

**APPENDIX K
PUBLIC INVOLVEMENT & PARTICIPATION**

- **CITY COUNCIL MEETINGS AND CORRESPONDANCE**
- **CORRESPONDANCE WITH COMMUNITY & OTHER ORGANIZATIONS**
- **OPEN HOUSE/PUBLIC HEARING**
 - Boards/Handouts used during the Open House
 - Notice for the newspaper of the Open House/Public Hearing
 - Proof of Publication of the newspaper advertisement
 - Minutes, including comments from the Open House/Public Hearing
 - Notes from Open House review with Ed Macauley (DWQ)
 - Written comment form from the Open House/Public Hearing
- **PUBLIC NOTICE OF APPLICATION FOR FEDERAL FINANCIAL ASSISTANCE**
- **PUBLIC NOTICE OF THE AVAILABILITY OF AN ENVIRONMENTAL ASSESSMENT AND ANTIDEGRADATION REVIEW**

CITY COUNCIL MEETINGS AND CORRESPONDANCE



Coalville City WWTF Facility Plan Update

City Update

July 28, 2010

Coalville City Facility Plan Update

- Purpose: Share draft assessment, draft alternatives, and draft costs with the City
- Get feedback
- Establish firm timeline and next steps

Coalville City – Rate Status

- Residential Sewer Rates- \$28.00 / month
- Commercial Rates- \$28.00 / month + \$3.29/1000 gal over 8,500 gal
- Impact Fees- \$2,000/ ERU
- Lewis and Young Rate Study (\$32-\$52/month)
 - \$330,000 per year for replacement and depreciation
 - Tiered rate for RV and residential
- City survey
- Mayor's newsletter

Coalville City – Update Population and Flow

Year	Residential			Non-Res. ERUs ²	Wastewater Generation Rates		Flowrates ⁵		
	Population ¹	ERUs ²	Persons per residence ^{2,4}		Per Person ^{3,4}	Per ERU ^{3,4}	Annual Avg. (mgd)	High I&I (mgd)	Peak Hour (mgd)
2007	1,567	519	3.02	215	105	317	0.233	0.384	0.512
2010	1,591	527	3.02	222	105	317	0.237	0.391	0.522
2020	1,944	589	3.30	245	100	330	0.275	0.454	0.605
2030	2,417	732	3.30	270	100	330	0.331	0.546	0.728

2009 Data Averages 0.17 mgd – 0.20 mgd (all months but June)

June 2009 = 0.30 mgd with a 0.383 mgd day

Plant Average Design Capacity = 0.350 mgd

Plant Peak Month Capacity = 0.48 mgd

Regional Planning

Potential Service Area	Approximate Distance to Coalville	ERU estimates ¹			2030 Average Flow Contribution (mgd) ²
		2010	2020	2030	
Chalk Creek	Adjoining Coalville City Limits directly to the east	68	83	103	0.034
Hoytsville	2 miles to the south	176	215	267	0.088
Wanship	4 miles to the south	61	74	93	0.031
Coalville City	-	749	834	1002	0.331
Totals for Potential Regional Facility		1,054	1,206	1,465	0.484

Coalville City – Planning Area

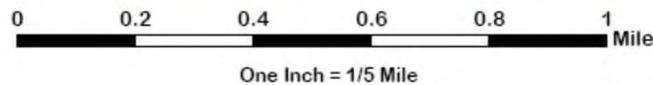


Figure
2-1

Capacity and Age Assessment (See Handout)

Number of Unique Process Items (screen, IPS, aeration, etc.)	No. With Capacity Problems 2010 - 2020	No. at or past useful life in 2010	No. at or past useful life in 2010
16	0	7	12

- Estimated **Potential** Replacement Cost 2010 to 2020 = \$1.69M
- Other Infrastructure/Land Costs to Stay At Existing Site = \$1.31M
- Engineering, Contingency (20%) = \$0.6M
- Total Potential Cost to Maintain Facility at Existing Site = \$3.61M

Updated Alternatives

What it Includes	Alt. 3	Alt. 4	Alt. 5
Location	Existing	New	New
Liquid Stream	MBR	MLE (Activated Sludge with N/P removal)	MBR
Solids	Digest, dewater, offsite	Digest, dewater, offsite	Digest, dewater, offsite

WWTF Alternatives Analysis- Updated

- ~~No Action Alternative~~
- ~~Alternative No. 1 – Expand Existing Ditch~~
- ~~Alternative No. 2 – Parallel IFAS Process at Existing Site~~
- Alternative No. 3 - Membrane Bioreactor (MBR) at Existing Site
- Alternative No. 4 - Conventional Activated Sludge Process at New Site**
- Alternative No. 5 – Membrane Bioreactor at New Site**

Alternate 3 – Membrane Bioreactor at Existing Site



P:\PROJECTS\MURKOVILLE\1505-06-00\MURKOVILLE TREATMENT PLANT.DWG

Alternative 5- Membrane Bioreactor at New Site



J-U-B ENGINEERS, INC.
 486 North 900 West
 Kaysville, Utah 84037
 Phone: 801.547.0395
 Fax: 801.547.0397
 www.jub.com

PRELIMINARY
 PLANS
 NOT FOR
 CONSTRUCTION

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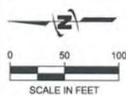
NO.	DESCRIPTION	DATE

PROPOSED WASTEWATER TREATMENT FACILITY
 COALVILLE CITY CORPORATION
 FACILITY PLAN UPDATE
 ALTERNATIVE 5 - MBR FACILITY AT NEW SITE
 CONCEPTUAL SITE PLAN

LEGEND

- (N1) ADMINISTRATION BUILDING (3500 S.F.)
- (N2) HEADWORKS BUILDING (2000 S.F.)
- (N3) EQUALIZATION TANK
- (N4) PROCESS BUILDING (15000 S.F.)
- (N5) RESIDUALS HOLDING TANK
- (N6) DEWATERING BUILDING (1500 S.F.)
- (N7) EMERGENCY GENERATOR
- (N8) LIFT STATION
- (N9) FUTURE PROCESS BUILDING
- (N10) FUTURE RESIDUALS HOLDING TANK
- (N11) OUTFALL
- (N12) FLOOD PROTECTION BERM

---SS---SS--- EXISTING SANITARY SEWER
 ———SS——— PROPOSED SANITARY SEWER
 ⇒⇒⇒⇒⇒ PROCESS FLOW PATH



FILE: ALTERNATIVE 5 SITE PLAN
 JOB NO: 1022000323-001
 DRAWN BY: JMG
 DESIGN BY: JMG
 CHECKED BY: JMG
 DATE: 01/11/18
 AT FULL SIZE, IF NOT ONE
 INCH EQUAL TO ORIGINAL
 LAST UPDATED: 10/19/18
 SHEET NUMBER:
1

Plot Date: 10/23/2018 10:46 AM, Plotted By: Anna Miller
 User: jmg, Job: 1022000323-001, Path: C:\Users\jmg\AppData\Local\Temp\1022000323-001\1022000323-001_SHEET_001.dwg

Initial Draft Opinions of Cost

Cost Item	Alt. 3	Alt. 4	Alt. 5
Capital	\$9.5M	\$8.9M	\$10.3M
Annual O,M, &R	\$0.361	\$0.297	\$0.354
PW of Capital and O&M	\$16.8M	\$14.8M	\$17.3M

Initial User Rate Assessment

	Alt. 3	Alt. 4	Alt. 5
User Rate Per month	>\$50	>\$50	>\$50

Coalville City WWTF Land Acquisition Project



Project Update/Briefing
February 18, 2010





Coalville City WWTF Facility Plan Update

City Update

September 13, 2010

Background - Facility Plan Update

- **Original Master Plan Completed in 2007-2008**
 - Key Action Item- BOR lease expires in 2014
 - BOR Negotiations Discouraging
- **City Council Authorized Facility Plan Update**
- **Today's Meeting Objectives:**
 - Summary of Facility Plan Update
 - Get City Feedback on Draft Information Presented Tonight
 - Discuss Next Steps

Objectives of Revised Alternatives

- Compliance with current and future discharge limits
- Provisions for growth/expansion, possible regional facility
- Low O&M costs
- Operational Flexibility/Reliability, 'Operator Friendly'
- Eliminate previous alternatives requiring additional land at existing site
- Address ongoing maintenance issues

Capacity and Age Assessment (See Handout)

Number of Unique Process Items (screen, IPS, aeration, etc.)	No. With Capacity Problems 2010 - 2020	No. at or past useful life in 2010	No. at or past useful life in 2020
16	0	7	12

- Estimated **Potential** Replacement Cost 2010 to 2020 = \$1.69M
- Other Infrastructure/Land Costs to Stay At Existing Site = \$1.31M
- Engineering, Contingency (20%) = \$0.6M
- Total Potential Cost to Maintain Facility at Existing Site = \$3.61M
- No capacity increase

Updated Alternatives

What it Includes	Alt. 3	Alt. 4	Alt. 5
Location	Existing	New Site	New Site
Liquid Stream	MBR	Activated Sludge with N/P removal (potentially MLE Process or others)	MBR
Solids Management	Digest, dewater, offsite	Digest, dewater, offsite	Digest, dewater, offsite

Initial Draft Opinions of Cost

Cost Item	Alt. 3	Alt. 4	Alt. 5
Capital*	\$9.8M	\$9.2M	\$10.5M
Annual O,M, &R	\$0.361	\$0.297	\$0.354
Present Worth of Capital and O&M**	\$17.0M	\$15.1M	\$17.6M

*Includes costs for residuals treatment, handling and disposal.

** Present Worth costs for 20 year life-cycle costs

Draft Proposed Selection Criteria

Selection Criteria	Weighting Factor	Alternative 3	Alternative 4	Alternative 5
Capital Costs	40%	4.6	5.0	4.3
O&M Costs	15%	4.1	5.0	4.2
Aesthetics	5%	3	4	5
Odor Potential	10%	3	4	5
Expansion Potential	15%	1	5	5
Aging Infrastructure	10%	2	5	5
Siting Challenges	5%	5	2	3
Total	100%	3.5	4.7	4.5

Typical Funding Sources for Wastewater Facilities

Funding Source	Grant	Loan	Comments
Army Corps of Engineers 595	Yes	No	Requires City match
US Dept of Agriculture- Rural Development	Possible	Yes	Based on affordability; will require rate increase. USDA and 595 Funds cannot be used together on same project.
Utah Division of Water Quality	Possible	Yes	Based on MAGI threshold; will require rate increase

DWQ & MAGI

- MAGI= Median Adjusted Gross Income
- Coalville 2007 MAGI= \$42,304
- Affordability Threshold for Sewer = 1.4%
- ***Affordability Rate = \$49.35/mo***
- 2010 Census may slightly reduce MAGI

Draft User Rate Projections

Grant Amount	Alternative 3	Alternative 4	Alternative 5
No Grant	>>MAGI	>>MAGI	>>MAGI
\$5.0 M Grant*	\$76/mo	\$64/mo	\$80/mo
\$6.9M Grant to Meet MAGI *	\$62/mo	\$49/mo	\$67/mo

* Considers 20 year loan @ 3% interest with 750 ERU's for remaining loan amount

Facility Costs/User Rates	Maintain Existing Facility
Short Term Costs	\$9.50/mo
20 Year Replacement Costs	\$12.97/mo
Current User Rate	\$32.00/mo
Future User Rate**	\$54.47/mo

**Lewis and Young Rate Study (\$32-\$52/month)

Project Scheduling For New Facility

Task	2010				2011				2012				2013				2014			
	1Q	2Q	3Q	4Q																
Public Hearing																				
Project Funding ¹ /Facility Planning																				
Preliminary Design /NEPA/Permitting																				
Final Design																				
Bidding/Contracting																				
Construction																				
Facility Commissioning																				
BOR Lease Expiration 10/2014																				

1. Project funding partially through ACOE Rural Utah Section 595 Cost Sharing Program



Coalville City WWTF Facility Plan Update

City Update

September 13, 2010

Coalville City Council
Meeting
HELD ON
September 13, 2010
IN THE
CITY HALL

Mayor Schmidt called the meeting to order at 7:00 P.M.

MAYOR AND COUNCIL MEMBERS PRESENT: Mayor, Duane S. Schmidt
Councilmembers: Ron Boyer, Steve Richins,
Chris Brundy, David Vernon, and Andrea
Hewson

A quorum was present.

CITY STAFF PRESENT:

Chantel Pace, City Recorder
Cindy Gooch, Community Development Director
Sheldon Smith, City Attorney
Niki Sargent, City Treasurer

OTHERS PRESENT:

Trevor Lindley (JUB), Jim Goodley
(JUB), Lisa Nelson DWQ, Ed Macauley
DWQ, Shane Rees, Trevor Johnson,
Detective Jared Vernon

Item #2 Pledge of Allegiance:

Mayor Schmidt led the Council Members and the public in the Pledge of Allegiance.

Item #3 Approval of Accounts Payable:

The Council discussed the Accounts Payable for September 2010.

COUNCILMEMBER HEWSON MADE THE MOTION TO APPROVE THE ACCOUNTS PAYABLE FOR SEPTEMBER 2010. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Item #4 Approval of Minutes:

The Council reviewed and corrected the July 12, 2010 minutes.

COUNCILMEMBER RICHINS MADE THE MOTION TO APPROVE THE JULY 12, 2010 MINUTES AS CORRECTED. COUNCILMEMBER VERNON SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

The Council reviewed and corrected the August 9, 2010 minutes.

COUNCILMEMBER RICHINS MADE THE MOTION TO APPROVE THE AUGUST 9, 2010 MINUTES AS CORRECTED. COUNCILMEMBER HEWSON SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Item A- Public Hearing- Review, Discussion, and Possible Approval of the Shane Rees Minor 1 Lot Subdivision:

Cindy stated Shane Rees would like to make a lot to build a house on just South of Tim and Becky Rees house. She stated the staff recommendations are good on this subdivision. Cindy explained there would not be any additional requirements for utilities, as they are located right in front of where they would like to place the lot. She explained this is a very simple subdivision.

Mayor Schmidt opened the public hearing at 7:14 P.M.

There was not any public comment, so the public hearing was closed at 7:15 P.M.

COUNCILMEMBER VERNON MADE THE MOTION TO APPROVE THE SHANE REES MINOR SUBDIVISION ACCORDING TO THE STAFF RECOMMENDATIONS. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Item C- Public Hearing- Continued Review, Discussion, and Possible Approval of the Nuisance Ordinance 2010-3:

Cindy stated we have gone through this several times. Deputy Vernon wanted to make the City aware that the Sheriff's Office only enforces the County Ordinances; they do not enforce the City's Ordinance. He suggested the City might change to the County's Noise Ordinance so the Sheriff's Office can enforce it. Councilmember Vernon asked if the City would have to adopt the County's Noise Ordinance. Deputy Vernon stated that was correct. Sheldon suggested placing the County's Noise Ordinance into the City's Nuisance Ordinance. He expressed then the County can enforce issues. The Council agreed this would be fine.

Mayor Schmidt reopened the public hearing at 7:26 P.M.

Councilmember Hewson stated she would like to leave the noise ordinance enforcement time at 11:00 P.M. instead of changing it to 9:00 P.M. for the bar. Cindy stated under State Law all liquor establishments are good until 11:00 P.M. There was not any other public comment.

Mayor Schmidt closed the public hearing at 7:27 P.M.

Councilmember Vernon stated he has a problem with the whole nuisance ordinance. He stated he felt the City was opening up a can of worms. Councilmember Vernon stated half of the town would be in violation. Mayor Schmidt stated the key is that we only enforce by complaint. Sheldon stated it has been frustrating that we have not been able to do something about people that habitually abuse the system. He stated this is not as strict as Park City, but it does give us some bite in case we have to enforce it. Mayor Schmidt stated in the survey that was passed around that the main

thing that was discussed was cleaning up our community. He expressed that it is not fair to neighbors to live next to others that have a lot of stuff in their yards. Councilmember Vernon was concerned that a future Council might over enforce this ordinance. Niki commented to the Council for them to think about what they are trying to achieve now. She stated a new Council is going to do whatever they want no matter what you decide this evening. Sheldon expressed we have been over this many times. He stated it is black and white, either we pass the ordinance or we make changes. Councilmember Richins stated he agreed with Niki, that we could change the ordinance if we need to.

COUNCILMEMBER BOYER MADE THE MOTION TO APPROVE ORDINANCE 2010-3 WITH ADOPTING SUMMIT COUNTY CHAPTER 13 OF THE NOISE ORDINANCE. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-AYE
COUNCILMEMBER BOYER- AYE
COUNCILMEMBER VERNON- AYE
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Item B- Review and Discussion Concerning the Sewer Plant:

Mayor Schmidt stated he had seen this presentation several weeks ago. He explained this is on the future of the sewer plant. Mayor Schmidt expressed this is critical for the Council to see.

Trevor Lindley (JUB) introduced himself with the others that are attending the meeting to discuss the sewer plant. He introduced Jim Goodly with JUB, Lisa Nelson with Division of Water Quality, and Ed McCauley with Division of Water Quality. Trevor explained that Ed is the gatekeeper to the funds from Division of Water Quality. He explained that a master plan was done in 2007-2008. Trevor explained at that time there were a lot of subdivisions in the works. He stated that all the proposed subdivisions went away. Trevor stated the current sewer plant sits on leased land from the Bureau of Reclamation. He stated in the last 18 months, the BOR has placed a lot of demands on the City. Trevor stated the BOR will not sell or give the City the land the current sewer plant sits on. He expressed that this has tied the City's hands. Trevor stated at this current time 7 of the 16 functions at the sewer plant are past their life expectancy. He explained by 2020, 12 of those items will be past life expectancy. One of the biggest concerns is the City does not have the money to do maintenance on the current issues. Trevor stated it would cost approximately 4 million dollars over the next 10 years to maintain the existing sewer plant. He explained this would not increase any capacity. Cindy stated the 595 money is a done deal. She stated the City has been granted this money. Cindy stated we need to come up with another 1.9 million. Ed Macauley stated the DWQ could provide the money at a 0% interest loan to the City. He stated the City would have to max out the sewer rate to \$49.00 per month in order to pay for the new facility. Mayor Schmidt stated he felt as a tax payer he would much rather pay \$49.00 a month for a new facility, than keep throwing money at a 50 year old sewer plant. Councilmember Boyer asked if the sewer rate could

ever be decreased after the new plant is built. Ed Macauley stated you never lower sewer rates. He expressed it is better to look ahead, and keep the enterprise fund healthy. Mayor Schmidt stated there is potential for a regional sewer plant in this area. Sheldon asked if the two different styles of plants they are looking at would meet the stricter EPA requirements that are coming down the line. Trevor stated he felt confident the two plants could take care of the new requirements. Ed Macauley stated the current sewer plant could not meet the new requirements that are headed our way. He explained it is just too old. Ed stated his concerns with a small community having a filtration system is the cost of replacing the filters. Trevor stated you could plant trees around the plant to help shield the view. He also stated there are other ways so it does not look like an ugly industrial area.

Mayor Schmidt stated the Council needed to go into an executive session to discuss land acquisition.

The Council asked Niki and Chantel to leave the room for the executive session.

COUNCILMEMBER RICHINS MADE THE MOTION TO LEAVE REGULAR SESSION AND MOVE INTO EXECUTIVE SESSION. COUNCILMEMBER HEWSON SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-AYE
COUNCILMEMBER BOYER-AYE
COUNCILMEMBER VERNON-AYE
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Left regular session at 8:50 P.M.

Entered executive session at 8:52 P.M.

COUNCILMEMBER RICHINS MADE THE MOTION TO LEAVE EXECUTIVE SESSION AND RETURN TO REGULAR SESSION. COUNCILMEMBER VERNON SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-AYE
COUNCILMEMBER BOYER-AYE
COUNCILMEMBER VERNON-AYE
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Left executive session at 9:24 P.M.

Reentered regular session at 9:27 P.M.

Item E- Review, Discussion, and Possible Approval of Resolution 2010-3 Dealing with the Water and Sewer Rate Increase:

Sheldon stated Resolution 2010-3 deals with the rate increase for the culinary water.

COUNCILMEMBER RICHINS MADE THE MOTION TO APPROVE RESOLUTION 2010-3 DEALING WITH A RATE INCREASE FOR THE CULINARY WATER. COUNCILMEMBER HEWSON SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-AYE
COUNCILMEMBER BOYER-AYE
COUNCILMEMBER VERNON- AYE
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Sheldon stated Resolution 2010-4 deals with the rate increase for the sewer.

COUNCILMEMBER HEWSON MADE THE MOTION OT ADOPT RESOLUTION 2010-4 DEALING WITH A RATE INCREASE FOR THE SEWER. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-AYE
COUNCILMEMBER BOYER- AYE
COUNCILMEMBER VERNON-AYE
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Item D- Review, Discussion, and Possible Approval of Resolution 2010-5 dealing with the Municipal Waste Water Planning Program:

Dennis Gunn stated the Council is very familiar with the sewer plant. He expressed that we do not have enough funding to do what we need at the plant. Dennis stated we have not done any line cleaning on the system. Mayor Schmidt explained with the Main Street Project going on, I told Dennis to hold off on the line cleaning.

COUNCILMEMBER VERNON MADE THE MOTION TO APPROVE RESOLUTION 2010-5 DEALING WITH THE MUNICIPAL WASTE WATER PLANNING PROGRAM. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-AYE
COUNCILMEMBER BOYER-AYE
COUNCILMEMBER VERNON-AYE
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Item F- Continued Discussion of the Tree City USA Program:

Councilmember Boyer stated we have to have a certified arborist. Cindy stated the Public Works Director could go to a short class and get certified. Councilmember Boyer gave an ordinance to the Council to review, and stated they would look at any changes at the September work session.

Item G- Continued Review and Discussion of the Cemetery Rules and Regulations:

Councilmember Richins and Hewson both commented that Niki did a great job in putting the Cemetery pamphlet together. Niki stated there have been some concerns over what decorations would be allowed. She asked the Council if there were any changes in this area. Sheldon suggested we list all items that would be removed. Niki stated Craig would like to contract out to a company to remove and replace the headstones for burials. She stated then the company would have the proper tools for headstone removal and replacement. Niki stated we could just adjust the opening and closing fee to include this service. The Council agreed this would be a good thing to do.

COUNCILMEMBER HEWSON MADE THE MOTION TO APPROVE THE NEW CEMETERY RULES AND REGULATIONS WITH THE CHANGES MENTIONED. COUNCILMEMBER BRUNDY SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

The Council stated the new rules would go into effect on October 15, 2010, with enforcement starting on November 1st.

Item H- Continued Review and Discussion of the Impact Fees:

Mayor Schmidt stated this issue has been beat to death. He explained that he thinks he has figured it out. At staff meeting we discussed getting rid of all of the impact fees except for culinary water and sewer. Mayor Schmidt stated we can use the Parks and Recreation Impact Fee money for the pocket park. He stated the Storm Drain Impact money can go to pay back the City for the storm drains that were part of the Main Street Project. Mayor Schmidt stated the Transportation Impact Fee money could go to pay the City back for the Main Street Project, due to traffic congestion. The Secondary Water Impact Fee money give to CCNIC to be given for the City's share of purchasing a traveling screen to improve water pressure. Mayor Schmidt stated we can spend the existing money, and then have a public hearing at the September 27th meeting.

COUNCILMEMBER BOYER MADE THE MOTION TO SPEND REMAINING STORM DRAIN, TRANSPORTATION, SECONDARY WATER, AND PARK & RECREATION IMPACT FEES AS DISCUSSED. COUNCILMEMBER RICHINS SECONDED THE MOTION. MAJORITY AYES. MOTION CARRIED.

ROLL CALL:

**COUNCILMEMBER BRUNDY-NAY
COUNCILMEMBER BOYER-AYE
COUNCILMEMBER VERNON-NAY
COUNCILMEMBER RICHINS-AYE
COUNCILMEMBER HEWSON-AYE**

Item K- Legal Updates:

Sheldon stated there is nothing at this time.

Item L- Community Development Update:

Cindy stated there is nothing at this time.

Item M- Business Licenses:

Cindy stated the City had received an application for Craig Sargent to build wooden toys to be sold at boutiques. She explained this would be a minor home occupation.

COUNCILMEMBER VERNON MADE THE MOTION TO APPROVE THE BUSINESS LICENSE FOR CRAIG SARGENT. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Item J- Mayor's Update:

Mayor Schmidt stated we are closing out the Main Street Project. He explained he wanted to run it past the Council and see how they wanted to take care of the payment. Mayor Schmidt stated we received a 1.5 million dollar loan from CIB. He explained that normally the balance in the City's cash fund is \$450,000.00. Mayor Schmidt stated before we turn the money back into CIB, he wanted to see if the Council wanted to take \$200,000.00 and place it into the General Fund. He explained the City received \$450,000.00 from CDBG, and now we need to give this money to UDOT. Mayor Schmidt stated we could just pay everything out of the general fund, but it would really drop the amount down that is usually kept in there. Cindy stated we knew we would need to use some of the CIB money. She stated once we return what is left of the CIB money to them, then we can request money for other things. The Council agreed it would be a good idea to get money from the existing CIB loan.

COUNCILMEMBER HEWSON MADE THE MOTION TO RETAIN \$250,000.00 OF THE CIB MONEY OT REIMBURSE OURSELVES FOR THE MONEY WE PAID OUT TO UDOT. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED. COUNCILMEMBER RICHINS MADE THE MOTION TO ADJOURN THE MEETING. COUNCILMEMBER VERNON SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Meeting adjourned at 10:50 P.M.

ATTEST:

Mayor, Duane S. Schmidt

Chantel E. Pace, City Recorder



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Public Notice Details [Search again](#)

Entity: Coalville

Public Body: [City Council](#)

Subject: Other

Notice Title: Coalville City Council Meeting Amended

Notice Type: Notice, Meeting

Notice Date & Time: November 7, 2011

7:00 PM - 7:00 PM

Description/Agenda:

COALVILLE CITY COUNCIL MEETING
NOTICE & AGENDA AMENDED

Notice is hereby given that the Coalville City Council will hold its regularly scheduled City Council Meeting on Monday the 7th day of November 2011 at the Coalville City Hall located at 10 North Main Street. Meeting will start at 7:00 P.M. The agenda will be as follows:

1. Roll Call
2. Pledge of Allegiance
3. Approval of Minutes
4. Approval of Accounts Payable
5. City Council Agenda Items:

CITY COUNCIL AGENDA ITEMS:

- A. DISCUSSION CONCERNING I-80 & HWY 84 CONSTRUCTION UPDATE
- B. CONTINUED REVIEW, DISCUSSION, AND POSSIBLE APPROVAL OF A CONTRACT FOR ENGINEERING FOR THE NEW SEWER PLANT
- C. REVIEW AND POSSIBLE APPROVAL OF A SURPLUS BID
- D. DISCUSSION CONCERNING CHRISTMAS PARTY
- E. LEGAL UPDATES
- F. COMMITTEE UPDATES
- G. MAYOR UPDATES
- H. COMMUNITY DEVELOPMENT UPDATES

- I. BUSINESS LICENSES
- J. ADJOURN

Coalville City reserves the rights to change the order of the meeting agenda as required

Notice of Special Accommodations: In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during these hearings should notify the City Hall at least three days prior to the hearing to be attended.

Notice of Electronic or telephone participation: none

Other information:

Attachments:

This notice was posted on: November 01, 2011 10:21 AM

This notice was last edited on: November 01, 2011 10:21 AM

[Please give us feedback](#)

Meeting Location:

10 N. Main
Coalville , 84017

[Map this!](#)

Contact Information:

NA
NA
N/A

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Christina Osborn

From: Trevor Lindley
Sent: Thursday, December 01, 2011 10:42 AM
To: cbrundy1@yahoo.com; davidv@allwest.net; srichins@allwest.net; hewsonandrea@yahoo.com; Duane Schmidt (avalanchelodge@allwest.net); humptydumpsters@gmail.com
Cc: Christina Osborn; Robert Whiteley; James Goodley; Cindy Gooch; Coalville City (coalvill@allwest.net); gunncoalville@allwest.net; ssmith@allwest.net; Lee Cammack
Subject: Wastewater Project Update Email
Attachments: Council Update 12-01-2011.pdf; USDA Preapplication Review - Notice of Eligibility.pdf

Good morning!

Attached is an update memo that we talked about when JUB was at the council session in November. We will send these out on a periodic basis to keep the council informed of the happenings on the wastewater project. We will start out weekly and then decide if that is appropriate after some time. This first one is kind of lengthy to cover quite a number of activities from the past couple of months. We would anticipate future updates would be 1-2 pages in length.

Also attached is the Notice from USDA that Coalville is eligible for funding. USDA is proposing a \$2.972M grant and a \$1.770 loan (3% over 40 years). This amount is 50% of the project costs and would match up with the other 50% being offered by DWQ. The only caveat is the Federal Government has not yet funded the USDA projects for the coming year so even though the local offices have essentially stated eligibility there currently are not funds available through USDA. The attached update memo has additional information on this issue including DWQ's approach to address the USDA budget shortfall. Ed Macauley with DWQ is prepared to ask his Board for all the money and then anticipate USDA will be able to deliver their portion by the time construction starts.

Thanks for allowing us to help and feel free to call with any questions,

(Chantel, we don't seem to have Ron's email; could you get this information to him, thanks!)

Trevor R. Lindley, P.E.

*Project Manager
Water & Wastewater*

J-U-B ENGINEERS, Inc.

466 N. 900 W.
Kaysville, UT 84037
p | 801 547 0393 c | 801 725 5641 e | tlindley@jub.com

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J-U-B ENGINEERS, INC.

J-U-B COMPANIES



THE LANGDON GROUP



GATEWAY MAPPING INC.

WEEKLY PROJECT UPDATE

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DATE: December 1, 2011
FROM: Trevor R. Lindley, P.E.
TO: Coalville City Council and Mayor
PROJECT: Coalville WWTF Funding and Planning

Division of Water Quality Coordination

- A meeting was held on 11/29/2011 to ensure USDA/DWQ comments on reports have been received and have been addressed.
- Anticipate attendance at next Water Quality Board Meeting on January 25, 2012 for funding confirmation and possible funding advance for land acquisition and engineering.

USDA Items

1. Application Forms

- a. Scope: Assist City in completing application forms; submit to USDA (budgeted amount \$2,000).
- b. Submitted August 3, 2011.
- c. Budget status – Billed to 100% (reimbursable up to \$2,000 through DWQ Planning Advance).
- d. Notable Findings/Changes in scope:
 - i. None anticipated.

