120.55 FEET; THENCE SOUTH 46°50'51"EAST, 13.98 FEET; THENCE SOUTH 33°14'01"EAST, 85.57 FEET; THENCE SOUTH 39°03'58"EAST, 123.95 FEET; THENCE SOUTH 35°17'14"EAST, 266.58 FEET TO THE SOUTHERLY LIMITS OF SAID PARCEL; THENCE ALONG SAID SOUTHERLY LIMITS, SOUTH 60°51'26"WEST, 20.12 FEET; THENCE DEPARTING SAID SOUTHERLY LIMITS, NORTH 35°17'14"WEST, 263.77 FEET; THENCE NORTH 39°03'58"WEST, 124.31 FEET; THENCE NORTH 33°14'01"WEST, 84.20 FEET; THENCE NORTH 46°50'51"WEST, 12.25 FEET; THENCE NORTH 43°03'57"WEST, 100.98 FEET; THENCE SOUTH 64°47'11"WEST, 63.35 FEET; THENCE NORTH 25°18'16"WEST, 23.83 FEET; THENCE NORTH 24°15'10"WEST, 13.71 FEET; THENCE NORTH 66°35'31"EAST, 49.71 FEET; THENCE NORTH 47°25'17"WEST, 35.29 FEET; THENCE NORTH 26°35'45"WEST, 19.04 FEET; THENCE



TTG ENGINEERS, INC.

SHEET 7 OF 8

EXHIBIT A
WATER LINE EASEMENT
RED ROCKS ELEMENTARY SCHOOL

NORTH 38°44'05"WEST, 12.91 FEET; THENCE NORTH 78°08'07"WEST, 70.43 FEET; THENCE SOUTH 35°04'50"WEST, 14.44 FEET; THENCE NORTH 54°55'10"WEST, 20.00 FEET; THENCE NORTH 35°04'50"EAST, 30.28 FEET; THENCE SOUTH 59°21'38"EAST, 7.60 FEET; THENCE SOUTH 78°08'07"EAST, 51.03 FEET; THENCE NORTH 38°44'05"WEST, 81.44 FEET; THENCE NORTH 02°42'49"WEST, 97.89 FEET; THENCE NORTH 67°37'30"WEST, 87.97 FEET; THENCE NORTH 22°37'30"WEST, 149.50 FEET; THENCE NORTH 32°07'07"WEST, 46.09 FEET; THENCE NORTH 54°37'07"WEST, 153.22 FEET; THENCE NORTH 65°34'16"WEST, 126.09 FEET; THENCE NORTH 45°06'50"WEST, 257.97 FEET TO THE WEST LINE OF SAID PARCEL; THENCE ALONG SAID WEST LINE, NORTH 00°55'39"WEST, 28.69 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION, CONTAINING 42,144 SQUARE FEET (0.97 ACRES), MORE OR LESS.

SURVEYOR'S CERTIFICATE

I, MICHAEL C. CREGGER, DO HEREBY CERTIFY THAT THIS EXHIBIT AND LEGAL DESCRIPTION WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, FOR AND ON BEHALF OF TTG ENGINEERS, INC. THIS EXHIBIT DOES NOT CONSTITUTE A LAND SURVEY AS DEFINED BY STATE STATUTES.

DATE

3/25/2016

PROFESSIONAL LAND SURVEYOR
COLORADO REGISTRATION NO. 22564

Michael C. Cregger



TTG ENGINEERS, INC.

SHEET 8 OF 8

4j



3/30/16

Jefferson County Planning Department
100 Jefferson County Pkwy, Golden, CO 80419

Re: Re: Morrison Storage
Located in the NW ¼ of Sec. 1, T.5s., R. 70 W., of the 6th P.M.
County of Jefferson, State of Colorado

Sir or Madam:

On behalf of our Client, Real Capital Solutions, I offer the following letter of intent regarding the proposed development at the property located in the south west quadrant of Morrison Road and C-470. Our Client seeks to receive approval from the Planning and Zoning Departments to construct a new indoor storage facility. As such, it is understood Re-zoning and Site Plan approval would be required.

The proposed site plan includes a main building at 3 stories tall (about 35' tall) and is roughly 96,000 square feet. Additionally, a one story building of about 14,300 sf is proposed for a total of about 110,300 sf. The main building would be a fully enclosed climate controlled facility with a management office and loading areas located at the northern and southern parts of the building. The manager would not live in the facility.

Given the very low traffic volumes, low noise, low light, low odor, we think this would be an excellent low impact neighbor to surrounding homes and minimal impact to traffic on Morrison Road. The Architecture has yet to be designed but the construction techniques associated with these buildings afford the flexibility to design facades that are appropriate to the context within which the building is proposed.

We look forward to meeting with the Jefferson County to further discuss this proposed development.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Haswell".

Brad Haswell,
Principal, Studio DH Architecture



PRELIMINARY DEVELOPMENT ANALYSIS SUMMARY

MARCH 30, 2016

Case Number: 16-106096 PA

Case Type: Rezoning/SDP

Property Address: 3664 Soda Lakes RD

Parcel ID Numbers: 50-012-00-004

Sec. 01, T 05 S, R 70 W

Owner

LAND ACQUISITION LLC
6474 S QUEBEC ST
ENGLEWOOD CO 80111

Applicant

Studio DH Architecture
1300 JACKSON DR SUITE 200
GOLDEN CO 80401

Telephone Number: () -

Fax: () -

Telephone Number: (303)456-9600

Fax: () -

Summary of Proposal: Rezone and SDP to allow self storage building.
Pre-Application Review Meeting Date: Apr 07, 2016 Time: 2:30pm

Information:

Acres: 4.77
Legal Parcel: Yes
Legal Parcel Comments: see 2014-133502 AR
Existing Zoning: A-2
Related Case(s): 10-106741PA
Existing Land Use: Vacant
Area Plan:
Community Plan: South Plains
Proof of Access: Yes
Access Type: Public
Access Comments:
Proof of Water: Pending
Water Service Comments:
Sanitation Comments:

Zoning Overlay:

Dipping Bedrock: Yes
Wildfire Hazard: No
Floodplain: Yes
Floodplain Type: FEMA
Geologic Hazard: No
Geologic Hazard Comments: N/A
Mountain Groundwater: No
Aggregate Resource: F1 - Floodplain deposit(Gravel; relatively clean and sound) T1 - Stream terrace deposit(Gravel; relatively clean and sound)

Comments: Rezone and SDP for self storage building(s). Proposal is for (1) 32,000 SF footprint X 3 stories for a total of 96,000 SF for the larger building; plus another 14,300 SF one-story building. Research from 2014 appears to show it is a legal parcel. There is a floodplain along the north.

Mayor and Board of Trustees:

The Morrison Police Department Report for March, 2016.

1. Master Trooper, Mike (Piney) Harris of the Colorado State Patrol, conducted four hours of classroom instruction in accident investigation/report writing for the Morrison Police Department. Eleven Morrison Police Officers and one Jefferson Co. Deputy attended the instruction on their own time which was offered by Master Trooper Harris at no charge.
2. Our Community Resource Officer gave a presentation about "Our Community Helpers" to children at Kid Central Learning Center. The presentation was concluded by swearing them in as Junior Police Officers and giving each child a police coloring book.
3. Morrison Police assisted with the funeral procession and attended the funeral for Park County Deputy Nate Carrigan killed in the line of duty while serving an eviction notice.
4. Crimes/calls for service handled by Morrison Police Officers in **March, 2016.**
 - **Four Vehicle Accidents Investigated/Reported by Morrison Police Officers:** NB Hwy 8 @ Haul Rd (Aggregate Industries) – Single vehicle/deer non-injury accident; NB Hwy 285 @ mm248 – Single vehicle possible injury accident (motorist sneezed causing her to swerve off roadway and down embankment, to hospital for evaluation); Hwy 74 @ Red Rocks Park Road – Two vehicle injury accident (minor transported to hospital); WB C470 @ mm3.5 – Single vehicle non-injury accident (motorist lost control in snow pack & icy conditions, spun 360 degrees and hit center concrete barrier).
 - **No Stolen Vehicles in March:**
 - **Fifteen Motorist Assists:** Hwy 8 @ The Fort – Disabled vehicle (CO 373-QUC) courtesy ride to Red Rocks Grill; WB C470 @ Morrison Rd – Assist motorist (CO 989-YDW) change flat tire; Hwy 8 @ Bear Creek Ave – Disabled vehicle (CO 954-YCB) pushed off roadway for safety (tow en route); SB Hwy 285 @ mm247.5 – Semi pulled over to shoulder partially blocking roadway (waiting for brakes to cool, advised to pull off a little further); NB Hwy 285 @ mm246 – Assist motorist (CO 576-WQT) change flat tire; SB Hwy 285 @ mm247.5 – Motorist (NE 140-LVP) given directions to I-70; SB Hwy 285 @ mm247.5 – Assist motorist jump start vehicle; SB Hwy 285 @ mm247.5 – Motorists (CO 908-QTQ) on long road trip switching drivers; NB Hwy 285 @ mm246 – Assist motorist (CO 576-WQT) change flat tire; EB C470 @ mm4 – Motorist (CO 738-JQQ) out of gas (assistance on way); 16283 Morrison Rd (Conoco) – Vehicle at pumps wouldn't start (started after filled with gas); WB C470 @ Morrison Rd – Traffic control for multiple vehicles on side of roadway changing flat tire (all traveling together); Hwy 8 @ Forest Ave – Assist Motorist (CO 955-HHS) stuck in heavy snowfall; 16283 Morrison Rd (Conoco) – Call on motorist with dead battery (private party assisted prior to MPD arrival); 17199 Hwy 74 (Red Rocks Elementary Parking Lot) – Assist Mother, picking up her son, exited her vehicle and

realized she closed her vehicle (CO 271-XDU) door while locked, with a toddler inside (MPD officer unlocked her vehicle).

- **Two Welfare Checks in March:** Bear Creek Ave @ Market St – Argument between male & female heard from a distance by MPD officer (female stressed over finals, never became physical); 16283 Morrison Rd (Conoco) – Call on vehicle (FL EWSS-41) with two males sleeping inside (stopped to rest because they had been traveling all day, cleared, OK).
- **Eleven Citizen/Business Issues/Assistance:** 311 Bear Creek Ave (Sundance Sensations) – Alarm accidentally set off by employee opening business (3/2/16); 301 Bear Creek Ave (Morrison Inn) – Suspicious male staring into restaurant through windows (smoking and looking inside, cleared, OK); 905 Bear Creek Ave (Red Rocks Chapel) – 911 Call (all windows & doors secure, checked OK); 308 Bear Creek Ave (Bradley's gas station) – Male passed out in back seat of taxi cab (driver could not understand him, took him to wrong address, courtesy ride to 4404 W. Center Ave); 501 Hwy 8 (Morrison Natural History Museum) – Morrison officer found open door with keys in lock (checked OK, keys returned); 311 Bear Creek Ave (Sundance Sensations) – Theft under \$50 (report for record only); 202 Spring St – vacation checks; 207 So Park Ave – Resident DOA (found by friend, not suspicious death, Coroner responded); 308 Bear Creek Ave (Bradley's gas station) – Male party issued summons for Third Degree Criminal Trespass; 311 Bear Creek Ave (Sundance Sensations) – False Business Alarm(3/23/16) checked OK; 16283 Morrison Rd (Conoco) – Suspicious male hanging out in station not purchasing anything (Left before MPD arrived).
- **One Animal Issue:** Bear Creek Ave @ Market St – Unattended dog left in vehicle (windows cracked, dog checked OK).
- **Sixteen Assist Other Agencies: Colorado State Patrol (8):** WB C470 @ mm3 – Dispatched to accident (checked to Morrison Rd, UTL, CSP advised); EB C470 @ Kipling Pkwy – Cover CSP on warrant arrest (stand by for tow); EB C470 @ mm3 – Traffic control for a 3 car non-injury accident; WB C470 @ Alameda Pkwy – Vehicles in three vehicle non-injury accident moved to Conoco (wait for CSP); WB C470 @ Alameda Pkwy – Secured scene and traffic control for single vehicle non-injury accident (stand by for CSP); SB Hwy 285 @ mm246 – Single vehicle non-injury accident (driver advised to file report online per CSP); WB C470 @ Morrison Rd – Single vehicle injury accident (driver to hospital by WMF, secured scene for CSP); NB Hwy 285 @ Turkey Creek Rd – Assist with a 10 vehicle injury accident (Photos & traffic control for CSP). **Jefferson County Sheriff's Office: (3):** WB C470 @ Quincy Ave – Traffic control for single vehicle roll over injury accident; WB Hwy 74 @ mm15.5 – Suspicious vehicle on side of roadway (Black Jeep with no tags, courtesy ride, two occupants to Conoco for Jeffco); SB Hwy 285 @ mm248 – Cover Jeffco Deputy on a Domestic Violence traffic stop. **West Metro Fire (1):** Mt Falcon Park (Castle Trail) – Located a male fall victim (directed WMF to victim from Tycoon & Grove). **Ace Towing (1):** NB Hwy 285 @ mm248 – Closed highway while Ace Towing pulled up a vehicle who had run off highway (from bottom of embankment). **Lakewood Police Department (2):** WB C470 @ mm3 – Traffic control for single vehicle non-injury roll-over accident; EB C470 @ mm4 – Pulled vehicle (lost tire & wheel) off roadway (called for tow). **CDOT (1):** SB Hwy 285 @ mm247 – Called to assist with vehicle (CO 413-TZJ) stuck in snow (call for & wait for tow).

- **One DUI/DWAI/Drunk/Detox:** 16100 Morrison Rd (Sewer Plant) – Motorist traveling eastbound on Morrison Rd (near Sewer Plant) on wrong side of road (male did not complete voluntary roadside tests in a competent manner, arrested for DUI, vehicle towed).
- **No Abandoned Vehicles in March:**
- **Four Debris/Traffic Hazards:** WB C470 @ Morrison Rd – Removed vehicle battery from roadway; SB Hwy 285 @ Hwy 8 – Large rock removed from roadway; WB C470 @ mm3 – Chair in roadway had been struck by several vehicles (removed to shoulder); Hwy 74-¼ mile west of Hwy 8 – Six large rocks removed to shoulder after a rock slide.
- **Two Suspicious Vehicles:** 16283 Morrison Rd (Conoco) – Call on two suspicious vehicles (CO 504-ZTN & CO 743-YRL) with several parties in them (plates & parties cleared, OK, moved on); 151 Red Rocks Vista Drive – Suspicious vehicle (CO 874-FDQ) parked across the street over an hour (males delivering & installing cabinets to resident's home, checked OK).
- **Four Nursing Home Call (150 Spring St):** Complaint of male resident not complying with nursing home policy on large amount of money/cash on his person (civil matter, report for record only); West Metro Fire on scene performing CPR on resident (pronounced, notifications made by WMF & nursing home personnel); Female patient complaint of negligence by nurse (investigation of this complaint concluded, Unfounded); Two female residents complaint of harassment against each other (there was a dispute over an unknown issue & one supposedly struck the other on the back, both in Alzheimer's wing, credibility an issue).
- **Fifteen Miscellaneous Incidents:** EB Hwy 74 @ mm18 – Routine traffic stop for speeding results in summons issued for driving without a driver's license; SB Hwy 285 @ mm247.5 – Routine traffic stop for speeding results in summons issued for driving with an expired driver's license; SB Hwy 285 @ 247.5 – Routine traffic stop for speeding results in summons issued for driving with a suspended driver's license (non-payment of child support); WB C470 @ mm4 – Routine traffic stop for speeding results in summons issued for driving with a suspended driver's license (non-payment of child support and no insurance); EB C470 @ mm4 – Routine traffic stop for speeding results in summons issued for driving without a valid driver's license; EB C470 @ mm4 – Routine traffic stop for speeding results in summons issued for driving with a denied driver's license (unpaid tickets); SB Hwy 285 @ mm247.5 – Traffic stop for no license plates on vehicle results in summons issued for driving with a denied driver's license (unpaid tickets); WB Hwy 74 @ mm18 – Routine traffic stop for speeding results in summons issued for driving without a valid driver's license; SB Hwy 285 @ mm247.5 – Routine traffic stop for speeding results in summons issued for driving with a suspended driver's license; EB C470 @ mm4 – Routine traffic stop for speeding results in summons issued for driving with a denied driver's license (unpaid tickets); NB Mt Vernon St @ Market St – Traffic stop for stop sign violation results in summons issued for driving with a denied driver's license (unpaid ticket); WB Hwy 74 @ mm18 – Routine traffic stop for speeding results in summons issued for driving with an expired driver's license; EB C470 @ mm4 – Routine traffic stop for speeding results in summons issued for driving with a cancelled driver's license (unpaid tickets); EB C470 @ mm4

– Traffic stop for vehicle with expired plates and tailgating results in summons issued for those offenses; NB Hwy 93 @ Market St – Traffic stop for stop sign violation results in summons issued for driving without a valid driver's license.

5. There were **12** dispatched calls in which Morrison Police Officers were unable to locate the subject of the call or the incident such as: BOLO, aggressive driver, speeding/careless driver, motorist assists, truck driver with no lights on, REDDI reports, live deer on roadway, BMW with flat tire, Ford truck with flat tire and a truck trailer accident,

6. Jennifer will answered **388** phone calls and assisted **54** walk-ins to the police building in **March, 2016**.

7. Morrison Police Officers will issue approximately **750** traffic citations, give **78** warnings and no parking tickets in **March, 2016**.

Thank you all for your continued support,

Rudy Sandoval, Chief of Police
Morrison Police Department
(303) 697-4810
chief@police.town.morrison.co.us

To: Mayor and Board of Trustees

From: Matthew T. Mossbrucker, Director, MNHM

Subject: Monthly Report - February/March 2016

Date: March 31, 2016

Visitation & Revenue

Over \$19,300 has been raised in tickets and gift shop sales during the first quarter of 2016. A total of \$7,500 was raised in March, in spite of snow and construction.

Gift shop sales total \$5,877.09 (gross, after tax) year to date.

By the end of the first quarter, the Museum has had served just over two thousand visitors, which is to be expected during the off-season. Visitation will continue to increase from this point through August. We anticipate around 17,000 visitors this year.

Don't forget to follow along with our media campaign on our Facebook (link on MNHM.org) and Twitter (@MorrisonMuseum) accounts.

Behind the Scenes

The 2017 application for SCFD funding was completed and submitted on schedule. This is a time consuming but worthwhile endeavor which should raise around \$35,000 to operate the museum. I defend this grant project in late May.

The Museum Foundation's fundraiser breakfast held on March 5 was a success, generating just under \$15,000 for exhibit enhancement. I am currently polling our volunteer corps for feedback on what they would like us to acquire. Once I get enough feedback, I plan to put these exhibit packages to a vote. New acquisitions are important as they refresh exhibits and create new programming for visitors and marketing opportunities.

We are on track for the installation of the long-awaited trail signs by this spring.

Construction on the new museum balcony began in late March. In spite of weather delays progress is being made. Based on the rate of work, I anticipate completion by mid April. So far, I have been pleased with the quality of work that has been completed.

Aggregate Industries has agreed to donate gravel for the museum parking lot and circle drive.

Zuni Sign Company has repainted and reinstalled the two roadside signs. The freshly painted building sign is going to be repainted, as the fresh paint is peeling. I anticipate the reinstallation of the building sign by mid April, pending the completion of the balcony.

We recruited a handful of new volunteers over the past month. Formalized training for all volunteers has been well-received. More than fifty volunteers now assist Doug and I in the operation of the Museum.

I will be leading a field trip and tour of Morrison for an international group of professional fossil preparators for the Association of Materials and Methods in Paleontology (AMMP) symposium in late April. A few of our volunteer preparators and I will be attending the symposium, also.

