AGENDA

OURAY CITY COUNCIL

320 6th Avenue – Community Center MASSARD ROOM

January 7, 2019

Regular Meeting 6:00P.M.

- Electronic copies of the Council Packet are available on the City website at www.cityofouray.com. A hard copy of the Packet is also available at the Administrative Office for interested citizens.
- Action may be taken on any agenda item
- Notice is hereby given that a majority or quorum of the Planning Commission, Community Development Committee, Beautification Committee, and/or Parks and Recreation Committee may be present at the above noticed City Council meeting to discuss any or all of the matters on the agenda below for Council consideration

Regular Meeting

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE
4. APPROVAL OF AGENDA – Move, remove items or address conflict of interest
5. APPROVAL OF MINUTES – All minutes of previous month
   a. December 3, 2018 Pg2 b. December 17, 2018 Page 10
6. CITIZENS' COMMUNICATION
   a. Unscheduled Citizens' Communication
   b. Response to Citizen Communication
7. CITY COUNCIL REPORTS/INFORMATION
   a. Glenn Boyd, Dawn Glanc, Bette Maurer, Dee Hilton and Pam Larson
   b. Dawn Glanc – IPAT Ice Park Advisory Team Meeting January 2 Page 16
8. DEPARTMENT REPORTS
   a. City Administrator Page 17
   b. Police Chief Page 21
   c. Public Works Director (including Water and Wastewater update) Page 23
   d. City Resources Director Page 25 and Event Coordinator Page 27
9. CONSENT AGENDA
   a. Liquor License Renewal – Ouray RV Park & Cabins/Ouray Café Page 28
   b. Liquor License Renewal – Brickhouse 737 LLC Page 29
   c. Bed & Breakfast Liquor Permit Renewal – KIDO Enterprises LLC dba Ouray Inn Page 30
   d. Special Events Permit Application – Ouray Ice Park, Inc., Ouray Ice Fest, Jan 24th-Jan 26th Page 31
   e. Huckstering Permit Application – Ouray Meat & Cheese Market, Ouray Ice Fest, Jan 24th-Jan 27th Page 32
10. ACTION ITEMS
    a. Acquire Perimeter Trail easement estimated cost (North of tunnel on Paul Chesley's property)
    b. Wastewater Treatment Capacity Study Action steps Page 33
    c. PSA – Interim Pool Manager Lydia Bright Page 154
    d. Icefest Highway 550 Special Event Traffic Control Cost Page 158
11. RESOLUTIONS, ORDINANCES, IGAs or OTHER OFFICIAL LOCAL GOVERNMENT APPROVALS
    a. Ordinance 01 – 2019, Sewer Tap Restriction – 1st Reading Page 162
    b. Ordinance 02 – 2019, Wildlife Resistant Refuse Containers for All Residential and Short Term Rentals – 1st Reading Page 168
    c. Resolution 01 – 2019, GOCO Application for Ouray School Play Yard Support Page 172
    d. Resolution 02 – 2019, Designating the Posting Place for 2019 Page 192
    e. Recreational Easement with Ouray County regarding Via Ferrata Page 193
12. DISCUSSION
    a. Plastic Bag Ban
    b. Code Enforcement
    c. Snow Removal Page 199
13. EXECUTIVE SESSION –
    A conference with the City attorney for the purpose of receiving legal advice on specific legal questions under C.R.S. 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, under C.R.S. 24-6-402(4)(e): Municipal Court Judge position.
14. ADJOURNMENT

Ouray City Council Regular Meeting
Summarized Minutes
Monday, December 3, 2018 at 6:00pm
Massard Auditorium – Ouray Community Center

1. CALL TO ORDER

Mayor Larson called the meeting to order at 6:05 p.m.

2. ROLL CALL

Mayor Pam Larson - Present
Mayor Pro Tem Glenn Boyd - Present
Councilor Dawn Glanc – Present
Councilor Dee Hilton – Present
Councilor Bette Maurer – Present

Also present were City Administrator Katie Sickles, City Resources Director Rick Noll, Public Works Director Joe Coleman, Police Chief Justin Perry, Community Development Coordinator Chris Hawkins, and Finance and Administration Director Melissa Drake

3. THE PLEDGE OF ALLEGIANCE WAS RECITED

4. APPROVAL OF AGENDA – Move or remove items or address conflict of interest

Administrator Katie Sickles stated that on Item 15, the letter L should be removed on the statute reference.

Councilor Hilton made a motion to approve the amended agenda. Councilor Glanc seconded the motion and it was approved on unanimous vote.

5. PUBLIC HEARING

City of Ouray 2019 Budget

Mayor Larson opened the public hearing. There was no public comment. Mayor Larson closed the public hearing.

6. APPROVAL OF MINUTES

a. November 5, 2018

Mayor Larson asked if there were any corrections to the minutes. There were none. She stated that the minutes stand approved.

b. November 7, 2018 Special Meeting

Mayor Larson asked if there were any corrections to the minutes. There were none. She stated that the minutes stand approved.

c. November 12, 2018 Special Meeting

Mayor Larson asked if there were any corrections to the minutes. There were none. She stated that the minutes stand approved.

d. November 19, 2018

Mayor Larson asked if there were any corrections to the minutes. There were none. She stated that the minutes stand approved.

7. CITIZENS' COMMUNICATION

a. Presentation – Juvenile Diversion Program - Absent

b. Unscheduled Citizens' Communication

Mark Iuppenlatz gave an update on the Friends of Via Feratta financial situation.

Nate Disser stated that there is an upcoming BOCC meeting regarding the Via Feratta. He noted that he and the City Administrator have been meeting with the County Administrator. He also stated that they are close to completing an off-the-grid lodge on Red Mountain Pass that should open December 21. An Open House is in the planning stages now.

c. Council Response to Citizens' Communication

None

8. CITY COUNCIL REPORTS/INFORMATION

a. Mayor Pro Tem Glenn Boyd – The active shooter exercise was successful. 189 people were involved and 37 agencies. Cooperation was at a high level.

b. Councilor Dee Hilton

Attended the "I am Evidence" film. She stated that it was very good information and was well attended. She stated that Public Works won first place in the light parade and thanked Lori Leo, Michelle Poirier, and Craig Hinkson for Yule Night. She stated that there was a great turn out for the event. Kat Papenbrock spoke about the promotion of the event.

c. Councilor Dawn Glanc

- Toured the Wright Opera House and the apartments are in very bad shape
- Attended the "I am Evidence" film, thanked Chief Perry for being a part of the panel
- Attended the tree lighting
- Community Plan Committee is working on vision statements

d. Councilor Bette Maurer

- Housing Authority is working on a survey of other housing groups

e. Mayor Pam Larson

- Responded to several citizens on utility rates
- Will write a letter in support of school GOCO Grant

Jim Pilkington spoke about how impressive regional law enforcement was at the "I am Evidence" film panel.

9. DEPARTMENT REPORTS

a. City Administrator

Administrator Sickles stated that Sam Mamet, CML Executive Director, is retiring and the final 4 candidates will be selected in December.

She noted Tom Kavanaugh's resignation and thanked him for his work as Pool Manager and discussed his career with the City.

She stated that she and her husband have a contract on a condo in Ouray.

b. Police Chief

Police Chief Justin Perry praised the group who put on the "I am Evidence" film and panel. He thanked Jennifer Miller for the "Stuff the Cruiser" event and stated that it was very successful.

He asked the public to please report any information on the theft of light bulbs from the Box Canon sign.

February 16th will be basketball game with the Town of Ridgway to raise money for Victims' Assistance.

c. Public Works Director

Public Works Director Joe Coleman toured wastewater treatment plants in Crested Butte. One plant was planned and installed correctly. The other was installed piece-meal and with cost cuts. He stated that operations are very difficult in the plant that had cost cuts.

d. City Resources Director

City Resources Director Rick Noll stated that Tom Kavanaugh leaves very big shoes to fill as Pool Manager. We will be working together interim. There will be a statewide campaign to fill the position. Max Galaxy went live on November 19 and I is going well.

He also stated that they are assessing the filtration building issues.

Ski hill may be open by the time school has its Christmas break.

e. Finance Director

i. October Financial Report

Finance and Administration Director Melissa Drake stated that the City is performing within the amended Budget. She stated that pool visitorship is down but revenue is up due to lack of discounts in 2018 and Box Canon Falls visitorship is down but revenue is up due to $1 admission increase.

Councilor Glanc made a motion to approve the September Financial Report. Mayor Pro Tem Boyd seconded the motion and it was approved on unanimous vote.

ii. October Disbursements

Mayor Pro Tem Boyd made a motion to accept the October Disbursements. Councilor Glanc seconded the motion and it was approved on unanimous vote.

iii. October LOT Report

Director Drake stated that available rooms and Lodging Occupancy were down slightly but revenue was slightly up. This may be due to higher occupancy in rooms vs. camping sites. Kat Papenbrock stated that RV parks may also be reporting late. The Council briefly discussed the report.

iv. November Sales Tax Report

Director Drake stated that Sales Tax Revenue is down 2% over 2017. The Council briefly discussed the report.

10. CONSENT AGENDA

None

11. ACTION ITEMS

a. OCRA dba Ouray Tourism Office (OTO) – Visitor Services and Center Operations

Councilor Maurer made a motion to approve the agreement. Mayor Pro Tem Boyd seconded the motion. Mayor Larson gave an overview of the contract. Councilor Maurer amended the motion to approve the contract contingent on the insurance issue being worked out. Mayor Pro Tem Boyd agreed to the amendment and it passed on unanimous vote.

Mayor Pro Tem Boyd left the meeting at 6:45pm.

b. OCRA dba Ouray Tourism Office (OTO) – Destination Marketing, Management, and Development

Mayor Larson noted that the city's financial auditor will audit Tourism Fund monies within OTO at OTO's expense in 2019.

Councilor Glanc made a motion to approve the agreement contingent on the insurance issue being worked out. Councilor Hilton Seconded the motion and it passed on unanimous vote.

c. Waste Management Refuse/Recycling Contract

Councilor Glanc made a motion to approve the contract. Councilor Hilton seconded the motion.

The Council discussed the contract. The motion passed on a 3 to 1 vote with Councilor Maurer voting "No."

d. FCI Warranty re: Stryker Deck Heating Contract

Scott Stryker spoke with Council and Tom Kavanaugh regarding this contract. He confirmed that the design assumes an input water temperature of 85 degrees. Dallas Turley with Keenan's Plumbing spoke about the possibility of snow not melting with the deck heat depending on conditions.

Tom Kavanaugh gave an overview of the status of the project. Dave Doherty concurred with Mr. Kavanaugh's assessment that this contract should melt snow most of the time and will get the system working so an assessment can be made as to whether or not an additional heat source may be needed.

Councilor Hilton made a motion to approve the contract. Councilor Maurer seconded and it passed on unanimous vote.

e. Victorian Inn Fixed Encroachment Permit

Community Development Coordinator Chris Hawkins gave an overview of the revocable permit.

Councilor Maurer made a motion to approve the permit. Councilor Hilton seconded the motion and it passed on unanimous vote.

12. RESOLUTIONS,ORDINANCES, IGAS,OR OTHER OFFICIAL LOCAL GOVERNMENT APPROVALS

a. Ordinance 11 – 2018, State Liquor License Changes – 1st Reading

Councilor Maurer made a motion to approve Ordinance 11. Councilor Glanc seconded the motion and it was approved on unanimous vote.

b. Resolution 23 – 2018 – Adopting the 2019 Budget

Councilor Hilton made a motion to approve Resolution 23. Councilor Glanc seconded the motion and it passed on unanimous vote.

c. Resolution No. 24 – 2018 – Appropriating 2019 Expenditures

Councilor Glanc made a motion to approve Resolution 24. Councilor Hilton seconded the motion and it passed on unanimous vote.

d. Resolution No. 25 – 2018 – Setting the 2019 Mill Levy

Councilor Maurer made a motion to approve Resolution 25. Councilor Hilton seconded the motion and it passed on unanimous vote.

e. Ouray County Housing Advisory Committee IGA

Councilor Hilton made a motion to approve the IGA. Councilor Maurer seconded the motion and it passed on unanimous vote.

7. CITIZENS' COMMUNICATION - Presentation – Juvenile Diversion Program

Wendy Crank arrived at the meeting and gave an overview of Juvenile Services, formerly known as the Juvenile Diversion Program. She discussed services and funding changes with the Council.

13. DISCUSSION

a. Community Plan Update – Drafted Vision Statements

Mr. Hawkins stated that there will be an Open House and Forum December 6th on the vision statements. He gave an overview of the status of the plan.

b. City Council to Provide Direction to Staff regarding Short Term Rental Regulations

The Council discussed current zoning, sign regulations, parking regulations, trash requirements, and a possible cap on short term rentals. The Council requested to see the proposal from the committee and directed staff to schedule a meeting to include the Council, the Short Term Rental Committee, and the Planning Commission.

The following citizens spoke to Council about their concerns or ideas regarding short term rental regulations:

April Orgren	Barry McClelland
Dave Doherty	Dolgio Nergui
John Wood	Don Wild
Sandy Myers	Erin Eddy

c. Mini Performance Evaluation Review

Administrator Sickles discussed the mini evaluation and stated that they would be complete by the end of the first quarter 2019.

d. Individual Meetings Between City Administrator and Staff

Ms. Sickles stated that she will be meeting with each staff member and a memo will go out with paychecks on Friday.

14. EXECUTIVE SESSION

CRS 24-6-402 (4) (e) (I) Determining positions relative to matters that may be subject to negotiations; developing strategy for negotiations; and instructing negotiators; The Masters Law Firm, LLC. Representation and Attorney Fee Agreement 2008 and 2014

At 8:45pm Councilor Hilton made a motion to go into Executive Session. Councilor Glanc seconded the motion and it passed on unanimous vote.

The Council took a brief break and reconvened in the Executive Session at 8:53pm. The session ended at 9:15pm.

Mayor Larson stated that the City will publish a Request for Qualifications for a City Attorney. She also stated that Masters and Viner, P.C. is encouraged to submit a proposal.

15. ADJOURNMENT

At 9:16pm, Councilor Glanc made a motion to adjourn the meeting. Councilor Maurer seconded the motion and it was approved on unanimous vote.

_____

Pamela J. Larson, Mayor Date

ATTEST:

_____

Melissa M. Drake, City Clerk

Ouray City Council Regular Meeting
Summarized Minutes
Monday, December 17, 2018 at 6:00pm
Massard Auditorium – Ouray Community Center

1. CALL TO ORDER

Mayor Larson called the meeting to order at 6:00 p.m.

2. ROLL CALL

Mayor Pam Larson - Present
Mayor Pro Tem Glenn Boyd – Excused
Councilor Dawn Glanc – Present
Councilor Dee Hilton - Present
Councilor Bette Maurer – Present

Also present were City Administrator Katie Sickles, City Resources Director Rick Noll, Police Chief Justin Perry, Public Works Director Joe Coleman, Community Development Coordinator Chris Hawkins, Finance and Administration Director Melissa Drake, and, via phone, City Attorney Carol Viner

3. THE PLEDGE OF ALLEGIANCE WAS RECITED

4. APPROVAL OF AGENDA – Move or remove items or address conflict of interest

Councilor Hilton made a motion to approve the agenda. Councilor Glanc seconded the motion and it was approved on unanimous vote.

5. PUBLIC HEARING – Ordinance 11 – 2018, State Liquor License Changes

Mayor Larson opened the Public Hearing.

There were no public comments so Mayor Larson closed the Public Hearing.

6. PROJECT REPORT – JVA Wastewater Treatment Capacity Study

Leann Miller with JVA gave a presentation on the Capacity Study of the Ouray Wastewater Treatment Plant (Lagoon System). Recommendations include a new Wastewater Treatment Plant (WWTP), additional studies, limiting the load, and potable water meters. She presented certain recommended criteria for the new WWTP including relocating the Public Works building with an estimated maximum cost of $16.6 million and a 20-year Operations and Maintenance cost of over $6,147,000.

Ms. Miller answered questions from citizens and council. She also presented a proposed aggressive design and construction schedule of 3 years.

7. CITIZENS' COMMUNICATION

Tamara Gulde, Mountain Fever Sporting Goods, spoke about snow and ice removal needs in the City for safety issues. The Council and City Administrator Sickles discussed snow removal and a possible snow route. This topic will be revisited in the January 7, 2019 meeting.

John Wood spoke to the Council about funding a WWTP and a potable water treatment plant. He discussed a P3 project (Public Private Partnership). He distributed a document on this topic from the University of Colorado Denver.

8. CITY COUNCIL REPORTS/INFORMATION

a. **Glanc –** Ice Park is open and is fantastic

b. **Maurer –** Attended the Gunnison Valley TPR and championed the widening project for Highway 550 in the Ouray/Ridgway area.

c. **Hilton –** the Beautification Committee has stepped up since the resignation of the chair; still looking for new members

d. Larson – asked Council to write up a brief summary of any meeting attended

9. COMMUNITY REPORTS

None

10. FINANACE DIRECTOR

a. November Financial Report (Approve)

Councilor Glanc made a motion to approve the November Financial Report. Councilor Maurer seconded the motion and it passed on unanimous vote.

b. November Disbursements (Accept)

Councilor Hilton made a motion to accept the November Disbursements. Councilor Glanc seconded the motion and it passed on unanimous vote.

c. November Sales Tax Report (Discussion)

d. November LOT Report (Discussion)

11. CONSENT AGENDA

None

12. ACTION ITEMS

a. Special Events Permit Application – BPOE Lodge #492, New Year's Eve Party, December 31st

Councilor Maurer recused herself since she is listed as the applicant.

Councilor Glanc made a motion to approve the Special Events Permit. Councilor Hilton seconded the motion and it passed on unanimous vote.

Councilor Maurer rejoined the meeting.

b. 2019 Council Meeting Schedule

Councilor Glanc made a motion to approve the schedule with the addition of currently scheduled Work Sessions. Councilor Maurer seconded the motion and it was approved on unanimous vote.

c. Uncompahgre Stream Management Plan Grant Stakeholder Contribution $2000 from City of Ouray

Councilor Hilton made a motion to approve the contribution. Councilor Glanc seconded the motion and it was approved on unanimous vote.

d. Spillman – Shared Agency License Agreement

Administrator Sickles explained that this agreement with the City of Montrose is for hosting the software. It does not include the cost for the software. Police Chief Perry explained that there is no charge from the City of Montrose for this service. Councilor Maurer made a motion to approve the agreement. Councilor Hilton seconded he motion and it passed on unanimous vote.

Councilor Hilton made a motion to approve the software contract for up to $53,000 as budgeted with Chief Perry authorized to sign the agreement. Councilor Maurer seconded the motion and it was approved on unanimous vote.

e. Sewer Tap Restrictions/Moratorium Information and Direction to Staff

Community Development Coordinator Chris Hawkins gave an overview of the current status of the Sewer Plant situation and upcoming development potential. He also spoke about a possible framework for restrictions on Sewer Taps. Existing permit holders would not be affected.

John Wood spoke about limiting additional engineering costs to customers by offering JVA's service to engineer since they are already familiar with the system.

Josh Smith suggested using a fixture count to determine fees.

David Swensen suggested using a bedroom count to determine fees.

Council directed staff to prepare a draft ordinance on this topic with a restriction of 35 new taps with provisions to re-evaluate as this progresses.

Citizens gave input to Council and Mr. Hawkins and asked additional questions of Ms. Miller from JVA.

f. Juvenile Diversion Agreement

Administrator Sickles recommended approval of splitting costs between budget years and with a donation. Councilor Glanc made amotion to approve the IGA with $7,150 coming out of the 2019 budget and an $850 contribution from the 2018 budget. Councilor Hilton seconded the motion.

Polce Chief Perry and John Wood spoke highly of this program. Council discussed the lateness of the request from Juvenile Diversion.

The motion passed on unanimous vote.

g. Request by Imogene Holdings, LLC for a Sketch PUD to permit a height variance for a rooftop deck safety railing for an outdoor bar and event space; located at 740 Main Street, Lot 13, Block 9, City of Ouray

Mr. Hawkins stated that if the building was 3 feet lower, a PUD for the safety railing would not be required. He stated that a determination must be made as to whether this will impact the historic classification of the building. He also stated that an affordable housing apartment would be part of the PUD. Stuart Gillespie, building owner, (via phone) stated that a rooftop bar is the only way he can afford an historic rehabilitation of the building. He noted that state and federal historic authorities have approved the railing and extended parapet.

Council discussed noise impact with Mr. Hawkins and Chief Perry. Mr. Gillespie stated that he plans on having non-amplified music which would end at 8:30pm, possibly expanding to 10pm at a later time.

John Wood spoke in favor of the PUD.

Jeff Skoloda, Planning Commission Chair, spoke about his concerns of a trend of height variances.

Councilor Maurer made a motion to approve the Sketch PUD with the recommendations outlined in the packet and a full definition of the Public Benefit of the project. Councilor Glanc seconded the motion. The Council further discussed the project. The motion passed on a vote of 3 to 1 with Councilor Hilton voting “No.”

h. Appointment of a new Ouray Planning Commission member to the Community Plan Update Steering Committee

Councilor Hilton made a motion to appoint Planning Commission Chair Jeff Skoloda to the Community Plan Steering Committee. Councilor Glanc seconded the motion and it was approved on unanimous vote.

13. RESOLUTIONS, ORDINANCES, IGAS, OR OTHER OFFICIAL LOCAL GOVERNMENT APPROVALS

a. Ordinance 11 - 2018, State Liquor License Changes, 2nd Reading

Councilor Glanc made a motion to approve the Ordinance. Councilor Hilton seconded the motion and it passed on unanimous vote.

b. Resolution 26 - 2018 – 4th Quarter Budget Supplement

Administrator Sickles gave an overview of the resolution which increases the expenditures for the Refuse/Recycle Fund. Council discussed the resolution.

Councilor Glanc made a motion to approve Resolution 26. Councilor Hilton seconded the motion and the Council further discussed it with staff and citizens. The motion passed on unanimous vote.

14. CITY ADMINISTRATOR

Dates of Importance

City Administrator Sickles noted City Hall closure dates for the upcoming holidays: December 24-25, 2018 and January 1, 2019. She also stated that there will be a basketball game on February 16, 2019 between Ouray staff and Ridgway staff. Ms. Sickles announced that Montrose dispatch services will not be billing the final $11,000 that was expected. She stated that there is a need for radios for the Police Department and the Fire Department that the money could be used for.

15. DISCUSSION

City Attorney Request for Qualifications (RFQ) Advertisement/Timeline

The Council agreed that the RFQ was complete and ready for publication.

John Wood spoke about his concerns regarding the Hot Springs Pool revenues' ability to cover its debt service. Administrator Sickles state that the City is looking at options in that area. He and the Council requested information on this issue.

16. ADJOURNMENT

At 9:15pm, Councilor Hilton made a motion to adjourn the meeting. Councilor Glanc seconded the motion and it was approved on unanimous vote.

_____

Pamela J. Larson, Mayor Date

ATTEST:

_____

Melissa M. Drake, City Clerk

From: dawn glanc
To: Pam Larson; Katie Sickles
Subject: January 2 IPAT meeting summary
Date: Wednesday, January 2, 2019 9:25:06 PM

January 2 IPAT meeting

Dan Chehayl showed the Committee the data that the ice park ambassadors have collected. The ambassadors are counting the Climbers, and helping to enforce the rules. Any interaction, beyond counting, that the ambassador has is documented each day.

Administrator Sickles spoke to the committee about water. The park was asked to shut off water a few nights over the holidays because the water tanks were too low. Katie informed everyone that public works is asking the ice farmers to have a more even use of water each night and to notify if the park needs a large water volume. Public works and the Ice Farmers will work closely this season to monitor the available water. This conversation lead to the discussion for another water source. The urgency of the project was made clear.

Kat presented the Ouray Tourism Office winter study. The study looked at who the winter visitors are in Ouray, why they come to town, what they do in Ouray, and why they come back. Please see Kat Papenbrock for the complete details.

The committee will form a small group to come up with what questions the Ice Park Winter survey should include. This survey will look at who uses the park, and the habits of the Climbers in the park. The goal is to understand how the park is used throughout the season and the capacity of the park. The survey results will be used to help make future management decisions.

Sincerely
Dawn

December 2018 Report
January 7, 2018

Repeat of Big Goals: The retreat provided a good kick start to developing one year goals. To improve the odds that goals are achieved, it is important to keep them visible and talk about them regularly. Don't let Quadrants 3 (urgent but not important) or 4 (not urgent and not important) get in the way of working on these big goals.

1. A completed wastewater master plan, which designs a functioning & compliant wastewater treatment plant.
2. A completed plan to install water meters.
3. A full organizational review and restructure.
4. Complete major improvements at Box Canon Falls Park.

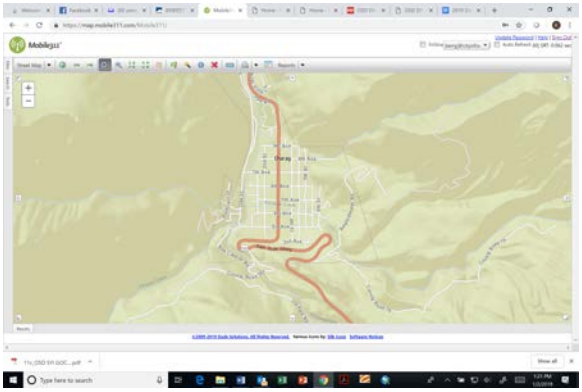
Turnover and Transition: Employees have left City employment and recruitment to fill these vacant spots has stepped up and to date been successful. Hot Springs Pool management is my focus. The Public Works crew is doing exceptionally well filling in the gaps within the pool filtration building and working long nightly hours to remove snow with less staff.

Wastewater Treatment Discharge Permit Renewal: A lengthy discharge permit application document was compiled with assistance from Joe Coleman JVA Engineers and myself. The renewal is due 180 days prior to the expiration of the June 30, 2019 discharge permit. The packet was mailed December 31, 2018.

January 15, 2018 Compliance Action Plan and Wastewater Treatment Compliance: The City has completed the required action items included in the Plan submitted a year ago. I attached the accumulation of work with identified items.

Hot Springs Pool Total Residual Chlorine TRC: Regarding a compliance schedule, another document was compiled by JVA and reviewed by staff. The City was required to submit written documentation to certify that a facility evaluation plan identified strategies to comply with total residual chlorine. This document is also in the mail.

Mobile 311 Dude Solutions: Work Order System, Employees had a training session, log in access and implementation has begun.



Deck Heating at the Pool: The gas meter needs to be moved by Black Hills Energy prior to construction. The snow and cold temperatures have delayed construction.

Water Efficiency Plan: Wright Water has drafted an update to the City of Ouray Water Efficiency Plan. The update includes water meters based on the Ordinance 9, series 2018. With the 2014 goals being met the next water efficiency goal of *Better Water Use Collection and Monitoring*.

Employee Christmas Breakfast: Jen Miller coordinated a wonderful breakfast for about 20 employees on the 19th of December.

JVA, Incorporated
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Glenwood Springs,
CO 81601
970.404.3100
info@jvajva.com

www.jvajva.com

December 28, 2018

Ms. Aly Ulibarri, Enforcement Specialist
CDPHE Water Quality Control Division - Clean Water Enforcement Unit
4300 Cherry Creek Drive South
Denver, CO 80246

RE: Progress Report Number 3 for the City of Ouray WWTP Compliance Action Plan
JVA Job No. 2444.3c

Dear Aly:

This letter serves as a progress report to update the Clean Water Enforcement Unit on the status of the City of Ouray (City) Wastewater Treatment Plant (WWTP) Compliance Action Plan (CAP/Plan). The City has completed the required action items included in the Plan as submitted on January 15, 2018.

There were five (5) key compliance items that were identified as part of the Plan. These included: NetDMR Compliance, Ouray Hot Springs Pool and Industrial Pretreatment, Source Identification Compliance Schedule for Metals, Effluent e. coli Compliance/Disinfection Action Plan, and a Wastewater Treatment Master Plan. The source identification compliance schedule for metals was resolved in the progress memo submitted dated April 30, 2018 and is not included in this progress report. The NetDMR Compliance and Hot Spring Pool and Industrial Pretreatment action items were resolved in the progress memo dated August 31, 2018 and are not included in this. A summary of the completion of the remaining two action items are included in the following sections.

Effluent E. Coli and Disinfection Strategy

The CDPHE Engineering Division approved the in-kind replacement for the chlorine disinfection and sodium thiosulfate dechlorination system improvements on October 30, 2018. The approved replacement was installed in December 2018 and is now operational. Photographs of the installation are provided below. The chemical modification forms documenting the use of sodium hypochlorite and sodium thiosulfate were submitted to the Division as requested on December 13, 2018.

Figure 1. Disinfection Building

Figure 2. Sodium Hypochlorite Feed Tank

Figure 3. Spill Containment

Figure 4. Chemical Metering Pump

WASTEWATER TREATMENT MASTER PLAN

The Wastewater Treatment Master Plan was completed on December 28, 2018. The City will begin preliminary design and solicitation of funding for a new wastewater treatment plant in 2019. Additional recommendations included in the master plan were as follows,

- Collection system evaluation and inflow and infiltration study
- Limiting organic loading to the wastewater treatment plant until a new treatment plant is online
- Rate study
- System wide potable water meters
- Developing an industrial pretreatment program

SUMMARY

An overview of the Compliance Action Plan, including start and completion dates for each step, and status of completion is provided in the table below. The overview of the Plan schedule also identifies dates for submitting progress reports to the CDPHE. As noted in the table below, all proposed action steps from the January 2018 Plan have been completed.

Description	Start Date	Completion Date	Completed (Y/N)
Submit Narrative Conditions Report Form to CDPHE for cadmium, iron, and copper source identification compliance	December 2017	December 2017	Yes
Process to submit monthly DMRs through NetDMR online program	January 2018	December 2018	Yes
Install sodium hypochlorite chemical metering pump for disinfection	December 2017	December 2017	Yes
Disinfection Strategy Evaluation and Implementation	December 2017	December 2018	Yes
Wastewater Master Plan	May 2018	December 2018	Yes
Progress Report to CDPHE	--	April 30, 2018	Yes
Progress Report to CDPHE	--	August 31, 2018	Yes
Progress Report to CDPHE	--	December 31, 2018	Yes

All items required as part of the Plan have been completed by the City of Ouray as scheduled. As there are no further items to address this requirement is considered completed. Please let us know if you require any additional information to complete this update.

Sincerely,
JVA, INCORPORATED

By: 

Leanne Miller, P.E.
Project Manager

CC: Katie Sickles, City of Ouray
Joe Coleman, City of Ouray

December 2018 PD Council Report

- December seemed fairly busy for the police department with a response to a variety of natures of calls. The following are a few of the higher priority natures investigated:
  - Accidents
  - Speeding issues
  - Parking problems
  - Driving under restraint
  - Trespassing
  - Suspicious
  - Sexual Assault
- Officers finished out the year with a response to over 4000 calls for service, which includes both self-initiated calls and dispatched calls. As a key element of our community policing efforts, self-initiated proactive calls are typically higher than dispatched calls for service. We ended the year in higher calls for service than previous years.
- Throughout the month of December, Officers received training in Arrest Control, Firearms, Drivers training, and Pursuit Driving. Each officer finished out the year with an excellent amount of training in numerous different disciplines, fulfilling all State requirements. Ouray PD emphasizes training, which not only builds skill sets but also decreases complacency.
- Officers worked one event in December, the Yule Parade. A permit was granted by CDOT to the event organizer for Main Street to be closed during the parade. Officers handled the traffic control and noted no issues presented.
- Chief Perry and Administrator Sickles met with the Multi-Agency Coordination group at our quarterly meeting. Emergency management response plans were reviewed for Ridgway and accepted by the group. During the meeting we discussed some learned lessons from the Active Shooter scenario from November, and then reviewed training opportunities in the New Year. Chief Perry and Emergency Manager Boyd will be updating the Ouray Emergency Operations Plan and will present it to Administrator Sickles and Council in the near future.
- Chief Perry attended the CIRSA high liability law enforcement training in Alamosa. This training emphasized Search and Seizure laws, policies & procedures, and arrest processes. Of particular importance was a training section on handling persons with mental health challenges.
- Ouray PD received error-free certificates again for 2018 National Incident Reporting System (NIBRS) submissions. Ouray PD continues to regularly report to CBI our NIBRS stats, which assists with national crime data statistics.
- Ouray PD was selected by the Denver Broncos to be a recipient of two active shooter kits that were donated to the SHIELD616 nonprofit organization out of Colorado Springs. The purpose of this organization is to assist with safety measures for officers as they respond to active shooter situations. Officers Berry and Suppeland were the two officers selected by Chief Perry to respond to Denver to attend the ceremony which was conducted by Von Miller. The kits include ballistic Vests, Ballistic Helmets, Wound Trauma kits, and specialized rifle protective plates. Founder and President of SHIELD616 stated, “It takes the unification of an entire

community to not only better protect our first responders with physical armor, but to break down barriers between first responders and the citizens they serve. It's priceless to see complete strangers invest in the safety of first responders, changing their lives and the lives of their families. We are humbled and proud to see that Von Miller, his teammates and the Broncos are utilizing their God-given leadership gifts and influence to not only better protect our protectors but to also help build positive community relations."

Public Works December Update

Water

- Water Usage Numbers for December
  - Influent (Water from spring) – 21.9 Million Gallons
  - Effluent (Water to town) – 16.8 Million Gallons
  - Ice Park – 3.1 Million Gallons
  - Mineral Farms – 212,900 Gallons
- Continue to closely monitor water usage by the Ice Park and work with them every night in order to keep water tanks at a sustainable level. Total usage this year is 4.5 million gallons.
- Continued effort on building a water distribution system map. Public works will have a hand drawn map for Pangea by the second week in January of the water distribution system.
- Water leak on residential service line. Lots of investigation and digging involved, Public Works was able to find the curb stop and shut the water off for contractor to make the repair.
- Responded to a call out at Rivers Edge Motel for a water leak. Was able to find a shut off inside the building in order to isolate the leak.
- Responded to a call out at Wright Opera House for a water leak. All breakers were off and there was no heat. We were able to find a shut off in the building in order to isolate the leak.

Sewer

- Continued monitoring sludge levels and dissolved oxygen levels in Sewer Lagoons. Looked at a sample under a microscope and noticed most 'bugs' are old.
- Completed compliance action for moving the chlorination point at the WWTP. This involved a great deal of work from staff that included setting a new shed, coring concrete and running new plumbing, installing flow paced pumps and excavation over 700 feet of trench to run power and 4-20 signal to the pumps.
- Completed influent sampling plan of BOD, TDS and TSS.

Streets

- Cleaned parking spaces on HWY 550 three times in December. Total number of dump trucks of snow hauled from parking spaces - 226
- Continue to plow City Streets and alleys during snow events. Crews have hauled a total of 92 dump trucks of snow cleaning up piles. Crews have used 80 tons of sand on streets this year.

City Resources

- Continued geothermal monitoring.
- Pool Discharge – continued interference monitoring for total residual chlorine.

- MWAT Spread sheet for upstream conductivity probe. Downloaded data and added to the spreadsheet for DMR report.
- Installed lid on FRP tank inside filtration building, this has noticeably stopped the humidity issues inside the building.
- Found leak at the overlook pool and had the pool company come out and repair it. The leak was in the same place as the last repair.
- Put up all the proper SDS sheets, valve diagrams and valve information in the filtration building.
- Heating system intake was found rusted shut. Repaired intake, replaced filters, changed the belt and greased motor.
- Shallow pump (15hp) failed on New Year's Eve, crews were able to replace the pump with a spare before the pool opened for the day.
- Tighten all valves in the filtration building, they have all become loose.
- Car charging station has been taken down. Looking to see if anybody can repair it, this model has been discontinued and is difficult to find anything.
- Installed lights in the office of the filtration building. Also installed a work bench so the crews has a place to work on pumps and other equipment.
- Repaired 18 lockers.

City Resources Department

January 7, 2019

Lee's Ski Hill opened December 15. The ski hill is popular this season with more than 40 people using the tow on many days. All three operator positions are currently filled with qualified personnel. The Colorado Passenger Tramway Safety Board approved the City's request for a variance to allow operation of the rope tow with only one operator positioned at the top of the tow rather than with one positioned at the bottom loading area and one at the top area near the motor controls.

In September an application was submitted to GOCO and the Colorado Youth Corps Association for grant funding for a youth crew to work at the Box Canon Falls for three weeks next summer. GOCO reposts this was the most competitive grant cycle in the history of the program. Only one week of the youth crew was funded by GOCO. If additional weeks are desired these will need to be funded by the City. Staff from the Southwest Conservation Corps are currently out of the office. When they return in January I will meet with them to develop a strategy for accomplishing the desired work at the Box Canon Falls.

A Request for Proposals has been developed and will be published in January for contractors interested in bidding on repair work on the steel stairs at the Box Canon Falls. Funding for this work, and the trail work to be performed by the youth crew, will come from Box Canon admission fees generated in the Parks Fund.

The Hot Springs Pool Assistant Manager submitted his resignation with his last day of employment being January 6, 2019. A meeting is scheduled with Pool staff January 3, 2019 to discuss the changes that have been occurring at the Hot Springs Pool in the past two months, to explain the operation during the interim period while a new manager and assistant manager are being recruited, and to listen to concerns and needs of the Hot Springs Pool staff.

An Interim Pool Manager has been hired to provide an onsite presence until the Manager and Assistant Manager positions are filled. Lydia Bright has been brought on as the Interim Manager. Lydia was the Pool Manager for the municipal pool in Florence, Colorado. She is currently living in Grand Junction and has found temporary housing in Ouray. Katie, Public Works staff, several Hot Springs Pool employees, myself, and other City staff have met with Lydia. We will be meeting regularly with pool employees to assure that operations continue as efficiently as possible. A management team representing multiple City departments has been meeting every Wednesday to oversee operation of the Hot Springs Pool.

The Hot Springs Pool Manager position has been posted locally and regionally in print and online. Advertisements will run until mid-January.

Ski Magazine is doing an article on Colorado Ski Road Trips. They want to feature the Ouray Hot Springs in a side-bar to the article. The magazine contacted me for photos. The winter photo library of the new pool is limited. The day they called it was snowing so I went to the pool where a small group of locals were willing to pose while submerged in hot steamy water on a snowy day.

Stryker Construction and Keenan's Plumbing have held pre-construction meetings for the deck heat system project. The project will break ground immediately after New Year's with completion planned for early in March.

The electric vehicle charging station located at the Hot Springs Pool is not currently operating reliably. This charging station was one of the early models on the market and replacement parts are not readily available. Messages have been posted on social media to inform drivers that the charging station is inoperable.

A food health safety inspector from the Colorado Department of Public Health and Environment (CDPHE) inspected the commercial kitchen in the Community Center on December 12. No violations were cited and the kitchen's retail food license has been renewed. There are new regulations from the State requiring that all licensed food establishments have a Certified Food Protection Manager on staff. Since this new requirement will affect many local businesses there are efforts being made to have a certification class and test in Ouray. It is unclear if this requirement will apply to the Ouray Community Center kitchen since City staff do not prepare food in the kitchen. City Resources staff, along with several Ouray food service owners and employees, participated in Safe Food Handler training provided by CDPHE in December.

The elevator at the Community Center is serviced quarterly by Otis Elevator. Every year a 'third party inspection' is required. Every five years an even more thorough inspection is required to assure safe maintenance and operation of the elevator equipment. This is the fifth year. The thorough inspection is scheduled for the third week of January. The inspector comes from the Denver area. Inspections are coordinated with other facilities in Ouray and in the region to reduce travel and per diem expenses.

A meeting is scheduled with Ice Park staff about use of the Community Center during the Ice Climbing Festival. The intent of the meeting is to discuss procedures to minimize possible damage to the new floor and paint during the heavy use of the Ice Climbing Festival.

Earlier in December there were some issues with the heating system in the Massard Room. Adjustments have been made to the heating system that have made the room a little warmer.

Jennifer Miller
Event & Communications Coordinator
P: 970-318-6788 (Call or Text)

City of Ouray

P.O. Box 468 / 320 6th Ave.

Ouray, CO 81427

Outdoor Recreation Capital of Colorado

*Follow the City of Ouray on **Facebook** & **Twitter***

*Sign Up for the City of Ouray Monthly Email Newsletter **Here!***

City Communications:

- Posted council agenda's; Planning Commission agenda's; job postings; holiday closures; holiday trash schedule
- Updated website
- Attended City Council meetings
- Created Council update video with Mayor Larson
- Created and Published November newsletter

Police Department Communications

- Attended incident debrief
- Attended Multi Agency Coordination meeting
- Created new email signatures
- Created weekly Facebook poll
- Met w/ officers regarding misc. Facebook posts
- Created Facebook posts regarding road closures, winter driving, Christmas, New Years
- Created Naughty or Nice Video with Officer Berry, Suppeland and Wolfe
- Created Elf Video
- Created End of Year Video
- Attended 4th grade sledding party with Officer Suppeland and created video which was shown on a Denver news channel

Event Coordination

- Assisted with event set-up as needed
- Organized Employee Christmas Breakfast on Dec 19
- Events held in the Community Center included: Police Dept. training, City Council meetings, BOCC meeting, Wine Chocolate and Cheese Fest, PATT Pasta Bar Dinner, Weehawken Gingerbread House workshop, employee breakfast, misc. committee meetings, EMT classes, Community Plan meeting, Planning Commission
- Corresponded with misc. parties regarding use of the facility/parks
- Upcoming event Ouray Ice Fest

DR 8400 (Revised 08/01/18)
COLORADO DEPARTMENT OF REVENUE
LIQUOR ENFORCEMENT DIVISION
SUBMIT TO LOCAL LICENSING AUTHORITY

RETAIL LIQUOR OR 3.2 BEER LICENSE RENEWAL APPLICATION

Fees Due	
Renewal Fee	351.25
Storage Permit $100 x ____	
Optional Premise $100 x ____	
Related Resort $75 x ____	
Amount Due/Paid	

Make check payable to: **Colorado Department of Revenue**. The State may convert your check to a one-time electronic banking transaction. Your bank account may be debited as early as the same day received by the State. If converted, your check will not be returned. If your check is rejected due to insufficient or uncollected funds, the Department may collect the payment amount directly from your banking account electronically.

OURAY RV PARK AND CABINS/OURAY CAFE
PO BOX 1360
OURAY CO 81427

PLEASE VERIFY & UPDATE ALL INFORMATION BELOW

Licensee Name	DBA			
JTP INCORPORATED	OURAY RV PARK AND CABINS/OURAY CAFE			
Liquor License #	**License Type**	**Sales Tax License #**	**Expiration Date**	**Due Date**
03-08742	Beer & Wine (city)	30569103	02/13/2019	12/30/2018
Operating Manager	**Date of Birth**	**Home Address**		
Amber Perkins				
Manager Phone Number				
Street Address			**Phone Number**	
1700 NORTH MAIN STREET OURAY CO 81427			9703254523	
Mailing Address				
PO BOX 1360 OURAY CO 81427				

1. Do you have legal possession of the premises at the street address above? ☒ YES ☐ NO
   Is the premises owned or rented? ☒ Owned ☐ Rented* *If rented, expiration date of lease_____
2. Since the date of filing of the last application, has there been any change in financial interest (new notes, loans, owners, etc.) or organizational structure (addition or deletion of officers, directors, managing members or general partners)? If yes, explain in detail and attach a listing of all liquor businesses in which these new lenders, owners (other than licensed financial institutions), officers, directors, managing members, or general partners are materially interested. ☐ YES ☒ NO

   NOTE TO CORPORATION, LIMITED LIABILITY COMPANY AND PARTNERSHIP APPLICANTS: If you have added or deleted any officers, directors, managing members, general partners or persons with 10% or more interest in your business, you must complete and return immediately to your Local Licensing Authority, Form DR 8177: Corporation, Limited Liability Company or Partnership Report of Changes, along with all supporting documentation and fees.
3. Since the date of filing of the last application, has the applicant or any of its agents, owners, managers, partners or lenders (other than licensed financial institutions) been convicted of a crime? If yes, attach a detailed explanation. ☐ YES ☒ NO
4. Since the date of filing of the last application, has the applicant or any of its agents, owners, managers, partners or lenders (other than licensed financial institutions) been denied an alcohol beverage license, had an alcohol beverage license suspended or revoked, or had interest in any entity that had an alcohol beverage license denied, suspended or revoked? If yes, attach a detailed explanation. ☐ YES ☒ NO
5. Does the applicant or any of its agents, owners, managers, partners or lenders (other than licensed financial institutions) have a direct or indirect interest in any other Colorado liquor license, including loans to or from any licensee or interest in a loan to any licensee? If yes, attach a detailed explanation. ☐ YES ☒ NO

AFFIRMATION & CONSENT

I declare under penalty of perjury in the second degree that this application and all attachments are true, correct and complete to the best of my knowledge.

Type or Print Name of Applicant/Authorized Agent of Business	Title
Jason J Perkins	Owner/President JTP Inc.
Signature	**Date**
	12/24/2018

REPORT & APPROVAL OF CITY OR COUNTY LICENSING AUTHORITY

The foregoing application has been examined and the premises, business conducted and character of the applicant are satisfactory, and we do hereby report that such license, if granted, will comply with the provisions of Title 12, Articles 46 and 47, C.R.S. **THEREFORE THIS APPLICATION IS APPROVED.**

Local Licensing Authority For		Date
Signature	**Title**	**Attest**

DR 8400 (Revised 08/01/18)
COLORADO DEPARTMENT OF REVENUE
LIQUOR ENFORCEMENT DIVISION
SUBMIT TO LOCAL LICENSING AUTHORITY

RETAIL LIQUOR OR 3.2 BEER LICENSE RENEWAL APPLICATION

Fees Due	
Renewal Fee	500.00
Storage Permit $100 x ____	
Optional Premise $100 x ____	
Related Resort $75 x ____	
Amount Due/Paid	

Make check payable to: **Colorado Department of Revenue**. The State may convert your check to a one-time electronic banking transaction. Your bank account may be debited as early as the same day received by the State. If converted, your check will not be returned. If your check is rejected due to insufficient or uncollected funds, the Department may collect the payment amount directly from your banking account electronically.

BRICKHOUSE 737
PO BOX 806
OURAY CO 81427

PLEASE VERIFY & UPDATE ALL INFORMATION BELOW

RETURN TO CITY OR COUNTY LICENSING AUTHORITY BY DUE DATE

Licensee Name	DBA			
BRICKHOUSE 737 LLC	BRICKHOUSE 737			
Liquor License #	**License Type**	**Sales Tax License #**	**Expiration Date**	**Due Date**
03-06211	Hotel & Restaurant (city)	31414600	04/04/2019	02/18/2019
Operating Manager	**Date of Birth**	**Home Address**		
HANS VANDERPLOEG				
Manager Phone Number				
Street Address			**Phone Number**	
737 MAIN STREET OURAY CO 81427			9703250565	
Mailing Address				
PO BOX 806 OURAY CO 81427				

1. Do you have legal possession of the premises at the street address above? ☒ YES ☐ NO
   Is the premises owned or rented? ☒ Owned ☐ Rented* *If rented, expiration date of lease_____

3. Since the date of filing of the last application, has there been any change in financial interest (new notes, loans, owners, etc.) or organizational structure (addition or deletion of officers, directors, managing members or general partners)? If yes, explain in detail and attach a listing of all liquor businesses in which these new lenders, owners (other than licensed financial institutions), officers, directors, managing members, or general partners are materially interested. ☐ YES ☒ NO

   NOTE TO CORPORATION, LIMITED LIABILITY COMPANY AND PARTNERSHIP APPLICANTS: If you have added or deleted any officers, directors, managing members, general partners or persons with 10% or more interest in your business, you must complete and return immediately to your Local Licensing Authority, Form DR 8177: Corporation, Limited Liability Company or Partnership Report of Changes, along with all supporting documentation and fees.

3. Since the date of filing of the last application, has the applicant or any of its agents, owners, managers, partners or lenders (other than licensed financial institutions) been convicted of a crime? If yes, attach a detailed explanation. ☐ YES ☒ NO

4. Since the date of filing of the last application, has the applicant or any of its agents, owners, managers, partners or lenders (other than licensed financial institutions) been denied an alcohol beverage license, had an alcohol beverage license suspended or revoked, or had interest in any entity that had an alcohol beverage license denied, suspended or revoked? If yes, attach a detailed explanation. ☐ YES ☒ NO

5. Does the applicant or any of its agents, owners, managers, partners or lenders (other than licensed financial institutions) have a direct or indirect interest in any other Colorado liquor license, including loans to or from any licensee or interest in a loan to any licensee? If yes, attach a detailed explanation. ☐ YES ☒ NO

AFFIRMATION & CONSENT

I declare under penalty of perjury in the second degree that this application and all attachments are true, correct and complete to the best of my knowledge.

Type or Print Name of Applicant/Authorized Agent of Business	Title
HANS VANDERPLOEG	OWNER
Signature	**Date**
HansVanderploeg	12/21/18

REPORT & APPROVAL OF CITY OR COUNTY LICENSING AUTHORITY

The foregoing application has been examined and the premises, business conducted and character of the applicant are satisfactory, and we do hereby report that such license, if granted, will comply with the provisions of Title 12, Articles 46 and 47, C.R.S. **THEREFORE THIS APPLICATION IS APPROVED.**

Local Licensing Authority For		Date
Signature	**Title**	**Attest**

DR 8447 (11/03/2017)
COLORADO DEPARTMENT OF REVENUE
LIQUOR ENFORCEMENT DIVISION
303.205.2300

Bed and Breakfast Permit Application

2341 Bed and Breakfast Permit ☐ New ☒ Renewal $71.25

1. Name of Applicant KIDO ENTERPRISES, LLC		Liquor License Number 03-06270	
2. Trade Name of Establishment (DBA) OURAY INN			
3. Address 120 WEST 6TH AVENUE		Phone Number 9703254445	
City Ouray	County Ouray	State CO	ZIP Code 81427
4. Mailing Address (Number and Street) PO BOX 847	City Ouray	State CO	ZIP Code 81427

- Attach a copy of a deed or lease in the exact name of the applicant only, reflecting possession of the permitted area for at least the minimum duration of this permit (1 year from date of issuance).
- Attach a diagram of the premises which accurately reflects the area where alcohol beverages will be stored, served, possessed or consumed.

Pursuant to 12-47-410, C.R.S., Applicant hereby states that it qualifies for a Bed and Breakfast Permit, in order to serve complimentary alcohol beverages, and certifies to the State Licensing Authority:

✓ That it has no more than 20 sleeping rooms, and

✓ That it provides at least 1 meal per day at no charge other than for overnight lodging, and

✓ That it does not sell alcohol beverages by the drink or in sealed containers, and

✓ That it will not serve alcohol beverages for more than 4 hours in any one day, as follows:

Monday Hours	Tuesday Hours	Wednesday Hours	Thursday Hours	Friday Hours	Saturday Hours	Sunday Hours
From: 4 p m.	From: 4 p m.	From: 4 p m.	From: 4 p m.	From: 4 p m.	From: 4 p m.	From: 4 p m.
To: 8 p m.	To: 8 p m.	To: 8 p m.	To: 8 p m.	To: 8 p m.	To: 8 p m.	To: 8 p m.

Oath of Applicant

I declare under penalty of perjury in the second degree that I have read the foregoing application and all attachments thereto, and that all information therein is true, correct, and complete to the best of my knowledge.

Signature	Title	Date
Kim Dennis	Manager	12/17/18

Report and Approval of Local Licensing Authority (City/County)

The foregoing application has been examined and the premises, business conducted and character of the applicant is satisfactory, and we do report that such permit, if granted, will comply with the applicable provisions of Title 12, Articles 46 and 47, C.R.S., as amended.
THEREFORE, THIS APPLICATION IS APPROVED.

Local Licensing Authority (City or County)		Date filed With Local Authority
Signature	Title	Date

Report of State Licensing Authority

The foregoing has been examined and complies with the filing requirements of Title 12, Article 47, C.R.S., as amended.