2. Preliminary Engineering Report (PER)

- a. Scope: Modify the Facility Plan Update Report submitted previously to DWQ to conform to USDA outline and requirements (budgeted amount \$9,000).
- b. Submitted September 14, 2011.
- c. Budget status – Billed to 100% (reimbursable up to \$9,000 through DWQ Planning Advance).
- d. Notable PER Findings/Changes in scope:
 - i. Very high spring runoff/high groundwater in 2011 necessitated checking of anticipated design flow rates and peaking factors. Peaking factor was increased for PER.
 - ii. USDA discourages construction in Federal Emergency Management Agency (FEMA) referenced floodplains. The existing Coalville wastewater treatment facility, the proposed site, and much of the town is within FEMA “Zone A” (100 year flood). USDA asked that the PER and ER include “alternative” non-flood plain sites. JUB investigated at a concept level a four alternative sites: north of town, east of town (up Chalk Creek), west of town (up the hill across Icy Springs Bridge), and along I-15 towards Wanship but above the flood plain. All of these

43 locations are more costly than the proposed location. The added cost is due
44 primarily to piping distance and added pumping.
45

46 3. **Environmental Report (ER)**

- 47 a. Scope: Complete ER in accordance with USDA guidelines. (Note: Based on preliminary
48 ACOE field work in 2010 no significant field work was anticipated; budgeted amount
49 \$14,000).
- 50 b. Submitted October 12, 2011.
- 51 c. Budget Status – Billed to 100% (reimbursable up to \$14,000 through DWQ Planning
52 Advance).
- 53 d. Notable ER Findings/Changes in Scope:
 - 54 i. State Historical Preservation Office (SHPO) has noted that during the
55 construction of the Middle School that cultural resources were found. SHPO has
56 asked for an archeologist to be available during the construction in case any
57 cultural artifacts are encountered. There is not anything to indicate cultural
58 artifacts exist at the site. USDA is in agreement with SHPO to have an
59 archaeologist available during the construction.
 - 60 ii. In 2010 when the Army Corp was a potential funding partner, they did a
61 preliminary site walk through and did not feel wetlands would be a concern. For
62 the ER, USDA requires that National Wetland Inventory maps be consulted. The
63 National Wetlands maps did show some mapped wetlands resources on the
64 site. The maps are done using aerial photography and are sometimes not
65 correct. The presence of the maps necessitated field work by a wetlands expert
66 to confirm/refute the presence of wetlands. This field work (2 site visits) and
67 corresponding support was not anticipated.
 - 68 iii. DWQ requires an Anti-Degradation Review (ADR) as part of the Environmental
69 Effort. This ADR was not included in the original scope of work.
 - 70 iv. Through the typical effort of corresponding with various agencies, the US Fish
71 and Wildlife Service (USFWS) has asked for additional biological evaluation
72 related to potential impacts on the Bluehead Sucker and Bonneville Cutthroat
73 trout. This additional assessment was not anticipated and may require hiring an
74 outside biologist to make an assessment of the potential impacts to be included
75 in the ER.
76

77 4. **Meeting with USDA/DWQ on November 29, 2011.**

- 78 a. USDA and DWQ comments on the PER and ER were discussed. The key findings
79 (floodplain, wetlands, additional biological review, SHPO concerns, anti-degradation
80 review) were discussed the most.
- 81 b. USDA provided a letter that says Coalville is “eligible” for funding and indicated their
82 calculations result in a \$2.972M grant and \$1.770M loan (3%). This means they are
83 willing and ready to proceed with this amount (\$4.7M total) once the U.S. Congress
84 passes a budget. They are currently on continuing resolution which means they only
85 have funds to pay for ongoing projects and current staffing levels.
- 86 c. DWQ is willing to go back to their Board and ask for all the money at the end of January
87 with a stipulation that the City will continue to pursue the USDA money and when/if it
88 comes through then USDA would become a partner.

- 89 d. JUB will continue to address the questions from USDA/DWQ on the ER and PER.
90

91 **Land Acquisition**

- 92 1. Mr. Blonquist has been very accommodating for site access.
93 2. Funds to purchase the land would become available upon final authorization from DWQ
94 (anticipated end of January).
95 3. Field visits for USDA Environmental Report: No more anticipated.
96 4. One concern with the land acquisition was brought up during the Army Corp site visit in the fall
97 of 2010 related to surface soil staining. After discussion with City council, a limited soil
98 investigation was conducted by Terracon. Results of this investigation:
99 a. Terracon completed their report in July of 2010.
100 b. Terracon hand dug down about 12"-20" and used a sensor to "sniff" air in the hand dug
101 holes for gasoline type compounds. Some of the test holes showed elevated
102 concentrations of petroleum related compounds that appear to be spilled from the
103 surface. One test hole actually had coal in it. Petroleum staining appears to have
104 limited extent. Deeper impact or areas impacted outside of those locations tested are
105 not known. Database research on historic contamination as part of ER shows no historic
106 contamination from things such as buried tanks. The proposed new facilities are
107 generally away from the soil staining. Terracon report recommends performing some
108 additional test pits to further define depth of contamination and if groundwater is
109 impacted (would require sampling). After some discussion with JUB and mayor,
110 considering cost of additional testing, historic data, location of new facilities, etc., it was
111 determined at this time not to perform additional field work. It would be prudent to
112 share the Terracon report with the land owner and have land owner state all of the
113 practices he has performed at the site (e.g. what has been spilled and approximate
114 quantities). With this statement the City could then consider if further site sampling is
115 needed. Site sampling for contamination can also be conducted during the geotechnical
116 work for foundation design but this would likely occur after the purchase has occurred.
117

118 **Other Items**

- 119 1. **Residuals Handling:** Snyderville Basin Water Reclamation District has an interest in a more
120 cost effective residuals handling strategy for their own solids. J-U-B has met with
121 Snyderville and based on some of their planning is looking at the Coalville Facility Plan
122 recommendations in light of a regional solution with Snyderville Basin. The plan of handling
123 solids offsite remains the same; however partnering with a district like Snyderville could
124 offer considerable cost savings. The cost for this effort is being held (not yet invoicing the
125 City) and will be included in the new contract and funds from DWQ anticipated end of
126 January 2012.
127 2. **Rate Study for Commercial:** J-U-B has developed a scope of work for looking at the concern
128 over rates for some of the commercial users. It is anticipated this scope of work will be
129 presented to the council on December 12, 2011.
130 3. **Echo/Rockport TMDL:** The Echo Total Maximum Daily Load (TMDL) that was developed in
131 the 2005-2006 time period and submitted to EPA by Utah DWQ was rejected by EPA. DWQ
132 is now re-doing the TMDL on a watershed basis for Echo and Rockport. Recall the TMDL
133 process looks at releases of nutrients to the water bodies and the outcome can affect
134 permit limits which can directly impact City operating costs. DWQ is now selecting a

135 consultant team for the study (not J-U-B). It will be prudent to have Dennis Gunn and J-U-B
 136 engage in these meetings as he and J-U-B have done in the past. Funding for this effort will
 137 be included in the new overall contract.
 138

139 **Next Steps**

- 140 1. Meet with the new council in a workshop to bring them up to speed on project. Trevor
 141 Lindley with JUB is available in December (except the 6th, 20th, 23rd, and 30th). Possibly
 142 waiting until after January 1st is also a feasible approach given other December
 143 commitments with the holidays. Touring the existing facility would be recommended as
 144 part of this effort.
 145 2. Begin public notice period likely Mid-December through Mid-January or as soon as all ER
 146 comments have been addressed (Biological assessment could be the most time consuming).
 147 3. End of January: Approach Water Quality Board for final funding authorization. Hold final
 148 public hearing and have City council adopt facility plan and perform bond resolutions.
 149 4. Complete contract discussions between J-U-B and City Attorney. The contract needs to be
 150 in to DWQ sometime in December.
 151

152 **Budget Status (see comments above for additional details on scope modifications).**

Task	Budget	Additional Scope	Status	Recommendation
USDA Application	\$2,000	None anticipated	Complete; billed to 100%	-
USDA PER (from original scope)	\$9,000	See below	Complete; billed to 100%	-
<ul style="list-style-type: none"> Additional review of high I&I flow events 	\$0.0	\$2,600	Charges being held at this time.	Fund from planning portion of new contract; pay upon new design funds from DWQ/USDA.
<ul style="list-style-type: none"> Additional sites per USDA request 	\$0.0	\$2,500	Charges being held at this time.	Fund from planning portion of new contract; pay upon new design funds from DWQ/USDA.
USDA ER	\$14,000	See below.	Complete; billed to 100%	-
<ul style="list-style-type: none"> SHPO Archeologist during construction 	\$0.0	Not yet known.	Charges would be incurred during construction.	JUB to contact archeologists for budgetary rates; include in construction contract.
<ul style="list-style-type: none"> Wetland Field Work 	\$0.0	\$3,000 for wetlands specialist (two trips and report). \$3,500 for JUB coordination with ACOE, and wetlands field visits.	Charges being held at this time.	Fund from planning portion of new contract; pay upon new design funds from DWQ/USDA.

153

Task	Budget	Additional Scope	Status	Recommendation
<ul style="list-style-type: none"> • Anti-Degradation Review 	\$0.0	\$6,000	Charges being held at this time.	Fund from planning portion of new contract; pay upon new design funds from DWQ/USDA.
<ul style="list-style-type: none"> • Biological Assessment as requested by USFWS/USDA 	\$0.0	\$3,000	Effort pending	Fund from planning portion of new contract; pay upon new design funds from DWQ/USDA.
Total Additional Scope		\$20,600		Proposed to be funded out of new design funds anticipated from USDA/DWQ.

154

U.S. DEPARTMENT OF AGRICULTURE
NOTICE OF PREAPPLICATION REVIEW ACTION

From: USDA Rural Development
 (Department, bureau, or establishment)

Agency Number
45025

To: Coalville City
 c/o J-U-B Engineers, Inc
 466 North 900 West
 Kaysville, UT 84037

Reference Your Preapplication
 Number _____

Dated: 10/13/2011

1. We have reviewed your preapplication for Federal assistance under Rural Utilities Service and have determined that your proposal is:

- eligible for funding by this agency and can compete with similar applications from other grantees.
- eligible but does not have the priority necessary for further consideration at this time.
- not eligible for funding by this agency.

2. Therefore, we suggest that You:

- _____ file a formal application with us by (date) _____
- _____ file an application with _____ (Suggested Federal agency).
- _____ find other means of funding this project.

3. Based upon the funds available for this program over the last two fiscal years and the number of applications reviewed, or pending, we anticipate that funds for which you are competing will be available after (month, year)

4. You requested \$ _____ Federal funding in your preapplication form, and we:
 _____ are agreeable to consideration of approximately this amount in the formal application.
 _____ will need to analyze the amount requested in more detail.

5. A preapplication conference will be _____ necessary _____ not necessary. We are recommending that it be held at _____, on _____, at _____ a.m./p.m. Please contact the undersigned for confirmation.

6. Enclosures: _____ Forms _____ Instructions _____ Other (Specify) _____

7. Other Remarks:

Signature <i>Debra Meyer</i>	Title CP Program Director	Date 11/28/2011
Organizational Unit Rural Development	Administrative Office	Telephone Number (801) 524-4326

Address
 125 South State Street
 Salt Lake City, UT 84138

NOTE: This form will be used by Federal agencies to inform applicants of the results of a review of their preapplication request for Federal assistance. When the review cannot be performed within 45 days, the applicant shall be informed by letter as to when the review will be completed. When Federal agencies determine that the proposal is not eligible for Federal assistance, specific reasons should be provided in Item 7 Other Remarks.

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PUBLIC HEARING NOTICE PROPOSED RESOLUTION 2011-6 DEALING WITH THE DIVISION OF WATER QUALITY PLANNING ADVANCE AND HARDSHIP GRANT

Public notice is hereby given that the Coalville City Council hold a public hearing to review, discuss and receive comment on the proposed resolution 2011-6 Dealing with the Division of Water Quality Planning Advance and Hardship Grant on December 12, 2011 beginning at 7:00 P.M. at the Coalville City Council Chambers located at 10 North Main Street.

The revisions require an approval from the City Council. All interested persons may attend. Questions, comments, or correspondence should be addressed to the Coalville City.

For further information, please contact Chantel Pace at Coalville City Hall at 10 North Main Street, Coalville, Utah 84017-0188 or call (435) 336-5981.

Published in The Summit County News December 2, 2011.

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COALVILLE CITY COUNCIL MEETING NOTICE & AGENDA

Notice is hereby given that the Coalville City Council will hold its regularly scheduled City Council Meeting on Monday the 12th day of December 2011 at the Coalville City Hall located at 10 North Main Street. Meeting will start at 7:00 P.M. The agenda will be as follows:
Roll Call

Pledge of Allegiance

Approval of Minutes

Approval of Accounts Payable

City Council Agenda Items:

CITY COUNCIL AGENDA ITEMS:

REVIEW, DISCUSSION, AND POSSIBLE APPROVAL OF RESOLUTION 2011-6 DEALING WITH THE DIVISION OF WATER QUALITY

PLANNING ADVANCE AND HARDSHIP GRANT

REVIEW, DISCUSSION, AND UPDATE OF THE NORTH SUMMIT RECREATION ACTIVITIES

REVIEW AND DISCUSSION OF THE GENERAL PLAN

LEGAL UPDATES

COMMITTEE UPDATES

MAYOR UPDATES

COMMUNITY DEVELOPMENT UPDATES

BUSINESS LICENSES

ADJOURN

Coalville City reserves the rights to change the order of the meeting agenda as required

Chantel E. Pace, City Recorder

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during these hearings should notify the City Hall at least three days prior to the hearing to be attended.

Published in The Summit County News December 2, 2011.

[Newspaper Administration](#)

Christina Osborn

From: Trevor Lindley
Sent: Thursday, December 22, 2011 11:54 AM
To: cbrundy1@yahoo.com; davidv@allwest.net; srichins@allwest.net; hewsonandrea@yahoo.com; Duane Schmidt (avalanchelodge@allwest.net); humptydumpsters@gmail.com; vernoncoalville@allwest.net; colemancoalville@allwest.net; juddcoalville@allwest.net
Cc: Christina Osborn; Robert Whiteley; James Goodley; Cindy Gooch; Coalville City (coalvill@allwest.net); gunncoalville@allwest.net; ssmith@allwest.net
Subject: Wastewater Project Update Email
Attachments: Council Update 12-12-2011.pdf; PackagedMediaManhole-Brochure[1].pdf; Flow-Measurement[1].pdf; 2009_Sampler_Sourcebook[1].pdf

Good morning!

When Jim Goodley and myself were up at the Council meeting on the 12th we handed out a new council update memo. I have attached that memo to this email so you have an electronic version.

Also attached is some information related to the metering manholes we discussed. Recall we discussed the most reliable way to get the flow contributions from the RV parks was to actually measure the wastewater flowrates. This is done through a metering device such as a flume often installed at a manhole. A flume is an engineered constriction that allows us to measure the flow with a high level of accuracy.

The flow metering (amount of volume) tends to be relatively automated once installed. The sampling can tend to be a bit labor intensive depending on how often samples are collected. We went back and reviewed some information on metering stations we have installed and the numbers are similar to what we reported in the council meeting on the 12th. Each metering station is going to run between \$15K and \$20K depending on the location, depth to the flowline, ability to use an existing manhole, need for a shelter, and technology used for measuring the flow. We have a few installations/estimates that were more involved that cost between \$25K and \$30K.

Thanks!

Trevor R. Lindley, P.E.

*Project Manager
Water & Wastewater*

J-U-B ENGINEERS, Inc.

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Kaysville, UT 84037
p | 801 547 0393 c | 801 725 5641 e | tlindley@jub.com

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WEEKLY PROJECT UPDATE

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DATE: December 12, 2011
FROM: Trevor R. Lindley, P.E.
TO: Coalville City Council and Mayor
PROJECT: Coalville WWTF Funding and Planning

Division of Water Quality Coordination

- DWQ has been requesting information to go into the WQ Board briefing packages
 - Land acquisition details
 - Engineering contract information (including added costs that have come up through the PER and ER process)
 - Project summary information
- Anticipate being on WQ Board agenda on January 25, 2012

USDA Items

1. **Application Forms – No action**
2. **Preliminary Engineering Report (PER)**
 - a. USDA continues review and has committed to provide a comment letter. J-U-B continues to press USDA on this item.
3. **Environmental Report (ER)**
 - a. J-U-B has drafted biological letter at the request of USFWS/USDA. The letter will be sent to USDA this week after which they will forward it to USFWS.
 - b. Other ER comments are also being addressed.

Other Items

1. Meet with the new council in a workshop to bring them up to speed on project. Likely early in January.
2. Begin public notice period once USDA authorizes the noticing period; anticipated through January.
3. End of January 2012: Approach Water Quality Board for final funding authorization. Hold final public hearing and have City council adopt facility plan and perform bond resolutions.
4. Complete contract discussions between J-U-B and City Attorney. The contract needs to be in to DWQ sometime in December/first week of January.



Wastewater Treatment Facility Project – Project History and Update for Council Members

January 23, 2012

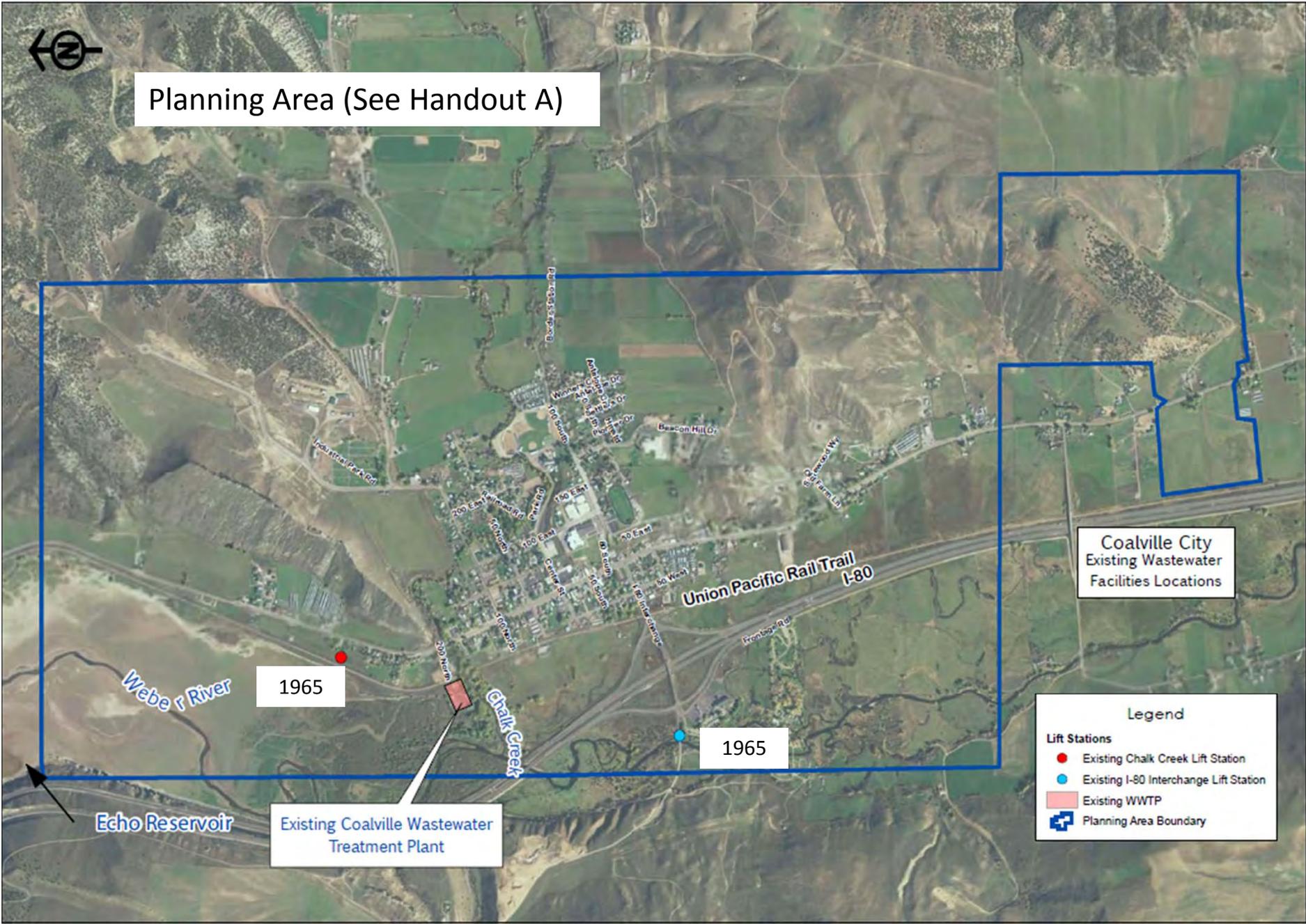


Items to Discuss

- **Planning area (Handout A) and existing facility (Handout B)**
- **Summarize key dates from planning efforts (Handouts C through J)**
- **Discuss recommended alternative (Handout K)**
- **Discuss pending items**



Planning Area (See Handout A)



Coalville City
Existing Wastewater
Facilities Locations

Legend

Lift Stations

- Existing Chalk Creek Lift Station
- Existing I-80 Interchange Lift Station

■ Existing WWTP

□ Planning Area Boundary

1965

1965

Existing Coalville Wastewater
Treatment Plant

Echo Reservoir

Weber River

Chalk Creek

Union Pacific Rail Trail
I-80

Mountain Park Ave

200 East

100 East

70 East

40 East

10 West

700 South

500 South

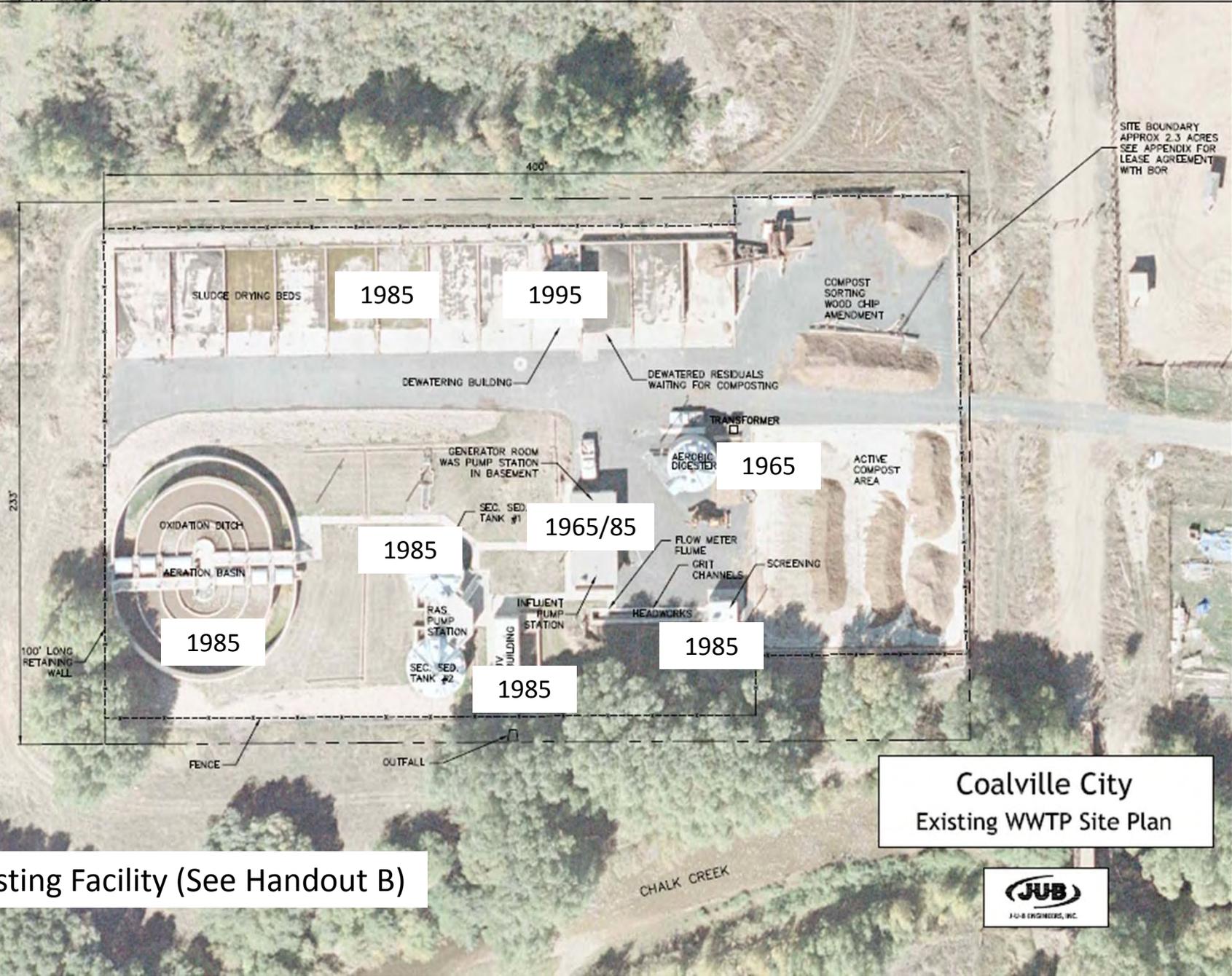
300 South

100 South

700 South

500 South

300 South</



SITE BOUNDARY APPROX 2.3 ACRES
SEE APPENDIX FOR LEASE AGREEMENT WITH BOR

Existing Facility (See Handout B)

Coalville City
Existing WWTP Site Plan





Coalville City Wastewater Treatment Facility Project

#	Item	Date	Handout
1	City begins wastewater treatment facility (WWTF) planning	Aug. 2006	-
2	Original Facility Plan Completed	May 2007	C
3	City negotiates with the Bureau of Reclamation (BOR) on land transfer; easement for rail trail	2008-2010	D
4	Utah Division of Water Quality (DWQ) acknowledges BOR obstacles and encourages City to explore other options	Feb. 2010	-
5	City signs funding Agreement with ACOE for \$5M 595 Grant	Aug. 2010	-
6	Facility Plan Update draft findings presented to City Council	Sept. 2010	E
7	US Congress does not pass appropriations bill (\$5M 595 funds no longer available)	Dec. 2010	-
8	BOR finalizes stance on land acquisition	Feb. 2011	F



Coalville City Wastewater Treatment Facility Project

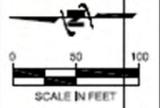
#	Item	Date	Handout
9	DWQ offers 50% of funding (loan and grant) and asks City to approach United States Department of Agriculture (USDA) for remainder	Apr. 2011	-
10	City hosts formal open house and public hearing on alternatives	May 2011	G
11	USDA application for funding is submitted	Jun. 2011	-
12	City negotiates with land owner/comes to terms on acquisition	Aug. 2011	-
13	USDA Draft Preliminary Engineer Report (PER) is submitted	Sept. 2011	-
14	USDA Draft Environmental Report is submitted	Oct. 2011	-
15	USDA (Utah) wants to partner but gets minimal funding from congress, Coalville #2 on priority list	Dec. 2011	H
16	USDA provides comments on Draft ER and PER	11/11, 1/12	I
17	City to request full funding from DWQ (#1 priority)	1/25/2012	J



**COALVILLE CITY
ALTERNATIVE 2
SITE PLAN**

- LEGEND**
- (N1) ADMINISTRATION BUILDING (3500 S.F.)
 - (N2) HEADWORKS BUILDING
 - (N3) MLE PROCESS TRAINS
 - (N4) FUTURE PROCESS TRAINS
 - (N5) SPLITTER BOX
 - (N6) SECONDARY CLARIFIERS
 - (N7) FUTURE CLARIFIERS
 - (N8) FILTERS AND UV DISINFECTION
 - (N9) AEROBIC DIGESTERS
 - (N10) FUTURE AEROBIC DIGESTERS
 - (N11) DEWATERING BUILDING
 - (N12) EMERGENCY GENERATOR
 - (N13) OUTFALL
 - (N14) BLOWER/RAS PUMP BUILDING
- - - - - SS - - - - - SS EXISTING SANITARY SEWER
 ——— SS ——— PROPOSED SANITARY SEWER
 >>>>> PROCESS FLOW PATH

Existing Facility (See Handout K)





Coalville City – Concept Renderings For New Facility





Pending Items for Discussion

- **Environmental Report – Key Comments:**
 - Floodplain (Handout L)
 - Biological Assessment (Bonneville Cutthroat Trout and Bluehead Sucker)
 - SHPO – Archaeologist on site during construction
- **Residuals Handling**
 - **Results of Snyderville Basin Regional Dryer Alternative**
 - Drying facility is cost prohibitive compared to current method of disposal, SBWRD has concerns regarding siting and odors
 - Very resource intensive (water, wastewater disposal, and natural gas)
 - **Would like to meet with Dennis and wastewater committee to discuss residuals handling**



Coalville City Wastewater Treatment Facility Project

Pending Items for Discussion (cont'd)

- **USDA – Notice of Documents Available**
 - **30 day comment period on ER and PER**
 - **Target would be February through early March**
 - **Subject to USDA Issuing Finding of No Significant Impact (FONSI) and USFWS concurrence**
- **DWQ**
 - **Final Public Hearing on project**
 - **Parameters Resolution (for bonding)**
 - **Bond approval/public hearing**
 - **Bonds are revenue bonds**



Pending Items for Discussion (cont'd)

- **Sampling needs:**
 - **We have given Dennis a sampling plan**
 - **Purchase composite sampler?**

Questions?



Wastewater Treatment Facility Project – Project History and Update for Council Members

January 23, 2012



Wastewater Treatment Facility Project – Project History and Update for Council Members

January 23, 2012

Handouts

CORRESPONDANCE WITH COMMUNITY & OTHER ORGANIZATIONS



April 11, 2011

FROM THE OFFICE OF THE MAYOR

As Old Man Winter continues to hold Coalville in its grasp, signs of spring flirt with our community and surely cannot be far off in the distance. Coalville City has been preparing for this spring and will continue making improvements to our City. I would like to bring everyone up to date on what is being planned and update everyone on what has been taking place.

POCKET PARK MAIN STREET

As spring approaches Coalville will begin construction on its new Pocket Park located on Main Street north of Bella's Hair Salon. This Pocket Park will consist of beautiful rock retaining walls along with a huge patio area, landscaping with trees, plants, flowers and perennials and features an old 1930's era farm truck. The Park will be a great place to relax, eat your lunch or serve as a great place for photo opportunities. Funding for the Park came thru a generous \$44,000 RAP Tax grant along with contributions from Rocky Mountain Power (\$5,000) and residents like you who appreciate these improvements that serve our community. Your donation to this worthy cause is much appreciated.

Mayor
Duane S. Schmidt

Council
Ron Boyer
Andrea Hewson
Steven Richins
David Vernon
Christopher Brundy

ARTSCAPES

In May, Coalville will start the inaugural season of Artscapes. Artscapes is a joint venture between the Summit County Arts Council and Coalville City to display sculptures and benches provided by artisans from across the country. There will be 10 sculptures on display in Coalville for up to one year. Sculptures will be changed out by next spring. The Artscapes program will draw visitors to our community while adding culture, interest along with a sense of place

PO Box 188
10 North Main Street
Coalville UT 84017

P: 435.336.5981
F: 435.336.2062
coalvill@allwest.net
www.coalville.utah.gov

and beauty to our quaint Main Street. A special thanks to Mrs. Lola Beatlebrox who has been instrumental in making this project a reality.

WASTE WATER TREATMENT FACILITY

For quite some time Coalville City has been working on plans to build a new Waste Water Treatment Facility (WWTF). Our current WWTF is quickly approaching 50 years of age and has a land lease set to expire in October of 2014. The land is owned by the Bureau of Reclamation (BOR) and the city has been in tough negotiations with the BOR for the past 5 years. The end result is that Coalville is going to have to relocate our WWTF to a new location at a cost estimated at 9 million dollars. Many factors have led to the necessity to construct a new plant.

In 2010, Coalville City was successful in obtaining a 5 million dollar grant from the Army Corps of Engineers thru their 595 program to fund construction of a new WWTF. Senator Bob Bennett was instrumental in helping the City obtain this grant. The Utah Division of Water Quality had committed to a zero percent interest loan for the remaining balance to be paid back by WWTF users over a 20 year period. In September of last year, the City signed contracts with the Army Corps of Engineers and we were prepared to start design work on our new facility in the beginning of 2011.

In December of 2010, the United States Congress elected **NOT** to vote on an Ombudsman Bill due to pressure being received by tax payers groups. This Ombudsmen Bill had Coalville City's grant funding of our 5 million dollars included within this spending package. When Congress elected not to vote on this bill, it basically removed the financial backing of the Army Corps of Engineers and we lost our grant. Years of hard work was denied in a moment of time.

Since December, the City has once again been actively pursuing grant opportunities for the construction of a new WWTF. On Wednesday the 6th of April, Coalville City made a presentation for a grant in front of the Utah Water Quality Board in St. George, Utah. Coalville City was awarded a hardship grant for 3.3 million dollars along with a zero percent loan for 1.1 million dollars. Coalville

was also given a planning advance of \$26,000 to pursue additional funding. While this represents about half of the funds required to construct a new facility, City Hall is pleased with the outcome. Its days like this that are extremely rewarding and the City Staff's hard work pays off.

Coalville will make a presentation for another grant/loan with Rural Development later this year for the remainder of the funding required. Keep your fingers crossed as grant funding opportunities are quickly drying up with today's economic climate. This project is crucial to the long range future of Coalville and North Summit as this facility could one day become a regional plant serving areas outside of Coalville City limits.

Sewer rate increases that were implemented in January of 2011 have no connection to this proposed project. The sewer rate increases were due to escalating costs and a lack of any increase in sewer user fees since 1996. Fifteen years with no rate increase had our sewer fund running in the negative and being supplemented with funds from other sources.