UTILITY DEPARTMENT

WATER

- We will be replacing the SCADA computer and software at the water treatment facility. This computer and the software are extremely old and have been problematic for some time. Numerous problems consist of: loss of data (resulting in a state violation), computer errors and lockups, glitches and remote log in issues.
- The Water Quality Report for the calendar year of 2015 has been posted on the Town of Morrison website. A link has also been provided to the residents in the Hogback newsletter.
- The annual samples have been collected (Fluoride, Inorganics, volatile organics, nitrate) and the results have been received. I'm happy to report good results! Most came back with a result of "below detection limit," otherwise known as BDL. (This is good!)
- The MCC electrical replacement project is on track and should be completed by the end of April.
- We completed our presentation at the DOLA grant hearing. We asked for 50% grant funding of the new clearwell that is scheduled to go in at the water treatment facility. We are still waiting to get back the results of that hearing.
- We are working with Denver/Red Rocks in regards to providing water to the park. We are trying to iron out the logistics, such as the pump station specifics, piping, maintenance, etc.

WASTEWATER

- We are working with Stantec and TTG on the possibility of Red Rocks sending all their waste straight to our plant. We just received a proposal for this engineering, and this should help us determine if the WWTP (and collection system) can handle the increased flow at peak hours.
- Starting in July, we will be providing Red Rocks tankers water from a fire hydrant located at the waste water treatment plant (WWTP). This location will be the most reasonable for the town, and for Red Rocks.
- VSR jetted our collection A line (restaurant row). This line gets cleaned twice a year. They will be back out in June/July to jet the remaining lines for 2016, and also hit restaurant row again.

BCWA

- The CDPHE will be starting the 'Total Maximum Daily Load' (TMDL) process in the near future. The purpose of this is to establish a new total allocation to be shared by all dischargers. The overall allocation is expected to drop significantly. The BCWA expects that the CDPHE lead TMDL process will drop the total allocation to a number approximately 800-1,000 lbs per year. The BCWA will lobby to keep the number as high as reasonably possible. Once the TMDL is set, it will



take time for the new numbers to become effective. The predicted timeline that CDPHE will release information about the new allocation is in late 2016. A call for a 'rule-making' hearing with the Water Quality Control Commission will occur in 2017, and the Bear Creek Watershed Control Regulation will be amended in 2018. Then the discharge permits for the individual WWTFs will be modified in 2019 – 2020.

Thanks
Fritz Fouts
Utility Director

TOWN OF MORRISON
BOARD OF TRUSTEE REGULAR MEETING
April 4, 2016
Board Action Form

SUBJECT: Approval of Consent Agenda

PROCEEDURE: Approve the minutes of vouchers and payroll

RECOMMENDATION: Approve the Consent Agenda

TOWN ATTORNEY REVIEW: YES NO

MOTION: Motion to approve the Consent Agenda.

**TOWN OF MORRISON BOARD OF TRUSTEES
MORRISON TOWN HALL, 110 STONE STREET
REGULAR MEETING OF THE BOARD OF TRUSTEES
TUESDAY, MARCH 15, 2016
6:00 P.M. – 9:00 P.M.**

Call to Order. Mayor Sean Forey called the regular Town Board Meeting to order at 6:00 P.M.

Roll Call. Mayor Sean Forey, Trustees Brewster Caesar, Vanessa Angell, Debora Jerome, Allen Williams, Christopher Wolfe and Ronald Metzler were present. A quorum was established.

Staff Present. Gerald Dahl (Town Attorney), Kara Zabilansky (Town Administrator) and Charla Bryant (Town Clerk).

Amendments to the Agenda. Remove 5a – Rooney Valley IGA and 6d – Spring Street Vacations. Add to the Executive Session, commission appointments and IGA Discussion.

Public to Address the Board. None.

Presentations and Hearings.

Bandimere Speedway. John Bandimere, 3051 S Rooney Road, Morrison, CO. Bandimere requested a water and sewer Will Serve Letter from the Town. Bandimere is not planning on developing anything at this time. Bandimere wants zoning for the future. Forey asked what Bandimere would want Jefferson County to give them in the way of zoning. Bandimere wants commercial and offices, not as much residential. Bandimere said he is a good neighbor. Bandimere stated the race track is not going to move. Bandimere stated the Will Serve Letter is required by Jefferson County for zoning. Caesar stated the Town is undergoing a study to see how much capacity it has to provide water. Bandimere stated if the Town gives the Letter now, Bandimere will probably have the Town provide services in the future. Forey said the study is 2 to 3 weeks away and Bandimere will be contacted with the Board's decision.

DYK, Inc. d/b/a Morrison Holiday Bar – Modification of Premises Application. Forey stated the Board is convened as the liquor license authority. Williams is concerned about the noise from the proposed roof top patio. Killingsworth stated that no speakers or music would be outside. Lighting would be provided by scones around the edges. Metzler is concerned about the noise. Caesar is not in favor of the addition and is concerned about the noise. Killingsworth stated the addition would be built within Code. Wolfe likes the idea as long as precautions for sound are met. Williams stated it would need to close at 10:00 pm. Metzler is opposed to the addition. Forey is opposed to the addition. Angell made a motion to deny the Modification of Premises for DYK, Inc d/b/a Morrison Holiday Bar. Caesar seconded the motion. Forey, Caesar, Angell and Metzler voted in favor of the motion and Williams, Wolfe and Jerome opposed the motion. The motion to deny the addition passed; 4 ayes ad 3 nays.

Special Event Permit Application – ProMo. Alley Fest is not being done at the retirement center. The event is in a concentrated area in the alley. Revenue will be generated between \$4000.00 and \$6000.00 from the sale of alcohol. Liquor will be on both sides of the alley;

however, people will not be able to cross the street. Wolfe made a motion to approve the Application for a Special Events Permit for ProMo. Williams seconded the motion. All presented voted in favor.

Forey adjourned the Liquor License Authority.

General Business.

Purchase of Street Sweeper/Grant Application. Rhodig has found a street sweeper for \$65,000.00. The Town can apply for a grant. Zabilansky stated 20% would be the Town's cost and 80% would be DRCOG. There would be costs for insurance, storage and gas. The life expectancy for the sweeper is 10 to 15 years. Rhodig stated this is a small street sweeper and could be used to do the trails as well. Caesar, Williams and Metzler agree that purchasing the street sweeper would be okay if the Town received a grant. Zabilansky will look into a grant.

Resolution 2016-03 – A Resolution Designating the Town Clerk as the Election Official and Authorizing the Election Official to Appoint Election Judges. Caesar made a motion to adopt Resolution 2016-03, a Resolution designating the Town Clerk as the Election Official to appoint Election Judges. Metzler seconded the motion. All present voted in favor.

Red Rocks Denver Historic Landmark District Designation. Zabilansky does not see a downside to making the CCC Camp a Historic Landmark District. Caesar stated the Town should support the Friends of Red Rocks, but wants to be sure this will not impact the planned future water intake on that site. Jamee Chambers met with the planner of Denver Mountain Parks and the head of the Park Rangers. Chambers would like to take this to the Planning Commission. Chambers is nominating herself to be on the Board of Advisors as a member of the CCC Camp. Williams made a motion to have the Town Administrator sign a letter of support with conditions noted. Angell seconded the motion. All present voted in favor of the motion.

Trash Services. Zabilansky is looking into a way to lower trash bills. There would be 2 phases of trash service; residential and commercial. Recycling would be done every other week. Zabilansky stated that if the Board is in support, the Town would need to pass an Ordinance. Only one company would be the sole vendor for the Town. Dahl stated the trash charges could be reflected on the utility bill. Zabilansky is working on obtaining 2 more quotes. Caesar wants service to be optional and would like the people of the Town to be able to opt out. All Board members supported Zabilansky continuing to obtain bids for trash service as long as there is substantial savings.

Departmental Reports.

Court. There were no questions or comments.

Accounting. There were no questions or comments.

Town Administrator. There were no questions or comments.

Planning Commission Minutes 12-8-2015 and 1-12-2016. There were no questions or comments. Zabilansky is holding a retreat or workshop for the Planning Commission and the Board. It will be in May, 2016.

Attorney. There were no questions or comments.

Consent Agenda. Caesar made a motion to approve the Consent Agenda. Wolfe seconded the motion. All present voted in favor of the motion.

Board Comments. Williams stated he has an issue with the hours for amplified music. Williams would like to discuss the amplified music being played outdoors at the next meeting. Caesar stated Reza should be talked to and he has said he will deal with complaints. Zabilansky stated this was part of the condition for the modification and she will talk to Reza. Williams wants the hours to be earlier. Wolfe stated the business owners should be at the meeting. Caesar said that at Candidates Night all of those running said they want the Town to stay the way it is. Jerome stated residents appreciate what the Board is doing. The Board has the best interests of the Town as a focus.

Executive Session. A motion was made by Jerome for a conference under Charter Section 3.4 and Section 24-6-402(4)(b) and (e), C.R.S., with the Town Attorney, Town Administrator and appropriate staff to receive legal advice and instruct negotiators concerning Commission Appointments, Rooney Valley IGA Discussion, Utility Operations and Red Rocks Centre. Metzler seconded the motion. All present voted in favor, with the exception of Wolfe who left the room for a moment.

Angell left the meeting at 7:45. Wolfe returned to the meeting.

Forey called the Executive Session to Order on Tuesday, March 15, 2016 at 7:49 p.m. Present were: Sean Forey (Mayor), Trustees Brewster Caesar, Debora Jerome, Ronald Metzler, Allen Williams and Chris Wolfe; Gerald Dahl (Town Attorney), Kara Zabilansky (Town Administrator) and Charla Bryant (Town Clerk). The purpose of the Executive Session was to discuss Commission Appointments, Rooney Valley IGA Discussion, Utility Operations and Red Rocks Centre.

End of Executive Session. The Executive Session was adjourned at 8:27 pm.

Adjournment. The Opening Meeting was adjourned at 8:27 pm.

TOWN OF MORRISON

Sean Forey, Mayor

ATTEST:

Charla D. Bryant, Town Clerk

Date	Payee	Employee Number	Reference Number	Check Number	M	Gross	Expense	FICA	FWT	SWT	Deduct	Net	D	Info	FT
03/25/2016		5419	29	29		42,420.26	.00	3,172.35	4,046.00	1,400.00	3,157.83	30,644.08			.00
Total PC:															

PC Hours/Units/Types Summary

PC	Title	Hours	Units	Net Type	Amount	D	Info Type	Amount
1-00	Regular Pay	1,678.50	.00	Direct Deposit Net	30,644.08	D	Informational	.00
2-00	Overtime Pay	9.00	.00	Net	.00		Info Tips Reported	.00
3-00	Vacation Pay	47.05	.00				Fringe Benefit	.00
4-00	Sick Leave Pay	18.20	.00					
7-02	Holiday - Floating	8.00	.00					
Grand Totals:		1,760.75	.00		30,644.08			.00

Total 03/25/2016:		5419	29	29	42,420.26	.00	3,172.35	4,046.00	1,400.00	3,157.83	30,644.08				.00
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03/25/2016 Hours/Units/Types Summary

PC	Title	Hours	Units	Net Type	Amount	D	Info Type	Amount
1-00	Regular Pay	1,678.50	.00	Direct Deposit Net	30,644.08	D	Informational	.00
2-00	Overtime Pay	9.00	.00	Net	.00		Info Tips Reported	.00
3-00	Vacation Pay	47.05	.00				Fringe Benefit	.00
4-00	Sick Leave Pay	18.20	.00					
7-02	Holiday - Floating	8.00	.00					
Grand Totals:		1,760.75	.00		30,644.08			.00

PC	Title	Hours	Units	Net Type	Amount	D	Info Type	Amount		
	Grand Totals:	5419	29	29	42,420.26	.00	3,172.35-	3,157.83-	30,644.08-	.00

PC	Title	Hours	Units	Net Type	Amount	D	Info Type	Amount
1-00	Regular Pay	1,678.50	.00	Direct Deposit Net	30,644.08-	D	Informational	.00
2-00	Overtime Pay	9.00	.00	Net	.00		Info Tips Reported	.00
3-00	Vacation Pay	47.05	.00				Fringe Benefit	.00
4-00	Sick Leave Pay	18.20	.00					
7-02	Holiday - Floating	8.00	.00					
	Grand Totals:	1,760.75	.00		30,644.08-			.00

Report Criteria:

Invoices with totals above \$0.00 included.
Only paid invoices included.

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
GENERAL FUND							
10-25370	Insurance Payable						
126	Kaiser Permanente	0310	Medical	03/10/2016	6,302.56	6,302.56	04/04/2016
Total :					6,302.56	6,302.56	
CAPITAL PROJECTS - GF							
10-40-905	Police Vehicle						
2	1st Bank - Lakewood	1219	Police Supplies	03/30/2016	3,299.00	3,299.00	04/04/2016
315	L.A.W.S	10768	Vehicle Equipment	02/04/2016	410.60	410.60	04/04/2016
10-40-907	Rooney Valley Masterplan						
142	Mccool Development Solutions,	8856	Rooney Valley	03/12/2016	2,869.00	2,869.00	04/04/2016
10-40-910	Streets, Grounds & Buildings						
629	Naranjo Civil Constructors	203454	Mt. Vernon Creek Sidewalk	03/30/2016	36,215.00	36,215.00	04/04/2016
Total CAPITAL PROJECTS - GF:					42,793.60	42,793.60	
ADMIN							
10-50-105	Payroll Taxes						
162	Office Depot	0313	Supplies	03/13/2016	69.26	69.26	04/04/2016
10-50-110	EMPLOYEE BENEFITS						
50	Cobrahelp	106982	Monthly Fee	03/15/2016	15.00	15.00	04/04/2016
10-50-200	Outside Services						
728	Allen Technology	11348	Core Coverage	02/29/2016	98.43	98.43	04/04/2016
728	Allen Technology	11386	Core Coverage	04/01/2016	199.15	199.15	04/04/2016
10-50-215	Telephone/Internet						
185	CENTURYLINK	0325	3036978112866b	03/04/2016	36.36	36.36	04/04/2016
185	CENTURYLINK	0325	3036970681617B	03/04/2016	7.14	7.14	04/04/2016
66	Comcast	0319	telephone/internet	03/19/2016	111.25	111.25	04/04/2016
10-50-300	Accounting Services						
628	Jennifer Bennett	033116	Finance Services	03/26/2016	1,057.68	1,057.68	04/04/2016
10-50-385	Marketing/Event Contributions						
904	Promote Morrison	0308	Alley Fest sponsorship checks	03/08/2016	1,100.00	1,100.00	04/04/2016
904	Promote Morrison	0328	1000 Alley Fest/1000 Cider Fest	03/28/2016	2,000.00	2,000.00	04/04/2016
10-50-386	Website						
707	Civic Plus	158382	website Annual fee renewal for Ho	04/01/2016	3,308.00	3,308.00	04/04/2016
10-50-395	Office Supplies						
343	Staples Advantage	3295604049	Office supplies	03/05/2016	40.52	40.52	04/04/2016
Total ADMIN:					8,042.79	8,042.79	
BOARD OF TRUSTEES							
10-55-385	Marketing/Event Contributions						
132	La Boutique Des Boudreaux	0328	gift voucher	03/28/2016	50.00	50.00	04/04/2016
904	Promote Morrison	0308	Alley Fest sponsorship checks	03/08/2016	200.00	200.00	04/04/2016
190	Red Rocks Grill	0328	gift vouchers	03/28/2016	200.00	200.00	04/04/2016
216	The Cow	0328	Gift Voucher	03/28/2016	50.00	50.00	04/04/2016
Total BOARD OF TRUSTEES:					500.00	500.00	
COURT							
10-70-200	Outside Services						
728	Allen Technology	11348	Core Coverage	02/29/2016	98.44	98.44	04/04/2016

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
728	Allen Technology	11386	Core Coverage	04/01/2016	199.17	199.17	04/04/2016
59	Colorado Dept Of Revenue - Dmv	0404	Default Clearance	04/04/2016	210.00	210.00	04/04/2016
259	Kelly Services, Inc.	09178518	Temp Agency	03/07/2016	302.56	302.56	04/04/2016
10-70-215 Telephone/Internet							
185	CENTURYLINK	0325	3036978112866b	03/04/2016	36.33	36.33	04/04/2016
185	CENTURYLINK	0325	3036970681617B	03/04/2016	7.13	7.13	04/04/2016
66	Comcast	0319	telephone/internet	03/19/2016	111.22	111.22	04/04/2016
10-70-395 Office Supplies							
343	Staples Advantage	3295604049	Office supplies	03/05/2016	26.39	26.39	04/04/2016
Total COURT:					991.24	991.24	
PLANNING							
10-75-415 Planning and Zoning Services							
142	Mccool Development Solutions,	8856	Sign Code Revision	03/12/2016	782.00	782.00	04/04/2016
142	Mccool Development Solutions,	8856	General Planning	03/12/2016	2,000.00	2,000.00	04/04/2016
142	Mccool Development Solutions,	8856	120 Bear Creek Ave lot line adj	03/12/2016	95.00	95.00	04/04/2016
Total PLANNING:					2,877.00	2,877.00	
POLICE							
10-80-200 Outside Services							
728	Allen Technology	11348	Core Coverage	02/29/2016	98.44	98.44	04/04/2016
728	Allen Technology	11386	Core Coverage	04/01/2016	199.17	199.17	04/04/2016
10-80-215 Telephone/Internet							
185	CENTURYLINK	0325	3036978112866b	03/04/2016	36.33	36.33	04/04/2016
185	CENTURYLINK	0325	3036970681617B	03/04/2016	7.13	7.13	04/04/2016
66	Comcast	0319	telephone/internet	03/19/2016	111.22	111.22	04/04/2016
10-80-345 Edu., Training & Equip. Surchar							
947	Bandimere Speedway	26922	Police shooting range	03/17/2016	1,500.00	1,500.00	04/04/2016
313	Galls, LLC	5041311	Supplies	03/11/2016	301.29	301.29	04/04/2016
10-80-360 Gas, Oil, and Vehicle Repair							
869	E-470 PUBLIC HIGHWAY AUTH	2021243342	TOLL CHARGE	04/14/2016	4.70	4.70	04/04/2016
258	Jefferson County S. O.	0315	Unit 4	03/15/2016	122.75	122.75	04/04/2016
711	Voyager Fleet Systems INC	869260158611	fleet fuel	03/08/2016	228.96	228.96	04/04/2016
10-80-395 Office Supplies							
242	Walmart	0322	Supplies	03/22/2016	304.37	304.37	04/04/2016
10-80-397 Operating Supplies							
162	Office Depot	0313	Supplies	03/13/2016	77.97	77.97	04/04/2016
242	Walmart	0322	Operating Supplies	03/22/2016	298.82	298.82	04/04/2016
Total POLICE:					3,291.15	3,291.15	
PUBLIC WORKS							
10-85-200 Outside Services							
728	Allen Technology	11348	Core Coverage	02/29/2016	98.44	98.44	04/04/2016
728	Allen Technology	11386	Core Coverage	04/01/2016	199.17	199.17	04/04/2016
372	City of Lakewood	10-05004	Civil Siren maintenance	04/01/2016	405.00	405.00	04/04/2016
196	Rooney Valley Maintenance	0316	Monthly Cleaning Service	03/30/2016	528.00	528.00	04/04/2016
10-85-215 Telephone/Internet							
185	CENTURYLINK	0325	3036970681617B	03/04/2016	7.13	7.13	04/04/2016
66	Comcast	0319	telephone/internet	03/19/2016	111.22	111.22	04/04/2016
10-85-395 Office Supplies							
343	Staples Advantage	3295604049	Office supplies	03/05/2016	22.81	22.81	04/04/2016
10-85-397 Operating Supplies							
170	Pioneer	28350	supplies	03/11/2016	629.61	629.61	04/04/2016