Signature	Title	Date

DO NOT WRITE IN THIS SPACE - FOR DEPARTMENT OF REVENUE USE ONLY

Date License Issued	License Account Number	Period

2341-100 (999)	2102 750 (999)	TOTAL

DR 8439 (09/28/18)
COLORADO DEPARTMENT OF REVENUE
Liquor Enforcement Division
(303) 205-2300

Application for a Special Events Permit

Departmental Use Only

In order to qualify for a Special Events Permit, You **Must Be Nonprofit and One of the Following** **(See back for details.)**

- ☐ Social
- ☒ Athletic
- ☐ Fraternal
- ☐ Chartered Branch, Lodge Or Chapter
- ☐ Patriotic
- ☐ Of A National Organization Or Society
- ☐ Political
- ☐ Religious Institution
- ☐ Philanthropic Institution
- ☐ Political Candidate
- ☐ Municipality Owning Arts Facilities

LIAB **Type of Special Event Applicant is Applying for:**

- 2110 ☒ Malt, Vinous And Spirituous Liquor — $25.00 Per Day
- 2170 ☐ Fermented Malt Beverage (3.2 Beer) — $10.00 Per Day

DO NOT WRITE IN THIS SPACE
Liquor Permit Number

1. Name of Applicant Organization or Political Candidate: OURAY ICE PARK, INC
State Sales Tax Number (Required): 07-48101-0000

2. Mailing Address of Organization or Political Candidate (include street, city/town and ZIP):
PO BOX 1058
OURAY CO 81427

3. Address of Place to Have Special Event (include street, city/town and ZIP):
OURAY COMMUNITY CENTER
6TH AVE
OURAY CO 81427

Name	Date of Birth	Home Address (Street, City, State, ZIP)	Phone Number
4. Pres./Sec'y of Org. or Political Candidate: LORA SLAWITSCHKA			
5. Event Manager: DAN CHEHAYL			

6. Has Applicant Organization or Political Candidate been Issued a Special Event Permit this Calendar Year?
☐ NO ☒ YES HOW MANY DAYS? 3

7. Is premises now licensed under state liquor or beer code?
☒ NO ☐ YES TO WHOM?

8. Does the Applicant Have Possession or Written Permission for the Use of The Premises to be Licensed? ☒ Yes ☐ No

List Below the Exact Date(s) for Which Application is Being Made for Permit

Date	Hours From	To
JAN 24, 2019	5 P.m.	10 A.m.
JAN 25, 2019	5 P.m.	10 A.m.
JAN 26, 2019	5 P.m.	2:30 A.m.
	.m.	.m.
	.m.	.m.

Oath of Applicant

I declare under penalty of perjury in the second degree that I have read the foregoing application and all attachments thereto, and that all information therein is true, correct, and complete to the best of my knowledge.

Signature: Dan Chehayl | Title: EXECUTIVE DIRECTOR | Date: 12/12/18

Report and Approval of Local Licensing Authority (City or County)

The foregoing application has been examined and the premises, business conducted and character of the applicant is satisfactory, and we do report that such permit, if granted, will comply with the provisions of Title 44, Article 5, C.R.S., as amended.
THEREFORE, THIS APPLICATION IS APPROVED.

Local Licensing Authority (City or County) | ☐ City ☐ County | Telephone Number of City/County Clerk

Signature | Title | Date

DO NOT WRITE IN THIS SPACE - FOR DEPARTMENT OF REVENUE USE ONLY

Liability Information

License Account Number	Liability Date	State	Total
		-750 (999)	$

(Instructions on Reverse Side)

P.O. Box 468
320 Sixth Avenue
Ouray, Colorado 81427

970.325.7211
Fax 970.325.7212
www.cityofouray.com

HUCKSTERING APPLICATION AND PERMIT

APPLICATION

Name of Business: Ouray Meat & Cheese Market

Name of Applicant: Tony Schmidt

Primary Business Address: 736 Main St. OURAY CO 81427

Mailing Address: PO BOX 121, OURAY CO 81427

Telephone Number: 970-325-7322 Email Address: tony@ouraymarket.com

Event Name: Ouray ICE FEST

Description of Activity: Selling hot food for ice park visitors.

Date of Huckstering activity: 1-24-19 / 1-25-19 / 1-26-19 / 1-27-19

Location of Huckstering activity: Ouray ICE PARK

Adjoining Property Owner permission if applicable:

NA

Signature of Adjoining Property Owner

Is the Applicant a non-profit organization? Yes: _____ No: X

Proof of Sales Tax License Attached. Yes: X No: _____

Signature of Applicant

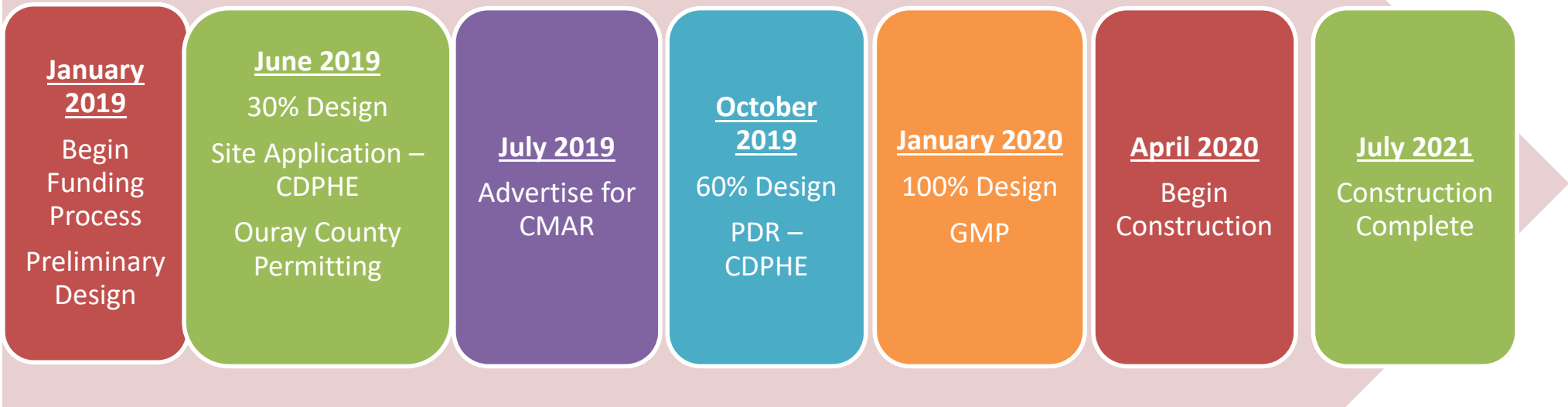
12-27-18
Date

FOR CITY USE ONLY:

Receipt of Complete Application: _____ _____
Signature of City Staff Date

X:\- Staff References, Resources\Fax, Forms, Labels, Stationary\Forms Tower\Huckstering Permit Application 2013.doc.docx

Project Delivery and Proposed Schedule



Project Delivery and Proposed Schedule

	Start Date	Completion Date
Prepare and submit SRF Prequalification Application	January 1, 2019	January 10, 2019
Prepare and submit Project Needs Assessment	January 10, 2019	March 31, 2019
Survey and Geotech Subcontractors Conduct Field Investigations for Design (weather depending)	March 10, 2019	May 1, 2019
Prepare and submit Site Application	February 1, 2019	April 30, 2019
Prepare 30% Design Drawings and Specifications	April 1, 2019	June 30, 2019
Advertise for CMAR RFP	July 1, 2019	NA
Award Pre-Construction Services for CMAR	August 15, 2019	NA
Prepare and submit Process Design Report	June 1, 2019	November 1, 2019
Prepare 60% Design Drawings, Specifications, and Cost Estimate	July 1, 2019	October 1, 2019
Prepare 95% Design Drawings, Specifications, and GMP	October 15, 2019	January 1, 2020
Award Construction Services CMAR Contract	January 1, 2020	NA
Submittal Review for Construction	January 1, 2020	April 1, 2020
Construction of new WWTP	April 2020	July 2021

State Revolving Fund Loan Program

COLORADO

AGENCY INVOLVEMENT

White shapes displayed in each box denote which agency is involved in this step.

- ▲ = Colorado Water Resources & Power Development Authority
- ● = Department of Local Affairs
- ■ = Water Quality Control Division

PHASES

- Planning phase
- Design phase
- Approval phase
- Finance phase
- Construction phase

- Eligibility Survey. ■
- Pre-Qualification Form. ▲ ● ■
- Pre-application meeting.
- Planning grant. ▲ ● ■
- Qualifies to apply for SRF loan program. ▲ ● ■
- Project Needs Assessment (PNA). ▲ ● ■
- Environmental determination.
- Technical Managerial Financial (TMF)*.
- Design/ Engineering Grant**. ▲ ● ■
- Public meeting. ■
- Environmental resolution.
- Preliminary Effluent Limits (PELs). ■
- Site Application (SA). ■
- Process Design Report (PDR). ■
- Plans & Specifications Self Certification Form***. ■
- (May submit with loan application).
- Project obtains Approvals: ● ■
  - ○ PNA.
  - ○ TMF*.
  - ○ Public meeting.
  - ○ Environmental resolution.
  - ○ Division accepts design (SA & PDR).
- All other funding secured.
- Loan application. ▲ ● ■
- Loan approval. ▲
- Plans and specifications approval. ■
- Loan execution. ▲
- Owner bids project. ■
- Construction begins. ■

*TMF required for drinking water projects only.

**Issued after review of PNA and amount TBD based on project scope. Private nonprofit entities are not eligible for Design/Engineering Grants.

***Borrowers deemed eligible to self certify or streamline design at the PNA stage must submit the appropriate form or letter with the Plans and Specifications to the Project Manager.

State Revolving Fund Loan Program

COLORADO

The State Revolving Fund (SRF) Loan Program is the best choice to finance the design and construction of public drinking water and wastewater infrastructure projects. These projects ensure the protection of public and environmental health by investing in Colorado's water infrastructure.

Cost of $1 million loan over 20 year term

	Interest Rate	Total Interest Paid	Total Cost of the Loan	Total Annual Payment
SRF loan*	0%	$0	$1,000,000	$50,000
	1%	$105,821	$1,105,821	$55,291
	2%	$218,224	$1,218.224	$60,911
Commercial loan	6%	$730,495	$1,730,495	$86,525

*Loan rates depend on the borrowers qualifications. The authority determines all interest rates on or before December 31 each year. Loan terms do not to exceed the project's design life and may extend up to 30 years.

Loan types

Direct loans are for projects up to $3.0 million.
Leveraged loans are for governmental entity projects greater than $3.0 million.

Additional assistance

May qualify for Planning Grant.
May qualify for Design/Engineering Grant*.

Eligible entities

Cities, towns, counties, water and sanitation districts, water districts, improvement districts, and private nonprofit public water systems.

Annual eligibility

- Owner submits Eligibility Survey to the division requesting inclusion in the annual Intended Use Plans (IUP). The Eligibility Survey is not an application for a loan.
- Projects must be on the current, approved annual IUP to be eligible for funding.
- Once the project is listed on the annual IUP, it is eligible to begin the pre-application process.

Pre-application requirements

- Owner must submit a Pre-Qualification Form.
- SRF agencies convene pre-application meeting with owner to review Pre-qualification information.
- If SRF agencies agree to accept loan application, the owner:
  - May qualify for Planning and Design/Engineer Grants*.
  - Must submit Project Needs Assessment to division for technical review.
  - Must conduct public meeting describing the project with proof of 30-day legal notice.
  - Must submit design to the division for review.
- All technical and environmental issues must be resolved by the owner and accepted by the division before the owner can apply for a loan.

MORE INFORMATION

For more information on the State Revolving Fund Loan Program, please visit www.colorado.gov/cdphe/wq-grants-and-loans

CONTACT

cdphe_grantsandloans@state.co.us | 303-692-3653

*Private nonprofit entities are not eligible for Design/Engineering Grants or for wastewater infrastructure projects.

WASTEWATER TREATMENT MASTER PLAN

FOR THE

CITY OF OURAY

DECEMBER 2018

WASTEWATER TREATMENT MASTER PLAN

FOR THE

CITY OF OURAY

JVA, Inc.
817 Colorado Avenue, Suite 301
Glenwood Springs, CO 81601
phone: 970-404-3100
fax: 303-444-1957

JVA Project No. 2444.2c

DECEMBER 2018

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APPENDIX C – OPINION OF PROBABLE COSTS

SECTION 1 – INTRODUCTION

The City of Ouray (City) owns and operates a municipal Wastewater Treatment Plant (WWTP, plant) and associated collection system. The City is located in southwestern Colorado in Ouray County, on the northern edge of the San Juan Mountains, approximately 30 miles south of the City of Montrose. It is situated within the box canyon of the Uncompaghre River, just upstream from the point where the rivers exits the mountain range. Because of its scenic location and access to premium outdoor recreation, the City is known as the Outdoor Recreation Capital of Colorado in the Switzerland of America. The approximate elevation is 7,800 feet although the bordering mountains rise to an elevation of over 13,000 feet.

The City provides wastewater treatment services to residential and commercial customers, as well as a public school. In 2017, the population of the City was 1,013. This population accounts for permanent residents and does not include the high seasonal fluctuation of tourism to the City, or part time residents.

The existing WWTP was constructed in 1993 and is located on the north end of the service area next to the Uncompaghre River. The WWTP consists of a headworks with a manual bar screen and influent flow measurement, three cell aerated lagoon, and effluent chlorination and dechlorination facilities. An abandoned six-cell constructed wetlands system is present onsite and was decommissioned several years ago. Treated effluent is discharged to the Uncompaghre River under Colorado Discharge Permit System (CDPS) Permit Number CO0043397.

There have been minimal improvements to the WWTP over the past ten years and the existing infrastructure continues to age and deteriorate as the City experiences growth and increased tourism. The City has received several compliance advisories citing non-compliance with the effluent discharge limits. To serve the existing and future Ouray community and maintain compliance with the current and future discharge permit significant improvements to the wastewater treatment plant are recommended.

PROJECT PURPOSE AND GOALS

The purpose of the Wastewater Treatment Master Plan (Master Plan/Plan) is to evaluate existing and future capacity and loadings, assess the performance and condition of the existing facility and associated equipment, provide near term recommendations, and investigate alternatives for facility improvements and upgrades. Due to the condition of the existing facility and projected growth within the service area, this evaluation has determined that expanding and upgrading the existing facility is not feasible. To meet future capacity and effluent limits, a new wastewater treatment facility constructed on the existing site is recommended.

A description of the sections of the Master Plan are summarized below.

Planning Conditions – Current and projected service area population and land use data were used to determine projected buildout wastewater flow conditions to the wastewater treatment facility. Projections include historical growth data, current building and development practices in the community, and future planning as identified by the City. As the City does not currently meter water use per connection, JVA used industry standards for flow and loading projections to apply to each use category. Based on this evaluation the anticipated buildout maximum month flow is 0.47 million gallons per day with an organic loading of 970 pounds per day.

Water Quality and Regulatory Compliance – This section includes an evaluation of the system's influent water quality and historic effluent water quality. Influent sampling was conducted through 2018 to better characterize the influent wastewater to the WWTP. Potential modifications to the existing discharge permit resulting from upcoming regulations such as Regulation 85 and 31 are also briefly discussed in this section. These impacts are anticipated to be minimal for the City.

Existing System Analysis – A system evaluation was prepared to examine current hydraulic limitations, determine treatment capacity of each treatment process, and evaluate the performance and condition of each treatment process.

Recommendations for Improvements – Based on the findings from the previous tasks, a new wastewater treatment plant is recommended for the City of Ouray. However, there were a number of additional near-term recommendations provided in Section 5 for the City to better understand the existing system and prepare for the design of a new facility.

Wastewater Treatment Plant – Section 6 provides an extended discussion on the proposed wastewater treatment plant. This includes an alternatives analysis and evaluation for proposed secondary treatment alternatives based on monetary and non-monetary criteria. The recommended alternative for the City's proposed facility is a moving bed-biofilm reactor (MBBR) with a disc filter for the new secondary treatment process. The preliminary timeline anticipates having a new facility in operation in summer of 2021, assuming the design and funding process begin in January 2019.

Funding – A preliminary summary of financial options for State and Federal grants and loans has been provided in 7. These options include low interest loans through the State Revolving Fund (SRF), grant funding through the Department of Local Affairs (DOLA) Energy and Mineral Impact Assistance Fund (EIAF), and funding options through the United States Department of Agriculture (USDA) Rural Development (RD) Community Facilities Direct Loan and Grant Program. The City may have other capital funding mechanisms including plant investment fees (connection fees) and user charges.

SECTION 2 – PLANNING CONDITIONS

PLANNING AND SERVICE AREA

The WWTP provides services for a population of approximately 1,013 full-time City of Ouray (City) residents (as of 2017). The service area encompasses approximately 560 acres. The City does not anticipate expansion outside of the existing service area boundaries, although there are three subdivisions outside of City limits and a portion of one subdivision that currently contribute flows to the WWTP, adding a population of roughly 20 people. Second-home owners are also not included in the full-time residential population and add an estimated 749 people when all homes are occupied. Including subdivisions outside the City, and second home owners the total serviceable population of the WWTP is 1,800 people.

A map of the service area is shown in Figure 1.

PLANNING PERIOD

The typical planning period for wastewater improvements is 20 years. The population growth rate and development rate has been relatively steady since 2010. However, growth from 2015 to 2040 has been estimated at 15 percent based on Ouray County projections, placing the serviceable population at approximately 2,145 people in 2040. These projections were provided by the Colorado Division of Local Government, State Demography Office, in November of 2016. This is discussed in more detail in the population projections section.

The City also experiences high tourist volume that increase the influent wastewater flow to the WWTP. Population projections alone do not fully capture the expected increase in wastewater generation. To account for this, discussions were held with the City's Community Development Director to determine the expected buildout for the City. It was determined that basing the expansion on full buildout of the City would be the best way to capture both an increase in the residential population, as well as increases in tourism and visitor services.

Full buildout occurs when all platted lots within the service area boundary have been developed and is expected to occur after the typical 20-year planning period. Improvement recommendations are based on projected wastewater flows and loading, current compliance challenges, future regulations, and aging wastewater infrastructure.

LAND USE AND ZONING

Zoning information for the County was provided by the Ouray County Land Use Code. The County is divided into eight zones, while the City is only located in one of these, known as the valley zone. The intent of the valley zone is "to protect and preserve visually significant and sensitive areas of the County, maintain its overall rural character, and/or encourage the continued use of the lands for agricultural productivity." Additionally, there are two overlay districts that encompass the City, and provide for additional growth opportunities. These two districts include

the Ouray Urban Growth Management Area (UGMA) and the Ouray Area of Influence (AOI). The City's 2013 zoning map is provided in Figure 2.

The current building distribution of the City is summarized in Table 1. This information was provided by the City's Community Development Coordinator.

Table 1. Current Land Use

Land Use	Units	Built
Residential		
Single-family	units	437
Accessory Dwelling Units	units	28
Duplex Units	units	4
Condos, Apts, Townhomes	units	235
Mobile Homes	units	51
Tourism		
RV Sites	units	141
Camp Sites/Cabins	units	36
Hotel, B&B, Lodging	units	563
Commercial		
Retail	ft^2	154,238
Restaurant/Bar/Brewery	ft^2	38,427
Office/Professional Service	ft^2	22,786
Light Industrial	ft^2	42,100
Fraternal Club	ft^2	16,402
Government	ft^2	115,571
Church	ft^2	38,489

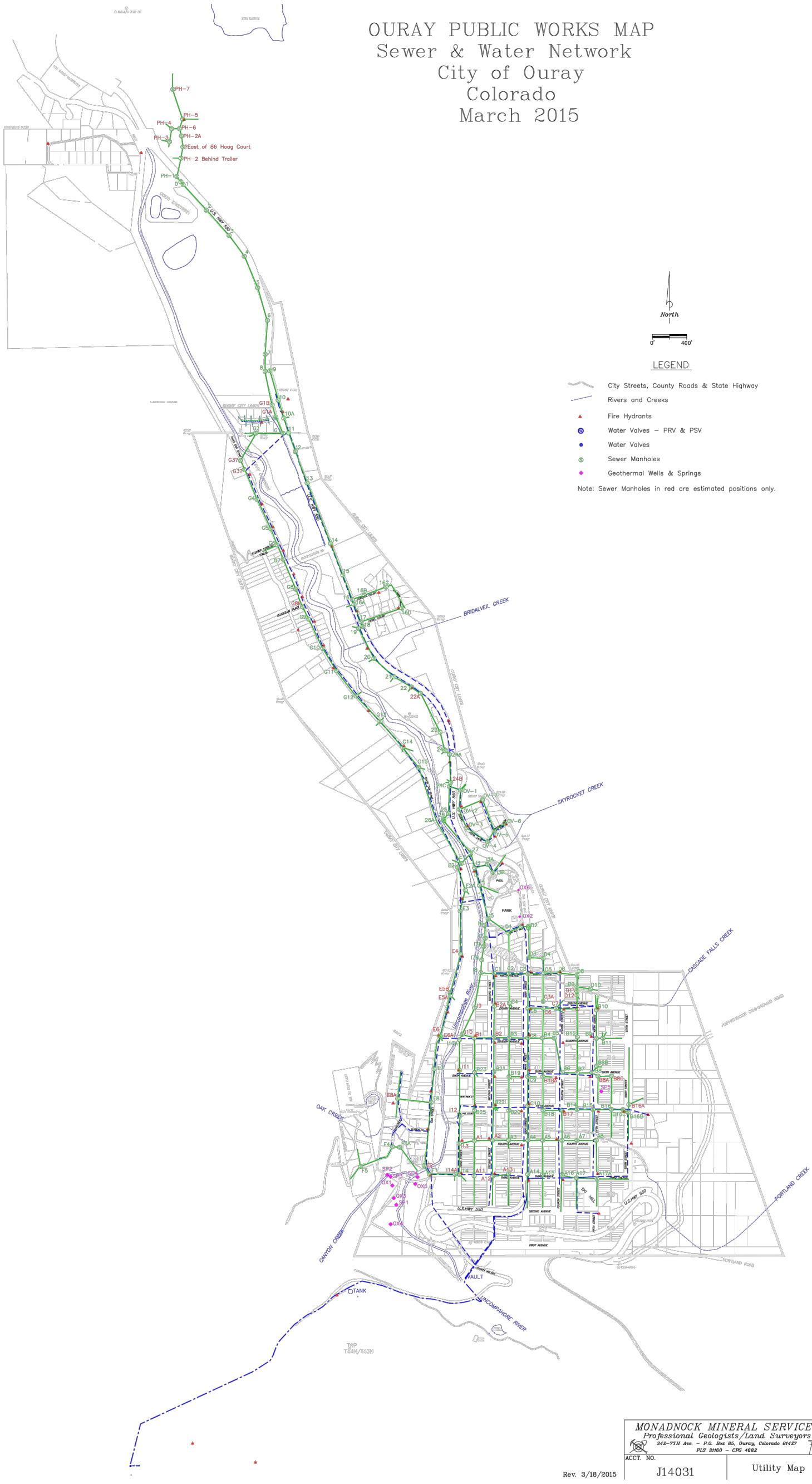
HISTORICAL TRENDS

The following sections discuss historical trends for population growth, influent wastewater flow and organic loading to the WWTP. The historical data is used as the basis for future projections.

POPULATION

Historical population estimates were obtained from the United States Census Bureau's Population Estimates Program (PEP) and are provided in Table 2. Census data is taken every 10 years, with the latest official census performed in 2010. The intermediate years are estimates from the PEP for the City of Ouray.

OURAY PUBLIC WORKS MAP
Sewer & Water Network
City of Ouray
Colorado
March 2015



North

0' 400'

LEGEND

- City Streets, County Roads & State Highway
- Rivers and Creeks
- Fire Hydrants
- Water Valves – PRV & PSV
- Water Valves
- Sewer Manholes
- Geothermal Wells & Springs

Note: Sewer Manholes in red are estimated positions only.

MONADNOCK MINERAL SERVICES
Professional Geologists/Land Surveyors
342-7TH Ave. – P.O. Box 85, Ouray, Colorado 81427
PLS 31160 – CPG 4682

Rev. 3/18/2015

ACCT. NO. J14031

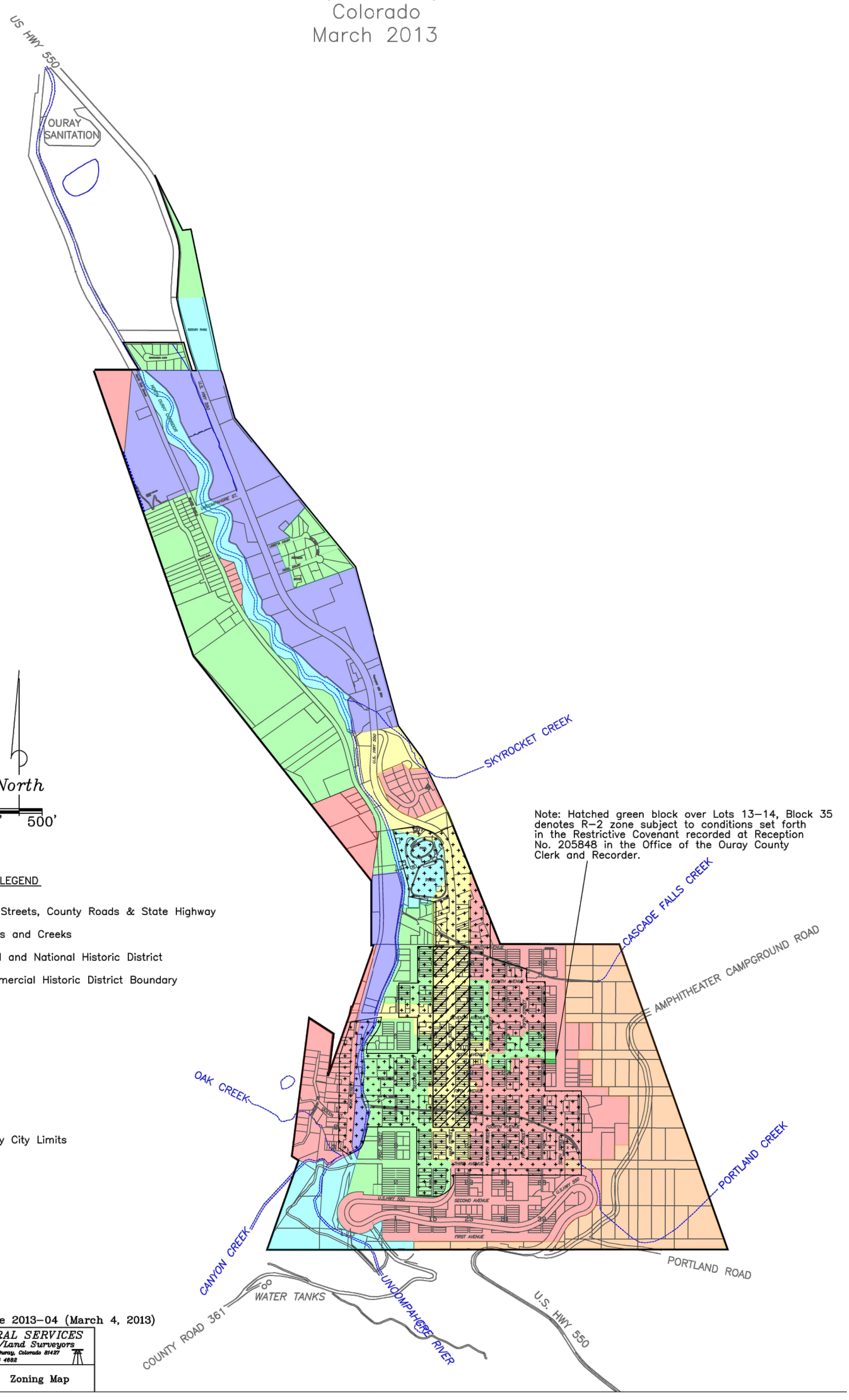
Utility Map

FIGURE 1 - SERVICE AREA
CITY OF OURAY
DECEMBER 2018

JVA, Inc.
817 Colorado Avenue, Suite 301
Glenwood Springs, CO 81601
970.404.3100
www.jvajva.com
Boulder • Fort Collins • Winter Park
Glenwood Springs • Denver

OURAY ZONING MAP

City of Ouray
Colorado
March 2013



Adopted by Ordinance 2013-04 (March 4, 2013)

MONADNOCK MINERAL SERVICES
Professional Geologists/Land Surveyors
342-7TH Ave. - P.O. Box 85, Ouray, Colorado 81427
PLS 31160 - CPG 4682

JOB NO.	
J12063	Zoning Map

FIGURE 2 - ZONING MAP
CITY OF OURAY
DECEMBER 2018

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Glenwood Springs, CO 81601
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Table 2. Historical Population Estimates

Year	U.S. Census Data and Estimates	
	Population Estimate [1]	Annual Growth Rate
1990	650	-
1991	670	3.1%
1992	674	0.6%
1993	716	6.2%
1994	754	5.3%
1995	795	5.4%
1996	808	1.6%
1997	801	-0.9%
1998	801	0.0%
1999	822	2.6%
2000	810	-1.5%
2001	806	-0.5%
2002	810	0.5%
2003	816	0.7%
2004	840	2.9%
2005	854	1.7%
2006	876	2.6%
2007	907	3.5%
2008	938	3.4%
2009	937	-0.1%
2010	1002	6.9%
2011	990	-1.2%
2012	1005	1.5%
2013	1009	0.4%
2014	995	-1.4%
2015	982	-1.3%
2016	1016	3.5%
2017	1013	-0.3%

Note:

[1] All information provided by the Census Bureau's Population Estimates Program (PEP)

Based on the Census data, the City has experienced relatively stagnant growth since 2010.

Figure 3 shows the historical population graphically.

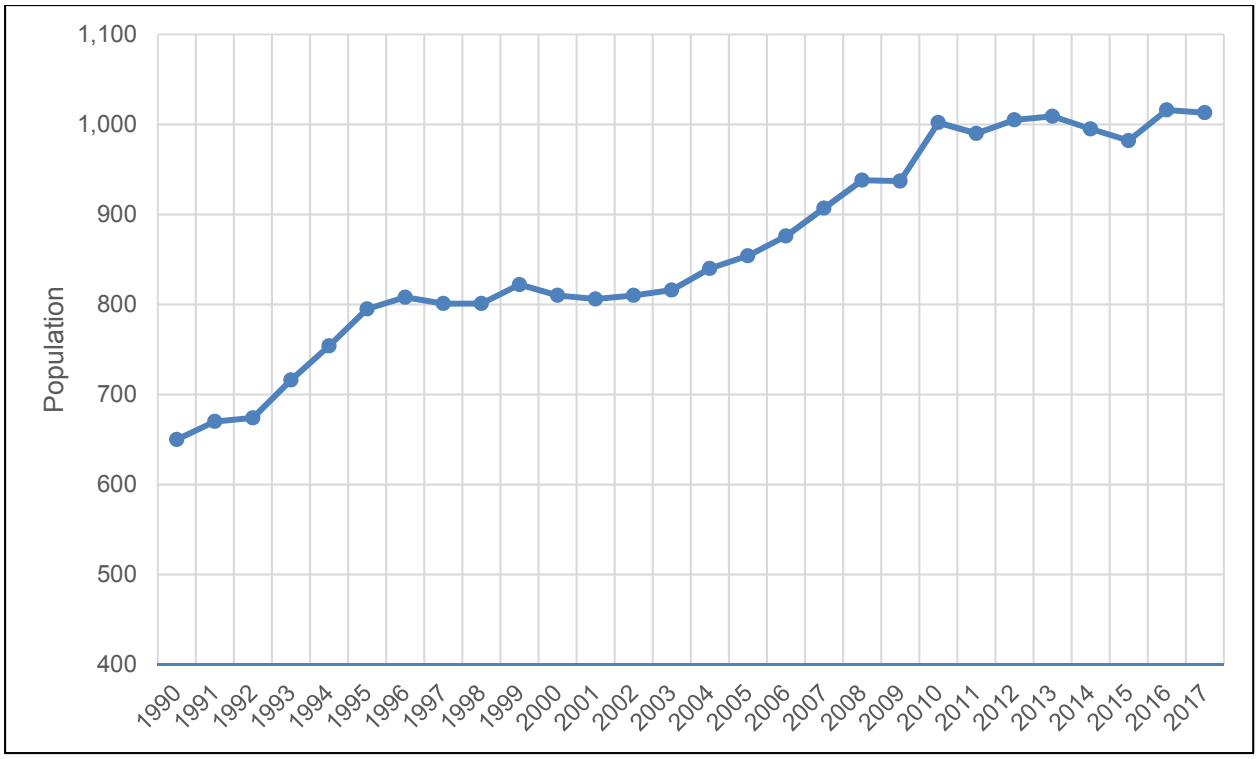

Figure 3. Historical Population (1990 to 2017)

Water Demand

The City's Water Treatment Plant (WTP) produces water for the City, the Hot Springs Pool, as well as several subdivisions. Monthly total flow data was used to estimate the daily flow from the WTP's water storage tanks from 2013 through 2016 and is summarized in Table 3. The water tank flow data was provided from Wright Water Engineers, while the WWTP influent data was compiled from the City's discharge monitoring reports.

Table 3. Water Storage Tank Discharge Compared to WWTP Influent

Month	2013		2014		2015		2016	
	Water Tank (MGD)	WWTP Influent (MGD)	Water Tank (MGD)	WWTP Influent (MGD)	Water Tank (MGD)	WWTP Influent (MGD)	Water Tank (MGD)	WWTP Influent (MGD)
Jan			0.56	0.16	0.60	0.24	0.69	0.24
Feb			0.55	0.20	0.61	0.21	0.71	0.22
Mar	0.51		0.53	0.20	0.68	0.23	0.68	0.19
Apr	0.54		0.63	0.23	0.71	0.20	0.69	0.23
May	0.61		0.69	0.24	0.69	0.23	0.72	0.25
Jun	1.09	0.23	1.19	0.32	0.99	0.34	1.10	0.26
Jul	0.90	0.25	1.11	0.32	1.02	0.35	1.13	0.24
Aug	0.70	0.25	0.97	0.32	1.03	0.30	0.94	0.21
Sep	0.59	0.23	0.88	0.28	0.91	0.27	0.89	0.20

Month	2013		2014		2015		2016	
	Water Tank (MGD)	WWTP Influent (MGD)	Water Tank (MGD)	WWTP Influent (MGD)	Water Tank (MGD)	WWTP Influent (MGD)	Water Tank (MGD)	WWTP Influent (MGD)
Oct	0.54	0.19	0.71	0.27	0.79	0.27	0.73	0.14
Nov	0.45	0.17	0.49	0.19	0.62	0.22	0.68	0.15
Dec	0.53	0.16	0.63	0.21	0.66	0.21	0.79	0.21

Table 3 indicates that a significant amount of the water leaving the WTP is lost before reaching the WWTP. Between 2013 and 2016, the WWTP received approximately 30 percent of the water distributed to the City's potable water distribution system. Typical systems usually see between 60 to 80 percent of potable water at the WWTP.

There are several possibilities to account for the difference. These include: irrigation, leaks in the distribution system, or meter calibration errors. Potable water used for irrigation percolates through the ground and is not recaptured in the collection system. Leaks in the distribution system mean that treated water is leaving the system before reaching customers. Individual water meters are not installed which makes tracking the potable water loss difficult. It is also possible that there are meter calibration errors at either the water storage tank or the WWTP, or possibly both, which could account for a portion of the "missing" water.

WASTEWATER

The following subsections discuss the wastewater hydraulic and organic loading, with an analysis of seasonal variations.

HYDRAULIC LOADING

Influent flow to the WWTP from 2013 to 2018 is summarized in Table 4. Due to the addition of the Hot Springs Pool backwash waste stream in May 2017, all data from May 2017 through August 2018 (when the backwash waste was disconnected from the municipal wastewater treatment plant) has been removed from the influent wastewater characteristics. The annual flow to the WWTP from 2013 to 2017 is presented in Table 4.

Table 4. Influent Wastewater Flow (Annual Basis)

Year	Average Daily Flow (ADF)	Maximum Month Average Daily Flow (MMADF)	Peak Day Flow (PDF)	Peak Day Peaking Factor
2013	0.211	0.250	0.250	1.0
2014	0.245	0.320	0.508	1.6
2015	0.256	0.353	0.576	1.6
2016	0.210	0.262	0.417	1.6
2017	0.183	0.206	0.417	2.0
Average	**0.221**	**0.278**	**0.434**	**1.567**

The WWTP's discharge permit regulates influent flow and organic loading, in addition to effluent quality. The purpose of monitoring influent flow and organic loading is to determine if the plant can meet the required effluent limits based on the design of the facility.

Table 5 presents the seasonal influent flow. The City's discharge permit is split into summer months (April through October) and winter months (November through March). All subsequent sections analyze flow and organic loading to the plant on both an annual and a seasonal basis unless data is collected quarterly.

Table 5. Influent Wastewater Flow (Seasonal Basis)

Year	ADF	MMADF	PDF	Peak Day Peaking Factor
Winter				
2013	0.165	0.170	0.170	1.0
2014	0.193	0.213	0.326	1.7
2015	0.221	0.235	0.360	1.6
2016	0.201	0.239	0.333	1.7
2017	0.183	0.206	0.417	2.3
Average	**0.192**	**0.213**	**0.321**	**1.658**
Rated Capacity = 0.25 MGD				
Average MMADF, 0.213 MGD = 85% of rated capacity				
Summer				
2013	0.230	0.250	1.09	1.1
2014	0.282	0.320	1.13	1.8
2015	0.281	0.353	1.26	2.1
2016	0.217	0.262	1.21	1.9
2017	0.184	0.184	1.00	1.5
Average	**0.239**	**0.274**	**1.138**	**1.673**
Rated Capacity = 0.363 MGD				
Average MMADF. 0.274 MGD = 75% of rated capacity				

ORGANIC LOADING

Influent organic loading to the WWTP over the last several years is summarized in Table 6. Organic loading is measured as the five-day biochemical oxygen demand (BOD_5) in milligrams per liter (mg/L).

Table 6. Organic Concentration and Loading (Annual Basis)

Year	Concentration		Loading	
	Average (mg/L)	Max Month Average (mg/L)	Average (lb/day)	Max Month Average (lb/day)
2013	90	138	161	265
2014	94	138	200	368
2015	125	190	269	559

2016	96	240	161	470
2017	67	114	99	143
Average	**94**	**164**	**178**	**361**

The average daily BOD_5 concentration from 2013 to 2018 is 94 mg/L, with a maximum month average of 164 mg/L. This is lower than typical municipal concentrations and may indicate issues with inflow and infiltration (I/I) in the collection system diluting the wastewater. The average daily loading is 178 pounds per day (lb/day), with a maximum month average of 361 lb/day. Table 7 presents the monthly influent organic concentration and loading to the WWTP on a seasonal basis.

Table 7. Organic Concentration and Loading (Seasonal Basis)

Month	Five-Day Biochemical Oxygen Demand (BOD_5)											
	Concentration (mg/L)						Loading (lb/day)					
Winter [1]	**2013**	**2014**	**2015**	**2016**	**2017**	**Average**	**2013**	**2014**	**2015**	**2016**	**2017**	**Average**
January		86	122	88	83	95		115	239	175	143	168
February		56	150	68	114	97		93	258	124	136	153
March		39	146	75	55	79		65	284	119	91	140
November	66	69	96	126		89	93	110	177	162		136
December	62	116	100	43		80	82	206	168	73		132
Average	64	73	123	80	84	85	88	118	225	131	123	137
Max Month Avg.	66	116	150	126	114	114	93	206	284	175	143	180
Summer [2]	**2013**	**2014**	**2015**	**2016**	**2017**	**Average**	**2013**	**2014**	**2015**	**2016**	**2017**	**Average**
April		86	129	52	16	71		165	210	98	25	125
May		90	139	19		83		180	270	38		163
June	138	107	121	23		97	265	285	344	50		236
July	110	118	190	240		165	229	315	559	470		393
August	71	138	130	189		132	148	368	321	325		291
September	71	114	117	57		90	136	266	265	94		190
October	112	104	60	168		111	177	230	138	200		186
Average	100	108	127	107	16	92	191	258	301	182	25	192
Max Month Avg.	138	138	190	240	16	144	265	368	559	470	25	337

Note:
[1] Summer Rated Capacity: Flow - 0.363 MGD, BOD_5 Loading 400 lb/day
[2] Winter Rated Capacity: Flow - 0.25 MGD, BOD_5 Loading 275 lb/day

In the winter, the average daily BOD_5 concentration from 2013 to 2017 is 85 mg/L, with a maximum month average of 114 mg/L. This is significantly lower than typical municipal concentrations, but I/I generally is less of a contributing dilution factor during the winter. The average daily loading is 137 lb/day, with a maximum month average of 180 lb/day.

In the summer, the average daily BOD_5 concentration from 2013 to 2017 is 92 mg/L, with a maximum month average of 144 mg/L. The average daily loading is 192 lb/day, with a maximum month average of 337 lb/day.

To compare the historic organic loading to the rated capacity of the WWTP, an average annual loading rate for each permitted season is presented in Table 8.

Table 8. Annual Average Influent Organic Loading (Seasonal Basis)

Year	Average Daily Loading (lbs/day)	Maximum Month Average Daily Loading (lbs/day)
Winter		
2013	88	93
2014	118	206
2015	225	284
2016	131	175
2017	123	143
Average	**137**	**180**
Rated Capacity = 275 lb/day		
Average MMADL, 180 lb/day = 66% of rated capacity		
Summer		
2013	191	265
2014	258	368
2015	301	559
2016	182	470
2017	25	25
Average	**192**	**337**
Rated Capacity = 400 lb/day		
Average MMADL, 337 lb/day = 84% of rated capacity		

PROJECTIONS

Projections for population growth and future development are provided in the following sections. The projected wastewater generation associated with this growth is also provided.

POPULATION

The City's serviceable residential population is made up of full-time residents, second-home owners, three subdivisions outside of City limits that are served by the WWTP. Projection data predicts that Ouray County will experience 15 percent growth in population from 2015 to 2040. These projections were provided by the Colorado Division of Local Government, State Demography office, in November of 2016. This equates to an annual growth rate (AGR) of 0.6 percent. This rate seems to correspond well with the historical AGR, as previously shown in Table

2. With the expected increase of 15 percent, the full-time residents and the three subdivisions should reach an expected population of 2,145 people in 2040.

However, the WWTP also provides services to commercial establishments and tourist services (i.e. hotels, campgrounds). The Demography Office predicted a tourism rate increase of 6 percent annually over the next five to ten years, with rate increases stagnating after that period. The effect of this increase is considered further in the next section.

Future Development

Since a portion of the serviceable population consists of second-home owners and tourists, a conservative estimate to project future growth was based on the buildout capacity of the City. As shown in Table 1, the current building distribution was provided by the Community Development Coordinator. The expected buildout capacity of the City is summarized in Table 9. This table was developed based on preliminary findings of the Community Development Master Plan on July 31, 2018. This Plan evaluated land use, zoning, water supply limitations, and determines the appropriate buildout projections and population density for the City.

Table 9. Buildout Projections

Land Use	Units	Built	Unbuilt	Total	Percent Built Out	Notes
Residential						
Single-family	units	437	136	573	76	Assumes only platted lots are developed.
Accessory Dwelling Units	units	28	115	143	20	Unbuilt ADUs based on 20% of single-family total
Duplex Units	units	4	0	4	100	
Condos, Apts, Townhomes	units	235	549	784	30	Unbuilt ADUS looking at infill development/redevelopment/new development
Mobile Homes	units	51	0	51	100	Assumes no additional mobile homes
Tourism						
RV Sites	units	141	27	168	84	133 with full hook ups
Camp Sites/Cabins	units	36	0	36	100	Water only with bath house
Hotel, B&B, Lodging	units	563	211	774	73	New hotel units via Twin Peaks, Hot Springs Inn, etc. (as of 7/31/18)
Commercial						
Retail	ft^2	154,238	92,333	246,571	63	Unbuilt is first floor of infill development sites in commercial areas
Restaurant/Bar/ Brewery	ft^2	38,427	38,141	76,568	50	Unbuilt derived by looking at percentage today of restaurant and bar space to retail area
Office/ Professional Service	ft^2	22,786	22,616	45,402	50	Unbuilt derived by looking at percentage today of office/professional service to retail area
Light Industrial	ft^2	42,100	30,000	72,100	58	
Fraternal Club	ft^2	16,402	0	16,402	100	Assumes no additional floor area for fraternal clubs

Government	ft²	115,571	0	115,571	100	Assumes no additional government floor area
Church	ft²	38,489	0	38,489	100	Assumes no additional churches

WASTEWATER

The following subsections discuss the projected wastewater hydraulic and organic loading. Seasonal variations were not considered, as any future expansion will entail revised discharge permit which does not include seasonal permit requirements.

Hydraulic Loading

The buildout projections, as shown in Table 9, were used to estimate the projected maximum wastewater flow at the buildout scenario. Table 10 shows the expected wastewater generation at full buildout capacity for the City; this assumes that there are no vacancies in any of the residential, tourist, or commercial establishments.

Table 10. Wastewater Flow Buildout Projection

Land Use	Use		Current (gpd)	Unbuilt (gpd)	Buildout (gpd)
Residential [1]					
Single-family	200	gal/day/unit	87,400	27,200	114,600
Accessory Dwelling Units	150	gal/day/unit	4,200	17,190	21,390
Duplex Units	150	gal/day/unit	600	0	600
Condos, Apts, Townhomes	150	gal/day/unit	35,250	82,350	117,600
Mobile Homes	120	gal/day/unit	6,120	0	6,120
		Subtotal	**133,570**	**126,740**	**260,310**
Tourism [2]					
RV Sites	120	gal/day/unit	16,920	3,240	20,160
Camp Sites/Cabins	120	gal/day/unit	4,320	0	4,320
Hotel, B&B, Lodging	120	gal/day/unit	67,560	25,320	92,880
		Subtotal	**88,800**	**28,560**	**117,360**
Commercial [2]					
Retail	0.11	gal/day/ft²	16,966	10,157	27,123
Restaurant/Bar/Brewery	0.84	gal/day/ft²	32,216	31,976	64,191
Office/Professional Service	0.04	gal/day/ft²	936	929	1,866
Light Industrial	0.18	gal/day/ft²	7,497	5,342	12,840
Fraternal Club	0.05	gal/day/ft²	899	0	899
Government	0.05	gal/day/ft²	6,333	0	6,333
Church	0.04	gal/day/ft²	1,582	0	1,582
		Subtotal	66,429	38,248	87,710
		Total	**288,799**	**193,548**	**465,380**

Note:

[1] Using historical residential use data from Siegrist 1976, Mayer 1999, Lowe 2009

[2] Using historical commercial use data from Corps of Engineers 1983, AWWA RF 2000, using 50th percentile values from summary tables

Organic Loading

Organic loading is a factor of influent organic concentration and flow. Future growth by default, predicts that influent flow will increase. The organic loading is also assumed to increase as collection system repairs occur and low flow fixtured are installed in new developments. It is expected that the City will retain similar percentages of residents, commercial establishments, and tourism services. Table 11 shows the concentration and loading projected at the plant at current conditions and at projected future conditions. Recent sampling efforts, discussed further in Section 3, were used for data that is not typically reported.

Table 11. Summary of Current and Projected Loading

Parameter	Unit	Current Influent		Future Influent Projections
		Average	*Max Month*	
Flow	MGD	0.211	0.274	0.47
BOD	mg/L	100	209	300
	lb/day	188	418	1,170
TSS	mg/L	87	200	200
TDS	mg/L	313	367	400
Ammonia Nitrogen	mg/L	24.4	28.8	30
Total Phosphorus	mg/L	3.9	5.5	7
Total Inorganic Nitrogen	mg/L	24.4	28.8	30
Total Kjeldahl Nitrogen	mg/L	31.3	41.3	45

Summary of Projections

The projected future design capacities for flow and organic loading to the WWTP were calculated based on the expected buildout capacity of the City. The design capacity for flow is projected to be approximately 0.47 MGD. The design capacity for organic loading is approximately 1,170 lbs/day. These projections should serve the City well into the future, as they are based on the expected buildout capacity of the City. In the WWTP's discharge permit, the City is required to initiate engineering and financial planning for expansion of the domestic wastewater treatment works whenever hydraulic and/or organic loading exceeds 80 percent of the treatment capacity. As seen in Table 5 and Table 8, both the winter hydraulic capacity and the summer organic capacity have exceeded this limit. Using this conservative approach for projections of both hydraulic and organic loading should allow the City at buildout to remain below this 80 percent limit.

SECTION 3 – WATER QUALITY AND REGULATORY REQUIREMENTS

This section presents 2018 influent wastewater sampling, as well as influent and effluent wastewater historical results. A discussion of current and future regulatory requirements is provided at the end of this section.

INFLUENT WASTEWATER QUALITY (2018 SAMPLING)

The City staff performed additional influent sampling during the summer of 2018 (August and September) to better characterize the influent concentrations in preparation for design of a new WWTP. These samples were taken in conjunction with the regular sampling required under the DMR. Increased influent sampling for BOD_5, $CBOD_5$, TDS, and TSS occurred between June and November 2018 for 12 total samples. An expanded sampling program was conducted in August and September of 2018 for the additional constituents as shown in Table 12. Detailed sampling results are provided in Appendix A.

Table 12. Influent Wastewater Sampling (Summer 2018)

Parameter	Unit	Average	Minimum	Maximum
BOD_5	mg/L	171	111	211
$CBOD_5$	mg/L	142	98	196
Total Alkalinity, as $CaCO_3$	mg/L	165	147	178
Total Dissolved Solids	mg/L	694	650	740
Total Suspended Solids	mg/L	126	70	294
Volatile Suspended Solids	%	100	99	100
Total Residual Chlorine	mg/L	0.16	0.1	0.22
Dissolved Oxygen	mg/L	0.1	0.1	0.1
Sulfide, as H_2S	mg/L	0.06	0.0	0.12
Ammonia Nitrogen	mg/L	24.4	21	28.8
Nitrate Nitrogen	mg/L	0.074	0.1	0.12
Nitrate/Nitrite/Nitrogen	mg/L	0.074	0.1	0.12
Nitrite Nitrogen	mg/L	0.03	0.0	0.03
Total Phosphorus	mg/L	3.9	2.9	5.5
Total Inorganic Nitrogen	mg/L	24.4	21.3	28.8
Total Kjeldahl Nitrogen	mg/L	31.3	24.1	41.3

The sampling provided insight on the nitrogen species and phosphorus, which are not typically tested as part of the City's required influent sampling. The BOD_5 and $CBOD_5$ values match fairly well with historical data, while the total dissolved solids (TDS) was significantly different from historical data.

Discharge monitoring reports (DMRs) were compiled from the Environmental Protection Agency (EPA) ECHO database and used to summarize available water quality data. Due to the addition of the Hot Springs Pool backwash waste stream in May 2017, all data from May 2017 through August 2018 (when the backwash waste was disconnected from the municipal wastewater treatment plant) has been removed from the influent wastewater summary.

Biochemical Oxygen Demand

BOD_5 is a measure of the oxygen consumed by microorganisms as they oxidize organic matter. The sources of BOD_5 are typically readily biodegradable organic material from both carbon and nitrogen sources. BOD_5 average and maximum month concentrations have stayed relatively steady over the last several years, as shown in Figure 4, although the maximum month average demonstrated an increase in 2016. A detailed summary of historical concentration and loading was shown in Table 6 in the previous section.

The monthly average concentrations tend to fluctuate throughout the year, with peak concentrations typically occurring in the summer months.