MAIN STREET ASPHALT

In February, Coalville City made a grant presentation in Price, Utah for a 2 million dollar grant for the reconstruction of both the north and south ends of Main Street. This was our third time presenting on this project. Funds were very limited and we were unsuccessful in this grant. We are currently exploring other funding opportunities to finish our Main Street project. The City Staff will be looking at financial options to present to the Council for the upcoming budget this May.

ICY SPRINGS BRIDGE

In 2010, Coalville City was awarded a 1.1 million dollar grant for the reconstruction of the Icy Springs Bridge. The funds for this project are not available until 2014. After many intense discussions with Summit County, they made an offer to lend the City the money at zero percent interest in order to do advanced construction prior to our receiving the funds in 2014. This offer was made by the County Council and Interim County Manager in the late part of 2009. After a year

plus of negotiating with the County and continual requests including the County wanting the City to offer Coalville City Hall as collateral, Coalville City will look to another funding partner other than the County. I could go on for pages with my thoughts about wasting a year of time believing that Summit County was actually going to help an east side city. Make sure to thank the County Council and the County Manager when you see them for the ever changing interest rate and the insistence of collateral for a loan that will be completely paid by an approved grant from UDOT in 2014. The County certainly bears partial responsibility for this bridges demise and should therefore be part of the solution to replace the bridge.

PIG ROAST

The 4th Annual Pig Roast will be held on June 18th on Main Street. This year we will once again dine on roasted swine, be entertained by local musicians and have a good time with neighbors, friends and family. Last year we roasted 7 pigs and plans are underway for this year's event. Mark your calendar as this is a must attend event.

We will once again have a Dutch Oven Dessert Cook Off. We need volunteers to help with cooking, carving and serving. Please call City Hall at 435-336-5981 if you can help. A special thanks is in order for Whit and Bob Oldham better known as the "Pig Masters." These guys have gone above and beyond and have been instrumental in the success of this event.

Because of all of you the Pig Roast is growing and gets better every year. Thanks!

CAR SHOW

The Car Show will be held on Saturday, July 9th and we are expecting another big crowd this year. We can always use help from volunteers. Please call City Hall at 435-336-5981 if you are willing to help with this event.

PUBLIC WORKS

Our Public Works Department has once again been busy and has many projects lined up for the coming summer season. As always, please feel free to call

Craig Giles our Public Works Director with any repairs, potholes or maintenance concerns by contacting him at 435-336-5980.

CEMETERY

The cemetery cleanup will begin on April 11, 2011 and continue through April 30, 2011. Rules have been changed at the cemetery and we urge you to read and comply with the new rules regarding decorations. Rule changes were mailed out last fall and are available at City Hall and several locations at the entrances to the cemetery grounds. The City will be fertilizing the lawn at the cemetery this spring and will be making changes to our lawn watering schedule. We have had an agronomist look at the lawn due to the yellowing of the grass the past couple seasons during the summer months. We have been told that our watering procedures need to be modified in order to be more effective. The recommendation by the agronomist is that we water during the daylight hours and fertilize the lawn on a regular basis to promote strong root growth. We will be implementing these lawn professional's recommendations this spring.

The City has acquired the fence that currently exists around the Ogden Temple. When the new Temple is constructed and the old fence is removed, The Church of Jesus Christ Latter Day Saints has donated the fence to Coalville City for its installation around the City Cemetery. The fence installation will be a couple years from now as it is one of the last phases in the Temple construction plan.

COMMUNITY DEVELOPMENT BLOCK GRANT

Coalville City has applied for a Community Development Block Grant (CDBG) and we are number 4 on the priority list. The project that we applied for is to replace all the water meters within the City with new water meters that can be automatically read. These meters will help us provide accurate billing 12 months per year and cut down on the labor intense manual reading of meters. We should know how much the City will receive once the US Congress approves its new budget. We anticipate this project to be completed over the summer months as long as Congress funds CDBG grants.

IMPACT FEES

Coalville City has removed all impact fees except for culinary water and sewer at this time. It's a great time to build a new home. These impact fees may be reinstated at sometime in the future.

GROWTH & CENSUS

I was somewhat surprised by our latest Census numbers as our community appears to have lost 19 souls in the last 10 years. I personally question the numbers but these statistics do show a need for slow to moderate growth in our community. I believe most people like our small rural community and want to protect it from the urban sprawl that a lot of communities have experienced. We need some growth and we need more commercial and retail growth within our community. One of the biggest problems that we face is the lack of available NEW housing and readily available commercial or retail space. Currently there is little if any space available to move in today.

A lot of what is available requires substantial work which typically is not conducive to luring new businesses to town. This is something that as a community we need to address. My inclination is to make concessions and incentives for individuals or businesses that bring these types of projects to the City. This will be a topic of discussion coming to City Council meetings here in the very near future. Your input and ideas are needed and appreciated.

CITY WEBSITE UPGRADES

We have upgraded our City website at www.coalvillecity.org . We are always looking for great Coalville photos to use and appreciate anyone's use of pictures. The website is a work in progress, but we have made substantial progress in the last year. Our goal is to have any and all information about the city at a click of a computer button. Governmental transparency. Please visit our website! We want your input!

GENERAL PLAN & DEVELOPMENT CODE RE-WRITE

The Planning Commission and City Council are just finishing a review and re-write of the Development Code and the General Plan. This project has been underway for almost 18 months and was a tremendous undertaking. The City staff has worked very hard at making our code book user friendly and clarifying areas that may have been ambiguous and/or difficult to understand.

NORTH SUMMIT RECREATION DISTRICT

The North Summit Recreation District has been given permission by the City Council to construct office space in the upstairs of the Coalville City Public Works Facility. Coalville is working with the Recreation District to help in any way possible to ensure that the Recreation District is successful in its endeavors. Plans are underway and I believe some exciting changes in recreational opportunity are just around the corner.

CLOSING COMMENTS

Our City staff is here to serve the people and visitors of Coalville. We want your input on anything that is important to you. As a City, we strive to provide quality services at affordable rates. Productivity and performance is what our City Staff strives to achieve on a daily basis. I am proud of the hard work and dedication given by our Staff. Tremendous behind the scenes work that is performed with little or no thanks. Thank your City employees when you get a chance and encourage them to continue the progress. Tell us what needs to be fixed and offer your solutions to community problems. Together we can go further.

I am always available for questions, comments or concerns. I can be reached on my cell phone at 435-640-6478. Thank you for your support! It is an honor to represent such a wonderful community!

Make the most out of your summer!

Yours in service,

Mayor Duane S. Schmidt



Coalville City, Snowmobiling, Historic Town, Skiing, Off Rooding, ATV, Outdoor Recreation | Coalville City, Utah

Coalville Information

[Request Public Records and Print forms](#)

[Summit County](#)

[NS School District](#)

[Coalville Photo Gallery](#)

[Pioneer Artist George Beard Photo Gallery](#)

[Current Weather](#)

[Grants that have been awarded to Coalville City Since 2006](#)

[Coalville Statistics - Population, Elevation](#)

[North Summit Recreation District](#)

Announcements

[NO OVER NIGHT STREET PARKING November 1 - March 31](#)

[A Message from Mayor Schmidt](#)

**May 5, 2010
FROM THE OFFICE OF THE MAYOR**

As the weather changes and spring approaches, the city is focused on completing our Main Street Reconstruction and starting some new projects. This year is once again looking to be extremely busy and we would like to bring our residents this update on what has been planned for this coming year.

May brings the completion of our Main Street Reconstruction Project. Trees will be planted along Main Street, 8 park benches will be installed along with new trash receptacles. A new water fountain will be installed at City Hall and hanging baskets will be placed on the new light poles. Planters will be placed along Main Street and flowers planted. The sprinkler system for grass and tree plantings will be completed. Main Street will receive a seal coat and traffic lines and parking stalls will be painted. Main Street will have four new "doggy doo" stations installed to dispense plastic bags for the cleanup and disposal of our pet's feces. Dog waste spreads disease and has become apparent that cleaning up after our dogs is our civic responsibility.

Last fall the City had 5 old fuel tanks and soil contamination mitigation completed as part of our Main Street Project. These tanks were removed with an additional stimulus grant of \$160,000 obtained by the City.

Moving forward to new work this spring we will see additional paving throughout our city. Eight city streets will be milled and repaved. These streets are as follows:

- Main Street from Chalk Creek Road North to the bridge.
- Main Street from 100 S to 150 S
- 150 S from Main to 50 W
- 50 W from 150 S to 100 S
- 50 W from 100 S to Center Street
- Center Street from 50 W to Main
- 50 S from Main to 50 W
- 200 N from Main to the Sewer Plant

The streets will be milled, compacted and repaved with 2 1/4 inches of asphalt. These roads along with the vast majority of city streets will have traffic lines repainted.

Patch work will be completed on South Main heading towards Hoytsville, North Main and Border Station Road. This project has been awarded to Granite Construction at a cost of approximately \$130,000. Funding for this project has come through B & C Road Funds that are received by the city to help maintain our roads.

There will be some road closures for short periods of time along with a little inconvenience. Please have patience with the construction crews and we will work very hard to quickly complete these road projects.

Coalville City has been awarded \$44,000 in a RAP Tax grant to construct a pocket park to be located along Main Street



[2011 Coalville City Budget](#)

[2010 Coalville Financial Report](#)

[Events](#)

[See full calendar of events
Click Here](#)

between Bella's Hair Salon and Key Drug. This pocket park will include boulder retaining walls along with stamped concrete patio areas, landscaped with an antique truck as an interest piece and photo opportunity. Plans of this project are located in City Hall and available for your review. We need additional funds to complete this job and donations towards the pocket park are welcomed at City Hall. A sign recognizing donors will be placed within the park. We plan on having this project completed this summer.

The City has also been awarded 1.1 million dollars to reconstruct the bridge that crosses the Weber River. The City hopes to have advanced construction completed by late fall. We have a lot of paperwork, federal loopholes and planning to be completed prior to the start of construction. We will continue to push ahead with an eye on completing this project as soon as possible. The grant money was awarded by a Federal Bridge Fund and requires a match of 20% to be paid by Coalville City. Our city staff has worked very hard at advancing this project, gaining the grant and putting together the matching funds. Please remember that the bridge weight limit has been decreased and it is imperative that everyone comply with the current weight restrictions.

The bridge grant puts Coalville City at a total of just over 5.1 million dollars worth of grant awards in the last 4 years. Our City Staff has become very efficient at writing, presenting and obtaining these funds. When the opportunity arises please thank our employees for their hard work on the behalf of all of us to help make Coalville the wonderful community that it is.

The Heritage Festival and Pig Roast will be held on June 19th at 5:00 P.M. on Main Street. This year we will once again dine on roasted swine, be entertained by local musicians and have good company with neighbors, family and friends. Mark your calendar as this is a must attend event. This year we intend to have a Dutch Oven Cook Off for dessert.

We would like to see if community members could make their favorite Dutch Oven Dessert to bring to the Pig Roast and help feed the crowd and compete for the award of best dessert of the 2010 Pig Roast. Please call City Hall with any questions.

The Car Show will be held on July 10th and we're looking for a large crowd this year. Last year's cancellation of the car show was met with a lot of disappointment. Concerns over our Main Street Project start date lead to the cancellation. We believe the support for the show will be larger than normal and look forward to a wonderful time in July.

Over the past winter our Public Works Department has been busier than ever. While taking care of our normal winter snow plow activities, our staff has reconditioned a lot of equipment, organized and prepared for a productive 2010 season. Our Public Works Director, Craig Giles looks forward to serving the needs of our community and your input is important. Please let Craig know of any repairs, potholes or maintenance concerns by contacting him at 435-336-5980.

Our sewer facility has constructed a new screening plant for compost and will be selling compost this spring for all your gardening needs. The new screening and composting plant is extremely productive and we are very proud of the team efforts that made this new process become a reality. Dennis Gunn our Sewer Plant Manager can be reached at 435-336-2571 to arrange compost pickups.

Coalville is currently seeking grant funding to reconstruct our 50 year old sewer plant. We are hot on the trail of a 5 million dollar grant and hope to secure this funding in the near future. We will keep everyone informed as we navigate the process. Our sewer plant is getting old and showing the effects of working 24/7 for 365 days a year.

Over the past month our City Staff has been working on upgrades to our city web-site at www.coalville.utah.gov. We invite you to utilize the web-site and we are always looking for photographs of Coalville.

We currently need photos of recreational opportunities such as snowmobiling, boating, fishing, 4-wheeling, skiing, and skateboarding or any other photo that will help enhance our web-site. We are also looking for pictures of the Pig Roast and always welcome scenery shots. Please contact City Hall with any pictures that you may want to share. This is a project under construction and your help is greatly appreciated.

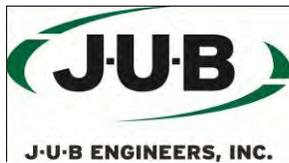
In our last letter, we talked about the importance of everyone cleaning up our homes, businesses and properties. Again we stress the need to clean up and remove the unwanted junk that litters our community. The corridor along the Rail Trail was mentioned and we are asking for voluntary compliance to help clean up. The City is investing millions of dollars in our community and your assistance is greatly appreciated.

Our city staff is here to serve the people and visitors of Coalville. We want your input on anything that is important to you.

I am always available for questions, comments and or concerns. I can be reached on my cell phone at 435-640-6478. Thank you for your support!

Yours in service,
Mayor Duane S. Schmidt

Coalville City
10 N Main Street
PO Box 188 Coalville, UT 84017
Phone: (435) 336-5981 Fax: (435) 336-2565
E-mail: coalvill@allwest.net
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J-U-B COMPANIES



THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

August 16, 2011

Ivan J. Ray, Manager
Weber River Water Users Association
138 West 1300 North
Sunset, Utah 84105-2918

Subject: Environmental Information Document for Coalville City Wastewater Facilities Project
Request for Comments

Dear Ivan,

Coalville City is in the process of performing an environmental review to assess the possible environmental impacts of a proposed Wastewater Facilities Project in Coalville City, Summit County, Utah. The environmental review is being performed pursuant to the requirements of the National Environmental Policy Act (NEPA) for the USDA-Rural Development and the State of Utah Department of Environmental Quality (UDEQ).

The proposed project is to address concerns with the treatment plant location, which is currently located on land with a soon to expire (October 2014) Bureau of Reclamation (BOR) lease, aging infrastructure and potentially more restrictive discharge limits. A project description with more detailed information is enclosed.

The proposed project is anticipated to be constructed at a site on the western edge of the City, and south of the Existing Wastewater Treatment Facility and Chalk Creek (see attached Figure 1). This location is not on Federal land, and therefore will address the BOR's concerns with the existing site. This location will take advantage of the natural topography of the land and will allow the wastewater to flow towards the wastewater facility with minimal pumping of raw wastewater. The project will be constructed on land and right-of-way to be acquired by Coalville City. Enclosed is a map that depicts the proposed project's area of potential effect for construction activities.

Coalville City requests that your agency review the proposed project for potential impacts within the project area. Please provide any recommendations you may have to mitigate or avoid these impacts. Written comments or questions concerning the proposed action should be addressed to Christina Osborn at the following address:

Christina Osborn
J-U-B ENGINEERS, Inc
2875 South Decker Lake Drive, Suite 575
Salt Lake City, UT, 84119

We would appreciate a response within 30 days of the date of this letter. If you need any further information or wish to discuss the project, please contact Christina Osborn by phone at 801-886-9052 or by email at cosborn@jub.com. Thank you for your consideration in this matter.

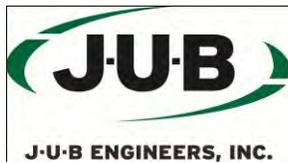
\\Kays\public\Projects\JUB\Coalville\55-11-048 USDA WWTP Application\Text\ER\Agency Consultation

Sincerely,
J-U-B ENGINEERS, Inc.

A handwritten signature in blue ink, appearing to read "Christina Osborn".

Christina Osborn
Project Engineer

Enclosures: Project Description and Map of the Existing and Proposed Location of Wastewater
 Facilities



J-U-B COMPANIES



THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

August 16, 2011

Sherrie Mobley, Administration Manager
Weber Basin Water Conservancy District
2837 East Highway 193
Layton, UT 84040

Subject: Environmental Information Document for Coalville City Wastewater Facilities Project
Request for Comments

Dear Sherrie,

Coalville City is in the process of performing an environmental review to assess the possible environmental impacts of a proposed Wastewater Facilities Project in Coalville City, Summit County, Utah. The environmental review is being performed pursuant to the requirements of the National Environmental Policy Act (NEPA) for the USDA-Rural Development and the State of Utah Department of Environmental Quality (UDEQ).

The proposed project is to address concerns with the treatment plant location, which is currently located on land with a soon to expire (October 2014) Bureau of Reclamation (BOR) lease, aging infrastructure and potentially more restrictive discharge limits. A project description with more detailed information is enclosed.

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\\Kays\public\Projects\JUB\Coalville\55-11-048 USDA WWTP Application\Text\ER\Agency Consultation

Sincerely,
J-U-B ENGINEERS, Inc.

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Christina Osborn
Project Engineer

Enclosures: Project Description and Map of the Existing and Proposed Location of Wastewater
Facilities



MEMORANDUM

DATE: December 20, 2011

TO: To File

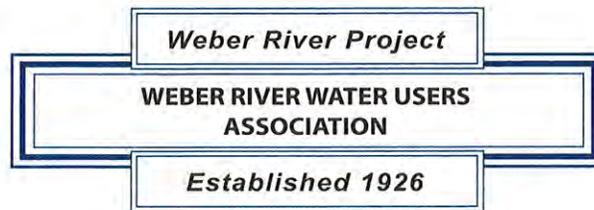
CC:

FROM: Christina Osborn

SUBJECT: Response to Request for Comments/Project Notification from the Weber River Water Users Association Manager on the Coalville City Wastewater Facilities Project

On December 20, 2011 Ivan Ray, Manager of the Weber River Water Users Association and General Manager of the Davis and Weber Counties Canal Company, called regarding the proposed Coalville WWTP project. He had received the letter. He said he had no comments but wanted to make sure our analysis for siting the new plant and setting elevations included considerations for the future possibility of the water surface elevation of Echo Dam being raised. I noted that the proposed site is on average five feet or so higher than the existing site, and about eight feet higher than the high water elevation/spill gate elevation. I noted that the proposed site is, however, below the existing dam crest elevation and proposed dam crest elevation. We discussed that the seismic upgrade at the dam is only affecting the dam crest elevation and is not raising the spill gate elevation. Ivan shared that he has been in touch with Curt Pledger about the possibility of raising the spill gate of the Echo dam. I noted that we also had been communicating with Curt Pledger (Bureau of Reclamation). Ivan noted that the raising of the spill gate elevation may need to occur in the future due to an increasing population that puts pressure on the water supply.

I told Ivan that I would include his comments in the Environmental Report, which is currently underway. He said that he would like to be sent a hardcopy of the Report. I responded that that is unlikely due to the cost to produce the report but that we could likely send him an electronic copy of the report on cd. I told him that the report would also be available to review at the Coalville City offices. Ivan would like to stay in the loop on this issue.



Conserve

Robert Whitley
J-U-B Engineers
466 North 900 West
Kaysville, Utah 84037

August 5, 2008

Subject: Coalville City Request to Purchase Bureau of Reclamation Property at Echo Reservoir for Expansion of Sewage Treatment Facilities.

Dear Robert:

At a meeting in your office on May 28, 2008 with representatives of Coalville City, the Provo Area Office of the Bureau of Reclamation, J-U-B Engineers and Weber River Water Users Association, it was requested and proposed that the City of Coalville be allowed to purchase approximately 13 acres of U. S. Government-owned property immediately south of the Echo reservoir. The city is using 2.3 acres at the present time for sewage treatment, which adjoins the 13 acres they wish to purchase.

The Weber River Water Users Association, who have the water rights for the Echo Project, manage, regulate, operate and maintain it, will cooperate in this process and request with the assurance that the following points will be clarified.

- A. The impounded storage rights will not be altered or reduced because of the expansion of the sewage treatment facility by Coalville City.
- B. All safety measures will be in place to prevent any event such as premature releases of effluent being discharged into Echo Reservoir that will not meet water quality regulation standards.
- C. If there are any major flood events from unforeseen natural causes, the treatment facilities will be constructed to safeguard the impounded water.
- D. The United States Government does not foresee any future need in the long-term plan to expand the storage capabilities of the Echo Project for additional agriculture needs of the Water Users and /or down stream users in the long-term plans for the Weber River System.
- E. In consideration toward the benefit of all parties involved, the City of Coalville and the Bureau of Reclamation will pursue a local property exchange (Federal # 1031-see attached), for property that could be used for gravel and /or filter material in the upcoming Echo Modification Project.

We appreciate involvement in this process to work with the City of Coalville and the Bureau of Reclamation.

Sincerely,

Ivan J. Ray, Manager
Weber River Water Users Association

CC: Bruce Barrett, Provo Area Office, B.O.R.
Dennis Gunn, Coalville City Public Works Director
Lee Kapaloski, Parsons Behle & Latimer

OPEN HOUSE/PUBLIC HEARING

- Boards/Handouts used during the Open House
- Notice for the newspaper of the Open House/Public Hearing
- Proof of Publication of the newspaper advertisement
- Minutes, including comments from the Open House/Public Hearing
- Notes from Open House review with Ed Macauley (DWQ)
- Written comment form from the Open House/Public Hearing



Welcome to the

Coalville City

Wastewater Treatment

Planning Public Hearing

May 23, 2011

City Hall

7 – 9 p.m.



Coalville City Wastewater Treatment Facility (WWTF) – Public Hearing

Purpose of Tonight's Public Hearing

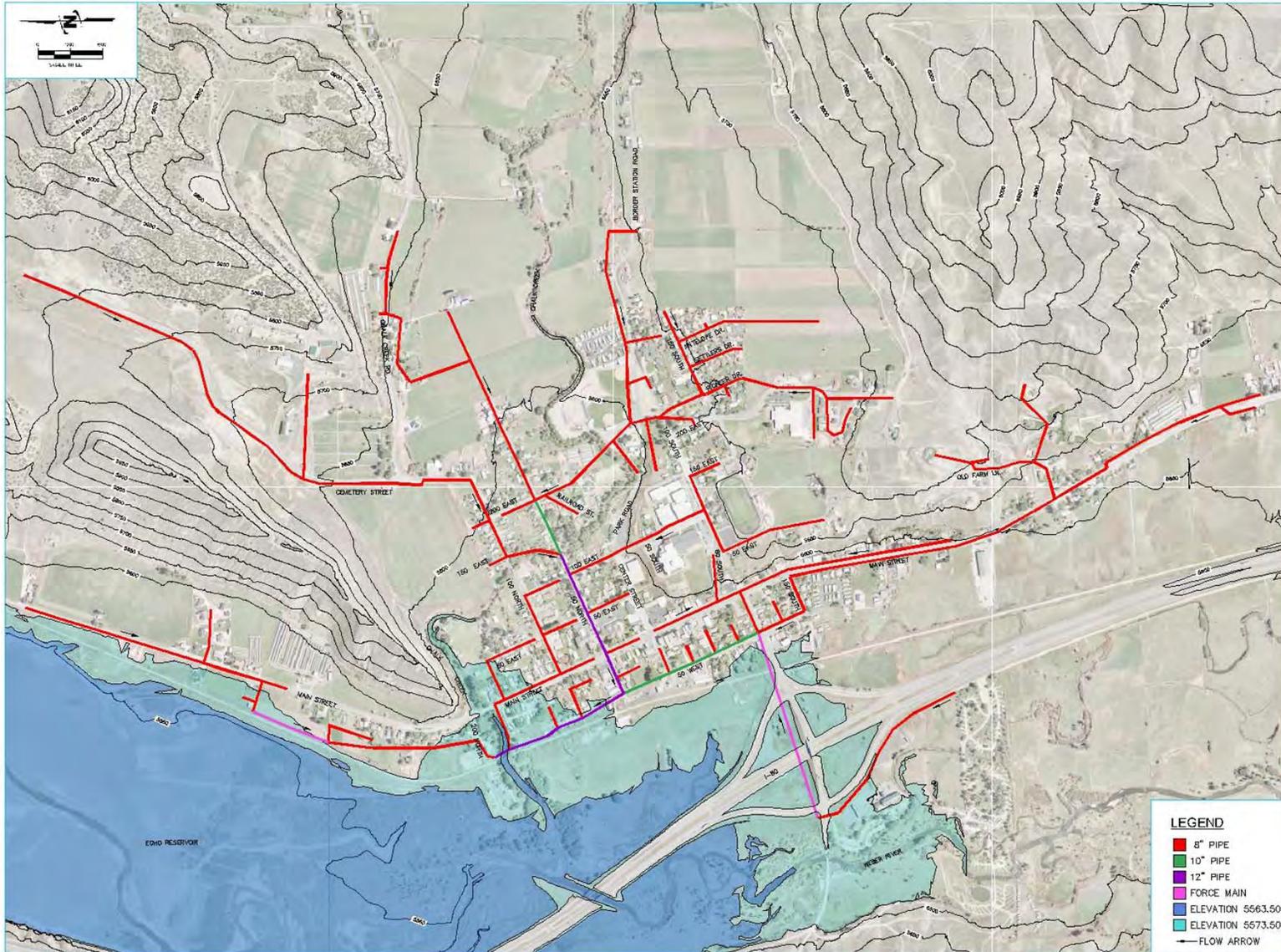
- **Share with Community:**
 - Status of existing facility
 - Age
 - Land lease
 - Coalville City Wastewater Treatment planning efforts over the past 5 years
- **Seek public input regarding City's plan to construct new treatment facility for Coalville**

Coalville Wastewater Treatment Facts:

- *Did you know the Coalville WWTF treats over 200,000 gallons of wastewater (sewer) everyday?*
- *Did you know that the Coalville WWTF has been the recipient of EPA and state DWQ awards?*
- *Did you know the operator of the Coalville WWTF completes over 40 hours of annual training to maintain state mandated certifications?*
- *Did you know the treated wastewater from Coalville is discharged into Echo Reservoir and the Weber River System; the Weber River is the primary drinking water supply for over 50 percent of the residents of Davis and Weber Counties?*



Coalville City – City Sewer Collection System





Coalville City WWTF – Existing Facility Aging

- 1965 - Construction of Original Facility
- 1985- Major Facility Upgrade
- Typical Mechanical Service Life - 20 years
- Typical Structural Service Life - 40 years



**Influent Mechanical Screen –
15 yrs in service**



**Secondary Clarifier- undergoing
drive repair in 2008 –
25 yrs in service**



**Oxidation Ditch Aerators- currently in
need of bearing replacement –
25 yrs in service**

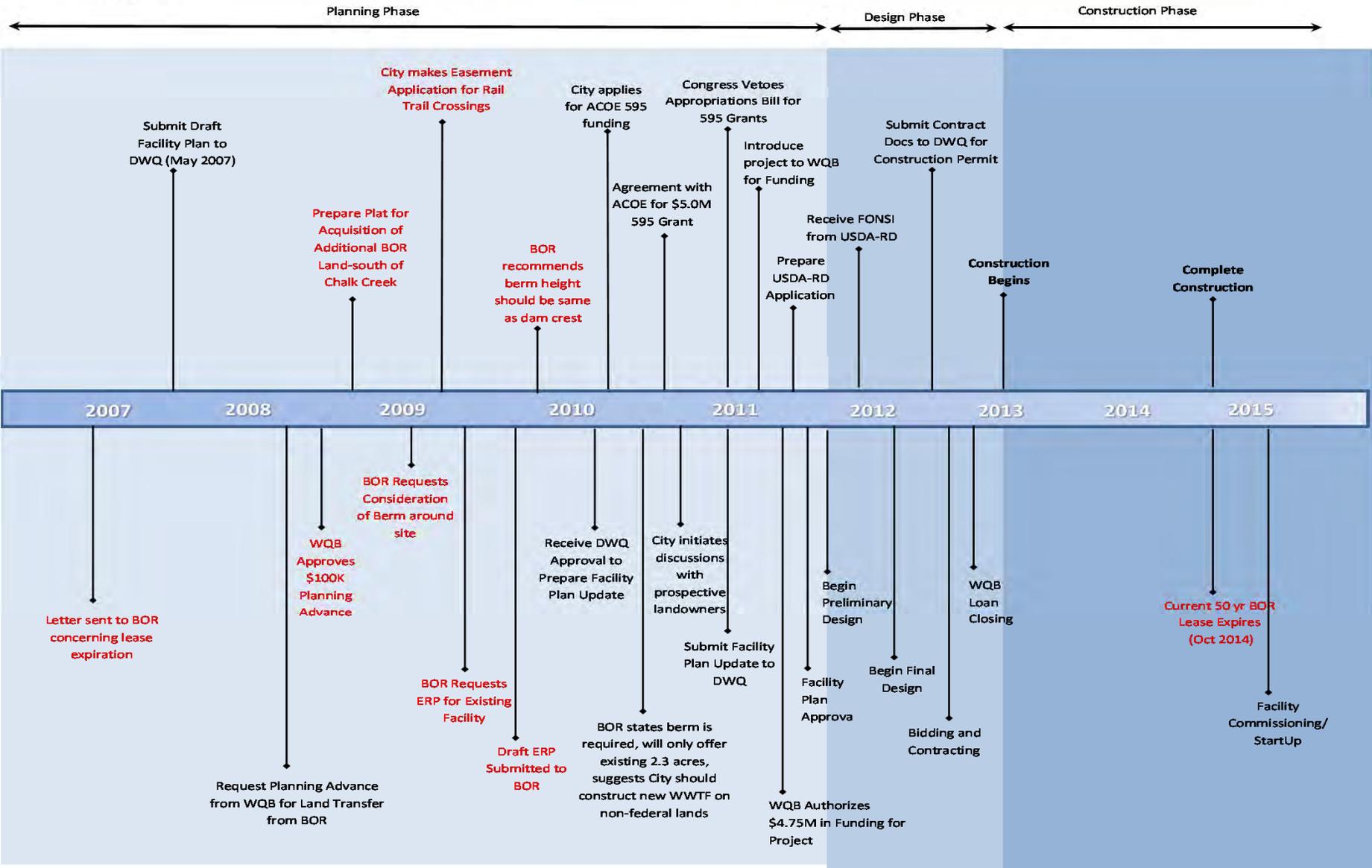


**Sludge Holding Tank- aeration system
in need of repair –
Tank in service 45 yrs**

Capacity and Age Assessment of Existing System				
Process Element	Year in Operation	Exceeds Design Life?	Recommendation	Replacement Cost
Mechanical Screen	1985	Yes	Prepare to replace due to age	\$125,000
Influent PS	1985	Yes	Prepare to replace pumps due to age	\$45,000
Ditch Aeration (aeration system)	1985	Yes	Prepare to replace due to age and increase aeration capacity	\$300,000
UV system	1985	Yes	Prepare to replace due to age and increase capacity	\$300,000
Aerobic Sludge Holding Tank Contact Time (concrete volume)	1965	Yes	Prepare to replace tank and aeration due to age	\$375,000
Composting Operation	1995	No	Will require additional labor as flow increases; add screen	\$125,000
Misc. Instruments	1985	Yes	Prepare to replace due to age	\$25,000
Misc. Electrical Panels	1985	Unknown	Plan for upgrades based on age of equipment	\$250,000
Generator	1985	Unknown	Plan for upgrades based on age of equipment	\$150,000
Subtotal Replacement				\$1,695,000
Misc. annual repair and replacement (electrical, HVAC, lab, computers, piping, paint, instruments, etc.) 25K/year times 10 years				\$250,000
Engineering, Contingency (20%)				\$389,000
TOTAL REPLACEMENT				\$2,334,000
MONTHLY USER FEE: FUND REPLACEMENT COSTS (Assumes Loan Terms of 3% @ 20 years)				\$12.97
Other Improvements Needed To Continue Operation at Existing Site				
Bureau of Reclamation Mandated Berm	-	-	-	\$550,000
Land Lease from BOR	-	-	-	\$200,000
New Lift Station w/generator	North/Echo Lift Station in Operation prior to 1960	Yes	Prepare to replace due to age	\$300,000
8" MLSS line from ditch to clarifiers	1985	-	Line too small, bottleneck at high flows.	\$25,000
Splitter box			Reconfiguration Required	\$25,000
Subtotal				\$1,100,000
Engineering, Contingency (20%)				\$220,000
TOTAL SHORT TERM COSTS				\$1,320,000
MONTHLY USER FEE TO FUND SHORT TERM COSTS (Assumes Loan Terms of 3% @ 20 years)				\$9.87



Coalville City WWTF – Planning Timeline





Coalville City WWTF – Alternatives Comparison

Cost or Non-monetary Consideration	Expand at Existing Site	Conventional Facility at New Site	Microfiltration at New Site
Total Estimated Capital Costs (First Costs for Construction)	\$9.7M	\$9.2M	\$10.5M
Annual Operations and Maintenance Costs	\$303,000	\$239,000	\$288,000
20 year Life Cycle Costs	\$15.76M	\$13.98M	\$16.26M
Future Expansion Potential	None	Good	Good
Use of Aging Infrastructure	Continues use of some treatment facilities currently beyond 25 yrs. old	New Facilities	New Facilities

Recommended Plan



Coalville City WWTF – Estimated User Rates and Project Funding

Monthly User Rate Estimates Comparison

Rate Category	Estimated Costs and Rates to Stay at Existing Facility (no new capacity)	Rates to Construct a New Facility (increases capacity)
	Monthly Cost	Monthly Cost
2011 User Rate*	\$32.00/mo	\$32.00/mo
Estimated Short Term Costs to Stay at Existing Site	\$9.87/mo	Not applicable
Estimated 20 Year Replacement or New Facility Costs	\$12.97/mo	\$17.50/mo
Future User Rate	\$54.84/mo**	\$49.50/mo***

DWQ User Rate Determination for Grant Monies

- MAGI= Median Adjusted Gross Income
- Coalville 2007 MAGI= \$42,304
- DWQ Affordability Threshold for Sewer = 1.4% of MAGI
- ***“Affordability Rate” = \$49.35/mo/household***

*City Resolution No. 2010-4 incrementally increased monthly sewer rates through 2013 up to \$40.00/month to pay for either repair of old facility or help fund new facility

**Lewis and Young City commissioned Rate Study (April 2009) projected \$32-\$52/month

*** Assumes mix of grants and loan for new facility to meet DWQ affordability threshold

City Investigated Funding Sources for New Facility

Funding Source	Grant	Loan	Grant Amount	Loan Amount	Total Amounts (\$9.5M needed)	Status
Army Corps of Engineers 595	Yes	No	\$5.0M	N/A	\$0.0	595 Funding not authorized by U.S. Congress in December 2010.
US Dept of Agriculture- Rural Development	Possible	Yes	Pending	Pending	Pending (requesting \$4.75M)	Currently preparing application.
Utah Division of Water Quality	Yes	Yes	\$3.10M	\$1.65M	\$4.75	Authorized on April 6, 2011. Loan terms: 0% interest, 20 years.