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Total PUBLIC WORKS:					2,001.38	2,001.38	
HISTORY MUSEUM							
10-90-200 Outside Services							
823	Chenoa Ellinghaus - Paleont \$ III	2016003	Supplies	03/01/2016	100.00	100.00	04/04/2016
10-90-215 Telephone							
66	Comcast	0319	telephone/internet	03/19/2016	111.22	111.22	04/04/2016
10-90-358 Inventory - Expense							
248	K&M International/WildRepublic	SI1005523	museum inventory	03/24/2016	296.00	296.00	04/04/2016
10-90-387 Advertising							
924	Jeffco Living	JL-2-MNHM	advertising	03/07/2016	325.00	325.00	04/04/2016
Total HISTORY MUSEUM:					832.22	832.22	
Total GENERAL FUND:					67,631.94	67,631.94	
UTILITY FUND							
20-25370 Insurance Payable							
126	Kaiser Permanente	0310	Medical	03/10/2016	1,660.62	1,660.62	04/04/2016
Total:					1,660.62	1,660.62	
SEWER EXPENDITURES							
20-40-200 Outside Services							
728	Allen Technology	11348	Core Coverage	02/29/2016	98.44	98.44	04/04/2016
728	Allen Technology	11386	Core Coverage	04/01/2016	199.17	199.17	04/04/2016
20-40-215 Telephone/Internet							
185	CENTURYLINK	0325	sewer trtmnt	03/04/2016	127.20	127.20	04/04/2016
185	CENTURYLINK	0325	3036970681617B	03/04/2016	7.13	7.13	04/04/2016
185	CENTURYLINK	0325	3036978112866b	03/04/2016	36.33	36.33	04/04/2016
66	Comcast	0319	telephone/internet	03/19/2016	111.22	111.22	04/04/2016
20-40-395 Office Supplies							
343	Staples Advantage	3295604049	Office supplies	03/05/2016	40.53	40.53	04/04/2016
20-40-510 Lab Fees							
286	Colorado Analytical Lab	160316060	wastewater	03/23/2016	169.00	169.00	04/04/2016
Total SEWER EXPENDITURES					789.02	789.02	
CAPITAL PROJECTS - UF							
20-42-901 Disinfection By-Products							
948	Encore Electric, Inc	16050-01	Professional Services	02/05/2016	20,710.95	20,710.95	04/04/2016
Total CAPITAL PROJECTS - UF:					20,710.95	20,710.95	
WATER EXPENDITURES							
20-45-200 Outside Services							
728	Allen Technology	11348	Core Coverage	02/29/2016	98.44	98.44	04/04/2016
728	Allen Technology	11386	Core Coverage	04/01/2016	199.17	199.17	04/04/2016
20-45-215 Telephone/Internet							
185	CENTURYLINK	0319	dsl line water trtmnt	03/19/2016	66.99	66.99	04/04/2016
185	CENTURYLINK	0325	water trtmnt	03/04/2016	58.82	58.82	04/04/2016
185	CENTURYLINK	0325	3036970681617B	03/04/2016	7.13	7.13	04/04/2016
185	CENTURYLINK	0325	3036978112866b	03/04/2016	36.33	36.33	04/04/2016
66	Comcast	0319	telephone/internet	03/19/2016	111.22	111.22	04/04/2016
20-45-395 Office Supplies							
343	Staples Advantage	3295604049	Office supplies	03/05/2016	40.54	40.54	04/04/2016

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
20-45-401	SCADA						
156	Mountain Peak Controls, Inc.	7989	scada	03/22/2016	437.50	437.50	04/04/2016
20-45-510	Lab Fees						
286	Colorado Analytical Lab	160310039	Drinking Water	03/14/2016	46.00	46.00	04/04/2016
20-45-708	Plant Repair and Maintenance						
104	Hach Company, Inc.	9830515	Supplies	03/09/2016	748.00	748.00	04/04/2016
Total WATER EXPENDITURES:					1,850.14	1,850.14	
Total UTILITY FUND:					25,010.73	25,010.73	
Grand Totals:					92,642.67	92,642.67	

Dated: _____

Mayor: _____

City Council: _____

City Recorder: _____

Report Criteria:

- Invoices with totals above \$0.00 included.
- Only paid invoices included.



Dwayne

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[Handwritten initials]



MEMORANDUM

To: Ms. Kara Zabilansky, Town Manager
Mr. Fritz Fouts, Utilities Director

Town of Morrison
321 Hwy 8
Morrison, Colorado 80465

From: Alan Leak, P.E., Program Manager – Water Rights and Infrastructure
Thomas Kennedy, P.E. – Water Rights Engineer

RESPEC
720 South Colorado Blvd., Suite 410 S
Denver, CO 80246

Date: April 1, 2016

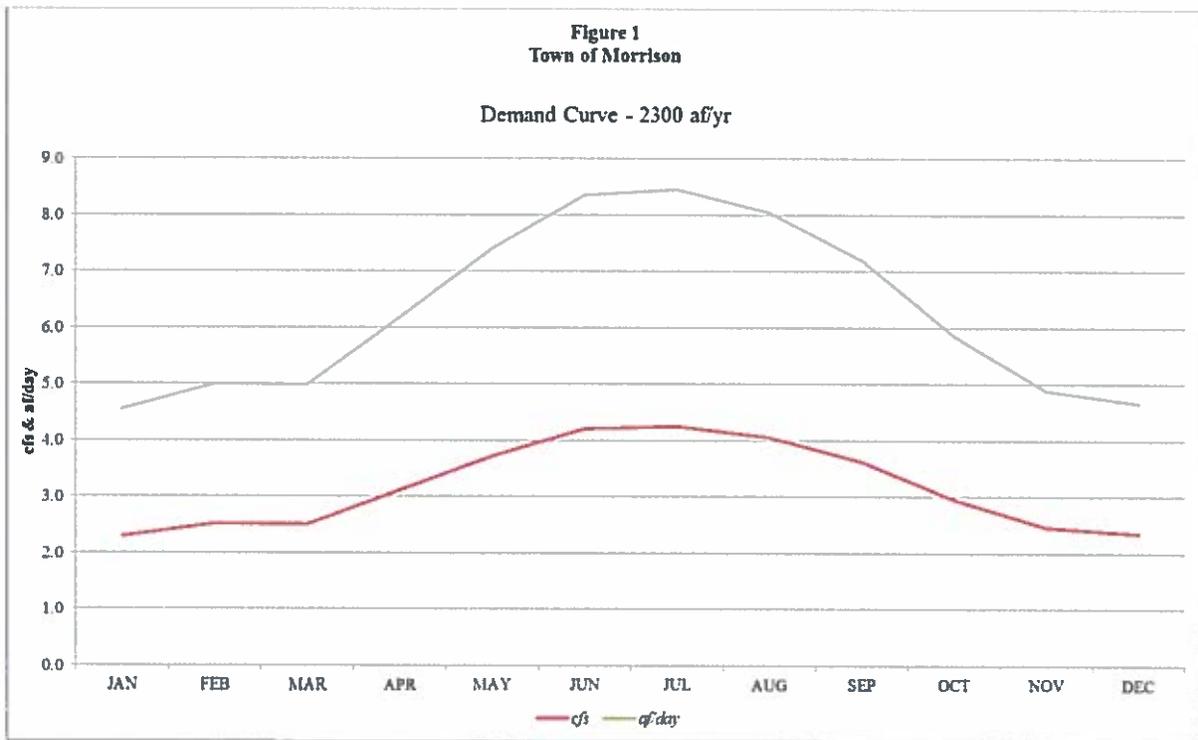
Subject: Water Rights Modelling Update

In 2007 WRC Engineering, Inc. (now a part of RESPEC) developed a spreadsheet water rights model with which various potential and future development scenarios could be analyzed and evaluated. The main purpose of the model at that time was to determine whether the Town had sufficient raw water supplies to provide water service to the Red Rocks Centre Development (east of the Hogback) and, if so, what size of raw water infrastructure facilities would be needed to assure adequate raw water supplies during an extreme and/or extended drought. In addition, the Town desired to know how many additional taps could potentially be served in the Town's planning area west of the hogback. Attached as Exhibit A is a copy of the September 12, 2007 report which documented the results of that modeling effort. Additional analysis was performed in 2012 which is attached as Exhibit B. Although the 2007 model still functions, several changes have occurred in the last seven to eight years which required model updating and adjustments.

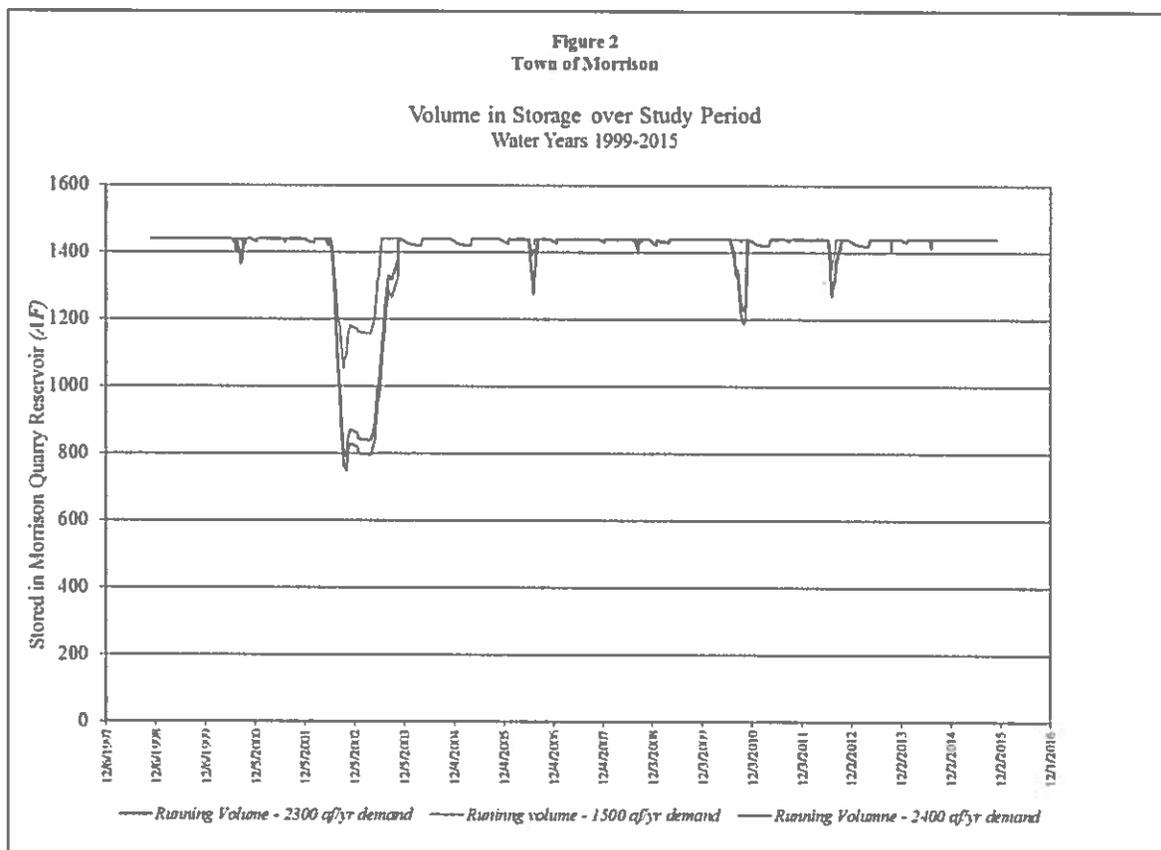
The most significant change is the development by the Office of the State Engineer of the Reservoir Administrative Guidelines (latest version dated February, 2016, Exhibit C). These Guidelines document the State Engineer's position of various water right issues as they pertain to the administration of reservoirs. These Guidelines are especially important to the Town given the future reliance that the Town will have on the storing of various water rights in it's the current three reservoirs: Quarry Reservoir #2, the Operating Reservoir, and Soda Lakes. It was also important to

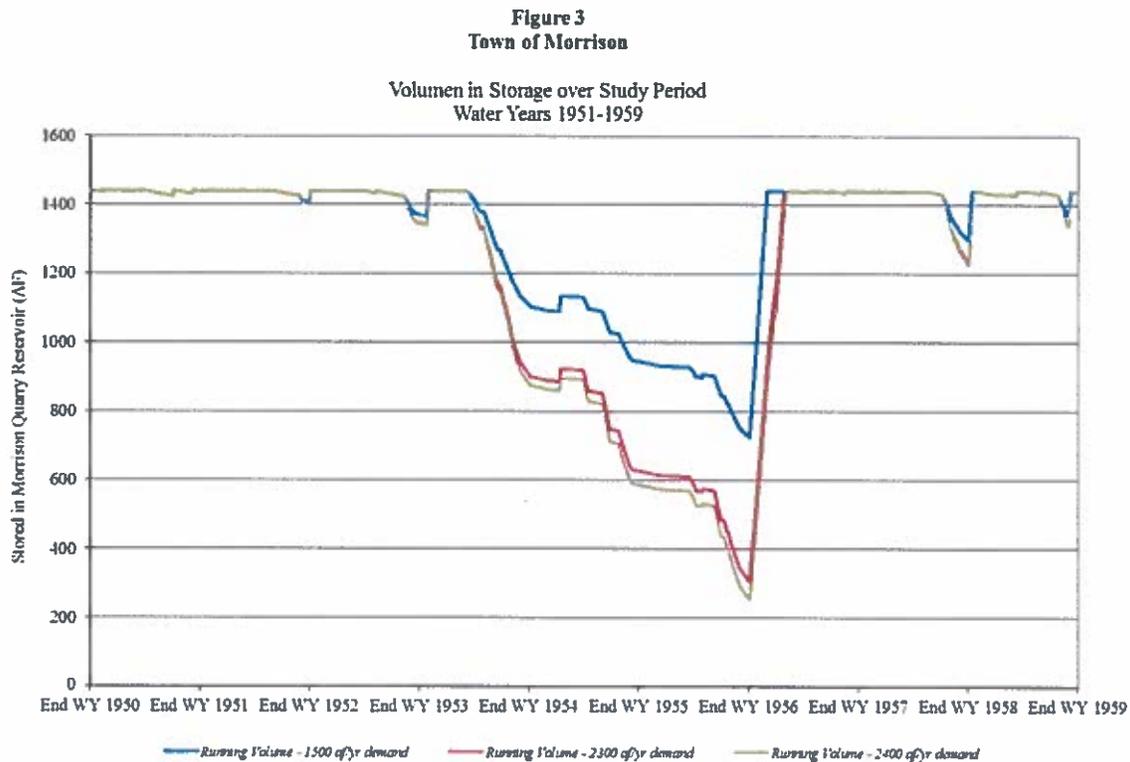
update the database of streamflow and administrative call records utilized in the water right modeling in an effort to match conditions through 2015 as well to add the final storage capacity of Quarry Reservoir #2. The benefit of making these upgrades now is that the time to review the water supply ramifications of future water service requests for water service from the Town will be expedited.

We developed three scenarios to provide a basis of information on the ability of the Town's raw water supply system to meet possible future varying water demand scenarios. The basis of the model is the assumption that one EQR represents a raw water demand at the Town's headgate(s) of 0.442 acre-feet of water per year. An equally important assumption is that the pattern of water demands from future developments will be similar to the Town's historic demand pattern which represents 76% inhouse water use and 24% outside irrigation use. This demand pattern is important since the Town's water rights portfolio is concentrated on providing constant in-house water demands with a small amount of peaking in the summer months for outside irrigation. This demand curve is presented on Figure 1 below.



We have attached (Exhibits D and E) which are two one page summaries which were presented to the Town Board in 2014 which summarized the results of the 2007 modelling effort and indentified future risks in water supply planning. The key component of the risk for the Town's raw water supply system is the reliance on storage to meet future demands during drought conditions. To assist in this discussion presented on Figures 2 and 3 is the estimated volume of water remaining in storage in Quarry Reservoir #2 simulated to occur during the two most significant droughts in the last 50 to 60 years: The 2002 drought (Figure 2) and the 1954-56 drought period (Figure 3). The 2002 drought was the most severe one year drought in the last 60 years. For comparison, the 1954-56 drought wasn't as severe but lasted over a period of several years. Figures 2 and 3 demonstrate the estimated drawdown in the Quarry Reservoir #2 storage for water supply demands scenarios of 1,500, 2,300, and 2,400 af/year.





The 1,500 af/year demand scenario represents the demands of the current Town development with full buildout of Red Rocks Centre. The 2,100 af/year demand scenario represents the demands of Red Rocks Centre at full buildout plus a demand of about 800 af/year west of the hogback. The 2,400 af/year demand scenario represents a demand of about 1,600 af/year east of the hogback and 800 af/year west of the hogback.

Considering the 2002 drought scenario, the Town would have sufficient raw water supplies to meet the 1,500 af/year demand with about 400 af of storage. Theoretically, the Town could survive four such droughts back to back. This would not place the Town in a significant risk position for meeting future water demands. Once the demands are simulated at the 2,100 and 2,400 af/year levels, the factor of safety diminishes to the point where the Town could only accommodate two back to back droughts of the 2002 magnitude. For the 1954-56 drought scenario, a similar pattern is exhibited. If the Town desires

to grow to these larger water supply and demand levels we would recommend consideration of acquiring additional water rights and additional raw water storage, perhaps re-excavating Quarry Reservoir #1 with Aggregate Industries, for example.

The main changes we observe from the previous modeling effort to the current modeling effort is that the raw water reservoir storage takes longer to rebound when the SEO's Guidelines are factored into the analysis. The Town should consider the level of risk the Town is willing to take as it moves forward with consideration of water service to additional developments. As a general guideline, a good planning goal would be to maintain sufficient water rights and storage such that the Town could withstand three consecutive years of drought similar in duration and magnitude to the droughts of the 1950's and of 2002.



WRC ENGINEERING, INC.

September 12, 2007

Mr. Buck Wenger
Town of Morrison
321 Highway 8
Morrison, Colorado 80465

WRC File: 1836/36

RE: Modeling to Determine the Town of Morrison's Water Supply Capacity
To Meet a 1364 A.F. Additional Water Demand from Red Rocks Centre

Dear Mr. Wenger:

In July of 2007, WRC Engineering, Inc. (WRC) received from the Town of Morrison a notice to proceed with the analysis of the capacity of the Town's water supply to serve the proposed Red Rocks Centre development. This analysis was intended to expand on the preliminary study submitted to the Town in September of 2006 by incorporating variable water demand scenarios including in-house versus outside uses, applying future streamflow estimates to historic streamflow conditions, integrating historical river calls as a basis for estimating future calls on Bear Creek, and including planned and under-construction diversion and storage facilities. This information was utilized to develop a more accurate model for the Town's water supplies to produce more definitive results.

The results of the September 2006 preliminary study were incorporated into Ms. Cindy Covell's letter of October 6, 2006, to Mr. John M. Dingess, Esq. representing H.F. Holdings. This letter states that the typical Morrison residential tap represents a demand of about 600 gpd, or 0.67 acre-feet per year. With an estimated 2000 taps at Red Rocks Centre, the additional demand would be approximately 1340 acre-feet per year. The preliminary study concluded that the Town could serve at least 2000 taps at Red Rocks Centre once Morrison Quarry Reservoir No. 2 is on-line.

Study Assumptions and Modeling

While the preliminary study used water years 1999 through 2005 as the study period, this in-depth analysis incorporates water years 1951 through 1959 (November 1, 1950 through October 31, 1959). This nine-year period contained a significant single drought year (1954) followed by two drier-than-normal years. The selected study period is the most severe multi-year drought on record for the Bear Creek watershed.

The demand used in the model is broken down into two segments due to decreed restrictions on certain of Morrison's water rights. The first demand segment consists of 1364 acre-feet per year associated with providing service to Red Rocks Centre (as estimated by the consultant for the development). This demand is a total of both in-house and outside uses, and is assumed to be distributed monthly per the demand curve for a typical Front Range water provider. In-house use is set equal to the average of the distributed usage values for the non-irrigation season (November 1 - March 31). This reflects a realistic and probable demand scenario, assuming that Red Rocks Centre utilizes the acquired taps for a combination of indoor and outdoor uses. This water demand assumes 76% in-house use and 24% outside use.

The second demand segment consists of both current and future "in-town" demand. While the current demand

CONSULTING ENGINEERS

950 SOUTH CHERRY STREET • SUITE 404 • DENVER, COLORADO 80246 • (303) 757-8513 • FAX (303) 758-3208 • wrce@wrceng.com

is approximately 125 acre-feet per year, an annual demand of 1000 acre-feet was used for this study to account for future growth within the Town limits. This annual demand is also distributed monthly on a normal demand curve with 76% in-house use and 24% outside use.