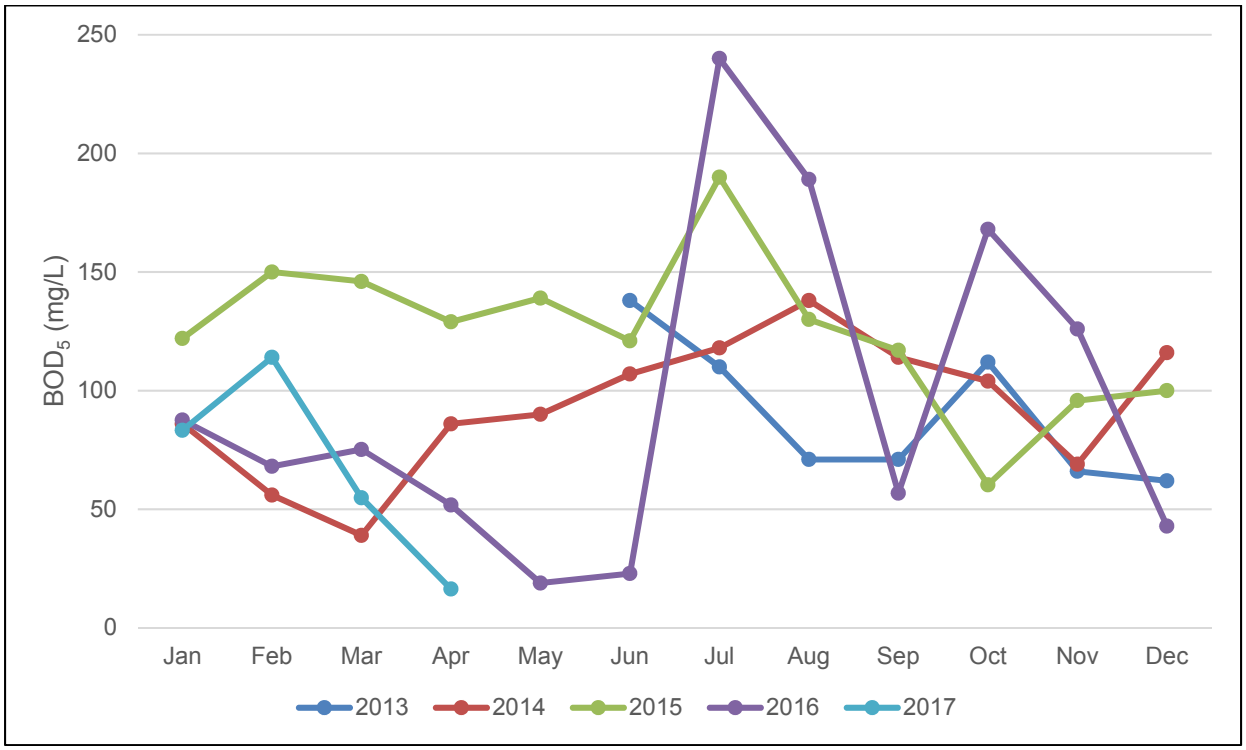

Figure 4. Monthly Average BOD_5 Concentration

Carbonaceous Biochemical Oxygen Demand

Carbonaceous biochemical oxygen demand ($CBOD_5$) represents only the portion of the BOD_5 that results from carbon sources. This test is sometimes used in place of BOD_5 if nitrification may not

be complete. This typically occurs in municipal lagoon treatment, so it is often recommended that $CBOD_5$ be taken in place of BOD_5. The most recent discharge permit was issued in 2014 and changed the effluent monitoring requirements from BOD_5 to $CBOD_5$.

$CBOD_5$ average and maximum month average concentrations have stayed relatively steady over the last several years, as shown in Table 13. The monthly average concentrations tend to fluctuate over the year, with peak concentrations typically occurring in the late summer.

Table 13. Historical Influent $CBOD_5$

Year	Average (mg/L)	Max Month Average (mg/L)
2014	92	110
2015	125	214
2016	75	175
2017	61	113
Average	**88**	**153**

Total Suspended Solids

Total suspended solids (TSS) average concentrations have remained consistent since 2013, while the maximum month average concentration has increased over that time, as shown in Table 14. This indicates that while the average TSS concentration hasn't changed, the City is seeing higher spikes each year. The monthly average concentrations tend to fluctuate over the year and show few discernible trends from year to year. Peak TSS concentrations have historically occurred in July and October.

Table 14. Influent TSS

Year	Average (mg/L)	Max Month Average (mg/L)
2013	75	94
2014	89	172
2015	106	164
2016	90	249
2017	56	90
Average	**83**	**154**

Total Dissolved Solids

Total dissolved solids (TDS) quarterly average and quarterly maximum concentrations have remained consistent since 2013, as shown in Table 15.

Table 15. Influent TDS

Year	Quarterly Average (mg/L)	Quarterly Max (mg/L)
2013	317	348
2014	307	330

2015	280	384
2016	286	379
2017	376	395
Average	**313**	**367**

The quarterly average concentrations tend to fluctuate slightly over the year, with a decrease typically occurring in the fall and peak concentrations occurring in the spring.

Effluent Water Quality (Historical Data)

The following sections present available effluent data from 2013 to 2016. Due to the addition of the Hot Springs Pool backwash waste stream beginning in May 2017, all data from May 2017 through August 2018 (when the backwash waste was disconnected from the municipal wastewater treatment plant) has been removed from the effluent wastewater characteristics.

Table 16 summarizes the current discharge permit limits (CO0043397) for the WWTP. This permit was issued in 2014 and will renew in 2019. As previously discussed, permit limits are divided into winter months (November through March) and summer months (April through October). Allowable concentrations and loadings for the winter months are either equal to or less than the summer months, due to the reduction of the instream flow resulting in less dilution capability of the receiving waters and decreased biological activity during winter months in lagoon systems.

Table 16. Effluent Limits

Parameter	Unit	Effluent Limit							
		Winter, Outfall 001A				Summer, Outfall 001B			
		30-Day Ave	7-Day Ave	Daily Max	2-Year Ave	30-Day Ave	7-Day Ave	Daily Max	2-Year Ave
Effluent Flow	MGD	0.25				0.363			
pH	su			6.5 - 9				6.5 - 9	
E. coli	#/100mL	2,000	4,000			2,000	4,000		
TRC [1]	mg/L	0.13		0.5		0.13		0.5	
Total Ammonia	mg/L as N								
Jan	-				41				
Feb	-				27				
Mar	-				27				
Apr	-								28
May	-								77
Jun	-								71
Jul	-								84
Aug	-								37
Sep	-								49
Oct	-								35
Nov	-				36				
Dec	-				26				
$CBOD_5$	mg/L	25	40			25	40		

$CBOD_5$	lb/day	52				76			
TSS	mg/L	75	110			75	110		
Oil and Grease	mg/L			10				10	
Cadmium	µg/L, PD	1.1			0.57	0.79			0.54
	lb/day, PD	0.116				0.125			
Copper	µg/L, PD								118
	lb/day, PD	0.3				0.4			
Iron	µg/L, TR				1,885	4,067			2,140
	lb/day, TR	16.4				17.8			

Note:
[1] Total Residual Chlorine
[2] Total Suspended Solids

Carbonaceous Biochemical Oxygen Demand

Effluent $CBOD_5$ concentrations have remained steady over the last several years, as shown in Table 17. The monthly average concentration has only exceeded the permit limit once in the last five years but has been equal to the permit limit twice in the past five years. Fluctuations in effluent concentrations are minor throughout the year, excluding peaks during the summer tourism season.

Table 17. Effluent $CBOD_5$ Concentration

Year	Average (mg/L)	Permit Limit (mg/L)
Winter		
2013	21	25
2014	22	
2015	24	
2016	24	
2017	10	
Average	**20**	**25**
Summer		
2013	18	25
2014	25	
2015	34	
2016	26	
2017	14	
Average	**23**	**25**

Total Suspended Solids

While average effluent TSS concentrations generally are below the permit limit, three of the last five years have seen at least one month of the year where the TSS concentration was above the

permit limit. On a few occasions, the effluent TSS concentration has exceeded the influent concentration, indicating an increase in TSS through the treatment process (potentially due to algae or poor settling) or a sampling or reporting error. Effluent values are fairly consistent throughout the year, with peaks occurring tin the spring. Effluent TSS is shown in Table 18.

Table 18. Effluent TSS

Year	Average (mg/L)	Permit Limit (mg/L)
2013	52	75
2014	43	
2015	66	
2016	47	
2017	26	
Average	**47**	**75**

pH

pH values remain relatively steady and typically range between 7 and 8, as shown in Table 19. pH has remained within the allowable range of the discharge permit requirements.

Table 19. Effluent pH

Year	Minimum pH		Maximum pH	
	Average (mg/L)	Permit Limit (mg/L)	Average (mg/L)	Permit Limit (mg/L)
2013	7.3	6.5	7.4	9.0
2014	7.2		7.5	
2015	7.2		7.3	
2016	7.3		7.4	
2017	7.7		7.7	
Average	**7.3**	**6.5**	**7.5**	**9.0**

Ammonia

Annual average effluent ammonia concentrations have remained consistent throughout the last several years, as shown in Table 20. Although the permit limit varies monthly (higher allowable concentration in the summer, lower in the winter), the average effluent concentration has been consistently below the strictest monthly limit every year. Ammonia concentrations remain consistent during the year, with peaks in the fall. Nitrification rates typically decrease in the colder, winter months, yet the system has maintained compliance through the winter, despite being an outdoor biological treatment system. Without information on the influent ammonia concentrations in the winter, it is possible that the influent concentrations decrease during the winter, resulting in consistent effluent concentrations throughout the year. The influent summer concentrations for

ammonia in 2018, as shown in Table 12, never exceeded 29 mg/L, which is already close to the required permit limit in the winter.

Table 20. Effluent Ammonia

Year	Average (mg/L)	Permit Limit [1] (mg/L)
2013	16.9	26 – 84
2014	11.2	26 – 84
2015	15.7	26 – 84
2016	13.1	26 – 84
2017	11.3	26 – 84
Average	**13.7**	**26 – 84**

E. coli

The facility has had challenges meeting the discharge limits for E. coli in the latter half of 2015 and the first half of 2016. The remainder of the years, E. coli limits have been met easily. Staff noted that the chlorination system was not operating properly during the period of significant violation. Table 21 and Figure 5 show effluent E. coli values.

Table 21. Effluent E. coli

Year	Monthly Average (mg/L)	Permit Limit (mg/L)	Daily Max (mg/L)	Permit Limit (mg/L)
2014	723	2,000	1,733	4,000
2015	30,741		120,980	
2016	24,985		120,980	
2017	756		1,414	

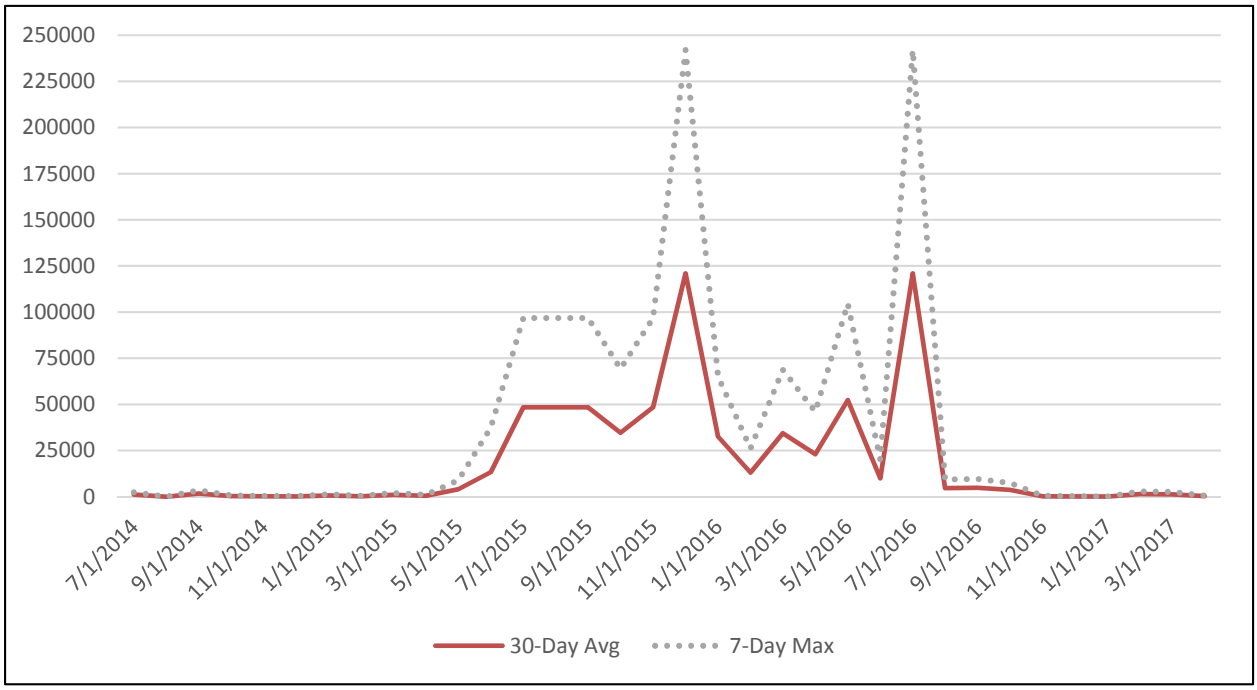

Figure 5. Average Effluent E. coli (2014 – 2017)

Future Nutrient Removal Considerations

Nutrient removal is becoming increasingly prevalent in Colorado's regulatory landscape. With the impending implementation of Regulation 31 and Regulation 85 (for smaller systems), particular attention must be paid to nitrogen and phosphorus removal. The following paragraphs discuss these future nutrient regulations in more detail. However, it is not certain whether the proposed limits will be applied to the City. Recent trends suggest Regulation 31 may be flexible depending on water quality and flow, although ammonia limits are expected to become more stringent, even for smaller dischargers. The City's permit will be renewed in 2019, at a minimum, monthly ammonia limits are expected to become more stringent.

The implementation of Regulation 31 may result in a total nitrogen (TN) limit of 10 mg/L and a Total Phosphorus limit less than 1 mg/L for all systems. A new voluntary incentive program began in 2018 which allows facilities to extend their Regulation 31 compliance schedule by voluntarily reducing nutrients. By joining the incentive program, the amount of nutrient reduction achieved from 2018 to 2027 will allow facilities to extend their Regulation 31 compliance schedule. Depending on the reduction, a facility may accrue up to fifteen total years of extension.

Based on recent regulatory trends, Regulation 31 is unlikely to significantly impact the City's facility. The incentive program should be re-evaluated after the City receives their 2019 discharge permit.

SECTION 4 – EXISTING SYSTEM ANALYSIS

The WWTP is located in Ouray County, at 15137 Highway 550 along the Uncompahgre River, in Ouray, Colorado. City staff operate the WWTP. Eight full time Public Works employees are assigned to an assortment of City duties with a portion assigned to the WWTP. There is one (1) Operator in Responsible Charge (ORC) for the collection system and the WWTP. The WWTP is staffed during the day on weekdays but operates unattended overnight and through the weekend.

The City's collection system consists of approximately 18 miles of sanitary sewer. Wastewater flows primarily by gravity to the WWTP with the exception of one lift station in the service area. Collection system material consists of polyvinyl chloride (PVC), clay tile pipe, and concrete pipe. Manholes are made of either brick and mortar or precast concrete.

The single lift station in the collection system conveys wastewater from the Swiss Village Park, across the Uncompahgre River, to the WWTP via two 20 gallon per minute (gpm) pumps. The lift station is located at 1990 Oak Street on the north side of Town and was likely installed in 1993.

The WWTP came online in 1993 as a two-cell aerated lagoon system followed by constructed wetlands treatment. The design capacity of the WWTP is 0.363 MGD during summer months and 0.25 MGD during winter months. In 2004, the wetlands were abandoned due to excessive deposition of settled solids, elevated effluent ammonia concentrations, hydrogen sulfide and odor issues, general poor performance, and operational challenges as reported in a 1998 operational analysis performed by Westwater Engineering. The lagoons were improved in 2003 by adding a baffling curtain to the second cell. The intent of the baffle curtain was to create a three-cell lagoon system prior to abandoning the wetlands in order to comply with CDPHE design criteria for lagoon treatment systems. Based on a review of all available historical documentation, no additional improvements to the treatment system have been conducted since 2004

The WWTP is permitted to treat a maximum daily flow of 0.25 MGD from November through March with an organic load of 275 pounds per day (lbs/day) BOD_5. From April through October, the permitted hydraulic capacity is 0.363 MGD with an organic loading rate of 400 lbs/day BOD_5. The MMADF is approximately 0.274 MG (75 percent of capacity) in the summer and 0.213 MGD (85 percent of capacity) in the winter.

The MMADL is 337 lbs/day (84 percent of capacity) in the summer and 180 lbs/day (66 percent of capacity) in the winter. Per Colorado Law (C.R.S. 25-8-501(5)), a publicly operated treatment facility must commence planning for treatment expansion when the hydraulic or organic loading reaches 80 percent of its permitted capacity and must commence with construction activities by the time the WWTP reaches 95 percent of its permitted capacity. The WWTP has exceeded 80 percent of the capacity for both hydraulic and organic loading.

The treatment process includes a headworks with manual screening and grit removal, influent flow meter, influent pump station, aerated lagoons, chlorine disinfection, and chemical dechlorination prior to discharge into the Uncompahgre River. A process flow diagram is shown in Figure 6.

The facility is located on a 7.7-acre parcel. The abandoned wetlands encompass approximately two acres of the property. As designed, Cell #1 has a surface area of 0.63 acres and a volume of 2.09 million gallons (MG). Cell 2 and 3 have a combined a surface area of 0.55 acres and a volume of 1.81 MG. A chemical storage and dosing shed is located on the northern most corner of the property for disinfection and dechlorination processes. There is a second, small storage shed that is used for equipment storage north of the influent pump station. The details of each unit process are summarized in Table 22 and a summary of the existing facility design and operation are summarized in Table 23.

Table 22. Unit Process Information

Process	Treatment Capacity/Applicable Data
Preliminary Treatment	
Bar Screen	▪Type: Manual bar screen and rake ▪Openings: 1-1/2-in clear openings ▪Screenings are manually raked daily or as needed ▪Bypass provided to grit removal channel
Grit Removal	▪Type: Horizontal Flow Grit Chamber ▪Channel Width: 12-in ▪Channel Length: 12-ft ▪Grit Removal: Manual ▪Channel Design Velocity: 1 ft/s ▪Bypass Provided to influent pump station (IPS)
Influent Pump Station	
Pumps	▪Type: Submersible, Centrifugal ▪Manufacturer: Flygt ▪Two (2) 10 HP ▪Max Flow: 1,046 gpm ▪TDH: 50 ft
Secondary Treatment	
Biological Treatment	▪Type: Aerated Lagoons ▪Number of Cells: 2 ▪Volume Cell 1 – 2.09 MG ▪Volume Cell 2 and 3 – 1.81 MG
Cell 1 Aeration	▪Capacity: 30 HP ▪Type: Axial Flow Floating Mechanical Aerators ▪Number of aerators: 6
Cell 2 Aeration	▪Capacity 15 HP ▪Type: Axial Flow Floating Mechanical Aerators ▪Number of aerators: 3
Disinfection	
Chlorination	▪Type: Positive Displacement Diaphragm Pump ▪Capacity: 1.0 gph ▪Contact Pipe Diameter: 27-in ▪Contact Pipe Length: 300-ft ▪Contact Pipe Volume: 8,900 Gallons ▪Contact time: 10 minutes at 0.363 MGD
Dechlorination	
Dechlorination	▪Sodium Thiosulfate (21%)

Process	Treatment Capacity/Applicable Data
	▪Type: Peristaltic Pump ▪Capacity: 24 gpd
Flow Metering	
Influent	▪Type: Parshall flume with 6-in. throat and flow recorder and totalizer ▪Flow Range: 0.03 –1.87 MGD
Effluent	▪Type: Parshall flume with 3-in. throat and flow recorded and totalizer ▪Flow Range: 0.02 –1.22 MGD

Table 23. Existing Design Parameters and Operations

Parameter	Ouray WWTP Design	Operation
Flow (MGD)	0.363 (Summer) 0.25 (Winter)	0.226, 0.353 (Summer, Avg., Max Month) 0.184, 0.239 (Winter, Avg, Max Month)
Minimum Temperature (°C)	3	Not Provided
BOD_5 (mg/L)	120-140 (Summer) 80-140 (Winter)	112, 340 (Summer Avg., Max Month) 90, 150 (Winter Avg., Max Month)
BOD_5 (lbs/day)	400 (Summer) 275 (Winter)	223, 559 (Summer Avg., Max Month) 144, 284 (Winter Avg., Max Month)
Eff. $CBOD_5$ (mg/L)	Not Provided	21 (Annual Average)
Eff. NH_4 (mg/L)	Not Provided	14.5 (Annual Average)
pH	7-8	7.3-7.5 (Annual Average)
TSS (mg/L)	Not Provided	83 (Influent Annual Average) 47 (Effluent Annual Average)
Eff. TRC (mg/L)	Not Provided	0.01/ 0.69/ 0.18 (2018 min/max/avg)
Detention time	10.75 Days	10.75 Days
Aeration Capacity (lbs. O_2/Hr)	76 (Summer) 84 (Summer)	24-54 lbs.O_2/hr- Cell 1 (after August 2018) 12-27 lbs.O_2/hr- Cell 2 (after August 2018)
Aeration Capacity (HP)	45 HP	25 HP after August of 2018 45 HP after August of 2018

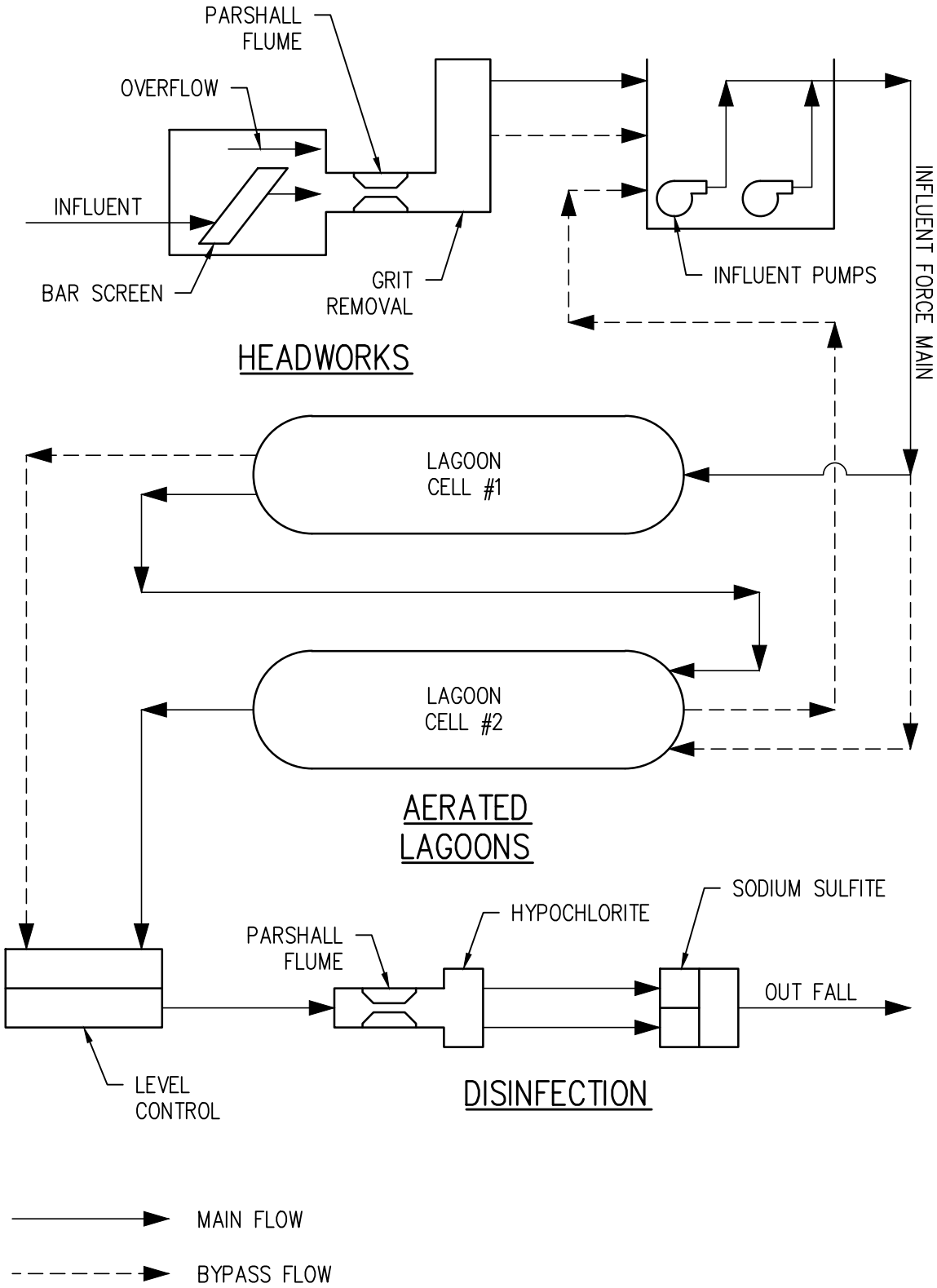

FIGURE 6 - PROCESS FLOW DIAGRAM

CITY OF OURAY WWTP

DECEMBER 2018

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Glenwood Springs, CO 81601
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Boulder • Fort Collins • Winter Park
Glenwood Springs • Denver

HEADWORKS

Influent flows into an 18-inch wide channel at the headworks, as shown in Figure 7. The wastewater is screened and passed through a 6-inch Parshall flume to measure flow prior to entering the grit chamber. An evaluation of each headworks process follows.

Screening

Influent wastewater enters the WWTP on the east side of the facility and inorganic material is screened through a 1-1/2-inch manual bar screen. Operations staff manually rake the bar screen once per day or as necessary to remove screenings. In the event of a clogged screen, flow is routed to an emergency overflow channel. In addition, the upstream influent pipe is equipped with a level sensor that, when activated, will send a highwater alarm signal to the local motor control center (MCC) during an overflow event. Screenings are removed from the bar screen and are dewatered on the bypass channel screen temporarily before being placed in a dumpster and landfilled.

Figure 7. Existing Screening

Influent Flow Metering

Influent flow is measured in a 6-inch Parshall flume located in the influent channel. Flow is continuously measured and recorded. The flow measurement device measures and records totalized flow and instantaneous flow rates in gallons per minute (gpm). Instantaneous flow rates may also be recorded visually using the level gage on the Parshall flume. The flow range for the 6-inch Parshall flume is 0.03 MGD to 1.87 MGD.

Grit Removal

Grit removal is achieved in an 18-inch wide, 12-foot long horizontal channel. The channel is sloped upwards towards the downstream end, which is designed to reduce the influent velocity to approximately 1 foot per second (ft/s) allowing grit to settle within the first foot of the channel. Grit is manually cleaned from the grit chamber as needed. A bypass is provided to divert flow from the Parshall flume to the influent pump station. This allows the grit chamber to be taken offline for maintenance and cleaning. Operations staff note that grit is removed from the chamber approximately every five years. Grit is placed in a dumpster onsite and disposed of at the local landfill. Figure 8 shows a picture of the grit chamber taken from above ground.

Influent Pump Station

The lift station consists of a wet well, two submersible pumps, and force main piping. Three (3) 4-foot manholes are used as the influent wet well. The total capacity is 2,200 gallons. The three manholes are hydraulically connected so that that the wastewater level rises equally in each manhole. Manhole 1 houses a recycle drain pipe and connects the grit chamber to two manholes 2 and 3.

Manholes 2 and 3 are each equipped with one Flygt submersible, 10 HP centrifugal pumps rated to a maximum flow rate of 1,046 gpm and a total dynamic head of 50 feet. Manhole 2 is equipped with four level floats to operate the pumps: off, lead, lag, and high-water alarm. The pumps discharge through a 10-inch force main to Cell 1. Valving on the force main connect piping to Cell 1 and/or Cell 2. Table 24 summarizes the influent wet wells.

Table 24. Influent Wetwells

Manhole	Volume (gal)	Equipment
1	670	None
2	670	One 10HP Pump, four Level Floats
3	670	One 10 HP Pump

Condition and Performance Assessment

The design of the headworks system and influent pump station are compared to current CDPHE design criteria in Table 25. The capacity of the screening and grit removal process are unknown.

Figure 8. Existing Influent Grit Chamber

JVA toured the WWTP in May 2018. At the time of the site visit, operations staff noted that rocks often jam the 1-1/2 -inch screen. During summer months when the WWTP experiences increased flows, the bar screen must be manually raked multiple times per day to prevent clogging and overflow. In addition, the concrete channels that house the headworks and the grit chamber, as well as the channel covers, show visible signs of corrosion and exposed aggregate from prolonged exposure to hydrogen sulfide. The influent pump station manholes also show significant signs of corrosion and exposed aggregate.

Table 25. CDPHE Design Criteria Comparison for Headworks

Criteria	CDPHE Design Criteria	Ouray WWTP
SCREENING		
Capacity of Screening	Peak Hour Influent Flow	Unknown
Screening Bypass	Must be Provided	Overflow Channel
Bypass Capacity	Peak Hour Influent Flow	Unknown

Criteria	CDPHE Design Criteria	Ouray WWTP
Screen Openings for manually cleaned screen	1 to 1.75 in.	1-1/2-in.
Screen Incline	30 to 45 Degrees from vertical	45 Degrees
Maximum Velocity through Screen	3 ft/s	1 ft/s (design)
GRIT REMOVAL		
Capacity	Peak Hour Influent Flow	Unknown
Overflow or Bypass	Provided to second grit chamber or redundant flow channel	Bypass Provided
Velocity through Grit Chamber	0.8 to 1.3 ft/s	1 ft/s

Performance Limiting Factors

The capacity of the headworks is unknown, so it is not possible to verify if the existing headworks system met sizing and design requirements. However, visual inspection of large debris surrounding the lagoons indicates that the headworks facilities are not performing as intended. Expanding the headworks capacity and improving the effectiveness of the preliminary treatment process will be required when the WWTP is expanded. Headworks is required to meet the peak hourly flow to the WWTP. In the absence of historic hourly flow data, CDPHE recommends using a peak hour peaking factor of four for communities of less than 5,000 people. With a summer design capacity of 0.363 MGD, the existing headworks should be sized to handle 1.45 MGD.

Partially Mixed Aerated Lagoons

The partially mixed aerated lagoons provide biological treatment of wastewater after preliminary treatment. Wastewater is pumped from the headworks processes to Cell 1. Each cell is lined with a 40-mil high density polyethylene (HDPE) synthetic liner, which were installed in 1993. Cell 1 has a volume of 2.09 million gallons (MG), a surface area of 0.63 acres, and is 14.7 feet deep. Wastewater flows by gravity through a multi-level draw off from Cell 1 to Cell 2. Draw offs for Cell 1 are located at 2.5, 7.75 and 12.5 feet above the bottom of the cell. Cell 2 and 3 have a combined capacity of 1.81 MG, a surface area of 0.55 acres, and a depth of 14.4 feet. Effluent from Cell 3 flows via gravity through a multi-level draw off to the disinfection system. The draw offs are located at 1.5,4.5,7.5,10.5 and 13.5 feet above the bottom of the lagoon. Table 26 shows a summary of the aerated lagoons. Figure 9 shows the multi-level draw off from Cell 3.

Figure 9. Lagoon Effluent Chamber

Table 26. Summary of Aerated Lagoons

Cell	Volume	Surface Area	Depth	Draw Offs	No. of Aerators	Aeration Capacity	Detention Time
1	2.09 MG	0.63-ac	14.7-ft	2.5,7.75, 12.5-ft	6	24-54 lbs. O2/hr[1]	5.76 days
2	1.81 MG	0.55-ac	14.4-ft	N/A	3	12-27 lbs. O2/hr[1]	4.99 days
3				1.5,4.5,7.5,10.5,13.5 -ft	NA	NA	NA

[1] After August of 2018

Aeration

Figure 10. Existing Lagoon Cell #1

Mechanical aeration is required within Cell 1 and 2 to enhance oxygen transfer, supply oxygen for bacterial decomposition, and provide mixing. Prior to August 2018, the WWTP was operating with three 5-HP floating aerators in Cell 1, and two 5-HP floating aerators in Cell 2. In August 2018, the WWTP purchased additional aerators and are now operating six 5-HP floating aerators in Cell 1 and three 5-HP aerators in Cell 2. Daily runtimes for aerators is controlled by staff. Runtime is dependent on BOD_5 loading rate and temperature of the lagoon water and should be recorded and adjusted to increase or decrease oxygen levels based on oxygen demands. Dissolved oxygen (DO) levels should range from 1 to 3 mg/L and should be monitored regularly by staff. Aerator runtimes are currently not timed or recorded but DO levels have been recently monitored and are discussed below. Figure 10 shows the existing lagoons.

Condition and Performance Assessment

The design of the existing system is compared to the CDPHE design criteria in Table 27. The existing system does not meet the CDPHE design criteria for the following,

- Volumetric loading
- Lagoon liner thickness
- Seepage
- Aeration
- Dissolved Oxygen Concentration

Table 27. CDPHE Design Criteria Comparison for Lagoons

Criteria	CDPHE Design Criteria	Ouray WWTP
AERATED PONDS		
Volumetric Loading Rate	10 - 25 lbs. of BOD_5 per day per 1000 cubic feet	521 lbs. of BOD_5 per 1000 cubic feet
Number of Ponds	3	3
HDPE Liner	HDPE 60 mils	40 mils
Seepage, Maximum	10-6 cm/sec	Unknown
Pond Depth, Minimum	6-ft	14-ft
Pond Length to Width Ratio	No less than 1:1, no greater than 5:1	3:1
Pond Side Slope	3 horizontal to 1 vertical	3:1
Freeboard, Minimum	2-ft	2-ft
Aeration Requirements	1.3 lbs. O_2/lb.of BOD_5 (21.7 lbs.O_2/hr at 400 lbs.BOD_5/day)	24-54 lbs.O_2/hr- Cell 1 12-27 lbs.O_2/hr- Cell 2
Dissolved Oxygen (DO), Minimum	2.0 mg/L at max. month flow and loading	>2.0 mg/L
Yard Piping	Provide bypass of each pond and must convey design flow rates	Bypass provided, capacity unknown
Level Control Structures	Must maintain consistent and adjustable water surface elevations in each pond	Each pond has a multilevel draw off system to maintain water surface elevation

In August of 2015, JVA performed a seepage study to test the integrity of the lagoon liners using a water balance method as required by the City's 2014 discharge permit. Measurements in lagoon depth, cumulative evaporation, total precipiation, influent flow, and effluent flow were used to determine seepage rates from the lagoons. The results of the seepage study were inconclusive, due to a faulty influent and effluent flow metering device. As a result, the influent and effluent flow measuring devices were both replaced in 2016. The City continues to monitor influent and effluent flow, as well as the perimeter subsurface drain around the lagoons, for any seepage.

In the May of 2017, the Hot Springs Pool (Pool) came on line and began discharging filter backwash waste to the WWTP. The WWTP began experieincing discoloration and odor issues in the lagoons shortly after this practive began. The backwash discharge from the pool was found to have a negative impact on the lagoon treatment system due to the additional volume of low carbon waste conveyed from the Pool. It is likely that the additional backwash volume washed out the biological treatment capabilities in the lagoon while raising the water elevation to the rim of the lagoon structures. Additionally, water quality sampling conducted in December 2017 documented concentrations of manganese in the Pool backwash of 20.35 mg/L. In August 2018, the Pool's backwash waste was rerouted to the Pool's effluent river discharge.

In the summer of 2018, the City began monitoring the lagoons sludge depth and dissolved oxygen (DO) at various depths in both lagoons prior to the addition of new aerators. Prior to installing the new aerators, the DO levels in Cell 1 ranged from 0.03 mg/L at depths of 11 feet to 0.19 mg/L near the water surface. In Cell 2, DO levels ranges from 0.06 mg/L at depths of 11 feet to 0.20 mg/L near the water surface. In August of 2018, additional aeraters were added to each cell to return the system to the orignal design aeration capacity. In Cell 1, DO levels have increased and average at 2.2 mg/L. In Cell 2, DO levels have also improved and average near 4.3 mg/L. A summary of the DO levels in each lagoon before and after increased aeration capcity as summarized in Table 28 below.

Table 28. Summary of Dissolved Oxygen (DO) in the Lagoons

Cell 1		
Depth	Avg. DO, 6 Aerators (mg/L)	Avg. DO, 6 Aerators (mg/L)
1-FT	0.079	2.899
6-FT	0.082	2.839
11-FT	0.080	2.665
Cell 2		
Depth	Avg. DO, 3 Aerators (mg/L)	Avg. DO, 3 Aerators (mg/L)
1-FT	0.134	5.380
6-FT	0.113	5.337
11-FT	0.091	4.881

Sludge depths were measured at various locations around the lagoons starting in May 2018. A summary of the sludge depths is shown in Table 29. The average sludge depth varies by over 1-foot from the inlet to the outlet side. In addition, the range of sludge depth varies from an average of 1-feet, 10-inches in Cell 1 and to 2-feet, 4-inches in Cell 2.

Table 29. Summary of Sludge Depth in the Lagoons

Cell 1			
	Inlet Side	Middle	Outlet Side
Min (ft)	0.00	0.00	0.00
Max (ft)	3.50	3.00	3.67
Avg (ft)	1.03	1.80	2.61
Range (ft)	3.50	3.0	3.67
Cell 2			
	Inlet Side	Middle	Outlet Side (Cell 3)
Min (ft)	0.00	0.00	1.10
Max (ft)	4.00	4.50	4.67
Avg (ft)	1.72	2.09	3.18
Range (ft)	4.00	4.50	3.57

Performance Limiting Factors

The typical life expectancy of membrane liners is approximately 15 years. The aerated lagoon liners are 25 years old and are at or near the end of their useful life. Heavier sludge and grit has been deposting in the poorly mixed areas of the basins since installation and should be removed before the accumulated sludge/grit volume begins to further impair treatment performance. Based on the recorded sludge depths, the sludge depth varies regularly and the sludge blanket is not uniform. This suggests that there may not be a uniform velocity profile from the inlet to the outlet of each cell. In addition, the solids entering lagoons may have a low settling velocity and may not reach the sludge layer until they reach the outlet side of the pond. The results also indicate that Cell 1 may not have enough retention time to allow for solids to settle out completely or that the flow patterns created by the surface aerators do not allow solids to settle.

The typical target range for DO concentration in aerated lagoons is approximately 2.0 to 4.0 mg/L. The original design of the lagoons targeted 1.0 to 3.0 mg/L. With the addition of new aerators, the DO levels in Cell 1 have increased to an average of 2.2 mg/L and the DO levels in Cell 2 rose to above 4.3 mg/L.

DISINFECTION

From the east end of Cell 3, secondary effluent is collected in an effluent distribution structure and flows through approximately 700-feet of 8-inch pipe and through a 3-inch Parshall flume and into the chlorine contact chamber. Disinfection is achieved through chlorination with sodium hypochlorite. Chemical dose is manually set based on the effluent flow rates, which are measured through the 3-inch Parshall flume. Figure 11 shows the building that houses the disinfection equipment. Table 30 shows a summary of the disinfection equipment.

Figure 11. Disinfection and Dechlorination Building

Table 30. Disinfection Equipment Summary

Chemical Metering Pump Manufacturer	Pulsatron, Pulsa Feeder
Chemical Metering Pump Model	LPB4SA – VTC1 – U03
Pump Capacity	24 gpd
Maximum Pump Pressure	100 psi
Number of Pumps	1
Disinfection Chemical	Sodium Hypochlorite
Storage Tank Volume	55 gallon drum

Condition and Performance Assessment

A summary of the disinfection system compared to CDPHE design criteria is shown in Table 31. The current design of the disinfection system does not meet design criteria for contact time, chlorine feed rate or chemical storage.

Table 31. CDPHE Design Criteria Comparison for Disinfection

Criteria	CDPHE Design Criteria	Ouray WWTP
DISINFECTION		
Chlorine Type	Gas, liquid hypochlorite solution, solid hypochlorite tabs.	Liquid Sodium Hypochlorite
Dosage Capacity	15 mg/L	15 mg/L
Contact Time	30 mins	10 mins
CHEMICAL STORAGE		
Pressure Relief and overflow piping	Yes	Not Provided
Protected from light and extreme temperatures	Yes	Provided
Secondary Containment	Yes	Not Provided

Criteria	CDPHE Design Criteria	Ouray WWTP
CHEMICAL FEED EQUIPMENT		
Number of chemical feed pumps	2	1
Pipe Material	PVC, saran-lined, polyethylene	PVC
Feed Rate	Must provide disinfection at peak hour flow	24 GPD (does not meet current peak demand)
Chlorine Residual Monitoring	Must be provided	Provided

The Ouray WWTP has had multiple effluent E. coli violations over the past three years that are captured on the graph provided as Figure 5 in Section 3. After exceedances in 2016, the City used a tablet chlorination strategy beginning in November 2016 and maintained compliance until May 2017. Operations staff noted that chlorine tablets were inserted into the chlorine contact pipe and were potentially flushed from the pipe in May 2017 when the Hot Springs Pool began discharging to the WWTP during start up. After this event, the City installed a liquid chemical feed system for disinfection and dechlorination.

The discharge permit for the City contains E. coli limits and limits on the total residual chlorine (TRC) concentration. A summary of the current permits limits for these constituents are provided in Table 32.

Table 32. Discharge Permit Limits - E. coli and Chlorine Residual

Parameter	November – March	April – October
Design Flow (MGD)	0.25	0.363
E. coli 7-day average (#/100 mL)	2,000	2,000
E. coli Daily Maximum (#/100 mL)	4,000	4,000
Total Residual Chlorine 30-day Average (mg/L)	0.13	0.13
Total Residual Chlorine Daily Maximum (mg/L)	0.5	0.5

Performance Limiting Factors

To provide adequate disinfection, a minimum contact time of 30 minutes is required. From the chlorine contact chamber through the pipes to the dechlorination chamber, only 10 minutes of contact time is provided at the summer design capacity. Relocation of the chlorine injection point to the Cell 3 level control structure is planned for December 2018. In addition, the existing chemical feed pump has a maximum feed rate of 24 GPD. Using a historical maximum daily flow rate of 0.50 MGD, a chemical feed rate of 37 GPD should be supplied to meet disinfection requirements. Secondary containment will also be provided, per CDPHE design criteria, in December 2018.

DECHLORINATION

From the chlorine contact chamber, effluent flows to a dechlorination chamber and is treated with sodium thiosulfate for dechlorination. Sodium thiosulfate powder (98.5 percent strength) is mixed onsite in a 55-gallon drum to a feed concentration of 21 percent strength for dechlorination at the WWTP. The dechlorination ratio of sodium thiosulfate is 0.56 mg/L sodium to 1 mg/L sodium hypochlorite. The chlorine demand of the wastewater is not well documented at the WWTP and additional testing is recommended. Dechlorination feed rates have been calculated based on an assumed chlorine residual of 1 mg/L. Due to the low TRC concentrations required per the City's current discharge permit, calculations to decrease the concentration to zero were performed.

Final effluent is discharged through a 12-inch pipe to the Uncompahgre River. Table 33 shows a summary of the disinfection equipment.

Table 33. Dechlorination Equipment Summary

Chemical Metering Pump Manufacturer	Pulsatron, Pulsa Feeder
Chemical Metering Pump Model	LPB4SA – VTC1 – U03
Pump Capacity	24 gpd
Maximum Pump Pressure	100 psi
Number of Pumps	1
Dechlorination Chemical	Sodium Thiosulfate
Storage Tank Volume	55 gallon drum

Condition and Performance Assessment

A summary of the dechlorination system compared to CDPHE design criteria is shown in Table 35. The current design of the dechlorination system requires redundancy of feed pumps to meet design criteria.

Table 34. CDPHE Design Criteria Comparison for Dechlorination

Criteria	CDPHE Design Criteria	Ouray WWTP
DECHLORINATION		
Dosage Capacity	3 mg/L	3 mg/L
Contact Time	30 secs	6 mins
FEED SYSTEM		
Positive Displacement Chemical Feed Pump	Yes	Yes
On-site Storage	15-day	15-day
Automatic switchover	Must be provided	Not Provided
Number of chemical feed pumps	2	1
Feed Rate	Manual or automatic control of dechlorination agent feed rates based on chlorine residual or effluent flow	Provided
Chlorine Residual and DO Monitoring	Must be provided	Provided

Performance Limiting Factors

The design criteria requires redundancy of chemical feed pumps for dechlorination. The existing dechlorination facility only has one dechlorination pump. A second chemical feed pump was provided and installed to flow pace per effluent flow and dosed sodium hypochlorite with the upgrades to the chlorination system in December 2018.

Regulatory Compliance

The City has been issued 32 noncompliance violations since 2012, 10 of which were significant noncompliance violations. A summary of the significant compliance violations is shown in Table 35. The primary noncompliance issues were related to effluent violations for E. coli, CBOD, TSS, and failure to submit complete reports. The WWTP experienced several months of significant noncompliance beginning in the summer of 2014 for effluent violations of E. coli which continued through the winter of 2017. The most significant violations occurred from May 2015 to September 2016 when the disinfection system appeared to be offline, as shown in Figure 5.

Effluent flow was exceeded twice in 2014, prompting two notices of noncompliance. Influent and effluent flow meters were replaced in 2016.

In May 2015, the WWTP began receiving compliance schedule violations for failing to submit an implementation plan and schedule to meet discharge limits on dissolved cadmium, copper and total recoverable iron which was part of the 2014 discharge permit compliance schedule. In December 2017, the WWTP submitted three years of metals testing data to CDPHE indicating that the WWTP could meet effluent limits for copper, cadmium, and iron with no additional treatment.

In April 2015, the WWTP received notice of significant noncompliance for failing to submit a lagoon liner integrity test. In August 2015, the Town hired JVA to perform the test and the report was submitted and accepted by CDPHE in November 2015.

Table 35. Summary of Significant Permit Violations

Date	Reported Violation
1/9/2014	Failure to submit DMR
7/9/2014	Effluent Violations for E.coli, TSS, $CBOD_5$ and Effluent Flow
10/22/2015	Effluent Violation - E.Coli, CBOD, TSS
11/27/2015	Effluent Violation - E.Coli, CBOD, TSS
8/26/2016	Effluent Violation - E. coli, CBOD
9/30/2016	Effluent Violation - E.Coli, CBOD, TSS
10/28/2016	Effluent Violation - E. coli
8/18/2017	Failure to Submit Compliance Report – Cadmium, Copper, Iron
11/22/2017	Effluent Violation – E. coli, Cadmium

SUMMARY

In Section 4, an evaluation of each major process area was completed, and deficiencies and concerns were noted. The majority of the existing infrastructure has reached the end of its useful life and requires complete replacement. Additionally, the existing facility would require significant modifications as part of an expansion to meet the current CDPHE design criteria. Based on the analysis in this section, isolated improvements of unit processes are not recommended for the existing facility. To most effectively and efficiently expand the wastewater treatment capacity for the City of Ouray, a new mechanical wastewater treatment facility is proposed.

Recommendations for system wide improvements to the wastewater treatment system are discussed in Section 5 and the recommended wastewater treatment expansion project is discussed in Section 6.

SECTION 5 – RECOMMENDATIONS FOR IMPROVEMENTS

The majority of the existing wastewater treatment infrastructure was installed in 1993 and has reached the end of its useful life. Additionally, aerated lagoon system technology in cold climates are challenged to meet future effluent limits and system expansion needs. Therefore, a new mechanical wastewater treatment plant is recommended to meet the City's current and future wastewater treatment objectives. Design and construction of a new facility is feasible within the next five years; however, there are several interim recommendations to improve operability of the existing facility and improve the design of the new facility. The near term improvements can occur concurrent to the wastewater treatment plant design and it is recommended that the improvements and / or operational adjustments address the following items: limit additional organic load to the existing wastewater treatment facility, develop and implement an industrial pretreatment program, conduct an inflow and infiltration (I/I) study, install individual customer water meters, and perform a rate study. Although the need for a new WWTP is evident based on the evaluation of the existing facility, these additional recommendations will improve functionality of the new facility and help the City better understand their existing system and customer use patterns. The recommendation for a new wastewater treatment facility is discussed in Section 6.

LIMITING ORGANIC LOADING TO EXISTING FACILITY

The existing wastewater treatment plant has reached 80 percent of its permitted organic loading capacity on more than one occasion. CDPHE requires systems to be in the planning phase for an expanded wastewater treatment facility once this milestone is reached. At 95 percent of the permitted capacity, an expanded WWTP is required to be in construction. Limiting additional organic loading generated by new development in the service area prior to construction is advised to reduce the risk of a permit violation.

INDUSTRIAL PRETREATMENT

Discharge to the municipal collection system from industrial users or high strength wastewater customers is different from commercial and domestic wastewater due to a high variability in constituent concentration and flow. High, short-term loadings can lead to "shock loading" in small treatment plants and lagoon facilities. The industrial users in the service area have not been surveyed and the contribution from this classification to the City's WWTP is not well documented. However, key connections that may be creating higher loading wastewater burdens to the treatment facility, include, manufacturing industries, RV parks that allow septic discharge, restaurants, breweries, distilleries, and geothermal pools in the service area.

An industrial pretreatment program puts limits on the wastewater discharged to the collection system by identified industrial or high strength customer user classes. If an industrial user cannot meet the designated limits, the user is required to install a pretreatment process prior to discharge or a rate structure can be employed that increases discharge fees if the limit is exceeded. After

commissioning of a new facility, the additional revenue collected can aid the City in paying for additional treatment requirements that result from higher loads to the system.

An industrial pretreatment program would allow the City to share some of the additional costs of treating industrial wastewater with industrial users, rather than placing the extra cost on residential rate payers. Managing and/or pre-treatment of the industrial or high strength customer discharge will help to protect the biological treatment process at the wastewater treatment plant from inconsistent, high loading events.

Implementation of an industrial pretreatment program should be thoughtfully evaluated and coordinated prior to implementation to reduce additional duties or responsibilities of City staff associated with the administration of the program.

INFLOW AND INFILTRATION (I/I) STUDY

An inflow and infiltration (I/I) study is recommended to evaluate the extent of I/I within the City's collection system. Based on City documents, the most recent evaluation of the City's collection system was conducted in 1989, the videos or reports from this evaluation have not been located. I/I studies are used to assess the influent flows to the City's WWTP and to recommend improvements to reduce I/I in the collection system.

The collection system may be experiencing either inflow, infiltration, or both as indicated by the higher than expected volume to the plant and the diluted influent organic concentrations. The influent BOD_5 concentration to the facility is very low as compared to typical municipal strength wastewater.

An I/I study uses rainfall and sewer flow data to determine the influent flows to the system, including base wastewater flows, inflow, and infiltration. Base wastewater flows are continuous flows into the collection system from customers. These flows typically present in a daily diurnal pattern and are relatively consistent with possible changes between weekday and weekend flows. Inflow occurs mostly during storm events that cause a spike in the base wastewater flows at/or directly after the storm event. The spikes indicate direct connections to the system, such as sump pumps, downspouts, manhole lids and cracks around the frame, and storm sewers that are increasing flows to the sanitary system during storm events. Infiltration occurs through cracks or breaks in the collection system pipes or manholes that allow for groundwater or infiltration to enter the system. Groundwater infiltration remains relatively constant if the system is below the groundwater table or may occur during the spring and early summer after snow melt causes a rise in the groundwater table elevation. Stream gauge data should also be analyzed to determine the effect of precipitation events on average flow and compare any time delay from the precipitation to an increase in flow. Investigation of the system via closed caption televised camera of the pipes and visual inspection of the manholes in identified problem areas can identify defects within the system that increase I/I.

To begin an I/I study, JVA recommends that the City install flow meters at strategic locations in the collection system. Institutional knowledge from staff will be helpful to prioritize the locations in the collection system to install the flowmeters, areas where inflow or infiltration is already

suspected. Determining locations of I/I will aid in developing a systematic approach to replace and repair the aging collection system. The reduction in flow and increase in organic loading to the new WWTP has the potential to increase performance and reduce chemical addition required to meet future treatment objectives.