Coalville City – Concept Renderings For New Facility



**NOTICE OF PUBLIC HEARING
COALVILLE CITY WASTEWATER TREATMENT FACILITIES PLAN**

Coalville City will be holding a public open house to discuss the development of a Wastewater Treatment Facilities Plan. The City, with support from the Utah Division of Water Quality (DWQ), is developing the plan in response to challenges faced at the existing wastewater treatment facility. The City's existing wastewater treatment facility is located on 2.3 acres of land owned by the Bureau of Reclamation and leased to the City. The lease expires in 2014 and the Bureau of Reclamation is not willing to renew the lease, thus forcing the relocation of the City's wastewater facilities. Additionally, many components of the City's existing wastewater facilities were constructed 50 years ago, and due to the facility's age, annual repair costs are increasing significantly. Finally DWQ continually reviews water quality of the state's lakes and river, Echo Reservoir has been listed as an 'impaired water' by the Utah DWQ and as such discharges to Echo, including Coalville's, may be subject to stricter discharge limits in the future for things such as phosphorus and nitrogen. To address concerns with the Bureau of Reclamation lease expiration, aging infrastructure, and potentially more restrictive discharge limits, Coalville City has been updating their existing wastewater treatment facilities plan to identify the best possible wastewater treatment alternative and to identify impacts and cost to the community. The City is now seeking your input regarding this planning effort. Please join us:

**May 23, 2011
7:00 - 9:00 p.m.
Coalville City Hall
10 North Main Street**

A copy of the Wastewater Facilities Plan Update will be available for viewing at the City Hall beginning April 20, 2011. The City has considered a number of funding sources to assist with any improvements. Team members and City staff will be on hand to discuss the issues including the potential user rate impacts. For additional information on the project please contact Mayor Duane Schmidt at 435-336-5981 or Trevor Lindley at 801-547-0393 (J-U-B Engineers).

In accordance with the Americans with Disabilities Act, reasonable accommodations will be provided to participants with special needs. Requests for assistance can be made by calling 435-336-5981 at least 72 hours in advance of the meeting.

PROOF OF PUBLICATION

STATE OF UTAH, }
County of Summit. } ss.

I, Terry Rider

being first duly sworn, depose and say that I am the Office Assistant of The Summit County News, a weekly newspaper of general circulation, published once each week at Coalville, Utah, that the notice attached hereto and which is a

Notice of public hearing

was published in said newspaper for two consecutive issues, the first publication having been made on the 22 day of April, 2011, and the last on the 30 day of May, 2011, that said notice was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in any supplement. Same was also published online at utahlegals.com, according to Section 45-1-101, Utah Code Annotated, beginning on the first date of publication and for at least 30 days thereafter.

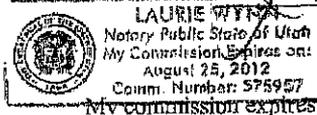
Terry Rider

Subscribed and sworn to before me this 27 day of

Apr, 2011

Laurie Wynn

Notary Public


Laurie Wynn
Notary Public State of Utah
My Commission Expires on:
August 25, 2012
Comm. Number: 575957
My commission expires

8/25/12

NOTICE OF PUBLIC HEARING COALVILLE CITY WASTEWATER TREATMENT FACILITIES PLAN

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In accordance with the Americans with Disabilities Act, reasonable accommodations will be provided to participants with special needs. Requests for assistance can be made by calling (435) 936-5981 at least 72 hours in advance of the meeting.

Published in The Summit County News April 22, and May 20, 2011.



Coalville City Municipal Corp.
 PO Box 188
 10 North Main
 Coalville, Utah 84017-0188
 Phone: 435-336-5981
 Fax: 435-336-2062

Date: 6/2/11

To: Christina From: Chantel

Attn: _____ Pages: 2 w/cover sheet

Fax #: 801-886-9123

Re: _____

Notes: _____

If you do not receive all pages, please call 435-336-5981

Coalville City Council
Work Session, Special Meeting, and Joint Planning Commission
HELD ON
May 23, 2011
IN THE
CITY HALL

Mayor Schmidt called the meeting to order at 7:00 P.M.

MAYOR AND COUNCIL MEMBERS PRESENT: Mayor, Duane S. Schmidt
Councilmembers: Ron Boyer, Steve Richins,
Chris Brundy, David Vernon, and Andrea
Hewson (absent)

PLANNING COMMISSIONERS PRESENT: Planning Chair, Mike Peterson
Commissioners: Arlin Judd, Al Clark,
Tyler Rowser, Ty Collins, and
Dusty France (absent)

A quorum was present.

CITY STAFF PRESENT:

Cindy Gooch, Community Development Director
Chantel Pace, City Recorder
Dennis Gunn, WWTP Operator
Trevor Lindley, City Engineer
Robert Whitely, City Engineer

PUBLIC IN ATTENDANCE:

Axcil Blonquist, Destinnie Blonquist,
Miriam Garver, Roy Bolinder,
Kathleen Bolinder, Colleen Blonquist,
Edwin Judd, Meresa Judd, Craig Carlile,
Bill Damery, Ed Macauley, Lisa Nelson,
Sarah Nelson, Nancy Bell, Dan
Blonquist, Dan Blonquist's Attorney,
Phil Geary, Joe Banz, David Bell, Ken
Boyer, Jeremy Geary, Merlyn Johnson,
Alan Bell

Item #2 Pledge of Allegiance:

Mayor Schmidt led the Council Member, Planning Commissioners and the public in the Pledge of Allegiance.

Joint Item A- Public Hearing- Review, Discussion, and Possible Approval of the Updated Development Code and Revised Fee Schedule:

Cindy stated we have been working on this update for the past 2 years. She explained the update was needed to bring everything up to date with State Law. Cindy stated all changes were given to the Council to review prior to the meeting. She explained the City Attorney stated we should place the property bond back into the requirements, but it would require a unanimous approval. Commissioner Judd stated that is a very extreme option. He explained the reasoning behind removing this option, was so that a developer would not expect to use this option. Mayor Schmidt expressed a unanimous vote could be tough. Councilmember Richins stated for this option it should be a majority decision. Commissioner Judd stated a property bond is not stable, and is least desirable for the City. He expressed if we keep this option in the code then it needs to be a unanimous vote. Commissioner Judd stated so then the City has to really want to accept this option. Councilmember Boyer stated he agreed with Commissioner Judd. He stated the only reason the City took the last property bond, was because that was the only option. Councilmember Vernon agreed a unanimous vote was better than a majority vote. Commissioner Rowser suggested we put the legal name of the North Summit Fire Service District correctly on the plat.

Cindy stated when we approved the last fee schedule some of the information was left out. She stated the Attorney drew up a new resolution with the fees that were left out. Mayor Schmidt stated this is just a clerical correction. Cindy stated the Planning Commission has to pass the ordinance for the new development code, before the Council can vote on it. She explained the Council is the only ones that have to vote on the fee schedule.

Mayor Schmidt opened the public hearing for the Development Code and Fee Schedule at 7:17 P.M.

The public asked what the Development Code was used for. Mayor Schmidt stated it is used for development in the City. Councilmember Boyer stated it explains what is needed for new subdivisions and such. Mayor Schmidt stated the updated version makes it much easier to understand the information.

There were not any further public comments, so Mayor Schmidt closed the public hearing at 7:22 P.M.

Mayor Schmidt commented that everyone did a very good job on the Development Code update. He expressed how important it is to have this information.

COUNCILMEMBER BOYER MADE THE MOTION TO APPROVE RESOLUTION 2011-1 DEALING WITH THE REVISED FEE SCHEDULE FOR THE DEVELOPMENT CODE. COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

COMMISSIONER CLARK MADE THE MOTION TO APPROVE ORDINANCE 2011-1 FOR THE ADOPTION OF TITLE 8, 9 & 10 OF THE COALVILLE CITY DEVELOPMENT CODE. COMMISSIONER ROWSER SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

COUNCILMEMBER VERNON MADE THE MOTION TO APPROVE ORDINANCE 2011-1 FOR THE ADOPTION OF TITEL 8, 9 & 10 OF THE COALVILLE CITY DEVELOPMENT CODE. COUNCILMEMBER BRUNDY SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Joint Item B- Public Hearing- Review, Discussion and Possible Approval of the Coalville City Waste Water Treatment Plant Facilities Plan:

Mayor Schmidt stated we have been looking at the Sewer Plant since 2006 or 2007. He stated Trevor from JUB has been working on this for a very long time. Trevor gave a presentation on the progression that has occurred on the project. He explained he has been working on this for 5 years now. Trevor stated the presentation tonight is to get public input on this project. He explained we approached the BOR (Bureau of Reclamation) 5 years ago about possibly acquiring more land, and to extend our lease. BOR said no to the additional land, and at the end of our lease in 2014 we have to be off the current location. Mayor Schmidt stated the BOR explained it is illegal for them to have a treatment plant on their property. He stated some of the Treatment Plant is 50 years old. Mayor Schmidt stated there was an upgrade done in 1985, but they are now past the life expectancy. He explained the long range goal for Coalville City is to build a new sewer facility that would last 20 to 50 years. Mayor Schmidt stated he understands 9 million dollars is a lot of money, but we had the funding once. He explained we will get the funding again. Mayor Schmidt expressed you can put a lot of money into a 1978 car, but if you buy a new car, then you have something reliable. He explained the sewer fund has been in trouble for many years now, and that is why the Council had to raise the base fee to keep it in operation. Mayor Schmidt stated the Water Quality Board has made assessments for affordable sewer rates for the community. He explained this is called MAGI (Medium Adjusted Gross Income), which is based off of people's incomes. Mayor Schmidt stated the people of Coalville will be paying \$50.00 a month base fee for the sewer rather we have the old plant or a new plant. He stated he would rather pay for something new, than the same amount for something that is old and falling apart. Mayor Schmidt stated the City's intent is to make a new sewer plant; that does not look like a sewer plant. He explained most of the process would be inside, to control the odors. Mayor Schmidt stated by placing the plant inside, it would increase the lifespan of the facility. He stated we have to place the sewer plant where it could gravity flow to the facility. Mayor Schmidt stated if we place the facility anywhere else in Coalville, it would require pumping. He stated and that would require higher bills.

Councilmember Boyer stated we have done a lot of repairs to the sewer plant. He stated we had to have the clarifiers re-done that cost about \$150,000.00. Councilmember Boyer stated we had problems getting these fixed correctly, because the plant is so old and the technology has changed. He expressed it is also very difficult to find people that know how to fix the plant. Mayor Schmidt stated the plant runs 365 day a year, 24 hours a day. He explained we have definitely gotten our money's worth out of the plant. Mayor Schmidt read the last letter we received in February 2011 from the BOR. He explained the letter stated in clear language the City must leave the BOR land. Mayor Schmidt stated the City has done its due diligence, and has gone to great effort to try to stay at the old sewer plant facility.

Mayor Schmidt opened the public hearing for comment at 8:12 P.M.

Merlyn Johnson (former Coalville City Mayor) stated the sewer plant was built under Bob Williams' administration. He explained the City did not take care of the plant. Merlyn explained when Dean Geary became Mayor; he decided we needed to look at a new plant. Merlyn stated when he became Mayor, Coalville City got one of the finest sewer plants in the USA. He explained our sewer plant and operator have won several awards. Merlyn explained plants wear out. He stated no one wants to raise sewer rates, but we must have a reserve fund. Merlyn stated he is not against having a new plant. He stated we need to make sure we take care of the new plant so it would last us 50 years like the old one has. Merlyn explained the Mayor does not make the decisions. He stated the Mayor does what the Council decides, whoever the Mayor is the one that takes all the heat on issues.

Phil Geary stated if 200,000 gallons go through the sewer plant each day, then what is the capacity. Trevor stated 350,000 is the maximum. Phil stated the City received a letter from the BOR about building a burm. He asked what was the estimate to build the burm. Mayor Schmidt stated he has been to more meetings than anyone else; and maybe he could answer some of the questions. He stated the BOR required the City to do an emergency response plan. Mayor Schmidt stated this cost thousands of dollars to do this requirement. He explained the \$65,000.00 or \$70,000.00 the BOR stated it would cost to build a burm was very whimsical. Mayor Schmidt stated if we built the burm, we would not be able to expand the plant. Phil stated he was very upset when he looked through the book and saw there was a subdivision planned in the proposed site for the new sewer plant. Robert Whitely stated it was just a name, and not a subdivision. He explained it was a requirement the City had to do for the BOR. Robert stated this is not a residential subdivision. Phil Geary stated he thinks we need a new sewer plant. He also stated he can see homework has been done. Phil stated the City needs to be reasonable with the people that the City takes the land from. He expressed that 40% of the people in Coalville live on fixed incomes, and it will be a hardship for them to come up with extra money to pay higher utility rates. Mayor Schmidt stated he felt Phil was right. He stated with what the City has facing us, we do not really have a lot of choices. Mayor Schmidt stated he does not really have an answer for people with fixed incomes. He stated the reality is that a \$50.00 a month sewer bill is very common. Phil stated he hopes if a developer comes in, the City would make sure they pay their way. Mayor Schmidt stated that is correct. All developers will continue to pay sewer and culinary water impact fees.

Dan Blonquist stated he commends the City on the work that has been done. He expressed one year ago in May, who had the opportunity to purchase 2.3 acres of land from the BOR and build a burm. Dan stated if there was such a discrepancy between the cost of the burm from BOR and JUB, maybe the City should have gone to local contractors and seen how much they would have charge to build the burm. Mayor Schmidt stated the burm was just a conversation that was thrown around the table at a meeting. He explained the BOR never said if we put in the burm, they would sell us the property. Mayor Schmidt stated \$65,000.00 to \$70,000.00 is not feasible. He explained the burm had to be 65 feet wide at the base. Mayor Schmidt stated we looked at possibly moving the sewer plant to the South, but that would take our trees, and would make more site pollution for the community. He stated we have been looking for grant money to fund this project the entire

time we have been talking with BOR. Mayor Schmidt stated as everyone here knows, the City has been very aggressive in obtaining grant money for various projects. Dan asked what the cost of removing the old plant would be. Mayor Schmidt stated in the current lease, there is clause that states we can leave the facility, and take anything from it we want. He stated we must remove the solids, but that is all. Mayor Schmidt stated the lease expires in October of 2014. Dan Blonquist stated he is concerned with the debt load the City currently has. He stated we should see if the BOR would extend the lease until we get more of it paid off. Dan stated when the City put in the secondary water system, everyone was told it would help to extend the life of the sewer plant. He asked if this actually happened. Councilmember Boyer stated he does not know if it extended the life of the sewer plant, but it did reduce the load on the plant. Dan stated we need to look at other locations for the plant. He stated currently the City has to pump the sewer from the North end of town. Dan asked why we could not place the new sewer plant at South Beach, so it would be away from town. Mayor Schmidt stated the lowest point in the community is where the sewer plant is currently located. Robert Whiteley stated South Beach belongs to the BOR. Mayor Schmidt stated we would not get gravity flow from that area. Dan Blonquist stated he does not like the idea of being known as the sewer treatment plant for other areas. He expressed he does not like the plant being located closer to town. Dan stated he hopes the City uses the design they have shown tonight with the enclosed facility to control the odors. Dan Blonquist asked what kind of burden will be placed on the community if the grants do not go through like the 595 money. Mayor Schmidt stated construction would not take place until money is secured.

Merlyn Johnson stated the City is faced with phosphorous regulations. Mayor Schmidt stated the TMDL deals with the amount we can release into Echo Reservoir. He explained there is a good chance the City would have to clean up the effluent more than we already do. Mayor Schmidt stated this would cost money to comply to the new regulations, and we would also require more space. He expressed we have a limitation of space at the current plant.

Kathleen Bolinder asked how much land does the City need for the new plant. Mayor Schmidt stated we are looking at 6 acres. He explained this would be a long time fix for Coalville. Mayor Schmidt stated the new plant would be able to expand and increase the material we can handle. He expressed it would be a modern facility that Coalville could be proud of. Kathleen Bolinder asked if the City might be interested in purchasing their property. Mayor Schmidt explained we can only locate the new plant in the same approximate area that it is located at now. Councilmember Vernon stated he was not sure where the Bolinder's property was located. Kathleen Bolinder stated it is located North along the Rail Trail. Councilmember Vernon stated it would cost a lot more to install all of the electric, and pipes that would be needed to go to North of the current property.

Bud Judd asked how much pumping the City would have to do to get to the new plant. Mayor Schmidt stated the North Lift Station is in really bad shape. He explained it would be replaced as part of the entire project. Mayor Schmidt stated they are not anticipating adding any new pump stations. Bud Judd stated pump stations cost a lot to run. Mayor Schmidt reiterated it is critical to keep the sewer plant towards the lowest part of the City. Bud Judd stated he is against having a regional sewer plant. Councilmember Boyer stated since the sewer plant would be located closer to town, we want a sewer plant that you would not even be able to tell what it is. He explained the

sewer plant that is located in Oakley looks like a barn. Bud Judd asked if any collection lines would have to be relocated. Trevor Lindley stated there is one trunk line about 750 feet long located by PNK Constructors that would need to be replaced. He explained it is very shallow.

Axcil Blonquist stated he always has to bring more than 1 option to the board. He expressed the property the City is talking about purchasing is ok. Axcil stated he heard it would cost a lot of money to build a burm.

Bud Judd asked who came up with the cost of the burm. Mayor Schmidt stated it is an estimated cost by engineers that build these kinds of facilities. Ed McCauley stated I have financed over \$250 million dollars to these kinds of project. He expressed he agreed with the engineer's estimate of \$500,000.00 to build the burm.

Dan Blonquist stated he has one more concern. He stated we are currently using an existing pump station in the plant. Dan asked if we could get away from using pumping stations. He suggested possibly treating the sewer closer to Holiday Hills. Mayor Schmidt stated the City would never get permission to make another treatment facility.

Destinee Blonquist asked if the City could use igloos. Cindy explained those are used in lagoon systems. Mayor Schmidt reiterated the City has looked very hard and long to find a spot to build the new facility. He explained we are trying to stay at the lowest elevation of the town so we could minimize pumping.

Phil Geary asked if the City was going to build the facility so it does not look like a sewer plant. Mayor Schmidt stated that was correct. He explained the City's intent is to minimize this new facility is a sewer facility.

Commissioner Arlin Judd stated his daughter has lived in Mount Pleasant, and he stated he has watched them build the Fairfield sewer plant. He stated if you did not know where it is located, you would never know what is located in the building.

Trevor Lindley stated they have looked at several different options. He explained most of the smells that currently come from the sewer plant are because of the compost. Trevor explained the City is looking at off-site residual hauling, and possible land application options. Mayor Schmidt stated that Snyderville Basin Sewer Plant has a lot more odors than we have.

Commissioner Al Clark asked what the City is doing now. Trevor explained we dry the wet cake in drying beds. He stated then we place it in piles with woodchips and turn it into compost for the public to use. Trevor stated Snyderville Basin has air scrubbers. Commissioner Clark asked if the new facility would have air scrubbers.

Ed McCauley stated he cannot think of any plants in the State that are scrubbing air. He explained just enclosing the process inside of a building seems to be efficient. Ed stated we are proposing a treatment plant that would be in a building. He explained scrubbing is done at outdoor plants. Ed

stated Snyderville Basin stores their sludge out in the open. Trevor stated we could add air scrubbers if odor became a problem.

Destinee Blonquist stated she has appreciated the City cleaning up the community. She stated if we leave the old facility, she is worried about the kids using it as a place to go. Mayor Schmidt stated the BOR will resume responsibility to demolish the facility.

Merlyn Johnson stated the worst enemy is not here tonight. Mayor Schmidt stated he did not think anyone in the room is an enemy. He expressed if people have questions about the project, just come and talk to us. Mayor Schmidt stated good communication gets the best product for everyone involved. He stated for people to please just come and talk with him.

Mayor Schmidt closed the public hearing at 9:34 P.M. as there was not any further community participation.

Special Agenda Item A- Review, Discussion, and Possible Approval of the Tentative Budget:

Mayor Schmidt stated we would move the other agenda items to another meeting. He explained we would discuss the budget this evening. Mayor Schmidt explained that Tim Rees, the City's Auditor, meets with Chantel, Niki, Craig and myself. He explained we review what we have spent the prior year, and everything looks really good overall. Mayor Schmidt stated we look at what direction the City will go in the future year, and make educated guesses. He explained that typically we do not change the figures a lot from the previous year. Councilmember Vernon stated he is not sure what the Capital Project Fund is for. Mayor Schmidt explained this where the grants and such are placed, and then next year you will see where this money gets spent. Councilmember Boyer expressed to the other Councilmembers, that they could call Tim at any time and he can further explain any questions they might have. Mayor Schmidt stated Tim walks us through line item by line item.

COUNCILMEMBER RICHINS MADE THE MOTION TO APPROVE THE 2012 TENTATIVE BUDGET. COUNCILMEMBER BOYER SECONDED THE MOTION. ALL AYES. MOTION CARRIED.

Item E- Mayor's Updates:

Mayor Schmidt stated the Ogden Temple fence is now available for us to go and get. He stated he would see if Tommy Moore could go and pick up the fence for us. The Council thinks this is a great idea.

He expressed we would move the rest of the agenda to another meeting.

Cindy Gooch stated she felt the people that came to the public hearing this evening, have a better understand of the process the City has taken on the sewer plant relocation. Mayor Schmidt stated this has been a huge undertaking. He stated we may want to write something up and have it

Coalville City Council
May 23, 2011
Page 8

published in the paper telling the timeline, and what we have been through, and what we still have to go through.

**COUNCILMEMBER VERNON MADE THE MOTION TO ADJOURNED THE MEETING.
COUNCILMEMBER RICHINS SECONDED THE MOTION. ALL AYES. MOTION CARRIED.**

Meeting adjourned at 10:08 P.M.

ATTEST:

Mayor, Duane S. Schmidt

Chantel E. Pace, City Recorder



Project Name: Coalville WWTF

Project Number: 55-11-002-380-004

PROJECT CONVERSATION LOG

Spoke to: Ed Macaulay

Date: 5/24/2011

Company: DWQ

Time: 3:30

Phone #: 801-536-4340

Telephone

Meeting

Subject: Ed's Thoughts on Open house

Comments:

- o Overall Ed thought it went very well/happy with effort.
- o He really likes the idea of trying to set up a couple of tours to other facilities (for concerned citizens) and we should start @ Coalville's plant, he thinks this may help. He wants to show citizens it is the solids/residuals that have most odor.
- o He wants us to caution the mayor about the use of too strong of language about 0% loan. The DWQ loan is 0% the USDA loan will likely be 3-4% ; we need to clarify with mayor.
- o He needs a project that is sustainable over his 20 year term. He does not feel onsite solids handling is sustainable. He was ~~not~~ very clear he is not supportive of on site composting. He essentially said he will not provide funding for onsite handling.

Action Items:

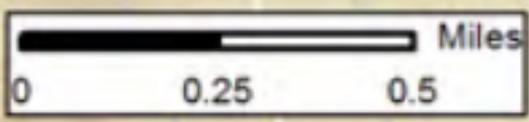
- o He wondered if the current zoning @ the site was adequate and if some strategic rezoning for buffer would help with future odor concerns.

**PUBLIC NOTICE OF APPLICATION FOR FEDERAL FINANCIAL
ASSISTANCE**

Notice of the Application for Federal Financial Assistance

The USDA Rural Utilities Service has received an application for financial assistance from Coalville City. As required by the National Environmental Policy Act, the Rural Utilities Service will prepare an Environmental Review that evaluates the potential environmental effects and consequences of the proposed project. If implemented, the proposed project may convert Important Farmlands or Wetlands or Floodplains or have an Adverse Effect to a Cultural or Biological Resource. The purpose of this notice is to inform the public of the Financial Assistance Request, Potential Adverse Effects and request comments concerning the proposed project, alternative sites or actions that would avoid potential impacts, and methods that could be used to minimize these impacts.

Copies of the Application and Environmental Review, when completed, will be available for review at Rural Developments Office located at the BOR Building, 302 East 1860 South, Provo, Utah 84606-7317. For further information contact Amy Ivie at 801-377-5580. Any person interested in commenting on this proposed project should submit comments to the address above by **October 16, 2011**. A general location map of the proposal is shown below.



PROOF OF PUBLICATION



STATE OF UTAH, }
County of Summit, } ss.

I, Kim Boland

being first duly sworn, depose and say that I am the

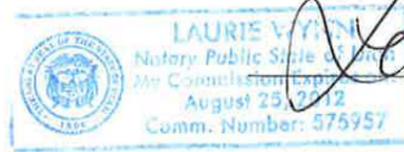
Office Assistant of The Summit County News, a weekly newspaper of general circulation, published once each week at Coalville, Utah, that the notice attached hereto and which is a

Notice of the Application for Federal Financial Assistance

was published in said newspaper for TWO consecutive issues, the first publication having been made on the 16 day of September, 20 11, and the last on the 23 day of September, 20 11, that said notice was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in any supplement. Same was also published online at utahlegals.com, according to Section 45-1-101, Utah Code Annotated, beginning on the first date of publication and for at least 30 days thereafter.

Kim L Boland

Subscribed and sworn to before me this 28 day of October, 20 11.



[Signature]
Notary Public

My commission expires 8/25/12



Notice of the Application for Federal Financial Assistance

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Published in The Summit County News September 16 and 23, 2011.

**PUBLIC NOTICE OF THE AVAILABILITY OF AN ENVIRONMENTAL
ASSESSMENT AND ANTIDEGRADATION REVIEW**

Place holder. To be included.

APPENDIX L
BIOLOGICAL ASSESSMENT

Biological Assessment
For the Proposed Coalville
Wastewater Treatment Plant
Summit County, Utah

February, 2012

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Table of Contents

1.0	INTRODUCTION	1
2.0	DESCRIPTION OF PROPOSED ACTION	1
2.1.	PROJECT LOCATION	1
2.2.	PROPOSED ACTION	2
2.2.1.	Comparative flow conditions - existing vs. proposed WWTP	2
2.2.2.	Comparative water quality conditions - existing vs. proposed WWTP	3
2.3.	PROJECT CONSTRUCTION	4
2.3.1	Planned Best Management Practices (BMPs)	6
2.4.	ACTION AREA	7
3.0	BIOLOGICAL RESOURCES	9
3.1.	AGENCY COORDINATION	9
3.2.	ENVIRONMENTAL BASELINE	10
3.3.	SPECIES SPECIFIC DESCRIPTIONS, HABITAT REQUIREMENTS, AND DETERMINATIONS OF EFFECT	10
3.3.1.	Candidate Species and Habitat Descriptions; and, Provisional Effects Determinations	10
3.3.2.	Listed ESA Threatened and Endangered Species and Designated Critical Habitats Descriptions; and Effects Determinations	11
3.3.3.	Listed Utah Sensitive Species and Species Listed under Conservation Agreements between USFWS and UDWR; and Effects Determinations	13
4.0	SUMMARY OF DETERMINATION OF EFFECTS FOR LISTED ESA SPECIES, STATE SENSITIVE SPECIES, AND SPECIES UNDER CONSERVATION AGREEMENT	16
5.0	REFERENCES CITED	17

List of Tables

TABLE 1. NOISE ATTENUATION TABLE 6

TABLE 2. DILUTION FACTORS..... 8

TABLE 3. RELEVANT ESA LISTED SPECIES AND CRITICAL HABITATS FOR THE DEFINED PROJECT ACTION AREA¹ 9

TABLE 4. SUMMARY OF EFFECT DETERMINATIONS 16

Appendices

1. Vicinity Map
2. Project Action Area Map
3. USFWS ESA Countywide Species Listing
4. UDWR Consultation Letter
5. Antidegradation Review and Waste Load Analysis

1.0 INTRODUCTION

Coalville City is a community of approximately 1,600 residents located on the south end of Echo Reservoir just east of U.S. Interstate 80 in Summit County, UT. The City operates a mechanical wastewater treatment plant (WWTP) designed to treat 350,000 gallons of wastewater per day (annual average flow rate). This facility discharges treated effluent under a Utah Pollutant Discharge Elimination System (UPDES) permit into Chalk Creek, which is a tributary to the Weber River and Echo Reservoir. Much of the WWTP equipment and infrastructure have been in operation since the early 1980s with portions in operation since the early 1960s. This aging WWTP is quickly approaching, and in some instances surpassing, its life expectancy.

The City's existing WWTP is located on 2.3 acres of land owned by the Bureau of Reclamation (BOR) and leased to the City. This lease expires in 2014, and the BOR is not willing to renew the lease or sell the land, thus Coalville City is forced to relocate the WWTP. Additionally, the Utah Department of Water Quality (DWQ) has listed Echo Reservoir as an "impaired water" and as such, any discharges into Echo Reservoir may be subject to stricter discharge limits for things such as phosphorus and nitrogen. To address concerns with the BOR lease expiration and potentially more restrictive discharge threshold limits, Coalville City has begun the process of evaluating possible WWTP location alternatives, associated impacts and costs to the community.

This biological assessment (BA) was prepared to summarize the anticipated effects of the preferred construction and operation of the new WWTP on listed candidate, threatened, or endangered species protected under the Endangered Species Act (ESA) and any designated or proposed listed critical habitats, as well as those State listed sensitive species or habitats that may be affected by the proposed project action.