Certain of the Town's water rights have decreed return flow locations which would not allow their use at Red Rocks Centre, and this was reflected in the modeling. Specifically, the Town's Warrior and Pioneer Union direct-flow water rights are use-restricted by decree such that they cannot be utilized for outside use (irrigation) downstream of the Harriman Ditch headgate on Bear Creek, and return flows from in-house uses must return to Bear Creek above the same headgate. For purposes of this analysis, these water rights were utilized for Red Rocks Centre only to meet in-house demand. However, this use would require that the associated return flows would be pumped back upstream above Harriman Ditch or reservoir releases would need to be made to offset these return flows as needed. For this analysis we have assumed the pump back scenario would be used. The unrestricted direct-flow rights included in this analysis were Hodgson #3 (April through October only) and Morrison Domestic #4D.

During periods when Bear Creek streamflow is insufficient or the Town's direct-flow rights cannot meet demand, the municipal system is supplemented by releases of previously stored water. While the Town's Warrior, Lewis & Strouse, and Operating Reservoir storage rights are restricted from use for the Red Rocks Centre property, most of the Town's junior storage rights are available to refill the reservoir following such a release. These junior rights include two Strain Gulch rights totaling 350 acre-feet and the two Morrison Quarry Reservoir rights totaling 3650 acre-feet. For purposes of this study, it was assumed that Morrison Quarry Reservoir No. 2 is operational with a capacity of 900 acre-feet available to the Town (1000 acre-feet total capacity minus 10% capacity for Aggregate Industries). This reservoir was the only storage facility used in the model to supply previously-stored water to the municipal system. In order to determine the ability of the system to meet demand through dry periods, this reservoir was assumed to be full at the beginning of the study period and drawn down as needed to maintain the raw water supply. It was also assumed that the municipal intake is improved to a total diversion capacity of 8 cfs. This flow rate was used as the maximum for the combination of all diverted rights at any point in time.

It is believed that the above assumptions produce conservative results while taking into account future system capacities.

This analysis does not include analysis of water treatment nor distribution system improvements needed to deliver said water to the Red Rocks Centre development. This analysis also considers the wastewater flow to be returned at the existing wastewater treatment plant site.

Results

Red Rocks Centre:

With a total annual demand of 1364 acre-feet, the in-house (base) demand is estimated to be 2.854 acre-feet per day for Red Rocks Centre. The monthly allocation of demand to the available water rights and to storage releases is presented in Figure 1. Note that in the summer of the drought year of 1954, very little water was available under Morrison's Domestic Right (4D), thus a larger portion of the demand was met by storage releases.

Figure 1

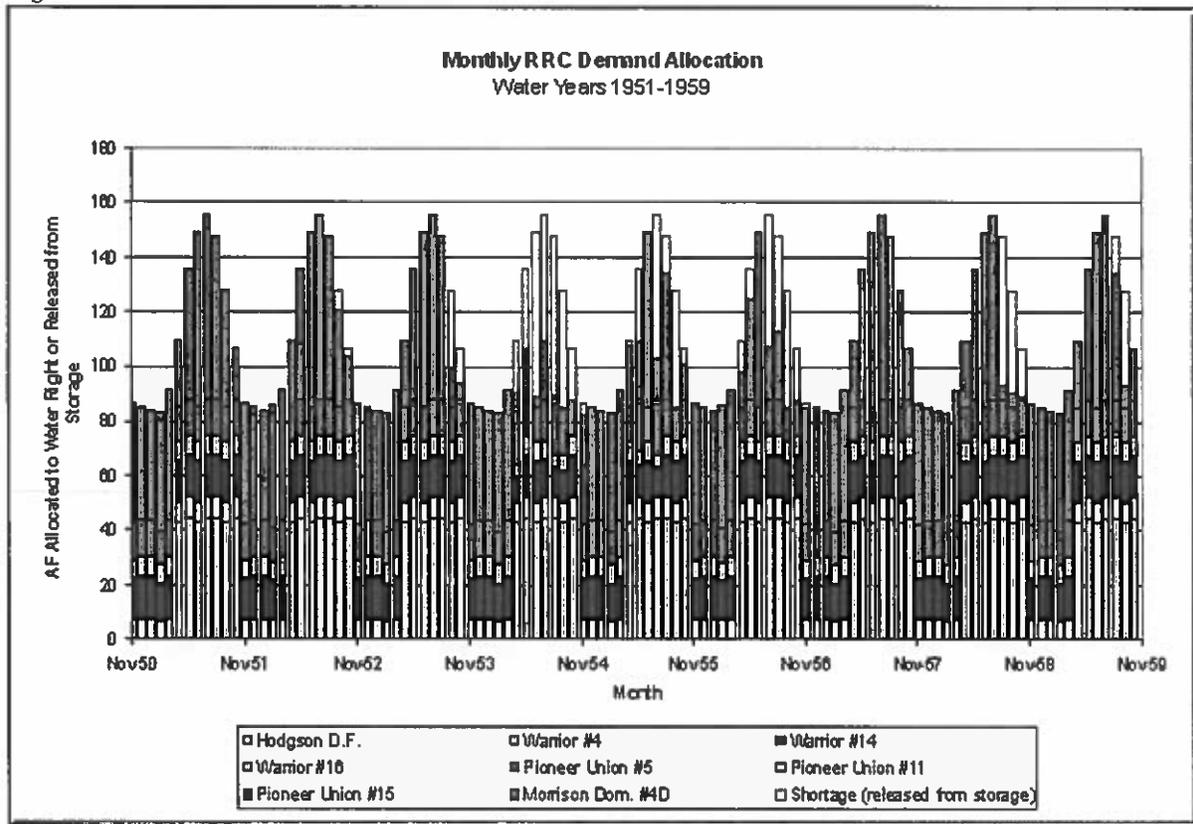
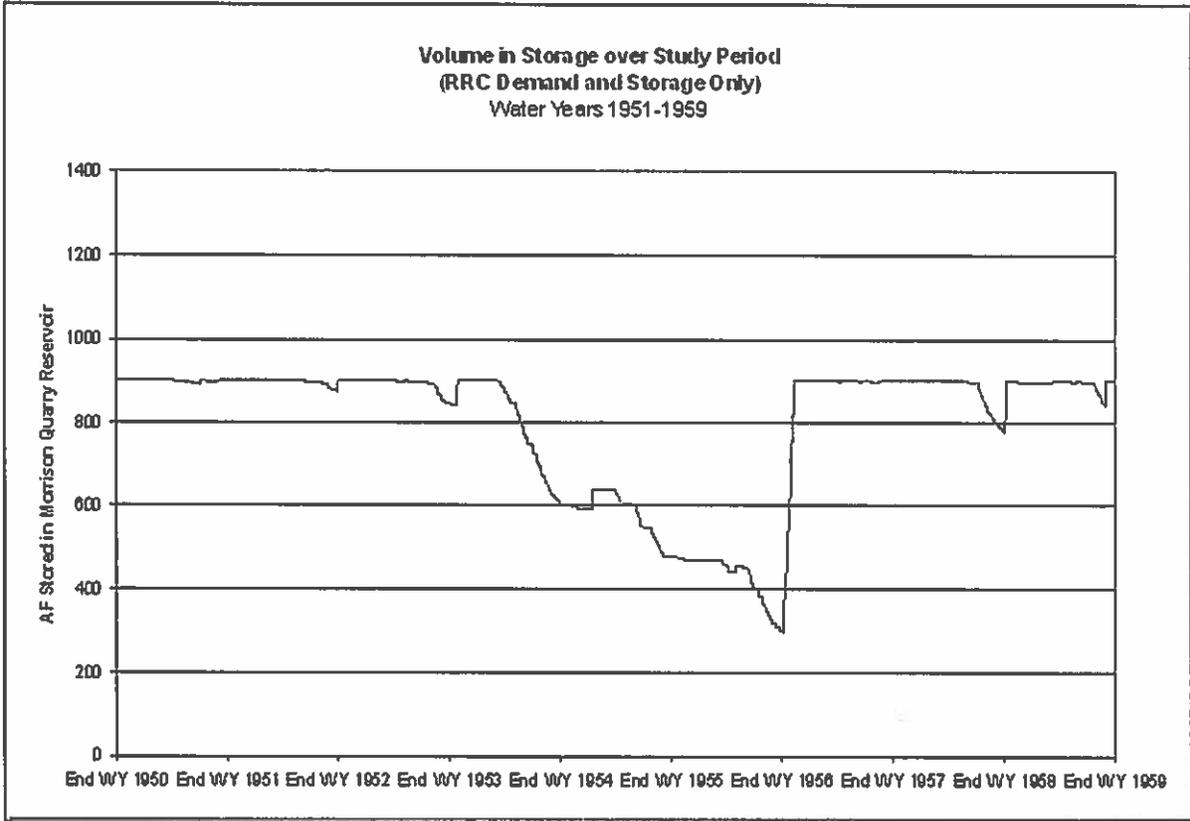


Figure 2 shows the running storage volume of Morrison Quarry Reservoir No. 2 with the assumption that it is at full capacity at the beginning of the study period. After the 1954-1956 drought period, the reservoir fully recovers (fills completely) by February 1957.

Figure 2



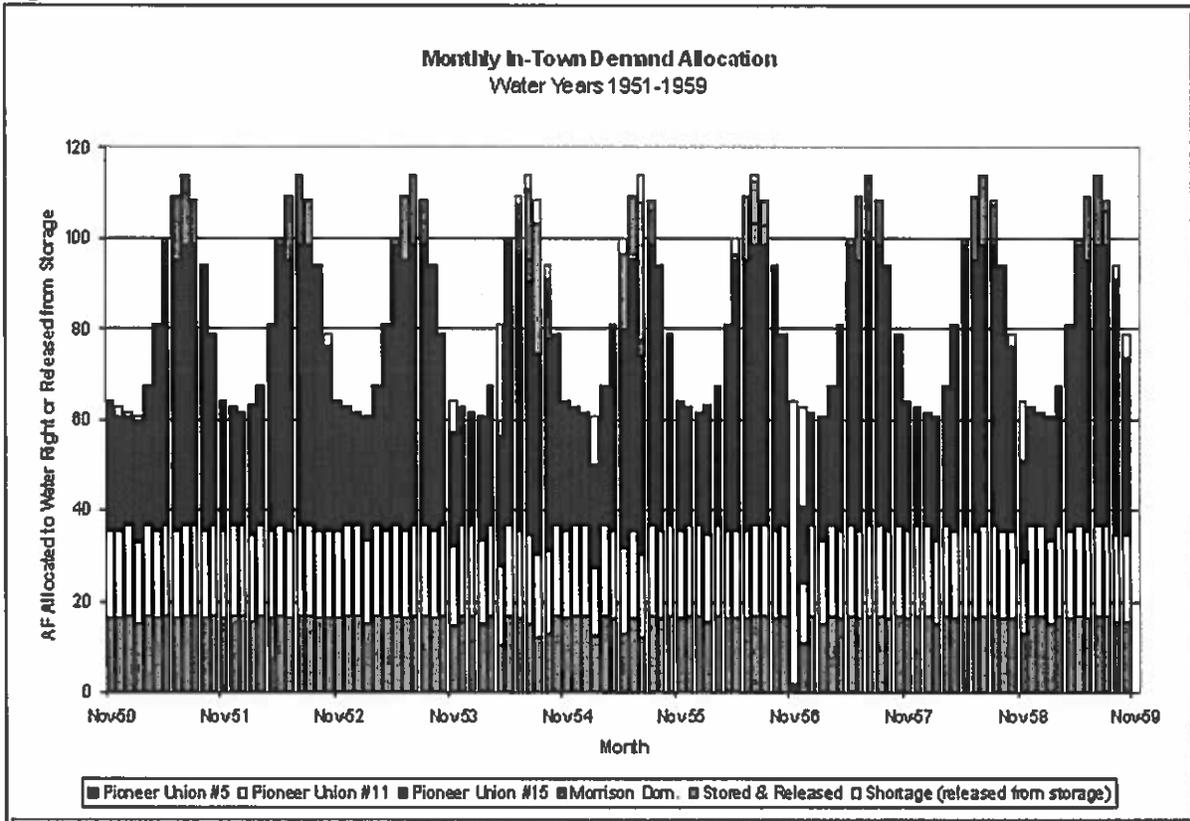
The figure clearly demonstrates a full recovery from the drought by the end of the study period, indicating that the raw water supply system has adequate capacity to serve Red Rocks Centre.

In-Town Demand:

After meeting the demand at Red Rocks Centre, in-town usage was modeled to determine the potential capacity for in-town growth. By allocating the Red Rocks Centre demand to those water rights which are available for use at the Centre, the remaining available capacity of these rights was reduced. For instance, the Hodgson Ditch direct-flow right was allocated in full to Red Rocks Centre demand every year of the study period. Therefore, no Hodgson Ditch water remains to apply to in-town demand.

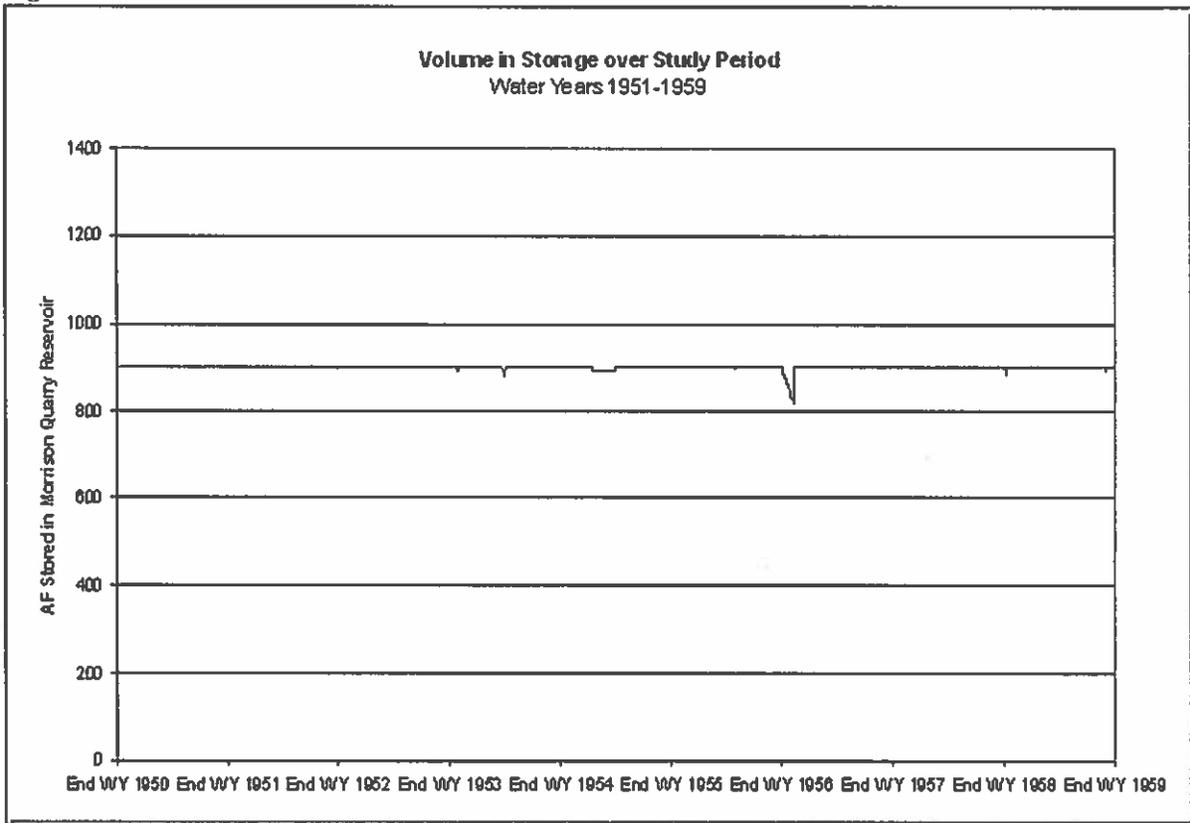
With a total annual demand of 1000 acre-feet, the in-house (base) demand is estimated to be 2.093 acre-feet per day for Morrison in-town use. The monthly allocation of demand to the remaining available water rights and to storage releases is presented in Figure 3.

Figure 3



Certain of the Town's storage rights, specifically the Warrior, Lewis & Strouse, and Operating Reservoir rights, were not available for use at Red Rocks Centre but are available for in-town use. The result of this is that these rights can be used to fill the reservoir in all years for the in-town storage uses. If the reservoir were only used for in-town uses, the resulting storage levels are as presented in Figure-4. Figure-4 clearly indicates a much higher minimum volume in storage than did Figure 2 due these additional available senior storage rights.

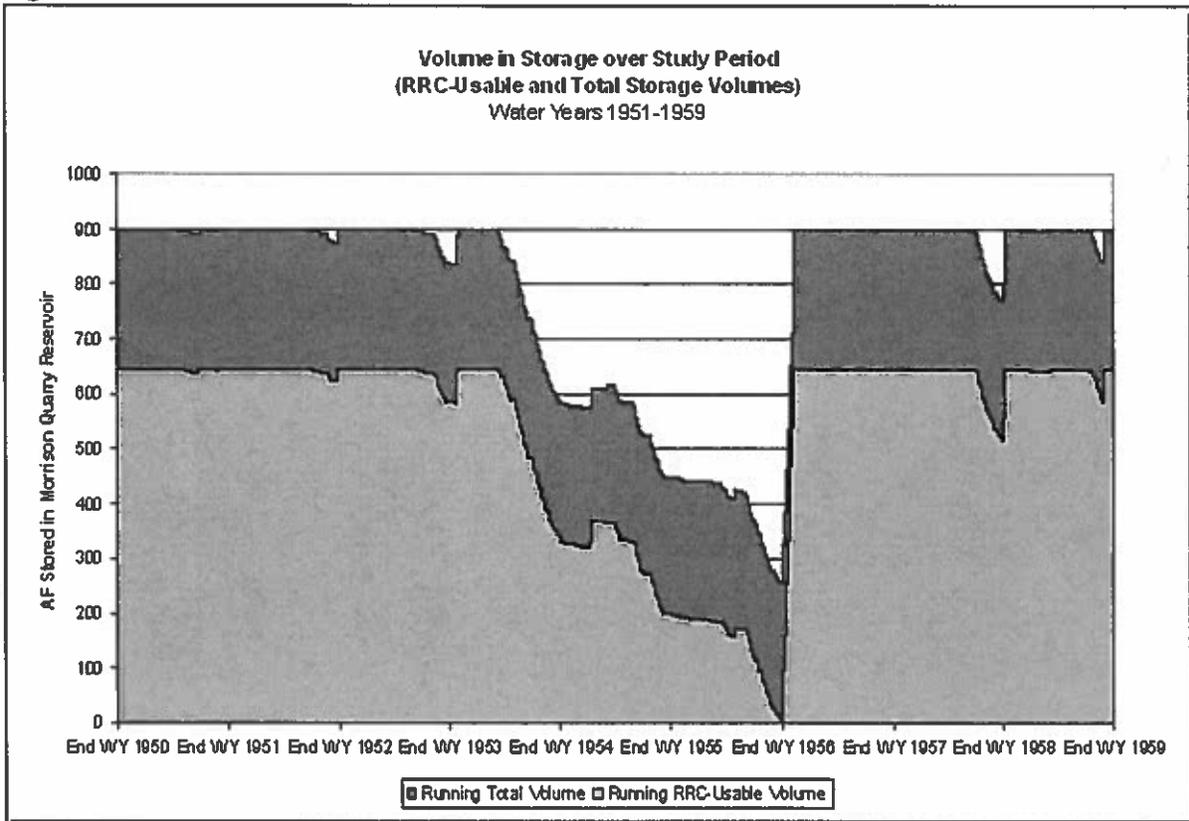
Figure 4



The availability of additional storage rights to refill the reservoir after drawdown to meet demand results in the significant difference between the available storage volume charts (Figures 2 and 4). While the storage volume available to Red Rocks Centre falls to a minimum of 296 acre-feet, the in-town-only storage rights have the capacity to maintain the total volume in storage at nearly the capacity of the reservoir.