WATER METERS

Water meters are recommended for all customers in the distribution system. The City water use rate is high for typical municipalities and consumption patterns for different user groups are unknown. Additionally, only 30 percent of metered potable water leaving the WTP storage tanks is seen as influent to the WWTP, indicating significant losses in the potable water distribution system. To better understand water use and therefore wastewater flow to the wastewater treatment plant meters are recommended.

The City currently charges a flat monthly rate per tap for unlimited potable water use. The City does not have the ability to monitor daily use by customer class because there are no meters. It is recommended to install flow meters on each service connection of the distribution system. Meters will provide more precise information for specific user categories on water demand and wastewater flows and allow the City to better understand water use patterns. Information could be used to develop different use categories, including industrial, and identify how different user categories impact flows and future capacity.

Water is a one of a municipality's highest and most valuable assets, particularly in the west. It is important to manage and track the City's assets to better serve the community.

RATE STUDY

Every municipality should review and update its user rates on a regular basis as population changes and development in the city continues. A rate study should be performed to accurately and fairly update user rates.

Industrial users in particular should be evaluated as industrial wastewater puts a higher burden on the wastewater system; under an outdated rate system, residential users help pay the extra expense. Industrial users may include manufacturing, restaurants, breweries, and distilleries. Collecting data from water meters installed within the system would greatly increase the accuracy of a rate study and would help to identify the users who regularly exceed average discharges to the collection system.

SECTION 6 – WASTEWATER TREATMENT PLANT

This section provides recommendations for process components for a new wastewater treatment plant along with an evaluation of a secondary treatment alternatives. Process components for the new treatment facility and evaluation of secondary treatment alternatives are summarized below.

- Preliminary treatment: Each alternative requires preliminary treatment which typically includes influent screening and grit removal.

- Influent equalization and pump station: Although influent equalization is not required for all secondary treatment alternatives, variability of flow in the City due to the fluctuations in resident and visitor population is recommended to provide operational flexibility and decrease the risk of biological upset. A 150,000 gallon influent equalization basin is included as part of each alternative. During preliminary design, the peak day and peak hour flows should be further evaluated to verify the assumed equalization volume

- Secondary treatment (alternatives evaluation): Five robust secondary treatment technologies were evaluated, including: aerobic granular sludge (AGS), integrated fixed film activated sludge treatment system (IFAS), sequencing batch reactor (SBR), moving bed biofilm reactor (MBBR), and sequential oxidation/conventional activated sludge (Sequox). Secondary treatment may include clarification and/or post equalization.

- Disinfection: All alternatives require disinfection following secondary treatment. For planning purposes, UV disinfection is assumed for all options.

- Solids handling: Solids handling following secondary treatment is provided for each alternative process. For planning purposes solids handling includes an aerobic digester and mechanical dewatering.

- Electrical, Instrumentation and Controls, and Supervisory Control and Data Acquisition (SCADA) system: Improvements to the existing electrical infrastructure are required for each alternative. The new facility will also require a new SCADA system as the current system is antiquated and does not have sufficient capabilities to meet the needs of a treatment plant.

- Emergency generator: All alternatives require a back-up emergency generator to operate critical processes in the event of a power outage. The existing generator is unlikely to have sufficient capacity for the new facility. The existing generator will be further evaluated during preliminary design.

DESIGN CRITERIA

Projected future flows to the WWTP were discussed in Section 2. The future design/buildout capacity (maximum month average daily flow) for the proposed facility is 0.47 MGD.

In addition to flow, there are several water quality parameters that effect the design of treatment plants. Table 36 shows the influent design criteria for the proposed WWTP.

Concentrations of most of the constituents are not expected to change drastically from current levels, as discussed in Section 3. However, the design influent BOD_5 concentration is 300 mg/L, which varies from the current max month average of 164 mg/L. Typical municipal wastewater averages around 300 mg/L; less than this value generally indicates I/I into the collection system which leads to dilution of the wastewater. The standard municipal concentration was selected as the design criteria for the proposed WWTP to provide a conservative estimate for planning purposes.

Table 36. Influent Design Criteria

Parameter	Unit	Influent Design Criteria
Flow	MGD	0.47
BOD	mg/L	300
	lb/day	1,170
TSS	mg/L	300
TDS	mg/L	700
Ammonia Nitrogen	mg/L	40
Total Phosphorus	mg/L	8
Total Inorganic Nitrogen	mg/L	40
Total Kjeldahl Nitrogen	mg/L	50

Future effluent limits, particularly with regards to nutrients, for the proposed WWTP, are uncertain. Recent trends for similar facilities have shown that stringent nutrient limits associated with Regulation 31 are less likely to impact smaller facilities discharging into impaired streams than originally anticipated. Permits and Preliminary Effluent Limits (PELs) for western slope facilities have shown future nutrient limits to be fairly consistent with current limits with the exclusion of ammonia. Based on this information, the secondary treatment alternatives have been evaluated based on the effluent design criteria provided in Table 37.

Table 37. Effluent Design Criteria

Parameter	Value
Flow	0.47 MGD
BOD5	15 mg/L (85% removal)
TSS	15 mg/L (85% removal)
pH	6.5-9
Ammonia	< 1 mg/L
Cadmium, PD[1]	0.79 ug/L
Copper, PD[1]	0.3 lbs/day
Iron, TR[2]	4,067 ug/L

Each alternative will include a brief discussion on required modifications to meet more stringent nutrient limits if that is necessary in the future.

PRELIMINARY TREATMENT

Preliminary treatment is required to protect and reduce maintenance requirements to the downstream treatment process. The first step of preliminary treatment is a mechanical screen, fine or coarse, to remove material that would otherwise damage pumps, valves, and other downstream mechanical equipment. Any mechanical screen requires a manual bypass in the event of a backup and to perform routine maintenance.

Based on the most restrictive screen sizing from secondary treatment equipment manufacturers, a 3 mm screen is assumed. Mechanical fine screening units operate on a timer or differential pressure setpoint. These types of screens employ traveling screens with rake bars for screenings removal. Screenings are then collected in a hopper, washed, compacted, and conveyed to a dumpster for landfill disposal.

Even with fine screening, small, inert particles including sand, glass, and small organic solids (grit) can pass through the fine screen and damage downstream mechanical equipment. Grit can also collect in pipes as well as tanks and in turn, reduce the hydraulic capacity and treatment efficiency of the facility. Grit removal is recommended as the second step in the preliminary treatment process for the new facility.

Common grit removal processes include vortex, horizontal flow pattern units, and aerated units. Based on the secondary processes evaluated and historical performance, vortex-flow grit removal units have been incorporated in the recommendation. Vortex grit removal systems typically consist of a mechanically induced circular chamber for optimizing grit particle travel distance via vortex and a common grit hopper below where grit can be removed by a grit pump. Pumped grit is sent to a grit classifier where it is dewatered via a cyclone and washed to remove organics back to the waste stream and conveyed to a dumpster for landfill disposal

Each secondary treatment alternative includes the following preliminary treatment equipment,

- Fine screening via mechanical screen and bypass channel with manual bar screen
- Wash and press for screenings including conveyance
- Vortex-flow grit removal
- Grit classification

DISINFECTION

Ultraviolet (UV) disinfection is recommended for effluent disinfection for each alternative. Generally, UV disinfection is preferred over chlorine disinfection for several reasons. Although the upfront capital cost is higher with UV disinfection, the yearly operating cost of electricity is less than the chemical costs of chlorine and dechlorination chemicals and eliminates the risk of handling such chemicals. UV disinfection also removes the need for dechlorination because chlorine will no longer be used as a chemical disinfectant. The existing contact chamber could potentially be repurposed for UV disinfection.

SOLIDS HANDLING

A new solids stabilization and handling process is required for each alternative. As the treatment facility increases capacity, the sludge produced will also increase. For the master plan, aerobic digestion with mechanical dewatering and solids conveyance is assumed. This type of solids handling system is appropriate for the secondary treatment alternatives being considered and capable of meeting current biosolids stabilization requirements for Class B biosolids.

Aerobic digestion of sludge is commonly used at smaller treatment facilities. Sludge digestion is a biological process where organic solids are decomposed into stable substances through the use of coarse bubble aeration and mixing. Digestion reduces the total mass of solids, destroys pathogens, and makes it easier to dewater the sludge.

Mechanical dewatering is recommended to reduce the volume of solids hauled and associated O&M costs related to hauling and beneficial use of the biosolids. Hauling will be required for any solids processing alternative. The City has the option to purchase hauling equipment and haul solids offsite or contract with a hauling service. There are advantages to each option that will be further evaluated during preliminary design to determine the most suitable approach for the City.

Solids processing and handling alternatives should be further evaluated during preliminary design as the recommendation is dependent on the selected secondary treatment alternative, evaluation of hauling and disposal options, and capital versus annual O&M costs. Alternative solids processing options for future evaluation are included in Table 38.

Table 38. Solids Processing Alternatives

Process	Dewatering	Capital Cost	Annual O&M Costs
Sludge Holding	Mechanical	$$	$$
	Liquid Hauling	$	$$$
Aerobic Digestion	Mechanical	$$$	$$$
	Liquid Hauling	$$	$$$$
Thermal Drying	Not Required	$$$$	$$

SECONDARY TREATMENT

Requests for proposals were solicited for mechanical wastewater treatment plants for five alternatives,

- Integrated Fixed Film Activated Sludge (IFAS) Treatment System
- Aerobic Granular Sludge (AGS)
- Sequencing Batch Reactor (SBR)
- Moving Bed Biofilm Reactor (MBBR)
- Aeromod / Sequox (similar process to conventional activated sludge process)

During the preliminary screening of the secondary treatment processes the AGS system and IFAS system were removed from further evaluation. The AGS system is a new technology with indication of promising advantages for municipal wastewater treatment. However, the first

installation in Colorado is planned for start-up in 2020. The limited experience with this technology and uncertainty surrounding its ease of operation indicated that this process was not the best suited to meet the City's needs. The IFAS system includes a secondary clarifier and two return/ recycle streams as part of the standard process. This complexity was viewed as unnecessary for the City's new facility as compared to the three remaining alternatives and was also removed from further consideration.

ALTERNATIVE 1: SEQUENCING BATCH REACTOR

A Sequencing Batch Reactor (SBR) process is a fill and draw type reactor system where all steps of the activated sludge process occur within a single basin. The SBR system includes at least three compartments; pre-react zone, two (2) SBR reactor basins, and post equalization tank. A typical process consists of three time-based phases: react/aerate, settle, and decant. An example of a typical SBR process is provided in Figure 12.

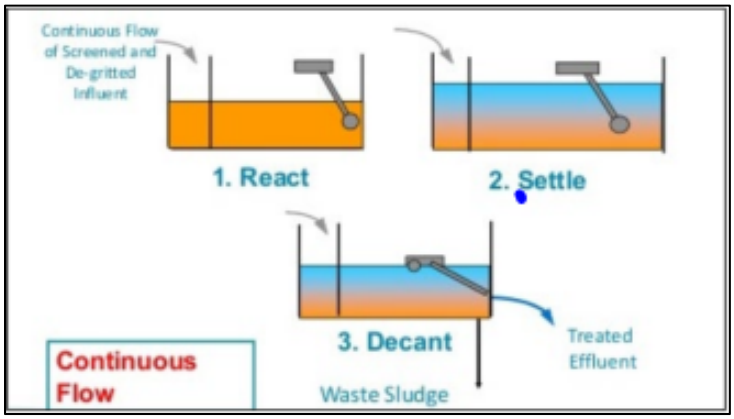

Figure 12. Typical SBR Process Flow Diagram

Waste activated sludge (WAS) is wasted from the SBR reactor basin to an aerobic digestion process or sludge holding for solids handling and disposal. Treated wastewater is pumped from the post equalization basin to UV disinfection.

Alternative 1 includes the following components,

- Headworks Facility
- Secondary Treatment and UV Process Building (laboratory and office space included)
- Influent pump station and equalization
- Two (2) SBR Basins
- One (1) Post-Equalization Basin
- Aeration Equipment
- Aerobic Digester
- Mechanical Dewatering
- UV Disinfection

For nutrient removal the SBR cycles would be modified to promote denitrification and a chemical feed system would be required to precipitate phosphorus, pH adjustment may also be required for nutrient removal. Figure 13 shows the Alternative 1 process flow diagram.

Footprint and Equipment

The proposed equipment and tank volume for Alternatives 1 is provided in Table 39. All concrete tanks have a common wall construction to the post equalization basin and aerobic digester. Proposed aeration in the SBR basins is fine bubble diffusers, with coarse bubble diffusers proposed for the digesters. Figure 14 shows the preliminary site plan for the SBR alternative.

Table 39. Footprint and Equipment for Alternative 1

Parameter	
SBR Basin Volume	390,000 gallons (each) 780,000 gallons (total)
SBR Basin Dimensions	34' x 102' x 17' (each)
Post Equalization Basin Volume	110,000 gallons
Post Equalization Basin Dimensions	29' x 34' x 17'
Total Footprint	68' x 131'
Blowers	3 x 75 HP
WAS Pumps	2 x 2.4 HP
Decanters	1 per SBR Basin
Chemical Feed Equipment	Potentially Required for Alkalinity
Submersible Mixers	1 x 11 HP
Post EQ Pumps	✓

Operation

The preliminary operational requirements for Alternative 1 are provided in Table 40. This information is provided for reference only. Design has not been completed for the proposed alternatives. Confirmation of these assumptions is required during preliminary design. The typical maintenance requirements for Alternative 1 are shown in Table 41.

Table 40. Operational Requirements for Alternative 1

Parameter	Units	
Chemical Dosing Requirement	mg/L	-
	lbs/d	-
Air Requirement	scfm	1,400
Hydraulic Retention Time	Hrs	35.5
Solids Retention Time	Days	29.1
Sludge Production	lbs/day	880

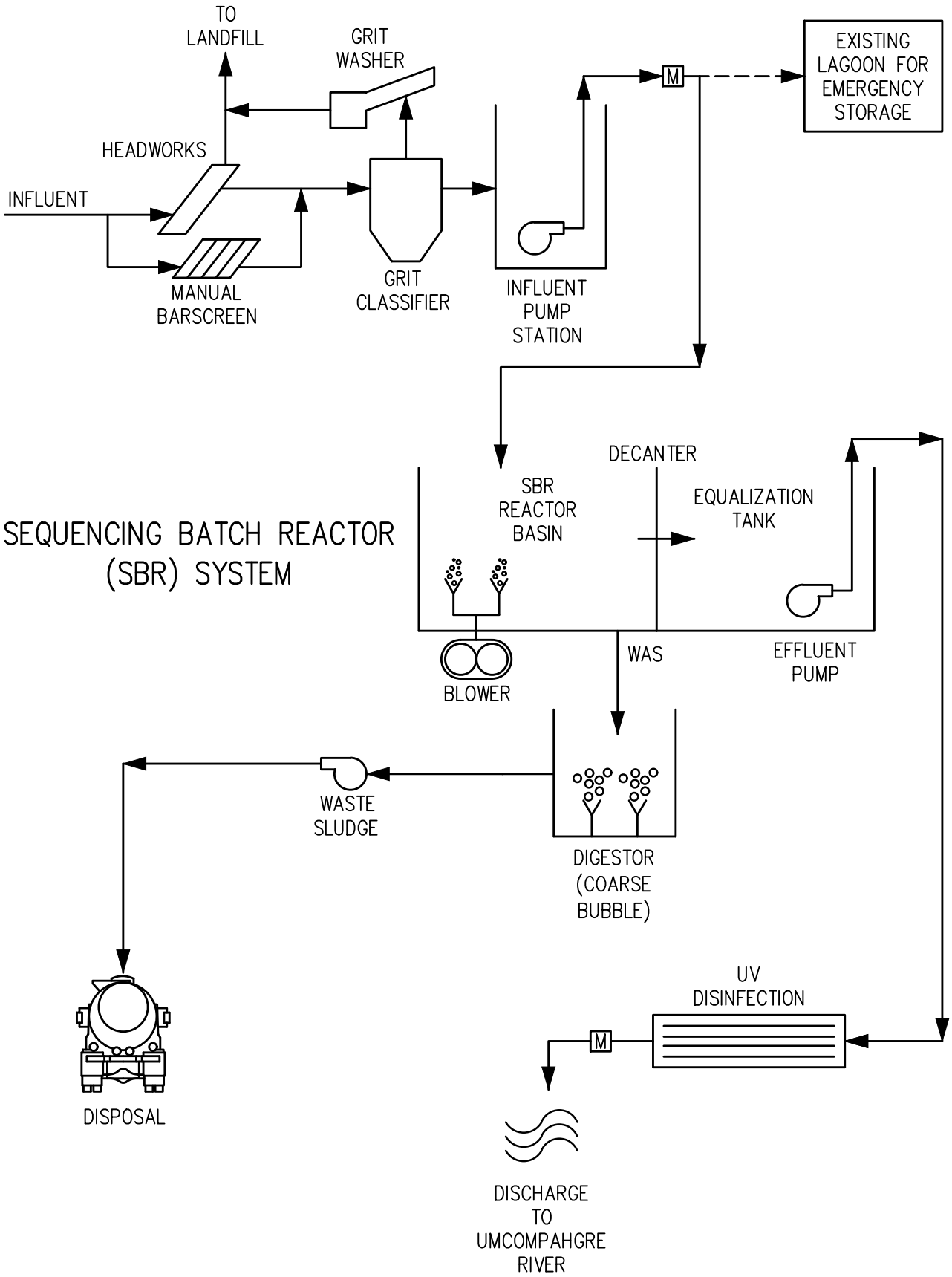

FIGURE 13 - ALTERNATIVE 1 - PFD
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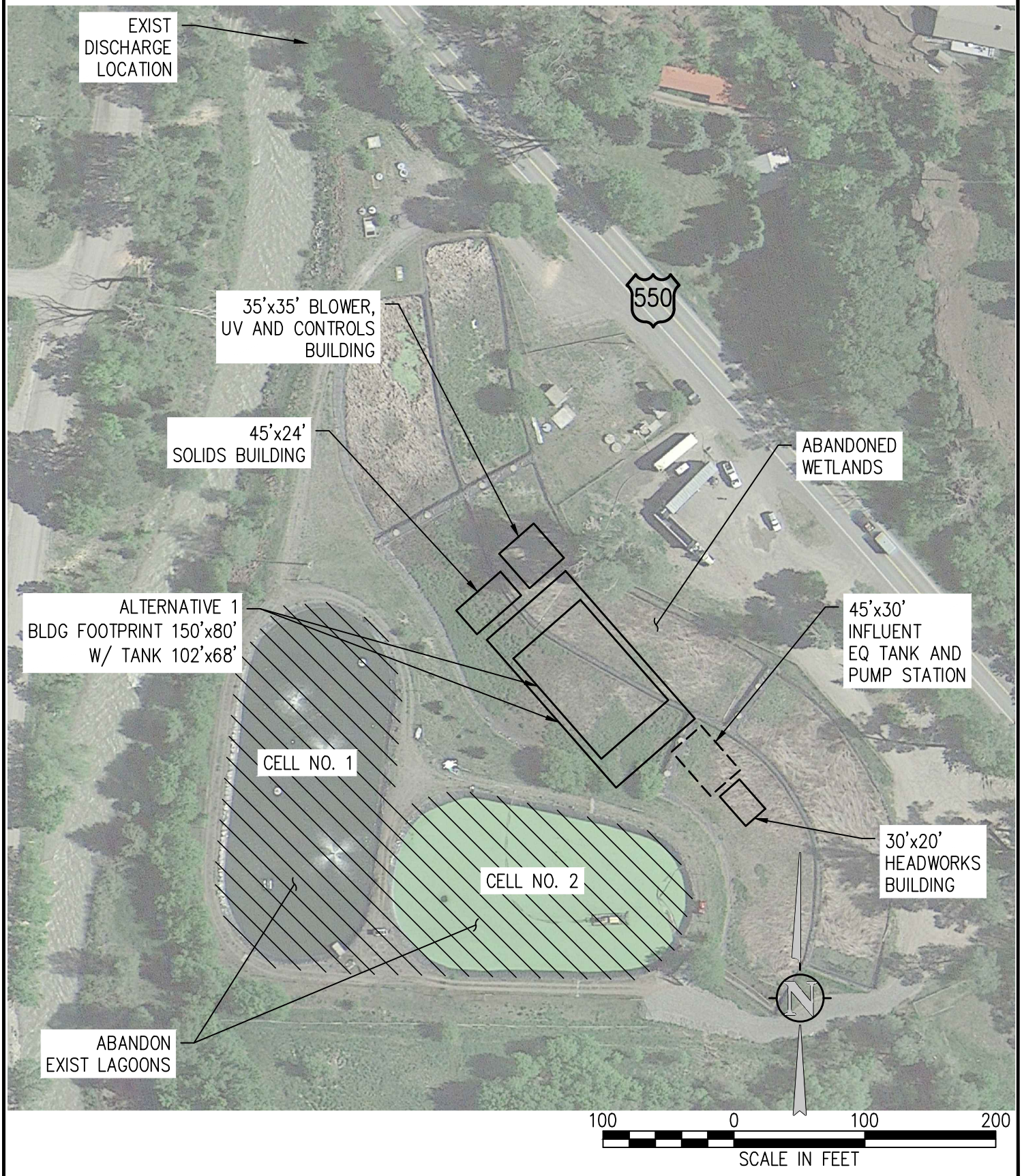

FIGURE 14 - ALTERNATIVE 1 - SITE LAYOUT
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Table 41. Maintenance Requirements for Alternative 1

Equipment Item	Part(s) to Maintain	Replacement Frequency
Decanter	Limit switch, actuator, seal, bearings, gaskets	5 years
Blowers	Oil and grease, inlet filter	1 year
	Blower and motor bearings	10 years
Fine Bubble Aeration Grid	Membrane Replacement	10 years
Waste Sludge Pumps	Oil and Seals	1-3 years
Mixers	Oil and Seals	1-3 years

Annual and 20-year O&M costs associated with this alternative are provided in Table 42. Please note, O&M costs are approximations and will depend on selected equipment and operational strategy.

Table 42. O&M Costs for Alternative 1

Parameter	
Full Time WW employee	B Operator
Energy Consumption (Blowers, Pumps, Dewatering, Process Equipment, HVAC, Lighting)	✓
Chemical Cost	--
Solids Hauling and Disposal	✓
Annual O&M Cost	**$249,200**
20-Year O&M Cost	**$5,192,800**

Advantages and Disadvantages

For Alternative 1, the following advantages and disadvantages were identified.

Advantages

- No return activated sludge streams, which limits operational complexity and equipment
- SBR is suited for intermittent flow conditions
- Secondary clarifier not required
- Settling cycles enhance solids separation and create low effluent TSS
- Minimal additional infrastructure is required for increased nutrient removal

Disadvantages

- Cycle structure increases operational complexity as compared to an MBBR (Alternative 2)
- Operators must adjust sludge wasting depending on performance and biological conditions
- Post equalization tank required for continuous flow to UV system
- Largest footprint

Alternative 2: Moving Bed Biofilm Reactor

A Moving Bed Biofilm Reactor (MBBR) is a flow through, secondary treatment system that uses a combination of a fixed-film process and a suspended activated sludge process. The system uses a manufactured media in an aerated reactor to enhance nitrification by providing improved

conditions and increased surface area for nitrifying bacteria to grow at a faster rate reducing solids retention time (SRT).

In a traditional MBBR process, biomass is attached to the media and retained in the reactor, therefore, there is no return activated sludge. In a Hybrid Biofilm Activated Sludge system, a system that combines an MBBR and an IFAS system, the reactor contains both free-floating biomass (activated sludge) and biomass attached to the media. The free-floating biomass passes through the reactor, is removed in a disc filters and then recycled back to the reactor. In lieu of a disc filter a secondary clarifier or dissolved air floatation (DAF) unit could be used for solids removal. Secondary effluent passes through a UV disinfection unit and to the discharge point.

Alternative 2 consists of one reaction tank with three chambers. To provide 100 percent redundancy a second basin of equal size is required. From the influent pump station, wastewater flows to the first aerated reaction basin and comes in contact with free-floating media for carbon (BOD_5) removal (C-Stage). After a set hydraulic retention time, wastewater flows through a screen between the basin chambers. The screen prevents media from entering the next chamber. The nitrification process begins in the second chamber, which also has free-floating media supporting heterotrophic bacteria, and is competed in the third basin. Prior to the disc filter, polymer is added to increase capture of solids on the disc filter. A secondary clarifier may be used in place of the disc filter, which would eliminate the need for polymer addition. A figure representing the process flow is shown in Figure 15 and a process flow diagram is included as Figure 16.

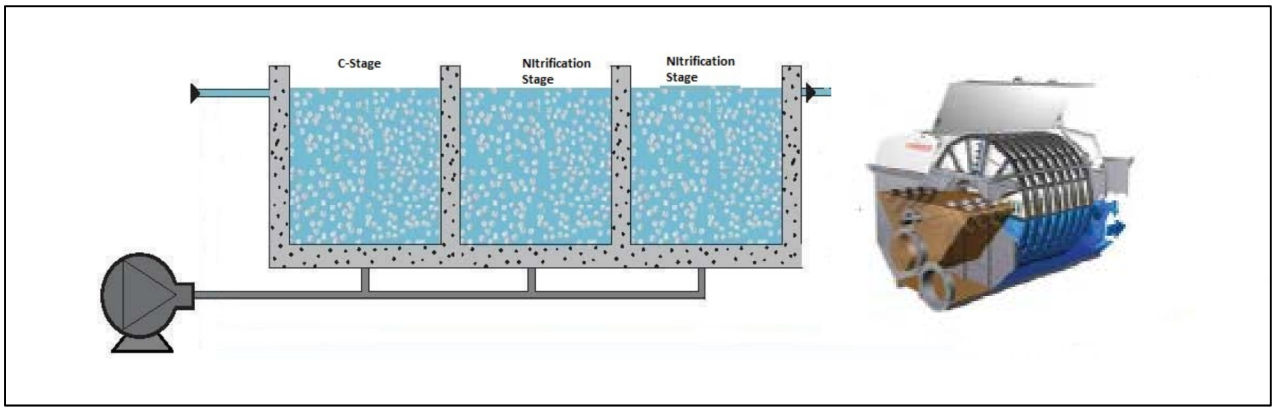

Figure 15. Alternative 2 Process Flow Schematic

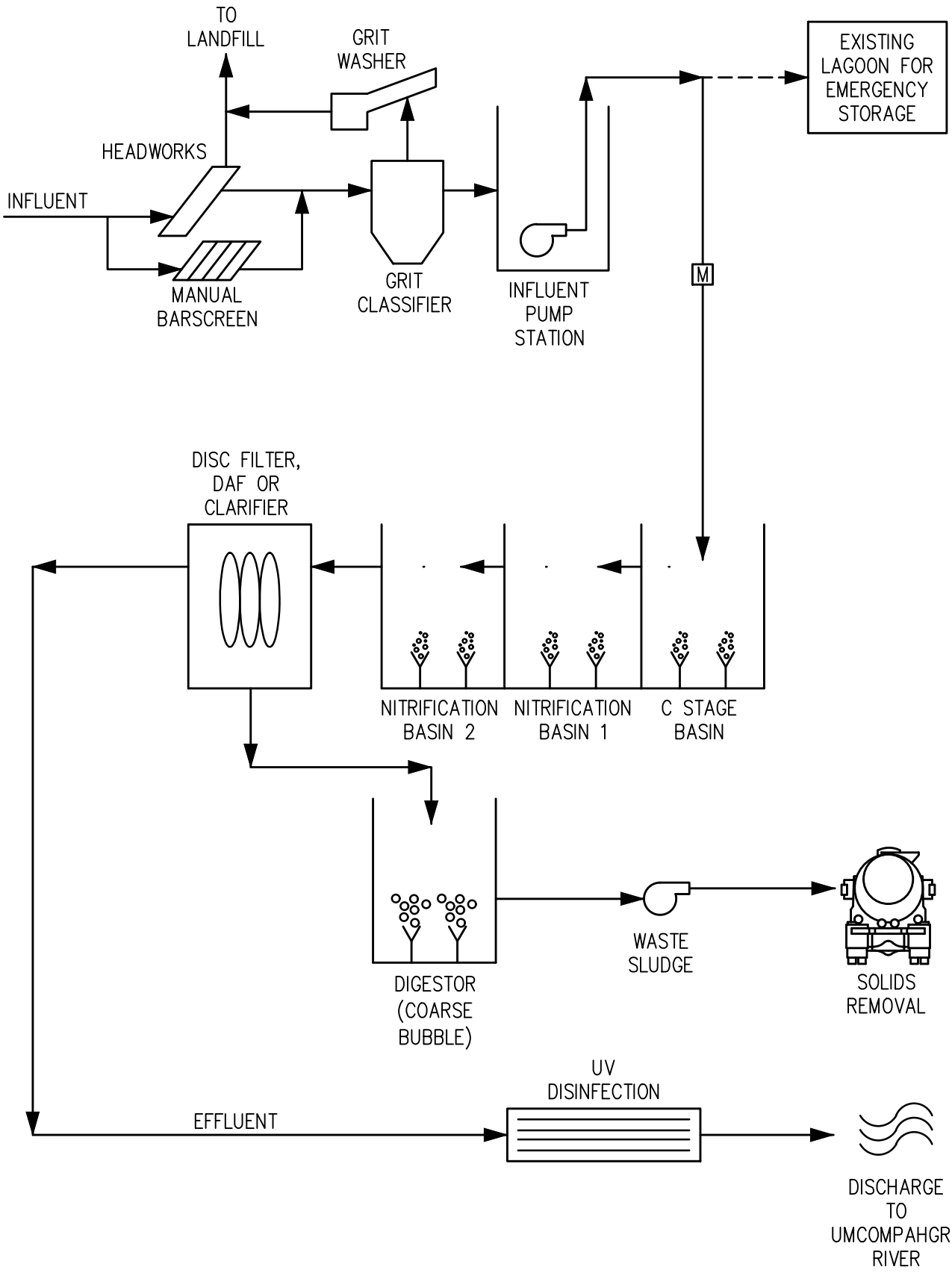

FIGURE 16 - ALTERNATIVE 2 PFD
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Alternative 2 includes the following components,

- Headworks Facility
- Secondary Treatment and UV Process Building (laboratory and office space included)
- Influent pump station and equalization
- 1 Aerobic Reactor for carbon removal (double for 100% redundancy)
- 2 Aerobic Reactors for nitrification (double for 100% redundancy)
- Aeration Equipment (Medium Bubble for Air and Mixing)
- Disc Filter and Polymer Feed Skid (Option to replace with secondary clarifier)
- Aerobic Digester
- Mechanical Dewatering
- UV Disinfection System

The following modifications are required to achieve nutrient removal requirements: addition of a pre-anoxic basin, internal recycle, and chemical feed at the disc filter for phosphorus removal.

Footprint and Equipment

The proposed equipment and tank volumes are provided in Table 43. All concrete tanks have a common wall construction. Each alternative includes a disk filter unit equipped with a backwash pump.

Figure 17 shows the preliminary site plan for Alternative 2.

Table 43. Footprint and Equipment for Alternative 2

Parameter	
Pre-Anoxic Reactor	Required for Nutrient Removal Only
Submersible Mixer for Pre-Anoxic Basin	Required for Nutrient Removal Only
Carbon Removal Reactor	32' x 25' x 18' 107,800 gal
Nitrification Reactor 1	17' x 25' x 18' 57,300 gal
Nitrification Reactor 2	17' x 25' x 18' 57,300 gal
Disc Filter Unit	11' x 7.5' x 8'
Coagulation Tank	Required for Nutrient Removal Only
Coagulation Chemical Feed Equipment	Required for Nutrient Removal Only
Coagulation Mixer	Required for Nutrient Removal Only
Flocculation Tank	10.5' x 7' x 7' 3,900 gal
Polymer Chemical Feed Equipment	1
Flocculation Mixer	1 x 0.5 HP
Total MBBR System Footprint	87.5' x 25'
Blowers	2 x 150 HP
Internal Recycle Pumps	Required for Nutrient Removal Only
Backwash Pumps	1 x 7.5 HP

OPERATION

The preliminary operational requirements for Alternative 2 are provided in Table 44. This information is provided for reference only. Design has not been completed for the proposed alternatives. Confirmation of these assumptions is required during preliminary design. The general maintenance requirements are shown in Table 45.

Table 44. Operational Requirements for Alternative 2

Parameter	Units	
Polymer Dosing Requirements	mg/L	2.0
	lbs/d	7.8
Coagulant Dosing Requirements	mg/L	-
	lbs/d	-
Air Requirement	scfm	1,150
Sludge Production	gal/day	3,362

Table 45. Maintenance Requirements for Alternative 2

Equipment Item	Part(s) to Maintain	Replacement Frequency
Blowers	Tighten/Check Belts	Monthly
	Change Filters	Quarterly
	Change Oi	6 Months
	Inspect Motor Bearings	2 years
	Replace Radial Shaft Sealing Ring and Fan	5 years
	Replace Compensator and Check Flap	8 years

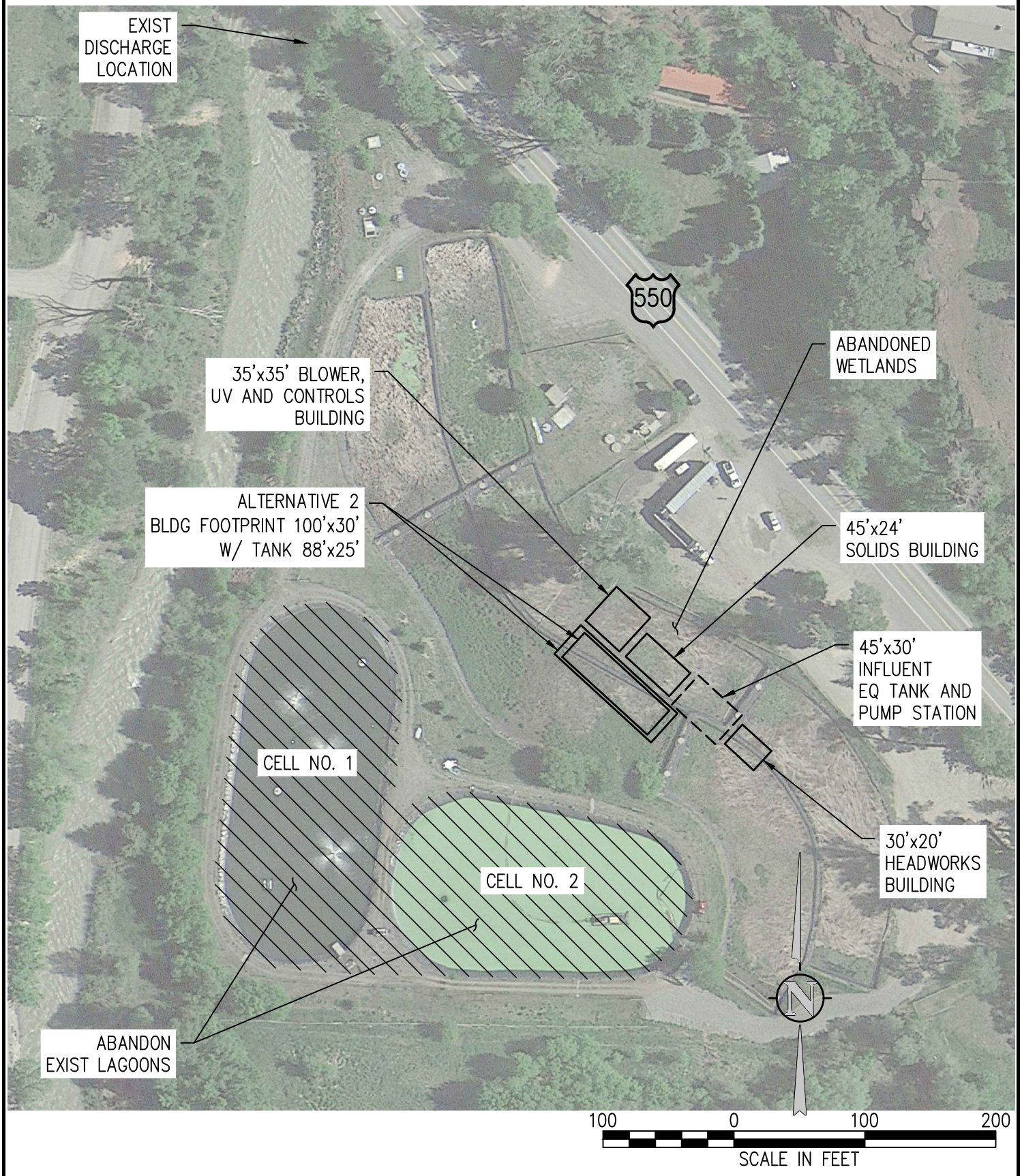

FIGURE 17 - ALTERNATIVE 2 - SITE LAYOUT
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Annual and 20-year O&M costs associated with this alternative are provided in Table 46. Please note, O&M costs are approximations and will depend on selected equipment and operational strategy.

Table 46. O&M Costs for Alternative 2

Parameter	
Full Time WW employee	B Operator
Energy Consumption (Blowers, Pumps, Dewatering, Process Equipment, HVAC, Lighting)	✓
Chemical Cost	✓
Solids Hauling and Disposal	✓
Annual O&M Cost	**$227,500**
20-Year O&M Cost	**$4,607,700**

Advantages and Disadvantages

For alternative 2, the following advantages and disadvantages were identified.

Advantages

- Smallest footprint
- Capacity can be changed by increasing the volume of media in the basins
- Operator does not need to maintain solids inventory in the basins (MLSS) through wasting process
- In basin equipment is stainless steel – no anticipated in basin maintenance is required
- Lowest capital cost (if exclude a redundant basin)
- Lowest annual and 20-year O&M costs

Disadvantages

- Higher energy demand than SBR
- Higher hydraulic losses due to flow through the media screening device
- Internal recycle for to achieve increased nutrient removal

Alternative 3: Sequox Biological Nutrient Removal

Aeromod's Sequox (Sequential Oxidation) technology combines the benefits of sequencing aeration with continuous clarification. This process can be considered similar to a packaged version of a conventional activated sludge (CAS) system. A traditional activated sludge system would require large basin volumes, leading to increased footprint and cost. The Sequox process was used for the alternatives analysis as a more suitable option for the City to reduce footprint and concrete costs as compared to a CAS system.

The wastewater flows from the influent pump station through two parallel trains with five stages of treatment performed in separate basins. The five stages are: selector, first stage aeration, second stage aeration (opposite sequencing of first stage), clarification, and aerobic digestion. The process has return activated sludge and waste active sludge; however, the manufacturer proposed air lift

pumps from the hopper bottom clarifier design. The Sequox clarifier is not currently approved by the CDPHE. An independent clarifier with a RAS and WAS pump station is included in this alternative. A process flow diagram for Alternative 3 is included in Figure 18.

Alternative 3 includes the following components,

- Headworks Facility
- Secondary Treatment and UV Process Building (laboratory and office space included)
- Influent pump station and equalization
- 1 Selector Tank
- 2 Stage 1 Aeration Basins
- 2 Stage 2 Aeration Basins
- Secondary Clarifier
- Aeration Equipment (fine bubble for secondary treatment and coarse bubble for digestion)
- RAS/WAS Pump Station
- Aerobic Digester
- Mechanical Dewatering
- UV Disinfection System

To achieve nutrient removal requirements, additional aeration volume, larger blowers for increased air capacity, and submersible mixers would be required.

Footprint and Equipment

Alternative 3 consists of a treatment process building for the secondary treatment process; UV disinfection and electrical and instrumentation equipment; a concrete basin with a common wall aerated digester, and a separate headworks facility. The basin consists of 7 common walled basins, each with an aeration system and/or mixer. This alternative can be constructed on the existing site while the existing lagoons remain in operation.

Figure 19 shows the preliminary site plan for Alternative 3. Table 47 shows the footprint requirements and site constraints for Alternative 3.

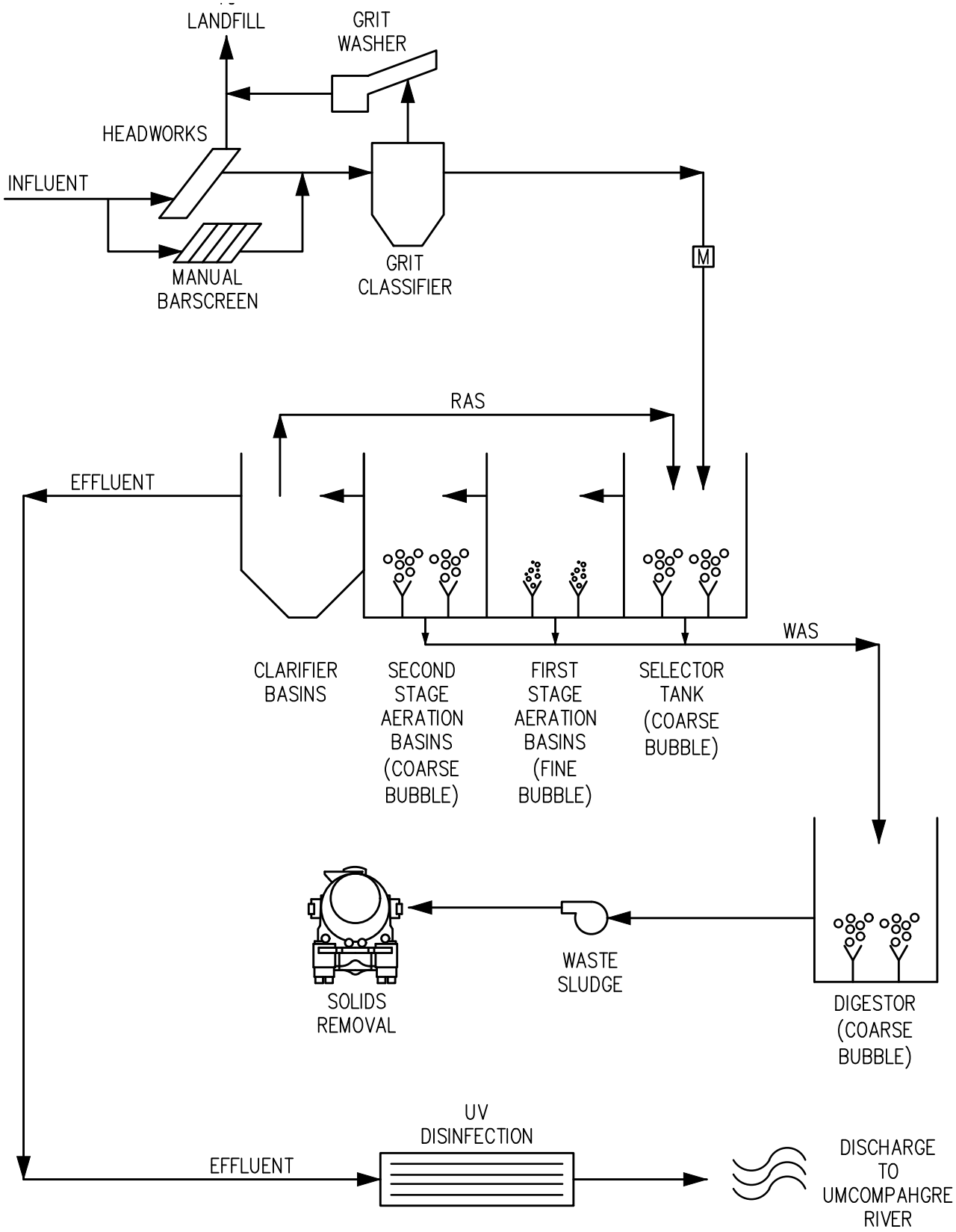

FIGURE 18 - ALTERNATIVE 3 PFD
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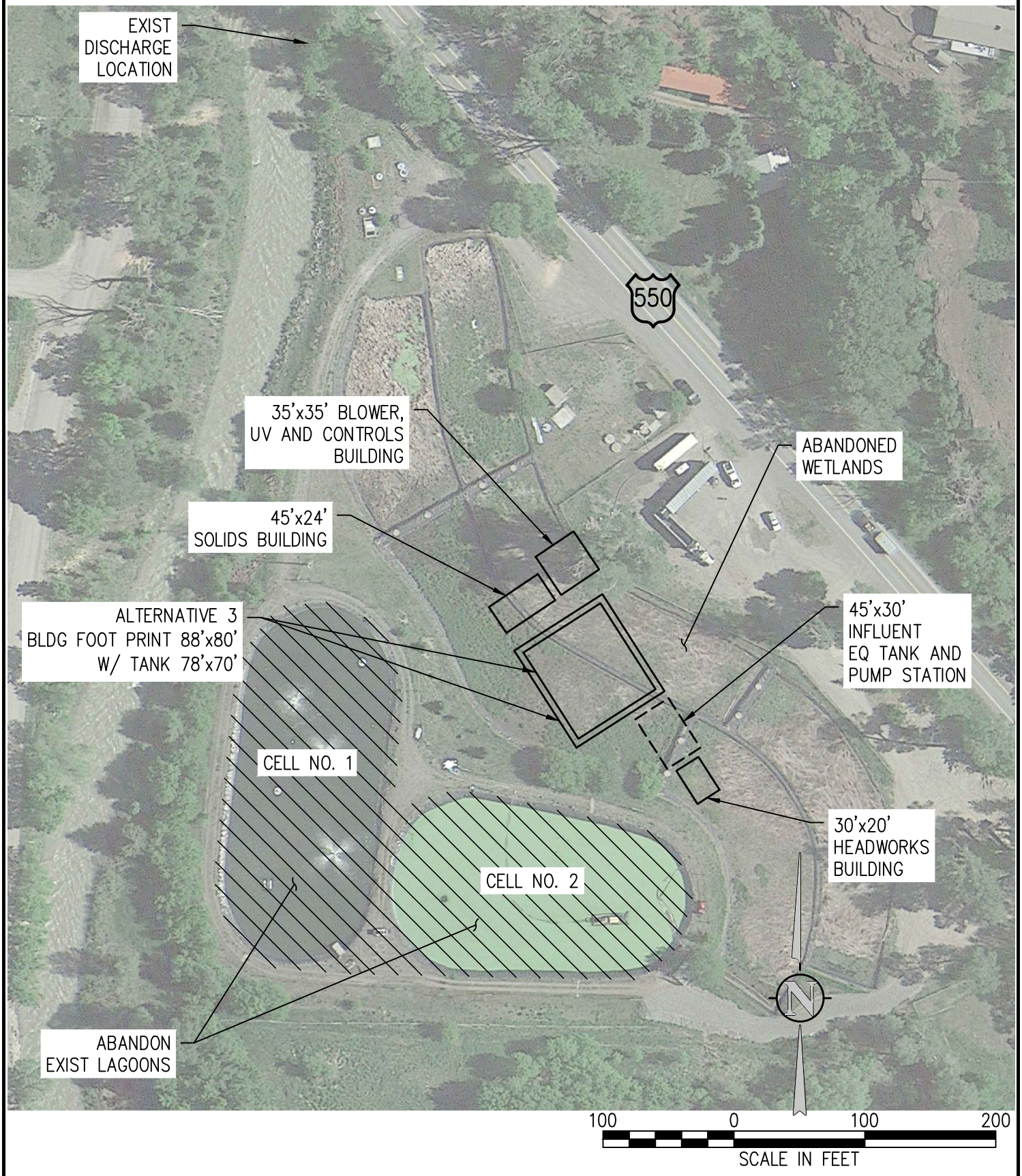

FIGURE 19 - ALTERNATIVE 3 - SITE LAYOUT
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Table 47. Footprint and Site Constraints for Alternative 3

Parameter	
Selector Tank	5'-6" x 30' x 18' 20,000 gal
Stage 1 Aeration Tank	23'-5" x 35' x 18' 196,000 gal
Stage 2 Aeration Tank	12'-6" x 66'-3" x 18' 199,000 gal
Clarifier	40 ft. diameter
Blowers	4, 60 HP
WAS / RAS Pumps	2, 10 HP/ 2, 15 HP
Submersible Mixers	Nutrient Removal Only
Total Sequox System Footprint	70' x 78'

OPERATION

The general operational requirements for Alternative 3 are shown in Table 48 and the general maintenance requirements are shown in Table 49.

Table 48. Operational Requirements for Alternatives 3

Parameter	Units	
Air Requirements	scfm	1,000
Hydraulic Retention Time	hrs	21
Sludge Production	lbs/day	928
Sludge Production	gal/day	34,483

Table 49. Maintenance Requirements for Alternative 3

Equipment	Part(s) to Maintain	Replacement Frequency
Blowers	General Service	1 year
	Replace Blowers	20 years
	Replace VFDs	20 years
Diffusers	Replace fine bubble differs	7 years

Annual and 20-year O&M costs associated with this alternative are provided in Table 50. Please note, O&M costs are approximations and will depend on selected equipment and operational strategy.

Table 50. O&M Costs for Alternative 3

Parameter	Alternative 3
Full Time WW employee	B Operator
Energy Consumption (Blowers, Pumps, Dewatering, Process Equipment, HVAC, Lighting)	✓
Chemical Cost	--
Solids Hauling and Disposal	✓
Annual O&M Cost	**$303,600**
20-Year O&M Cost	**$6,147,500**

Advantages and Disadvantages

For Alternative 3, the following advantages and disadvantages were identified.

Advantages

- All equipment is accessible from top of basin
- No moving parts below water surface
- Ideal for variable hydraulic and organic loading
- Less operator attention than traditional CAS processes

Disadvantages

- High operation and maintenance costs
- Requires return and waste activated sludge pump station
- Highest energy requirement
- Highest annual O&M costs

Opinion of Probable Costs

The estimated costs for the alternatives are presented in Table 51. Complete estimates are provided in Appendix B. Cost estimates have been prepared to a nominal accuracy of +/- 30 percent. The engineering documentation used in the preparation of the estimates includes previous project experience, relevant recent construction project bids, input from the City, and vendor information on major equipment items.

The scope of each improvement has been quantified as much as possible within the level of design completed to date to identify the required work and to provide preliminary planning estimates. Depending on the level of information available, quantities may have been developed based on the following:

- Take-off from preliminary design
- Estimated take-offs from preliminary plans, sketches, general arrangement drawings or previous experience
- Factored from previous projects based on capacity
- Order-of-magnitude allowance

Indirect costs include total project contingency, contractors overhead and profit, and professional design fees (engineering, geotechnical, and surveying). Project contingency is based on the level of confidence in the scope of work, quantities, and complexity of the project. Contingency is intended to cover anticipated variances between the direct costs in the base estimates and the final actual project cost for the total estimated values to represent the most likely outcomes. The contingency sum does not cover changes to the stated design (scope changes) or the listed qualifications and exclusions. It is expected that the most likely outcome is that all contingency monies would be spent in the execution of the project. Contractor overhead and profit has been estimated at 15 percent of the capital costs. Engineering fees for design have been estimated at 8 percent, and engineering fees for construction administration have been estimated at 5 percent. A total construction cost and a total project cost are provided for each alternative.

Each alternative includes the following assumptions and provisions in the construction and total project cost,

- All equipment is housed inside a structure to improve operability, decrease maintenance requirements, and increase system functionality.
- For aesthetic purposes, as the Gateway to the City of Ouray, all proposed buildings are estimated as CMU structures.
- An emergency generator to power the facility is provided for each alternative
- The headworks building, process building, and solids handling building are currently included as separate structures.
- A public works facility is included in the project cost for each alternative. The City has expressed an interest in relocating the current public works area to the wastewater treatment plant site.
- Decommissioning of the existing lagoons and biosolids disposal is included.
- Provisions for dewatering during construction activities are included.