2.0 DESCRIPTION OF PROPOSED ACTION

2.1. PROJECT LOCATION

Coalville City is situated in Northern Utah at approximately 40°55'04" North Latitude and 111°23'40" West Longitude, and is located in parts of Sections 4, 5, 8, 9, 16, 17, and 21 in Township 2 North, Range 5 East, Summit County, Utah. The project footprint of the proposed WWTP is situated in Section 8 and encompasses approximately 6 acres. The preferred location of the new WWTP is situated between the Union Pacific Historic Rail Trail to the east and United States BOR Property to the west. This parcel has been used as agricultural land with an emphasis on livestock grazing. The northern boundary of the preferred site abuts land owned by the BOR, and the southern portion of the parcel is bounded by private property. Located within a quarter mile from Chalk Creek and the Weber River, this project area is within the Weber River Watershed. Exhibits included in the appendix illustrate the project vicinity (Appendix 1) and the proposed project footprint and defined action area (Appendix 2).

2.2. PROPOSED ACTION

As described above, the BOR has firmly stated that the existing WWTP must move to a new location. Consequently, the proposed project action includes abandoning the existing facility and constructing the WWTP at a new site. Additional reasons for the proposed project include: the potential for more restrictive discharge limits; the existing infrastructure is aging; concerns with odor, biosolids handling, operations staffing; and high levels of maintenance. For these reasons Coalville City has decided it must relocate its WWTP.

The proposed WWTP site lies downhill from the City, which will facilitate conveyance of sewage to the treatment facility via gravity, rather than pumping. This location will require only minimal changes to the existing collection system to convey wastewater to the proposed WWTP. Thus, much of the existing collection system can be used without making any large scale changes.

Land disturbance associated with the proposed treatment facility will be outside of Chalk Creek, Weber River, and other unnamed tributary waterways. A gravity collection line will be required across Chalk Creek near the location of an existing collection system line just east of the Rail Trail. This proposed collection line is expected to be relatively deep below Chalk Creek and preliminary planning indicates the line could be installed using trenchless techniques such as jacking and boring under Chalk Creek with no creek disturbance. Disturbance at Chalk Creek is expected to be minimal and temporary with no actual stream modifications needed (e.g., cofferdams, trenching, bypass pumping, etc.).

The proposed WWTP will include treatment facilities such as closed tanks, open tanks under canopies or buildings, and enclosing equipment. Construction related runoff will be controlled by the contractor under best management practices including implementation of a stormwater pollution prevention plan (SWPPP). The site will be graded to control post development stormwater runoff equal to or less than pre-construction levels.

The wastewater treatment alternative selected by the City is Conventional Activated Sludge Treatment with Nutrient Removal. The selected alternative will address water quality concerns raised by the DWQ and will allow future expansion. It will comply with anticipated future regulations, projected population growth of Coalville City, and could potentially serve as a regional treatment facility. The proposed facility will have an annual average daily flow capacity of 0.296 million gallons per day (mgd) and a maximum month design capacity of 0.58 mgd. By comparison, the existing facility was designed for an average flow condition of 0.35 mgd and a maximum month design flow of 0.48 mgd.

2.2.1. Comparative flow conditions - existing vs. proposed WWTP

The existing WWTP has a direct discharge point along Chalk Creek that is located approximately 900 feet upstream from the confluence of the Weber River. The wastewater from the existing WWTP currently averages less than one percent of the flow. For future maximum month design flows, the discharge into Chalk Creek would not exceed 18 percent of the creek flow (i.e. during periods of low flows). Chalk Creek has never been dominated by flow from the WWTP. The elimination of the existing outflow on Chalk Creek should have minimal impact on the overall quantity and quality of the water within the Creek.

The proposed WWTP discharge path travels through approximately 700 linear feet of wetland area, and then flows into an unnamed stream channel for approximately 900 linear feet before the effluent discharge reaches Chalk Creek, approximately 100 feet upstream of the

confluence of the Weber River. At the confluence of the unnamed stream channel and Chalk Creek, no net change in total flow within Chalk Creek due to the relocation of the effluent discharge is predicted. The proposed WWTP discharge would average less than one percent of the total flow in Chalk Creek and substantially less than one percent in the Weber River.

The proposed WWTP would add attenuation time associated with the proposed discharge path; however, the total flows into Chalk Creek will remain essentially unchanged. Comparative average daily discharge flow rates (i.e. a continuous discharge of 0.225 million gallons per day) are the same, in terms of existing and proposed WWTP operations.

2.2.2. Comparative water quality conditions - existing vs. proposed WWTP

The existing WWTP discharges directly to lower Chalk Creek approximately 900 feet upstream from Chalk Creek's confluence with the Weber River. The existing WWTP discharge point would be abandoned as a result of implementing the proposed WWTP. The proposed discharge location will convey effluent from the WWTP outfall through a low-land/wetland area for approximately 700 feet where the effluent will then intersect with an unnamed tributary (see Appendix 2). The effluent discharge path enters into an unnamed stream channel for approximately 900 linear feet before the effluent discharge reaches Chalk Creek, approximately 100 feet upstream of the confluence of the Weber River. This increased attenuation of overland conveyance and longer mixing zones prior to entering the Weber River/Chalk Creek system is expected to be an improvement in terms of nutrient uptake and the breakdown of pollutants over the current direct discharge to Chalk Creek.

The Echo Reservoir, downstream of the proposed WWTP, is listed on the State's 303d list for impaired waters. The impairment has been identified as one of depressed dissolved oxygen attributed to excessive nutrient loading. To address this concern, DWQ developed a Total Maximum Daily Load (TMDL) report with nutrient reduction strategies. This document was submitted to the US EPA in 2006 and has since been rejected by EPA. DWQ is now in the process of revising the document on a watershed basis to include Echo Reservoir, Rockport Reservoir, the Weber River and associated tributaries between the water bodies. The TMDL process and significant DWQ research into nutrient removal and potential pending nutrient limits in future permits has led DWQ to indicate that Coalville should design for an effluent Total Nitrogen of less than 10 mg/l and an effluent Total Phosphorus of less than 1 mg/l. Nutrient discharge at these levels represents an approximately 50 to 60 percent reduction in nutrient loading compared to conventional, existing wastewater treatment facilities. These kinds of nutrient limits for both nitrogen and phosphorus are in few permits right now in the State of Utah and would represent a precedent for nutrient removal requirements. With these proposed limits and the need for flexibility to potentially meet even lower limits in the future, the proposed facility is designed with deliberate provisions to remove nitrogen and phosphorus. These deliberate provisions for nutrient removal are not included in the existing facility. The process recommended for the proposed action is a targeted nitrogen removal process that is proven to meet effluent limits of Total Nitrogen < 10 mg/l. Furthermore, addition of a metal salt such as aluminum sulfate (alum) will be included in the treatment facility to reduce the phosphorus.

The most critical element of protecting the receiving water quality is adherence to the Utah Pollutant Discharge Elimination System (UPDES) permit. The UPDES permit is issued by DWQ under the auspices of the Federal National Pollutant Discharge Elimination System (NPDES) program. One method for establishing permit limits is a process called the wasteload analysis (WLA). As part of the permitting process, DWQ performed a detailed Antidegradation Review

(ADR) and WLA for the receiving stream. This WLA is a modeling effort that considers the beneficial use designations of the receiving water and then models how point loads may affect the receiving water and downstream beneficial uses. The model considers mixing zones, receiving water flow rates, discharge flow rates, and biochemical processes in the stream. The entire results of the modeling effort are found in Appendix 5.

The receiving water, of the proposed WWTP, is an unnamed tributary to Chalk Creek which is in turn a tributary to the Weber River. With respect to designated uses, the receiving water is classified as: 1C (protected for domestic purposes with prior treatment by processes as required by the Utah Division of Drinking Water), 2B (protected for infrequent primary contact recreation), 3A (protected for cold water species of game fish and other cold water aquatic life) and 4 (agricultural irrigation). The Class 3A level of protection is most applicable to cold water fish species; the Class 3A designation considers impacts from critical water quality parameters such as ammonia (both chronic and acute), dissolved oxygen, and organic loading (i.e., BOD).

The WLA generated the proposed UPDES permit limits. These proposed permit limits are therefore protective of designated uses and impacts to cold water fish species should be minimized as long as permit limits are attained. The ADR and WLA confirm that the designated uses for the receiving water are maintained and protected with implementation of the proposed WWTP.

The proposed WWTP will produce higher quality effluent than the existing facility design and will discharge in accordance with the UPDES permit issued by DWQ. It is noted that there will only be one active discharge point once the new facility is constructed the existing facility and existing discharge will be abandoned. The water quality linked to the discharge to the receiving water will improve with the construction of the new facility.

2.3. PROJECT CONSTRUCTION

In accordance with the lease agreement for the existing facility, Coalville City is allowed to abandon the site and leave the structures in place. Through additional discussions with the BOR, Coalville City will dewater all the structures and remove any remaining residuals. The structures that contained wastewater will be disinfected. Coalville City may elect to remove working equipment or related material after wastewater treatment has been moved to the new facility. The BOR, as the land owner, has stated they are willing to accept responsibility for the existing site and ultimately, the total deconstruction, demolishing and cleanup of the site to its original state. The future restoration activities correlated to the existing WWTP are considered an independent action and are not included within the proposed project action with regard to this BA.

Construction of the new WWTP is expected to take 18 continuous months, possibly starting in the summer of 2013. Structures vary from slab on grade facilities to deeper tanks ranging from 12 to 18 feet of total depth. Due to the possibility of shallow groundwater and the desire for gravity flow through the facility, it is anticipated the tanks with more depth will be approximately 50 percent in the ground and 50 percent above grade. The final depths and heights will be determined based on geotechnical work done during preliminary design. Any excavated soils will be either kept on site or disposed at previously disturbed areas, where affects to listed species are not expected. During construction all material staging areas will occur within the proposed action area. Below is a detailed description of the action area. No

offsite staging areas are anticipated during construction due to the large area available within the action area.

The preliminary earthwork and material quantities estimates anticipated to construct and configure the new WWTP are as follows:

- 2,000 cubic yards of total excavation
- 1,000 cubic yards of embankment borrow fill; embankment borrow fill will consist of screened native soils and pit run that meet the secondary containment specifications
- 5,000 cubic yards of crushed, untreated surface base course
- 600 cubic yards of hot mix asphalt
- 10 cubic yards of Portland cement concrete pavement
- 1,200 cubic yards of Portland cement for concrete tanks

Construction will be performed with the use of equipment consisting of excavators, backhoes, dump trucks, compaction equipment, cement trucks, cranes and other standard equipment used for construction of concrete tanks and buildings. All materials will access the property at 100 North in Coalville via Main Street and Interstate 80. Staging areas for material stockpiling will be confined to either the existing wastewater facility site or the six acre parcel being acquired for the project.

The most prevalent construction noise source is equipment powered by internal combustion engines (usually diesel). Noise from equipment likely to be used on this project (diesel powered loaders, graders, dozers, excavators, backhoes, cranes, vibrators, hand power tools, etc.) will range to about 95 peak decibels (dBA) when measured from a distance of 15 meters (50 feet). To reduce the impact of construction noise, most construction activities will be confined to the period least disturbing to adjacent and nearby residents, between 7:00 a.m. and 7:00 p.m. on weekdays. Mitigation of potential project construction noise impacts shall incorporate low-cost, easy-to-implement measures into project plans and specifications (e.g., equipment muffler requirements, work-hour limits).

The proposed project action area is situated very near to Interstate 80, which receives consistent heavy traffic use. The ambient or background noise for the entire project action area is associated with the truck traffic, which correlates to a background sound of approximately at 86 dBA (WSDOT 2011). To define the horizontal extent of the project related temporary construction noise effects, Table 1 (an attenuation table) was developed. Table 1 shows (in italics) that the temporary construction noise levels should reach background or ambient sound levels (77 dBA) at a distance of 400 feet from the project limits of disturbance.

Table 1. Noise Attenuation Table

Distance from Site (feet)	Construction Noise (-6.0 dBA) ¹	Background Sound - Traffic Noise (-3.0 dBA) ¹
50	95	86
100	89	83
200	83	80
<i>400</i>	<i>77</i>	<i>77</i>
800	71	74

¹ The project action area is characterized as having “hard site” conditions.

2.3.1 Planned Best Management Practices (BMPs)

The following subsections outline prescribed mitigation measures or Best Management Practices (BMPs) that will be incorporated into the construction plans. BMPs will be in place to minimize direct, short-term construction impacts. Planned BMPs are intended to restore vegetative structure and minimize erosion. It is recommended that these measures include: replanting barren locations (post-construction) with native vegetation, and performing regular project reviews to ensure that all BMPs are implemented as designed.

The following is a list of planned Best Management Practices (BMPs):

1. Use a trenchless technique (jack and bore) to construct the gravity collection line across Chalk Creek (see Project Action Area Map).
2. Temporary Erosion and Sediment Control (TESC) structures will be in place during construction. Implementation of the TESC structures will be consistent with the developed Construction Stormwater Pollution Prevention Plan (SWPPP) and the Spill Prevention Control and Counter Measures Plan (SPCC).
3. Excavation activities, staging areas, stock piling areas and embankment placement will occur only within staked limits of the project action area.
4. Temporary construction equipment noise will be minimized by regular inspection and replacement of defective mufflers and parts that do not meet the manufacturer’s specifications.
5. Fueling of excavation equipment (e.g. an excavator/backhoe) will be completed within the project action area only after ground surface protection to facilitate spill remediation is implemented. The fueling truck must utilize drip pans and absorbent cloths during fueling activities. Additionally, the Contractor must have emergency spill equipment onsite at all times and must have a Spill Prevention Plan approved and in place prior to any construction activities. Dump trucks, pickups and other general construction equipment will be fueled offsite at a commercial facility.
6. All disturbed upland areas will be hydro-seeded upon project completion with a dry land native seed mix.
7. Noxious weed management shall be implemented in the area of the proposed effluent discharge path. Noxious weeds onsite will be identified and eliminated using the recommended herbicide protocol outlined in Aquamaster™ herbicide. Aquamaster™ herbicide (by Monsanto) is the herbicide selected for this specific application. Aquamaster™ is a non-selective, glyphosate [N-(phosphonomethyl) glycine], aquatic herbicide that controls emerged vegetation in environments where water is present. AquaMaster™ is highly effective on more than 190 species of emerged weeds, including a wide range of annual and perennial grasses, broadleaf weeds and sedges. It works in most aquatic settings better than other weed control options, because it offers application flexibility and has favorable environmental characteristics. Further,

when Aquamaster™ is applied according to label directions, water use restrictions are limited to applications within ½ mile of potable surface water sources. Aquamaster™ must be purchased and applied by a Utah State Licensed Applicator. Treatment applications must be in accordance to the labeled directions, established by Monsanto. Areas where noxious weeds are eliminated in high densities (i.e. > 1,000 square feet) will be re-seeded with native grass seed [i.e. salt grass (*Distichlis spicata*)] towards the end of the growing season.

8. The installation of hydrophytic woody shrubs [namely willows (*Salix spp.*)] along the effluent discharge path is recommended to help stabilize the new effluent discharge pathway/channel as needed.
9. The project action area will be monitored on a regular basis by a designated Construction Site Erosion and Sediment Control Lead (CESCL). The monitoring will consist of observing the TESC structures so that sediment does not reach the Weber River and Echo Reservoir. If any structure fails, it must be replaced immediately. If sediment deposits are observed beyond the control structures following a failure, the sediment must be removed immediately.

2.4. ACTION AREA

The action area includes the project area and all areas surrounding the project area where construction activities could affect the environment, directly, indirectly, or through interrelated or interdependent actions. The action area was defined by determining the area in which project related impacts may occur. Because the effluent discharge impacts coupled with the construction noise impacts have been determined to be the farthest reaching project effects, the project's "action area" is confined to: the limits of physical disturbance, a horizontal buffer of 400 feet surrounding the physical disturbance footprint for noise (as noted in a previous section), and the estimated mixing zones (defined in Table 2, located on page 10) stemming downstream of the proposed outfall area of the WWTP. The defined project action area is illustrated on the Project Action Area Map 9 (Appendix 2).

As noted above the Utah DWQ has conducted a wasteload analysis to develop permit limits for the proposed facility. DWQ's wasteload analysis is based on the unnamed tributary (as well as Chalk Creek and the Weber River) being protected as Class 3A cold water fisheries. Permit limits are set to ensure that after an established mixing zone the water quality standard is met in this case to the 3A standard. As defined by the Water Quality Standards in the state of Utah (R317-2-5): "*A mixing zone is a limited portion of a body of water, contiguous to a discharge, where dilution is in progress but has not yet resulted in concentrations which will meet certain standards for all pollutants.*" The rule specifies additional requirements for mixing zones including:

- The size of the chronic mixing zone shall not exceed 2,500 feet.
- The size of the acute mixing zone shall not exceed 50% of the stream width.
- Streams with a flow equal to or less than twice the flow of a point source discharge may be considered to be totally mixed.

The WLA has estimated the low flow (i.e. 7Q10) condition of the unnamed tributary to be 1.5 cfs. The permitted discharge will be 0.5 million gallons per day or 0.77 cfs. The unnamed receiving stream therefore has a flow less than twice the point source and per R317-2-5 the unnamed tributary is assumed to be completely mixed immediately upon introduction of the effluent. Discussions with DWQ (personal communication February 1, 2012) confirm their

assumption for complete mixing at the point where the effluent reaches the unnamed tributary. With instantaneous complete mixing, the permit limits for the treated effluent have been set to meet the Class 3A standards immediately upon introduction of the effluent into the unnamed tributary. All sampling for permit compliance will be done after the final treatment process at the treatment site and not at the receiving water.

Immediately after mixing, the unnamed tributary (meeting all class 3A standards) conveys south towards Chalk Creek. Once the unnamed tributary enters Chalk Creek, additional mixing with Chalk Creek and the unnamed tributary occurs and within a short distance Chalk Creek mixes with the Weber River. The percentage of effluent in Chalk Creek and the Weber River is unchanged from the current discharge condition to the proposed discharge condition; only the location of initial effluent mixing and quality are changed with the proposed discharge being of higher quality. Table 2 shows the dilution factors for the existing and proposed facility. The Project Action Area Map (Appendix 2) shows the discharge locations and mixing zones.

Table 2. Dilution Factors

Parameter	Existing (E) WWTP ¹	Proposed (P) WWTP ¹	Unnamed Tributary (UNT) ²	Chalk Creek (CC) ³	Weber River (WR) ³
Low Flow Value	0.77 cfs	0.77 cfs	1.5 cfs	3.4 cfs	38.5 cfs
% Effluent from Existing (E) or Proposed (P) Discharge In Given Tributary at Flows Shown	-	-	E: 0% (existing does not discharge to UNT) P: 34%	E: 18% for approximately 1,000 feet P: 18% for approximately 100 feet	E: 2% P: 2%
Estimated Mixing Zone Length for Complete Mixing of Effluent into Receiving Stream and Tributaries into Larger Streams ⁴	-	-	E into UNT: Not applicable. P into UNT: Completely mixed once effluent meets UNT (per DWQ and R317-2-5)	E into CC: 200 feet. P into CC: Not applicable; proposed discharge is not a point source to Chalk Creek. UNT into CC: 100 feet	CC into WR: 775 feet E and P are mixed before entering WR

1. The current average daily flow from either facility is 0.2 mgd (0.31 cfs). The permitted maximum discharge is 0.5 mgd (0.77 cfs). 0.5 mgd represents a design capacity number that all receiving water calculations are based upon; a discharge of 0.5 mgd is not projected to be reached until far into the future.

2. The low flow value for the unnamed tributary was estimated by DWQ based on a field visit.

3. The low flow value for the Chalk Creek and Weber River are the minimum monthly flows recorded at USGS gauging stations for an 11 year period from 2000 to 2010.

4. Mixing zones are estimated based on the method shown in Thomann and Mueller (1987) using field estimates and aerial images for width, depth, and velocity estimates.

The Endangered Species Act considerations will take into account the ESA federally listed species on the Summit Countywide species listing, plus the project specific species listing obtained from the Utah Division of Wildlife Resources (UDWR). The U.S. Fish and Wildlife Service (USFWS) and the UDWR were consulted to determine the potential presence or absence of ESA listed species and/or critical habitats for the defined project action area.

3.0 BIOLOGICAL RESOURCES

3.1. AGENCY COORDINATION

The USFWS regulates threatened and endangered species and designated and proposed critical habitats protected under the ESA. The USFWS was consulted to determine whether listed species and/or critical habitat occur within the project area. The USFWS Countywide Listing dated January 6, 2012 is included in Appendix 3. Of the nine species on the USFWS listing, only six species warrant ESA considerations because three species are candidate species and are not afforded protection under ESA. This species list was derived from habitat conditions coupled with potential species occurrence within the project vicinity. Table 3 summarizes the listed species and critical habitats that will be addressed in this BA.

Table 3. Relevant ESA Listed Species and Critical Habitats for the Defined Project Action Area¹

ESA Listed Species or Critical Habitat	ESA Status
Black-footed ferret (<i>Mustella nigripes</i>)	Endangered
Bonytail (<i>Gila elegans</i>)	Endangered
Canada lynx (<i>Lynx canadensis</i>)	Threatened
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	Endangered
Greater sage-grouse (<i>Centrocercus urophasianus</i>)	Candidate
Humpback chub (<i>Gila cypha</i>)	Endangered
Least chub (<i>Lotichthys phlegethontis</i>)	Candidate
Razorback sucker (<i>Xyrauchen texanus</i>)	Endangered
Yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	Candidate

¹ USFWS Species Listing dated 1/6/2012.

As part of the outreach for the NEPA process, USDA guidelines encouraged agency input on the proposed project. On September 9, 2011, the UDWR provided a response memo regarding information on ESA species, and species of special concern within a two-mile radius of the proposed project action area. USFWS also provided an email response on September 14, 2011. The UDWR response and USFWS response to the initial NEPA outreach are included as Appendices 4 and 5, respectively. The UDWR memo report documented past occurrences of bald eagle and bluehead sucker within a one-half mile of the proposed project site, and a record of occurrence for Bonneville cutthroat trout within a two mile radius of the site. All of the aforementioned species reported by the UDWR are included on the Utah Sensitive Species

List. The Bonneville cutthroat trout and bluehead sucker are listed under a Conservation Agreement between the USFWS and UDWR.

3.2. ENVIRONMENTAL BASELINE

In the *Descriptions of the Ecoregions*, the proposed action area is described as being contained within the Southern Rocky Mountain Steppe-Alpine Meadow Province (Bailey 1995). The project area occurs within the Weber River Watershed. The Weber River flows northerly, Chalk Creek westerly and the intersection of these occurs towards the south end of Echo Reservoir adjacent to the proposed action area. The Weber River and Chalk Creek contain viable habitat for several resident fish, including the bluehead sucker and the Bonneville cutthroat trout. Riparian areas along Chalk Creek and the Weber River are dominated by willows and scattered (interspersed) hawthorns. The proposed WWTP footprint is dominated by herbaceous cover, mainly pasture grasses. Currently the proposed project action area is used for agriculture grazing and meadow hay production. Soils in the project area are mostly clay loam in texture (Wanship-Kovich loam, USDA 2012), with a moderately alkaline soil reaction and having a moderate depth. Moderate to severe winters, and hot dry summers are usual. Precipitation averages 14 to 16 inches per year.

3.3. SPECIES SPECIFIC DESCRIPTIONS, HABITAT REQUIREMENTS, AND DETERMINATIONS OF EFFECT

The following is a description of individual species and habitat requirements and a determination of effect to the species listed in Table 3, as well as those species mentioned during correspondence with agencies. The first three species addressed have an ESA status of candidate, which does not provide the species any protection under ESA Section 7. In the event that the candidate species becomes a listed species (i.e. threatened or endangered) prior to or during construction, a provisional biological evaluation or effects determination is provided below.

3.3.1. Candidate Species and Habitat Descriptions; and, Provisional Effects Determinations

Greater sage-grouse

The greater sage-grouse is a federally listed candidate species. As the name implies, greater sage-grouse are found only in areas where sagebrush is abundant (Colorado Division of Wildlife 2009). The largest of all grouse, the greater sage-grouse is up to 30 inches long, 2 feet tall, and weighs from 2 to 7 pounds (USFWS 2010). Male greater sage-grouse have a white breast ruff, mottled gray-brown overall, a black belly, black throat and bib, and long stiff spikelike tail feathers. Females have a mottled gray-brown overall, a black belly, a white throat, and lack the yellow eye comb seen in the males. Diet consists of evergreen leaves, plain sagebrush shoots, blossoms, leaves, pods, buds, and insects (Alsop 2001). Dependent on sagebrush for food and cover, required habitat consists of relatively open flats or rolling sagebrush hills at elevations ranging from 4,000 to 9,000 feet above sea level (Colorado Division of Wildlife 2009, USFWS 2010). Land clearing and overgrazing by livestock are documented threats to this species' habitat.

Based on information obtained from the UDWR, there are no recent documented occurrences of greater sage-grouse within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Habitat requirements for the greater sage-grouse are not present within the project action area. The project action area lacks the open areas with abundant

sagebrush in which this species is dependent on for food and cover. A “no effect” determination is warranted for the greater sage-grouse and its habitat.

Least chub

The least chub is a federally listed candidate minnow that is native to the Bonneville Basin. Historically, least chub occurred throughout the Bonneville Basin. Population decline, attributed to the introduction of non-native fishes, has decreased distribution and known occurrence to scattered springs and streams in western Utah. Least chub are a schooling fish, approximately 6 cm in length, which prefer slow moving water and moderately-dense vegetation and clay, muck, mud, and peat substrate (NatureServe 2010). The species spawns during late spring and early summer. The eggs attach to vegetation or the substrate, and begin to hatch after two days. The species feeds on algae and small invertebrates, including mosquito larvae (UDWR 2012).

Based on information obtained from the UDWR, there are no recent documented occurrences of the least chub within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Least chub presence in the project action area is unlikely. A “no effect” determination is warranted for the least chub.

Yellow-billed cuckoo

The yellow-billed cuckoo is a federally listed candidate species. As the name suggests, this avian species has a yellow lower mandible. It has rufous wings that contrast against the gray-brown wing coverts and upperparts. The underparts are white and they have large white spots on a long black undertail (Alsop 2001). It is a neotropical migrant, which winters in South America. Breeding often coincides with the appearance of massive numbers of cicadas, caterpillars, or other large insects (Ehrlich et al. 1992). Its incubation/nestling period is the shortest of any known bird, because it is one of the last neotropical migrants to arrive in North America and chicks have very little rearing time before embarking on their transcontinental migration. Yellow-billed cuckoos arrive in Utah in late May or early June and breed in late June through July. Cuckoos typically start their southerly migration by late August or early September. Yellow-billed cuckoos are considered a riparian obligate and are usually found in large tracts of cottonwood/willow habitats with dense sub-canopies (below 33 ft).

Based on information obtained from the UDWR, there are no recent documented occurrences of yellow-billed cuckoo within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Human disturbances associated with the surrounding existing land use make the area undesirable for the yellow-billed cuckoo and this project does not impact any suitable riparian vegetative communities; therefore, a “no effect” determination is warranted for the yellow-billed cuckoo.

3.3.2. Listed ESA Threatened and Endangered Species and Designated Critical Habitats Descriptions; and Effects Determinations

Black-footed ferret

The black-footed ferret is linked to prairie dog towns because they are known to live in underground prairie dog burrows and eat prairie dogs as their main source of food. They are nocturnal mammals that breed during the months of March and April. These ferrets are an endangered ESA listed species that are getting reintroduced in certain parts of eastern Utah and southwestern Wyoming (UDWR 2012).

Based on information obtained from the UDWR, there are no recent documented occurrences of the black-footed ferret within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Prairie dog towns are lacking in the project action area. Suitable habitat is not present in the project action area for black-footed ferret; therefore, a “no effect” determination is warranted for the black-footed ferret.

Bonytail

The bonytail is a federally listed endangered minnow that is originally native to the Colorado River system. The near extinction of the bonytail can be linked back to flow regulation or alteration, habitat loss, and competition and predation by exotic fishes. Bonytail are opportunistic feeders; their prey includes insects, zooplankton, algae, and higher plant matter. Bonytails spawn in the spring and summer over gravel substrate. Currently, many bonytail are raised in fish hatcheries and released into the wild when they are large enough to survive in their natural environment. Bonytail prefer stream habitat that consists of eddies, pools, and backwaters near swift current in large rivers (UDWR 2012).

Based on information obtained from the UDWR, there are no recent documented occurrences of the bonytail within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). The project action area is outside of the Colorado River system, so a “no effect” determination is warranted for the bonytail.

Canada lynx (*Lynx Canadensis*)

The Canada lynx is normally found in dense forested areas with an abundance of windfalls, swamps and brushy thickets (Maas 1997). Lynx require heavy cover for concealment when stalking prey. In addition, lynx are most likely to persist in areas that receive deep snow, for which the lynx is highly adapted (Maas 1997). In the western U.S., lynx occurrences generally are found only above 4,000 feet in elevation (McKelvey et al. 2000).

Based on information obtained from the UDWR, there are no recent documented occurrences of the Canada lynx within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). The highly disturbed urban environment surrounding the defined project area is unsuitable habitat for this species; therefore, a “no effect” determination is warranted for the Canada lynx.

Colorado pikeminnow

The Colorado pikeminnow is a federally listed endangered minnow that is originally native to the Colorado River system; currently, their range is limited to the upper Colorado River system. The near extinction of the Colorado pikeminnow can be linked to flow regulation or alterations (e.g. the installation of dams), habitat loss, and competition and predation by non-native fishes.

Colorado pikeminnows are mainly piscivorous, meaning they eat fish; younger pikeminnows also eat insects and other invertebrates. They spawn in the spring and summer over gravel or smaller cobble substrate situated in riffle habitat. Adult Colorado pikeminnows prefer medium to large rivers. Young of the species prefer slow-moving backwaters. Historical accounts of six-foot long Colorado pikeminnows make this species the largest minnow in North America (UDWR 2012).

Based on information obtained from the UDWR, there are no recent documented occurrences of the Colorado pikeminnow within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). The project area is not part of the Colorado River system in which this species is found; therefore, a “no effect” determination is warranted.

Humpback chub

The humpback chub is a federally listed endangered minnow that is originally native to the upper Colorado River system. Humpback chub originally thrived in the fast, deep, whitewater areas of the Colorado River and its major tributaries. Man-induced flow alterations (i.e. dams), have changed the turbidity, volume, current speed, and temperature of the water in those rivers and has contributed to the significant population declines. Documented occurrences of the humpback chub in Utah are now confined to a few whitewater areas in the Colorado, Green, and White Rivers. Humpback chub mainly eat insects and other invertebrates, and occasionally algae and fish. The species spawns during the spring and summer in shallow, backwater areas with cobble substrate. Younger individuals reside in shallower, turbid habitats until they are large enough to move into white-water areas (UDWR 2012).

Based on information obtained from the UDWR, there are no recent documented occurrences of the humpback chub within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). The project action area is not within the areas that this species inhabits; therefore, a “no effect” determination is warranted for the humpback chub.

Razorback sucker

The razorback sucker is a federally listed endangered sucker fish that is originally native to the Colorado River system. The near extinction of the razorback sucker can be linked to flow regulation or alterations (e.g. the installation of dams), habitat loss, and competition and predation by non-native fishes. Razorback suckers mainly eat algae, zooplankton, and other aquatic invertebrates. They spawn between February and June. Adult razorback suckers prefer slow backwater habitats. The largest current concentration of razorback suckers can be found in Lake Mohave (an impounded water-body), located along the Arizona - Nevada border (UDWR 2012).

Based on information obtained from the UDWR, there are no recent documented occurrences of the razorback sucker within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Razorback suckers are native to, and found exclusively within the Colorado River system; therefore, a “no effect” determination is warranted for the razorback sucker.