Figure 5 presents the total volume in storage over time, including both the volume available to Red Rocks Centre and the additional volume available to in-town use. Note that the Red Rocks Centre volume has been shifted down by the 296 acre-foot excess capacity, effectively reducing the minimum volume available at any time during the study period to Red Rocks Centre to zero. In this way it can be seen that sufficient capacity exists to meet the total demand given the assumptions presented previously in this report.

Figure 5



September 12, 2007

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Reliable Yield Determination

The amount of water the Town of Morrison can reliably commit to its water users depends not only on modeling but also on risk analysis. Risk analysis considers all factors applicable to providing a reliable water supply system. Prudent planning considering risk factors allows for flexibility in operations, demand management, and considers the potential for catastrophic events in setting the reliable deliverable yield. Thus, this yield typically is less than the maximum yield available from the subject water rights.

Many Colorado entities desire to maintain at least two years of demand in raw water storage. This is typically a result of part of the demand being obtained from wet year yield of junior storage rights being placed into storage for dry years. The Town of Morrison's portfolio of water rights is relatively more senior as compared to other Colorado municipalities. Thus, the usual rules of thumb do not apply. However, the Town's reliable yield needs to consider the following scenarios:

1. Chemical spill or contamination of Bear Creek. In this scenario, the Town would be required to draw water from storage instead of using direct flow water from Bear Creek. Although this may be short lived, it would be prudent to plan on a one-month period of no diversions from Bear Creek.
2. Washout of Intake Structure. Similar to 1. above, the Town should plan for at least two months to repair/replace the intake facilities in an emergency situation.
3. Contamination of Morrison Quarry Reservoir No. 2. This risk becomes a problem if it occurs during a dry period where demand can not be met by direct flow from Bear Creek. This would occur very infrequently for in-town usage. However, for outside uses at Red Rocks Centre, storage water is used in about 50 percent of the years and more in dry periods. This potential problem could potentially be mitigated on an emergency basis by allowing water decreed in the Town's Augmentation Plan "not for use at Red Rocks Center" to be used. Other options would be to restrict water use to in-house only or agree to provide only in-house water to Red Rocks Centre.
4. General Operation and Maintenance. All water supply systems need to consider that all facilities do not always work as planned and thus need to assume some flexibility for down time. Although this can be somewhat mitigated by redundancy, we believe it is prudent to plan for temporary supply outages.
5. Future Conditions. We believe it would be prudent for the Town of Morrison to build into its determination of reliable water supply a factor which considers that changing conditions in the future, be it climate changes or water administrative changes, can effect the yield of the Town's water rights. This factor is subjective in nature and becomes more important as the Town approaches its maximum available water supplies. Our examination of the Town's water rights would appear to conclude that, ignoring risk factors, the Town's water rights could supply upwards of 2800 acre-feet per year (or more if more storage were available). However, at this time, considering the stated risks, we would recommend the Town consider its reliable water yield, with 900 acre-feet of usable storage at Morrison Quarry Reservoir No. 2, to be only around 2200 to 2300 acre-feet per year.

Conclusions

This study has shown that the Town of Morrison water rights portfolio would, from an engineering and physical water supply basis, be sufficient to serve the proposed development at Red Rocks Centre with an annual demand of 1364 acre-feet. However, meeting this demand would require significant increases both in available storage

September 12, 2007
Page 9

capacity and maximum diversion rate: the proposed/in-progress Morrison Quarry Reservoir No. 2 would need to be fully operational with at least 1000 acre-feet of total capacity, and Morrison's municipal intake structure and raw water distribution system would need to be expanded to allow a maximum diversion rate of at least 10 cfs. This study also shows that an estimated future in-town demand of 900 acre-feet could also be met by such a system while meeting Red Rocks Centre's demand. Thus, it is our opinion that, considering the Town's water supply system and the risks discussed in this report, the Town's reliable yield of for water supply purposes is around 2200 to 2300 af/year.

If you have any questions, please do not hesitate to call.

Respectfully submitted,

WRC ENGINEERING, INC.

A handwritten signature in black ink, appearing to read "Alan J. Leak". The signature is fluid and cursive, written in a professional style.

Alan J. Leak, P.E.
President

ajl/apm

cc Ms. Cindy Covell
Mr. Dick Miller



MEMORANDUM

TO: John McEncroe, Utility Director
FROM: Austin Malotte, P.E.
DATE: October 31, 2012
RE: Reservoir releases at full build-out with MCMD/RRC demand
WRC FILE: 1836/63

The purpose of this memorandum is to assist Morrison in understanding if and to what extent the water stored in Morrison Quarry Reservoir No. 2 (MQR2) would need to be used to meet water service demand in the future, especially during winter months. In order to answer this question we reviewed the water allocation model that we prepared in 2007 which estimated the potential for providing water service to certain areas outside the Town limits under contract with Mount Carbon Metropolitan District (MCMD). The following summary of the 2007 water allocation modeling, which was based on WRC's understanding of the legal and administrative conditions relevant to Morrison's water rights at that time, was not modified to account for any subsequent changes to those conditions or others. Some details of the 2007 model are included here to provide context, however, the rationale and bases for the model's underlying assumptions and inputs were not confirmed or verified during the course of this review.

2007 Analysis

The 2007 water allocation model utilized actual streamflow data for water years 1951 through 1959 in order to capture a range of water availability conditions, including the worst drought on record for the Bear Creek basin. The model first allocates Morrison's direct-flow rights to meet Red Rocks Centre (RRC) demand, which was estimated by RRC's consultant to be 1364 acre-feet per year with a base (in-house) demand of 2.854 acre-feet per day. Any unmet RRC demand was then satisfied from Morrison's reservoirs as needed. It is noted that certain of Morrison's direct-flow and storage rights would be unavailable to meet outside demand, or in some cases any demand, due to decreed limitations; the water allocation model accounts for these limitations.

Similarly, Morrison's remaining direct-flow rights are then allocated by the model to meet in-town demand, and unmet demand is then met by storage releases. Morrison's current in-town demand is about 125 acre-feet per year; the model used an assumed future demand of 1000 acre-feet per year within Town limits, with a base (in-house) demand of 2.093 acre-feet per day.

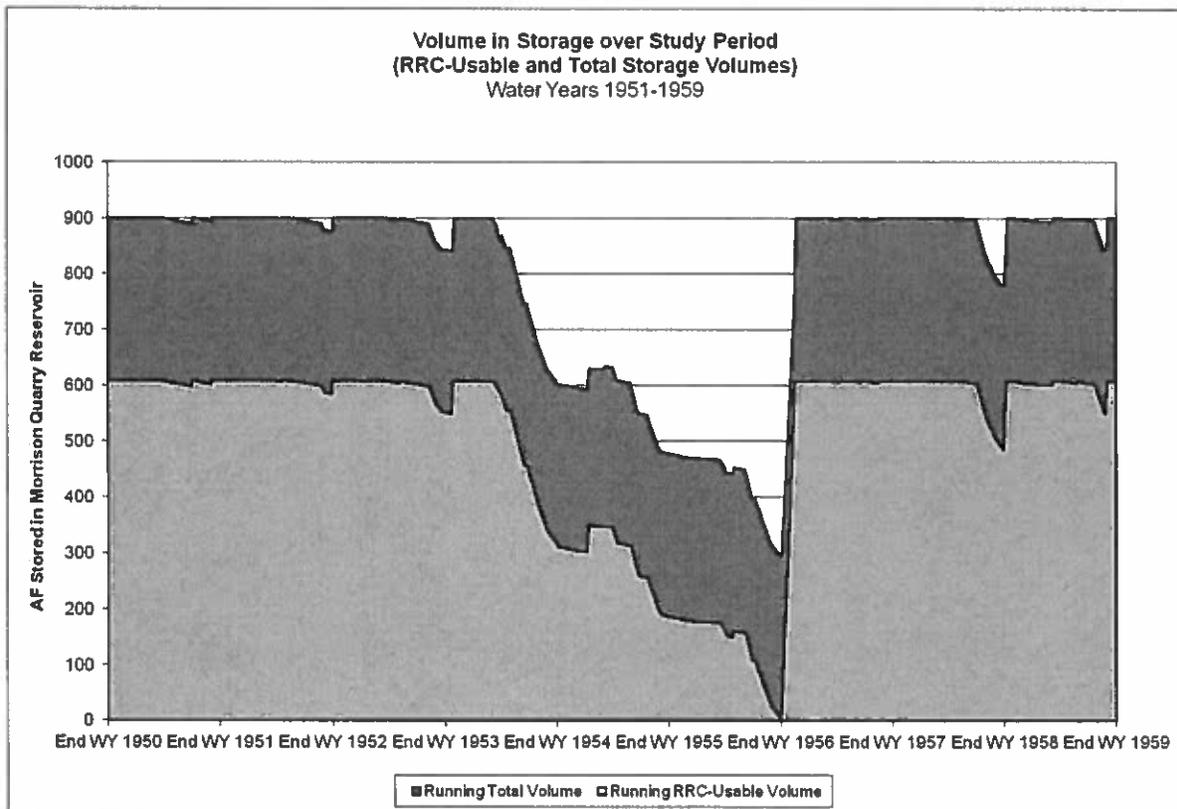
Additional assumptions applied in the water allocation model:

- MQR2 has a capacity of 1000 AF, of which 900 AF belongs to the Town
- MQR2 is full to capacity at the beginning of the model period
- Morrison's storage rights is diverted to storage in MQR2 whenever:
 1. There is "leftover" water available under those rights after meeting demand
 2. There is sufficient space in the reservoir to store additional water
- Morrison's municipal intake (or intakes) on Bear Creek has (have) a total capacity of 10 cubic feet per second (per 2008 Water Supply System Master Plan)
- Morrison's future capacity to deliver water from Bear Creek to MQR2 (via the Operating Reservoir) is equal to the future planned pump capacity of 10 cubic feet per second (per 2008 Water Supply System Master Plan)

- Morrison’s future capacity to deliver water from MQR2 to the water treatment plant is equal to or greater than the total demand (all demand met by reservoir releases)
- Demand curve typical for a Front Range municipality
- Return flows from RRC usage are delivered to the stream above the Harriman Ditch headgate, as needed
- Wastewater effluent is returned to the stream at the WWTF location in 2007

Due to the limitations on certain of Morrison’s storage rights, the modeling indicates that the amount of water in storage *that is usable by RRC* is the limiting factor in meeting total demand. In other words, at the most severe point in the modeled drought period, there is still a significant amount of water stored in MQR2, but none is available for use at RRC (see Figure 1).

Figure 1

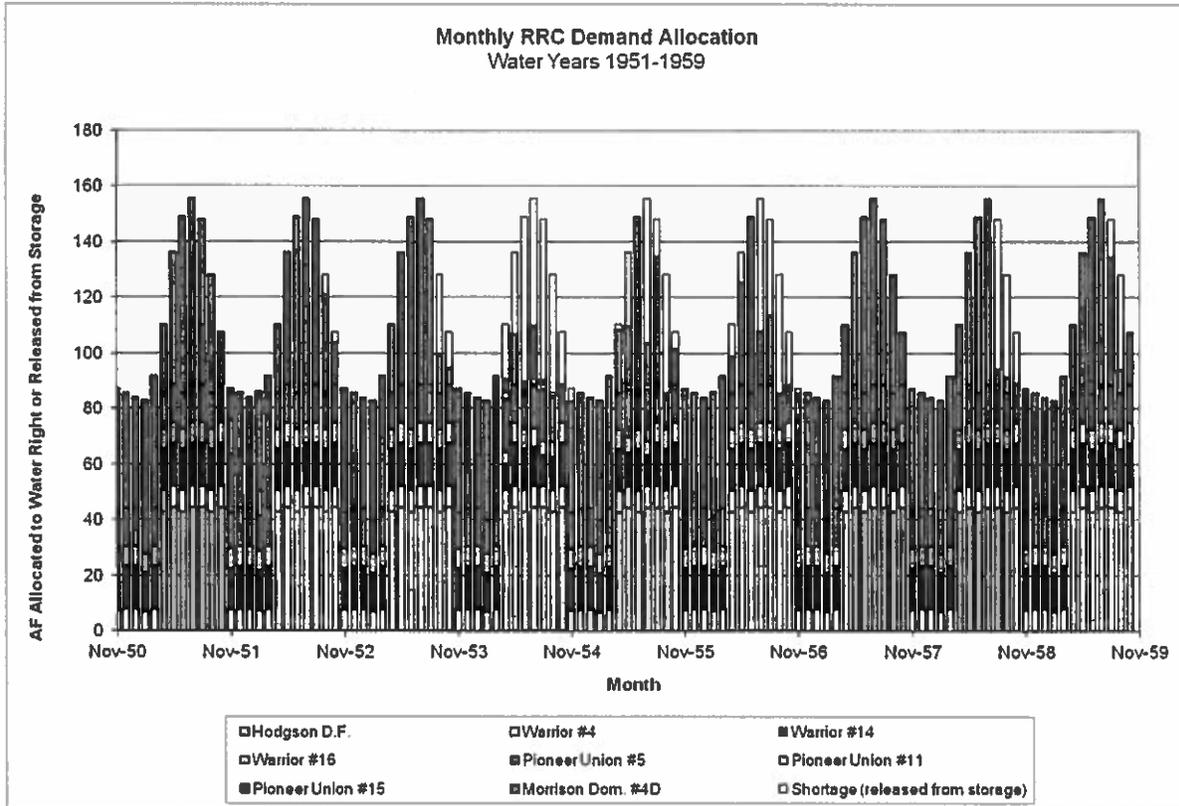


In Figure 1 above, the *Running Total Volume* reflects the modeled volume in MQR2, with a maximum total capacity of 900 acre-feet. *Running RRC-Usable Volume* reflects the water stored in MQR2 that is legally usable to meet RRC demand. Although the reservoir has a total capacity of 900 acre-feet and is assumed to be full at the beginning of the modeled time period, only two-thirds of that volume, or 600 acre-feet, was assumed to be available to meet RRC demand.

During periods where the model indicates that water must be released from the reservoir to meet demand, Figure 1 displays a downward slope. It is notable that the pattern of the *Total Volume* reservoir releases closely follows the *RRC-Usable* pattern. While the *Total Volume* graph includes releases to meet both RRC demand and in-town demand, the similarity between the two indicates that most of the modeled reservoir releases are necessary to meet RRC demand. The frequency of these reservoir releases are discussed below.

Figure 2 below presents the monthly allocation of water to meet RRC demand (only).

Figure 2

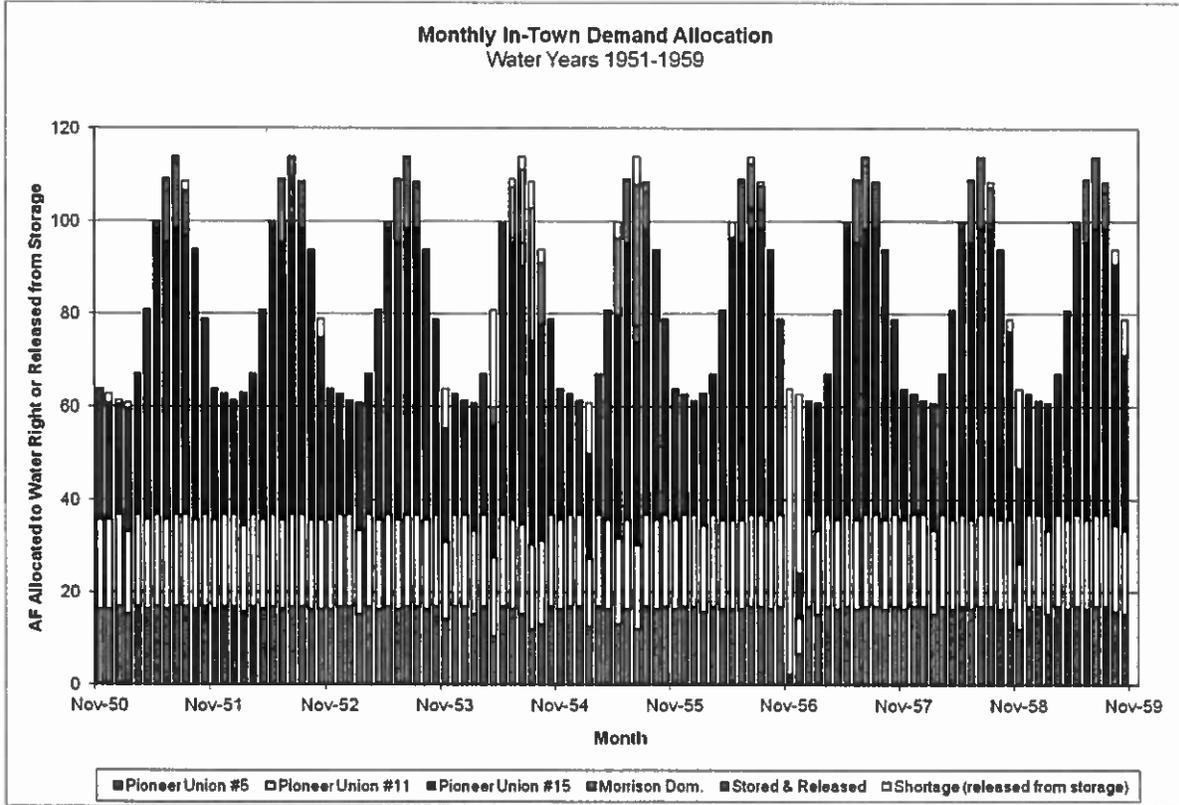


Much of the reservoir use to meet RRC demand is due to the aforementioned limitations on use of Morrison’s senior water rights to meet outside-use demands at RRC. The most senior direct-flow right available for such uses is Morrison’s Domestic Right #4D; when this right is out-of-priority, reservoir releases are needed to meet RRC’s outside demands.

Specifically, the model indicates for the selected study period that reservoir releases were required to meet RRC demand on 567 of 3287 days, or 17% of days. However, during the drought year of 1954, the model indicates 183 days with reservoir releases totaling about 270 acre-feet. The following two years, which were drier than average and are typically considered part of the same drought, required releases on 93 and 122 days, respectively. The remaining years during the study period required such releases an average of about 28 days each year.

After RRC demands are met, the model considers in-town demands and allocates remaining direct-flow rights to satisfy those demands. Unlike RRC, in-town demands can be met by any of the water rights in Morrison’s portfolio, so utilization of reservoir water is less common. With the Hodgson and Warrior direct-flow rights already utilized to meet RRC in-house demand, most of Morrison’s in-town demand is met by the three Pioneer Union direct-flow priorities.

Figure 3



In those instances when the Pioneer Union and Morrison Domestic rights are unavailable, the model attempts first to allocate demand to any in-priority storage rights (i.e. Warrior priorities). This is shown in Figure 3 as *Stored & Released*, and would be diverted at the Morrison intake, stored temporarily at the Operating Reservoir, and then moved to the water plant for treatment. When such storage rights are unavailable for store-and-release allocation, previously-stored water must be released from MQR2 to meet in-town demand. As can be seen in Figure 3, this occurs far less frequently than similar releases to meet RRC demand.

Reservoir Operations

Combined reservoir releases to meet RRC and/or in-town demand are required in about 20% of days in the nine-year study period, with about two-thirds of those days falling in the three-year drought period. During the 1954-1956 drought, required reservoir releases averaged 136 days per year; for the other six years of the study period, this average was 39 days per year. As can be seen in Figures 2 and 3, the majority of reservoir releases occur during summer months, with the first release of the season most often occurring in April.

The full utilization of the Town’s water rights will also necessitate certain operational activities beyond those

required for the current system. Among these is adjustment of the water level in MQR2 by pumping water into and out of said reservoir on a fairly frequent basis. While during normal (non-drought) conditions reservoir releases from MQR2 are expected to be needed fewer than 40 days per year, it is important to note that this modeling and the conclusions herein assume that water will be pumped into MQR2 on any day that (a) such storage is allowable under Morrison's water rights, (b) there is sufficient water in Bear Creek to divert, and (c) MQR2 water is not being pumped out to meet RRC or in-town demand.