For each of the proposed alternatives the following items have the same cost, for planning purposes, regardless of the secondary treatment alternative selected:

- Headworks facility and equipment
- Influent pump station and equalization basin
- UV disinfection system
- Solids dewatering and conveyance
- Public works facility

Table 51. Cost Comparison

Description	Alternative 1: SBR	Alternative 2: MBBR	Alternative 3: Sequox
Construction Cost Subtotal	$9,829,100	$10,478,000	$10,449,400
15% OH&P	$1,769,000	$1,886,000	$1,881,000
20% Contingency	$1,966,000	$2,096,000	$2,090,000
Total Construction Cost	**$13,564,100**	**$14,460,000**	**$14,420,400**
Engineering, Permitting, Design (8%)	$1,085,000	$1,157,000	$1,154,000
Bidding and CA (5%)	$678,000	$723,000	$721,000
Administrative and Legal Fees	$271,000	$289,000	$288,000
Total Project Cost	**$15,598,100**	**$16,629,000**	**$16,583,400**
Annual O&M Cost	**$249,200**	**$227,500**	**$303,600**
20-year O&M Cost	**$5,192,800**	**$4,607,700**	**$6,147,500**
20-year Net Present Value	**$20,790,900**	**$21,236,700**	**$22,730,900**

ALTERNATIVES SUMMARY

Together with City of Ouray staff, a weighted decision matrix was developed to rank the alternatives. Seven categories were included in the decision matrix,

- Operability: Ranks how simple the system is to operate. It considers operator familiarity with the technology and the complexity of the standard operational procedures. It also

factors in the amount of mechanical equipment, instruments, and controls needed to run the process, which also require periodic maintenance throughout the life cycle of the system.

- Process Performance: Performance at reference installations, and how easily/quickly process upsets can be resolved
- Aesthetics: Visual appearance and potential for odor generation.
- Constructability: This criterion ranks how simple the system will be to construct. It looks at the amount of retrofitting required to modify the existing tankage into the required configuration, as well as ancillary processes that may be required to provide a complete, operational system.
- Footprint: Space required for the technology. Although the City has ample space for the new treatment facility, space in the City is limited and the WWTP site can be used for other purposes.
- Capital cost: This criterion ranks the technologies based on the lowest capital cost.
- Operation & maintenance (O&M) cost: This criterion ranks the technologies based on the lowest O&M cost. This includes estimates of power usage, chemical consumption, cleaning costs, and equipment replacement costs.

Table 52 shows the score for each alternative based on the above criteria on a scale of one to five (one being worst) and weighting as shown. Highest priority for the City was operability and process performance, with aesthetics and cost factors as the second highest priority. The alternatives with the highest total scores are favored. The MBBR system represents the highest rated alternative based on the weighted criteria.

Table 52: Decision Matrix

Criteria	Weight	Alternative 1 SBR[1]	Alternative 2 MBBR	Alternative 3 Sequox
Operability	20%	3	4	2.5
Process Performance	20%	3	4	2.5
Aesthetics	15%	3.5	5	4.5
Constructability	5%	3.5	4.5	4
Footprint	10%	2.5	4.5	3.5
Capital cost	15%	4.5	3	2.5
O&M cost	15%	3.5	4.5	2
TOTAL	**100%**	**2.9**	**3.5**	**2.4**

Notes
[1] 5 is the "best" score, 1 is the "worst" score

RECOMMENDED TREATMENT ALTERNATIVE

Primary treatment, disinfection, and solids handling will not change among the selected alternatives. These items are required regardless of the alternative selected.

Alternative 1 – Sequencing Batch Reactors are considered to be a reasonable solution. However, the SBR option has the largest footprint of the alternatives and the operation is slightly more complex than the MBBR.

Alternative 2 – The MBBR is considered to be the best overall solution, combining simple operation with the smallest footprint and high treatment performance. The capital cost for this alternative is shown as the highest cost, however, this alternative was priced considering 100 percent redundant basins. All equipment inside the basins is stainless steel and should require little to no in basin maintenance, the redundant basin could potentially be removed to lower the capital cost associated with this alternative.

Alternative 3 – The Sequox process has the highest net present value cost and operations and maintenance cost. This system also requires a secondary clarifier. Return flows and waste activated sludge control associated with a secondary clarifier process add operational complexity. For pricing purposes only one secondary clarifier was included in the cost estimate. If a redundant clarifier was installed this option would have the highest capital and O&M cost.

Based on the decision matrix scoring criteria and relatively close capital and O&M costs between the three options, Alternative 2 is the recommended alternative for the City's proposed wastewater treatment plant. This recommendation is selected based on ease of operation, footprint, process reliability, and monetary considerations.

Project Delivery and Proposed Schedule

The existing lagoons require replacement in the near future as the lagoons are approaching their permitted organic and hydraulic capacity. Additionally, the lagoons performance over the past few years has been variable and maintaining consistent operation to reliably meet discharge permit effluent limits is challenging.

To provide the most effective and efficient project delivery for a new wastewater treatment facility, JVA recommends the Construction Manager at Risk (CMAR) project delivery method. As part of this process the construction manager is competitively selected at the 30 percent design phase to provide pre-construction services and develop a guaranteed maximum price (GMP) for the construction project. The project team (Owner, Engineer, and Contractor) work together from 30 percent design to reduce project schedule and develop value engineering opportunities to deliver the project within budget constraints. Due the volatility in the construction market over the past few years in Colorado, the ability to establish a guaranteed maximum price has significant advantages when compared to a design-bid-build project delivery method.

An aggressive preliminary project schedule for the wastewater treatment plant expansion, assuming a CMAR project delivery method is presented in Table 53. The proposed schedule assumes the process begins in January 2019. This schedule is preliminary and does not include all steps in the design or funding process. Discussions with Ouray County indicate that a special use permit application will be required, and the process generally takes three months. This process is assumed to occur concurrent to the Site Application process. The final project schedule will depend on the City's plan to finance the new facility. Additional milestones will be added after financing direction is determined. Generally, the proposed schedule is anticipated to be capable of meeting DOLA and SRF funding deadlines. Funding options are further discussed in Section 7.

Table 53. Preliminary Project Schedule

Description	Start Date	Completion Date
Prepare and submit SRF Prequalification Application	January 1, 2019	January 10, 2019
Prepare and submit Project Needs Assessment	January 10, 2019	March 31, 2019
Survey and Geotech Subcontractors Conduct Field Investigations for Design (weather depending)	March 10, 2019	May 1, 2019
Prepare and submit Site Application	February 1, 2019	April 30, 2019
Prepare 30% Design Drawings and Specifications	April 1, 2019	June 30, 2019
Advertise for CMAR RFP	July 1, 2019	NA
Award Pre-Construction Services for CMAR	August 15, 2019	NA
Prepare and submit Process Design Report	June 1, 2019	November 1, 2019
Prepare 60% Design Drawings, Specifications, and Cost Estimate	July 1, 2019	October 1, 2019
Prepare 95% Design Drawings, Specifications, and GMP	October 15, 2019	January 1, 2020
Award Construction Services CMAR Contract	January 1, 2020	NA
Submittal Review for Construction	January 1, 2020	April 1, 2020
Construction of new WWTP	April 2020	July 2021

SECTION 7 – FUNDING OPTIONS

This section includes a discussion of available funding options to aid in implementing the recommendations discussed in Section 6.

USER FEES AND CONNECTION FEES

Revenue generated from the sewer user rates and connection (tap) fees can be used for necessary improvement projects of each associated system. It is recommended to regularly evaluate the residential and commercial user rates and connection fees for the sewer system. The City may want to perform a rate evaluation on the wastewater user rates and connection fees. As discussed in Section 5, it may be possible to implement different rates for industrial users to account for their increased impact on the WWTP.

A review of the existing sewer rates and connection fees were not included as part of this Master Plan.

GRANTS AND LOANS

STATE REVOLVING FUND (SRF) – LOW INTEREST LOANS

The Water Pollution Control Revolving Fund (WPCRF) provides low interest loans to governmental entities for the construction of wastewater projects for public health and compliance purposes. The WPCRF can support the following types of projects:

- Treatment Facilities
- Interceptor / Collection Lines
- Bio-Solid Facilities
- Stormwater Systems
- Re-Use Facilities
- Non-Point Source

Available loan types include:

- Direct Loans: up to $3 million, current APR of 2.0 percent for 20 or 30 years.
- Leveraged Loans: generally provided to investment grade borrowers with larger projects greater than $3 million, bond market interest rate for 20 or 30 years.

The CDPHE Water Quality Control Division (WQCD), Department of Local Affairs (DOLA), and the Colorado Water Resources and Power Development Authority (Authority) jointly administer the SRF program. The WQCD administers the environmental reviews; engineering and design approval; and overall project management. The Authority manages the finances and loan approvals. DOLA staff works with applicants on credit reviews and reports.

There are several milestones that need to be met in order for a project to be eligible for the WPCRF:

- The entity must be included on the most current Wastewater Intended Use Plan – (Complete)
- A Pre-qualification Application must be submitted to the Grants and Loans Unit
- A Pre-application meeting with the WQCD, DOLA, and the Authority must be held
- Eligibility for a $10,000 Planning Grant is determined at the Pre-application meeting
- A Project Needs Assessment (PNA) and Environmental Determination for the project must be submitted to the WQCD Engineering Section for review
- WQCD will provide an Environmental Determination (Categorical Exclusion or Environmental Assessment)
- If necessary, an Environmental Assessment shall be submitted and reviewed. If a Finding of No Significant Impact (FNSI) is determined it shall be published with a 30-day comment period
- PNA and Environmental Approval must be obtained
- Eligibility for a Design and Engineering Grant is determined after approval of the PNA
- Prior to loan application, a public meeting must be held with a 30-day notice period, notifying the public of the project.
- The loan application shall then be submitted.
- The Authority will then approve the loan.

Department of Local Affairs (DOLA) Energy and Mineral Impact Assistance Fund (EIAF)

The purpose of the Energy and Mineral Impact Assistance Program is to assist political subdivisions that are socially and/or economically impacted by the development, processing, or energy conversion of minerals and mineral fuels. Funds come from the state severance tax on energy and mineral production and from a portion of the state's share of royalties paid to the federal government for mining and drilling of minerals and mineral fuels on federally owned land. Impact scores (10 being the most impact, 1 being the least impact) are assigned by county based on the extent of energy and mineral operations in the area. The success of this grant would be dependent on the competitiveness of the funding cycle and the county's energy and mineral impact score.

The kinds of projects that are funded include, but are not limited to, water and sewer improvements, road improvements, construction/improvements to recreation centers, senior centers and other public facilities, fire protection buildings and equipment, and local government planning. The EIAF grants are categorized into Administrative Grants, Tier I, Tier II, and Tier III. Application deadlines for each category are on April 1st, August 1st, and December 1st of each year.

Administrative Grants

Administrative Grants are available for planning, preliminary engineering and architectural design projects. The application process requires the local government to submit a detailed letter to the appropriate DOLA Regional Manager, and signed by the Chief Elected Official. The letter should include information such as the project description, budget, financial need, why the project is necessary, urgency of the project, how soon the project can begin, and how soon it can be

completed. The maximum award for an Administrative Grant is $25,000, and the total project cost should not exceed $100,000. A dollar-for-dollar match is required for this grant. An administrative grant was used to support the completion of this Master Plan.

Tier I Grants

Tier I grant funds can be used for a variety of public purposes including planning, engineering and design studies, and capital projects requiring a limited level of financial assistance. A Tier I grant awards up to $200,000. Applications for grant consideration will be expected to include a minimum match of 25 percent. Larger matching amounts are generally more competitive. Applications will be reviewed and recommended for funding by DOLA staff. The Executive Director will make funding decisions three times per year. A Tier 12 grant could be used to fund a portion of the design fees associated with a new facility.

Tier II Grants

The Tier II grant program is intended to support a wide variety of community development projects to improve quality of life in communities. A Tier II grant awards greater than $200,000 up to $2.0 million. Applications for grant consideration will be expected to include a minimum match of 25 percent. Larger matching amounts are generally more competitive. Applications will be reviewed and recommended for funding by DOLA staff. The Executive Director will make funding decisions three times per year.

Tier III Grants

To be competitive for a Tier III grant, applications require regional or multi-jurisdictional collaboration assistance to solve a multi-jurisdictional problem. A Tier III grant awards greater than $2.0 million. Applications will be reviewed and recommended for funding by DOLA staff. The Executive Director will make funding decisions based on revenue availability. Local governments that receive a Tier III grant may be asked to withdraw from future funding application cycles.

United States Department of Agriculture (USDA)

The USDA Rural Development Program offers funding options to develop essential community facilities in rural areas. The Ouray WWTP may qualify as an essential community facility as it provides an essential service to the local community in a primarily rural area and is not a private or commercial facility. To qualify for the Rural Development Program, the population of the City can be no more than 20,000 residents. In reviewing the grant application, the USDA RD office will prioritize communities based on population and median household income (MHI). In JVA's experience, it is only worthwhile applying for the grant if the City qualifies as a small community with a population under 5,500 and a median household income below 80% of the state rural median household income. The 2014 MHI for Colorado rural communities was reported as $45,307. The 2016 median household income for the City of Ouray was reported from the US Census as $66,923. Based on this information, pursuing USDA funding is not recommended for the City. Information on this program is included below for completeness.

If the City qualifies and chooses to apply for the grant, a Preliminary Engineering Report (PER) and an Environmental Report (ER) are required. The USDA PER is more extensive than the PNA which accompanies an SRF application. To complete these reports, the Town can apply for a SEARCH grant through the USDA RD office for $30,000 which would cover the cost of engineering services for the PER and ER.

The amount awarded from the USDA grant varies between funding cycle. Currently, the USDA awards 20% of requested funding as a grant, and 80% as a 40-year loan with a 2.5% interest rate.

APPENDIX A – SAMPLING RESULTS

Ouray WWTP Master Plan
Influent Sampling Plan Results

		6/6/2018	7/5/2018	8/7/2018	8/9/2018	8/14/2018	9/4/2018	9/10/2018	10/3/2018	11/1/2018	11/13/2018	11/16/2018	11/26/2018
Ammonia Nitrogen	mg/L			24.71	21.17	28.75	24.46	22.8					
BOD	mg/L	111	196	179	191	190	211	153	133	59.1	69.8	76.8	85
Nitrate Nitrogen	mg/L			<0.05	0.12	<0.05	0.06	0.09					
Nitrate/Nitrite/Nitrogen	mg/L			<0.05	0.12	<0.05	0.06	0.09					
Nitrite Nitrogen	mg/L			<0.03	<0.03	<0.03	<0.03	<0.03					
Total Phosphorus	mg/L			5.48	3.04	5	3.09	2.91					
Total Alkalinity as CaCO3	mg/L			178	158.4	175.8	164.6	147.4					
Total Inorganic Nitrogen	mg/L			24.71	21.29	28.75	24.52	22.91					
Total Kjeldahl Nitrogen	mg/L			31.7	24.1	41.3	29.8	29.6					
Total Suspended Solids	mg/L	70	81.7	182	108	80	117	294	75	36	56	40	47.2
Volatile Suspended Solids	%			100	100	100	100	98.98					
CBOD	mg/L	110	196	98	126	183	180	117	129	56.8	63.7	72.5	79.3
Total Residual Chlorine	mg/L			0.22	0.1	0.15	0.11	0.21					
Dissolved Oxygen	mg/L			0.1	0.1	0.1	0.1	0.1					
Sulfide as H2S	mg/L			0.01	0.02	0.07	0.12	0.07					
Total Dissolved Solids	mg/L	692	650						740	695	728	720	691

Ouray WWTP Master Plan
Effluent Sampling Plan Results

		6/6/2018	7/5/2018	10/3/2018	11/1/2018
Ammonia Nitrogen	mg/L	23.3	29.3	23.6	12.1
BOD	mg/L	23.1	28.4	19.3	12.3
Nitrate Nitrogen	mg/L				
Nitrate/Nitrite/Nitrogen	mg/L	0.119		1.51	
Nitrite Nitrogen	mg/L				
Total Phosphorus	mg/L	3.84		3.57	
Total Alkalinity as CaCO3	mg/L				
Total Inorganic Nitrogen	mg/L				
Total Kjeldahl Nitrogen	mg/L	28.5		28.8	
Total Suspended Solids	mg/L	31.7	52	32	24
Volatile Suspended Solids	%				
CBOD	mg/L	11.5	20.1	7.5	9.9
Total Residual Chlorine	mg/L				
Dissolved Oxygen	mg/L				
Sulfide as H2S	mg/L				
Total Dissolved Solids	mg/L	713	623	684	696
E.Coli	MPN/100mL	55.4	2419.6	648.8	8.6

Ouray WWTP Master Plan
Raw Water Sampling Plan Results

		6/6/2018	7/5/2018	10/3/2018	11/1/2018
Total Dissolved Solids	mg/L	197	203	273	275

APPENDIX B – DISCHARGE PERMIT

Colorado Department of Public Health and Environment

AUTHORIZATION TO DISCHARGE UNDER THE COLORADO DISCHARGE PERMIT SYSTEM
PERMIT NUMBER CO0043397

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended), for both discharges to surface and ground waters, and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), for discharges to surface waters only, the

City of Ouray

is authorized to discharge from the City of Ouray WWTF wastewater treatment plant located **in the SW 1/4 of the NE 1/4 of S24, T44N, R8W; 15137 HWY 550 in Ouray, CO; at 38.051178 Latitude North and -107.685417 Longitude West**

to **the Uncompahgre River**

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

The applicant may demand an adjudicatory hearing within thirty (30) calendar days of the date of issuance of the final permit determination, per the Colorado State Discharge Permit System Regulation 61.7(1). Should the applicant choose to contest any of the effluent limitations, monitoring requirements or other conditions contained herein, the applicant must comply with Section 24-4-104 CRS 1973 and the Colorado State Discharge Permit System Regulations. Failure to contest any such effluent limitation, monitoring requirement, or other condition, constitutes consent to the condition by the applicant.

This permit and the authorization to discharge shall expire at midnight, June 30, 2019

Modified and Reissued and Signed this 19th day of June, 2014

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Janet Kieler, Permits Section Manager
Water Quality Control Division

PERMIT ACTION SUMMARY:
Modification 1: Issued June 19, 2014 Effective July 1, 2014, 2014 (Part I.A.3)
Originally Issued: May 23, 2014 Effective: July 1, 2014

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PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Permitted Feature(s)

Beginning no later than the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from, and self monitoring samples taken in accordance with the monitoring requirements shall be obtained from permitted feature(s):

001A following disinfection and prior to mixing with the receiving stream from November through March and 001B from April through October, 37.981 latitude N, -107.681 longitude W.

The location(s) provided above will serve as the point(s) of compliance for this permit and are appropriate as they are located after all treatment and prior to discharge to the receiving water. Any discharge to the waters of the State from a point source other than specifically authorized by this permit is prohibited.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Section 61.8(2), 5 C.C.R. 1002-61, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations specified below or exceed the specified flow limitation.

2. Limitations, Monitoring Frequencies and Sample Types for Effluent Parameters

In order to obtain an indication of the probable compliance or noncompliance with the effluent limitations specified in Part I.A, the permittee shall monitor all effluent parameters at the frequencies and sample types specified below. Such monitoring will begin immediately and last for the life of the permit unless otherwise noted. The results of such monitoring shall be reported on the Discharge Monitoring Report form (See Part I.D.)

Self-monitoring sampling by the permittee for compliance with the effluent monitoring requirements specified in this permit, shall be performed at the location(s) noted in Part I.A.1 above. If the permittee, using an approved analytical method, monitors any parameter more frequently than required by this permit, then the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (DMRs) or other forms as required by the Division. Such increased frequency shall also be indicated.

Percentage Removal Requirements (BOD_5 and TSS Limitations) - If noted in the limits table(s), the arithmetic mean of the BOD5 and TSS concentrations for effluent samples collected during the DMR reporting period shall demonstrate a minimum of eighty-five percent (85%) removal of both BOD5 and TSS, as measured by dividing the respective difference between the mean influent and effluent concentrations for the DMR monitoring period by the respective mean influent concentration for the DMR monitoring period, and multiplying the quotient by 100.

Oil and Grease Monitoring: For every outfall with oil and grease monitoring, in the event an oil sheen or floating oil is observed, a grab sample shall be collected and analyzed for oil and grease, and reported on the appropriate DMR under parameter 03582. In addition, corrective action shall be taken immediately to mitigate the discharge of oil and grease. A description of the corrective action taken should be included with the DMR.

Total Residual Chlorine: Monitoring for TRC is required only when chlorine is in use.

Flow Recording Device: For this facility, flow recording devices are provided and located at the point of inflow to and discharge from the treatment plant. In case of malfunction, a single flow measurement device will be used for recording and reporting of both influent and effluent flows since effluent flows will not be significantly different from influent flows. Reported flows will be used to monitor compliance with the effluent flow limitation.

Permitted Feature/Limit Set 001A

ICIS Code	Effluent Parameter	Effluent Limitations Maximum Concentrations				Monitoring Requirements	
		30-Day Average	7-Day Average	Daily Maximum	2-Year Average	Frequency	Sample Type
50050	Effluent Flow (MGD)	0.25		Report		Continuous	Recorder
00400	pH (su)			6.5-9		2 days/Month	Grab
51040	E. coli (#/100 ml)	2000	4000			Monthly	Grab
50060	TRC (mg/l)	0.13		0.5		Weekly	Grab
00610	Total Ammonia as N (mg/l)						
	January	Report		Report	41	Monthly	Grab
	February	Report		Report	27	Monthly	Grab
	March	Report		Report	27	Monthly	Grab
	November	Report		Report	36	Monthly	Grab
	December	Report		Report	26	Monthly	Grab
80082	CBOD5, effluent (mg/l)	25	40			Monthly	Grab
80082	CBOD5, effluent (lbs/day)	52				Monthly	Calculated
00530	TSS, effluent (mg/l)	75	110			Quarterly	Grab
84066	Oil and Grease (visual)			Report		Weekly	Visual
03582	Oil and Grease (mg/l)			10		Contingent	Grab
70295	TDS (mg/l)	Report		Report		Quarterly	Grab
01313	Cd, PD (µg/l) until April 30, 2017	Report		Report	Report	Monthly	Grab
01313	Cd, PD (µg/l) beginning May 1, 2017	1.1		Report	0.57	Monthly	Grab
01313	Cd, PD (lbs/day) until April 30, 2017	Report				Monthly	Grab
01313	Cd, PD (lbs/day) beginning May 1, 2017	0.116				Monthly	Grab
01306	Cu, PD (µg/l)	Report		Report	Report	Monthly	Grab
01306	Cu, PD (lbs/day) until April 30, 2017	Report				Monthly	Grab
01306	Cu, PD (lbs/day) beginning May 1, 2017	0.3				Monthly	Grab
00980	Fe, TR (µg/l) until April 30, 2017	Report			Report	Monthly	Grab
00980	Fe, TR (µg/l) beginning May 1, 2017	Report			1885	Monthly	Grab
00980	Fe, TR (lbs/day) until April 30, 2017	Report				Monthly	Grab
00980	Fe, TR (lbs/day) beginning May 1, 2017	16.4				Monthly	Grab

Note that the quarterly sample for TDS shall be reported on DMRs for Outfall 001AQ for Oct-Dec and Jan-Mar.

Permitted Feature/Limit Set 001B

ICIS Code	Effluent Parameter	Effluent Limitations Maximum Concentrations				Monitoring Requirements	
		30-Day Average	7-Day Average	Daily Maximum	2-Year Average	Frequency	Sample Type
50050	Effluent Flow (MGD)	0.363		Report		Continuous	Recorder
00400	pH (su)			6.5-9		2 days/Month	Grab
51040	E. coli (#/100 ml)	2000	4000			Monthly	Grab
50060	TRC (mg/l)	0.13		0.5		Weekly	Grab
00610	Total Ammonia as N (mg/l)						
	April	Report		Report	28	Monthly	Grab
	May	Report		Report	77	Monthly	Grab
	June	Report		Report	71	Monthly	Grab
	July	Report		Report	84	Monthly	Grab
	August	Report		Report	37	Monthly	Grab
	September	Report		Report	49	Monthly	Grab
	October	Report		Report	35	Monthly	Grab
80082	CBOD5, effluent (mg/l)	25	40			Monthly	Grab
80082	CBOD5, effluent (lbs/day)	76				Monthly	Calculated
00530	TSS, effluent (mg/l)	75	110			Monthly	Grab
84066	Oil and Grease (visual)			Report		Weekly	Visual
03582	Oil and Grease (mg/l)			10		Contingent	Grab
70295	TDS (mg/l)	Report		Report		Quarterly	Grab
01313	Cd, PD (µg/l) until April 30, 2017	Report		Report	Report	Monthly	Grab
01313	Cd, PD (µg/l) beginning May 1, 2017	0.79		Report	0.54	Monthly	Grab
01313	Cd, PD (lbs/day) until April 30, 2017	Report				Monthly	Grab
01313	Cd, PD (lbs/day) beginning May 1, 2017	0.125				Monthly	Grab
01306	Cu, PD (µg/l) until April 30, 2017	Report		Report	Report	Monthly	Grab
01306	Cu, PD (µg/l) beginning May 1, 2017	Report		Report	118	Monthly	Grab
01306	Cu, PD (lbs/day) until April 30, 2017	Report				Monthly	Grab
01306	Cu, PD (lbs/day) beginning May 1, 2017	0.4				Monthly	Grab
00980	Fe, TR (µg/l) until April 30, 2017	Report			Report	Monthly	Grab
00980	Fe, TR (µg/l) beginning May 1, 2017	4067			2140	Monthly	Grab
00980	Fe, TR (lbs/day) until April 30, 2017	Report				Monthly	Grab
00980	Fe, TR (lbs/day) beginning May 1, 2017	17.8				Monthly	Grab

Note that the quarterly sample for TDS shall be reported on DMRs for Outfall 001BQ for Apr-Jun and Jul-Sep.

3. Monitoring Frequency and Sample Type Influent Parameters

Regardless of whether or not an effluent discharge occurs and in order to obtain an indication of the current influent loading as compared to the approved capacity specified in Part I.A.3 and Part I.B.2; the permittee shall monitor influent parameters at the following required frequencies, the results to be reported on the Discharge Monitoring Report (See Part I.D):

If the permittee monitors any parameter more frequently than required by the permit, using an approved test procedure or as specified in the permit, the result of this monitoring shall be included in the calculation and reporting of data to the Division.

Self-monitoring samples taken in compliance with the monitoring requirements specified below shall be taken at the following location(s): **Outfall 300I, at a representative point prior to biological treatment.**

Permitted Feature 300I

ICIS Code	Parameter	Discharge Limitations Maximum Concentrations			Monitoring Frequency	Sample Type
		30-Day Average	7-Day Average	Daily Max.		
50050 G	Flow, mgd	Report		Report	Continuous	Recorder
00180 G	Plant Capacity (% of Capacity - Hydraulic) [1]	Report			Monthly	Calculated [1]
80082 G	$CBOD_5$, mg/l [2]	Report	Report		Monthly	Composite
00310 G	BOD_5, mg/l	Report	Report		Monthly	Composite
00310 G	BOD_5, lbs/day	Report	Report		Monthly	Calculated
00180 G	Plant Capacity (% of Capacity - Organic) [1]	Report			Monthly	Calculated [1]
00530G	Total Suspended Solids, mg/l	Report	Report		Monthly	Composite
70295 G	Total Dissolved Solids *	Report			Quarterly	Composite

* TDS measurements only required when the discharge is in the Colorado River Basin. Samples are to be of the raw water supply. If more than one source is being utilized, a composite sample proportioned to flow shall be prepared from individual grab samples.

1 The % capacity is to be reported against the listed capacities of 0.25 for the hydraulic capacity for the months of November through March with an organic capacity of 275 lbs BOD5/day and the hydraulic capacity of 0.363 MGD for the months of April through October with an organic capacity of 400 lbs BOD5/day as noted in Site Approval 4006. The percentage should be calculated using the 30-day average values divided by the corresponding capacity, times 100.

2 Monitoring for $CBOD_5$ will be added in addition to BOD_5 on the influent sampling requirements when CBOD is used as a limitation on the effluent instead of BOD. This is needed to determine the percent removal of CBOD where applicable. BOD monitoring is still necessary to determine the organic loading in terms of percent capacity when Site Approvals are developed on BOD.

B. TERMS AND CONDITIONS

1. Service Area

All wastewater flows contributed in the service area may be accepted by the City of Ouray for treatment at the permittee's wastewater treatment plant provided that such acceptance does not cause or contribute to an exceedance of the throughput or design capacity of the treatment works or the effluent limitations in Part I.A, or constitute a substantial impact to the functioning of the treatment works, degrade the quality of the receiving waters, or harm human health, or the environment.

In addition, the permittee shall enter into and maintain service agreements with any municipalities that discharge into the wastewater treatment facility. The service agreements shall contain all provisions necessary to protect the financial, physical, and operational integrity of the wastewater treatment works.

2. Design Capacity

Based on Site Approval **4006**, the design capacity of this domestic wastewater treatment works is **0.25 million gallons per day** (MGD) for hydraulic flow (30-day average) for the months of November through March with **275 lbs BOD_5 per day** for organic loading (30-day average), or the hydraulic capacity of **0.363 million gallons per day** (MGD) for the months of April through October with **400 lbs BOD_5 per day** for organic loading (30-day average).

3. Expansion Requirements

Pursuant to Colorado Law, C.R.S. 25-8-501 (5 d & e), the permittee is required to initiate engineering and financial planning for expansion of the domestic wastewater treatment works whenever throughput reaches eighty (80) percent of the treatment capacity. Such planning may be deemed unnecessary upon a showing that the area served by the domestic wastewater treatment works has a stable or declining population; but this provision shall not be construed as preventing periodic review by the Division should it be felt that growth is occurring or will occur in the area.

The permittee shall commence construction of such domestic wastewater treatment works expansion whenever throughput reaches ninety-five (95) percent of the treatment capacity or, in the case of a municipality, either commence construction or cease issuance of building permits within such municipality until such construction is commenced; except that building permits may continue to be issued for any construction which would not have the effect of increasing the input of wastewater to the sewage treatment works of the municipality involved.

Where unusual circumstances result in throughput exceeding 80% of treatment capacity, the permittee may, in lieu of initiating planning for expansion, submit a report to the Division that demonstrates that it is unlikely that the event will reoccur, or even if it were to reoccur, that 95% of the treatment capacity would not be exceeded.

Where unusual circumstances result in throughput exceeding 95% of the treatment capacity, the permittee may, in lieu of initiating construction of the expansion, submit a report to the Division that demonstrates that the domestic wastewater treatment works was in compliance at all times during the events and that it is extremely unlikely that the event will reoccur.

Where the permittee submits a report pursuant to unusual circumstances, and the Division, upon review of such report, determines in writing to the permittee that the report does not support the required findings, the permittee shall initiate planning and/or construction of the domestic wastewater treatment works as appropriate.

4. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control including all portions of the collection system and lift stations owned by the permittee (and related appurtenances) which are installed or used by the permittee as necessary to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective performance, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems when installed by the permittee only when necessary to achieve compliance with the conditions of the permit.

Any sludge produced at the wastewater treatment facility shall be disposed of in accordance with State and Federal regulations. The permittee shall take all reasonable steps to minimize or prevent any discharge of sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. As necessary, accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge is required.

5. Compliance Schedule(s)

All information and written reports required by the following compliance schedules should be directed to the Permits Section for final review unless otherwise stated.

a. Lagoon Liner Integrity – In order to comply with lagoon liner integrity testing, the following compliance schedule has been included in the permit. Activities for Lagoon Seepage Test – In order to ensure the lagoon liners do not exceed the allowable seepage rate, the following schedule for compliance is included in the permit.

Code	Event	Description	Due Date
06599	Hire a Professional Engineer	The permittee is to hire a professional engineer registered in the state of Colorado to determine if the lagoon meets the allowable seepage rate of less than or equal to 10^{-6} cm/second. The permittee is to inform the Division of whom they have selected to complete this project.	12/01/14
50008	Submit Study Results	The permittee must submit a report completed by a professional engineer indicating the seepage rate results to the Division. If the seepage rate is greater than 10^{-6} cm/sec, the permittee is to also submit plans, including a time line, for repairing the liner, replacing the liner, or applying for a groundwater discharge permit.	12/01/15

b. Activities to Meet Dissolved Cadmium, Dissolved Copper and Total Recoverable Iron Final Limits – In order to meet Dissolved Cadmium, Dissolved Copper and Total Recoverable Iron limitations, the following schedule are included in the permit.

Code	Event	Description	Due Date
43699	Facility Evaluation Plan	Submit a report that identifies sources of cadmium, copper and iron to the wastewater treatment facility and identifies strategies to control these sources or treatment alternatives such that compliance with the final limitations may be attained.	5/31/2015
00899	Implementation Schedule	Submit a progress report summarizing the progress in implementing the strategies to control sources such that compliance with the final Dissolved Cadmium, Dissolved Copper and Total Recoverable Iron limitations may be attained.	12/31/2015
00899	Implementation Schedule	Submit a progress report summarizing the progress in implementing the strategies to control sources such that compliance with the final Dissolved Cadmium, Dissolved Copper and Total Recoverable Iron limitations may be attained.	6/30/2016
CS017	Achieve Final Compliance with Emissions or Discharge Limits	Submit study results that show compliance has been attained with the final Dissolved Cadmium, Dissolved Copper and Total Recoverable Iron limitations.	04/30/2017

No later than 14 calendar days following each date identified in the above schedules of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

6. Industrial Waste Management

a. The Permittee has the responsibility to protect the Domestic Wastewater Treatment Works (DWTW), as defined at section 25.8.103(5) of the Colorado Water Quality Control Act, or the Publicly-Owned Treatment Works (POTW), as

defined at 40 CFR section 403.3(q) of the federal pretreatment regulations, from pollutants which would cause pass through or interference, as defined at 40 CFR 403.3(p) and (k), or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.

b. Pretreatment Standards (40 CFR Section 403.5) developed pursuant to Section 307 of the Federal Clean Water Act (the Act) require that the Permittee shall not allow, under any circumstances, the introduction of the following pollutants to the DWTW from any source of non-domestic discharge:

   i. Pollutants which create a fire or explosion hazard in the DWTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than sixty (60) degrees Centigrade (140 degrees Fahrenheit) using the test methods specified in 40 CFR Section 261.21;

   ii. Pollutants which will cause corrosive structural damage to the DWTW, but in no case discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such discharges;

   iii. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the DWTW, or otherwise interfere with the operation of the DWTW;

   iv. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the DWTW;

   v. Heat in amounts which will inhibit biological activity in the DWTW resulting in Interference, but in no case heat in such quantities that the temperature at the DWTW treatment plant exceeds forty (40) degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the DWTW, approves alternate temperature limits;

   vi. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   vii. Pollutants which result in the presence of toxic gases, vapors, or fumes within the DWTW in a quantity that may cause acute worker health and safety problems;

   viii. Any trucked or hauled pollutants, except at discharge points designated by the DWTW; and

   ix. Any specific pollutant that exceeds a local limitation established by the Permittee in accordance with the requirements of 40 CFR Section 403.5(c) and (d).

   x. Any other pollutant which may cause Pass Through or Interference.

c. EPA shall be the Approval Authority and the mailing address for all reporting and notifications to the Approval Authority shall be: USEPA 1595 Wynkoop St. 8ENF-W-NP, Denver, CO 80202-1129. Should the State be delegated authority to implement and enforce the Pretreatment Program in the future, the Permittee shall be notified of the delegation and the state permitting authority shall become the Approval Authority.

d. In addition to the general limitations expressed above, more specific Pretreatment Standards have been and will be promulgated for specific industrial categories under Section 307 of the Act (40 CFR Part 405 et. seq.).

e. The Permittee must notify the state permitting authority and the Approval Authority, of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) calendar days following the introduction or change. Such notice must identify:

   i. Any new introduction of pollutants into the DWTW from an industrial user which would be subject to Sections 301, 306, or 307 of the Act if it were directly discharging those pollutants; or

   ii. Any substantial change in the volume or character of pollutants being introduced into the DWTW by any industrial user;

   iii. For the purposes of this section, adequate notice shall include information on:

(A) The identity of the industrial user;

(B) The nature and concentration of pollutants in the discharge and the average and maximum flow of the discharge to be introduced into the DWTW; and

(C) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from or biosolids or sludge produced at such DWTW.

iv. For the purposes of this section, an industrial user shall include:

(A) Any discharger subject to Categorical Pretreatment Standards under Section 307 of the Act and 40 CFR chapter I and subchapter N;

(B) Any discharger which has a process wastewater flow of 25,000 gallons or more per day;

(C) Any discharger contributing five percent or more of the average dry weather hydraulic or organic capacity of the DWTW treatment plant;

(D) Any discharger who is designated by the Approval Authority as having a reasonable potential for adversely affecting the DWTWs operation or for violating any Pretreatment Standard or requirements;

f. At such time as a specific Pretreatment Standard or requirement becomes applicable to an industrial user of the Permittee, the state permitting authority and/or Approval Authority may, as appropriate:

i. Amend the Permittee's CDPS discharge permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable national Pretreatment Standards;

ii. Require the Permittee to specify, by ordinance, order, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the Permittee's DWTW for treatment. Such requirement shall be imposed in a manner consistent with the program development requirements of the General Pretreatment Regulations at 40 CFR Part 403; and/or,

iii. Require the Permittee to monitor its discharge for any pollutant which may likely be discharged from the Permittee's DWTW, should the industrial user fail to properly pretreat its waste.

The state permitting authority and the Approval Authority retains, at all times, the right to take legal action against any source of nondomestic discharge, whether directly or indirectly controlled by the Permittee, for violations of a permit, order or similar enforceable mechanism issued by the Permittee, violations of any Pretreatment Standard or requirement, or for failure to discharge at an acceptable level under national standards issued by EPA under 40 CFR, chapter I, subchapter N. In those cases where a CDPS permit violation has occurred because of the failure of the Permittee to properly develop and enforce Pretreatment Standards and requirements as necessary to protect the DWTW, the state permitting authority and/or Approval Authority shall hold the Permittee and/or industrial user responsible and may take legal action against the Permittee as well as the Industrial user(s) contributing to the permit violation.

C. DEFINITION OF TERMS

1. "Acute Toxicity" - The acute toxicity limitation is exceeded if the LC50 is at any effluent concentration less than or equal to the IWC indicated in this permit.

2. “Antidegradation limits” – See “Two (2) - Year Rolling Average”.

3. "Chronic toxicity", which includes lethality and growth or reproduction, occurs when the NOEC and IC25 are at an effluent concentration less than the IWC indicated in this permit.

4. "Composite" sample is a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow. For a SBR type treatment system, a composite sample is defined as sampling equal aliquots during the beginning, middle and end of a decant period, for two consecutive periods during a day (if possible).

5. "Continuous" measurement, is a measurement obtained from an automatic recording device which continually measures the effluent for the parameter in question, or that provides measurements at specified intervals.

6. "Daily Maximum limitation" for all parameters (except temperature, pH and dissolved oxygen) means the limitation for this parameter shall be applied as an average of all samples collected in one calendar day. For these parameters the DMR shall include the highest of the daily averages. For pH and dissolved oxygen, this means an instantaneous maximum (and/or instantaneous minimum) value. The instantaneous value is defined as the analytical result of any individual sample. For pH and dissolved oxygen, DMRs shall include the maximum (and/or minimum) of all instantaneous values within the calendar month. Any value beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit. For temperature, see Daily Maximum Temperature.

7. "Daily Maximum Temperature (DM)" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as the highest two-hour average water temperature recorded during a given 24-hour period. This will be determined using a rolling 2-hour maximum temperature. If data is collected every 15 minutes, a 2 hour maximum can be determined on every data point after the initial 2 hours of collection. Note that the time periods that overlap days (Wednesday night to Thursday morning) do not matter as the reported value on the DMR is the greatest of all the 2-hour averages.

   For example data points collected at:
   08:15, 08:30, 08:45, 09:00, 09:15, 09:30, 09:45, 10:00, would be averaged for a single 2 hour average data point
   08:30, 08:45, 09:00, 09:15, 09:30, 09:45, 10:00, 10:15, would be averaged for a single 2 hour average data point
   08:45, 09:00, 09:15, 09:30, 09:45, 10:00, 10:15, 10:30, would be averaged for a single 2 hour average data point

   This would continue throughout the course of a calendar day. The highest of these 2 hour averages over a month would be reported on the DMR as the daily maximum temperature. At the end/beginning of a month, the collected data should be used for the month that contains the greatest number of minutes in the 2-hour maximum. Data from 11 pm to 12:59 am, would fall in the previous month. Data collected from 11:01 pm to 1:00 am would fall in the new month.

8. "Dissolved (D) metals fraction" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as that portion of a water and suspended sediment sample which passed through a 0.40 or 0.45 UM (micron) membrane filter. Determinations of "dissolved" constituents are made using the filtrate. This may include some very small (colloidal) suspended particles which passed through the membrane filter as well as the amount of substance present in true chemical solution.

9. "Geometric mean" for *E. coli* bacteria concentrations, the thirty (30) day and seven (7) day averages shall be determined as the geometric mean of all samples collected in a thirty (30) day period and the geometric mean of all samples taken in a seven (7) consecutive day period respectively. The geometric mean may be calculated using two different methods. For the methods shown, a, b, c, d, etc. are individual sample results, and n is the total number of samples.

   Method 1:

   Geometric Mean = $(a*b*c*d*...)^{(1/n)}$ "*" - means multiply

   Method 2:

   Geometric Mean = antilog ([log(a)+log(b)+log(c)+log(d)+...]/n)

   Graphical methods, even though they may also employ the use of logarithms, may introduce significant error and may not be used.

   In calculating the geometric mean, for those individual sample results that are reported by the analytical laboratory to be "less than" a numeric value, a value of 1 should be used in the calculations. If all individual analytical results for the month are reported to be less than numeric values, then report "less than" the largest of those numeric values on the monthly DMR. Otherwise, report the calculated value.

For any individual analytical result of "too numerous to count" (TNTC), that analysis shall be considered to be invalid and another sample shall be promptly collected for analysis. If another sample cannot be collected within the same sampling period for which the invalid sample was collected (during the same month if monthly sampling is required, during the same week if weekly sampling is required, etc.), then the following procedures apply:

i. A minimum of two samples shall be collected for coliform analysis within the next sampling period.

ii. If the sampling frequency is monthly or less frequent: For the period with the invalid sample results, leave the spaces on the corresponding DMR for reporting coliform results empty and attach to the DMR a letter noting that a result of TNTC was obtained for that period, and explain why another sample for that period had not been collected.

If the sampling frequency is more frequent than monthly: Eliminate the result of TNTC from any further calculations, and use all the other results obtained within that month for reporting purposes. Attach a letter noting that a result of TNTC was obtained, and list all individual analytical results and corresponding sampling dates for that month.

10. "Grab" sample, is a single "dip and take" sample so as to be representative of the parameter being monitored.

11. “IC25” or “Inhibition Concentration” is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal biological measurement (e.g. growth or reproduction) calculated from a continuous model (i.e. interpolation method). IC25 is a point estimate of the toxic concentration that would cause a 25-percent reduction in a non-lethal biological measurement.

12. "In-situ" measurement is defined as a single reading, observation or measurement taken in the field at the point of discharge.

13. "Instantaneous" measurement is a single reading, observation, or measurement performed on site using existing monitoring facilities.

14. “LC50” or “Lethal Concentration” is the toxic or effluent concentration that would cause death in 50 percent of the test organisms over a specified period of time.

15. “Maximum Weekly Average Temperature (MWAT)” is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as an implementation statistic that is calculated from field monitoring data. The MWAT is calculated as the largest mathematical mean of multiple, equally spaced, daily temperatures over a seven-day consecutive period, with a minimum of three data points spaced equally through the day. For lakes and reservoirs, the MWAT is assumed to be equivalent to the maximum WAT from at least three profiles distributed throughout the growing season (generally July-September).

    The MWAT is calculated by averaging all temperature data points collected during a calendar day, and then averaging the daily average temperatures for 7 consecutive days. This 7 day averaging period is a rolling average, i.e. on the 8th day, the MWAT will be the averages of the daily averages of days 2-8. The value to be reported on the DMR is the highest of all the rolling 7-day averages throughout the month. For those days that are at the end/beginning of the month, the data shall be reported for the month that contains 4 of the 7 days.

    Day 1: Average of all temperature data collected during the calendar day.
    Day 2: Average of all temperature data collected during the calendar day.
    Day 3: Average of all temperature data collected during the calendar day.
    Day 4: Average of all temperature data collected during the calendar day.
    Day 5: Average of all temperature data collected during the calendar day.
    Day 6: Average of all temperature data collected during the calendar day.
    Day 7: Average of all temperature data collected during the calendar day.
    1st MWAT Calculation as average of previous 7 days
    Day 8: Average of all temperature data collected during the calendar day.
    2nd MWAT Calculation as average of previous 7 days
    Day 9: Average of all temperature data collected during the calendar day.
    3rd MWAT Calculation as average of previous 7 days

16. “NOEC” or “No-Observed-Effect-Concentration” is the highest concentration of toxicant to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms (i.e. the

highest concentration of toxicant in which the values for the observed responses are not statistically different from the controls). This value is used, along with other factors, to determine toxicity limits in permits.

17. "Potentially dissolved (PD) metals fraction" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as that portion of a constituent measured from the filtrate of a water and suspended sediment sample that was first treated with nitric acid to a pH of 2 or less and let stand for 8 to 96 hours prior to sample filtration using a 0.40 or 0.45-UM (micron) membrane filter. Note the "potentially dissolved" method cannot be used where nitric acid will interfere with the analytical procedure used for the constituent measured.

18. "Practical Quantitation Limit (PQL)" means the minimum concentration of an analyte (substance) that can be measured with a high degree of confidence that the analyte is present at or above that concentration. The use of PQL in this document may refer to those PQLs shown in Part I.D of this permit or the PQLs of an individual laboratory.

19. "Quarterly measurement frequency" means samples may be collected at any time during the calendar quarter if a continual discharge occurs. If the discharge is intermittent, then samples shall be collected during the period that discharge occurs.

20. "Recorder" requires the continuous operation of a chart and/or totalizer (or drinking water rotor meters or pump hour meters where previously approved.)

21. SAR and Adjusted SAR - The equation for calculation of SAR-adj is:

$$SAR\text{-}adj = \frac{Na^{+}}{\sqrt{\frac{Ca_{x} + Mg^{++}}{2}}}$$

Where:

Na+ = Sodium in the effluent reported in meq/l
Mg++ = Magnesium in the effluent reported in meq/l
Cax = calcium (in meq/l) in the effluent modified due to the ratio of bicarbonate to calcium

The values for sodium (Na+), calcium (Ca++), bicarbonate (HCO3-) and magnesium (Mg++) in this equation are expressed in units of milliequivalents per liter (meq/l). Generally, data for these parameters are reported in terms of mg/l, which must then be converted to calculate the SAR. The conversions are:

$$\text{meq/l} = \frac{Concentration\ in\ mg/l}{Equivalent\ weight\ in\ mg/meq}$$

Where the equivalent weights are determined based on the atomic weight of the element divided by the ion's charge:

Na+ = 23.0 mg/meq (atomic weight of 23, charge of 1)
Ca++ = 20.0 mg/meq (atomic weight of 40.078, charge of 2)
Mg++ = 12.15 mg/meq (atomic weight of 24.3, charge of 2)
HCO3- = 61 mg/mep (atomic weight of 61, charge of 1)

The EC and the HCO3 -/Ca++ ratio in the effluent (calculated by dividing the HCO3 - in meq/l by the Ca++ in meq/l) are used to determine the Cax using the following table.

Table – Modified Calcium Determination for Adjusted Sodium Adsorption Ratio

HCO3/Ca Ratio And EC 1, 2, 3													
Salinity of Effluent (EC)(dS/m)													
		0.1	0.2	0.3	0.5	0.7	1.0	1.5	2.0	3.0	4.0	6.0	8.0
Ratio of HCO3/Ca	.05	13.20	13.61	13.92	14.40	14.79	15.26	15.91	16.43	17.28	17.97	19.07	19.94
	.10	8.31	8.57	8.77	9.07	9.31	9.62	10.02	10.35	10.89	11.32	12.01	12.56

	.15	6.34	6.54	6.69	6.92	7.11	7.34	7.65	7.90	8.31	8.64	9.17	9.58
	.20	5.24	5.40	5.52	5.71	5.87	6.06	6.31	6.52	6.86	7.13	7.57	7.91
	.25	4.51	4.65	4.76	4.92	5.06	5.22	5.44	5.62	5.91	6.15	6.52	6.82
	.30	4.00	4.12	4.21	4.36	4.48	4.62	4.82	4.98	5.24	5.44	5.77	6.04
	.35	3.61	3.72	3.80	3.94	4.04	4.17	4.35	4.49	4.72	4.91	5.21	5.45
	.40	3.30	3.40	3.48	3.60	3.70	3.82	3.98	4.11	4.32	4.49	4.77	4.98
	.45	3.05	3.14	3.22	3.33	3.42	3.53	3.68	3.80	4.00	4.15	4.41	4.61
	.50	2.84	2.93	3.00	3.10	3.19	3.29	3.43	3.54	3.72	3.87	4.11	4.30
	.75	2.17	2.24	2.29	2.37	2.43	2.51	2.62	2.70	2.84	2.95	3.14	3.28
	1.00	1.79	1.85	1.89	1.96	2.01	2.09	2.16	2.23	2.35	2.44	2.59	2.71
	1.25	1.54	1.59	1.63	1.68	1.73	1.78	1.86	1.92	2.02	2.10	2.23	2.33
	1.50	1.37	1.41	1.44	1.49	1.53	1.58	1.65	1.70	1.79	1.86	1.97	2.07
	1.75	1.23	1.27	1.30	1.35	1.38	1.43	1.49	1.54	1.62	1.68	1.78	1.86
	2.00	1.13	1.16	1.19	1.23	1.26	1.31	1.36	1.40	1.48	1.54	1.63	1.70
	2.25	1.04	1.08	1.10	1.14	1.17	1.21	1.26	1.30	1.37	1.42	1.51	1.58
	2.50	0.97	1.00	1.02	1.06	1.09	1.12	1.17	1.21	1.27	1.32	1.40	1.47
	3.00	0.85	0.89	0.91	0.94	0.96	1.00	1.04	1.07	1.13	1.17	1.24	1.30
	3.50	0.78	0.80	0.82	0.85	0.87	0.90	0.94	0.97	1.02	1.06	1.12	1.17
	4.00	0.71	0.73	0.75	0.78	0.80	0.82	0.86	0.88	0.93	0.97	1.03	1.07
	4.50	0.66	0.68	0.69	0.72	0.74	0.76	0.79	0.82	0.86	0.90	0.95	0.99
	5.00	0.61	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.80	0.83	0.88	0.93
	7.00	0.49	0.50	0.52	0.53	0.55	0.57	0.59	0.61	0.64	0.67	0.71	0.74
	10.00	0.39	0.40	0.41	0.42	0.43	0.45	0.47	0.48	0.51	0.53	0.56	0.58
	20.00	0.24	0.25	0.26	0.26	0.27	0.28	0.29	0.30	0.32	0.33	0.35	0.37
	30.00	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.23	0.24	0.25	0.27	0.28

1 Adapted from Suarez (1981).

2 Assumes a soil source of calcium from lime (CaCO3) or silicates; no precipitation of magnesium, and partial pressure of CO2 near the soil surface (PCO2) is 0.0007 atmospheres.

3 Cax, HCO3, Ca are reported in meq/l; EC is in dS/m (deciSiemens per meter).

Because values will not always be quantified at the exact EC or HCO3– /Ca++ ratio in the table, the resulting Cax must be determined based on the closest value to the calculated value. For example, for a calculated EC of 2.45 dS/m, the column for the EC of 2.0 would be used. However, for a calculated EC of 5.1, the corresponding column for the EC of 6.0 would be used. Similarly, for a HCO3– /Ca++ ratio of 25.1, the row for the 30 ratio would be used.