3.3.3. Listed Utah Sensitive Species and Species Listed under Conservation Agreements between USFWS and UDWR; and Effects Determinations

Bald eagle

Bald eagles are a large dark raptorial bird with a white head and a white tail when mature. They eat mostly fish but will eat some small mammals, such as rabbits (Stokes 1996). The bald eagle constructs massive nests on cliff edges or in large trees. Eagles congregate in feeding areas in late winter and early spring. Bald eagles generally select habitat located near water. In a survey of 2,732 nests, 99% were within 200 meters (650 ft) of the water and averaged only 40 meters (130 ft) from the shoreline (Stalmaster 1987). Eagle perches are generally close to the water, especially those used for foraging. Nearly all birds will perch

within 50 meters (165 ft) of a shoreline, because fish, waterfowl, seabirds, and other prey can be acquired there (Stalmaster 1987). Eagles select trees within that habitat for nesting and perching sites. The most important characteristic of the nesting tree is that it is the tallest in the forest stand. Selecting a tall tree ensures a structure that will adequately support a large nest, provide an open flight path to and from the nest, and have a panoramic view of the surrounding terrain (Stalmaster 1987). An eagle's nesting season is between the start of February, when they initiate construction of their nests and mid-August when the young fledge the nest. The incubation period ranges between 31 and 46 days (Alsop 2001). Hatchlings can remain in the nest for 70 to 98 days (Alsop 2001).

Based on information obtained from the UDWR, there are recent documented occurrences of the bald eagle within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). The proposed project action does not impact any riparian areas, including potential nesting or perching locations for the bald eagle. The bald eagle's prey base and foraging opportunities will also not be affected by this project. Therefore, a "no effect" determination is warranted for the bald eagle.

Bluehead sucker

The bluehead sucker is native to parts of Utah, Idaho, Arizona, New Mexico, and Wyoming. The bluehead sucker is a native bottom feeding fish that scrapes algae from the surface of rocks. Fast flowing and steep gradient mountainous stream reaches are identified to be critical habitat for this species. Their population size has been in a decline due to habitat loss, flow alterations and the introduction of non-native species (UDWR 2012).

The proposed action does involve a new effluent discharge point. Based on information obtained from the UDWR, there are recent documented occurrences of the bluehead sucker within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Based on the scope and nature of the WWTP project and operations thereof, the project actions "may affect, but are not likely to adversely affect" bluehead sucker.

The proposed WWTP project "may affect" bluehead sucker because:

- Bluehead sucker may use the waters in close proximity to the action area for foraging and migrating to and from spawning and rearing areas within the Weber River.
- The proposed action may cause short-term and localized extremely minor increases in sediments, contaminants and/or nutrients within the immediate project action area (i.e. specifically within the mixing zone).

The proposed WWTP project is "not likely to adversely affect" bluehead sucker because:

- No fish handling is anticipated during the construction process.
- The new WWTP will be designed and permitted to produce a higher quality effluent than the existing facility. The effluent levels allowed by the permit take into account the designated uses of the receiving waters. These uses include as a cold water fishery.
- This project will not significantly impact suitable habitat based on the overall scope of the project.
- All construction activities are located in an upland location and stream disturbance is not anticipated or planned. Onsite management of construction spoils and stormwater runoff will be practiced.

Bonneville cutthroat trout

The Bonneville cutthroat trout is a subspecies of cutthroat trout native to the Bonneville Basin of Utah, Wyoming, Idaho, and Nevada. Habitat types this species inhabits include mountain streams and lakes to grassland streams. Known populations of this species, in Utah, include Bear Lake and Strawberry Reservoir. Bonneville cutthroat trout are included on the Utah Sensitive Species List, as a result of habitat loss, predation and competition. The species feeds primarily on insects. Spawning occurs, in spring, over gravel substrate (UDWR 2012).

The proposed action does involve a new effluent discharge point. Based on information obtained from the UDWR, there are recent documented occurrences of the Bonneville cutthroat trout within the vicinity of the defined project area (see attached UDWR letter, Appendix 4). Based on the scope and nature of the WWTP project and operations thereof, the project actions “may affect, but are not likely to adversely affect” Bonneville Cutthroat trout.

The proposed WWTP project “may affect” Bonneville cutthroat trout because:

- Bonneville cutthroat trout may use the waters in close proximity to the action area for foraging and migrating to and from spawning and rearing areas within the Weber River.
- The proposed action may cause short-term and localized extremely minor increases in sediments, contaminants and/or nutrients within the immediate project action area (i.e. specifically within the mixing zone).

The proposed WWTP project is “not likely to adversely affect” Bonneville cutthroat trout because:

- No fish handling is anticipated during the construction process.
- The new WWTP will be designed and permitted to produce a higher quality effluent than the existing facility. The effluent levels allowed by the permit take into account the designated uses of the receiving waters. These uses include as a cold water fishery.
- This project will not significantly impact suitable habitat based on the overall scope of the project.
- All construction activities are located in an upland location and stream disturbance is not anticipated or planned. Onsite management of construction spoils and stormwater runoff will be practiced.

4.0 SUMMARY OF DETERMINATION OF EFFECTS FOR LISTED ESA SPECIES, STATE SENSITIVE SPECIES, AND SPECIES UNDER CONSERVATION AGREEMENT

In summary, the anticipated construction activities and future ongoing operations of the proposed new WWTP “may affect, but are not likely to adversely affect” bluehead sucker and Bonneville cutthroat trout. This determination is based on the fact that the project action involves ground disturbing construction activities that are upland away from the streams where the species occur and are not expected to threaten their habitat; and, the new WWTP will be designed to discharge higher quality effluent compared to the existing WWTP, so in-stream water quality will not be degraded. BMPs have been established to mitigate for potential effects to the bluehead sucker and Bonneville cutthroat trout. Based on the scope and nature of the project, the project actions should not yield a “take” situation linked to bluehead sucker and Bonneville cutthroat trout. “Take,” as defined under ESA, is an activity that includes: killing, harming, wounding, shooting or harassing a listed species. The project will have “no effect” on the black-footed ferret, bonytail, Canada lynx, Colorado pikeminnow, greater sage-grouse, humpback chub, least chub, razorback sucker, yellow-billed cuckoo and bald eagle or their respective habitats. Table 4 is a summary of the effect determinations correlated to this BA. Lastly, it should be noted that the final authority rests with the appropriate regulatory authority.

Table 4. Summary of Effect Determinations

Species	Status	Effect Determination
Black-footed ferret	Endangered	No effect
Bonytail	Endangered	No effect
Canada lynx	Threatened	No effect
Colorado pikeminnow	Endangered	No effect
Greater sage-grouse	Candidate	No effect
Humpback chub	Endangered	No effect
Least chub	Candidate	No effect
Razorback sucker	Endangered	No effect
Yellow-billed cuckoo	Candidate	No effect
Bald eagle	Utah Sensitive Species	No effect
Bluehead sucker	Conservation Agreement	May affect, but are not likely to adversely affect
Bonneville cutthroat trout	Conservation Agreement	May affect, but are not likely to adversely affect

Respectfully Submitted by:

Vincent Barthels, Biologist

J-U-B ENGINEERS, Inc.

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Appendices





Project Action Area Map

Collection System Modifications
under Chalk Creek to Proposed WWTP Location

Initial estimated mixing zone of current effluent
discharge into Chalk Creek (To be abandoned)

Existing Discharge Path
(To be abandoned)

Existing WWTP
(To be abandoned)

Proposed WWTP Site

Surface Discharge Path

Initial mixing zone; completely mixed
per DWQ and R317-2-5

Estimated mixing zone of unnamed
tributary into Chalk Creek

Estimated mixing zone of Chalk Creek
into the Weber River

Legend

-  Proposed WWTP Footprint
-  400 Foot Noise Buffer
-  Mixing Zones



Coalville City
Existing and Proposed
Wastewater Facilities

**FEDERALLY LISTED AND PROPOSED ENDANGERED, THREATENED AND CANDIDATE
SPECIES AND CRITICAL HABITAT IN UTAH - SPECIES LIST BY COUNTY**

Friday, January 06, 2012

County	Common Name	Scientific Name	Federal Status
BEAVER			
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Frisco buckwheat	<i>Eriogonum soredium</i>	Candidate
	Frisco clover	<i>Trifolium friscanum</i>	Candidate
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Ostler's peppergrass	<i>Lepidium ostleri</i>	Candidate
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
BOX ELDER			
	Goose Creek milkvetch	<i>Astragalus anserinus</i>	Candidate
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	June sucker (3)	<i>Chasmistes liorus</i>	Endangered
	Lahontan cutthroat trout	<i>Oncorhynchus clarkii henshawi</i>	Threatened
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
CACHE			
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Maguire primrose	<i>Primula maguirei</i>	Threatened
	Ute ladies' -tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
CARBON			
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Bonytail (5,6)	<i>Gila elegans</i>	Endangered
	Colorado pikeminnow (5,6)	<i>Ptychocheilus lucius</i>	Endangered
	Graham's beardtongue	<i>Penstemon grahamii</i>	Proposed
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (5,6)	<i>Gila cypha</i>	Endangered

County	Common Name	Scientific Name	Federal Status
CARBON			
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Razorback sucker (5,6)	<i>Xyrauchen texanus</i>	Endangered
	Uinta Basin hookless cactus	<i>Sclerocactus wetlandicus</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
DAGGETT			
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Bonytail (6)	<i>Gila elegans</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Colorado pikeminnow (6)	<i>Ptychocheilus lucius</i>	Endangered
	Gibbens' beardtongue	<i>Penstemon gibbensii</i>	Petitioned
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (6)	<i>Gila cypha</i>	Endangered
	Razorback sucker (6)	<i>Xyrauchen texanus</i>	Endangered
	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Wolverine (16)	<i>Gulo gulo luscus</i>	Candidate
DAVIS			
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
DUCHESNE			
	Barneby ridge-cress	<i>Lepidium barnebyanum</i>	Endangered
	Black-footed ferret (4,7)	<i>Mustella nigripes</i>	Endangered
	Bonytail (6)	<i>Gila elegans</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Colorado pikeminnow (6)	<i>Ptychocheilus lucius</i>	Endangered
	Graham's beardtongue	<i>Penstemon grahamii</i>	Proposed
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (6)	<i>Gila cypha</i>	Endangered
	Mexican spotted owl (8)	<i>Strix occidentalis lucida</i>	Threatened
	Pariette cactus	<i>Sclerocactus brevispinus</i>	Threatened
	Razorback sucker (6)	<i>Xyrauchen texanus</i>	Endangered
	Shrubby reed-mustard	<i>Schoenocrambe suffrutescens</i>	Endangered

County	Common Name	Scientific Name	Federal Status
DUCHESNE			
	Uinta Basin hookless cactus	<i>Sclerocactus wetlandicus</i>	Threatened
	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
EMERY			
	Barneby reed-mustard	<i>Schoenocrambe barnebyi</i>	Endangered
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Bonytail (5,6)	<i>Gila elegans</i>	Endangered
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Colorado pikeminnow (5,6)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (5,6)	<i>Gila cypha</i>	Endangered
	Jones cycladenia	<i>Cycladenia jonesii</i>	Threatened
	Last Chance townsendia	<i>Townsendia aprica</i>	Threatened
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Razorback sucker (5,6)	<i>Xyrauchen texanus</i>	Endangered
	San Rafael cactus	<i>Pediocactus despainii</i>	Endangered
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Utah prairie dog (15)	<i>Cynomys parvidens</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Winkler cactus	<i>Pediocactus winkleri</i>	Threatened
	Wright fishhook cactus	<i>Sclerocactus wrightiae</i>	Endangered
GARFIELD			
	Autumn buttercup	<i>Ranunculus aestivalis</i>	Threatened
	Bonytail (5,6)	<i>Gila elegans</i>	Endangered
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Colorado pikeminnow (5,6)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (5,6)	<i>Gila cypha</i>	Endangered
	Jones cycladenia	<i>Cycladenia jonesii</i>	Threatened
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Razorback sucker (5,6)	<i>Xyrauchen texanus</i>	Endangered
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered

County	Common Name	Scientific Name	Federal Status
GARFIELD			
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
GRAND			
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Bonytail (5,6)	<i>Gila elegans</i>	Endangered
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Cisco milkvetch	<i>Astragalus sabulosus</i>	Petitioned
	Colorado pikeminnow (5,6)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (5,6)	<i>Gila cypha</i>	Endangered
	Isely milkvetch	<i>Astragalus iselyi</i>	Petitioned
	Jones cycladenia	<i>Cycladenia jonesii</i>	Threatened
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Razorback sucker (5,6)	<i>Xyrauchen texanus</i>	Endangered
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
IRON			
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Virgin River chub (13)	<i>Gila seminuda</i>	Endangered
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Woundfin (13)	<i>Plagopterus argentissimus</i>	Endangered
JUAB			
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Utah prairie dog (4)	<i>Cynomys parvidens</i>	Threatened
	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened

County	Common Name	Scientific Name	Federal Status
JUAB	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
KANE	Bonytail (6,9)	<i>Gila elegans</i>	Endangered
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Colorado pikeminnow (6,9)	<i>Ptychocheilus lucius</i>	Endangered
	Coral Pink Sand Dunes tiger beetle	<i>Cicindela albissima</i>	Candidate
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (6,9)	<i>Gila cypha</i>	Endangered
	Jones cycladenia	<i>Cycladenia jonesii</i>	Threatened
	Kanab ambersnail (10)	<i>Oxyloma haydeni kanabensis</i>	Endangered
	Kodachrome bladderpod	<i>Lesquerella tumulosa</i>	Endangered
	Las Vegas buckwheat	<i>Eriogonum corymbosum var. nilesii</i>	Candidate
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Razorback sucker (6,9)	<i>Xyrauchen texanus</i>	Endangered
	Siler pincushion cactus	<i>Pediocactus sileri</i>	Threatened
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Virgin River chub (13)	<i>Gila seminuda</i>	Endangered
	Welsh's milkweed (5)	<i>Asclepias welshii</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Woundfin (13)	<i>Plagopterus argentissimus</i>	Endangered
MILLARD	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Frisco clover	<i>Trifolium friscanum</i>	Candidate
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Utah prairie dog (4)	<i>Cynomys parvidens</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
MORGAN	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate

County	Common Name	Scientific Name	Federal Status
MORGAN			
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
PIUTE			
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
RICH			
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
SALT LAKE			
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	June sucker (3)	<i>Chasmistes liorus</i>	Endangered
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
SAN JUAN			
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Bonytail (5,6)	<i>Gila elegans</i>	Endangered
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Colorado pikeminnow (5,6)	<i>Ptychocheilus lucius</i>	Endangered
	Greenback cutthroat trout	<i>Oncorhynchus clarkii stomias</i>	Threatened
	Gunnison sage-grouse	<i>Centrocercus minimus</i>	Candidate
	Humpback chub (5,6)	<i>Gila cypha</i>	Endangered
	Isely milkvetch	<i>Astragalus iselyi</i>	Petitioned
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Navajo sedge	<i>Carex specuicola</i>	Threatened
	Razorback sucker (5,6)	<i>Xyrauchen texanus</i>	Endangered
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
SANPETE			
	Bonytail (6,9)	<i>Gila elegans</i>	Endangered

County	Common Name	Scientific Name	Federal Status
SANPETE			
	Canada lynx (4)	<i>Lynx canadensis</i>	Threatened
	Colorado pikeminnow (6,9)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Heliotrope milkvetch (5)	<i>Astragalus montii</i>	Threatened
	Humpback chub (6,9)	<i>Gila cypha</i>	Endangered
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Razorback sucker (6,9)	<i>Xyrauchen texanus</i>	Endangered
	Utah prairie dog (4)	<i>Cynomys parvidens</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
SEVIER			
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Heliotrope milkvetch	<i>Astragalus montii</i>	Threatened
	Last Chance townsendia	<i>Townsendia aprica</i>	Threatened
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Wright fishhook cactus	<i>Sclerocactus wrightiae</i>	Endangered
SUMMIT			
	Black-footed ferret (4)	<i>Mustella nigripes</i>	Endangered
	Bonytail (6,9)	<i>Gila elegans</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Colorado pikeminnow (6,9)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (6,9)	<i>Gila cypha</i>	Endangered
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Razorback sucker (6,9)	<i>Xyrauchen texanus</i>	Endangered
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
TOOELE			
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Least chub (14)	<i>Iotichthys phlegethontis</i>	Candidate
	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened

County	Common Name	Scientific Name	Federal Status
TOOELE			
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
UINTAH			
	Black-footed ferret (7)	<i>Mustella nigripes</i>	Endangered
	Bonytail (5,6)	<i>Gila elegans</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Clay reed-mustard	<i>Schoenocrambe argillacea</i>	Threatened
	Colorado pikeminnow (5,6)	<i>Ptychocheilus lucius</i>	Endangered
	Graham's beardtongue	<i>Penstemon grahamii</i>	Proposed
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (5,6)	<i>Gila cypha</i>	Endangered
	Mexican spotted owl (8)	<i>Strix occidentalis lucida</i>	Threatened
	Pariette cactus	<i>Sclerocactus brevispinus</i>	Threatened
	Razorback sucker (5,6)	<i>Xyrauchen texanus</i>	Endangered
	Shrubby reed-mustard	<i>Schoenocrambe suffrutescens</i>	Endangered
	Uinta Basin hookless cactus	<i>Sclerocactus wetlandicus</i>	Threatened
	Ute ladies' -tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	White River penstemon	<i>Penstemon scariosus albifluvis</i>	Candidate
UTAH			
	Bonytail (6,9)	<i>Gila elegans</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Clay phacelia	<i>Phacelia argillacea</i>	Endangered
	Colorado pikeminnow (6,9)	<i>Ptychocheilus lucius</i>	Endangered
	Deseret milkvetch	<i>Astragalus desereticus</i>	Threatened
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (6,9)	<i>Gila cypha</i>	Endangered
	June sucker (5)	<i>Chasmistes liorus</i>	Endangered
	Least chub (13)	<i>Iotichthys phlegenthontis</i>	Candidate
	Razorback sucker (6,9)	<i>Xyrauchen texanus</i>	Endangered
	Ute ladies' -tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
WASATCH			

County	Common Name	Scientific Name	Federal Status
WASATCH			
	Bonytail (6,9)	<i>Gila elegans</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Colorado pikeminnow (6,9)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (6,9)	<i>Gila cypha</i>	Endangered
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Razorback sucker (6,9)	<i>Xyrauchen texanus</i>	Endangered
	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
WASHINGTON			
	California condor	<i>Gymnogyps californianus</i>	Endangered
	Desert tortoise	<i>Gopherus agassizii</i>	Threatened
	Dwarf bear-poppy	<i>Arctomecon humilis</i>	Endangered
	Gierisch mallow	<i>Sphaeralcea gierischii</i>	Candidate
	Holmgren milkvetch	<i>Astragalus holmgreniorum</i>	Endangered
	Las Vegas buckwheat	<i>Eriogonum corymbosum var. nilesii</i>	Candidate
	Mexican spotted owl	<i>Strix occidentalis lucida</i>	Threatened
	Shivwits milkvetch	<i>Astragalus ampullariodes</i>	Endangered
	Siler pincushion cactus	<i>Pediocactus sileri</i>	Threatened
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Virgin River chub	<i>Gila seminuda</i>	Endangered
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Woundfin	<i>Plagopterus argentissimus</i>	Endangered
WAYNE			
	Barneby reed-mustard	<i>Schoenocrambe barnebyi</i>	Endangered
	Bonytail (5,6,9)	<i>Gila elegans</i>	Endangered
	California condor (2)	<i>Gymnogyps californianus</i>	Endangered
	Colorado pikeminnow (5,6,9)	<i>Ptychocheilus lucius</i>	Endangered
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	Humpback chub (5,6,9)	<i>Gila cypha</i>	Endangered
	Last Chance townsendia	<i>Townsendia aprica</i>	Threatened

County	Common Name	Scientific Name	Federal Status
WAYNE			
	Mexican spotted owl (5)	<i>Strix occidentalis lucida</i>	Threatened
	Razorback sucker (5,6,9)	<i>Xyrauchen texanus</i>	Endangered
	San Rafael cactus	<i>Pediocactus despainii</i>	Endangered
	Southwest willow flycatcher	<i>Empidonax traillii extimus</i>	Endangered
	Utah prairie dog	<i>Cynomys parvidens</i>	Threatened
	Ute ladies' -tresses	<i>Spiranthes diluvialis</i>	Threatened
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate
	Winkler cactus	<i>Pediocactus winkleri</i>	Threatened
	Wright fishhook cactus	<i>Sclerocactus wrightiae</i>	Endangered
WEBER			
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	Greater sage-grouse	<i>Centrocercus urophasianus</i>	Candidate
	June sucker (3)	<i>Chasmistes liorus</i>	Endangered
	Least chub (13)	<i>Iotichthys phlegethontis</i>	Candidate
	Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate

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- 1 Candidate species have no legal protection under the Endangered Species Act. However, these species are under active consideration by the Service for addition to the Federal List of Endangered and Threatened Species and may be proposed or listed during the development of the proposed project.
 - 2 This species is designated a non-essential, experimental population east of I-15 to 191, and south of I-70. Animals occurring outside the designated areas are protected as Endangered.
 - 3 Introduced, refugia population.
 - 4 Historical range.
 - 5 Critical habitat designated in this county. Critical habitat shapefiles are available on <http://criticalhabitat.fws.gov>
 - 6 Water depletions from any portion of the occupied drainage basin are considered to adversely affect or adversely modify the critical habitat of the endangered fish species, and must be evaluated with regard to the criteria described in the pertinent fish recovery programs.
 - 7 Non-essential, experimental population.
 - 8 Suitable habitat occurs in southern Duchesne County, including Nine-Mile and Argyle canyon.
 - 9 Eastern portions of these counties lie within the Upper Colorado River Basin. Any water depletion from the basin adversely affects these fish.
 - 10 Critical habitat proposed in this county.
 - 11 Nests in this county of Utah.
 - 12 Range may be expanding northward into Nevada and Utah and into Grand Canyon in Mohave County, AZ.
 - 13 The species is not present in this county. One or more hydrologic unit (8-digit HUC) in this county is occupied by the species in an adjacent county. Any water depletion from an occupied hydrologic unit may adversely affect this species.
 - 14 The species occupies habitat in one or more hydrologic unit (8-digit HUC) within this county. Any water depletion from an occupied hydrologic unit may adversely affect the species.
 - 15 The species is not known to be present in this county, however a portion of this county is within the survey area as defined by the Utah Division of Wildlife Resources.
 - 16 Although wolverine are not listed as a candidate species in this state, there is an unconfirmed record of wolverine occurring in this county (Cowley pers. comm. 2011).



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Wildlife Resources

JAMES F. KARPOWITZ
Division Director

September 19, 2011

Christina Osborn
J-U-B Engineers, Inc.
2875 South Decker Lake Drive, Suite 575
Salt Lake City, Utah 84119

Subject: Species of Concern Near the Proposed Coalville Wastewater Treatment Facility

Dear Christina Osborn:

I am writing in response to your email dated September 8, 2011 regarding information on species of special concern proximal to the proposed wastewater treatment facility to be located in Section 8 of Township 2 North, Range 5 East, SLB&M, in Coalville, Utah.

Within a ½-mile radius of the project area noted above, the Utah Division of Wildlife Resources (UDWR) has recent records of occurrence for bald eagle and bluehead sucker. In addition, within a 2-mile radius there are recent records of occurrence for Bonneville cutthroat trout. All of the aforementioned species are included on the *Utah Sensitive Species List*.

The information provided in this letter is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, and because data requests are evaluated for the specific type of proposed action, any given response is only appropriate for its respective request.

In addition to the information you requested, other significant wildlife values might also be present on the designated site. Please contact UDWR's habitat manager for the northern region, Scott Walker, at (801) 476-2776 if you have any questions.

Please contact our office at (801) 538-4759 if you require further assistance.

Sincerely,

Sarah Lindsey
Information Manager
Utah Natural Heritage Program

cc: Scott Walker



ANTIDEGRADATION REVIEW APPLICATION

UTAH DIVISION OF WATER QUALITY

Introduction

The objective of antidegradation rules and policies is to protect existing high quality waters and set forth a process for determining where and how much degradation is allowable for socially and/or economically important reasons.

In accordance with Utah Administrative Code (UAC R317-2-3), an antidegradation review (ADR) is a permit requirement for any project that will increase the level of pollutants in waters of the state. The rule outlines requirements for both Level I and Level II ADR reviews, as well as public comment procedures. This application is intended to assist the applicant and Division of Water Quality (DWQ) staff in complying with the rule but is not a substitute for the complete rule in R317-2-3.5. Additional details can be found in the *Utah Antidegradation Implementation Guidance* and relevant sections of the guidance are cited in this application form.

ADRs should be among the first steps of an application for a UPDES permit because the review helps establish project design expectations. ADRs are also required for any project taking place within a stream channel and for applications to fill wetlands as part of the Army Corps of Engineers 404 permitting process. The level of effort and amount of information required for the ADR depends on the nature of the project and the characteristics of the receiving water. To avoid unnecessary delays in permit issuance, the Division of Water Quality (DWQ) recommends that the process be initiated at least one year prior to the date a final approved permit is required.

This antidegradation application must be completed and approved by DWQ before any UPDES permit can be issued. DWQ will determine if the project will impair beneficial uses (Level I ADR) using information provided by the applicant. The applicant is responsible for conducting the Level II ADR, if necessary. For the permit to be approved, the Level II ADR must document that all feasible measures have been undertaken to minimize pollution for social or economically beneficial projects resulting in any increase in pollution to waters of the state.

Parts A, B, D, and G are required for all permits, whereas Parts C, E, and F are only required for Level II ADRs.

Once the application is complete, it should be signed, dated, and submitted to the DWQ staff member who is responsible for the UPDES permit or 401 Certification.

For additional clarification on the antidegradation application process and procedures, please contact Nicholas von Stackelberg (801-536-4374) or Jeff Ostermiller (801-536-4370).

Antidegradation Review Application

Part A: Applicant Information

Facility Name: Coalville City WWTF

Facility Owner: Coalville City

Facility Location: 100 North, 50 West Coalville, UT (west of Union Pacific Rail Trail)

Application Prepared By: J-U-B Engineers, Inc.

Receiving Water: UNT to Chalk Creek/Echo Reservoir

What Are the Designated Uses of the Receiving Water (R317-2-6)?

Domestic Water Supply: 1C
Recreation: 2B - Secondary Contact
Aquatic Life: 3A - Cold Water Aquatic Life
Agricultural Water Supply: 4
Great Salt Lake: None

Category of Receiving Water (R317-2-3.2, -3.3, and -3.4): Category 3

UPDES Permit Number (if applicable): UT0021288

Effluent Flow Reviewed: 0.50 MGD

What is the application for? (check all that apply)

- An application for a UPDES permit for a new facility or project.
- An expansion or modification of an existing wastewater treatment works that will result in an increase in the mass or concentration of a pollutant discharged to waters of the state.
- A permit renewal requiring limits for a pollutant not covered by the previous permit.
- An expansion or modification of an existing wastewater treatment works that will result in an increase in volume discharged over the volume used to obtain previous permit limits.
- A proposed UPDES permit renewal with no changes in facility operations.

Part B. Is a Level II ADR required?

This section of the application is intended to help applicants determine if a Level II ADR is required for specific permitted activities. In addition, the Executive Secretary may require a Level II ADR for an activity with the potential for major impact on the quality of waters of the state (R317-2-3.5a.1).

B1. The receiving water or downstream water is a Class 1C drinking water source.

Yes A Level II ADR is required (Proceed to Part C of the Application)

No (Proceed to Part B2 of the Application)

B2. The UPDES permit is new or is being renewed and the proposed effluent concentration and loading limits are higher than the concentration and loading limits in the previous permit and any previous antidegradation review(s).

Yes (Proceed to Part B3 of the Application)

No No Level II ADR is required and there is no need to proceed further with application questions.

B3. Will any pollutants use assimilative capacity of the receiving water, i.e. do the pollutant concentrations in the effluent exceed those in the receiving waters at critical conditions? For most pollutants, effluent concentrations that are higher than the ambient concentrations require an antidegradation review? For a few pollutants such as dissolved oxygen, an antidegradation review is required if the effluent concentrations are less than the ambient concentrations in the receiving water. (Section 3.3.3 of Implementation Guidance)

Yes (Proceed to Part B4 of the Application)

No No Level II ADR is required and there is no need to proceed further with application questions.

B4. Are water quality impacts of the proposed project temporary and limited (Section 3.3.4 of Implementation Guidance)? Proposed projects that will have temporary and limited effects on water quality can be exempted from a Level II ADR.

Yes Identify the reasons used to justify this determination in Part B4.1 and proceed to Part G. No Level II ADR is required.

No A Level II ADR is required (Proceed to Part C)

B4.1 Complete this question only if the applicant is requesting a Level II review exclusion for temporary and limited projects (see R317-2-3.5(b)(3) and R317-2-3.5(b)(4)). For projects requesting a temporary and limited exclusion please indicate the factor(s) used to justify this determination (check all that apply and provide details as appropriate) (Section 3.3.4 of Implementation Guidance):

Water quality impacts will be temporary and related exclusively to sediment or turbidity and fish spawning will not be impaired.

Factors to be considered in determining whether water quality impacts will be temporary and limited:

- a) The length of time during which water quality will be lowered:
- b) The percent change in ambient concentrations of pollutants:
- c) Pollutants affected:
- d) Likelihood for long-term water quality benefits:
- e) Potential for any residual long-term influences on existing uses:
- f) Impairment of fish spawning, survival and development of aquatic fauna excluding fish removal efforts:

Additional justification, as needed:

Level II ADR

Part C, D, E, and F of the application constitute the Level II ADR Review. The applicant must provide as much detail as necessary for DWQ to perform the antidegradation review. Questions are provided for the convenience of applicants; however, for more complex permits it may be more effective to provide the required information in a separate report. Applicants that prefer a separate report should record the report name here and proceed to Part G of the application.

Optional Report Name:

Part C. Is the degradation from the project socially and economically necessary to accommodate important social or economic development in the area in which the waters are located? *The applicant must provide as much detail as necessary for DWQ to concur that the project is socially and economically necessary when answering the questions in this section. The social and economic importance of publicly owned treatment works (POTWs) are typically considered self-evident and do not require detailed explanation. More information is available in Section 6.2 of the Implementation Guidance.*

C1. The facility is a POTW and is necessary for economic and social growth of the serviced community.

Yes (Proceed to Part D of the Application)

No (Proceed to Part C1 of the Application)

C1. Describe the social and economic benefits that would be realized through the proposed project, including the number and nature of jobs created and anticipated tax revenues.

C3. Describe any environmental benefits to be realized through implementation of the proposed project.

C4. Describe any social and economic losses that may result from the project, including impacts to recreation or commercial development.

C5. Summarize any supporting information from the affected communities on preserving assimilative capacity to support future growth and development.

C6. Please describe any structures or equipment associated with the project that will be placed within or adjacent to the receiving water.



Part D. Identify and rank (from increasing to decreasing potential threat to designated uses) the parameters of concern. *Parameters of concern are parameters in the effluent at concentrations greater than ambient concentrations in the receiving water. The applicant is responsible for identifying parameter concentrations in the effluent and DWQ will provide parameter concentrations for the receiving water. More information is available in Section 3.3.3 of the Implementation Guidance.*

Parameters of Concern:

Rank	Pollutant	Ambient Concentration ⁽¹⁾	Effluent Concentration ⁽²⁾
1	Biochemical Oxygen Demand -5 Day (BOD5)		
	Summer	0.1 mg/L	<25 mg/L
	Fall	0.1 mg/L	<25 mg/L
	Winter	0.1 mg/L	<25 mg/L
	Spring	0.1 mg/L	<25 mg/L
2	Ammonia-Nitrogen (NH ₃ -N)		
	Summer	0.03 mg/L	<1.0 mg/L
	Fall	0.03 mg/L	<1.0 mg/L
	Winter	0.03 mg/L	<1.0 mg/L
	Spring	0.03 mg/L	<1.0 mg/L
3	Dissolved Oxygen (DO)		
	Summer	7.24 mg/L	>5.0 mg/L
	Fall	7.24 mg/L	>5.0 mg/L
	Winter	7.24 mg/L	>5.0 mg/L
	Spring	7.24 mg/L	>5.0 mg/L
4	Total Dissolved Solids (TDS)		
	Summer	339 mg/L	500-1000 mg/L
	Fall	339 mg/L	500-1000 mg/L
	Winter	339 mg/L	500-1000 mg/L
	Spring	339 mg/L	500-1000 mg/L
5	pH		
	Summer	8.2 S.U.	6.0 – 9.0 S.U.
	Fall	8.2 S.U.	6.0 – 9.0 S.U.
	Winter	8.2 S.U.	6.0 – 9.0 S.U.
	Spring	8.3 S.U.	6.0 – 9.0 S.U.
6	E-Coli	NA ⁽³⁾	<126/ 100mL
7	Temperature		
	Summer	15.8 °C	15 °C
	Fall	5.2 °C	12 °C
	Winter	2.3 °C	8 °C

	Spring	9.8 °C	12 °C
8	Nitrate Nitrogen (NO ₃ -N)	4.0 mg/L ⁽⁴⁾	<8 mg/L
9	Total Nitrogen (TN)	NA	<10 mg/L
10	Total Phosphorus (TP)	0.05 mg/L ⁽⁴⁾	< 1.0 mg/L
11	Total Suspended Solids (TSS)	90 mg/L ⁽⁴⁾	<25 mg/L

- (1) Ambient concentrations based on WLA prepared by DWQ.
- (2) Effluent concentrations estimated based on design criteria for proposed treatment process.
- (3) NA indicates ambient data was Not Available.
- (4) Concentration is a Pollution Indicator Target, not an ambient concentration.