GENERAL ADMINISTRATION GUIDELINES FOR RESERVOIRS¹

Colorado Division of Water Resources

October 2011
Amended February 2016

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¹ This document was originally prepared under the direction of Hal Simpson, former State Engineer, and further revised under the direction of Dick Wolfe, State Engineer. Several staff members of the Colorado Division of Water Resources, from both the Denver office and the division offices, were instrumental in its development, which also included legal oversight from the Attorney General's Office.

Purpose

These Reservoir Operating Guidelines are a basic practical guide for the staff of the Division of Water Resources (“DWR”), including division engineers, water commissioners and others charged with administering the state’s many reservoirs. They reflect the “institutional knowledge” of DWR personnel and the general practice across the state, summarizing DWR’s understanding of the statutes, court cases, and administrative rules, policies, and practices related to the storage of water. These Guidelines are intended to provide present and future staff with an understanding of the basic concepts, giving them a common starting point for the many difficult decisions that they must make on a daily basis. We also hope that these Guidelines will be useful to reservoir operators, engineers, attorneys, policy makers and anyone else who seeks a better understanding of general reservoir operations in the State of Colorado.

These Guidelines should not be relied upon for administrative or legal authority, and they are not intended to be or to function as rules or regulations governing the storage of water. Although these guidelines present fundamental examples of reservoir operations, they do not, and could not, cover all of the historic exceptions that exist for specific reservoirs. Given the significant variation in the decrees granting storage rights, in the physical setting and hydrology of the various reservoirs, and in historical administrative practices, nothing in this document should be construed as definitive with regard to any particular reservoir or storage right. Moreover, DWR does not intend for these Guidelines to change the vested rights of any water user. As changes in the law, altered circumstances, and unforeseen situations arise, DWR will periodically update these Guidelines so that they remain as accurate as possible.

Introduction

Storage of water continues to be a critical component of water supply in Colorado. While State Records show needs of agriculture — the largest use of water in the state — remain fairly constant, water needs for municipal, industrial, environmental and recreational purposes continue to increase. Moreover the administration of interstate compacts, agreements, and treaties, along with the federal government's claims for reserved water rights, are all becoming increasingly important in allocating the remaining waters of Colorado.

The most senior water rights on Colorado streams are direct flow rights, first developed by the earliest settlers in the mid-19th century. Water for direct flow usage was usually plentiful during spring and early summer runoff, but began to diminish in late summer and early fall until it could no longer be diverted. In the most developed areas, such as the South Platte River basin, competition for water led to curtailment of junior rights during the summer and even during the spring in drier years after only several decades of settlement. The seasonal as well as annual fluctuations in water availability, combined with the increasing demand by junior appropriators, led irrigators to capture and store for later use some of the vast quantity of the annual spring runoff from the Rocky Mountain snowmelt. The right to store water was affirmed by the Colorado legislature in 1879 and has become an integral part of the state's water supply.²

The task of administering the state's water has been given to the State Engineer, who is appointed by the governor as the Director of DWR, also known as the State

² Corbridge, James N. Jr. and Teresa A. Rice. 1999. *Vranesh's Colorado Water Law. Revised Edition.* University Press of Colorado, Niwot, CO. p 53.

Engineer's Office (SEO). The State Engineer appoints division engineers who, in turn, manage local water commissioners, all of whom are charged with administering and distributing the waters of the state, including the determination of the way a water user exercises a storage priority.

General Administration Principles

One Fill Rule

Water may either be stored under a water right under the priority system or in some situations contractually – for instance a user may be able to store reusable water in a reservoir. The one fill rule concerns the storage of water under the priority system. Under Colorado law, a water user may store water whenever the water is physically available, its water right is in-priority, and the decree for the water right has not been filled. Under Colorado Supreme Court decisions, a user is entitled to only one filling of a reservoir water right in any one year unless a user has a water right that provides for a refill and/or additional storage or free river conditions exist (i.e. no downstream shortage of water to meet the demands of all users for their decreed water rights).

In creating this rule, courts did not define a storage year. Given that irrigation reservoirs typically begin filling in the fall, after irrigation has been completed, the SEO, starting with State Engineer M.C. Hinderlider³ in 1936, adopted a "seasonal year" of November 1 to October 31. The Colorado Supreme Court has recognized this seasonal year for irrigation reservoirs. This is the presumed seasonal year for a majority of reservoirs unless the decree specifies a different date. Subsequently, different

³ Letter from M.C. Hinderlider, State Engineer, to all Division Engineers and Water Commissioners dated May 11, 1936. Please see Appendix for document.

seasonal years have been adopted by some municipal water suppliers at a set date in the spring, usually April 1 prior to spring runoff when their reservoirs are generally near their lowest point. While this date can vary between municipal suppliers, it cannot be changed once established.

Under the one-fill rule, a reservoir user may only use a storage right to "call" for water during the seasonal year if the decree for the storage right has not yet been filled during that year. (When a user with a decree is short water to meet their decreed demand, the water commissioner will place a "call" or "curtail" users such that no user junior to the "call" in a reach of river may divert in that reach of river.) If the storage right has been filled, the reservoir owner must wait until the beginning of the next seasonal year to place a call for additional water. For example, if a reservoir with a seasonal year beginning November 1 has received the full amount of water it is entitled to under its storage right by June 1, then the user must wait until the next November 1 to begin filling again under that right. In addition, any diversions prior to November 1 will be curtailed if there is a call on the river, whether junior or senior to the storage right.

The reservoir owner could, however, divert water under free river conditions. Alternatively, the reservoir owner could store under a junior priority (either a refill right or separate storage right) or store foreign water. For purposes of this document, the term "foreign water" refers to all water located in a given reservoir except priority storage water associated with the particular reservoir and water stored under free river. Examples of foreign water include: historical consumptive use credits from changed water rights, transbasin water, nontributary water, priority (or free river) water stored by

another structure and relocated to the subject reservoir, recaptured return flows from fully consumable water such as lawn irrigation return flows, etc.

Carryover

Generally, any water remaining in a reservoir at the end of the seasonal year is called "carryover water," and is credited to the next year's fill. This will limit the amount of new water to be put into storage during next year's seasonal year. For example, if a reservoir's decreed and physical capacity is 100,000 acre-feet and at the end of seasonal year 1 it contains 60,000 acre-feet, then the carryover would be 60,000 acre-feet for the next year, seasonal year 2. In this situation, the Division Engineer or Water Commissioner would limit the amount the owner could divert and store in seasonal year 2 to 40,000 acre-feet because the 100,000 acre-foot water right is filled once the 40,000 acre-feet is stored. The 40,000 acre-foot limit would exist even if the owner released water from storage during seasonal year 2 and created additional capacity. In this situation, this additional capacity can only be refilled under free river conditions since no other storage rights exist.

Moving from a reservoir with a single storage right to the next simplest case where a single owner has a senior storage right and a junior enlargement for the same uses, the Division Engineer may account for reservoir storage using the principle of "first in, first out" so long as the decrees do not have contrary provisions.⁴ For instance, suppose an irrigation reservoir owner has a senior right for 5,000 acre-feet and a more junior right for 9,000 acre-feet to fill a 14,000 acre-foot reservoir. In year 1, the reservoir

⁴ State Engineer's "Written Instruction and Order 2007-02: Instruction and Order Concerning the Administration of Storage Rights by Seniors First" signed May 31, 2007 by Hal D. Simpson (<http://water.state.co.us/DWRIPub/Documents/wio2007-02.pdf>).

starts empty, is completely filled under the two rights, and releases 7,500 acre-feet during the irrigation season leaving 6,500 acre-feet in the reservoir. Under the "first in, first out" methodology, the reservoir owner may fill 5,000 acre-feet under the senior fill right and the remaining 2,500 acre-feet under the junior right in year 2.

In more complex situations, where multiple owners, types of uses or places of use are involved, the user(s) must keep separate accounts of the various water rights. A basis for keeping separate accounts must first be established by the owner(s) and approved by the Division Engineer. If separate accounts for each water right are tracked then water stored under a junior right would only be carried over into the junior right's account. In complex situations, all carryover is credited to the most senior storage right in the reservoir at the start of the subsequent year if separate accounts for each priority are not tracked.

Similarly, any foreign water that is stored in a reservoir that is remaining in the reservoir at the end of the season is assumed to be priority water and credited to the most senior storage right unless this water is tracked separately by the reservoir owner. Therefore, detailed accounting of all the different types of priority and foreign water stored in a reservoir is important to avoid limiting the amount of water that can be stored under the most senior storage right.

If the water right for a reservoir allows water stored in priority to be relocated in another structure, the amount of priority water that was relocated to another structure still remaining in that structure at the end of the season counts against the storage right it was originally stored under. This is done to assure that a user does not use a senior right to fill more than one reservoir. For example, assume that municipal reservoir A

has a right for 1,000 acre-feet which is stored in priority during year 1. Also assume during year 1 that 400 acre-feet of the water stored in reservoir A is released and relocated in reservoir B and the remaining 600 acre-feet is released to municipal use. In this case, reservoir A would be entitled to store 600 acre-feet in year 2 not 1,000 acre-feet. The user would only be able to fill the remaining 400 acre-feet in reservoir A in the seasonal fill year subsequent to its release from reservoir B for use. Further, there may also be limits placed on how much the user may store in reservoir B depending on the situation.

Decreed versus Physical Capacity

Given the large investment required for reservoir construction, a potential reservoir owner generally receives a decree for a conditional water right to store an amount of water prior to construction. Upon completion of the reservoir, the actual physical capacity of the reservoir may be different from the decreed capacity. This raises the question of whether the physical capacity or the decreed capacity controls the administration of the amount of water that can be stored. If the physical capacity is less than the decreed capacity, then the allowed amount of fill will be based upon the physical capacity rather than the decreed capacity. For example, when a reservoir is physically full at 50,000 acre-feet and has a decreed capacity of 60,000 acre-feet then the reservoir has reached its one fill and cannot come back in later in the season when space becomes available to fill the additional 10,000 acre-feet. The difference between the decreed capacity and the lower physical capacity is subject to abandonment (or if conditional, to cancellation for failure to prove diligence) unless the reservoir owner

shows intent to make subsequent modifications to enlarge the reservoir to the originally decreed capacity.

When physical capacity is greater than decreed capacity, a fill is based upon the decreed capacity. To use the additional capacity, the reservoir owner must adjudicate a new water right for the difference, use other foreign water legally available for storage in the reservoir, or hope to fill the difference under free river conditions.

Storage Under a Conditional Water Storage Right

Pursuant to 37-92-103(4)(a), beneficial use includes the impoundment of water for storage for any purpose for which an appropriation is lawfully made. As such, a decreed conditional water storage right can be made absolute for all decreed purposes to the extent of the volume of the appropriation that has been captured, possessed, and controlled at the decreed storage structure. CRS 37-92-301(4)(e).

For a newly constructed reservoir, to which a conditional water storage right has previously been decreed, the owner of said reservoir and water storage right simply has to show how much water can be and has been stored in the reservoir. However, in order to store water under a conditional water right in a reservoir with absolute water right(s) already decreed to it for the same purpose(s), separate accounting of each of the water rights must be maintained so that the water right owner(s) can show if and when the conditional water right was stored in what amount. Absent such evidence, the conditional water right cannot be made absolute. As with a storage structure decreed with only absolute water rights, senior water rights shall be considered as having been stored first. For example, consider a reservoir that has a decreed right for 1,000 acre-feet of storage for municipal uses that has been made absolute and the reservoir has

recently received a decree for a junior refill right of 1,000 acre-feet for municipal uses. The reservoir may store under the junior conditional right, and make that right absolute, but only to the extent that the reservoir owner can show that the junior water was stored after the entire 1,000 acre-feet was stored under the senior right, and limited to the amount that the senior right was released for its decreed beneficial use. Any amount of the senior right that was released for a use other than its beneficial use would remain in the reservoir as a paper fill, as further described in the Paper Fill, Including Bookover section below. In this example, if the reservoir releases 100 acre-feet of water stored under the senior right for municipal uses and another 100 acre-feet for the non-decreed use of enhancing stream flows, the reservoir would be considered to be filled with 800 acre-feet of physical water and paper filled with another 100 acre-feet under the senior right. The reservoir could store and make absolute only 100 acre-feet under its conditional junior storage right.

Storable Inflow

Storable inflow is the amount of water that is physically and legally available for storage in a reservoir under a particular water right. After the beginning of the seasonal year, all storable inflow must be accounted against the storage right in order to protect other water users, whether or not the reservoir owner actually stores the water. This assures junior water right users that they will be able to divert water in the amount and time that they could have if the senior storage right had filled with all water available to it under its storage priority. For example, if a reservoir operator with a decree to store 20,000 acre-feet of water chooses to bypass 5,000 acre-feet of water that they would otherwise have been able to store in-priority, the Division Engineer considers the

bypassed water “storable inflow.” Accordingly, the Division Engineer would credit the bypassed water toward the fill of the reservoir and would consider the storage right to be filled when the reservoir physically contains 15,000 acre-feet of water stored under the storage right.

Storable inflow also includes any out of priority storage by upstream junior storage rights (further discussed in the Out of priority Upstream Storage Statute section below). To track the amount of storable water that has not actually been stored, for whatever reason, the Division Engineer uses what is known as a “paper fill.” A paper fill is an accounting mechanism whereby storable inflow is charged against a storage water right either because the reservoir owner elected not to physically divert or store water under that right or a junior upstream reservoir diverted the storable inflow out of priority. A detailed discussion of paper fill, along with some of the exceptions to the general principle of storable inflow, can be found in the Paper Fill Including Bookover section below.

Generally, a storage right is filled when carryover storage under that water right plus storable inflow, whether actually diverted or only a paper fill, equals the decreed amount of the storage water right or the total physical capacity of the reservoir (which may be restricted due to dam safety or flood control concerns), whichever is less. A reservoir user may continue to physically store water under a fill right even if it has gone out of priority and is called out if it comes back into priority and has not already been filled. In this case, storage is limited to the volume unfilled by the storage right when the reservoir went out of priority. Even if there is capacity to store, the Division Engineer will not allow the reservoir operator to continue to store water beyond that point, unless

free river conditions occur, the reservoir has supplemental storage rights that come into priority (such as a refill right or junior storage rights), or the reservoir owner is storing foreign water. Water users may divert beyond the measure of their decrees during free river conditions because this does not infringe upon the rights of other water users.

The water level in a reservoir does not have to be rising or increasing in order for storage to occur and new water can be placed into storage in a reservoir at the same time as previously stored water is being released.

Refill Rights

Some reservoirs operate under decrees that provide for refill rights. A refill right typically has a later priority than the original storage right. However, if the reservoir owner applied for a refill right in the original application, the owner may have been given a right to store under the same priority of the original appropriation after the reservoir achieves its first fill and capacity becomes available. Available capacity for a refill right in a reservoir is created by evaporative and seepage losses in addition to actual storage releases. Storage that is held as the subject reservoir's water right at another location is not included in the available refill capacity of the subject reservoir. While this space cannot be filled under a refill right until the storage held at the other location has been released and put to use, the subject reservoir could be filled under a separate junior storage right for the subject reservoir, under free river conditions or with foreign water.

In the case of a conditional refill right, the owner of the reservoir and water storage right must show how much water has been stored as a refill in order to make all or a portion of the right absolute.

Paper Fill, Including Bookover

As discussed above, a paper fill is an accounting mechanism whereby storable inflow is charged against a storage water right either because the reservoir owner elected not to physically divert or store water under that right or a junior upstream reservoir diverted the storable inflow out of priority. A paper fill may also be used in the accounting for a reservoir if it releases water stored in priority without using the water for its decreed beneficial use. Some examples of paper fill are described below, followed by a discussion of some of the exceptions to the general rule. These are not meant to be exhaustive on this issue, but should provide an understanding of the most typical situations.

Examples of where a paper fill would be used:

1. A reservoir may have multiple rights. For example, it may have a senior storage right and a junior storage right for additional decreed uses. If water is stored under the junior right before the senior right is filled, then a paper fill for the amount stored and credited under the junior right will also be charged against the senior storage water right, to the extent that it remains unfilled. Once the senior right is filled (either physically or on paper), the junior right may continue to store under its own priority unless it is (or until it becomes) filled.
2. A paper fill is charged against a water storage right when a reservoir cannot be filled to its decreed capacity because of a flood control limitation on storage (unless flood control is a decreed beneficial use) or because of a State Engineer storage restriction on the dam.

3. A paper fill is charged if sedimentation has occurred limiting the reservoir's physical capacity.
4. A paper fill is charged when actual storage in the reservoir includes foreign water that limits the capacity of the reservoir to fill under a senior priority unless the owner of the senior priority books over the foreign water in the reservoir to the senior right at the rate that the senior right would have filled the space taken up by the foreign water.
5. A paper fill is charged for any exchange on natural flow into the reservoir for foreign water. For example, assume an on-stream reservoir user exchanges 20 cfs of foreign water into the reservoir by making release of a substitute supply downstream at the same time the user is entitled to fill the reservoir in priority. In this example, the reservoir would be paper filled for the 20 cfs or approximately 40 acre-feet each day the exchange occurred.

In examples 1 – 5 above, the paper fill remains throughout the entire fill season. At the end of the fill season, the physical amount of water is booked over to the senior right and the paper fill is removed.

6. A reservoir will be considered to be paper filled beyond the fill season in the amount of water that is released for a use that is not a decreed beneficial use. For example, consider a reservoir decreed for only municipal uses that has filled to its capacity of 1,000 acre-feet. The reservoir releases 100 acre-feet to enhance instream flows or to the incidental benefit of any other water user on the

river, which release becomes waters of the state and is allocated according to priority of water rights on the river. The reservoir would remain physically full in the amount of 900 acre-feet and paper full in an additional amount of 100 acre-feet.

Additionally, this requirement that a reservoir remains paper full also applies to releases of storage rights that have been made absolute only by virtue of their storage, as allowed by 37-92-301(4)(e). For example, consider a reservoir decreed for 1,000 acre-feet of storage for municipal uses under a senior storage right and for an additional 1,000 acre-feet of storage for municipal uses under a junior refill right. The senior right has 500 acre-feet of storage that has been made absolute and 500 acre-feet of storage remains conditional. The entire junior refill right is conditional. In one year, the reservoir fills to 1,000 acre-feet and makes the conditional 500 acre-feet of the senior right absolute, as allowed by 37-92-301(4)(e). With no immediate use for that 500 acre-feet of stored water that was made absolute, the reservoir releases it and then fills again under the junior right. The reservoir will be considered physically full in the amount of 500 acre-feet and paper full under the senior right in an additional amount of the released 500 acre-feet until such time as an amount of storage water greater than the 500 acre-feet previously made absolute is put to a decreed beneficial use. This applies to refill rights as well. That is, when rather than a conditional junior right, the right is a conditional *refill* right.

In this example 6, the paper fill remains not only throughout the entire fill season but through subsequent seasons until such time as the reservoir can physically fill the paper fill amount under free river or futile call conditions.

For on-stream reservoirs, if there is no diversion and storage, a paper fill is charged at the rate of storable inflow to the reservoir. For off-stream reservoirs, the paper fill of the senior right is charged at the rate at which the user could have legally and physically filled under the senior right. For example assume the following:

- a. there is 400 cfs stream flow at the headgate of the feeder ditch for off-stream reservoir A
- b. reservoir A is empty
- c. reservoir A has a fill right for 300 cfs that is in priority
- d. the capacity of the ditch to fill reservoir A is 250 cfs
- e. the reservoir operator is diverting 200 cfs

Under these conditions, the reservoir would be paper filled at the rate of 50 cfs or approximately 100 acre-feet per day. If an off-stream reservoir is physically full due to storage of foreign water, for example, the rate of paper fill does not occur instantaneously but at a rate that is available at the reservoir from the decreed source of supply. However, if the user does not track the necessary information, then the reservoir is paper filled immediately.