The Division acknowledges that some effluents may have electrical conductivity levels that fall outside of this table, and others have bicarbonate to calcium ratios that fall outside this table. For example, some data reflect HCO3– /Ca++ ratios greater than 30 due to bicarbonate concentrations reported greater than 1000 mg/l versus calcium concentrations generally less than 10 mg/l (i.e., corresponding to HCO3– /Ca++ ratios greater than 100). Despite these high values exceeding the chart's boundaries, it is noted that the higher the HCO3– /Ca++ ratio, the greater the SAR-adj. Thus, using the Cax values corresponding to the final row containing bicarbonate/calcium ratios of 30, the permittee will actually calculate an SAR-adj that is less than the value calculated if additional rows reflecting HCO3– /Ca++ ratios of greater than 100 were added.

22. "Seven (7) day average" means, with the exception of fecal coliform or *E. coli* bacteria (see geometric mean), the arithmetic mean of all samples collected in a seven (7) consecutive day period. Such seven (7) day averages shall be calculated for all calendar weeks, which are defined as beginning on Sunday and ending on Saturday. If the calendar week overlaps two months (i.e. the Sunday is in one month and the Saturday in the following month), the seven (7) day average calculated for that calendar week shall be associated with the month that contains the Saturday. Samples may not be used for more than one (1) reporting period. **(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

23. "Thirty (30) day average" means, except for fecal coliform or *E. coli* bacteria (see geometric mean), the arithmetic mean of all samples collected during a thirty (30) consecutive-day period, which represents a calendar month. The permittee shall report the appropriate mean of all self-monitoring sample data collected during the calendar month on the Discharge Monitoring Reports. Samples shall not be used for more than one (1) reporting period. **(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

24. Toxicity Identification Evaluation (TIE) is a set of site-specific procedures used to identify the specific chemical(s) causing effluent toxicity.

25. "Total Inorganic Nitrogen (T.I.N.)" is an aggregate parameter determined based on ammonia, nitrate and nitrite concentrations. To determine T.I.N. concentrations, the facility must monitor for total ammonia and total nitrate plus nitrite (or nitrate and nitrite individually) on the same days. The calculated T.I.N. concentrations in mg/L shall then be determined as the sum of the analytical results of same-day sampling for total ammonia (as N) in mg/L, and total nitrate plus nitrite (as N) in mg/L (or nitrate as N and nitrite as N individually). From these calculated T.I.N. concentrations, the daily maximum and thirty (30) day average concentrations for T.I.N. shall be determined in the same manner as set out in the definitions for the daily maximum and thirty (30) day average. **(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

26. "Total Metals" means the concentration of metals determined on an unfiltered sample following vigorous digestion (Section 4.1.3), or the sum of the concentrations of metals in both the dissolved and suspended fractions, as described in Manual of Methods for Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, March 1979, or its equivalent.

27. "Total Recoverable Metals" means that portion of a water and suspended sediment sample measured by the total recoverable analytical procedure described in Methods for Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, March 1979 or its equivalent.

28. Toxicity Reduction Evaluation (TRE) is a site-specific study conducted in a step-wise process to identify the causative agents of effluent toxicity, isolate the source of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity after the control measures are put in place.

29. "Twenty four (24) hour composite" sample is a combination of at least eight (8) sample aliquots of at least 100 milliliters, collected at equally spaced intervals during the operating hours of a facility over a twenty-four (24) hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the wastewater or effluent flow at the time of sampling or the total wastewater or effluent flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

30. "Twice Monthly" monitoring frequency means that two samples shall be collected each calendar month on separate weeks with at least one full week between the two sample dates. Also, there shall be at least one full week between the second sample of a month and the first sample of the following month.

31. "Two (2) -Year Rolling Average" (Antidegradation limits)- the average of all monthly average data collected in a two year period. Collection of the data required to calculate a two-year rolling average shall start immediately upon the effective date of the permit, but the data is not reported on a DMR until two years after the effective date of the permit. To calculate a two-year rolling average, add the current monthly average to the previous 23 monthly averages and divide the total by 24. This methodology continues on a rolling basis for the permit term (ie., in the first reporting period use data from month 1 to month 24, in the second reporting period use data from month 2 to month 25, then month 3 to month 26, etc).
    Example: Two year rolling average = $(MA_C + MA_1 + MA_2 + ... + MA_{23}) \div$ **24**
    MA_C = Current monthly average
    MA_1 = First prior month's monthly average
    MA_2 = Second prior month's monthly average
    MA_{23} = Twenty third prior month's monthly average

    Note, if there is not a discharge from the facility in a month during a two year period **do not use zero (0) to represent the data for that month in the calculation**, but do consider that month as part of the two year time span. The denominator in the two-year rolling average calculation will change to represent the actual number of months there was a discharge.

Example: Two year rolling average = (30 +45 +...+25) ÷ **22**
Current monthly average= 30 mg/l
First prior month's monthly average= no discharge
Second prior month's monthly average= no discharge
Third prior month's monthly average=45 mg/l
Twenty third prior month's monthly average= 25 mg/l

For ammonia, two-year rolling averages may be set up for individual months, or may be grouped together for several months. When individual months have a specific limit, calculate the two-year rolling average as follows:

Example: Permit is effective Jan 2010 and there is a two-year rolling average limit specific to the month of January.

January 2010 DMR – Nothing to Report

January 2011 DMR – Two-year rolling average = $(MA_C + MA_1) \div$ **2**
MA_C = January 2011 monthly average
MA_1 = January 2010 monthly average

January 2012 DMR – Two-year rolling average = $(MA_C + MA_1) \div$ **2**
MA_C = January 2012 monthly average
MA_1 = January 2011 monthly average

Where several months are grouped together and have the same limit, calculate the two-year rolling average as follows:

Example: Permit is effective January 2010 and there is a two-year rolling average limit specific to the months of January, February, and June.

January, February, June 2010 DMR- Nothing to Report

1st Reportable DMR – June 2011 DMR:
Two year rolling average = $(MA_C + MA_1 + MA_2 + MA_3 + MA_4 + MA_5) \div$ **6**
MA_C = June 2011 monthly average
MA_1 = February 2011 monthly average
MA_2 = January 2011 monthly average
MA_3= June 2010 monthly average
MA_4 = February 2010 monthly average
MA_5 = January 2010 monthly average

2nd Reportable DMR – January 2012 DMR:
Two year rolling average = $(MA_C + MA_1 + MA_2 + MA_3 + MA_4 + MA_5) \div$ **6**
MA_C = January 2012 monthly average
MA_1 = June 2011 monthly average
MA_2 = February 2011 monthly average
MA_3= January 2011 monthly average
MA_4 = June 2010 monthly average
MA_5 = February 2010 monthly average .

(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).

32. "Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil.

33. "Water Quality Control Division" or "Division" means the state Water Quality Control Division as established in 25-8-101 et al.)

Additional relevant definitions are found in the Colorado Water Quality Control Act, CRS §§ 25-8-101 et seq., the Colorado Discharge Permit System Regulations, Regulation 61 (5 CCR 1002-61) and other applicable regulations.

D. GENERAL MONITORING, SAMPLING AND REPORTING REQUIREMENTS

1. Routine Reporting of Data

Reporting of the data gathered in compliance with Part I.A or Part I.B shall be on a **monthly** basis. Reporting of all data gathered shall comply with the requirements of Part I.D. (General Requirements). Monitoring results shall be summarized for each calendar month and reported on Division approved discharge monitoring report (DMR) forms (EPA form 3320-1).

The permittee must submit these forms either by mail, or by using the Division's Net-DMR service (when available). If mailed, one form shall be mailed to the Division, as indicated below, so that the DMR is received no later than the 28th day of the following month (for example, the DMR for the first calendar quarter must be received by the Division by April 28th). If no discharge occurs during the reporting period, "No Discharge" shall be reported.

The original signed copy of each discharge monitoring report (DMR) shall be submitted to the Division at the following address:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with requirements of this permit and the instructions on the forms. They shall be signed by an authorized person as identified in Part I.D.8.

2. Annual Biosolids Report

The permittee shall provide the results of all biosolids monitoring and information on management practices, land application sites, site restrictions and certifications. Such information shall be provided no later than **February 19th** of each year. Reports shall be submitted addressing all such activities that occurred in the previous calendar year. If no biosolids were applied to the land during the reporting period, "no biosolids applied" shall be reported. Until further notice, biosolids monitoring results shall be reported on forms, or copies of forms, provided by the Division. Annual Biosolids Reports required herein, shall be signed and certified in accordance with the Signatory Requirements, Part I.D.1, and submitted as follows:

The original copy of each form shall be submitted to the following address:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,
WATER QUALITY CONTROL DIVISION
WQCD-PERMITS-B2
4300 CHERRY CREEK DRIVE SOUTH
DENVER, COLORADO 80246-1530

A copy of each form shall be submitted to the following address:

WATER PROGRAM REGIONAL BIOSOLIDS PROGRAM
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION VIII,
1595 WYNKOOP STREET
DENVER, CO 80202-2466

ATTENTION: BIOSOLIDS PROGRAM MANAGER

3. Representative Sampling

Samples and measurements taken for the respective identified monitoring points as required herein shall be representative of the volume and nature of: 1) all influent wastes received at the facility, including septage, biosolids, etc.; 2) the monitored effluent discharged from the facility; and 3) biosolids produced at the facility. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the influent, effluent, or biosolids wastestream joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and prior approval by the Division.

4. Influent and Effluent Sampling Points

Influent and effluent sampling points shall be so designed or modified so that: 1) a sample of the influent can be obtained after preliminary treatment and prior to primary or biological treatment and 2) a sample of the effluent can be obtained at a point after the final treatment process and prior to discharge to state waters. The permittee shall provide access to the Division to sample at these points.

5. Analytical and Sampling Methods for Monitoring and Reporting

The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant monitoring methods. All sampling shall be performed by the permittee according to specified methods in 40 C.F.R. Part 136; methods approved by EPA pursuant to 40 C.F.R. Part 136; or methods approved by the Division, in the absence of a method specified in or approved pursuant to 40 C.F.R. Part 136.

Numeric Limits

If the permit contains a numeric effluent limit for a parameter, the analytical method and PQL selected for all monitoring conducted in accordance with this permit for that parameter shall be the one that can measure at or below the numeric effluent limit. If all specified analytical methods and corresponding PQLs are greater than the numeric effluent limit, then the analytical method with the lowest PQL shall be used.

When the analytical method which complies with the above requirements has a PQL greater than the permit limit, and the permittee's analytical result is less than the PQL (the PQL achieved by the lab), the permittee shall report "BDL" on the DMR. Such reports will not be considered as violations of the permit limit, as long as the PQL obtained is lower or equal to the PQL in the table below.

When the analytical method which complies with the above requirements has a PQL that is equal to or less than the permit limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR. For parameters that have a report only limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR.

Report Only Limits

If the permit contains a report only requirement for a parameter, the analytical method and PQL chosen shall be one that can measure at or below the potential numeric effluent limit(s) (maximum allowable pollutant concentration as shown in the WQA or fact sheet). If all analytical methods and corresponding PQLs are greater than the potential numeric effluent limit(s), then the analytical method with the lowest PQL shall be used.

When the analytical method which complies with the above requirements has a PQL that is equal to or less than the permit limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR. For parameters that have a report only limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR.

Interim Report Only Followed By a Numeric Limit

If the permit contains an interim effluent limitation (a limit is report until such time as a numeric effluent limit

becomes effective) for a parameter, the analytical method and PQL chosen for all monitoring conducted in accordance with this permit for the parameter shall be one that can measure to the final numeric effluent limit. If all analytical methods and corresponding PQLs are greater than the final numeric effluent limit (s), then the analytical method with the lowest PQL shall be used.

While the report only limit is effective, the reporting requirements shall follow those under the Report Only Limits section. Once the numeric limit is effective, the reporting requirements shall follow the numeric limits reporting requirements.

T.I.N.

For parameters such as TIN, the analytical methods chosen shall be those that can measure to the potential or final numeric effluent limit, based on the sum of the PQLs for nitrate, nitrite and ammonia.

Calculating Averages

In the calculation of average concentrations (i.e. daily average, 7- day average, 30-day average, 2-year rolling average) any individual analytical result that is less than the PQL shall be considered to be zero for the calculation purposes. When reporting:

If all individual analytical results are less than the PQL, the permittee shall report either "BDL" or "<X" (where X = the actual PQL achieved by the laboratory), following the guidance above.

If one or more individual results is greater than the PQL, an average shall be calculated and reported. Note that it does not matter if the final calculated average is greater or less than the PQL, **it must be reported as a value**.

Note that when calculating T.I.N. for a single sampling event, any value less than the PQL (for total ammonia, total nitrite, or total nitrate) shall be treated as zero. The T.I.N. concentration for a single sampling event shall then be determined as the sum of the analytical results (zeros if applicable) of same day sampling for total ammonia and total nitrite and total nitrate. From these calculated T.I.N. concentrations, the daily maximum and thirty day average concentrations shall be calculated and must be reported as a value.

PQLs

The PQLs for specific parameters, as determined by the State Laboratory (November 2008) are provided below for reference. If the analytical method cannot achieve a PQL that is less than or equal to the permit limit, then the method, or a more precise method, must achieve a PQL that is less than or equal to the PQL in the table below. A listing of the PQLs for further organic parameters that must meet the above requirement can be found in the Division's Practical Quantitation Limitation Guidance Document, July 2008. This document is available on the Division's website at www.coloradowaterpermits.com.

These limits apply to the total recoverable or the potentially dissolved fraction of metals.

For hexavalent chromium, samples must be unacidified so dissolved concentrations will be measured rather than potentially dissolved concentrations.

Effluent Parameter	Practical Quantitation Limits	Effluent Parameter	Practical Quantitation Limits
Aluminum	50 µg/l		
Arsenic	1 µg/l	N-Ammonia	1 mg/l
Barium	5 µg/l	N-Ammonia (low-level)	50 µg/l
Beryllium	1 µg/l	N-Nitrate/Nitrite	0.5 mg/l
BOD / CBOD	1 mg/l	N-Nitrate	0.5 mg/l
Boron	50 µg/l	N-Nitrite	10 µg/l
Cadmium	1 µg/l	Total Nitrogen	0.5 mg/l
Calcium	20 µg/l	Total Phosphorus	10 µg/l
Chloride	2 mg/l		
Chlorine	0.1 mg/l	Radium 226	1 pCi/l
Total Residual Chlorine		Radium 228	1 pCi/l
DPD colorimetric	0.10 mg/l	Selenium	1 µg/l
Amperometric titration	0.05 mg/l	Silver	0.5 µg/l
Chromium	20 µg/l	Sodium	0.2 mg/l
Chromium, Hexavalent	20 µg/l	Sulfate	5 mg/l
Copper	5 µg/l	Sulfide	0.2 mg/l
Cyanide (Direct / Distilled)	10 µg/l	Total Dissolved Solids	10 mg/l
Cyanide, WAD+A47	10 µg/l	Total Suspended Solids	10 mg/l
Fluoride	0.1 mg/l	Thallium	1 µg/l
Iron	10 µg/l	Uranium	1 µg/l
Lead	1 µg/l	Zinc	10 µg/l
Magnesium	20 µg/l		
Manganese	2 µg/l	Phenols	15 µg/l
Mercury	0.1 µg/l	Nonylphenol D7065	10 µg/l
Mercury (low-level)	0.003 µg/l	Nonylphenol D7485	0.33 µg/l
Nickel	50 µg/l		

6. Records

a. The permittee shall establish and maintain records. Those records shall include, but not be limited to, the following:

i. The date, type, exact place, and time of sampling or measurements;
ii. The individual(s) who performed the sampling or measurements;
iii. The date(s) the analyses were performed;
iv. The individual(s) who performed the analyses;
v. The analytical techniques or methods used; and
vi. The results of such analyses.
vii. Any other observations which may result in an impact on the quality or quantity of the discharge as indicated in 40 CFR 122.44 (i)(1)(iii).

b. The permittee shall retain for a minimum of three (3) years records of all monitoring information, including all original strip chart recordings for continuous monitoring instrumentation, all calibration and maintenance records, copies of all reports required by this permit and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Division or Regional Administrator.

7. Flow Measuring Devices

Unless exempted in Part I.A of this permit, flow metering at the headworks shall be provided to give representative values of throughput and treatment of the wastewater system. The metering device shall be equipped with a local flow indication

instrument and a flow indication-recording-totalization device suitable for providing permanent flow records, which should be in the plant control building.

For mechanical facilities, where influent flow metering is not practical and the same results may be obtained from metering at the effluent end of the treatment facility, this type of flow metering arrangement will be considered, and if approved, noted in Part I.A of this permit. For lagoons, an instantaneous or continuous effluent flow measuring device shall be required in addition to the above described influent flow measuring device.

At the request of the Division, the permittee must be able to show proof of the accuracy of any flow-measuring device used in obtaining data submitted in the monitoring report. The flow-measuring device must indicate values within ten (10) percent of the actual flow being measured.

8. Signatory Requirements

a. All reports and other information required by the Division, shall be signed and certified for accuracy by the permittee in accord with the following criteria:

i) In the case of corporations, by a responsible corporate officer. For purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates;

ii) In the case of a partnership, by a general partner;

iii) In the case of a sole proprietorship, by the proprietor;

iv) In the case of a municipal, state, or other public facility, by either a principal executive officer, or ranking elected official. For purposes of this section, a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates;

v) By a duly authorized representative of a person described above, only if:

1) The authorization is made in writing by a person described in i, ii, iii, or iv above;

2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and,

3) The written authorization is submitted to the Division.

b. If an authorization as described in this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this section must be submitted to the Division prior to or together with any reports, information, or applications to be signed by an authorized representative.

The permittee, or the duly authorized representative shall make and sign the following certification on all such documents:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

PART II

A. NOTIFICATION REQUIREMENTS

1. Notification to Parties

All notification requirements under this section shall be directed as follows:

a. Oral Notifications, during normal business hours shall be to:

Water Quality Protection Section - Domestic Compliance Program
Water Quality Control Division
Telephone: (303) 692-3500

b. Written notification shall be to:

Water Quality Protection Section - Domestic Compliance Program
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-WQP-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

2. Change in Discharge

The permittee shall give advance notice to the Division, in writing, of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged, or;

b. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported pursuant to an approved land application plan.

Whenever notification of any planned physical alterations or additions to the permitted facility is required pursuant to this section, the permittee shall furnish the Division such plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge, the stream, or ground water. If the Division finds that such new or altered discharge might be inconsistent with the conditions of the permit, the Division shall require a new or revised permit application and shall follow the procedures specified in Sections 61.5 through 61.6, and 61.15 of the Colorado Discharge Permit System Regulations.

3. Noncompliance Notification

The permittee shall give advance notice to the Division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

a. If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitations or standards specified in this permit, the permittee shall, at a minimum, provide the Division with the following information:

i) A description of the noncompliance and its cause;

ii) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and

iii) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. The permittee shall report the following circumstances **orally within twenty-four (24) hours** from the time the permittee becomes aware of the circumstances, and shall mail to the Division a written report containing the information requested in Part II.A.4 (a) **within five (5) working days** after becoming aware of the following circumstances:

i) Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

ii) Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;

iii) Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

iv) Daily maximum violations for any of the pollutants limited by Part I.A of this permit as specified in Part III of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

c. Unless otherwise indicated in this permit, the permittee shall report instances of non-compliance which are not required to be reported within 24-hours at the time Discharge Monitoring Reports are submitted. The reports shall contain the information listed in sub-paragraph (a) of this section.

4. Transfer of Ownership or Control

The permittee shall notify the Division, in writing, thirty (30) calendar days in advance of a proposed transfer of the permit.

a. Except as provided in paragraph b. of this section, a permit may be transferred by a permittee only if the permit has been modified or revoked and reissued as provided in Section 61.8(8) of the Colorado Discharge Permit System Regulations, to identify the new permittee and to incorporate such other requirements as may be necessary under the Federal Act.

b. A permit may be automatically transferred to a new permittee if:

i) The current permittee notifies the Division in writing 30 calendar days in advance of the proposed transfer date; and

ii) The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and

iii) The Division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.

iv) Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

5. Other Notification Requirements

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

The permittee's notification of all anticipated noncompliance does not stay any permit condition.

All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Division as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i) One hundred micrograms per liter (100 µg/l);

ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2.4-dinitrophenol and 2-methyl-4.6-dinitrophenol; and one milligram per liter (1.0 mg/l) for antimony;

iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 61.4(2)(g).

iv) The level established by the Division in accordance with 40 C.F.R. § 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i) Five hundred micrograms per liter (500 µg/l);

ii) One milligram per liter (1 mg/l) for antimony; and

iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application.

iv) The level established by the Division in accordance with 40 C.F.R. § 122.44(f).

6. Bypass Notification

If the permittee knows in advance of the need for a bypass, a notice shall be submitted, at least ten (10) calendar days before the date of the bypass, to the Division. The bypass shall be subject to Division approval and limitations imposed by the Division. Violations of requirements imposed by the Division will constitute a violation of this permit.

7. Bypass

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

b. Bypasses are prohibited and the Division may take enforcement action against the permittee for bypass, unless:

i) The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii) There were no feasible alternatives to bypass such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

iii) Proper notices were submitted in compliance with Part II.A.5.

c. "Severe property damage" as used in this Subsection means substantial physical damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

d. The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance or to assure optimal operation. These bypasses are not subject to the provisions of paragraph (a) above.

e. The Division may approve an anticipated bypass, after considering adverse effects, if the Division determines that the bypass will meet the conditions specified in paragraph (a) above.

8. Upsets

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of paragraph (b) of this section are met. No determination made during administrative review of claims

that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

i) An upset occurred and that the permittee can identify the specific cause(s) of the upset; and

ii) The permitted facility was at the time being properly operated and maintained; and

iii) The permittee submitted proper notice of the upset as required in Part II.A.4. of this permit (24-hour notice); and
iv) The permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reason able likelihood of adversely affecting human health or the environment.

In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

d. Burden of Proof

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

9. Submission of Incorrect or Incomplete Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Division, the permittee shall promptly submit such facts or information.

B. RESPONSIBILITIES

1. Reduction, Loss, or Failure of Treatment Facility

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, control sources of wastewater, or all discharges, until the facility is restored or an alternative method of treatment is provided. This provision also applies to power failures, unless an alternative power source sufficient to operate the wastewater control facilities is provided.

It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Inspections and Right to Entry

The permittee shall allow the Division and/or the authorized representative, upon the presentation of credentials:

a. To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and

c. To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect and/or investigate, any actual, suspected, or potential source of water pollution, or to ascertain compliance or non compliance with the Colorado Water Quality Control Act or any other applicable state or federal statute or regulation or any order promulgated by the Division. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing of any person having knowledge related to the discharge permit or

alleged violation, access to any and all facilities or areas within the permittee's premises that may have any affect on the discharge, permit, or alleged violation. Such entry is also authorized for the purpose of inspecting and copying records required to be kept concerning any effluent source.

d. The permittee shall provide access to the Division to sample the discharge at a point after the final treatment process but prior to the discharge mixing with state waters upon presentation of proper credentials.

In the making of such inspections, investigations, and determinations, the Division, insofar as practicable, may designate as its authorized representatives any qualified personnel of the Department of Agriculture. The Division may also request assistance from any other state or local agency or institution.

3. Duty to Provide Information

The permittee shall furnish to the Division, within a reasonable time, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Division, upon request, copies of records required to be kept by this permit.

4. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.5(4), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division and the Environmental Protection Agency.

The name and address of the permit applicant(s) and permittee(s), permit applications, permits and effluent data shall not be considered confidential. Knowingly making false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Clean Water Act, and Section 25-8-610 C.R.S.

5. Modification, Suspension, Revocation, or Termination of Permits By the Division

The filing of a request by the permittee for a permit modification, revocation and reissuance, termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

a. A permit may be modified, suspended, or terminated in whole or in part during its term for reasons determined by the Division including, but not limited to, the following:

i) Violation of any terms or conditions of the permit;

ii) Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit; or

iii) Materially false or inaccurate statements or information in the permit application or the permit.

iv) A determination that the permitted activity endangers human health or the classified or existing uses of state waters and can only be regulated to acceptable levels by permit modifications or termination.

b. A permit may be modified in whole or in part for the following causes, provided that such modification complies with the provisions of Section 61.10 of the Colorado Discharge Permit System Regulations:

i) There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

ii) The Division has received new information which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of different permit conditions at the time of issuance. For permits issued to new sources or new dischargers, this cause includes information derived from effluent testing required under Section 61.4(7)(e) of the Colorado Discharge Permit System Regulations. This provision allows a modification of the permit to include conditions that are less stringent than the existing permit only to the extent allowed under Section 61.10 of the Colorado Discharge Permit System Regulations.

iii) The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:

(A) The permit condition requested to be modified was based on a promulgated effluent limitation guideline, EPA approved water quality standard, or an effluent limitation set forth in 5 CCR 1002-62, § 62 et seq.; and

(B) EPA has revised, withdrawn, or modified that portion of the regulation or effluent limitation guideline on which the permit condition was based, or has approved a Commission action with respect to the water quality standard or effluent limitation on which the permit condition was based; and

(C) The permittee requests modification after the notice of final action by which the EPA effluent limitation guideline, water quality standard, or effluent limitation is revised, withdrawn, or modified; or

(D) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations or effluent limitation guidelines, if the remand and stay concern that portion of the regulations or guidelines on which the permit condition was based and a request is filed by the permittee in accordance with this Regulation, within ninety (90) calendar days of judicial remand.

iv) The Division determines that good cause exists to modify a permit condition because of events over which the permittee has no control and for which there is no reasonable available remedy.

v) Where the Division has completed, and EPA approved, a total maximum daily load (TMDL) which includes a wasteload allocation for the discharge(s) authorized under the permit.

vi) The permittee has received a variance.

vii) When required to incorporate applicable toxic effluent limitation or standards adopted pursuant to § 307(a) of the Federal act.

viii) When required by the reopener conditions in the permit.

ix) As necessary under 40 C.F.R. 403.8(e), to include a compliance schedule for the development of a pretreatment program.

x) When the level of discharge of any pollutant which is not limited in the permit exceeds the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under Section 61.8(2) of the Colorado Discharge Permit System Regulations.

xi) To establish a pollutant notification level required in Section 61.8(5) of the Colorado Discharge Permit System Regulations.

xii) To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions, to the extent allowed in Section 61.10 of the Colorado State Discharge Permit System Regulations.

xiii) When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.

xiv) When another State whose waters may be affected by the discharge has not been notified.

xv) For any other cause provided in Section 61.10 of the Colorado Discharge Permit System Regulations.

c. At the request of a permittee, the Division may modify or terminate a permit and issue a new permit if the following conditions are met:

i) The Regional Administrator has been notified of the proposed modification or termination and does not object in writing within thirty (30) calendar days of receipt of notification,

ii) The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modifications or termination;

iii) Requirements of Section 61.15 of the Colorado Discharge Permit System Regulations have been met, and

iv) Requirements of public notice have been met.

d. For permit modification, termination, or revocation and reissuance, the Division may request additional information from the permittee. In the case of a modified permit, the Division may require the submission of an updated application. In the case of revoked and reissued permit, the Division shall require the submission of a new application.

e. Permit modification (except for minor modifications), termination or revocation and reissuance actions shall be subject to the requirements of Sections 61.5(2), 61.5(3), 61.6, 61.7 and 61.15 of the Colorado Discharge Permit System Regulations. The Division shall act on a permit modification request, other than minor modification requests, within 180 calendar days of receipt thereof. Except for minor modifications, the terms of the existing permit govern and are enforceable until the newly issued permit is formally modified or revoked and reissued following public notice.

f. Upon consent by the permittee, the Division may make minor permit modifications without following the requirements of Sections 61.5(2), 61.5(3), 61.7, and 61.15 of the Colorado Discharge Permit System Regulations. Minor modifications to permits are limited to:

i) Correcting typographical errors; or

ii) Increasing the frequency of monitoring or reporting by the permittee; or

iii) Changing an interim date in a schedule of compliance, provided the new date of compliance is not more than 120 calendar days after the date specific in the existing permit and does not interfere with attainment of the final compliance date requirement; or

iv) Allowing for a transfer in ownership or operational control of a facility where the Division determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees has been submitted to the Division; or

v) Changing the construction schedule for a discharger which is a new source, but no such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge; or

vi) Deleting a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

vii) Incorporating conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 (or a modification thereto that has been approved in accordance with the procedures in 40 CFR 403.18) as enforceable conditions of the POTW's permits.

g. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term.

h. The filing of a request by the permittee for a permit modification, revocation and reissuance or termination does not stay any permit condition.

i. All permit modifications and reissuances are subject to the antibacksliding provisions set forth in 61.10(e) through (g).

j. If cause does not exist under this section, the Division shall not modify or revoke and reissue the permit.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the Clean Water Act.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority granted by Section 510 of the Clean Water Act. Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

8. Permit Violations

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Except as provided elsewhere in this permit, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance (40 CFR 122.41(a)(1)).

9. Severability

The provisions of this permit are severable. If any provisions or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

10. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Commission or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this Subsection (12) shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

11. Fees

The permittee is required to submit payment of an annual fee as set forth in the 2005 amendments to the Water Quality Control Act. Section 25-8-502 (l) (b), and the Colorado Discharge Permit System Regulations 5 CCR l002-61, Section 61.l5 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-60l et. seq., C.R.S. l973 as amended.

12. Duration of Permit

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least one hundred eighty (180) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications.If the permittee anticipates there will be no discharge after the expiration date of this permit, the Division should be promptly notified so that it can terminate the permit in accordance with Part II.B.4.

13. Section 307 Toxics

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the Division shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

14. Effect of Permit Issuance

a. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

b. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.

c. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

d. Compliance with a permit condition which implements a particular standard for biosolid use or disposal shall be an affirmative defense in any enforcement action brought for a violation of that standard for biosolid use or disposal.

PART III

CATEGORICAL INDUSTRIES

Aluminum Forming
Asbestos Manufacturing
Battery Manufacturing
Builders' Paper and Board Mills
Canned & Preserved Fruits and Vegetables Processing
Canned & Preserved Seafood Processing
Carbon Black Manufacturing
Cement Manufacturing
Coal Mining
Coil Coating
Copper Forming
Dairy Products Processing
Electrical and Electronic Components
Electroplating
Explosives Manufacturing
Feedlots
Ferroalloy Manufacturing
Fertilizer Manufacturing
Glass Manufacturing
Grain Mills
Gum and Wood Chemicals Manufacturing
Hospital
Ink Formulation
Inorganic Chemicals Manufacturing
Iron and Steel Manufacturing
Leather Tanning and Finishing
Meat Products
Metal Finishing
Metal Molding and Casting (Foundries)
Mineral Mining and Processing
Nonferrous Metals Manufacturing
Nonferrous Metals Forming and Metal Powders
Oil and Gas Extraction
Organic Chemicals, Plastics, and Synthetic Fibers
Ore Mining and Dressing
Paint Formulation
Paving and Roofing Materials (Tars and Asphalt)
Pesticide Chemicals
Petroleum Refining
Pharmaceutical Manufacturing
Phosphate Manufacturing
Photographic
Plastics Molding and Forming
Porcelain Enameling
Pulp, Paper, and Paperboard Manufacturing
Rubber Manufacturing
Soap and Detergent Manufacturing
Steam Electric Power Generating
Sugar Processing
Textile Mills
Timber Products Processing

PRIORITY POLLUTANTS AND HAZARDOUS SUBSTANCES

ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR FRACTIONS
IN ANALYSIS BY GAS CHROMATOGRAPHY/MASS SPECTROSCOPY (GC/MS)

Volatiles	**Base/Neutral**	**Acid Compounds**	**Pesticides**
acrolein	acenaphthene	2-chlorophenol	aldrin
acrylonitrile	acenaphthylene	2,4-dichlorophenol	alpha-BHC
benzene	anthracene	2,4,-dimethylphenol	beta-BHC
bromoform	benzidine	4,6-dinitro-o-cresol	gamma-BHC
carbon tetrachloride	benzo(a)anthracene	2,4-dinitrophenol	delta-BHC
chlorobenzene	benzo(a)pyrene	2-nitrophenol	chlordane
chlorodibromomethane	3,4-benzofluoranthene	4-nitrophenol	4,4'-DDT
chloroethane	benzo(ghi)perylene	p-chloro-m-cresol	4,4'-DDE
2-chloroethylvinyl ether	benzo(k)fluoranthene	pentachlorophenol	4,4'-DDD
chloroform	bis(2-chloroethoxy)methane	phenol	dieldrin
dichlorobromomethane	bis(2-chloroethyl)ether	2,4,6-trichlorophenol	alpha-endosulfan
1,1-dichlorethane	bis(2-chloroisopropyl)ether		beta-endosulfan
1,2-dichlorethane	bis(2-ethylhexyl)phthalate		endosulfan sulfate
1,1-dichlorethylene	4-bromophenyl phenyl ether		endrin
1,2-dichlorpropane	butylbenzyl phthalate		endrin aldehyde
1,3-dichlorpropylene	2-chloronaphthalene		heptachlor
ethylbenzene	4-chlorophenyl phenyl ether		heptachlor epoxide
methyl bromide	chrysene		PCB-1242
methyl chloride	dibenzo(a,h)anthracene		PCB-1254
methylene chloride	1,2-dichlorobenzene		PCB-1221

PRIORITY POLLUTANTS AND HAZARDOUS SUBSTANCES

ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR FRACTIONS
IN ANALYSIS BY GAS CHROMATOGRAPHY/MASS SPECTROSCOPY (GC/MS)

Volatiles	Base/Neutral	Acid Compounds	Pesticides
1,1,2,2-tetrachloroethane	1,3-dichlorobenzene		PCB-1232
tetrachloroethylene	1,4-dichlorobenzene		PCB-1248
toluene	3,3-dichlorobenzidine		PCB-1260
1,2-trans-dichloroethylene	diethyl phthalate		PCB-1016
1,1,1-trichloroethane	dimethyl phthalate		toxaphene
1,1,2-trichloroethane	di-n-butyl phthalate		
trichloroethylene	2,4-dinitrotoluene		
vinyl chloride	2,6-dinitrotoluene		
	di-n-octyl phthalate		
	1,2-diphenylhydrazine (as azobenzene)		
	fluorene		
	fluoranthene		
	hexachlorobenzene		
	hexachlorobutadiene		
	hexachlorcyclopentadiene		
	hexachloroethane		
	indeno(1,2,3-cd)pyrene		
	isophorone		
	naphthalene		
	nitrobenzene		
	N-nitrosodimethylamine		
	N-nitrosodi-n-propylamine		
	N-nitrosodiphenylamine		
	phenanthrene		
	pyrene		
	1,2,4-trichlorobenzene		

OTHER TOXIC POLLUTANTS (AMMONIA, METALS AND CYANIDE) AND TOTAL PHENOLS

Antimony, Total
Arsenic, Total
Beryllium, Total
Cadmium, Total
Chromium, Total
Copper, Total
Lead, Total
Mercury, Total
Nickel, Total
Selenium, Total
Silver, Total
Thallium, Total
Zinc, Total
Cyanide, Total
Phenols, Total

TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES

REQUIRED TO BE IDENTIFIED BY EXISTING DISCHARGERS
IF EXPECTED TO BE PRESENT

Toxic Pollutants

Asbestos

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D(2,4-Dichlorophenoxy acetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethanolamine
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Keithane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfanate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
TDE (Tetrachlorodiphenylethane)
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethylamine
Trimethylamine
Uranium
Vandium
Vinyl Acetate
Xylene
Xylenol
Zirconium

APPENDIX C – OPINION OF PROBABLE COSTS

OPINION OF PROBABLE COST
FOR
City of Ouray, Wastewater Treatment Facility
Alternative 1 - SBR

Description	Quantity	Units	Unit Cost	Total Cost
Division 00 and 01 - General Conditions and Requirements				
Mobilization/Demobilization	1	LS	$300,000	$300,000
Demolition and Disposal from Wetlands Area	1	LS	$100,000	$100,000
Decommissioning of Existing Lagoons	1	LS	$400,000	$400,000
Dewatering	1	LS	$100,000	$100,000
			General Requirements Subtotal	**$900,000**
Division 02 - Sitework				
Erosion Control	1	LS	$50,000	$50,000
Demolition (existing equipment and structures)	1	LS	$100,000	$100,000
Excavation / Fill (in Wetlands Area)	1	LS	$75,000	$75,000
Site Grading	1	LS	$30,000	$30,000
Site Piping (include reroute influent)	1	LS	$100,000	$100,000
Seeding	1	LS	$10,000	$10,000
			Sitework Subtotal	**$365,000**
Division 03 - Concrete				
Concrete - 2 SBR Reactors (68'x102'x17'), Post-EQ Basin(35'x34'x17') Digester (35'x34'x17)	1,200	CY	$800	$960,000
Influent Equalization and Pump Station Tank (0.15 MG)	300	CY	$800	$240,000
			Concrete Subtotal	**$1,200,000**
Division 09 - Painting				
Pipe Coatings	1	LS	$30,000	$30,000
			Painting Subtotal	**$30,000**
Division 11 - Equipment				
SBR Equipment (Diffusers - secondary and digesters, Decanters, WAS Pumps, Blowers, Control Panels)	1	LS	$620,677	$620,700
Headworks Equipment (Screen and Grit)	1	LS	$500,000	$500,000
Influent Pumps	1	LS	$50,000	$50,000
UV Disinfection	1	LS	$350,000	$350,000
Mechanical Dewatering and Conveyance	1	LS	$400,000	$400,000
			Equipment Subtotal	**$1,920,700**
Division 13 - Special Construction				
Pre-Engineered CMU Building - Headworks	600	SF	$200	$120,000
Pre-Engineered CMU Building - Process Building	12,000	SF	$200	$2,400,000
Pre-Engineered CMU Building - Solids Building	1	LS	$200,000	$200,000
Public Works Maintenance Shop and Equipment Storage	1	LS	$1,000,000	$1,000,000
			Special Construction Subtotal	**$3,720,000**
Division 15 - Mechanical				
HVAC and Lighting - Headworks	1	LS	$150,000	$150,000
HVAC and Lighting - Process Building	1	LS	$250,000	$250,000
HVAC and Lighting - Solids Processing	1	LS	$75,000	$75,000
Process Piping	1	LS	$100,000	$100,000
Emergency Generator	1	LS	$350,000	$350,000
			Mechanical Subtotal	**$925,000**
Division 16 - Electrical				
Electrical (20% of Equipment)	1	LS	$384,140	$384,200
Instrumentation and Controls (20% of Equipment)	1	LS	$384,140	$384,200
			Electrical Subtotal	**$768,400**

Subtotal	**$9,829,100**
Contingency (20%)	$1,966,000
Contractor's OH&P (15%)	$1,769,000
Total Construction Cost	**$13,564,100**
Engineering, Survey, Geotech, Permitting and Design (8% or fixed fee)	$1,085,000
Bidding and Construction Administration (5% of fixed fee)	$678,000
Administrative and Legal (2%)	$271,000
Project Total	**$15,598,100**

OPINION OF PROBABLE COST
FOR
City of Ouray, Wastewater Treatment Facility
Alternative 2 - MBBR

Description	Quantity	Units	Unit Cost	Total Cost
Division 00 and 01 - General Conditions and Requirements				
Mobilization/Demobilization	1	LS	$300,000	$300,000
Demolition and Disposal from Wetlands Area	1	LS	$80,000	$80,000
Decommissioning of Existing Lagoons	1	LS	$400,000	$400,000
Dewatering	1	LS	$75,000	$75,000
			General Requirements Subtotal	**$855,000**
Division 02 - Sitework				
Erosion Control	1	LS	$50,000	$50,000
Demolition (existing equipment and structures)	1	LS	$100,000	$100,000
Excavation / Fill (in Wetlands Area)	1	LS	$60,000	$60,000
Site Grading	1	LS	$25,000	$25,000
Site Piping (include reroute influent)	1	LS	$100,000	$100,000
Seeding	1	LS	$10,000	$10,000
			Sitework Subtotal	**$345,000**
Division 03 - Concrete				
Concrete - 3 Basins (25' x 66' x 20'), Digester (30' x 34' x 20')	1340	CY	$800	$1,072,000
Influent Equalization and Pump Station Tank (0.15 MG)	300	CY	$800	$240,000
			Concrete Subtotal	**$1,312,000**
Division 09 - Painting				
Pipe Coatings	1	LS	$30,000	$30,000
			Painting Subtotal	**$30,000**
Division 11 - Equipment				
MBBR Equipment (Media, Screen Assemblies, Aeration System, Mixers, Blowers, Pumps)	1	LS	$1,890,000	$1,890,000
Headworks Equipment (Screen and Grit)	1	LS	$500,000	$500,000
Influent Pumps	1	LS	$50,000	$50,000
UV Disinfection	1	LS	$350,000	$350,000
Mechanical Dewatering and Conveyance	1	LS	$400,000	$400,000
Aerobic Digester (includes tank)	1	LS	$500,000	$500,000
			Equipment Subtotal	**$3,690,000**
Division 13 - Special Construction				
Pre-Engineered CMU Building - Headworks	600	LS	$200	$120,000
Pre-Engineered CMU Building - Process Building	3,000	SF	$200	$600,000
Pre-Engineered CMU Cuilding - Solids Building	1	LS	$200,000	$200,000
Public Works Maintenance Shop and Equipment Storage	1	LS	$1,000,000	$1,000,000
			Special Construction Subtotal	**$1,920,000**
Division 15 - Mechanical				
HVAC and Lighting - Headworks	1	LS	$150,000	$150,000
HVAC and Lighting - Process Building	1	LS	$175,000	$175,000
HVAC and Lighting - Solids Processing	1	LS	$75,000	$75,000
Process Piping	1	LS	$100,000	$100,000
Emergency Generator	1	LS	$350,000	$350,000
			Mechanical Subtotal	**$850,000**
Division 16 - Electrical				
Electrical (20% of Equipment)	1	LS	$738,000	$738,000
Instrumentation and Controls (20% of Equipment)	1	LS	$738,000	$738,000
			Electrical Subtotal	**$1,476,000**

Subtotal	**$10,478,000**
Contingency (20%)	$2,096,000
Contractor's OH&P (15%)	$1,886,000
Total Construction Cost	**$14,460,000**
Engineering, Survey, Geotech, Permitting and Design (8% or fixed fee)	$1,157,000
Bidding and Construction Administration (5% of fixed fee)	$723,000
Administrative and Legal (2%)	$289,000
Project Total	**$16,629,000**

OPINION OF PROBABLE COST
FOR
City of Ouray, Wastewater Treatment Facility
Alternative 3 - Sequox

Description	Quantity	Units	Unit Cost	Total Cost
Division 00 and 01 - General Conditions and Requirements				
Mobilization/Demobilization	1	LS	$300,000	$300,000
Demolition and Disposal from Wetlands Area	1	LS	$80,000	$80,000
Decommissioning of Existing Lagoons	1	LS	$400,000	$400,000
Dewatering	1	LS	$75,000	$75,000
			General Requirements Subtotal	**$855,000**
Division 02 - Sitework				
Erosion Control	1	LS	$50,000	$50,000
Demolition (existing equipment and structures)	1	LS	$100,000	$100,000
Excavation / Fill (in Wetlands Area)	1	LS	$60,000	$60,000
Site Grading	1	LS	$25,000	$25,000
Site Piping (include reroute influent)	1	LS	$100,000	$100,000
Seeding	1	LS	$10,000	$10,000
			Sitework Subtotal	**$345,000**
Division 03 - Concrete				
Concrete - 9 Basins - Selector, Clarifiers, 1st and 2nd Stage Aeration Tanks, Digester -78'x94'9"x18	1,300	CY	$800	$1,040,000
Influent Equalization and Pump Station Tank (0.15 MG)	300	CY	$800	$240,000
			Concrete Subtotal	**$1,280,000**
Division 09 - Painting				
Pipe Coatings	1	LS	$30,000	$30,000
			Painting Subtotal	**$30,000**
Division 11 - Equipment				
Sequox Equipment (Blowers, Diffusers, Walkways, Control Panels, Blower VPDs, DO Control System)	1	LS	$946,000	$946,000
Headworks Equipment (Screen and Grit)	1	LS	$500,000	$500,000
Influent Pumps	1	LS	$50,000	$50,000
RAS/WAS Pump Station	1	LS	$75,000	$75,000
Secondary Clarifier	1	LS	$750,000	$800,000
UV Disinfection	1	LS	$350,000	$350,000
Mechanical Dewatering and Conveyance	1	LS	$400,000	$400,000
			Equipment Subtotal	**$3,121,000**
Division 13 - Special Construction				
Pre-Engineered CMU Building - Headworks	600	LS	$200	$120,000
Pre-Engineered CMU Building - Process Building	7,000	SF	$200	$1,400,000
Pre-Engineered CMU Cuilding - Solids Building	1	LS	$200,000	$200,000
Public Works Maintenance Shop and Equipment Storage	1	LS	$1,000,000	$1,000,000
			Special Construction Subtotal	**$2,720,000**
Division 15 - Mechanical				
HVAC and Lighting - Headworks	1	LS	$150,000	$150,000
HVAC and Lighting - Process Building	1	LS	$175,000	$175,000
HVAC and Lighting - Solids Processing	1	LS	$75,000	$75,000
Process Piping	1	LS	$100,000	$100,000
Emergency Generator	1	LS	$350,000	$350,000
			Mechanical Subtotal	**$850,000**
Division 16 - Electrical				
Electrical (20% of Equipment)	1	LS	$624,200	$624,200
Instrumentation and Controls (20% of Equipment)	1	LS	$624,200	$624,200
			Electrical Subtotal	**$1,248,400**

Subtotal	**$10,449,400**
Contingency (20%)	$2,090,000
Contractor's OH&P (15%)	$1,881,000
Total Construction Cost	**$14,420,400**
Engineering, Survey, Geotech, Permitting and Design (8% or fixed fee)	$1,154,000
Bidding and Construction Administration (5% of fixed fee)	$721,000
Administrative and Legal (2%)	$288,000
Project Total	**$16,583,400**

OPERATION AND MAINTENANCE COSTS

		Alternative 1 Xylem SBR		Alternative 2 Kruger MBBR		Alternative 3 AeroMod	
Year	n	Annual Cost	2019 PW	Annual Cost	2019 PW	Annual Cost	2019 PW
2019	0	$ 249,200	$ 249,200	$ 227,500	$ 227,500	$ 303,600	$ 303,600
2020	1	$ 254,900	$ 248,199	$ 232,700	$ 226,582	$ 310,600	$ 302,434
2021	2	$ 260,800	$ 247,267	$ 238,100	$ 225,745	$ 317,700	$ 301,215
2022	3	$ 266,800	$ 246,306	$ 243,500	$ 224,796	$ 325,000	$ 300,035
2023	4	$ 272,900	$ 245,314	$ 249,100	$ 223,920	$ 332,500	$ 298,889
2024	5	$ 311,300	$ 272,475	$ 258,400	$ 226,173	$ 341,300	$ 298,734
2025	6	$ 285,600	$ 243,408	$ 260,700	$ 222,187	$ 348,000	$ 296,590
2026	7	$ 292,200	$ 242,486	$ 266,700	$ 221,325	$ 356,000	$ 295,432
2027	8	$ 298,900	$ 241,525	$ 272,900	$ 220,516	$ 364,200	$ 294,291
2028	9	$ 305,800	$ 240,604	$ 279,100	$ 219,597	$ 372,500	$ 293,084
2029	10	$ 381,700	$ 292,427	$ 293,800	$ 225,085	$ 397,300	$ 304,379
2030	11	$ 320,000	$ 238,712	$ 292,100	$ 217,900	$ 389,900	$ 290,856
2031	12	$ 327,400	$ 237,812	$ 298,800	$ 217,038	$ 398,800	$ 289,674
2032	13	$ 334,900	$ 236,864	$ 305,700	$ 216,212	$ 408,000	$ 288,565
2033	14	$ 342,600	$ 235,940	$ 312,700	$ 215,348	$ 417,400	$ 287,453
2034	15	$ 390,700	$ 261,991	$ 324,400	$ 217,533	$ 428,400	$ 287,272
2035	16	$ 358,600	$ 234,144	$ 327,300	$ 213,707	$ 436,800	$ 285,204
2036	17	$ 366,800	$ 233,202	$ 334,800	$ 212,857	$ 446,900	$ 284,127
2037	18	$ 375,300	$ 232,333	$ 342,500	$ 212,028	$ 457,100	$ 282,972
2038	19	$ 383,900	$ 231,409	$ 350,400	$ 211,215	$ 467,700	$ 281,922
2039	20	$ 479,100	$ 281,201	$ 358,500	$ 210,417	$ 478,400	$ 280,790
	20 Year O&M (2019 PW) =		**$ 5,192,800**		**$ 4,607,700**		**$ 6,147,500**

Annual O&M Costs	**Alternative 1**	**Alternative 2**	**Alternative 3**
Chemical	$0	$0	
Power	$69,216	$47,477	$123,589
Operator Salary	$80,000	$80,000	$80,000
Hauling	$100,000	$100,000	$100,000
Annual Subtotal	$249,216	$227,477	$303,589
Other O&M Costs			
5 year Replacement Cost	$28,600	$3,140	$1,000
10 year Replacement Costs	$26,240	$3,400	$11,900

Given:

Energy = $ 0.10 /kwh

Inflation (I) = 2.3%

Interest (i) = 2.70%

FORMULAS

Annual Cost = (Sum of O&M items) x $(1 + I)^{n}$

Present Worth = (Annual Cost) x $(1 + i)^{-n}$

NOTES

Inflation Rate: value as indicated at http://www.bls.gov/news.release/cpi.nr0.htm . "Over the last 12 months, the index increased 2.3 percent before seasonal adjustment"

Interest Rate: According to USDA The “real” federal discount rate from Appendix C of OMB Circular A-94 should be used for determining the present worth of the uniform

CITY OF OURAY
Professional Service Agreement

THIS AGREEMENT is entered into effective December 31, 2018 by and between:

The City of Ouray, a Colorado municipal corporation (the City);

and, Lydia Bright (the Contractor).

NOW THEREFORE, in consideration of the mutual representations, promises and conditions contained herein, the parties agree as follows.

1. SCOPE OF CONTRACTOR SERVICES. The Contractor agrees to provide services in accordance with the Scope of Contractor Services and incorporated as Exhibit A.

2. TERM OF AGREEMENT. The term of this agreement shall begin on the effective date above and continue to the completion of the services described in Exhibit A, or if the services are not completed, this agreement will expire on January 21, 2019, at which time the City and the Contractor will either negotiate a new agreement to complete the services, extend this agreement or their relationship under this agreement will terminate.

3. FEES FOR SERVICES. In consideration of the services to be performed pursuant to this agreement, the City will pay the Contractor according to the Fee Schedule attached and incorporated as Exhibit A.

4. PAYMENT FOR SERVICES. The Contractor shall submit a weekly invoice and report detailing Monday-Sunday Pool Management professional services rendered. The report shall document the pool operations by category. The City will pay the Contractor $1,750 per week on a weekly basis in accord with its ordinary and usual business practices.

5. CITY REPRESENTATIVE. The City designates the City Administrator as its representative and authorizes her to make all necessary and proper decisions with reference to this agreement. All requests for contract interpretations, changes, clarifications or instructions shall be directed to the City representative.

6. INDEPENDENT CONTRACTOR. The services to be performed by the Contractor are those of an independent contractor and not as an employee of the City. Nothing in this agreement shall constitute or be construed as a creation of a partnership or joint venture between the City and the Contractor, or their successors or assigns. No agent or employee of the Contractor shall be or shall be deemed to be the employee or agent of the City. The City is interested only in the results obtained under this agreement; the manner and means of conducting the work are under the sole control of the Contractor. None of the benefits provided by the City to its employees, including, but not limited to, worker compensation insurance and unemployment compensation insurance, are available from the City to the employees of the Contractor. The Contractor will be solely and entirely responsible for its acts and for the acts of its agents, employees, and subcontractors during the performance of this agreement. The Contractor will pay all federal and state income tax on any moneys paid pursuant to this agreement.