Pollutants Evaluated that are not Considered Parameters of Concern:

Pollutant	Ambient Concentration	Effluent Concentration	Justification
Total Residual Chlorine	0 mg/L	0 mg/L	UV disinfection is proposed
Turbidity	NA	~10 NTU	Turbidity levels are expected to be comparable to ambient levels in receiving waters.
Oil and Grease	NA	<10 mg/L	Oil and grease will be effectively removed by the treatment process leaving very low concentrations in the effluent
Metals			Facility does not have any industrial dischargers and biosolids meet Class A/Exceptional Quality requirements indicating low metals concentrations.

Part E. Alternative Analysis Requirements of a Level II

Antidegradation Review. *Level II ADRs require the applicant to determine whether there are feasible less-degrading alternatives to the proposed project. More information is available in Section 5.5 and 5.6 of the Implementation Guidance.*

E1. The UPDES permit is being renewed without any changes to flow or concentrations. Alternative treatment and discharge options including changes to operations and maintenance were considered and compared to the current processes. No economically feasible treatment or discharge alternatives were identified that were not previously considered for any previous antidegradation review(s).

Yes (Proceed to Part F)

No or Does Not Apply (Proceed to E2)

E2. Attach as an appendix to this application a report that describes the following factors for all alternative treatment options (see 1) a technical description of the treatment process, including construction costs and continued operation and maintenance expenses, 2) the mass and concentration of discharge constituents, and 3) a description of the reliability of the system, including the frequency where recurring operation and maintenance may lead to temporary increases in discharged pollutants. Most of this information is typically available from a Facility Plan, if available.

Report Name: City of Coalville Wastewater Facility Plan-Original Draft 2007 and Plan Update 2010.

E3. Were any of the following alternatives feasible?

Alternative	Feasible	Reason Not Feasible/Affordable
Pollutant Trading	Not Feasible*	Trading program has not been established
Water Recycling/Reuse	Yes*	
Land Application	Yes*	
Connection to Other Facilities	No	Distance to nearest facilities is prohibitive
Upgrade to Existing Facility	Not Feasible	Existing facility must be abandoned.
Total Containment	No	Cold and wet climate, resulting land requirements would be prohibitive.
Improved O&M of Existing Systems	Not Applicable	Existing facility must be abandoned.
Seasonal or Controlled Discharge	Yes*	
New Construction	Yes**	
No Discharge	No	Volume of discharge makes this impractical

* See attachment for further discussion of these alternatives.

** See Facility Plan for discussion of this alternative.

E4. From the applicant’s perspective, what is the preferred treatment option?

Coalville City's preferred treatment option is to construct a new mechanical treatment facility on land that the City owns. The proposed WWTF would use similar processes to those at the existing facility which has served the City very well over the past 30 years.

E5. Is the preferred option also the least polluting feasible alternative?

Yes

No

If no, what were less degrading feasible alternative(s)? Land Application, Recycling/Reuse, Seasonal or Controlled Discharge, Advanced Treatment Processes, Nutrient Trading

If no, provide a summary of the justification for not selecting the least polluting feasible alternative and if appropriate, provide a more detailed justification as an attachment.

Cost Prohibitive- see attached justification.

Part F. Optional Information

F1. Does the applicant want to conduct optional public review(s) in addition to the mandatory public review? Level II ADRs are public noticed for a thirty day comment period. More information is available in Section 3.7.1 of the Implementation Guidance.

No

Yes

F2. Does the project include an optional mitigation plan to compensate for the proposed water quality degradation?

No

Yes

Report Name:

Part G. Certification of Antidegradation Review

G1. Applicant Certification

The application should be signed by the same responsible person who signed the accompanying permit application or certification.

Based on my inquiry of the person(s) who manage the system or those persons directly responsible for gathering the information, the information in this application and associated documents is, to the best of my knowledge and belief, true, accurate, and complete.

Print Name: JAMES GODDLEY

Signature: James Goddley

Date: 12/22/11

G2. DWQ Approval

To the best of my knowledge, the ADR was conducted in accordance with the rules and regulations outlined in UAC R-317-2-3.

Water Quality Management Section

Print Name: _____

Signature: _____

Date: _____

Part E. - Alternatives Analyses

An alternatives analysis of preferred treatment methods has been provided in the City of Coalville Wastewater Treatment Facility Plan originally completed in 2007. The original Facility Plan considered four alternatives, three of which involved changes to the liquid stream treatment process. These alternatives included:

1. No Action
2. Expand Existing Ditch
3. Parallel Aerobic Process- IFAS System
4. MBR process

Each of these alternatives logically assumed the existing facilities and site would continue to be utilized in the future and be expanded or upgraded as necessary. However, the original plan found that the land on which the existing treatment facility is located was actually leased from the United States Bureau of Reclamation (BOR). The 50-year lease began in 1964 and is set to expire in October 2014. The City promptly initiated negotiations with BOR to renew the lease and/or purchase land. After a lengthy period of negotiations, BOR has indicated that they would prefer that the City relocate their WWTF to non-BOR land. Alternatively, the City could retain the existing facility/site if a berm were to be constructed around the existing site to protect the facility during a major flooding event.

As a result of these BOR negotiations, the City prepared an update to the original facility Plan in 2010. This update considered three alternatives.

- Alternative 3- Retain the existing facility and construct a berm around the site's perimeter
- Alternative 4- Construct a new mechanical treatment facility at a new (non-BOR) site using conventional activated sludge treatment with biological nutrient removal, BNR. consistent with the existing process.
- Alternative 5-Construct a new mechanical treatment facility at a new (non-BOR) site using a membrane bioreactor, MBR, process with BNR.

Detailed discussion of these alternatives including design criteria, technical descriptions, capital and O&M costs are presented in the 2010 Facility Plan Update. All of the considered alternatives assume that a mechanical treatment facility similar to that existing (i.e. activated sludge process) would be utilized and that the facility would continue to discharge to the Chalk Creek/Echo Reservoir. These alternatives were considered since they were consistent with the technology that the City already owns and operates which would ease any transition in operating a new facility. In addition, this technology reliably achieves the level of treatment required by the current UPDES permit and can be easily adapted to meet new or stricter limits- particularly for nutrients.

Based on a monetary and non-monetary comparison of these alternatives, Alternative 4 was selected as the preferred alternative. Alternative 3 was not selected for a couple main reasons. First, it limits the ability for future expansion since the facility must be contained within the existing 2.4 acre site. Second,

considerable costs are anticipated for maintenance and replacement of the existing facilities which are nearing the end of their useful service life. Although an MBR facility (Alternative 5) would produce a higher quality effluent, it was not selected due to its higher costs. Both capital and annual O&M costs would exceed those for the selected alternative. This alternative would result in monthly user rates that would far exceed the affordability threshold for the City according to the City's Median Adjusted Gross Household Income, MAGHI. According to R-317-2-3.5(c)(2), this alternative is therefore considered not feasible since user fees would exceed this affordability criterion.

Furthermore, the MBR process does not, in itself, provide nutrient removal. The process would still need to be supplemented with processes for either biological or chemical nutrient removal similar to that for the selected process. Therefore, with respect to nutrient removal the MBR process offered little advantage over the conventional activated sludge/ BNR process. This was a major consideration since nutrients are highly ranked in the Parameters of Concern (TN, NH₃-N, NO₃-N, TP, PO₄-P) and are also expected to be a focus of the forthcoming Upper Weber Basin/Echo Reservoir TMDL. The selected process will be capable of removing nutrients to levels equivalent to that of the MBR at less cost and was therefore preferred.

E5. Other Feasible Less Polluting Alternatives

Other treatment alternatives have been identified as part of the ADR that are potentially less degrading to the receiving water. A description of these alternatives and the reasons why they have not been selected are given below.

Advanced Treatment Processes

With respect to mechanical treatment, a reverse osmosis (R/O) treatment would offer increased removal of pollutants. R/O systems are typically employed in the potable water and industrial wastewater treatment applications where the removal of certain contaminants is required. R/O treatment of municipal wastewater is not widely practiced since it is cost prohibitive. This would also be true in this case; an R/O system would be prohibitively expensive to both construct and operate, resulting in excessive user rates. An R/O system would require 'pretreatment' upstream of the actual R/O membranes which would be one of the final treatment steps. This pretreatment system would essentially be equivalent to the MBR process that was evaluated as one of the treatment alternatives and was the highest cost alternative. Another drawback to R/O systems is the production of a brine solution that is the reject stream from the R/O process. This brine solution is highly concentrated with the removed pollutants and dissolved solids making it difficult and costly to dispose of.

Water Recycling/Reuse

There is potential to reuse the treated effluent rather than discharge. The most probable option for reuse would be to use the effluent for residential and landscape irrigation by introducing it into the City's existing secondary water system. This would require that the effluent be treated to meet Type 1 standards. This would necessitate that the preferred alternative has an additional treatment step

(filtration) to meet turbidity requirements. In addition to treatment, effluent storage and pumping facilities would also be required to implement effluent reuse. The costs for these systems have not been determined however it is obvious that these would be in addition to the costs for selected alternative. These added costs would result in user rates that exceed the affordability threshold established by the MAGI, making this alternative cost prohibitive.

Land Application

Another feasible alternative that could avoid discharge is a land application system. The major elements of a land application system would include; treatment lagoons, storage lagoons and a land application site. The treatment lagoons would provide a secondary level of treatment designed primarily for BOD₅ and TSS removal. This would produce a lower quality effluent than the current treatment system although the effluent would not be discharged to surface waters. Aerated treatment lagoons are envisioned in order to minimize land requirements.

Because of the large land requirements for this system, it would need to be located somewhat remotely from the City, perhaps outside the City limits in the County. A pumping station is therefore anticipated to convey wastewater from the City to the lagoon site.

The climate in Coalville is such that land application could only occur part of the year since the soil will be frozen during the winter. Therefore a large storage lagoon would also be required to hold effluent during periods of no or reduced land application. The City would also need to acquire a large amount of land for the land application site(s). A summary of the major design elements and their design basis and considerations is given in the following table.

Table E1- Design Elements for Proposed Land Application System

Design Element	Design Basis and Considerations
Collection System Modifications	This element is common to all of the alternatives. It includes necessary improvements to the collection system such as a lift station upgrade and alterations to the gravity sewer.
Influent Lift Station and Force Main	Land requirements and floodplain issues will prevent the lagoon and land application system from being located in the City or near the existing site. Potential areas with enough land suitable to support a land application system appear to be located uphill from the existing site- thus a lift station is anticipated. The station will be sized to handle the design peak hour flow of 1.5 MGD. The lift station will be located near the existing WWTF to minimize changes to the existing collection system. A 12” diameter force main will convey the wastewater to the new site. A length of 1 mile has been assumed for the force main.

Design Element	Design Basis and Considerations
Aerated Treatment Lagoons	Treatment of the wastewater will occur in a series of aerated lagoons- 3 lagoons are proposed. Per UAC R-317-3-10 requirements, a minimum 30 day hydraulic detention time has been used as the basis for the lagoons capacity. This results in a total treatment volume of 9.0 MG. Supporting facilities would include headworks, aeration and disinfection systems.
Effluent Storage and Pumping Station	Treated effluent will be stored in lagoons during the winter. The storage requirement is nearly 70 MG. It is proposed that this volume be divided between two lagoons to provide flexibility. The land/surface area requirement for each lagoon will be about 8.0 acres. Taking into account berms and setbacks, 10 acres per lagoon will be used. A pumping station will be required to transfer effluent from the storage lagoon to the irrigation system/application site. The station will need to be relatively large to meet the irrigation requirements- a pumping rate of roughly 1000 gpm is assumed.
Land Application Area	Effluent disposal will occur via land application. It has been assumed that alfalfa will be grown on the fields. Based on the climate and agronomic requirements, a land application area of about 150 acres will be required to dispose of all effluent. A center pivot irrigation system is proposed.

A cost opinion for the systems described above has been developed and is summarized in the following table E2 while the relative advantages and disadvantages of land application are listed in Table E3. Both capital and annual O&M costs were developed for this alternative. Perhaps the greatest challenge for this alternative is acquiring the land needed for a land application system.

Table E2- Cost Opinion for Proposed Land Application Alternative

Cost Item	Value
Collection System Improvements	\$900,000
Lift Station and Force Main	\$1,300,000
Aerated Treatment Lagoons	\$4,000,000
Storage Lagoons and Pump Station	\$3,500,000
Land Application Site and Irrigation System	\$4,200,000
Total Capital Costs	\$14,000,000
Annual O&M Costs	\$150,000
Life Cycle Cost- 20 years	\$17,600,000

In comparison with the selected alternative, the 20 year life cycle costs for the land application alternative is more costly at \$17.6M compared to \$14.3M for Alternative 4. This high cost makes this alternative less favorable, since the costs would again exceed the affordability threshold for the City. There are also a number of other concerns with the land application alternative that make it less attractive. These are listed in Table E3 below.

Table E3- Land Application Advantages and Disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> • Eliminates Discharge to Surface Water • Well Proven, Relatively Simple Process To Operate • Low Annual O&M Costs • Hay Production Could Offset Some O&M Costs 	<ul style="list-style-type: none"> • High Capital Costs • Land Intensive • Siting and Approval Issues • Need to Pump to Site • Susceptible to Weather and Seasonal Changes • Lower Effluent Quality- Potential to Impact Groundwater • Change from Existing System- Familiarity

Seasonal or Controlled Discharge

Degradation of the receiving water may be reduced by limiting the discharge of pollutants during critical water quality periods. This is often performed on a seasonal basis with the most critical water periods typically occurring during the summer, but this can vary depending on the receiving waters and pollutant. This alternative would involve holding or limiting the discharge of treated effluent during critical water quality periods or seasons and then discharging during non-critical times. For this alternative it is important to note that the overall loading of pollutants to the receiving water will not change only the distribution of that loading with time will change.

Implementation of this alternative would involve the addition of storage facilities to hold effluent during critical water quality periods. This analysis assumed that effluent would be contained throughout one critical water quality period or season for a total of three months. For a 0.5 MGD design flow, a storage capacity of about 45 MG would be required. The least costly storage option would likely be a lagoon. The budget cost for a 45 MG lagoon is estimated to be approximately \$2M, which does not include land purchase or any ancillary facilities.

Land availability to site the storage lagoon would also be a major issue. Land availability and suitability is limited near the proposed treatment plant site, which suggests a remote site for the storage lagoon is probable. This would then necessitate an effluent pumping station and new outfall. Since the costs for these facilities would be in addition to the treatment facility costs, it is apparent that this alternative will be prohibitively expensive. Similar to the alternatives discussed above, seasonal or controlled discharge is considered not feasible since the resulting user charges would exceed the MAGHI. In addition, this

alternative may not be less-degrading since the total loading of pollutants to the receiving water will not be reduced.

Nutrient Trading

Nutrient trading is an alternative approach that has been employed in other states to achieve overall nutrient reductions to receiving waters. Some efforts have been made to establish nutrient trading programs in Utah, primarily in watersheds impacted by a TMDL. To date, as far as is known a nutrient trading program has not been implemented within Utah. Discussion of nutrient trading on the upper Weber River watershed has occurred in the past in response to the original Echo Reservoir TMDL which has since been rescinded. The potential trade was between a new point source that did not have any phosphorus allocation in the TMDL and non-point sources that would be eliminated. Considering this, it does seem that a nutrient trading program is possible for the Upper Weber River watershed; however it is not believed to be feasible in the time frame necessary for Coalville's project. The time and resources needed to work out the details, agreements and approvals required for a trading program are expected to take several years and considerable funding. In contrast Coalville is planning to design their new facility within the next year and is seeking financial assistance to fund the project. Furthermore the planned Upper Weber River TMDL is not expected to be completed until 2013 and would then be expected to undergo a lengthy review and approval process. For these reasons it is believed that, for Coalville's project, nutrient trading is not a feasible less-degrading alternative at this time. In the future, once the new TMDL is available, Coalville could evaluate the possibility of nutrient trading if further nutrient reductions are required.

MAGHI Considerations

The Utah DWQ has established an affordability threshold for sewer service to a typical residential customers or equivalent residential unit (ERU) as 1.4% of the Median Adjusted Gross Household Income, (MAGHI) for that community. The state attempts to maintain sewer service fees at or below this affordability threshold by providing grants and low interest loans to communities undertaking large capital improvement projects related to wastewater infrastructure. The MAGHI used in the Facility Plan Update was \$42,304 which translates to a monthly fee/affordability threshold of \$49.35/month. If the City were to finance the project themselves through a bond or loan, user rates would far exceed this affordability threshold based on the high costs of the alternatives and relatively few connections/ERU's. The City is therefore seeking financial assistance from UDWQ and USDA-RD in order to lower user rates to the affordability threshold. A cost analysis has been performed to determine the appropriate financing (amounts of grant and loan) needed to bring the monthly sewer rates down to the affordability threshold for the selected alternative- Alternative 4- Conventional Activated Sludge w/ BNR at a New Site. For this alternative, the proposed financing package included a \$4.4M grant and a \$4.75M loan at 3% for 40 years, which resulted in a sewer fee of \$49.45. A comparison of the alternatives was then made by determining the user fees for each based on this financing package, which is presented below in Table E4.

Table E4- Comparison of Monthly Sewer Rates Using the same Funding Package

Alternative	20-Year Life Cycle Costs	Costs to Implement ADR Alternative	Total 20-Year Life Cycle Costs	Monthly Sewer Fee per ERU⁴
3- MBR at Existing Site	\$15.76M	--	\$15.76M	\$59.21
4-Conventional Activated Sludge w/ BNR at New Site	\$13.93M	--	\$13.93M	\$49.45
5- MBR at New Site	\$16.29M	--	\$16.29M	\$61.53
Advanced Treatment Process- Reverse Osmosis ¹	\$16.29M	\$2.00M ²	\$18.29M	\$71.20
Recycling Reuse ¹	\$13.93M	\$3.53M ²	\$17.46M	\$68.40
Land Application ¹	--	\$17.60M ³	\$17.60M	\$80.20
Seasonal or Controlled Discharge ¹	\$13.93M	\$2.60M ²	\$16.53M	\$62.00

1. Indicates alternative considered as part of Antidegradation Review.
2. 20-year annual O&M costs not included.
3. 20-Year life cycle cost.
4. Considers a financing package of \$4.4M grant and \$4.75M loan @3% for 20yrs.

Christina Osborn

From: Dave Wham <dwham@utah.gov>
Sent: Tuesday, October 04, 2011 1:14 PM
To: James Goodley
Cc: Kim Shelley
Subject: Re: Coalville WLA
Attachments: Coalville_WLA_10-4-11_newlocation.PDF

Jim,

I have attached and updated WLA Addendum for Coalville. This Wasteload was run for the small stream to the west of the proposed plant location. See the effluent limitation section starting about page nine. Please give me a call if you have any questions or need additional information.

Best wishes,

Dave

David Wham
Utah Division of Water Quality
195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114
801.536.4337 phone
801.536.4301 fax
dwham@utah.gov

>>> "James Goodley" <jgoodley@jub.com> 9/29/2011 8:53 AM >>>

Dave,

Have you had any luck running a new WLA for Coalville? We're planning to submit an EA to ACOE with the ADR as an attachment. One last thing I need to wrap up is the POC's and their ambient concentrations.

Thanks,

Jim

James J. Goodley, P.E.

Project Engineer

J-U-B ENGINEERS, Inc.

466 North 900 West, Kaysville, UT 84037

p | 801 547 0393 c | 801 643 8176 e | jgoodley@jub.com

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WASTELOAD ANALYSIS [WLA] Addendum: Statement of Basis SUMMARY

Discharging Facility: Coalville City WWTP

UPDES No: UT-0021288
Current Flow: 0.50 MGD Design Flow
Design Flow 0.50 MGD

Receiving Water: Unnamed trib =>Chalk Creek=>Weber River

Stream Classification: 1C, 2B, 3A, 4
Stream Flows [cfs]:
1.5 Summer (July-Sept) 7Q10 Estimate
1.5 Fall (Oct-Dec) 7Q10 Estimate
1.5 Winter (Jan-Mar) 7Q10 Estimate
1.5 Spring (Apr-June) 7Q10 Estimate
2.5 Average
Stream TDS Values:
339.0 Summer (July-Sept) 80th Percentile
339.0 Fall (Oct-Dec) 80th Percentile
339.0 Winter (Jan-Mar) 80th Percentile
339.0 Spring (Apr-June) 80th Percentile

Effluent Limits:

Flow, MGD: 0.50 MGD Design Flow
BOD, mg/l: 25.0 Summer 5.0 Indicator
Dissolved Oxygen, mg/l: 5.0 Summer 6.5 30 Day Average
TNH3, Chronic, mg/l: 6.6 Summer Varies Function of pH and Temperature
TDS, mg/l: 2869.7 Summer 1200.0

WQ Standard:

Modeling Parameters:

Acute River Width: 50.0%
Chronic River Width: 100.0%

Level 1 Antidegradation Level Completed: Level II Review required

Date: 10/4/2011

Permit Writer: _____

WLA by: _____

WQM Sec. Approval: _____

TMDL Sec. Approval: _____

Utah Division of Water Quality
Salt Lake City, Utah

WASTELOAD ANALYSIS [WLA]
Addendum: Statement of Basis

4-Oct-11
4:00 PM

Facilities: Coalville City WWTP
Discharging to: Unnamed trib =>Chalk Creek=>Weber River

UPDES No: UT-0021288

I. Introduction

Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses [R317-2-8, UAC]. Projected concentrations are compared to numeric water quality standards to determine acceptability. The anti-degradation policy and procedures are also considered. The primary in-stream parameters of concern may include metals (as a function of hardness), total dissolved solids (TDS), total residual chlorine (TRC), un-ionized ammonia (as a function of pH and temperature, measured and evaluated in terms of total ammonia), and dissolved oxygen.

Mathematical water quality modeling is employed to determine stream quality response to point source discharges. Models aid in the effort of anticipating stream quality at future effluent flows at critical environmental conditions (e.g., low stream flow, high temperature, high pH, etc).

The numeric criteria in this wasteload analysis may always be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

II. Receiving Water and Stream Classification

Unnamed trib =>Chalk Creek=>Weber 1C, 2B, 3A, 4
Antidegradation Review: Antidegradation Level II Required

III. Numeric Stream Standards for Protection of Aquatic Wildlife

Total Ammonia (TNH3)	Varies as a function of Temperature and pH Rebound. See Water Quality Standards
Chronic Total Residual Chlorine (TRC)	0.011 mg/l (4 Day Average) 0.019 mg/l (1 Hour Average)
Chronic Dissolved Oxygen (DO)	6.50 mg/l (30 Day Average) 5.00 mg/l (7Day Average) 4.00 mg/l (1 Day Average)
Maximum Total Dissolved Solids	1200.0 mg/l

**Utah Division of Water Quality
Salt Lake City, Utah**

Acute and Chronic Heavy Metals (Dissolved)

Parameter	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard		
	Concentration	Load*	Concentration		Load*
Aluminum	87.00 ug/l**	0.363 lbs/day	750.00	ug/l	3.127 lbs/day
Arsenic	190.00 ug/l	0.792 lbs/day	340.00	ug/l	1.418 lbs/day
Cadmium	0.57 ug/l	0.002 lbs/day	5.92	ug/l	0.025 lbs/day
Chromium III	196.16 ug/l	0.818 lbs/day	4104.14	ug/l	17.111 lbs/day
ChromiumVI	11.00 ug/l	0.046 lbs/day	16.00	ug/l	0.067 lbs/day
Copper	22.01 ug/l	0.092 lbs/day	36.06	ug/l	0.150 lbs/day
Iron			1000.00	ug/l	4.169 lbs/day
Lead	11.43 ug/l	0.048 lbs/day	293.20	ug/l	1.222 lbs/day
Mercury	0.0120 ug/l	0.000 lbs/day	2.40	ug/l	0.010 lbs/day
Nickel	122.00 ug/l	0.509 lbs/day	1097.30	ug/l	4.575 lbs/day
Selenium	4.60 ug/l	0.019 lbs/day	20.00	ug/l	0.083 lbs/day
Silver	N/A ug/l	N/A lbs/day	21.29	ug/l	0.089 lbs/day
Zinc	280.59 ug/l	1.170 lbs/day	280.59	ug/l	1.170 lbs/day

* Allowed below discharge

**Chronic Aluminum standard applies only to waters with a pH < 7.0 and a Hardness < 50 mg/l as CaCO3

Metals Standards Based upon a Hardness of 273 mg/l as CaCO3

Organics [Pesticides]

Parameter	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard		
	Concentration	Load*	Concentration		Load*
Aldrin			1.500	ug/l	0.006 lbs/day
Chlordane	0.004 ug/l	0.053 lbs/day	1.200	ug/l	0.005 lbs/day
DDT, DDE	0.001 ug/l	0.012 lbs/day	0.550	ug/l	0.002 lbs/day
Dieldrin	0.002 ug/l	0.023 lbs/day	1.250	ug/l	0.005 lbs/day
Endosulfan	0.056 ug/l	0.686 lbs/day	0.110	ug/l	0.000 lbs/day
Endrin	0.002 ug/l	0.028 lbs/day	0.090	ug/l	0.000 lbs/day
Guthion			0.010	ug/l	0.000 lbs/day
Heptachlor	0.004 ug/l	0.047 lbs/day	0.260	ug/l	0.001 lbs/day
Lindane	0.080 ug/l	0.980 lbs/day	1.000	ug/l	0.004 lbs/day
Methoxychlor			0.030	ug/l	0.000 lbs/day
Mirex			0.010	ug/l	0.000 lbs/day
Parathion			0.040	ug/l	0.000 lbs/day
PCB's	0.014 ug/l	0.172 lbs/day	2.000	ug/l	0.008 lbs/day
Pentachlorophenol	13.00 ug/l	159.304 lbs/day	20.000	ug/l	0.083 lbs/day
Toxephene	0.0002 ug/l	0.002 lbs/day	0.7300	ug/l	0.003 lbs/day

**Utah Division of Water Quality
Salt Lake City, Utah**

IV. Numeric Stream Standards for Protection of Agriculture

	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard	
	Concentration	Load*	Concentration	Load*
Arsenic			100.0 ug/l	lbs/day
Boron			750.0 ug/l	1.56 lbs/day
Cadmium			10.0 ug/l	0.02 lbs/day
Chromium			100.0 ug/l	lbs/day
Copper			200.0 ug/l	lbs/day
Lead			100.0 ug/l	lbs/day
Selenium			50.0 ug/l	lbs/day
TDS, Summer			1200.0 mg/l	2.50 tons/day

V. Numeric Stream Standards for Protection of Human Health (Class 1C Waters)

Metals	4 Day Average (Chronic) Standard		1 Hour Average (Acute) Standard	
	Concentration	Load*	Concentration	Load*
Arsenic			50.0 ug/l	0.613 lbs/day
Barium			1000.0 ug/l	12.254 lbs/day
Cadmium			10.0 ug/l	0.123 lbs/day
Chromium			50.0 ug/l	0.613 lbs/day
Lead			50.0 ug/l	0.613 lbs/day
Mercury			2.0 ug/l	0.025 lbs/day
Selenium			10.0 ug/l	0.123 lbs/day
Silver			50.0 ug/l	0.613 lbs/day
Fluoride (3)			1.4 ug/l	0.017 lbs/day
to			2.4 ug/l	0.029 lbs/day
Nitrates as N			10.0 ug/l	0.123 lbs/day

Chlorophenoxy Herbicides

2,4-D	100.0 ug/l	1.225 lbs/day
2,4,5-TP	10.0 ug/l	0.123 lbs/day
Endrin	0.2 ug/l	0.002 lbs/day
ocyclohexane (Lindane)	4.0 ug/l	0.049 lbs/day
Methoxychlor	100.0 ug/l	1.225 lbs/day
Toxaphene	5.0 ug/l	0.061 lbs/day

VI. Numeric Stream Standards the Protection of Human Health from Water & Fish Consumption [Toxics]

Toxic Organics	Maximum Conc., ug/l - Acute Standards			
	Class 1C [2 Liters/Day for 70 Kg Person over 70 Yr.]		Class 3A, 3B [6.5 g for 70 Kg Person over 70 Yr.]	
Acenaphthene	1200.00 ug/l	14.70 lbs/day	2700.0 ug/l	33.09 lbs/day
Acrolein	320.00 ug/l	3.92 lbs/day	780.0 ug/l	9.56 lbs/day
Acrylonitrile	0.06 ug/l	0.00 lbs/day	0.7 ug/l	0.01 lbs/day
Benzene	1.20 ug/l	0.01 lbs/day	71.0 ug/l	0.87 lbs/day
Benzidine	0.00012 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Carbon tetrachloride	0.25 ug/l	0.00 lbs/day	4.4 ug/l	0.05 lbs/day
Chlorobenzene	680.00 ug/l	8.33 lbs/day	21000.0 ug/l	257.34 lbs/day
1,2,4-Trichlorobenzene				
Hexachlorobenzene	0.00075 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
1,2-Dichloroethane	0.38 ug/l	0.00 lbs/day	99.0 ug/l	1.21 lbs/day