Examples of where the Division Engineer has the discretion to not impose a paper fill:

There are times when water will not be counted as storable inflow and used to paper fill a reservoir. Examples of when water will not be counted as storable inflow and used to paper fill a reservoir are when the owner of the water right releases water or bypasses storable inflow for any of the following reasons:

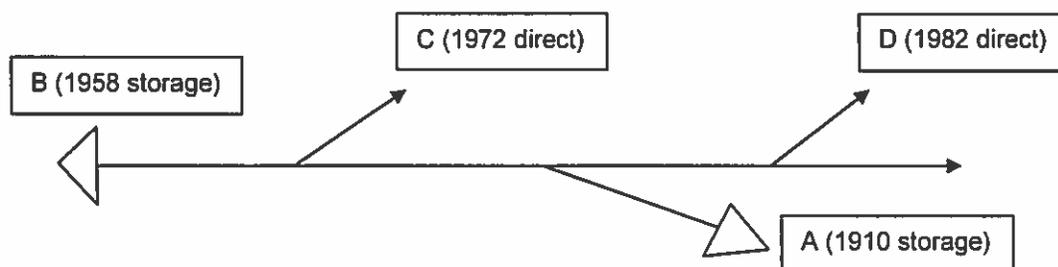
1. the reservoir is under an order from the State Engineer due to a storage restriction,
2. there is a legitimate need to dredge the reservoir,
3. there is a legitimate need to repair and maintain feeder ditches,
4. there is a legitimate need to perform maintenance on outlet works,
5. when winter icing prevents the reservoir operator from impounding and controlling the inflow,
6. there is a legitimate need to bypass water of poor quality,
7. to accommodate other necessary activities at the discretion of the Division Engineer, with consideration of the severity of the need.

In each of these situations, upon approval of the Division Engineer the reservoir will not be subject to a paper fill. In addition to the examples above, "paper fill" is also used in applying the out-of-priority storage statute, as discussed in the following section.

Out of priority Upstream Storage Statute

As early as 1924, State Engineer Hinderlider allowed upstream reservoirs to fill “as early as possible and depend, to some extent, on the return flow to complete the filling of the reservoirs farther down the river.”⁵ In 1969, the General Assembly codified this longstanding practice in what is now C.R.S. § 37-80-120. Presently, on the South Platte, out of priority upstream storage may occur against a storage water right only in accordance with a plan approved by the Division Engineer.⁶ To date, no one has been given approval of such a plan. While other Divisions have not adopted a formal process, some of the considerations that would be taken into account prior to allowing out of priority storage are spelled out in the example below.

Assume structures A and B are reservoirs (owned and operated by different entities) with storage rights and structures C and D are ditches with direct flow rights. All structures are situated on the river as shown below:



In our example, Reservoir A has a decreed and physical capacity of 1,000 acre-feet and has the senior right (1910) on the river, and Reservoir B has a decreed and physical capacity of 200 acre-feet and a 1958 right. Assume that as of March 1, Reservoir A has

⁵ Letter from M.C. Hinderlider, State Engineer, to W.B. Gaumer, President, Farmers Reservoir & Irrigation Co. dated November 17, 1924. Please see Appendix for document.

⁶ Letters from James R. Hall, Division Engineer, to Division 1 Water Users dated October 6, 2005 and July 27, 2006 regarding South Platte Non-Irrigation Season Administration. Please see Appendix for documents.

diverted 820 acre-feet into storage, and that Reservoir B has been allowed (by approval of the Division Engineer) to divert 200 acre-feet into storage even though its right is junior to Reservoir A's right and Reservoir A has not yet filled (i.e. Reservoir B has stored 200 acre-feet out of priority). If the transit losses to Reservoir A from Reservoir B are 20 acre-feet, then Reservoir A is paper filled to 1,000 acre-feet and no longer able to place a call. At this point, Ditch C would be in priority and thus could divert water and make a call if necessary. Likewise, Ditch D would be entitled to make a call curtailing the diversion of Reservoir A.

Reservoir A would only be allowed to divert additional water to storage under free river conditions. As for Reservoir B, it could continue to divert water under its 1958 water right while at the same time releasing the out of priority water stored and delivering it past Ditch C to Reservoir A even if ditches C or D placed a call. This water then replaces Reservoir A's paper fill with actual water and decreases the risk to Reservoir B that it will be required to release its water to Reservoir A later in the season when it is no longer able to store water under its 1958 priority. In a situation where more than one reservoir is storing out of priority upstream of Reservoir A, all upstream out of priority storage must be aggregated to determine when Reservoir A is paper full.

Administration of the upstream storage statute is further complicated by the requirement to account for any seasonal transit loss changes within the reach from the junior to the senior reservoir and within the feeder ditches of the senior reservoir between the time of out of priority storage and the time the water is released to the senior reservoir. The junior reservoir storing out of priority is responsible for payment of

any increase in transit losses should the senior reservoir not fill assuring the senior reservoir receives the full amount to which they were paper filled.

Due to these complexities required to assure non-injury when storing out of priority, upstream out of priority storage is typically not allowed. In some cases, however, out of priority upstream storage is unavoidable. For example, winter conditions may prevent access to some small high mountain reservoirs for real time operation and may prevent real time measurement of winter inflows due to inaccurate measurements caused by ice cover.

Evaporation

Reservoirs are categorized based on their location from a natural stream as either on-channel or off-channel. When a reservoir is constructed on a natural stream bed (on-channel) it causes an increase in losses to the stream system due to the increase in free water surface area of the stream. When an on-channel reservoir is in-priority and filling, the operator does not have to pay back the stream for this increased loss. However when the reservoir is not filling in priority, the operator is required to release stored water to offset the amount of this increased loss to assure that the total natural flow is passed through the reservoir as if the reservoir did not exist. Usually, the release for this loss is accomplished by lowering the reservoir stage to correspond to the calculated net depletion amount. If daily administration is not practical because of the limited size of a reservoir surface, releases for this loss are often aggregated and made on a monthly rather than daily basis. If more than one water right is in a reservoir or the reservoir contains foreign water, the reservoir owner may specify which type(s) of water to release to account for evaporation.

When predicting the amount of future evaporation to be covered by an on-channel reservoir, the average gross evaporation (free water surface) must be calculated based upon average evaporation atlases in NOAA Technical Report NWS 33⁷ and the maximum surface area of the reservoir (unless otherwise decreed). The total gross evaporation estimate from NOAA shall be distributed to all months. The monthly distribution for elevations below 6500 feet msl is: Jan-3.0%, Feb-3.5%, Mar-5.5%, Apr-9.0%, May-12.0%, Jun-14.5%, Jul-15.0%, Aug-13.5%, Sep-10.0%, Oct-7.0%, Nov-4.0%, and Dec-3.0%. The monthly distribution for elevations above 6500 feet msl is: Jan-1.0%, Feb-3.0%, Mar-6.0%, Apr-9.0%, May-12.5%, Jun-15.5%, Jul-16.0%, Aug-13.0%, Sep-11.0%, Oct-7.5%, Nov-4.0%, and Dec-1.5%.⁸

When determining the actual evaporation based on the actual surface area of the reservoir, more site-specific information, if available, may be used or may be required depending upon decree conditions, size of reservoir, impact of reservoir evaporation on other users, and/or availability of data. Any site-specific estimate is subject to evaluation and must be approved by the Division Engineer before use. During times when site-specific instrumentation goes down, NOAA values must be used until the instrumentation is operating again. NOAA values must also be used if site-specific instrumentation is inaccurate, has not been approved by the Division Engineer, or does not exist.

For months during which the surface is completely covered with ice during the entire month, the gross evaporation may be calculated as zero for that month, without

⁷ Farnsworth, Richard K., Edwin S. Thompson, and Eugene L. Peck. 1982. *Evaporation Atlas for the Contiguous 48 United States*. NOAA Technical Release NWS 33. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service.

⁸ State Engineer's "Policy 2003-2: Implementation of Section 37-92-308, C.R.S. (2003) Regarding Substitute Water Supply Plans" signed August 12, 2003 by Hal D. Simpson
<http://water.state.co.us/DWRIPub/Documents/policy2003-2.pdf>

redistributing that month's percentage into the remaining months of the year. The applicant may prorate the estimated evaporation for months during which the surface is covered with ice over a portion of the surface and/or during a portion of the month. The user must provide evidence of ice cover for that month. For projection purposes only, the ice cover period may be estimated as that period during which the mean air temperature is below 32 degrees Fahrenheit. The Division Engineer, however, will assess actual losses based on actual conditions.

The gross amount of evaporation can be offset for on-stream reservoirs by any evaporation from previously existing free water surfaces, effective precipitation that would have been consumed by any native vegetation, and/or groundwater consumption due to any native phreatophytes. Essentially, statute allows on-stream reservoir owners the right to reduce their required evaporation releases for any natural depletion to the stream that would have occurred if the reservoir were not in existence (37-84-117 (5) C.R.S.). An analysis of the pre-existing conditions must be performed to determine what reduction to the gross amount of evaporation will be allowed. In addition, a user may be required to keep track of actual site-specific precipitation in determining the reduction to the gross amount of evaporation for large reservoirs. Typically, the SEO has assumed for a native site (without phreatophytes) with a deep ground water table that 70% of the total precipitation is either consumed or goes to soil moisture storage.⁹

Seepage

As soon as water stored in a reservoir or in the process of being delivered by a ditch seeps through the bottom or sides of the structure, it is considered waters of the

⁹ Wolfe, Dick and Richard L. Stenzel. 1995. "Evaporation." *Evapotranspiration and Irrigation Efficiency*. Proceedings of the 1995 Seminar held in Arvada, CO on October 10-11, 1995. Please see Appendix for document.

state subject to the prior appropriation doctrine. This applies to water that cannot be “re-used” as well as fully-consumable water that is no longer under the dominion and control of the user. A reservoir owner may not recapture seepage water from a reservoir as part of the original storage right unless specifically allowed by decree and may not recapture fully consumable water without dominion and control accounting approved by the division engineer. An appropriator of seepage water cannot require or demand that the seepage continue as the reservoir or ditch owner is generally allowed to make improvements that may eliminate or reduce the seepage.

Absent a specific decreed appropriation to the contrary, water flowing from the toe drain of a dam associated with a reservoir is considered “seepage”. Toe drain outlets must drain freely without restriction to protect the dam and must be discharged without use and separate from the measured release from the reservoir. Structures oriented such that the toe drain flow cannot be separated from the measured reservoir release must quantify the toe drain flow in a manner approved by the division engineer and must subtract the toe drain flow from the measured, comingled release. Toe drain flow from on-stream reservoir dams may be counted as an “accretion to the stream flow resulting from the existence of a reservoir” that is used to offset evaporative losses in accordance with §37-84-117 (5), C.R.S. provided the user relinquishes all dominion and control over the released toe drain flow.

Volumetric versus Gage Height Decrees

The amount of storage water could be defined in a decree as a specific volume or up to a specific gage height in the reservoir. A “volumetric” decree is filled once the total volume of water as measured into the reservoir (plus any carryover and paper fill

volume) reaches the decreed amount or physical amount, whichever is less. A "gage height" decree is filled once the level in the reservoir (plus any paper fill amount) reaches the decreed gage height. The difference between gage height and volumetric decrees is that while filling under these two types of rights, evaporation and seepage does not count against the gage height decree but does count against the volumetric decree. (Seepage may or may not count against an on-stream volumetric decree depending on how the inflow is determined.) Once a gage height decree is filled, however, it is then treated just like storage under a volumetric decree for an off-channel reservoir where the storage in the reservoir suffers evaporative and seepage losses. Absent a refill right, foreign water or free river conditions the additional space created by these losses cannot be replaced.

It is important to have a good stage-capacity curve even for reservoirs with gage height decrees. If the reservoir is curtailed due to a call prior to being filled, the stage-capacity curve can be used to determine how much water the reservoir still has under its water right should it come back into priority. If the gage-height decree comes back into priority, it can continue to fill up to the volume associated with the difference between the gage height when it was curtailed and the completely full gage height.

The following is an example of a gage-height decree for Julesburg Reservoir decreed in civil action no. 944:

It is therefore Adjudged and Decreed, that the said Julesburg reservoir be allowed to have stored in it from the South Platte river by means of the Harmony ditch No. 1, as enlarged and extended as a feeder to said reservoir, and for the benefit of the party or parties aforesaid under and by virtue of said appropriation by construction No. 1, so much water as is necessary to fill said reservoir to a depth of forty-seven (47) feet above the bottom of the lower discharge conduit from said reservoir, being an estimated capacity of one billion two hundred and twenty-seven million

four hundred and forty-five thousand cubic feet, which appropriation of water for said storage purposes and other beneficial uses took effect on and dates from the 12th day of February, 1904.

The gage height of 47 feet above the bottom of the lower discharge conduit dictates when this reservoir has reached its one fill under this right despite the decree giving an estimated volume associated with this gage height.

Transit (Conveyance) Losses

Transit losses are losses to the stream due to seepage, stream evaporation, or plant consumption. The General Assembly requires the State Engineer to determine and charge transit losses (also referred to as "conveyance losses") for the delivery of water released from storage. Transit losses vary depending upon channel size, elevation, stream gradient, vegetation, bank storage, time of year, location, distance, and other factors.

Exchanges

In an exchange, water is generally provided at one point on a stream so that it may be diverted out of priority at another point upstream. Reservoirs may be part of exchanges. Some examples of possible exchanges that involve reservoirs include:

- release from a downstream reservoir in exchange for diversion into an upstream reservoir
- release of reusable effluent from a downstream treatment plant in exchange for diversion into an upstream reservoir
- release from a downstream reservoir in exchange for diversions into an upstream ditch

- consumptive use credits from a downstream changed direct right are left in the stream to replace water diverted in an upstream reservoir

As with all exchanges, the exchange must be approved by the Water Commissioner or Division Engineer and the release downstream timed so that the flow will be the same as if the upstream diversion had not taken place. Further, when a water right holder releases water allowing an upstream diversion by exchange, the diverted water takes on the “character” of the released water. For example, the water stored in a reservoir in exchange for the release of reusable water from a treatment plant would “take on the character” of the reusable effluent and the water released from the treatment plant becomes the same character as the water that was physically stored in the reservoir (either natural stream or delivery water).

Temporary Detention (72-Hour Rule)

Direct water rights may be temporarily detained for up to 72 hours in order to allow more efficient or effective beneficial use of the water. Examples of such detention would be ponds used to receive delivery of a direct flow irrigation water right that is then applied by a sprinkler or temporarily detained and slugged out through a ditch (operational, head stabilization, equalization or flow regulating ponds), or the use of forebays or regulating structures associated with municipal operations. A specific storage right generally will not be required as long as the water is held for less than 72 hours and the detention is for purposes of allowing for more efficient or effective beneficial use of the direct water right. Absent a storage right, free river conditions, or the use of a *Post Wildland Fire Facility*, as addressed by SB15-212 (section 37-92-602(8), C.R.S.), all water, including storm water, must be released within 72 hours.

Ponds that intercept ground water are subject to additional limitations and all dams associated with the construction of ponds must comply with all requirements of the State of Colorado's Dam Safety Rules and Regulations.

If storm water is not diverted or captured in priority, by exchange or under a substitute water supply plan or decreed plan for augmentation, Colorado Water Law requires it to be released. The State Engineer's current policy requires that all detained water be released to the stream system within a maximum of 72 hours after detainment.

Surcharge Storage

Surcharge storage means the volume of water that may be impounded but not retained within a reservoir between the normal spillway and the crest of the dam. This surcharge is not considered part of the reservoir fill under the water right. The reason for this is that the reservoir operator does not control water in surcharge and by definition in CRS 37-92-103(10.8) storage is the impoundment, possession, and control of water by means of a dam. Unless free river conditions exist or an exchange is made to "recolored" (or change the character of) this water, surcharge storage must be released within 72 hours. Operation of the reservoir outlet works may be required in order to release the surcharge within 72 hours.

Adequate Measurements

In cases where the reservoir right is limited to gage height, it is important that a staff gage that is easily readable be installed in the reservoir. A stage-capacity table (a table that reflects the capacity or volume of storage in the reservoir based on the stage or elevation of the water in the reservoir) has also usually been developed in conjunction with obtaining an absolute right for the reservoir. As long as the decree for

the reservoir covers complete filling of the reservoir and no other water is stored in the reservoir when the reservoir reaches the full level as measured on the elevation/staff gage, then the reservoir is considered full under that right. See additional information above in the Volumetric versus Gage Height Decrees section.

Measuring inflow with a decree specifying a staff gage height is more difficult when releases are being made at the same time that water is being stored. In this situation, a reservoir operator may be required to measure via gages all inflow to and outflow from the reservoir to determine the storage under the right. Alternatively, the Division Engineer or Water Commissioner may allow the use of a "computed inflow." In computing inflow, reservoir operators measure the outflow and the change in storage (as measured by the staff gage) over the same period of time and account for net surface water evaporative losses. This method accounts for all inflow, including underflow, unmeasured tributaries, and precipitation on the reservoir's surface.

In cases where the amount of storage allowed is limited to a volume and not a specific gage height (volumetric decrees), an accurate measure of all inflow is generally necessary. This is done by use of a flume or a weir with a continuous recorder. For volumetric decrees, losses due to evaporation or seepage from the reservoir cannot be made up under the storage right.

Recording is often midnight to midnight, but historical and pragmatic practice may allow recording to be 8am to 8am or another 24-hour period. Reservoir operators must report this recorded information as required by the Division Engineer. Reporting requirements may vary depending on the time of year.

Accounting Principles

Accounting requirements differ depending on the administrative requirements of a reservoir. In simple situations, no independent accounting from the user would be required when the reservoir can be administered without such accounting. The reservoir is simply considered full when it reaches its decreed limit after accounting for carryover. For more detail see section Decree versus Physical Capacity above (as described separately in this document). In these cases, the only record is often the Water Commissioner's record of diversions and storage contents.

Accounting does become necessary when a reservoir goes into and out of priority prior to being filled or the user is releasing water prior to being filled. As described earlier, accounting is also required if there is more than one storage decree associated with a reservoir (especially if the decrees are for different purposes) or foreign water is stored in a reservoir. In the case of more than one storage decree for different uses or places of use, the user may keep track of each type of water in the reservoir independently. If the user does not provide accounting, all carryover is charged to the senior most right as discussed earlier (except when the first-in first-out principal is applied) and takes on the character of the senior right.

In some cases, a reservoir has been designated as an alternate place of storage for another storage right. In this case, the user must keep track of the different types of water in the reservoir. If a particular right is stored in more than one reservoir (either as an alternate place of storage or relocated to other reservoirs), then the user must account for storage under this right in all reservoirs so as to document compliance with the decree(s).

Administrative Accounts (Owe-The-River Account)

It is sometimes necessary to use water balance type accounting when it is difficult to directly measure all of the inflow into an on-stream reservoir. With water balance accounting, the inflow is determined by measuring outflow (including releases and evaporation) and change in storage during the day. The determination of inflow is a day in arrears because of the dependence on change in storage information. An administrative account is used to keep track of "errors" in release amounts because of not knowing the inflow until a day late. For example, assume the following:

- a. Reservoir A is on stream and cannot store because it is out of priority.
- b. The users are releasing 10 cfs (approximately 20 acre-feet/day) from storage in the reservoir for use.
- c. The Division Engineer or Water Commissioner is releasing an additional 5 cfs (approximately 10 acre-feet/day) as that is the assumed natural inflow to the reservoir.
- d. The net evaporation from reservoir A is 1 cfs (approximately 2 acre-feet/day).
- e. The reservoir declines approximately 20 acre-feet between day 1 and day

On day 2, the Division Engineer/Water Commissioner and/or user will use water balance accounting to determine that the actual inflow between day 1 and day 2 was approximately 12 acre-feet (Inflow = Releases (30) + Evaporation (2) + Change In Storage (-20)) or 6 cfs rather than the estimated 5 cfs. In this case, an administrative account or "owe the river account" would be approximately 2 acre-feet. The Division Engineer/Water Commissioner would adjust the release on day 2 to attempt to continue

to release natural inflow plus release the 2 acre-feet in the "owe-the-river" account. The same steps would be taken each day to adjust for either too high or too low an estimate of the actual inflow each day and to keep the administrative account as near to zero over time as possible.