7. GOVERNMENTAL IMMUNITY. The Contractor understands and acknowledges that the City relies on and does not waive or intend to waive by any portion of this agreement any provision of the Colorado Governmental Immunity Act, COLO. REV. STAT. § 24-10-101, *et seq*.

8. INDEMNIFICATION. To the fullest extent permitted by law, the Contractor agrees to indemnify and hold harmless the City, its officers, employees, insurers, and self-insurance pool, from and against liability for damage, including attorney fees and costs, arising out of death or bodily injury to persons or damage to property, caused by the negligence or fault of the Contractor or any third party under the control or supervision of the Contractor, but not for any amounts that are greater than that represented by the degree or percentage of negligence or fault attributable to the Contractor or the Contractor's agents, representatives, subcontractors, or suppliers.

9. ASSIGNMENT. The Contractor shall neither assign any responsibilities nor delegate any duties arising under this agreement without the prior written consent of the City.

10. PAYMENTS BY CITY. Any and all payments of money by the City pursuant to this agreement shall be subject to the annual appropriations of money.

11. LEGAL COMPLIANCE. The Contractor shall comply with all laws, ordinances, rules and regulations relating to the performance of this agreement, use of public places and safety of persons and property.

12. FURTHER ASSURANCES. Each party agrees to take such actions and sign such documents, certificates and instruments reasonably requested by the other party in order to complete the transactions contemplated by this agreement and to enable the requesting party to enjoy the full benefits conferred upon such party by this agreement.

13. ENTIRE AGREEMENT. This instrument contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party that are not contained in this written contract shall be valid or binding. This contract may not be enlarged, modified, or altered except in writing signed by the parties and endorsed on this agreement.

14. BINDING EFFECT. This agreement shall inure to the benefit of and be binding on the parties, their heirs, executors, administrators, assignees, and successors.

15. SEVERABILITY. If any part, term, or provision of this contract is held by the courts to be illegal or in conflict with any law of the State of Colorado, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular part, term or provision held to be invalid.

16. GOVERNING LAW. This agreement shall be governed by the laws of the State of Colorado, both as to interpretation and performance. The courts of the State of Colorado shall have exclusive jurisdiction to resolve any disputes arising out of this agreement and venue shall be in Ouray County, Colorado.

17. WAIVER. No waiver of any breach of this agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law.

18. COUNTERPARTS. This agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all of which together shall constitute but one and the same instrument.

19. PRONOUNS. Wherever in this agreement, words, including pronouns, are used in the masculine, they shall be read and construed in the feminine or neuter whenever they would so apply, and wherever in this agreement, words, including pronouns, are used in the singular or plural, they shall be read and construed in the plural or singular, respectively, wherever they would so apply.

IN WITNESS WHEREOF, the City and the Contractor have signed this agreement effective the day and year first written above.

_____ Lydia Bright, Contractor Date: _____

Authorized this 31st day of December until City Council ratification:

_____ Kathleen Ann Sickles, City Administrator

CITY OF OURAY: Ratified this 7th day of January 2019,

_____ Pamela J. Larson, Mayor

EXHIBIT A
Scope of Contractor

Provide Interim Pool Manager services, support current employees within their job duties and seek information to properly transfer management information to next Pool Manager. Communicate with the City Resource Director and City Administrator needs as necessary. Review and provide policy input including conducting communication between government officials and customers.

From:	Reider - CDOT, Randee
To:	Katie Sickles; Dan Chehayl; Justin Perry; Joe Coleman
Cc:	Constan - CDOT, Julie; Jennifer Allison - CDOT; Steven Kelso - CDOT; Jennifer
Subject:	Ouray Ice Fest 2019-traffic control
Date:	Thursday, January 3, 2019 10:06:19 AM
Attachments:	8156 - CITY OF OURAY - ICE FESTIVAL 2019 - SPECIAL EVENT - BUDGETTING FOR NEXT YEAR.pdf

Katie & Dan,

Jennifer Ealey, with CC Enterprises, and I have been discussing traffic control for the Ouray Ice Fest event over the past couple of weeks and I believe we have created a solution that will satisfy the City of Ouray, the Ouray Ice Park, and CDOT.

Although CDOT would prefer the use of barrels to barricade the "No Parking" zones along US 550, this year we will allow double stacked cones, which drastically decreases the cost of the traffic control setup-please see page 1, Revision 2, of the attached quote from CC Enterprises.

For next year and the subsequent years, CDOT will require barrels-please see page 2, Revision 1, of the attached quote from CC Enterprises.

This compromise will allow the City of Ouray and the Ouray Ice Park ample lead time to prepare and plan for the additional cost next year.

Please let me know if you have any questions.

Thanks and Happy New Year!

Randee Reider
Permits Program
Region 5 - Traffic & Safety
P 970.385.3630 | F 970.385.8361
3803 N. Main Ave., Suite 100, Durango, CO 81301
randee.reider@state.co.us | www.codot.gov | www.cotrip.org

C C Enterprises
Traffic Control Specialists, Inc.
830 21½ Road • Grand Junction, Colorado 81505
Phone: (970) 242-0669 • Fax: (970) 242-0530

PROJECT BID - REVISION 2

****WDBE CERTIFIED****

		ATTENTION:	RANDEE REIDER (CDOT)
CONTRACTOR:	CITY OF OURAY	DATE:	12/13/2018
LOCATION:	OURAY - HIGHWAY 550	PHONE:	(970) 385-3630
PROJECT NAME:	ICE FESTIVAL 2019	EMAIL:	SICKLESK@CITYOFOURAY.COM

DESCRIPTION	UNITS	ESTIMATED QUANTITY	ESTIMATED DAYS OR HOURS	PRICE	AMOUNT
TRAFFIC CONTROL MANAGEMENT	DAY		2	800.00	1600.00
ASSISTANT TO TCM	HOUR		20	35.00	700.00
RENTAL OF EQUIPMENT					
CONSTRUCTION TRAFFIC SIGNS	EA/CAL DAY	26	3	4.00	312.00
CONE (DOUBLE STACKED)	EA/CAL DAY	140	3	1.00	420.00
DONATION 100% (EQUIPMENT ONLY)	***PERCENTAGE***			***100%***	***-732.00***
TRAFFIC CONTROL PLAN	EACH	1		75.00	75.00
MOBILIZATION	LS	1		400.00	400.00
			BID TOTAL:		**$ 2,775.00**

NOTES:

1. BOND NOT INCLUDED, ADD 2%. WDBE CERTIFIED.
2. ABOVE ESTIMATE QUANTITIES ARE BASED ON **3** DAYS OF RENTAL ONLY. PRICE INCLUDES THE DELIVERY, SETUP, AND RETURN OF RENTAL EQUIPMENT. RENTAL EQUIPMENT INCLUDES A **4000'** SHOULDER CLOSURE WITH 20 - NO PARKING SIGNS (PLACED EVERY 200'), 3 - SPECIAL EVENT AHEAD SIGNS, AND 3 - SHOULDER WORK
3. EACH ASSISTANT WILL BE BILLED FOR AN **8 HOUR MINIMUM** EACH PER SCHEDULED WORK DAY.
4. ***CONTRACTOR WILL BE RESPONSIBLE FOR THE MAINTENANCE OF RENTAL EQUIPMENT WHILE CC IS NOT ON SITE. ANY LOST, STOLEN, OR DAMAGED EQUIPMENT WILL BE BILLED AT REPLACEMENT COSTS.***
5. CONTRACTOR MUST GIVE THE CC DISPATCH DEPARTMENT VERBAL NOTIFICATION FOR THE CANCELLATION OF A SCHEDULED WORK DAY 24 HOURS IN ADVANCE OR ADDITIONAL CHARGES WILL APPLY.
6. ***ACTUAL*** EQUIPMENT QUANTITIES, DAYS OF RENTAL, AND DAYS WORKED WILL BE BILLED.
7. CONSTRUCTION TRAFFIC SIGNS *DOES NOT* INCLUDE SPECIAL LETTERED SIGNS.
8. EQUIPMENT WILL BE SET THURSDAY MORNING 1/24/2019 AND **PICKED UP MONDAY 1/28/2019**. RENTAL WILL END 1/27/2019.
9. ***CONES MAY ONLY BE USED AT CDOTS APPROVAL FOR OVERNIGHT USAGE.***

QUOTED BY: JENNIFER EALEY AFTER HOURS PHONE: (970) 261-8196

CONTRACTOR AGREES TO PAY CC ENTERPRISES WITHIN THIRTY (30) DAYS AFTER RECEIPT OF INVOICE WITH THE FOLLOWING EXCEPTIONS:

1. CONTRACTED PROJECT PAYMENT TERMS ARE AGREED UPON PER EACH INDIVIDUAL CONTRACT/QUOTE.
2. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) PROJECT PAYMENT TERMS ARE WITHIN SEVEN (7) DAYS FROM PRIME CONTRACTOR RECEIPT OF PAYMENT FROM CDOT.

INTEREST WILL ACCRUE AT RATE OF FIFTEEN (15) PERCENT PER ANNUM ON PAYMENTS NOT MADE IN A TIMELY MANNER. IF IT BECOMES NECESSARY FOR CC ENTERPRISES TO INCUR COLLECTION COSTS FOR ANY AMOUNT DUE UNDER THIS AGREEMENT, THE UNDERSIGNED PROMISES TO PAY ADDITIONAL COLLECTION COSTS INCLUDING REASONABLE ATTORNEY FEES AND COURT COSTS.

CONTRACTOR NAME: _____

QUOTED PRICES ARE VALID FOR 90 DAYS

QUOTE# 8156 - REVISION 2 - CDOT

C C Enterprises
Traffic Control Specialists, Inc.
830 21½ Road • Grand Junction, Colorado 81505
Phone: (970) 242-0669 • Fax: (970) 242-0530

PROJECT BID - REVISION 1

****WDBE CERTIFIED****

ATTENTION: KATHLEEN "KATIE" ANN SICKLES

CONTRACTOR: CITY OF OURAY
DATE: 12/11/2018

LOCATION: OURAY - HIGHWAY 550
PHONE: (970) 318-0004

PROJECT NAME: ICE FESTIVAL 2019
EMAIL: SICKLESK@CITYOFOURAY.COM

DESCRIPTION	UNITS	ESTIMATED QUANTITY	ESTIMATED DAYS OR HOURS	PRICE	AMOUNT
TRAFFIC CONTROL MANAGEMENT	DAY		2	800.00	1600.00
ASSISTANT TO TCM	HOUR		40	35.00	1400.00
RENTAL OF EQUIPMENT					
CONSTRUCTION TRAFFIC SIGNS	EA/CAL DAY	36	3	4.00	432.00
CHANNELIZING DEVICE DRUM	EA/CAL DAY	100	3	3.00	900.00
LIGHT (DRUM)	EA/CAL DAY	20	3	1.00	60.00
DONATION % (EQUIPMENT ONLY)	***PERCENTAGE***			***55%***	***-765.60***
TRAFFIC CONTROL PLAN	EACH	1		75.00	75.00
MOBILIZATION	LS	1		450.00	450.00
			BID TOTAL:		**$ 4,151.40**

NOTES:

1. BOND NOT INCLUDED, ADD 2%. WDBE CERTIFIED.
2. ABOVE ESTIMATE QUANTITIES ARE BASED ON **3** DAYS OF RENTAL ONLY. PRICE INCLUDES THE DELIVERY, SETUP, AND RETURN OF RENTAL EQUIPMENT. RENTAL EQUIPMENT INCLUDES A 6000' SHOULDER CLOSURE WITH 30 - NO PARKING SIGNS (PLACED EVERY 200'), 3 - SPECIAL EVENT AHEAD SIGNS, AND 3 - SHOULDER WORK
3. EACH ASSISTANT WILL BE BILLED FOR AN **8 HOUR MINIMUM** EACH PER SCHEDULED WORK DAY.
4. CONTRACTOR WILL BE RESPONSIBLE FOR THE MAINTENANCE OF RENTAL EQUIPMENT WHILE CC IS NOT ON SITE. ANY LOST, STOLEN, OR DAMAGED EQUIPMENT WILL BE BILLED AT *REPLACEMENT COSTS.*
5. CONTRACTOR MUST GIVE THE CC DISPATCH DEPARTMENT VERBAL NOTIFICATION FOR THE CANCELLATION OF A SCHEDULED WORK DAY 24 HOURS IN ADVANCE OR ADDITIONAL CHARGES WILL APPLY.
6. ACTUAL EQUIPMENT QUANTITIES, DAYS OF RENTAL, AND DAYS WORKED WILL BE BILLED.
7. CONSTRUCTION TRAFFIC SIGNS *DOES NOT* INCLUDE SPECIAL LETTERED SIGNS.
8. EQUIPMENT WILL BE SET THURSDAY MORNING 1/24/2019 AND **PICKED UP MONDAY 1/28/2019**. RENTAL WILL END 1/27/2019.
9. ***2 ASSISTANTS WILL BE NEEDED FOR THE SETUP/TEAR DOWN OF EQUIPMENT. IF CONTRACTOR CAN HAVE EMPLOYEES AVAIABLE TO HELP WITH SETUP/TEAR DOWN. 1 CC ASSISTANT WILL ONLY BE SENT AND CHARGED FOR (SEE NOTE 3).***
   IF CONTRACTOR SPECIFIES THEY WILL HAVE EMPLOYEES HELP WITH SETUP/TEAR DOWN AND ARE UNABLE TO AT TIME OF OF EVENT FOR ANY REASON AN $800.00 FEE WILL BE ADDED AND BILLED FOR.

QUOTED BY: JENNIFER EALEY AFTER HOURS PHONE: (970) 261-8196

CONTRACTOR AGREES TO PAY CC ENTERPRISES WITHIN THIRTY (30) DAYS AFTER RECEIPT OF INVOICE WITH THE FOLLOWING EXCEPTIONS:

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2. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) PROJECT PAYMENT TERMS ARE WITHIN SEVEN (7) DAYS FROM PRIME CONTRACTOR RECEIPT OF PAYMENT FROM CDOT.

INTEREST WILL ACCRUE AT RATE OF FIFTEEN (15) PERCENT PER ANNUM ON PAYMENTS NOT MADE IN A TIMELY MANNER. IF IT BECOMES NECESSARY FOR CC ENTERPRISES TO INCUR COLLECTION COSTS FOR ANY AMOUNT DUE UNDER THIS AGREEMENT, THE UNDERSIGNED PROMISES TO PAY ADDITIONAL COLLECTION COSTS INCLUDING REASONABLE ATTORNEY FEES AND COURT COSTS.

CONTRACTOR NAME: _____

QUOTED PRICES ARE VALID FOR 90 DAYS

QUOTE# 8156 - REVISION 1

C C Enterprises
Traffic Control Specialists, Inc.
830 21½ Road • Grand Junction, Colorado 81505
Phone: (970) 242-0669 • Fax: (970) 242-0530

PROJECT BID

****WDBE CERTIFIED****

ATTENTION: KATHLEEN "KATIE" ANN SICKLES

CONTRACTOR: CITY OF OURAY
DATE: 11/15/2018

LOCATION: OURAY - HIGHWAY 550
PHONE: (970) 318-0004

PROJECT NAME: ICE FESTIVAL 2019
EMAIL: SICKLESK@CITYOFOURAY.COM

DESCRIPTION	UNITS	ESTIMATED QUANTITY	ESTIMATED DAYS OR HOURS	PRICE	AMOUNT
TRAFFIC CONTROL MANAGEMENT	DAY		2	800.00	1600.00
ASSISTANT TO TCM	HOUR		40	35.00	1400.00
RENTAL OF EQUIPMENT					
CONSTRUCTION TRAFFIC SIGNS	EA/CAL DAY	36	3	4.00	432.00
CHANNELIZING DEVICE DRUM	EA/CAL DAY	100	3	3.00	900.00
LIGHT (DRUM)	EA/CAL DAY	20	3	1.00	60.00
TRAFFIC CONTROL PLAN	EACH	1		75.00	75.00
MOBILIZATION	LS	1		450.00	450.00
			BID TOTAL:		**$ 4,917.00**

NOTES:

1. BOND NOT INCLUDED, ADD 2%. WDBE CERTIFIED.
2. ABOVE ESTIMATE QUANTITIES ARE BASED ON **3** DAYS OF RENTAL ONLY. PRICE INCLUDES THE DELIVERY, SETUP, AND RETURN OF RENTAL EQUIPMENT. RENTAL EQUIPMENT INCLUDES A 6000' SHOULDER CLOSURE WITH 30 - NO PARKING SIGNS (PLACED EVERY 200'), 3 - SPECIAL EVENT AHEAD SIGNS, AND 3 - SHOULDER WORK
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5. CONTRACTOR MUST GIVE THE CC DISPATCH DEPARTMENT VERBAL NOTIFICATION FOR THE CANCELLATION OF A SCHEDULED WORK DAY 24 HOURS IN ADVANCE OR ADDITIONAL CHARGES WILL APPLY.
6. ACTUAL EQUIPMENT QUANTITIES, DAYS OF RENTAL, AND DAYS WORKED WILL BE BILLED.
7. CONSTRUCTION TRAFFIC SIGNS *DOES NOT* INCLUDE SPECIAL LETTERED SIGNS.
8. EQUIPMENT WILL BE SET THURSDAY MORNING 1/24/2019 AND **PICKED UP MONDAY 1/28/2019**. RENTAL WILL END 1/27/2019.

QUOTED BY: JENNIFER EALEY AFTER HOURS PHONE: (970) 261-8196

CONTRACTOR AGREES TO PAY CC ENTERPRISES WITHIN THIRTY (30) DAYS AFTER RECEIPT OF INVOICE WITH THE FOLLOWING EXCEPTIONS:

1. CONTRACTED PROJECT PAYMENT TERMS ARE AGREED UPON PER EACH INDIVIDUAL CONTRACT/QUOTE.
2. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) PROJECT PAYMENT TERMS ARE WITHIN SEVEN (7) DAYS FROM PRIME CONTRACTOR RECEIPT OF PAYMENT FROM CDOT.

INTEREST WILL ACCRUE AT RATE OF FIFTEEN (15) PERCENT PER ANNUM ON PAYMENTS NOT MADE IN A TIMELY MANNER. IF IT BECOMES NECESSARY FOR CC ENTERPRISES TO INCUR COLLECTION COSTS FOR ANY AMOUNT DUE UNDER THIS AGREEMENT, THE UNDERSIGNED PROMISES TO PAY ADDITIONAL COLLECTION COSTS INCLUDING REASONABLE ATTORNEY FEES AND COURT COSTS.

CONTRACTOR NAME: _____

QUOTED PRICES ARE VALID FOR 90 DAYS

QUOTE # 8156

CITY OF OURAY

ORDINANCE NO. 01 (Series 2019)

AN ORDINANCE OF THE CITY OF OURAY, COLORADO TO ESTABLISH A TEMPORARY NEW SEWER TAP CONNECTION LIMITATION UNTIL A NEW OR UPGRADED WASTE WATER TREATMENT FACILITY IS COMPLETED AND OPERATION BEGINS AND SETTING FORTH PENALTIES FOR VIOLATIONS.

WHEREAS, the City of Ouray (City) is authorized operate and maintain its sewerage facilities for its own use and for the use of public and private consumers and users within and without the territorial boundaries of the municipality pursuant to C.R.S. 31-35-402(b) and City of Ouray Home Rule Charter, 8.3-A;

WHEREAS, any rights granted by the City to the its sewer system, are subject to the most comprehensive oversight, control, and management by the City to ensure that nothing can be done that would interfere with the successful long-term operation of the sewer systems or impair such systems for the benefit of the people of the City pursuant to City of Ouray Home Rule Charter, 8.3-D;

WHEREAS, the City holds a valid Colorado Discharge Permit, being Permit Number CO0043397, from Colorado Department of Public Health and Environment (CDPHE) to operate its current wastewater treatment plant;

WHEREAS, the Discharge Permit requires the City to reduce any activity to maintain compliance with the effluent limitations of the permit by controlling production, sources of wastewater or discharges until an alternative method of treatment is provided;

WHEREAS, if the City exceeds ninety-five percent (95%) of the City's permitted discharge limits, the permit requires that expansion commence or cease issuance of building permits;

WHEREAS, in 2018, the City hired JVA, Inc. a consulting engineering firm, to evaluate the City's current and historic wastewater flows to the existing wastewater treatment plant (WWTP) and to provide recommended guidelines for future development;

WHEREAS, JVA, Inc. determined that the City is at risk of exceeding ninety-five

percent (95%) of the City's permitted hydraulic and organic discharge limits and that the City requires a new WWTP or significant modifications to the existing WWTP;

WHEREAS, the City's has determined that a new or upgraded WWTP will be fiscally feasible in 2023;

WHEREAS, JVA, Inc. conducted an evaluation of the treatment plant capacity, including any permitted development in progress to determine how many additional taps may issue between now and 2023 and still allow the City to meet its discharge limits under its permit;

WHEREAS, the recommendations for development guidelines by JVA, Inc. are based upon the current understanding of the influent flows and organic loading to the WWTP and that continued daily flow monitoring, particularly during the winter months, and weekly influent Biological Oxygen Demand (BOD) sampling may require further refinement of these guidelines to maintain compliance with the City's discharge permit;

WHEREAS, the City previously enacted a wastewater treatment surcharge of $15.00 per month, per EQR, to be used for engineering and financial planning for an expansion or replacement of the City's WWTP and to meet its statutory obligations under C.R.S. 25-8-501(5)(d) and (e);

WHEREAS, the City finds it necessary to establish a limit on the number of new sewer connections and to limit development by requiring the submission of calculations for proposed flow and organic matter loading to demonstrate that the development will not exceed the daily hydraulic and organic loading guidelines; and

WHEREAS, the recommended guidelines for future development set forth by JVA, Inc. in this ordinance are conservative and subject to change such that this ordinance shall be a stand-alone ordinance and not be codified to the City of Ouray Land Use Code.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF OURAY, COLORADO:

The City of Ouray hereby declares a temporary new sewer connection limitation until such time as a new or upgraded wastewater treatment plant is commissioned, as follows:

1. A maximum of thirty-five (35) additional sewer connections (Maximum Connections) are allowed, as amended from time to time.

2. One (1) sewer connection shall not exceed daily influent wastewater flow of 330 gpd and organic loading of 0.6 lbs./day (Maximum Load) to the existing wastewater treatment plant.

3. Any approved building permits or site development permits as set forth on attached Exhibit A, shall be allowed to connect to the sewer and these additional sewer connections shall not be included in the Maximum Connections calculation so long as:

    a. the building permit or site development permit has not expired;

    b. the capacity of each connection shall not exceed Maximum Load; and

    c. the issuance of the sewer connection will not reasonably cause the wastewater treatment plant to exceed ninety-five percent (95%) of the discharge limits.

4. The redevelopment or change of use and/or occupancy for existing buildings shall not exceed the Maximum Load per connection.

5. New development, redevelopment or change of use and/or occupancy that intends to connect to the existing wastewater treatment plant shall comply as follows:

    a. submit an engineering evaluation of the wastewater influent flow and organic loading measured as a five (5) day biological oxygen demand (Engineering Calculations) for review and approval, as follows:

    b. the Engineering Calculations shall not exceed Maximum Load;

    c. a licensed wastewater engineer or the City's wastewater engineer shall be used to perform required Engineering Calculations, at the applicant's choosing and the City shall not bear any responsibility or expense for such Engineering Calculations;

d. Only one (1) sewer connection per development is allowed;

e. the development or redevelopment of a Single Family Dwelling Unit, as defined under OLUC 7-2, shall not require submission of Engineering Calculations by a licensed wastewater engineer and the City shall determine whether the proposed use exceeds Maximum Load; and

f. Accessory Dwellings are subject to Maximum Load limits.

6. If a new or upgraded wastewater treatment plant will be commissioned within twenty-four (24) months, new building permits may issue that exceed the limitations set forth in Paragraph 5 so long as the permit contains an express condition that the building shall not be occupied or receive a certificate of occupancy until the new or upgraded wastewater treatment plant is operational.

7. The City of Ouray may establish further conditions on sewer connections as may be necessary, by ordinance.

8. The City of Ouray shall not allow any additional sewer connections for existing or new Recreational Vehicles (RV) or Recreational Vehicle (RV) Parks (RV Parks) until such time as a new or improved wastewater treatment plan is operational to limit any adverse impacts to the existing wastewater treatment plant caused by recreational vehicles dumping waste into the municipal sewer system. An RV Park shall not accept any discharge of effluent into its dump stations from an RV unless the RV is currently registered with and staying at the RV Park.

9. It shall be unlawful to violate any provision of this ordinance and any violation shall be subject to the general penalties set forth under OLUC 1-4, as amended from time to time.

10. The provisions of this Ordinance shall become effective on the thirty-first day following publication pursuant to C.R.S. 31-16-105.

11. If any clause, sentence, paragraph, or part of this ordinance or the application thereof to any person or circumstances shall for any reason be

adjudged by a court of competent jurisdiction invalid, such judgment shall not affect application to other persons or circumstances.

12. The amendment of provision of the Ouray Municipal Code by this ordinance shall not affect any offense or act committed, any penalty incurred, any contract, right or duty established or accruing before the effective date of this ordinance.

13. All other conditions of connection to sewer system pursuant to OLUC 9-3 shall apply and this ordinance does not supplant any other conditions required to connect to the City of Ouray sewer system.

INTRODUCED, APPROVED AS INTRODUCED, AND ORDERED PUBLISHED on first reading by _____vote of the Ouray City Council this 7th day of January, 2019.

CITY OF OURAY, COLORADO

By_____
Pamela J. Larson, Mayor

ATTEST:

_____
Melissa M. Drake, City Clerk

INTRODUCED, READ AND ADOPTED on second reading by _____vote of the Ouray City Council this ____day of January, 2019.

CITY OF OURAY, COLORADO

By_____
Pamela J. Larson, Mayor

ATTEST:

_____

Melissa M. Drake, City Clerk

CERTIFICATE OF ATTESTATION

I, Melissa M. Drake, Ouray City Clerk, hereby certify that Ordinance No. _____ (Series No. _____), was introduced, read and passed by the Ouray City Council on first reading on _____, 2019. The Ordinance was published, in summary, in the *Ouray County Plaindealer* on _____, 2019, and thereafter introduced, read and adopted by the Ouray City Council on _____, 2019, and thereafter published in the *Ouray County Plaindealer*, as required by law.

_____

Melissa M. Drake, City Clerk

ORDINANCE NO. 2 (Series 2019)

AN ORDINANCE OF THE CITY OF OURAY, COLORADO, REPEALING AND REPLACING CHAPTERS 12-3-A AND B, AND 12-4-B AND C OF THE OURAY MUNICIPAL CODE TO PROVIDE FOR MANDATORY WILDLIFE RESISTANT REFUSE CONTAINERS FOR ALL RESIDENTIAL AND SHORT-TERM RENTALS WITHIN THE CITY OF OURAY.

WHEREAS, the City Council for the City of Ouray desires to ensure the safety of the general public and the safety of wildlife;

WHEREAS, when wildlife has access to refuse, it brings them closer to homes, businesses and public places, creating a potentially dangerous situation for the public and for the animals, and creates a nuisance for the community by dispersing large amounts of refuse;

WHEREAS, there has been an increased presence of bears within City limits and law enforcement has had several altercations with bears accessing refuse containers;

WHEREAS, Chapter 12-4-C of the Municipal Code encourages the use of wildlife-resistant refuse containers;

WHEREAS, the Council has determined it is necessary to require animal resistant containers be used for curbside refuse pickup unless the refuse container is stored inside and taken to the curb on the day refuse is picked up; and

WHEREAS, the City Council is empowered to preserve the public health, safety and welfare by C.R.S. § 31-15-103.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF OURAY, COLORADO, as follows:

SECTION 1:

Chapter 12-4-B and C are hereby repealed and replaced, as follows:

B. All residential refuse containers, including short-term rental containers, shall be wildlife resistant unless the refuse containers are stored inside a building which is inaccessible to wildlife and only placed at the curb on the day refuse is collected.

C. All refuse containers shall be either 32- or 64-gallon animal resistant poly containers.

SECTION 2:

Chapter 13-3-A and B are repealed and replaced as follows:

A. Owners may have a maximum of three (3) animal resistant poly containers per dwelling unit.

B. Charges for all owners using City refuse collection services shall be set in accordance with the City's refuse collection contract which may be amended from time to time.

SECTION 3: EFFECTIVE DATE

The provisions of this Ordinance shall become effective on the thirty-first day following publication pursuant to C.R.S. § 31-16-105.

SECTION 4: SEVERABILITY

If any clause, sentence, paragraph, or part of this ordinance or the application thereof to any person or circumstances shall for any reason be adjudged by a court of competent jurisdiction invalid, such judgment shall not affect application to other persons or circumstances.

INTRODUCED, READ, APPROVED AS INTRODUCED, AND ORDERED PUBLISHED on first reading by _____ vote of the Ouray City Council this 7th day of January, 2019.

CITY OF OURAY, COLORADO

By_____
Pamela J. Larson, Mayor

ATTEST:

_____
Melissa M. Drake, City Clerk

INTRODUCED, READ AND ADOPTED on second reading by _____vote of the Ouray City Council this _____ day of _____, 2019.

CITY OF OURAY, COLORADO

By_____
Pamela J. Larson, Mayor

ATTEST:

_____
Melissa M. Drake, City Clerk

CERTIFICATE OF ATTESTATION

I, Melissa M. Drake, Ouray City Clerk, hereby certify that Ordinance No. 2 (Series No. 2019), was introduced, read and passed by the Ouray City Council on first reading on_____, 2019. The Ordinance was published, in summary, in the Ouray County Plaindealer on _____, 2019, and thereafter introduced, read and adopted by the Ouray City Council on _____, 2019, and thereafter published in the Ouray County Plaindealer, as required by law.

_____
Melissa M. Drake, City Clerk

A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF OURAY, COLORADO
(RESOLUTION NO. 1, 2019)

A Resolution of the City of Ouray
Great Outdoors Colorado Ouray School Play Yard Renovation Grant Support

WHEREAS, the CITY OF OURAY supports the Great Outdoors Colorado grant application for the Ouray School Play Yard Renovation. If the grant is awarded, the CITY OF OURAY supports the completion of the project.

WHEREAS, the CITY OF OURAY has authorized the Ouray School to request up to $400,000.00 from Great Outdoors Colorado to renovate the Ouray School play yard.

NOW, THEREFORE, BE IT RESOLVED BY CITY COUNCIL OF THE CITY OF OURAY, COLORADO, as follows:

Section 1: The CITY COUNCIL of the CITY OF OURAY strongly supports the application to Great Outdoors Colorado.

Section 2: If the grant is awarded, the CITY COUNCIL of the CITY OF OURAY strongly supports the completion of the project.

Section 3: Upon award, the CITY COUNCIL of the CITY OF OURAY will enter into an intergovernmental agreement with OURAY SCHOOL to confirm the funding necessary to meet the terms and obligations of any Grant awarded.

Section 4: Upon award, the CITY COUNCIL of the CITY OF OURAY will enter into an intergovernmental agreement with CITY OF OURAY, to ensure the maintenance of the Ouray School Play Yard remains in high quality condition for its useful life. In the Intergovernmental Agreement, the OURAY SCHOOL DISTRICT will appropriate funds for maintenance in its annual budget.

Section 6: If the grant is awarded, the CITY COUNCIL hereby authorizes KATHLEEN ANN SICKLES, City Administrator of the CITY OF OURAY, to sign the grant agreement with Great Outdoors Colorado.

Section 7: Resolution to be in full force and effect from and after its passage and approval

THIS RESOLUTION was approved and adopted this 7th day of January, 2019, by the Ouray City Council.

CITY OF OURAY, COLORADO

ATTEST:

_____
Pamela J. Larson, Mayor

_____
Melissa M. Drake, City Clerk

ABOUT THE APPLICANT/ LOCAL GOVERNMENT		
Name of Local Government: CITY OF OURAY		
Mailing Address: PO Box 468, Ouray, CO 81427		
Applicant Contact Name: Kathleen Ann "Katie" Sickles		Title: City Administrator
Telephone: 970-325-7060	Email: sicklesk@cityofouray.com	Are you the primary contact for this grant: • **NO**

ABOUT THE PARTNER / SCHOOL		
Name of School: OURAY SCHOOL R-1		
Mailing Address: PO Box N, Ouray, CO 81427		
Partner Contact Name: Scott Pankow		Title: Superintendent
Telephone: 970-325-4505	Email: spankow@ouray.k12.co.us	Are you the primary contact for this grant: • **YES**

ABOUT THE PROJECT
Project Title: Ouray School Playground Renovation

APPLICATION CHECKLIST

Verify that the application contains all the following required documents in this order:

- ❑ Responses to Application Questions (9 pages or less)
- ❑ Budget
- ❑ Signed resolution from Local Government
- ❑ Draft IGA
- ❑ Signed Letter of Support from School District, School, and Facilities and Risk Department
- ❑ Attachments:
  - Map(s) identifying the project location (Using Google Earth or Google Maps)
  - Photos of existing amenities to be replaced
  - Conceptual Drawings

Authorized Local Government Signature: _____ Date: _____
Printed Name and Title: _____

By signing below, the School District certifies that it owns, leases, or otherwise has control over the property on which this project will be completed (collectively, "Control") and will do so for the useful life of the project. School District has on file documentation evidencing its control of the property and will provide such documentation to GOCO on request.

Authorized School Signature: _____Date: _____
Printed Name and Title: _____

Application Questions

1. Community background:

Ouray School District is located in Southwest Colorado, nestled deep within the San Juan Mountains. Its single pK-12 school is the only public education center for the rural town of Ouray. At an elevation of 7800 ft with sweeping views of the surrounding undeveloped mountainsides and cliffs rising steeply above town, it's a dramatic landscape to grow up in. The single narrow and perched valley is punctuated by the Uncompahgre River; a turbulent waterway which flows swiftly through town from the surrounding peaks (topping out at over 13,000') rapidly downstream to the agricultural lands to the north. Ouray is ~40 miles south of Montrose (the SW regions economic center) and 9 miles from Ridgway (its closest neighboring community). Ouray is only 10 miles northeast of Telluride as the crow flies (one of SW Colorado's wealthiest towns) but due to the severity of the landscape, the drive is at least 1 ½ hrs (50 miles) over often challenging mountain roads, thus worlds away from the opulence of Telluride. Ouray is connected to the south to Silverton and then Durango by Red Mountain Pass (the Million Dollar Highway) which crests at just over 11,000 feet. Ouray School District is a prime example of a geographically isolated, rural, small, lower resourced Colorado School District (see appendix maps for more location detail).

Originally established by miners chasing silver and gold in the surrounding mountains, the town at one time boasted more horses and mules than people. Prospectors arrived in the area in 1875. At the height of mining, Ouray had more than 30 active mines. The town was incorporated on October 2, 1876, named after Chief Ouray of the Utes, a Native American tribe that long summered in the area and frequented the areas natural hot springs. By 1877 Ouray had grown to over 1,000 in population and at the height of the mining era over 2500 people lived in Ouray. Since then the population has fluctuated reaching a low in the 1980's and 90's of ~650 people. Currently, year-round residents number at just over 1000 (2010 census), 457 households, and 283 families (60.4% of the population), all residing in a tiny 0.8 sq mile. The town's history is important to the community, with the entirety of Main Street registered as a National Historic District (most of the buildings date back to the late nineteenth century). Ouray's single school building is in the same location as the original school building, constructed in 1883 (when the school district was formed).

The present-day economy of Ouray is based on tourism. Ouray bills itself as the "Switzerland of America" because of its setting at the narrow head of a valley, enclosed on three and a half sides by steep mountains. Much of the tourism is focused on visitors seeking getaways in the mountains and Ouray attracts a large number of individuals seeking to have off-roading adventures in four-wheel drive vehicles; as well as hikers venturing wider into the San Juan Mountains.

In winter Ouray was once a nearly empty town; now it boasts being the winter ice-climbing capital of the U.S. The world's first ice climbing park, which expanded on previously-popular natural falls, consists of nearly 300 of frozen waterfalls from 80 to 200 feet high farmed along two miles of the Uncompahgre Gorge just above town. The water is supplied by a sprinkler system developed and maintained by a volunteer organization and supported by donations from local businesses, gear manufacturers and climbers. The Ouray Ice Park is free and attracts climbers from around the world. It has single handedly turned Ouray into a year round outdoor recreation destination, thanks to help from a previous GOCO LPOR grant which helped purchase USFS lands within the Gorge by the City. Ice climbing has been a boon to the local economy, with hotels and restaurants that previously closed in winter months now staying open to accommodate climbers.

Ouray's full-time residential demographic is concentrated into two primary groups: working-class families and retirees (many of whom have lived here their entire lives). The median income for a household in the city is ~$36k (compared to an average of ~$65k for Colorado, $50K for Grand Junction/Mesa County); the per capita income is ~$23k, even lower reflecting those in our community living far below national averages.

About 10% of families and 8% of the population are below the poverty line, including 7% of those under age 18 and 6.5% of those age 65+. As Ouray's per capita income indicates, some residents are in severe poverty.

Ouray School Districts' only school is housed in one building (pre-k through 12 grades) with a gymnasium and cafeteria combined in a separate building across the street. The school provides an educational, cultural, and athletic focus for the community. Currently there are 180 students enrolled, with 37% of these students on the free and reduced lunch program and 15% of the student body coming from ethnically diverse backgrounds. Ouray is a high achieving district with an excellent staff and strong community support. Despite being a small district with limited resources, Ouray School District has been consistently ranked in the top 10 of Colorado's 180 school districts for more than nine years (ranked "Accredited with Distinction" by CDE, one of only eleven districts in the state with these highest honors for this time period). Currently, Ouray has a student teacher ratio of 6:1, class sizes of an average of 14 students per grade/classroom. Ouray's students score in the top 10% on standardized tests consistently. In addition to the academic achievements, students excel in their development as engaged and active community members. Due to the small size, Ouray is able to do a lot with small resources and has at least one major outdoor learning/recreation trip for each grade, with faculty taking pride in providing engaging learning experiences for students of all learning types. As one might guess, with many students' parents engaged full time in work to make ends meet, for many of our students the greatest time they have engaged with nature in an active learning setting is the time they experience at school. However, with the outdoor recreation nature of Ouray itself, many parents do work in the outdoor industry (some even as mountain guides or Search and Rescue team members) and MANY volunteer at the school to make sure students have engaging and atypical learning opportunities. The mission of the Ouray School District R-1, "an educational community built on high expectations, is for all students to contribute responsibly in a global society by ensuring them an exceptional education in a safe and supportive environment."

2. Access:

As the school play yard is immediately adjacent to the school, access is quick and easy for students; just a one minute walk out the front or side door of the school. With this renovation of the existing play yard, teachers will be able to efficiently and readily take students outside to engage in active learning *outdoors* during the normal class day. Currently, teachers utilize the street areas immediately surrounding the school for experiential learning, but it is challenging at times as they need to work around whatever happens to be going on in the community surrounding the school. Having an outdoor classroom space would allow them access to a reliably available resource with known outdoor learning assets, thus optimizing learning time. Access to the Ouray school play yard for City residents is via roads with sidewalks on at least one side (of most), which lead easily to the school. As the school is perched on the higher end of town (east side), the biggest challenge to access is the steep hill to get to the school. This automatically ensures many students get a workout getting to school (grin). While some parents drop off their students, most encourage them to walk or ride to school since town is so small. Students living outside of town ride the school bus, with some coming from as far away as Ridgway and Colona (20-30 min ride north) to take advantage of the small, individual focused education our District provides. Sidewalks in town are of various condition of disrepair, but those immediately around the school provide safe and easy access. The only other nearby park that students currently use is Fellin Park, immediately adjacent to Ouray Hot Spring Pool, which is ½ mi away and a 15+ min walk. This park is the typical community space with a ball field, small skateboard park, and multi-age play structures. While it is often used for school sports that are not played in the adjacent gym and for community gatherings, this park is too far for typical use during the day by teachers or students for free play or efficient experiential learning (see appendix maps).

3. Need:

Ouray School District has an urgency to complete this project within a short time frame. The retaining wall which forms and supports the western edge of the current playground (constructed back in 1883) is failing.

Repair of this wall is essential to keep the western edge of the playground from giving away, as well as for safety of the community. Proper repair of this wall requires a complete excavation and rebuilding of the wall, re-using the large 1883 school foundation stones. Because of the nature of the small space, over 1/2 of the playground will be torn up in this process, and with heavy equipment already onsite it makes sense to complete the entire renovation at the same time.

The original Ouray School was built in 1883 when the school district was formed. That building was damaged in a strong earthquake on November 11th, 1913, which brought many of the large rocks currently found in the valley tumbling down the surrounding cliffs. The Ouray school building was cracked, but was still usable and housed a steady school population for two decades. Following the Great Depression, in an effort to put people back to work, the original building was torn down (due to earthquake damage and upgrade needs) and the current building was built on the lot immediately adjacent (finished in 1937), funded by a public works administration grant. The current playground is on top of the original school location, with fill added over the former foundation to level the ground with the new school building. Additions were made to the replacement school in the 1970s, the 1990s, 2003 and in 2014. The play yard has had very few upgrades during this time. Changes have included the perimeter fence, with shade cloth added to provide state-mandated shade for preK, and the playground equipment currently in place was installed in 1991. The playground has held up remarkably well for its age, but essential repairs are compiling and the play structure is getting harder to repair being nearly 30 years in age. In early 2014, with a leaking roof and other issues continually draining the District resources, the building underwent a full assessment that found it to be structurally safe and worthy of further investment.

In November 2014, the community approved a bond (passing with a 74% majority) to allow the Ouray School District to do much needed work on the aging building, including replacing a leaking roof and to provide a more secure building entryway. These funds served as match for a State BEST grant which allowed the District to complete nearly $10 million of needed remediation. These improvements included items identified as necessary by CDE's Facility Evaluation (click here if you would like to view, 126pgs) in order to provide a safe and educationally conducive classroom setting for students. The intention was that this major renovation would have enough funding to cover repair of the failing retaining wall at the edge of the playground. However, project overruns due to unforeseen construction complications in the renovation itself and a natural, but unexpected change in Ouray's underground hydrothermal field (overheating the school!) meant the retaining wall reconstruction was not completed with this project.

The opportunity to turn the existing playground into something much greater is very much desired by students, staff and parents. Upgrades are essential, as our current equipment is aged (over 27 years old) and becoming increasingly dangerous. Currently, our playground is used primarily for free play but the opportunity exists, and teachers and students strongly want, more nature based learning options in that space (see attached support letters).

Essentially, every section of our existing playground has issues either with age appropriateness, safety, hazards or significant repair needs (see photos in appendix). We could raise money to put "band-aids" on things, but we would much rather create a more engaging, interactive and accessible-to-all space; one which will serve our students and teachers for years to come. We desperately need ADA accessible play, shade, creative zones, more options for varied activities, and year-round usable spaces. Below are highlights illustrating each of these needs, but these are single examples of pervasive issues that are pressing well beyond this narrative (click for video overview showing playground).

One young student with special needs currently cannot join the other students on the playground, as the gravel surface is completely overstimulating to him. During free play time, he stands outside the playground, unable to enter or engage - which is heart-wrenching for everyone! While this is just one student, all of our students matter, his conditions are not unique to just him. He is a kindergartner, so he will hopefully be part

of our school community for several years to come. By changing the play structures and surfaces to more ADA friendly and accessible features, he and other current and future students will have the opportunity to thrive alongside fellow students.

Currently, when our smallest students (pre-K and some K) are given free-play time, they are limited on they can do. Parts of the existing play structure is off limits to them, but even more is too tall for them to even engage with if they could. Even the sides of our Gaga ball pit (one of their favorite places to sit and hang out) do not have the required safe undersurface depth in case of a fall (it's just packed dirt). Thus, we can't allow them to play or sit on these walls. We do have a collection of Strider (balance) bikes that were gifted to the school which these smaller students LOVE, but much of the year the field where it is safe for them to ride is a mud pit leaving them no where to ride these great bikes. They lie unused in a pile during wet times.

Our playground structure is aged, as mentioned before, and repairing it is becoming harder, both in finding parts, but also in creating lasting repairs as more and more items break. Several features have been repaired to "make due" but it is increasingly becoming more unsafe. While the pea gravel surface has been weed free, the gravel ends up spread widely (even in the school from shoes filled during play). It also poses a significant hazard to play on the basketball court, creating a ball-bearing type danger for running students. The cracked court surface further exacerbates this danger; it's not uncommon for a student to slide on the gravel, then trip over an elevated crack edge going down hard.We have serious concussion concerns for our students. The concrete slabs are sinking in spots too, due to water infiltrating under the slab. The best repair for this surface at this point is complete replacement.

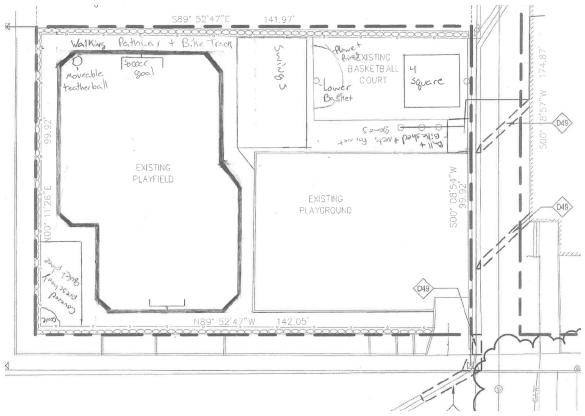
For our students that thrive with quieter or more creative and imaginative activities, there is really no where on the playground for them to engage in this kind of play. Our whole playground caters to high activity play, and when you add in seasonal challenges of intense sun, snow and mud, many of those spaces are inaccessible themselves. Currently, when our students want to be out of the sun/wind/snow/rain and just hang out, they sit under the tiny bridge on the play structure (see photos in appendix or video).

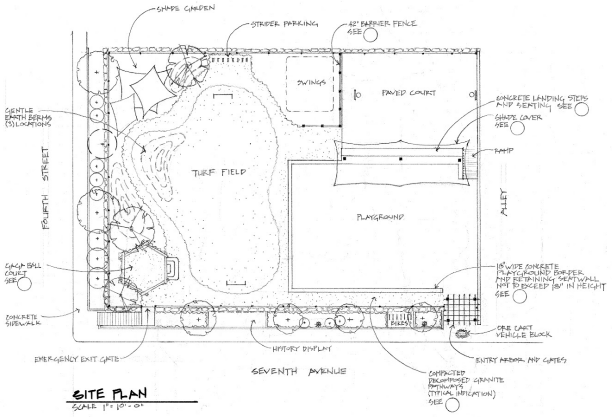
With the recent retirement of a long-time teacher that created an amazing outdoor education program, students have lost a great resource. By restructuring our playground to accommodate outdoor learning opportunities without leaving campus, other teachers can more easily incorporate outdoor learning into their curriculum, ameliorating this loss. We need to have more natural elements, higher creativity and free-imagination spaces in order to facilitate this.

4. Youth engagement:

Our students have been actively involved in the planning for a new playground for several years. In 2014, students were asked to dream of what they would want in a new playground (drawings in appendix) with hopes we could do this project then. Late last spring, when everyone had recovered from the immensity of the school remodel project and it's challenges, the school board decided it was a priority to again look at repairing the wall and constructing a more creative and engaging playground. We asked students to begin to dream again. This summer, ideas were thrown out among students playing at the school yard and they gathered ideas from playgrounds they visited around the country (and world!). Immediately after school started this fall, a Youth Task Force (YTF) was formed with 7 students, ranging from 3rd grade to 12th grade. Teachers were asked in the first month of school to have their students participate in a dreaming exercise. Students from all grades were given a copy of our existent playground and asked to draw in ideas of what they would like to see built. The resultant drawings (in appendix) are so much fun. Teachers also participated. The Youth Task Force began to meet every other week on Tuesdays at 4pm in our student lounge to discuss what students had drawn, and prioritize the ideas. In between our first meetings, YTF members were asked to continue to talk with their peers to get any more ideas and clarity on what was most important. Members of our community were invited to attend YTF meetings, and several parents have come for a meeting or two. Our local newspapers have joined us for these meeting and ran stories

discussing the effort and inviting responses from our community. After several meetings, the YTF was able to clearly identify 8 major features, with important activities centered in each. Scout Manly, our senior grade member of the YTF then took these ideas and created a new conceptual site design (see below left, larger image in appendix). The YTF members were delighted with what Scout had come up with, and with a few suggestions of minor changes, we shared that with the Landscape Architect who has agreed to work with us on the project. Ned Bosworth further developed Scout's preliminary design and incorporated information gathered during our YTF meetings and created a really fun and engaging conceptual site design. He presented this to the YTF, in a meeting also attended by 10+ faculty, admin and parents. Feedback from everyone resulted in the design we are moving forward with (see below right, larger image in appendix). The overall choice of elements and activities has been our students' choices, with guidance from adults about how to make it all work together. Adult input has mainly been regarding safety and full access for all of our students, including those with adaptive and special learning needs.





5. Community engagement:

We have invited community involvement in a variety of ways, from inviting public to join us at YTF meetings, to info shared via social media and our local newspapers. We have posted our Conceptual Site Plan in the vestibule of the school where parents, students and visitors can all view it, and we have also shared it online, on our FB and District website pages, inviting community feedback and involvement. We have had some community members, primarily parents join us for meetings and received verbal comments on the newspaper articles and our displayed site plans, all of which has been positive and supportive. While we have had many of notices about the playground planning (see attachments), feedback from the community has been limited to comments of support, primarily in passing in town (to admin staff and board members) and offers to help when it comes to construction time.

Parents have come to our YTF meetings, as have teachers, giving their input alongside our YTF students. Many parents and teachers have submitted emails with comments and suggestions (see attachments) and universally, all who have given us feedback, both verbally, written and email all support a new and more engaging playground, accessible to all. As you can see from our letters of support, we also have our community's backing as a whole, from our County Commissioners, City of Ouray's Mayor. The City of Ouray is supportive and intends to work closely with the School District on grant administration.

We even had one community member offer to create a video with his drone to allow reviewers a chance to see the playground from a more interactive view. This individual had a student in our school who has long since graduated, but wanted to be sure to help where they could, as the welfare of our students is very much considered a community duty and responsibility. This past Thanksgiving, we had over 200 community members come to eat Thanksgiving dinner together on November 15th - we very much believe in the notion that "it takes a village" to educate and raise a child.

6. Project scope:

Construction will begin with closure of the City street, temporary relocation of the western-most trees and shrubs, removal of the entire perimeter fence and temporary relocation of the emergency stairs at the SW edge of the playground. Once removed, deconstruction of the failing west retaining wall and cracked concrete in the basketball area, removal of the aged playground structure, edge timbers and Gaga ball pit will all begin. Once deconstruction is complete, rebuilding of the wall will start in earnest, placing the re-usable 1883 school foundation stones back in place and constructing a modernly engineered backfill region, with drainage to ensure wall longevity for at least another 100+ years (110' in length, back ~20ft). Concurrent with wall reconstruction, the rest of playground space will be graded to ensure proper drainage and to accommodate the new play structures and design changes our students have instigated (15,400 sq ft total area). Pea gravel from the existing play structure area will be repurposed in the backfill and drain system along with other salvageable pre-existing fill; any excess pea gravel will be retained for use in final landscaping, then made available for other City of Ouray parks projects.

Once basic grading of the entire site is complete, work will shift to focus on implementing our new design which intends to encourage more creative play, include currently non-existent natural zones, and deal with our problem areas and lack of ADA access. A new entrance surface and playground perimeter wall will be poured in concrete which will form the new edge for our High Activity Play zone (125 lf border wall, 4" wide). The considerably aged equipment in the play-structure zone will be upgraded and will feature new elements, selected by our youth task force, including climbing, spinning, balancing and jungle-gym type structures (from Landscape Structures). Our student have selected 10 potential models they would like to have, and our final selection will depend on grant funding (see appendix for choices) and priority will be given to structures that accommodate ADA needs. This high activity play zone will have a new, pour-in-place rubber surface (3,220 sq ft) which will be flush with the perimeter wall, replacing the nuisance pea gravel (requested by all on the committee) and providing safety and accessibility for all of our students.

The High Activity Play zone concrete perimeter wall will transition at the north end into multiple stepped landings (3' deep, 6 ¾" high, stamped with nature designs) creating stadium-style seating connecting this zone into to a slightly lower, northern court space. This lowered pad (36' by 51', 6" deep slab) will serve as the epicenter of the Court/Classroom/Stage (CCS) zone; functioning as a basketball court (as it does now). With the adjacent landings as seating, it will double as an outdoor classroom, as well as an outdoor stage space. The concrete will also host creative blacktop play (engaging games will be painted on the surface, including the ever popular four square). At the NE corner of the CCS zone slab, an ADA friendly concrete ramp will ensure easy transition between zones. The existing basketball hoops will be reset, however one will be lowered to accommodate smaller child play or wheelchair bound player use.

Moving west from the CCS zone, a new swing space will be created; fulfilling one of the most requested new playground components from both students and adults alike. This 3-swing structure will include one low swing for small children, one higher swing for older and one ADA accessible bucket swing. A surface of engineered wood fibers (Playsoft) below will ensure safe landings. We would like a bigger swing bank, but space prevents anything larger. Everyone is thrilled to have swings for the first time however, as the rumor has been for years that we didn't have enough space for swings. Surrounding the Swing zone on the NE and S edges will be an L-shaped wooden, vertical slat cedar fence (42 lf) to ensure players from the court or play-structure zones do not inadvertently run into the pathway of swinging students.

The remaining field space to the west will be remade into a playing field surrounded by a pathway that will lead players around the outside of the irregular, pond-shaped field space (artificial grass, 3851 sq ft). The field zone will be large enough for small soccer games, volleyball or badminton, or just open field play. We have chosen artificial turf to ensure a year-round durable play surface, accessible even to those with mobility challenges. The pathway surrounding the field will serve as a walking, strider riding, jogging trail,

complete with small rises and swooping turns (compacted DG surface, 2010 sq ft). The path will start at the SW corner of the CCS zone, wind 300° all the way around the field area and connect back to the Entrance Gate zone; allowing all users to access the far reaches of the playground even if they are in wheelchairs.

In the NW corner of the playground, a new Creative zone will be developed, with overhead shade sails, a large deciduous tree, shrubs, natural seating and imaginative, more quiet play features. This area (~800 sq ft) will allow students a space to quietly read, create and use their imaginations. Stretching south from this area, will be a 25 ft wide, 45 ft long natural area where we will install low-tone musical instruments and other creative play features, including hopping logs and stones. Mounds with native vegetation and mulch will give this area a more forest like feel, re-creating nature on our playground, while still allowing use by those with mobility limitations. As the DG pathway crosses past this section, the path edges will become logs and posts and balancing features, helping students build strength and encouraging hopping and jumping. This area will provide much needed natural feel to our playground, and can be an area for quickly accessible outdoor education for years to come. As teachers have projects in coming years, such as insect houses, native bee structures, or small garden spaces, this area can be creatively further developed.

This area will give way to the Gaga Ball zone, which will occupy the SW most corner of the playground. Our students learn this game during their annual trip to Catalina Island, and keeping it as part of their school experience is a strong link for them to the wider world. We will recreate the current, very popular feature, using engineered wood product for pit walls ensuring longevity, and a DG floor for weather durability(225 sq ft total size). Summer shade for this space will come from two deciduous trees; and the reinstalled 12’ high perimeter fence (490 lf around the entire playground) will help ensure balls stay inside the playground. We will take advantage of the opportunity to change our current chain link fence into a more aesthetically appealing one, choosing a vinyl coated dark color fencing. Not only will this help lessen the “cage” feel of our current playground, it will also provide more safety; the coated links will be less of a hazard to tiny hands than our current aged fencing. Our plan is to dedicate sections along the perimeter fence to each grade, asking students to be artists, creating murals on the fence that represent their cohort. We will ask the cohorts to change these annually, as a class creative and team building project. These may range to “lace” structures (as shown in the appendix photos) or art pieces mounted on the fence. These will serve a dual purpose of also providing shade to the southern edge of our playground where we currently have dilapidated shade cloth. We will reserve the section of fence to the east the play-structure zone, just right of the entrance, for wall mounted ball mazes and other creative play for our youngest students.

Our new Entrance Gate zone will be welcoming to the public and capture the essence of our community and heritage; the gate itself will be constructed by a local artist and metal worker who creates amazing functional sculptures out of metal (see examples of his work in appendix photos, 276 sq ft). Just inside the playground, on the south fence wall, we will replace the existing playground signage with a new sign, which lays out rules and recognizes GOCO for your contribution to our project. Directly opposite that, on the outside of the fence, conspicuous to passerbyers, will be a sign that talks about the history of our school; one of the first public buildings in newly incorporated Ouray in 1883 and all the changes in the school over time, complete with photos from the Ouray Heritage Museum archives. Also integral to this sign will be information about the extensive history of the Ute people in our region and specifically in Ouray. Chief Ouray and his tribe used the vapor caves just SE of the school for centuries. This public information sign will also serve as tribute to the creative students who have shaped our new playground design, recognizing them for their initiative and GOCO and other community members for their support. Just outside the new entrance gate, at the junction with the road we will install 2 repurposed mining carts fixed in place, to provide a vehicle barrier and state required safety for our students. These will serve as reflections of our heritage and will be planted seasonally with annual flowers, matching those used Ouray’s downtown area. Also here will be a custom designed fixed bike rack to match the feel of the entrance gate and provide parking for our students and community who brave the hill to school.

7. Ongoing use:

Our teachers envision using the outdoor classroom space created by the landings between the High Activity Play and CCS zones to hold class, much like inside, but with portable supplies. What they are most excited about, is the opportunity to have a space to be more creative with their teaching; for example, introducing a concept following STEAM curriculum, then reinforcing that topic with an experiential activity, *outdoors*. We have a strong core of teachers dedicated to teaching STEAM concepts; and these teachers, led by our STEAM Coordinator, are eager to equip our new play yard with tools for have a "Makers Lab" serving multiple grade levels outside (please see is attached letter of support for more details). The Ouray School District is prepared to support teachers in learning more about teaching outside by encouraging them in attending trainings like those hosted by the Colorado Alliance for Environmental Education (CAEE).

Ouray elementary teachers are also eager to take advantage of Colorado Parks and Wildlife's Schools and Outdoor Learn Environments (SOLE) program. Currently, our 4th grade students do a field trip every day the first month of school (September). Many are walk-to local landmark type excursions, but they also go to Ft. Uncompahgre in Delta and railroad and ranch museums between Ouray and Montrose. They are extremely excited to have an outdoor classroom space to be able to do even more right at the school. In winter, Ouray's 4th graders join the Ridgway schools 4th grade students for a Winter Ecology field trip at Ironton town site, near Red Mountain Pass; that event sees nearly 100 4th & 5th grade students out on nordic skis and snowshoes learning about snow science, winter tracking and winter plant and animal life of the San Juans. Our teachers are dedicated to outdoor education, and an outdoor classroom right at the school will make it much more readily available in everyday curriculum. We are confident rather than dropping existing trips, they will just spend more days outside actively learning.

Our nearest neighbor, Ridgway School District, has worked with CPW to host a family nature night which from what we've learned was a great event and we are eager to have the opportunity through this grant to participate in the SOLE program. Our school district is prepared to support our elementary teachers to participate in any teacher trainings CPW offers locally. We can envision partnering with several local groups to encourage use of the space, both to encourage youth free play but also outdoor learning. Ouray's summer youth program, Voyager, is eager to expand its offering for our youth, using the playground as a centerpiece of their activities (see attached letter).

One additional aspect we are excited about is the opportunity for our older students to continue to mentor our younger students while outdoors. Currently, they already serve as role models, but with these improvements they will have a space to more creativity interact with our younger students. With a more inspiring and creative space, our upperclassmen will be more inclined to stay on the playground and engage actively with their younger peers (see support letter from our former Dean of Students).

8. Letters of support:

As you will be able to discern from our letters of support, our community - from the students all the way through our City and County administrators - is very supportive of creating a more engaging play and learning space for our students. In the appendix, you will find: a composite letter from our Youth Task Force students; Evelyn Nelson, our special education teacher; Emily Gardner, Parent of two children with special needs; Markus Van Meter, STEAM Coordinator and IT for OSD; Di Rushing, former Dean of Students and teacher; Nicole Skoloda, School board Vice President and parent; Lisa Bright, 1st grade teacher; Jenny Hart, 4th grade teacher; Don Batchelder, Ouray County Commissioner, and Pam Larson, City of Ouray Mayor.

The only dissenting voices in the process have been voices of individuals concerned about making sure the equipment is long lasting and that everything we do take into consideration ADA accessibility and proper safety for our wide range of student ages. These "dissenting voices" have been parents and teachers at YTF meetings and all are satisfied with our current Conceptual Site Design plans. We will be sure to include them on the final selection of playground equipment, based on grant dollars. Perhaps our biggest challenge is

how to keep all ages of students engaged in the playground, while keeping it safe for our smallest students. We feel like our site design can do this effectively, as well as with careful selection of our final equipment.

9. Financials:

As mentioned above in the description of the existing playground (Q#2), in 2014 the Ouray community approved a bond measure to help meet match requirements for a BEST grant - which funded the much needed renovations to our school building. The District's goal was to complete the essential wall repairs as part of that project, but were not able to reach that goal due to cost overruns from unanticipated construction issues and natural hydrothermal changes in under the school. However, the District was able to reserve $100,000 in funds for the wall repairs; which to serve as match for this grant application. The District also will set aside an additional $50k to serves as project contingency funds. An additional $6700 will be raised through local fundraising efforts and grant requests to local non-profit organizations. If we are unable to raise those additional funds, we will scale back on the playground equipment structures and likely look at less costly underlayment for the High Activity Play zone, as pour-in-place rubber is quite costly. However, we are confident that we will be able to raise the funds needed to fully fund the features as we have planned. Our hope is also that once the GOCO grant is awarded, we will have even more local support in the form of in-kind contributions during the construction phase. Currently, we have significant contributions (over $17,800) coming from our local engineers, landscape architects and a local business that would like to design our entrance gate. That same business has expressed interest in doing as much of the metal fabrication work as needed, with a substantial portion as an in-kind contribution.

Energy is high for this project, but GOCO funding will most certainly help rally the community even more to ensure this project is done well, timely, with creativity and with long-lasting features.

10. Maintenance:

Maintenance for this playground will require annual renewal of the ground surfaces beneath the swings (EWF, ~$300/annually), weeding and mulching of the natural areas (volunteer), winter blow-out of the sprinkler system (by staff) and repair to the pathway DG surface as needed (should be minimal if constructed well, est. $100/yr). Blacktop paint elements will need refreshing every 2-3 years (volunteer, costs ~$200/3yrs), and shade sails replaced likely every 5 years ($3000/5yrs). Beyond these, we anticipate annual maintenance being very similar to what it is currently, with snow removal from concrete areas and regular checks for safety and good working conditions, done by Operations staff. Our current maintenance costs of our playground is ~$2k/annually (~0.7% of total District maintenance budget, $278k). We anticipate the annual playground maintenance cost will increase by ~50% with the new design, which will amount to roughly ~$3K/annually; we can readily met this cost through allocations from our general fund.

We will rely partly on our local Parent/Teacher group, called Parents and Teachers Together (PATT) to plan regular community "gardening" days in spring and fall to weed, plant and mulch natural areas. We will work closely with them to plan, advertise and implement these days, and will oversee any needed repairs to the playground on those community project days. PATT will help us raise funds for upkeep beyond routine work done by our maintenance staff, including funds for student mosaic "refreshes" annually on the perimeter fence. Any additional funds needed for playground maintenance or future improvements will be generated from local events, such as the Ouray Mountain Trail Run (13.2mi, 3800' elev gain; ~75 runners/year), which raises funds for Ouray's outdoor education program and is eager to support our new playground.

Project Budget							
	Source of Funds	Date Secured		GOCO Grant Request	Applicant Match ($)	Partner Match ($)	Total Funding ($)
CASH							
	Great Outdoors Colorado			$400,000.00			$400,000.00
	City of Ouray						
	Ouray School District	Jan-19				150,000.00	$150,000.00
	Ouray School District playground fundraising	May-19				5,133.00	$5,133.00
	Ouray County Community Fund	May-19				1,500.00	$1,500.00
IN-KIND							
	Alpine Edge Engineering (wall engineering)					500.00	$500.00
	John Peters & Assoc., Landscape design (preliminary design)					2,000.00	$2,000.00
	John Peters & Assoc. (final design & construction documents)					2,500.00	$2,500.00
	Skol Studio & Design (entry gate)					5,000.00	$5,000.00
	Astroturf repurposed connection					7,700.00	$7,700.00
	Ouray Historical Society (ore carts)					100.00	$100.00
TOTAL SOURCE OF FUNDS							**$574,433.00**

CASH	Use of Funds	Number of Units	Cost Per Unit	GOCO Funds	Applicant Funds	Partner Funds	Total Funding ($)
Project Management							**$40,000.00**
Owner-rep Consultant	oversee project and sub-contractors & reporting, 8% proj	1.00	$40,000.00			40,000.00	$40,000.00
Final Design/Construction prep							**$11,000.00**
Construction Documents	update design w/ any changes, create construction detail	1.00	$5,000.00	$5,000.00			$5,000.00
Construction mobilization	equipment to site and other typical project startup costs	1.00	$5,000.00	$5,000.00			$5,000.00
Final engineering documents	engineered details of new playground for permits	1.00	$1,000.00	$1,000.00			$1,000.00
Permitting fees							**$2,500.00**
City & County	***ask Chris Hawkings (street closure and fee)***	1.00	$500.00			500.00	$500.00
State	State permit fees for construction	1.00	$2,000.00	$2,000.00			$2,000.00
Site Prep							**$7,500.00**
Removal of old features	clear damaged & aged features on playground	1.00	$2,000.00	$2,000.00			$2,000.00
Demo/removal of old surfaces	pea gravel and concrete removal	1.00	$3,000.00	$3,000.00			$3,000.00
Grading	creating ideal drainage	1.00	$1,500.00	$1,500.00			$1,500.00
Irrigation redesign	assess non-working system and design new branches	1.00	$1,000.00	$1,000.00			$1,000.00
Retaining wall							**$226,800.00**
Dirt work	excavation and backfill after wall rebuild (sq ft)	3,300.00	$50.00	$165,000.00			$165,000.00
Disassembly/Reassembly	wall repair (LF)	110.00	$200.00			22,000.00	$22,000.00
New wall & fill material	replace fill rock and any damaged stones (LF)	110.00	$60.00			6,600.00	$6,600.00
Drainage	create new drainage system behind wall (LF)	110.00	$40.00			4,400.00	$4,400.00
Exterior landscaping	re-plant space exteranal to playground (sq ft)	480.00	$60.00	800.00		28,000.00	$28,800.00
Surfacing							**$92,630.00**
play structure area rubber	pour-in-place rubber w/install ($8-$22/sq ft; $15 ave)	3,220.00	$15.00	$48,300.00			$48,300.00
concrete	entry, playground edge & landings, new court (cu ft) @ $	2,310.00	$8.00	$18,480.00			$18,480.00
concrete nature stamps	entrance and landing in outdoor classroom area (sq ft)	276.00	$10.00	$2,760.00			$2,760.00
turf in field	artificial turf for high play area, installed (sq ft)	3,851.00	$5.00	$11,555.00			$11,555.00
natural surfaces	mulch surrounding field and pathway, installed (sq ft)	2,000.00	$1.50	$3,000.00			$3,000.00
playground paints	interactive games on court (sq ft)	100.00	$2.00			200.00	$200.00
Decomposed Granite (DG) path	ADA friendly pathway around playground (sq ft), $50yd	2,010.00	$2.00	$4,020.00			$4,020.00
Pathway creative edges	hopping logs, balance elements (LF)	200.00	$1.00	$60.00		$140.00	$200.00
Gaga pit DG	durable surface for play/weather (sq ft)	225.00	$2.10	$480.00			$480.00
Playsoft wood chips	under swings (cu ft), $26/yard	810.00	$3.00	$2,430.00			$2,430.00
Underlayment	weed mat in regions with DG or landscaping (sq ft)	4,820.00	$0.25	$1,205.00			$1,205.00
Playground Equipment							**$61,050.00**
Climbing structures	SLI, 3 boulders with nets connecting	1.00	$30,000.00	$30,000.00			$30,000.00
Slide/Balance structures	SLI, monkey bars, slides and balance structure	1.00	$20,000.00	$20,000.00			$20,000.00
Spinning structures	1 group, 2 individual of diff heights	3.00	$1,000.00	$3,000.00			$3,000.00
Swings	3 bank, 2 varying heights, 1 ADA access.	1.00	$5,500.00	$5,500.00			$5,500.00
Tether ball stands	Tire w/pole & concrete base, 2 heights	2.00	$25.00			50.00	$50.00
Gaga ball pit	15' Hexagon, w/ engineered lumber	1.00	$1,500.00	$1,500.00			$1,500.00
Strider parking	Balance bike parking rack with overhang	1.00	$1,000.00	$1,000.00			$1,000.00
Signage							**$1,500.00**
Welcome sign	Playground welcome and rules w/installation	1.00	$1,000.00	$1,000.00			$1,000.00
Historical information	Outside playground providing historical infomation	1.00	$500.00	$500.00			$500.00
Outdoor Classroom							**$5,000.00**

Shade structure	Permanent, on edge of playground and over landings	1.00	$5,000.00	$5,000.00			$5,000.00
Creativity Zone							**$13,000.00**
Shade structure	removable shade sails	1.00	$5,000.00	$5,000.00			$5,000.00
Seating	natural seating (rocks, logs and creative benches)	1.00	$3,000.00	$3,000.00			$3,000.00
Musical instruments	Low tones, musical creativity	1.00	$5,000.00	$5,000.00			$5,000.00
	6' $25/lf 12' $69						
Perimeter & Swing Fencing							**$30,050.00**
New vinyl coated chainlink fence	360LFx12'high, $70LF; 130LFx6'high, $25/LF installed	490.00	$59.00	$28,910.00			$28,910.00
Shade barrier	6'x50' mesh shade barrier on fence at 6' level	2.00	$50.00			$100.00	$100.00
Active play features	creative play on fence (ball mouse maze, etc...)	4.00	$30.00			$120.00	$120.00
Helping hands mosiac wall	creative wall at entry	1.00	$500.00			$500.00	$500.00
Wooden veritcal slat fence	swing area (LF)	42.00	$10.00			$420.00	$420.00
Landscaping							**$12,000.00**
replacement tree/shrubs	sidewalk zone adjacent to wall	1.00	$5,000.00	$5,000.00			$5,000.00
New plantings	west end of playground (Creativty and Gaga areas)	1.00	$5,000.00	$5,000.00			$5,000.00
Irrigation	west end drip lines	1.00	$2,000.00	$2,000.00			$2,000.00
Equipment Storage							**$2,000.00**
Gear "Closet"	one small, one large for removable equipment (nets/balls)	2.00	$1,000.00			$2,000.00	$2,000.00
Entry Gate							**$1,000.00**
Public gate	ornate entrance w/ historical influences	1.00	$5,000.00			$0.00	$0.00
Ore Cart car barriers	car barriers for safety and historical link	2.00	$50.00			$0.00	$0.00
Custom bike rack	student and community bike parking, hertitage themed	1.00	$1,000.00			$1,000.00	$1,000.00
USE OF FUNDS - CASH SUBTOTAL				**$400,000.00**	**$0.00**	**$106,030.00**	**$506,030.00**

IN-KIND	**Use of Funds**	**No. of Units / Hours**	**Cost Per Unit / Hour**	**GOCO Funds**	**Applicant Funds**	**Partner Funds**	**Total Funding ($)**
	Alpine Edge Engineering					500.00	$500.00
	John Peters & Assoc., Landscape design (preliminary design)					2,000.00	$2,000.00
	John Peters & Assoc. (final design & construction documents)					2,500.00	$2,500.00
	Skol Studio & Design (entry gate)					5,000.00	$5,000.00
	Astroturf company?					7,700.00	$7,700.00
	Ouray Historical Societys (ore carts)					100.00	$100.00
	USE OF FUNDS - IN-KIND SUBTOTAL				**$0.00**	**$17,800.00**	**$17,800.00**
	Contingency 10%	**1**			**$0**	**$50,603**	**$50,603**
	TOTAL PROJECT COST			**$400,000.00**	**$0.00**	**$174,433.00**	**$574,433.00**

CALCULATION OF MATCH REQUIREMENTS

Item	**Explanation**	**Requirement**	**Actual**	**Meets Requirement?**
Minimum Match	25%/Total Costs	$143,608	$174,433.00	Yes
Minimum Cash Match	10%/Total Costs	$57,443	$106,030.00	Yes

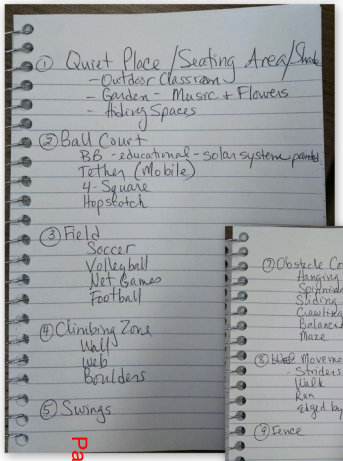
CALCULATION OF GOCO %

GOCO % of Total Costs	69.63%

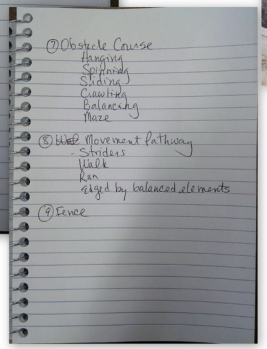
Ouray School ~1884

Ouray School, 2018

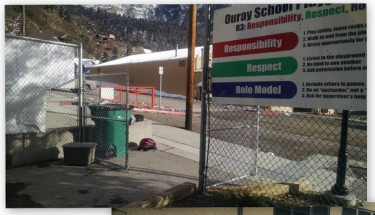
Ouray School campus overview, 2018



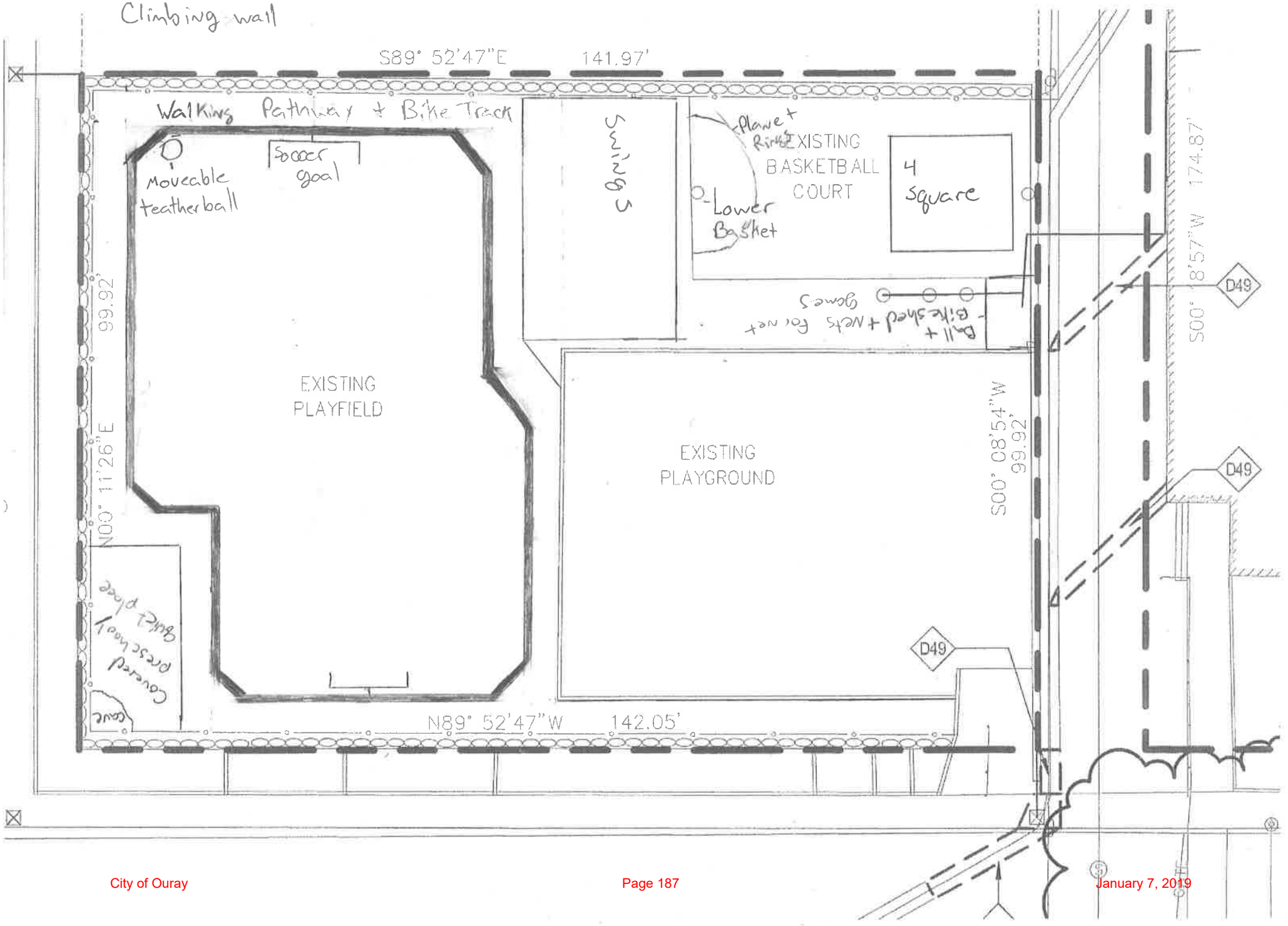
1. Quiet Place / Seating Area/Shade
   - Outdoor Classroom
   - Garden - Music + Flowers
   - Relaxing Spaces
2. Ball Court
   BB - educational - solar system paint
   Tether (Mobile)
   4-Square
   Hopscotch
3. Field
   Soccer
   Volleyball
   Net Games
   Football
4. Climbing Zone
   Wall
   Web
   Boulders
5. Swings

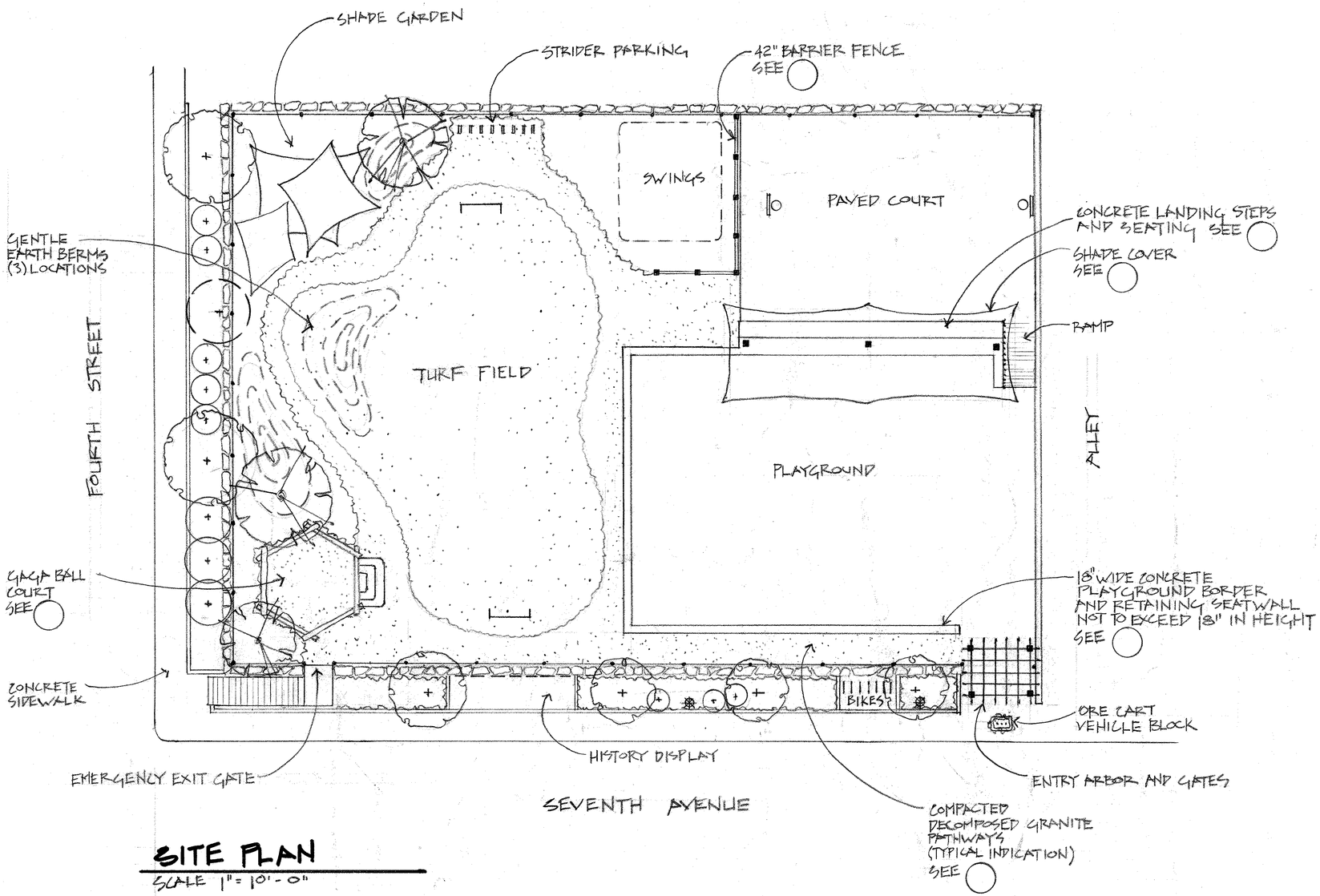


7. Obstacle Course
   Hanging
   Spinning
   Sliding
   Crawling
   Balancing
   Maze
8. Movement Pathway
   - Striders
   Walk
   Run
   edged by balanced elements
9. Fence



Gaga ball - possibly in corner or corner in playground
Obstacle course - which one + where
Climbing wall





SITE PLAN

SCALE 1" = 10'-0"

N
W E
S

0 5' 10' 20'

SCALE 1" = 1'-0"

REVISIONS	BY

Ned Starbuck Bosworth
Landscape Architect
402 Palomino Trail
Ridgway, CO 81432
970-626-4195

CONCEPTUAL SITE DESIGN

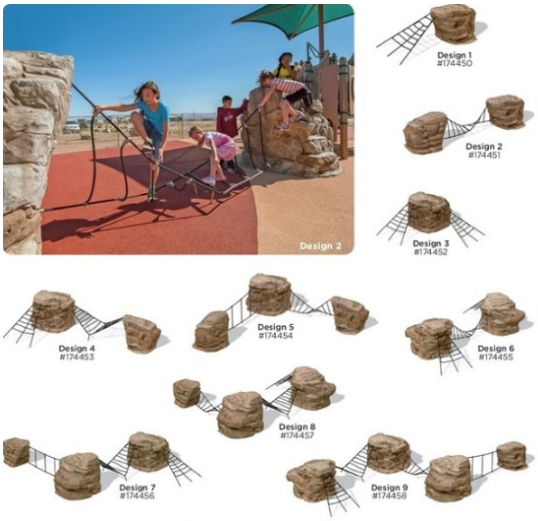
OURAY SCHOOL PLAYGROUND

OURAY SCHOOL DISTRICT R1 P.O. BOX N
OURAY, COLORADO 81427

Date	
Scale	1" = 10'
Drawn	
Job	
Sheet	1
Of	Sheets

YTF Favorite Elements

(from Landscape Structures)



Examples of creative chain link fence decorating

Samples of work by Skol Studios,
who will build the public entryway/gate structure

OURAY SCHOOLS

Youth task force plans for playground grant

BY CAROLINA KING
news@ouraynews.com

A panel of experts on the Ouray School playground has been meeting after school on a regular basis to discuss a much-needed playground update. The panel consisted of five students from grades 1 through 7 at the most recent meeting on Thursday, Nov. 1.

The "youth task force" as Danika Gilbert – who will be working on writing a grant proposal to submit to GOCO (Great Outdoors Colorado) – refers to them, has been brainstorming ideas for a new playground. The discussions are completely student-driven. The task force is also getting input, including a stack of drawings of dream playgrounds, from fellow students.

"The reason we put the youth task force together is, one of the things that GOCO requires is that you guys have a voice," Gilbert told the students. "It's not just adults saying what should be out there, because you guys know the playground way better than we do."

The plans will be finalized over the coming months. Gilbert will write the grant request and submit it in January. The school will know in April if the funds will be awarded, and Gilbert hopes construction can start as soon as school is out for the summer.

From the student drawings, the task force was able to narrow the wishes of their peers to nine different categories, from swings – which the current playground does not feature – to an obstacle course and an outdoor classroom.

A senior who was also in attendance, Scout Manley, will work through all the elementary students' drawings to create a drawing himself based on their ideas. His drawing will then be submitted to an architect.

Aside from Gilbert, the students have the guidance of Skoloda and parent Eric DeMuth, but Gilbert was clear that the effort is completely student-driven and she is just there to hear their thoughts.

The students took the adults outside on a tour to see the conditions first hand. The playground, which is currently muddy as it lacks adequate drainage for melting snow, has lots of empty space that could be put to creative use.

Skoloda noted that the retaining wall along the playground is in bad repair, and she said the school board had been working on acquiring funding to have it repaired for quite some time.

The playground is lacking, especially when compared to the playground at Ridgway Elementary School, which was updated with grant funds a few years ago. Gilbert played an important role in securing those funds and in doing the work and repairs on the playground.

Gilbert said there is less fighting over equipment on the Ridgway playground because there are more things to do, and she expects the same if Ouray gets its grant.

Ouray School will be competing with other schools of similar size for the grant, and Gilbert advised the task force not to get their hopes up, while remaining optimistic because if they do not succeed they will try again next year.

Danika Gilbert (front), grant writer, and Nicole Skoloda (far left), Ouray School Board vice president, received a tour of the Ouray School playground last Thursday from the youth task force. The task force was set up to get input from other students and compile data prioritizing the most needed playground updates to request in an application for a GOCO grant.

Plaindealer photo by Carolina King

OURAY COUNTY

First responders to stage emergency preparedness drill

PLAINDEALER STAFF REPORT
plaindealer@ouraynews.com

On Saturday, Nov. 10, Ouray County first responders and school district personnel will conduct a full-scale, emergency response drill at Ridgway Secondary School. This drill will focus on emergency response to an imminent threat. The public should expect several emergency vehicles including law enforcement, fire and emergency personnel in the area between 7:30 a.m. and 2:30 p.m.

"This drill has been a year in the making," said Ouray County Emergency Manager Glenn Boyd. "It is a multi-jurisdictional effort and will serve to benefit not only Ouray first responders but regional responders as well. Preparing for different types of imminent threats and disasters helps to test our systems and processes and will ultimately improve our response."

First responders will be simulating a crisis response plan that includes emergency response during a critical incident at local schools. The public will be prohibited from accessing the school and surrounding area during the drill.

The following agencies are participating in the drill: Ouray County Emergency Management, Ouray County Sheriff's Office, Ridgway Marshal, Ridgway Secondary School, Ouray School District, Ouray Police Department, Ouray County EMS, Montrose Fire Protection District, St. Mary's Careflight, Montrose Memorial Hospital, Colorado State Patrol, Ridgway State Park, Delta Ambulance, Norwood Ambulance, Ridgway Fire Department, Log Hill Fire Department, Ouray Fire Department, American Red Cross, Ouray County Department Social Services, Ouray County Fairgrounds and emergency management personnel from Gunnison County, San Miguel County, Delta County, Colorado Division Homeland Security and Emergency Management, and the Southwest Incident Management Team.

A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF OURAY, COLORADO
(RESOLUTION NO. 2, 2019)

A Resolution of the City of Ouray designating a posting place for 2019

WHEREAS, the Colorado Open Meetings Law requires that all meetings at which the adoption of any proposed City policy or other formal action be held only after full and timely notice to the public; and

WHEREAS, Chapter 2 Section 1.D. of the Ouray Municipal Code requires City Council to designate a public place for posting notices of any such meetings; and

WHEREAS, this designation must occur each calendar year; and

WHEREAS, the City of Ouray now wishes to designate a public place within its boundaries for posting of such full and timely notices to the public;

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF OURAY, COLORADO, THAT:

1. The City Council hereby designates the bulletin board outside the City Administrative Office, which is inside the entrance to City Hall at 320 6th Avenue, Ouray, Colorado, as the place for posting full and timely notice to the public:

2. All such notices, except those of emergency meetings, shall be posted at this designated place at least twenty-four hours prior to the holding of the respective meeting.

THIS RESOLUTION was approved and adopted the 7th of January, 2019, by the Mayor and Council of the City of Ouray, Colorado.

CITY OF OURAY, COLORADO

_____
Pamela J. Larson, Mayor

ATTEST:

_____
Melissa M. Drake, City Clerk

AMENDED
RECREATIONAL ACCESS
EASEMENT AGREEMENT

THIS AMENDED RECREATIONAL ACCESS EASEMENT AGREEMENT made and entered into effective the ___ day of _____, 2018, by and between: The Board of County Commissioners of Ouray County, Colorado (Grantor); and The City of Ouray, Colorado (Grantee).

MATERIAL TO THIS AGREEMENT the parties acknowledge the following facts.

A. Grantor and Grantee entered into a Recreational Access Easement Agreement dated September 28, 2009, which was recorded in the Ouray County real estate records at reception number 201752.

B. Grantor and Grantee entered into an Amended Recreational Access Easement Agreement dated May 1, 2017, which was recorded in the Ouray County real estate records at reception number 220897.

C. The Amended Recreational Access Easement Agreement, recorded at reception number 220897, replaced the Recreational Access Easement Agreement recorded at reception number 201752.

D. Grantor and Grantee now wish to replace the Amended Recreational Access Easement Agreement dated May 1, 2017, which was recorded in the Ouray County real estate records at reception number 220897.

E. Grantor owns real property generally located to the south of Ouray, Colorado in the Uncompahgre Gorge of the upper Uncompahgre River in Ouray County, Colorado, more particularly described as the Rio Lode, M.S. 1965 (hereinafter referred to as the Property or Easement Area).

F. Grantor desires to grant unto Grantee easements and rights of way over the Property for public recreational purposes, including but not limited to, skiing, hiking, bicycling and ice and rock climbing, and subject to the conditions and covenants set forth herein.

G. Grantee desires to accept such easement and to perform its obligations in such manner as to protect Grantor's Property and the leasehold interests and improvements appurtenant thereto, and so as to minimize any liability of the Grantor and Grantee for permitting such recreational uses.

H. By entering into this easement and agreement, the parties hereto desire to avail themselves of the maximum immunities, benefits and protections which may be available to each of them pursuant to applicable law, including but not limited to the Colorado Recreational Use Statute, Colo. Rev. Stat. §§ 33-41-101, *et seq.*, the Colorado Governmental Immunity Act, Colo. Rev. Stat. §§ 24-10-101, *et seq.*, and Colo. Rev. Stat. § 13-21-115.

NOW THEREFORE, in consideration of the mutual covenants and conditions contained herein, and for other good and valuable consideration, the sufficiency of which are hereby acknowledged, the parties hereto agree as follows.

1. This instrument fully and completely replaces and supplants the Amended Recreational Access Easement Agreement dated May 1, 2017, recorded in the Ouray County real estate records at reception number 220897, with this Amended Recreational Access Easement Agreement.

2. **Grant of Easement**. Grantor hereby grants to Grantee, until ~~_____~~ December 31, 2029, a non-exclusive easement and right-of-way for the purposes set forth below on, over and across the Property.

3. **Acceptance**. Grantee accepts this easement and agrees to be bound by its covenants, terms, conditions, restrictions and limitations.

4. **Permitted Uses**. Use by Grantee of the easement granted herein is exclusively for public recreational purposes, including but not limited to: picnicking, hiking, snowshoeing, cross country skiing, bicycling, sight-seeing, exploring, rock climbing, ice climbing, bird watching, photography, and rescue training, subject to the conditions and covenants set forth below. The installation and use of zip lines is permitted only in during the annual Ice Festival and on the Fourth of July. Use by the Grantee shall include use

by Grantee, its residents, visitors, licensees, and invitees. Grantor acknowledges and understands that Grantee will permit the Ouray Ice Festival to take place annually within the Easement Area. Priority should be given to the continuation of the historical use, which is the Ice Park.

5. **Prohibited Uses**. The following uses are specifically prohibited: motorized vehicles horses and horseback riding, camping, hunting, swimming, tubing, diving, target shooting, and zip lines (except during the annual Ice Festival and on the Fourth of July). However, no such limitation is placed on the Ouray hydroelectric operation in carrying out maintenance and inspection of its system, or for equipment necessary to operate, maintain or perform rescues within the Ice Park. Grantee shall not use the Easement Area or the Property for commercial purposes, provided that this limitation shall not be deemed to prohibit entry upon or use of the Property pursuant to this Agreement by professional climbing or mountaineering guides who may charge their clients for their services. Temporary sales and services directly relating to, as a part of, and resulting from the annual Ice Festival shall not be considered commercial purposes. Nothing contained herein shall be construed to limit ingress or egress on County Road 361 for all legal uses.

6. **Construction and Maintenance of Improvements.** Within the general recreational purposes for the grant of the easement, Grantee may, without limitation, construct, install, maintain and repair a via ferrata consisting of steel cable and other climbing aids, such as iron rungs, ladders, anchors, and carved steps. Further, Grantee may construct, install, maintain, and repair water lines and outlets for development of ice falls, climbing anchors (including bolts and chains), safety signs, noncommercial signs (except during the Ice Festival) including public information and directional signs, barricades and markers, a small office building, observation platforms, metal and wooden catwalks, bridges, stairs and ladders, and pedestrian trails within the Easement Area. Any additional permanent structures or buildings not authorized herein, shall require prior written approval of the Grantor. Any such improvement shall be removed at the request of the Grantor upon termination of this easement agreement.

7. **Maintenance**. Grantee shall maintain the Easement Area, including but not limited to, all permitted improvements.

8. **Statutory Protections**. The parties expressly acknowledge that Grantor is entitled to the benefits, protection and limitation on liability afforded by Colorado law governing recreational easements, Colo. Rev. Stat. §§ 33-41-

101, et seq. By granting the easement, Grantor shall have no obligation to insure or indemnify Grantee for any injury, claim or damage to any person or property, alleged to have occurred while using the easement for the identified purposes. Grantee shall name Grantor as an additional insured on the Grantee's general liability insurance policy with respect to the use of the easement granted herein and shall provide Grantor with a Certificate of such insurance. Nothing herein is intended to waive any limits on liability afforded to the parties under the Colorado Recreational Use Statute, Colo. Rev. Stat. §§ 33-41-101, *et seq*., the Colorado Governmental Immunity Act, Colo. Rev. Stat. §§ 24-10-101, *et seq*., Colo. Rev. Stat. § 13-21-115, or other law. Grantee shall ensure that all entities or individuals who Grantee authorizes to provide guides services within the area known as the "Ice Park" shall maintain appropriate liability insurance and shall include Ouray County as an additional insured on such policies.

9. **Communications and Reporting.** The City of Ouray will present an Annual Report to the Board of County Commissioner in November of each year. Such report shall include, but is not limited to: reporting of activities; any conflicts and how they were resolved or addressed; and future projects or improvements to the Ice Park. Matters of concern, potential conflict, or any other communication, reporting issues may also be brought to the attention of the Board anytime throughout the year. All communications must be presented to the Board of County Commissioners and a publically-noticed regular or special meeting of the Board.

10. **Grantor's Remedies**. Grantor reserves the right to deny the Grantee the use of the easement, or revoke the easement granted by this Agreement upon Grantee's breach of any covenants contained herein. Prior to denial of the use of the easement by Grantor, or the revocation of the easement

granted by this Agreement, Grantor shall deliver written notice to Grantee itemizing the specific violation under the terms of this Agreement, or specific instances of trespassing or interference, and Grantee shall have ninety (90) days from the date of the notice to comply with the notice and cure the violation or to provide assurances acceptable to Grantor that the trespasses or interferences will cease.

11. **Conflicts**. The City is responsible for resolving all conflicts between stakeholders and user groups in the Ice Park and is required to include a report of any conflicts in the annual report, pursuant to Section 9.

Commented [HLH1]: Needs legal input.

12. **No Assignment**. This easement may not be transferred or assigned without the prior written consent of the other party. Grantor understands and agrees that Grantee may delegate its responsibilities to a third party, subject to the terms of this agreement.

13. **Notices**. All notices or other documents required or authorized to be sent by one party to the other shall by in writing and shall be deemed given to a party when personally delivered, or when deposited in the United States certified mail, sufficient postage prepaid, return receipt requested, addressed as follows:

If to Grantor:
Ouray County
P.O. Box C
Ouray, CO 81427

If to Grantee:
City of Ouray
P.O. Box 468
Ouray, CO 81427

14. **Easement Appurtenant**. This easement granted herein and all provisions of this agreement shall run with the land and shall be applicable to and binding upon the parties, their respective representatives, successors, and assigns.

15. **Entire Agreement**. This agreement contains the entire understanding of the parties. There are no representations, warranties, covenants or undertakings other than those expressly set forth herein. This agreement may not be modified or amended except in writing signed by all the parties hereto.

16. **Termination of Prior Agreements**. By entering into this agreement Grantor and Grantee terminate the Recreational Access Easement and Agreement, dated November 27, 1995, and any renewals thereof, wherein The Board of County Commissioners of Ouray County, Colorado was the grantee and The City of Ouray, Colorado was the grantor.

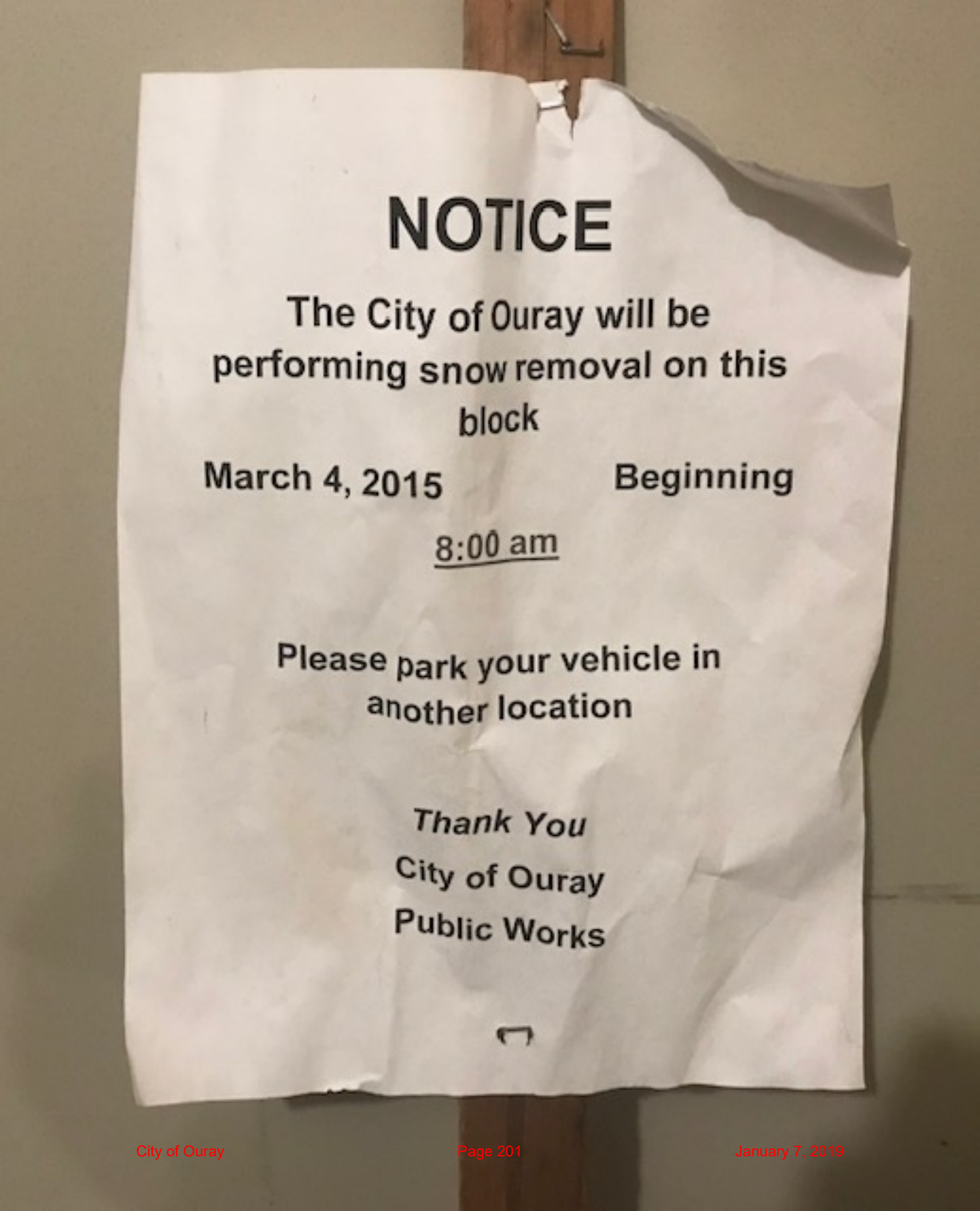
17. **Choice of Law, Jurisdiction and Venue**. The law of the State of Colorado shall govern the validity, performance and enforcement of this agreement. Any disputes arising under this agreement shall be decided by a court of competent jurisdiction in Ouray County, Colorado.

18. **Fees**. If grantee, during the terms of this Agreement, initiates a fee system for the use of the Ice Park that includes all or part of the Easement Area, and the revenues from which are not dedicated to Ice Park improvements or operational costs, Grantor and Grantee shall promptly negotiate a reasonable pro-rata amount of such fees to be paid to Grantor.

IN WITNESS WHEREOF, the parties have executed this agreement effective the day and year first above written.

Grantor:	Grantee:
_____	_____
Don Batchelder, Chair The Board of County Commissioners of Ouray County	Pamela J. Larson, Mayor City of Ouray
Attest:	Attest:
_____	_____
Michelle Nauer, Clerk	Melissa M. Drake, Clerk


STOP


NOTICE
The City of Ouray will be performing snow removal on this block
March 4, 2015
Beginning
8:00 am
Please park your vehicle in another location
Thank You
City of Ouray
Public Works

From:	Bruce Gulde
To:	ColmanJ@cityofouray.com
Cc:	Katie Sickles; Pam Larson; Glenn Boyd; Dee Hilton; Bette Maurer; Dawn Glanc; "Tamara - Mountain Fever"
Subject:	Snow Removal on 7th & Main and Other Side Streets
Date:	Wednesday, January 2, 2019 11:28:36 AM

Joe:

Happy New Year.

This email is a request for removal of the snow that has accumulated in the public parking spaces in the 100 block of 7th Avenue.

I have attached pictures of the area taken this morning, January 2, 2019. I have also attached a sign that was used effectively in the past to have their cars moved so snow removal can occur.

If you need to contact me directly, I can be reached on my cell phone at 562.972.8479. I also plan to available at Mountain Fever Shirts & Gifts.

Thank you for your attention on this matter.

Regards,
Bruce Gulde
Rocky Mountain Scenics
Your Local Source for Memories from the Rockies
970.325.4019
562.972.8479 – Cell
www.RockyMountainScenics.com


8th Avenue
7th Avenue
6th Avenue