Enforcement Principles

Installation of Measurement Device or Reporting Orders

Generally, the Division Engineer or Water Commissioner verbally directs reservoir users concerning the measurement devices and reporting necessary to administer reservoir rights. In accordance with 37-92-502 (5) (a), C.R.S., the State Engineer and the Division Engineers also have formal authority to order any owner or user of a water right to install and maintain at such owner's or user's expense necessary meters, gauges, or other measuring devices and to report at reasonable times to the appropriate Division Engineer the readings of such meters, gauges, or other measuring devices. Users are subject to liability for impacts to other users from improper storage and subject to paying legal fees and costs of the State in enforcement efforts associated with measuring devices and reporting.

Storage Release Orders

In most situations, the Water Commissioner or Division Engineer informally directs a user to release water stored improperly or directs the user to provide information on why they should be able to retain water when it appears they have stored out of priority. However, if necessary, the Division Engineer can formally order the release of any water that the Division Engineer finds to have been illegally or improperly

stored in accordance with 37-92-502 (3), C.R.S. The Division Engineer is directed to deliver this water to users who are entitled to the same and to insure that the release will not cause damage. Users are subject to liability for impacts to other users from improper storage and subject to paying legal fees and costs of the State in such circumstances. In addition to other orders discussed in these guidelines, the Division Engineer may order removal of any obstruction in a river if it impacts water rights.

ADDITIONAL INFORMATION

Dam Safety Restriction and Breach Orders

The State Engineer's staff inspects reservoirs within the state to determine their safe storage level. When necessary, the State Engineer will issue a restriction order to limit the user from storing above this safe storage level (see Rule 4.2.29 of the Dam Safety Rules). The Division Engineer will order the release of water in the reservoir if it exceeds the restricted level.

A breach order is an order issued by the State Engineer, or his designee, to remove all or part of a dam to the level of the natural ground, so it is incapable of impounding water and creating a hazard (see Rule 4.2.3 of the Dam Safety Rules).

Dead/Active Storage

Active storage is that volume of water capable of being released from the reservoir by means of gravity through an outlet of the reservoir. Dead storage is that amount of water that cannot be released without pumping because of the location and elevation of the lowest outlet from the reservoir. A user may be required to pump dead storage water out of a reservoir into the stream to replace evaporation losses or out of priority inflows into the reservoir. The SEO may oppose the use of small ponds with dead storage as an augmentation source in an augmentation plan due to the unreliability and inadequacy of these structures.

Underground Storage

Placing water into underground storage has a number of advantages that achieve the legislature's objective to maximize the beneficial use of all of the State's waters. For example, water stored underground is not lost to evaporation; the water can be used as an emergency supply in the event of disruption to surface water systems; storing water in an aquifer raises the water table and can reduce energy demand and energy costs otherwise needed for well pumping; and storing water underground helps to reduce committing additional surface land to additional large reservoirs, conveyance systems, and stream modifications.

Underground reservoirs are not reservoirs within the meaning of C.R.S. 37-87-101(2) except to the extent such reservoirs are filled by other than natural means with water to which the person filling such aquifer has a conditional or decreed right. Recharge water rights are not considered storage. Underground reservoirs also include porosity storage reservoirs which are defined as underground storage vessels in an alluvial deposit over an aquiclude that is formed by separating a volume of that alluvial deposit by surrounding it by a man-made substantially impermeable barrier so that the volume is hydrologically separate from the original surrounding deposit.

Subgrade Storage

Subgrade storage includes any water stored below the natural land surface elevation such that it must be accessed by means other than gravity drainage. This includes rock quarries in low permeability material, but generally is associated with placing a very low permeability lining around a mined-out gravel pit or other excavation

into high permeability material. The purpose of the very low permeability liner is to isolate the water placed into the excavation from the surrounding ground water, thus impounding, possessing, and controlling the water, rather than letting it flow away with the surrounding ground water and become unavailable for future use.

The very low permeability liner must be approved in accordance with the August 1999 State Engineer Guidelines for Lining Criteria for Gravel Pits (please see Appendix for document). The Liner Guidelines contain a procedure for testing the constructed liner, two allowable liner leakage standards, a mass balance accounting procedure for lined excavations, and provisions to address a liner failure that may occur during operation of the reservoir.

The testing procedure set forth in the Liner Guidelines requires that the liner be demonstrated to meet leakage standards. Typically this is done by holding the lined excavation essentially dry; measuring the volume of water removed from the lined excavation; and calculating the volume of any precipitation entering the lined excavation based on the surface area and a simple on-site rain gage correlated to official weather stations in the area. If the lined excavation is not held essentially dry during the test, the volume of evaporation from the free water surface must also be calculated based on the surface area over the course of the test and data from official weather stations in the area. The differences between the known inflows and the known outflows plus any changes in storage are assumed to be ground water leakage by the liner. If this volume does not meet the leakage standards in the Liner Guidelines then the excavation is determined to be a well and water storage is not allowed.

It should be noted that the Liner Guidelines contain a similar testing procedure as discussed above for locations of high permeability material where a slurry wall has been installed to isolate an area from the local ground water but where no excavation has yet occurred. The procedure here requires piezometers located inside and outside of the slurry wall to monitor water levels on both sides of the wall. Water is then pumped from inside the wall to establish a steady-state head gradient across the wall for the 90 day test. The minimum acceptable head gradient prior to starting the test is ten (10) vertical feet or to bedrock if bedrock is located less than ten feet below the local water table. The same leakage standards used for an excavated area are also used in this instance.

The mass balance accounting procedure set forth in the Liner Guidelines is straightforward and requires any out of priority inflow from any source, including ground water, to be returned to the stream or fully augmented. The Liner Guidelines provision to address a liner failure that may occur during operation of the reservoir requires that if, in two consecutive months, the accounting shows the unregulated ground water inflows exceed the Guideline Standards, the reservoir operator and the State Engineer's Office will consult on the probable cause(s) and possible solution(s) to the excessive inflows. Specific operational requirements and time lines for agreement and repair are also set forth in the Liner Guidelines. The ultimate result of a previously approved liner failing to meet the Guideline Standards during actual operation is a prohibition of storage in the reservoir with a requirement that all out of priority inflows be pumped to the stream or fully augmented pursuant to an augmentation plan or a substitute water supply plan.

Rock quarries in low permeability material that seek to store water are tested in accordance with the Liner Guidelines discussed above as applied to lined excavations

into high permeability material where the excavation intercepts ground water. They are also subject to the same two tiered accounting approach discussed above.

Types of Dams

Colorado laws governing dams and reservoirs were enacted for the protection of lives and property due to potential hazards associated with the storage of water in the reservoir behind a dam. The owner of the dam is responsible for the safe storage of water impounded in the reservoir. There are specific construction and administration requirements depending on the category of a dam. The categories are as follows: jurisdictional size dams, non-jurisdictional size dams, livestock water tanks (LSWT), erosion control dams (ECD) and exempt structures such as mill tailing impoundments (see complete list of these structures in Section 37-87-114(5) C.R.S.). Laws that are contained in the Colorado Revised Statutes establish specific requirements for each type of dam. Jurisdictional and non-jurisdictional size dams, exempt structures, and ECDs are governed by Sections 37-87-101 thru 125, C.R.S. and the Rules and Regulations for Dam Safety and Dam Construction. LSWTs are regulated by Sections 35-49-101 thru 116, C.R.S. The owner of a dam and/or irrigation ditch has responsibilities, and the Division Engineer in charge of each Water Division has additional related authorities, under the following statutes: C.R.S 37-84 inclusive and 37-92 inclusive.

Constructing a dam to create a reservoir does not assure the owner the right to store water. Likewise, having a water right does not constitute an approval to construct the dam. A water right must be obtained through the Water Court. Approval for construction of a dam must be obtained from the State Engineer.

Jurisdictional versus Non-jurisdictional

A jurisdictional dam is one that has a statutory height of greater than 10 feet in height to the spillway crest from the lowest point in the natural stream channel or natural ground surface, or creates a reservoir with more than 100 acre-feet of water, or covers a surface area of more than 20 acres at the high waterline. Plans and specifications for jurisdictional dams must be approved by the State Engineer before construction. The "Rules and Regulations for Dam Safety and Dam Construction" can be accessed from the following website link: http://water.state.co.us/DWRIPub/Documents/ds_rules07.pdf. Additionally, you can obtain a publication from this office free of charge titled, "Guide to Construction and Administration of Dams in Colorado" (or you can download it at the following link: <http://water.state.co.us/DWRIPub/Documents/damguide.pdf>), which is helpful in providing general information regarding dams, livestock water tanks, and erosion control dams.

A flood control dam is a special purpose dam which is normally dry and has an un-gated outlet structure which will drain the water impounded during the flood. The jurisdictional size and classification of the dam are determined assuming the reservoir is full to the emergency spillway (see Rule 4.2.5.7 of the Dam Safety Rules).

Non-Jurisdictional size dams are smaller in size than jurisdictional size dams. Plans and specifications are not required for construction, however, filing of a Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure is required. The form may be obtained from the Office of the State Engineer in Denver, from any Water Division office, or from the DWR website <http://www.water.state.co.us/DWRDocs/Forms/Pages/DamForms.aspx>, and must be

filed 45 days prior to construction. No fee is required to file the Notice of Intent form.

The Division Engineer may require an outlet pipe with a regulating gate to be installed in the bottom of the dam to allow releases to prevent injury to existing water rights.

Because any dam, regardless of size, has the potential to cause damage downstream if it should fail, the owner is advised to consult a person familiar with dam construction to ensure the dam is constructed properly. The Notice of Intent form shall be submitted to the Division Engineer of the Water Division in which the dam is to be located.

Addresses of the seven division offices are available online at

<http://www.water.state.co.us/org/contacts.asp>.

Livestock Water Tanks

Livestock water tanks are covered under the "Livestock Water Tank Act of Colorado" Sections 35-49-101 to 35-49-116, C.R.S. (Also see Rule 17.4 of the Dam Safety Rules.) A LSWT requires a permit from the State Engineer. A LSWT is a dam constructed to capture run-off water on rangeland to provide water for livestock. They may only be constructed on normally dry water courses, and may also be used for recreation, but not for irrigation. A normally dry water course or stream is considered dry 80% of the time during a calendar year. The structure must not have a ditch or other structure delivering water to or from it.

Height of the dam cannot be greater than 15 feet from the bottom of the stream channel to the spillway crest. Impoundment volume of the reservoir cannot exceed 10 acre-feet. If the LSWT is five feet or less in height to the spillway, and two acre-feet capacity or less, no application is necessary, but an application may be filed to obtain a priority between LSWT's. It is important to note that this is not a water right, but only

provides a priority between LSWT's. The LSWT does not require a water right for its use but may be subject to curtailment from downstream senior users depending on the specific circumstances.

An outlet pipe with a regulation gate is required unless specifically waived by the Division Engineer during review of the application. Standard specifications and application forms are available from any Water Division office or the DWR website <http://www.water.state.co.us/DWRDocs/Forms/Pages/DamForms.aspx>. The application and fee should be submitted to the division office that the LSWT is to be located in. Construction of the LSWT may begin upon approval of the application by the Division Engineer. The State Engineer may then inspect the LSWT and within 10 days after receiving notice of completion or within 10 days after inspection he must then approve or disapprove of the structure. The U.S. Natural Resources Conservation Service may assist owners in preparing an application, or owners may wish to hire a licensed professional engineer experienced in dam design for assistance.

Erosion Control Dams

In Colorado, many farms and ranches need ways to control erosion. In recognition of this need, the Colorado legislature instituted statutes governing the development and use of these types of structures. Erosion control dams are governed under Section 37-87-122, C.R.S. (Also see Rule 17.5 of the [Dam Safety Rules](#).)

An ECD requires a permit from the Office of the State Engineer. These dams may only be constructed on normally dry watercourses and are only for the purpose of controlling soil erosion caused by floods. The vertical height of the dam cannot exceed 15 feet from the bottom of the channel to the bottom of the spillway. The height is

measured at the toe of the upstream slope where the dam contacts the ground surface. The spillway must have a minimum freeboard of four feet to the dam crest. Impoundment volume of the reservoir cannot exceed 10 acre-feet at the emergency spillway level. An ECD with more than two acre-feet capacity must have an un-gated outlet conduit large enough to pass stored water in excess of two acre-feet within a 36-hour period, but no less than a 12-inch diameter. The vertical location of the outlet must be at or below the two acre-feet storage volume level. In certain circumstances, an outlet structure may be required for an ECD with less than two acre-feet capacity to address water administration issues.

A water right is not required for an ECD but a number is assigned, similar to a LSWT. An ECD is also subject to curtailment from downstream water rights depending upon the circumstances. Since an ECD is not intended to store water, a priority is not assigned. Standard specifications and application forms are available from any Water Division office or the DWR website

<http://www.water.state.co.us/DWRDocs/Forms/Pages/DamForms.aspx>. The application, along with a fee, must be submitted to the Water Division office.

Construction may begin upon approval of the application by the Division Engineer. The U.S. Natural Resources Conservation Service may assist owners in preparing an application, or owners may wish to hire a licensed professional engineer for assistance.

Other Regulatory Requirements

Other state and federal agencies regulate runoff from storm water in construction activities, industrial activities and concentrated animal feeding operations. These facilities may involve temporary or permanent detention, retention, or sediment ponds or

basins. These structures are designed to capture, settle, store and/or release water. These structures can be constructed by excavation and/or by placing an earthen embankment across a low area or drainage swale. They can be designed to maintain a permanent pool or to drain completely dry.

The two agencies that regulate these activities are the Colorado Department of Public Health and Environment, Water Quality Control Division <http://www.cdphe.state.co.us/wq/PermitsUnit/> and the Environmental Protection Agency <http://www.epa.gov/region8/water/stormwater/>. Even though these structures are permitted and regulated by these other agencies they must still comply with all State water rights laws regarding diversion and depletion of surface water.

Compensatory Storage Doctrine (Transbasin Storage Agreements)

The cost of constructing and operating large projects precluded all but the largest municipalities. To provide a means to finance, acquire water rights and land surface rights, and for operations, the Colorado legislature created special statutory entities called water conservancy districts. The first of these districts was the Northern Colorado Water Conservancy District, created in 1937 to develop the Colorado-Big Thompson Project. Recognition of compensatory storage as an integral part of transmountain diversions by way of water conservancy districts came in 1943 when the Colorado legislature amended the original Water Conservancy Districts Act to require facilities to be constructed so as not to impair nor increase costs to existing or prospective water users within the natural basin of the Colorado River. Three reservoirs

have been built in the Colorado River drainage as a result of this act. The Colorado-Big Thompson Project built Green Mountain Reservoir with a capacity of 152,000 acre feet in return for the right to divert an expected 320,000 acre feet to the South Platte drainage. Of the 152,000 acre feet, 100,000 acre feet is in the compensatory pool for the benefit of in-basin users. These beneficiaries receive replacement releases either by the language of the authorizing legislation of the project or by contract. This authorizing legislation for the CBT, Senate Document 80, became the model for compensatory storage. The Fry-Ark Project built Ruedi Reservoir with a capacity of 102,000 acre feet in return for the right to divert an expected 69,200 acre feet to the Arkansas River drainage. An individual beneficiary of this compensatory pool obtains release of stored water by contract. The Windy Gap project provided \$10M for the construction of compensatory storage, which ultimately helped build Wolford Mountain Reservoir, and the first 3,000 acre feet of Windy Gap water pumped to Granby Reservoir. Municipalities, irrigation companies, and other corporations that construct transmountain diversion projects are not required to provide compensatory storage because they are not incorporated or created under the statute requiring such storage.



Dick Wolfe, P.E.
State Engineer, Director
Colorado Division of Water Resources
October 31, 2011
Revised: February 1, 2016

Revision Log

- Original Document – October 2011
- Amended – February 2016
 - Additional direction to address activities allowed under SB13-41
 - Additional direction regarding paper fill
 - Miscellaneous, non-substantive, clarifying cleanup

TOWN OF MORRISON**WATER AVAILABILITY ANALYSIS SUMMARY**

(from September 12, 2007 Report by WRC Engineering, Inc.)

Assumptions:

- Water demand of Red Rocks Center (RCC) is modelled at 1364 acre-feet / per year.
- Water demand of Town of Morrison (west of the Hogback) is modelled at 1000 acre-feet / per year.
- QR2 has a capacity of 1000 AF, of which 900 AF is available for Morrison.
- QR2 is full to capacity at the beginning of the study period.
- Morrison's storage rights are diverted to storage in QR2 whenever:
 1. There is "leftover" water available for those rights after meeting demand.
 2. There is sufficient space in the reservoir to store additional water.
- Morrison's municipal intake (or intakes) on Bear Creek has (have) a total capacity of 8 cubic feet per second (cfs).
- Morrison's future capacity to deliver water from Bear Creek to QR2 is equal to the future planned pump capacity of 8 cfs .
- Morrison's future capacity to deliver water from QR2 to the water treatment plant is equal to or greater than the total demand met by reservoir releases.
- The RRC and Morrison water demand curve is similar to Morrison's historic demand curve (76% in-house and 24% outside uses).
- Return flows from RRC usage are delivered to the stream above the Harriman Ditch headgate, as needed.
- Study period of 1951-1959 is representative of future stream conditions during an extended drought.

Results:

- RRC demands are met and require about 600 acre-feet of stored water from QR2 over a three year period.
- Town of Morrison's demands are met and require about 100 acre-feet of stored water from QR2 over the same time period.
- The minimum amount of water left in QR2 at any one time in the study period is about 200 acre-feet
- Water needed from storage for in-house uses rarely occurs in the study period.

Other considerations (risks) not addressed in modelling which may limit Morrison's ability to provide water service during short and long term outages:

- Spills into Bear Creek
- Washout of intake structure
- Contamination of QR2
- General O&M outages
- Future conditions not reflective in historic record
- Changes in State Engineer's policies and changes in water law
- Strategic carryover storage amounts

TOWN OF MORRISON
WORK SESSION: WATER RIGHTS AND SUPPLIES
 June 26, 2014

Cynthia F. Covell
 Alperstein & Covell P.C.

Morrison Water Taps

(1) Total EQR that Can Be Served [2008 Mt. Carbon IGA]	(2) Current EQR Served [2008 Mt. Carbon IGA and J. McEncroe]	(3) Service Committed to EQRs [2008 Mt. Carbon IGA]	(4) EQR Committed Plus EQR Served [Column (2) + Column (3)]	(5) EQR Available for Future Service [Column (1) - Column (4)]
4977	289	2800	3089	1888

Assumptions

1. One EQR requires 0.442 AF/Year of raw water delivered for treatment, and uses 0.37 AF/year
2. Infrastructure capacity will be sufficient to allow diversion of water from Bear Creek, storage of up to 900 AF in MQ Reservoir, and releases from MQ reservoir at the times and in the amounts required.
3. Treatment capacity will be sufficient
4. Return flows from treated wastewater will accrue to Bear Creek at the current location of the wastewater plant outfall.
5. Water rights must be used in accordance with decrees
 - A. Warrior (Priority 4) and Pioneer Union (Priority 5) changed in 1958 cannot be used east of Hogback
 - B. Hodgson Ditch (Priority 3) can be used east of Hogback; it is Town's most senior right and in time of drought could be only available direct flow right
 - C. Augmentation plans require wastewater returns to Bear Creek at current location

Glossary

Acre-Foot (AF): A measure of volume. One acre-foot equals approximately 325,850 gallons

Cubic foot per second (cfs): a flow rate, equal to approximately 449 gallons/minute, or 2 AF/day

EQR: Equivalent Residential Unit - the average amount of treated water required for indoor and outdoor use by one average-sized single-family residence. In Morrison, this is estimated to be 0.37 acre-feet per year, assuming 76% of the water delivered is used for indoor uses, and 24% is used for outdoor uses.