**Utah Division of Water Quality
Salt Lake City, Utah**

1,1,1-Trichloroethane				
Hexachloroethane	1.90 ug/l	0.02 lbs/day	8.9 ug/l	0.11 lbs/day
1,1-Dichloroethane				
1,1,2-Trichloroethane	0.61 ug/l	0.01 lbs/day	42.0 ug/l	0.51 lbs/day
1,1,2,2-Tetrachloroethane	0.17 ug/l	0.00 lbs/day	11.0 ug/l	0.13 lbs/day
Chloroethane			0.0 ug/l	0.00 lbs/day
Bis(2-chloroethyl) ether	0.03 ug/l	0.00 lbs/day	1.4 ug/l	0.02 lbs/day
2-Chloroethyl vinyl ether	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
2-Chloronaphthalene	1700.00 ug/l	20.83 lbs/day	4300.0 ug/l	52.69 lbs/day
2,4,6-Trichlorophenol	2.10 ug/l	0.03 lbs/day	6.5 ug/l	0.08 lbs/day
p-Chloro-m-cresol			0.0 ug/l	0.00 lbs/day
Chloroform (HM)	5.70 ug/l	0.07 lbs/day	470.0 ug/l	5.76 lbs/day
2-Chlorophenol	120.00 ug/l	1.47 lbs/day	400.0 ug/l	4.90 lbs/day
1,2-Dichlorobenzene	2700.00 ug/l	33.09 lbs/day	17000.0 ug/l	208.32 lbs/day
1,3-Dichlorobenzene	400.00 ug/l	4.90 lbs/day	2600.0 ug/l	31.86 lbs/day
1,4-Dichlorobenzene	400.00 ug/l	4.90 lbs/day	2600.0 ug/l	31.86 lbs/day
3,3'-Dichlorobenzidine	0.04 ug/l	0.00 lbs/day	0.1 ug/l	0.00 lbs/day
1,1-Dichloroethylene	0.06 ug/l	0.00 lbs/day	3.2 ug/l	0.04 lbs/day
1,2-trans-Dichloroethylene	700.00 ug/l	8.58 lbs/day	0.0 ug/l	0.00 lbs/day
2,4-Dichlorophenol	93.00 ug/l	1.14 lbs/day	790.0 ug/l	9.68 lbs/day
1,2-Dichloropropane	0.52 ug/l	0.01 lbs/day	39.0 ug/l	0.48 lbs/day
1,3-Dichloropropylene	10.00 ug/l	0.12 lbs/day	1700.0 ug/l	20.83 lbs/day
2,4-Dimethylphenol	540.00 ug/l	6.62 lbs/day	2300.0 ug/l	28.18 lbs/day
2,4-Dinitrotoluene	0.11 ug/l	0.00 lbs/day	9.1 ug/l	0.11 lbs/day
2,6-Dinitrotoluene	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
1,2-Diphenylhydrazine	0.04 ug/l	0.00 lbs/day	0.5 ug/l	0.01 lbs/day
Ethylbenzene	3100.00 ug/l	37.99 lbs/day	29000.0 ug/l	355.37 lbs/day
Fluoranthene	300.00 ug/l	3.68 lbs/day	370.0 ug/l	4.53 lbs/day
4-Chlorophenyl phenyl ether				
4-Bromophenyl phenyl ether				
Bis(2-chloroisopropyl) ether	1400.00 ug/l	17.16 lbs/day	17000.0 ug/l	2083.21 lbs/day
Bis(2-chloroethoxy) methane	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Methylene chloride (HM)	4.70 ug/l	0.06 lbs/day	1600.0 ug/l	19.61 lbs/day
Methyl chloride (HM)	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Methyl bromide (HM)	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Bromoform (HM)	4.30 ug/l	0.05 lbs/day	360.0 ug/l	4.41 lbs/day
Dichlorobromomethane	0.27 ug/l	0.00 lbs/day	22.0 ug/l	0.27 lbs/day
Chlorodibromomethane	0.41 ug/l	0.01 lbs/day	34.0 ug/l	0.42 lbs/day
Hexachlorobutadiene(c)	0.44 ug/l	0.01 lbs/day	50.0 ug/l	0.61 lbs/day
Hexachlorocyclopentadiene	240.00 ug/l	2.94 lbs/day	17000.0 ug/l	208.32 lbs/day
Isophorone	8.40 ug/l	0.10 lbs/day	600.0 ug/l	7.35 lbs/day
Naphthalene				
Nitrobenzene	17.00 ug/l	0.21 lbs/day	1900.0 ug/l	23.28 lbs/day
2-Nitrophenol	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
4-Nitrophenol	0.00 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
2,4-Dinitrophenol	70.00 ug/l	0.86 lbs/day	14000.0 ug/l	171.56 lbs/day
4,6-Dinitro-o-cresol	13.00 ug/l	0.16 lbs/day	765.0 ug/l	9.37 lbs/day
N-Nitrosodimethylamine	0.00069 ug/l	0.00 lbs/day	8.1 ug/l	0.10 lbs/day
N-Nitrosodiphenylamine	5.00 ug/l	0.06 lbs/day	16.0 ug/l	0.20 lbs/day
N-Nitrosodi-n-propylamine	0.01 ug/l	0.00 lbs/day	1.4 ug/l	0.02 lbs/day
Pentachlorophenol	0.28 ug/l	0.00 lbs/day	8.2 ug/l	0.10 lbs/day

**Utah Division of Water Quality
Salt Lake City, Utah**

Phenol	2.10E+04 ug/l	2.57E+02 lbs/day	4.6E+06 ug/l	5.64E+04 lbs/day
Bis(2-ethylhexyl)phthala	1.80 ug/l	0.02 lbs/day	5.9 ug/l	0.07 lbs/day
Butyl benzyl phthalate	3000.00 ug/l	36.76 lbs/day	5200.0 ug/l	63.72 lbs/day
Di-n-butyl phthalate	2700.00 ug/l	33.09 lbs/day	12000.0 ug/l	147.05 lbs/day
Di-n-octyl phthlate				
Diethyl phthalate	23000.00 ug/l	281.85 lbs/day	120000.0 ug/l	1470.50 lbs/day
Dimethyl phthlate	3.13E+05 ug/l	3.84E+03 lbs/day	2.9E+06 ug/l	3.55E+04 lbs/day
Benzo(a)anthracene (P/	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Benzo(a)pyrene (PAH)	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Benzo(b)fluoranthene (F	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Benzo(k)fluoranthene (F	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Chrysene (PAH)	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Acenaphthylene (PAH)				
Anthracene (PAH)	9600.00 ug/l	117.64 lbs/day	0.0 ug/l	0.00 lbs/day
Dibenzo(a,h)anthracene	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Indeno(1,2,3-cd)pyrene	0.0028 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Pyrene (PAH)	960.00 ug/l	11.76 lbs/day	11000.0 ug/l	134.80 lbs/day
Tetrachloroethylene	0.80 ug/l	0.01 lbs/day	8.9 ug/l	0.11 lbs/day
Toluene	6800.00 ug/l	83.33 lbs/day	200000 ug/l	2450.83 lbs/day
Trichloroethylene	2.70 ug/l	0.03 lbs/day	81.0 ug/l	0.99 lbs/day
Vinyl chloride	2.00 ug/l	0.02 lbs/day	525.0 ug/l	6.43 lbs/day
			0.0	0.00 lbs/day
Pesticides			0.0	0.00 lbs/day
Aldrin	0.0001 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Dieldrin	0.0001 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Chlordane	0.0006 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
4,4'-DDT	0.0006 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
4,4'-DDE	0.0006 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
4,4'-DDD	0.0008 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
alpha-Endosulfan	0.9300 ug/l	0.01 lbs/day	2.0 ug/l	0.02 lbs/day
beta-Endosulfan	0.9300 ug/l	0.01 lbs/day	2.0 ug/l	0.02 lbs/day
Endosulfan sulfate	0.9300 ug/l	0.01 lbs/day	2.0 ug/l	0.02 lbs/day
Endrin	0.7600 ug/l	0.01 lbs/day	0.8 ug/l	0.01 lbs/day
Endrin aldehyde	0.7600 ug/l	0.01 lbs/day	0.8 ug/l	0.01 lbs/day
Heptachlor	0.0002 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Heptachlor epoxide				
PCB's				
PCB 1242 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1254 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1221 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1232 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1248 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1260 (Arochlor 124	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
PCB-1016 (Arochlor 10'	0.000044 ug/l	0.00 lbs/day	0.0 ug/l	0.00 lbs/day
Pesticide				
Toxaphene	0.000750 ug/l	0.00	0.0 ug/l	0.00 lbs/day
Dioxin				
Dioxin (2,3,7,8-TCDD)	1.30E-08 ug/l	0.00 lbs/day	1.40E-08	0.00

**Utah Division of Water Quality
Salt Lake City, Utah**

Metals

Antimony	14.0 ug/l	0.17 lbs/day		
Arsenic	50.0 ug/l	0.61 lbs/day	4300.00 ug/l	52.69 lbs/day
Asbestos	7.00E+06 ug/l	8.58E+04 lbs/day		
Beryllium				
Cadmium				
Chromium (III)				
Chromium (VI)				
Copper				
Cyanide	1.30E+03 ug/l	15.93 lbs/day	2.2E+05 ug/l	2695.92 lbs/day
Lead	700.0 ug/l	8.58 lbs/day		
Mercury			0.15 ug/l	0.00 lbs/day
Nickel			4600.00 ug/l	56.37 lbs/day
Selenium	0.1 ug/l	0.00 lbs/day		
Silver	610.0 ug/l	7.48 lbs/day		
Thallium			6.30 ug/l	0.08 lbs/day
Zinc				

There are additional standards that apply to this receiving water, but were not considered in this modeling/waste load allocation analysis.

VII. Mathematical Modeling of Stream Quality

Model configuration was accomplished utilizing standard modeling procedures. Data points were plotted and coefficients adjusted as required to match observed data as closely as possible.

The modeling approach used in this analysis included one or a combination of the following models.

- (1) The Utah River Model, Utah Division of Water Quality, 1992. Based upon STREAMDO IV (Region VIII) and Supplemental Ammonia Toxicity Models; EPA Region VIII, Sept. 1990 and QUAL2E (EPA, Athens, GA).
- (2) Utah Ammonia/Chlorine Model, Utah Division of Water Quality, 1992.
- (3) AMMTOX Model, University of Colorado, Center of Limnology, and EPA Region 8
- (4) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al. Harper Collins Publisher, Inc. 1987, pp. 644.

Coefficients used in the model were based, in part, upon the following references:

- (1) Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling. Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Athens Georgia. EPA/600/3-85/040 June 1985.

**Utah Division of Water Quality
Salt Lake City, Utah**

(2) Principles of Surface Water Quality Modeling and Control. Robert V. Thomann, et.al.
Harper Collins Publisher, Inc. 1987, pp. 644.

VIII. Modeling Information

The required information for the model may include the following information for both the upstream conditions at low flow and the effluent conditions:

Flow, Q, (cfs or MGD)	D.O. mg/l
Temperature, Deg. C.	Total Residual Chlorine (TRC), mg/l
pH	Total NH3-N, mg/l
BOD5, mg/l	Total Dissolved Solids (TDS), mg/l
Metals, ug/l	Toxic Organics of Concern, ug/l

Other Conditions

In addition to the upstream and effluent conditions, the models require a variety of physical and biological coefficients and other technical information. In the process of actually establishing the permit limits for an effluent, values are used based upon the available data, model calibration, literature values, site visits and best professional judgement.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis. Dry washes are considered to have an upstream flow equal to the flow of the discharge.

Current Upstream Information

	Stream								
	Critical Low								
	Flow	Temp.	pH	T-NH3	BOD5	DO	TRC	TDS	
	cfs	Deg. C		mg/l as N	mg/l	mg/l	mg/l	mg/l	
Summer (Irrig. Season)	1.5	15.8	8.2	0.03	0.10	7.24	0.00	339.0	
Fall	1.5	5.2	8.2	0.03	0.10	---	0.00	339.0	
Winter	1.5	2.3	8.2	0.03	0.10	---	0.00	339.0	
Spring	1.5	9.8	8.3	0.03	0.10	---	0.00	339.0	
Dissolved Metals	Al	As	Cd	CrIII	CrVI	Copper	Fe	Pb	
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	
All Seasons	1.59*	0.53*	0.053*	0.53*	2.65*	0.53*	0.83*	0.53*	
Dissolved Metals	Hg	Ni	Se	Ag	Zn	Boron			
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l			
All Seasons	0.0000	0.53*	1.06*	0.1*	0.053*	10.0		* 1/2 MDL	

**Utah Division of Water Quality
Salt Lake City, Utah**

Projected Discharge Information

Season	Flow, MGD	Temp.	TDS mg/l	TDS tons/day
Summer	0.50000	16.7	400.00	0.83383
Fall	0.50000	10.9		
Winter	0.50000	12.0		
Spring	0.50000	15.0		

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

IX. Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort coincide with the environmental conditions expected at low stream flows.

Effluent Limitation for Flow based upon Water Quality Standards

In-stream criteria of downstream segments will be met with an effluent flow maximum value as follows:

Season	Daily Average	
Summer	0.500 MGD	0.774 cfs
Fall	0.500 MGD	0.774 cfs
Winter	0.500 MGD	0.774 cfs
Spring	0.500 MGD	0.774 cfs

Flow Requirement or Loading Requirement

The calculations in this wasteload analysis utilize the maximum effluent discharge flow of 0.5 MGD. If the discharger is allowed to have a flow greater than 0.5 MGD during 7Q10 conditions, and effluent limit concentrations as indicated, then water quality standards will be violated. In order to prevent this from occurring, the permit writers must include the discharge flow limitation as indicated above; or, include loading effluent limits in the permit.

Effluent Limitation for Whole Effluent Toxicity (WET) based upon WET Policy

Effluent Toxicity will not occur in downstream segments if the values below are met.

WET Requirements	LC50 >	EOP Effluent	[Acute]
	IC25 >	34.0% Effluent	[Chronic]

**Utah Division of Water Quality
Salt Lake City, Utah**

Effluent Limitation for Biological Oxygen Demand (BOD) based upon Water Quality Standards or Regulations

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent BOD limitation as follows:

Season	Concentration	
Summer	25.0 mg/l as BOD5	104.2 lbs/day
Fall	25.0 mg/l as BOD5	104.2 lbs/day
Winter	25.0 mg/l as BOD5	104.2 lbs/day
Spring	25.0 mg/l as BOD5	104.2 lbs/day

Effluent Limitation for Dissolved Oxygen (DO) based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Oxygen will be met with an effluent D.O. limitation as follows:

Season	Concentration
Summer	5.00
Fall	5.00
Winter	5.00
Spring	5.00

Effluent Limitation for Total Ammonia based upon Water Quality Standards

In-stream criteria of downstream segments for Total Ammonia will be met with an effluent limitation (expressed as Total Ammonia as N) as follows:

Season		Concentration	Load
Summer	4 Day Avg. - Chronic	6.6 mg/l as N	27.4 lbs/day
	1 Hour Avg. - Acute	13.9 mg/l as N	57.9 lbs/day
Fall	4 Day Avg. - Chronic	7.7 mg/l as N	32.0 lbs/day
	1 Hour Avg. - Acute	13.5 mg/l as N	56.4 lbs/day
Winter	4 Day Avg. - Chronic	6.4 mg/l as N	26.6 lbs/day
	1 Hour Avg. - Acute	13.2 mg/l as N	55.0 lbs/day
Spring	4 Day Avg. - Chronic	7.2 mg/l as N	0.0 lbs/day
	1 Hour Avg. - Acute	13.5 mg/l as N	0.0 lbs/day

Acute limit calculated with an Acute Zone of Initial Dilution (ZID) to be equal to 100.%.

**Utah Division of Water Quality
Salt Lake City, Utah**

Effluent Limitation for Total Residual Chlorine based upon Water Quality Standards

In-stream criteria of downstream segments for Total Residual Chlorine will be met with an effluent limitation as follows:

Season		Concentration	Load
Summer	4 Day Avg. - Chronic	0.032 mg/l	0.13 lbs/day
	1 Hour Avg. - Acute	0.056 mg/l	0.23 lbs/day
Fall	4 Day Avg. - Chronic	0.032 mg/l	0.13 lbs/day
	1 Hour Avg. - Acute	0.056 mg/l	0.23 lbs/day
Winter	4 Day Avg. - Chronic	0.032 mg/l	0.13 lbs/day
	1 Hour Avg. - Acute	0.056 mg/l	0.23 lbs/day
Spring	4 Day Avg. - Chronic	0.032 mg/l	0.00 lbs/day
	1 Hour Avg. - Acute	0.056 mg/l	0.00 lbs/day

Effluent Limitations for Total Dissolved Solids based upon Water Quality Standards

Season		Concentration	Load
Summer	Maximum, Acute	2869.7 mg/l	5.98 tons/day
Fall	Maximum, Acute	2869.7 mg/l	5.98 tons/day
Winter	Maximum, Acute	2869.7 mg/l	5.98 tons/day
Spring	4 Day Avg. - Chronic	2869.7 mg/l	5.98 tons/day

Colorado Salinity Forum Limits Determined by Permitting Section

Effluent Limitations for Total Recoverable Metals based upon Water Quality Standards

In-stream criteria of downstream segments for Dissolved Metals will be met with an effluent limitation as follows (based upon a hardness of 273 mg/l):

	4 Day Average		1 Hour Average		Load
	Concentration	Load	Concentration	Load	
Aluminum	N/A	N/A	1,474.9	ug/l	6.1 lbs/day
Arsenic	556.91 ug/l	1.5 lbs/day	668.9	ug/l	2.8 lbs/day
Cadmium	1.52 ug/l	0.0 lbs/day	11.6	ug/l	0.0 lbs/day
Chromium III	575.03 ug/l	1.5 lbs/day	8,082.8	ug/l	33.7 lbs/day
Chromium VI	24.62 ug/l	0.1 lbs/day	27.7	ug/l	0.1 lbs/day
Copper	63.14 ug/l	0.2 lbs/day	70.3	ug/l	0.3 lbs/day
Iron	N/A	N/A	1,968.4	ug/l	8.2 lbs/day
Lead	32.04 ug/l	0.1 lbs/day	576.7	ug/l	2.4 lbs/day
Mercury	0.04 ug/l	0.0 lbs/day	4.7	ug/l	0.0 lbs/day
Nickel	357.04 ug/l	1.0 lbs/day	2,160.5	ug/l	9.0 lbs/day
Selenium	10.44 ug/l	0.0 lbs/day	37.9	ug/l	0.2 lbs/day
Silver	N/A ug/l	N/A lbs/day	41.9	ug/l	0.2 lbs/day

**Utah Division of Water Quality
Salt Lake City, Utah**

Zinc	824.57 ug/l	2.2 lbs/day	552.6	ug/l	2.3 lbs/day
Cyanide	15.28 ug/l	0.0 lbs/day	43.3	ug/l	0.2 lbs/day

**Effluent Limitations for Heat/Temperature based upon
Water Quality Standards**

Summer	21.7 Deg. C.	71.0 Deg. F
Fall	11.1 Deg. C.	51.9 Deg. F
Winter	8.2 Deg. C.	46.7 Deg. F
Spring	15.7 Deg. C.	60.2 Deg. F

**Effluent Limitations for Organics [Pesticides]
Based upon Water Quality Standards**

In-stream criteria of downstream segments for Organics [Pesticides] will be met with an effluent limit as follows:

	4 Day Average		1 Hour Average		
	Concentration	Load	Concentration		Load
Aldrin			1.5E+00	ug/l	9.67E-03 lbs/day
Chlordane	4.30E-03 ug/l	1.79E-02 lbs/day	1.2E+00	ug/l	7.74E-03 lbs/day
DDT, DDE	1.00E-03 ug/l	4.17E-03 lbs/day	5.5E-01	ug/l	3.55E-03 lbs/day
Dieldrin	1.90E-03 ug/l	7.92E-03 lbs/day	1.3E+00	ug/l	8.06E-03 lbs/day
Endosulfan	5.60E-02 ug/l	2.33E-01 lbs/day	1.1E-01	ug/l	7.09E-04 lbs/day
Endrin	2.30E-03 ug/l	9.59E-03 lbs/day	9.0E-02	ug/l	5.80E-04 lbs/day
Guthion	0.00E+00 ug/l	0.00E+00 lbs/day	1.0E-02	ug/l	6.45E-05 lbs/day
Heptachlor	3.80E-03 ug/l	1.58E-02 lbs/day	2.6E-01	ug/l	1.68E-03 lbs/day
Lindane	8.00E-02 ug/l	3.34E-01 lbs/day	1.0E+00	ug/l	6.45E-03 lbs/day
Methoxychlor	0.00E+00 ug/l	0.00E+00 lbs/day	3.0E-02	ug/l	1.93E-04 lbs/day
Mirex	0.00E+00 ug/l	0.00E+00 lbs/day	1.0E-02	ug/l	6.45E-05 lbs/day
Parathion	0.00E+00 ug/l	0.00E+00 lbs/day	4.0E-02	ug/l	2.58E-04 lbs/day
PCB's	1.40E-02 ug/l	5.84E-02 lbs/day	2.0E+00	ug/l	1.29E-02 lbs/day
Pentachlorophenol	1.30E+01 ug/l	5.42E+01 lbs/day	2.0E+01	ug/l	1.29E-01 lbs/day
Toxephene	2.00E-04 ug/l	8.34E-04 lbs/day	7.3E-01	ug/l	4.71E-03 lbs/day

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Salt Lake City, Utah**

**Effluent Targets for Pollution Indicators
Based upon Water Quality Standards**

In-stream criteria of downstream segments for Pollution Indicators will be met with an effluent limit as follows:

	1 Hour Average	
	Concentration	Loading
Gross Beta (pCi/l)	50.0 pCi/L	
BOD (mg/l)	5.0 mg/l	20.8 lbs/day
Nitrates as N	4.0 mg/l	16.7 lbs/day
Total Phosphorus as P	0.05 mg/l	0.2 lbs/day
Total Suspended Solids	90.0 mg/l	375.2 lbs/day

Note: Pollution indicator targets are for information purposes only.

**Effluent Limitations for Protection of Human Health [Toxics Rule]
Based upon Water Quality Standards (Most stringent of 1C or 3A & 3B as appropriate.)**

In-stream criteria of downstream segments for Protection of Human Health [Toxics] will be met with an effluent limit as follows:

	Maximum Concentration	
	Concentration	Load
Toxic Organics		
Acenaphthene	3.53E+03 ug/l	1.47E+01 lbs/day
Acrolein	9.41E+02 ug/l	3.92E+00 lbs/day
Acrylonitrile	1.73E-01 ug/l	7.23E-04 lbs/day
Benzene	3.53E+00 ug/l	1.47E-02 lbs/day
Benzidine	ug/l	lbs/day
Carbon tetrachloride	7.35E-01 ug/l	3.06E-03 lbs/day
Chlorobenzene	2.00E+03 ug/l	8.33E+00 lbs/day
1,2,4-Trichlorobenzene		
Hexachlorobenzene	2.20E-03 ug/l	9.19E-06 lbs/day
1,2-Dichloroethane	1.12E+00 ug/l	4.66E-03 lbs/day
1,1,1-Trichloroethane		
Hexachloroethane	5.58E+00 ug/l	2.33E-02 lbs/day
1,1-Dichloroethane		
1,1,2-Trichloroethane	1.79E+00 ug/l	7.48E-03 lbs/day
1,1,2,2-Tetrachloroethane	5.00E-01 ug/l	2.08E-03 lbs/day
Chloroethane		
Bis(2-chloroethyl) ether	9.11E-02 ug/l	3.80E-04 lbs/day
2-Chloroethyl vinyl ether		
2-Chloronaphthalene	5.00E+03 ug/l	2.08E+01 lbs/day
2,4,6-Trichlorophenol	6.17E+00 ug/l	2.57E-02 lbs/day
p-Chloro-m-cresol		
Chloroform (HM)	1.68E+01 ug/l	6.98E-02 lbs/day
2-Chlorophenol	3.53E+02 ug/l	1.47E+00 lbs/day
1,2-Dichlorobenzene	7.94E+03 ug/l	3.31E+01 lbs/day
1,3-Dichlorobenzene	1.18E+03 ug/l	4.90E+00 lbs/day

**Utah Division of Water Quality
Salt Lake City, Utah**

1,4-Dichlorobenzene	1.18E+03 ug/l	4.90E+00 lbs/day
3,3'-Dichlorobenzidine	1.18E-01 ug/l	4.90E-04 lbs/day
1,1-Dichloroethylene	1.68E-01 ug/l	6.98E-04 lbs/day
1,2-trans-Dichloroethylene1		
2,4-Dichlorophenol	2.73E+02 ug/l	1.14E+00 lbs/day
1,2-Dichloropropane	1.53E+00 ug/l	6.37E-03 lbs/day
1,3-Dichloropropylene	2.94E+01 ug/l	1.23E-01 lbs/day
2,4-Dimethylphenol	1.59E+03 ug/l	6.62E+00 lbs/day
2,4-Dinitrotoluene	3.23E-01 ug/l	1.35E-03 lbs/day
2,6-Dinitrotoluene		
1,2-Diphenylhydrazine	1.18E-01 ug/l	4.90E-04 lbs/day
Ethylbenzene	9.11E+03 ug/l	3.80E+01 lbs/day
Fluoranthene	8.82E+02 ug/l	3.68E+00 lbs/day
4-Chlorophenyl phenyl ether		
4-Bromophenyl phenyl ether		
Bis(2-chloroisopropyl) ether	4.11E+03 ug/l	1.72E+01 lbs/day
Bis(2-chloroethoxy) methane		
Methylene chloride (HM)	1.38E+01 ug/l	5.76E-02 lbs/day
Methyl chloride (HM)		
Methyl bromide (HM)		
Bromoform (HM)	1.26E+01 ug/l	5.27E-02 lbs/day
Dichlorobromomethane(HM)	7.94E-01 ug/l	3.31E-03 lbs/day
Chlorodibromomethane (HM)	1.21E+00 ug/l	5.02E-03 lbs/day
Hexachlorocyclopentadiene	7.05E+02 ug/l	2.94E+00 lbs/day
Isophorone	2.47E+01 ug/l	1.03E-01 lbs/day
Naphthalene		
Nitrobenzene	5.00E+01 ug/l	2.08E-01 lbs/day
2-Nitrophenol		
4-Nitrophenol		
2,4-Dinitrophenol	2.06E+02 ug/l	8.58E-01 lbs/day
4,6-Dinitro-o-cresol	3.82E+01 ug/l	1.59E-01 lbs/day
N-Nitrosodimethylamine	2.03E-03 ug/l	8.46E-06 lbs/day
N-Nitrosodiphenylamine	1.47E+01 ug/l	6.13E-02 lbs/day
N-Nitrosodi-n-propylamine	1.47E-02 ug/l	6.13E-05 lbs/day
Pentachlorophenol	8.23E-01 ug/l	3.43E-03 lbs/day
Phenol	6.17E+04 ug/l	2.57E+02 lbs/day
Bis(2-ethylhexyl)phthalate	5.29E+00 ug/l	2.21E-02 lbs/day
Butyl benzyl phthalate	8.82E+03 ug/l	3.68E+01 lbs/day
Di-n-butyl phthalate	7.94E+03 ug/l	3.31E+01 lbs/day
Di-n-octyl phthlate		
Diethyl phthalate	6.76E+04 ug/l	2.82E+02 lbs/day
Dimethyl phthlate	9.20E+05 ug/l	3.84E+03 lbs/day
Benzo(a)anthracene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day
Benzo(a)pyrene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day
Benzo(b)fluoranthene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day
Benzo(k)fluoranthene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day
Chrysene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day
Acenaphthylene (PAH)		
Anthracene (PAH)		
Dibenzo(a,h)anthracene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day
Indeno(1,2,3-cd)pyrene (PAH)	8.23E-03 ug/l	3.43E-05 lbs/day

**Utah Division of Water Quality
Salt Lake City, Utah**

Pyrene (PAH)	2.82E+03 ug/l	1.18E+01 lbs/day
Tetrachloroethylene	2.35E+00 ug/l	9.80E-03 lbs/day
Toluene	2.00E+04 ug/l	8.33E+01 lbs/day
Trichloroethylene	7.94E+00 ug/l	3.31E-02 lbs/day
Vinyl chloride	5.88E+00 ug/l	2.45E-02 lbs/day

Pesticides

Aldrin	3.82E-04 ug/l	1.59E-06 lbs/day
Dieldrin	4.11E-04 ug/l	1.72E-06 lbs/day
Chlordane	1.68E-03 ug/l	6.98E-06 lbs/day
4,4'-DDT	1.73E-03 ug/l	7.23E-06 lbs/day
4,4'-DDE	1.73E-03 ug/l	7.23E-06 lbs/day
4,4'-DDD	2.44E-03 ug/l	1.02E-05 lbs/day
alpha-Endosulfan	2.73E+00 ug/l	1.14E-02 lbs/day
beta-Endosulfan	2.73E+00 ug/l	1.14E-02 lbs/day
Endosulfan sulfate	2.73E+00 ug/l	1.14E-02 lbs/day
Endrin	2.23E+00 ug/l	9.31E-03 lbs/day
Endrin aldehyde	2.23E+00 ug/l	9.31E-03 lbs/day
Heptachlor	6.17E-04 ug/l	2.57E-06 lbs/day
Heptachlor epoxide		

PCB's

PCB 1242 (Arochlor 1242)	1.29E-04 ug/l	5.39E-07 lbs/day
PCB-1254 (Arochlor 1254)	1.29E-04 ug/l	5.39E-07 lbs/day
PCB-1221 (Arochlor 1221)	1.29E-04 ug/l	5.39E-07 lbs/day
PCB-1232 (Arochlor 1232)	1.29E-04 ug/l	5.39E-07 lbs/day
PCB-1248 (Arochlor 1248)	1.29E-04 ug/l	5.39E-07 lbs/day
PCB-1260 (Arochlor 1260)	1.29E-04 ug/l	5.39E-07 lbs/day
PCB-1016 (Arochlor 1016)	1.29E-04 ug/l	5.39E-07 lbs/day

Pesticide

Toxaphene	2.15E-03 ug/l	8.95E-06 lbs/day
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Metals

Antimony	41.15 ug/l	0.17 lbs/day
Arsenic	145.42 ug/l	0.61 lbs/day
Asbestos	2.06E+07 ug/l	8.58E+04 lbs/day
Beryllium		
Cadmium		
Chromium (III)		
Chromium (VI)		
Copper	3821.01 ug/l	15.93 lbs/day
Cyanide	2057.47 ug/l	8.58 lbs/day
Lead	0.00	0.00
Mercury	0.41 ug/l	0.00 lbs/day
Nickel	1792.93 ug/l	7.48 lbs/day
Selenium	0.00	0.00
Silver	0.00	0.00
Thallium	5.00 ug/l	0.02 lbs/day
Zinc		

**Utah Division of Water Quality
Salt Lake City, Utah**

Dioxin

Dioxin (2,3,7,8-TCDD) 3.82E-08 ug/l 1.59E-10 lbs/day

**Metals Effluent Limitations for Protection of All Beneficial Uses
Based upon Water Quality Standards and Toxics Rule**

	Class 4 Acute Agricultural ug/l	Class 3 Acute Aquatic Wildlife ug/l	Acute Toxics Drinking Water Source ug/l	Acute Toxics Wildlife ug/l	1C Acute Health Criteria ug/l	Acute Most Stringent ug/l	Class 3 Chronic Aquatic Wildlife ug/l
Aluminum		1474.9				1474.9	N/A
Antimony			41.1	12638.7		41.1	
Arsenic	293.9	668.9	145.4		0.0	145.4	556.9
Barium					2939.2	2939.2	
Beryllium						0.0	
Cadmium	29.2	11.6			0.0	11.6	1.5
Chromium (III)		8082.8			0.0	8082.8	575.0
Chromium (VI)	292.4	27.7			0.0	27.66	24.62
Copper	586.3	70.3	3821.0			70.3	63.1
Cyanide		43.3	646632.2			43.3	15.3
Iron		1968.4				1968.4	
Lead	292.4	576.7			0.0	292.4	32.0
Mercury		4.73	0.4	0.44	0.0	0.41	0.035
Nickel		2160.5	1792.9	13520.5		1792.9	357.0
Selenium	143.9	37.9			0.0	37.9	10.4
Silver		41.9			0.0	41.9	
Thallium			5.0	18.5		5.0	
Zinc		552.6				552.6	824.6
Boron	2204.4					2204.4	

Summary Effluent Limitations for Metals [Wasteload Allocation, TMDL]

[If Acute is more stringent than Chronic, then the Chronic takes on the Acute value.]

	WLA Acute ug/l	WLA Chronic ug/l	
Aluminum	1474.9	N/A	
Antimony	41.15		
Arsenic	145.4	556.9	Acute Controls
Asbestos	2.06E+07		
Barium			
Beryllium			
Cadmium	11.6	1.5	
Chromium (III)	8082.8	575	
Chromium (VI)	27.7	24.6	
Copper	70.3	63.1	

**Utah Division of Water Quality
Salt Lake City, Utah**

Cyanide	43.3	15.3	
Iron	1968.4		
Lead	292.4	32.0	
Mercury	0.411	0.035	
Nickel	1792.9	357	
Selenium	37.9	10.4	
Silver	41.9	N/A	
Thallium	5.0		
Zinc	552.6	824.6	Acute Controls
Boron	2204.43		

Other Effluent Limitations are based upon R317-1.

E. coli	126.0 organisms per 100 ml
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X. Antidegradation Considerations

The Utah Antidegradation Policy allows for degradation of existing quality where it is determined that such lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are protected [R317-2-3]. It has been determined that certain chemical parameters introduced by this discharge will cause an increase of the concentration of said parameters in the receiving waters. Under no conditions will the increase in concentration be allowed to interfere with existing instream water uses.

The antidegradation rules and procedures allow for modification of effluent limits less than those based strictly upon mass balance equations utilizing 100% of the assimilative capacity of the receiving water. Additional factors include considerations for "Blue-ribbon" fisheries, special recreational areas, threatened and endangered species, and drinking water sources.

An Antidegradation Level I Review was conducted on this discharge and its effect on the receiving water. Based upon that review, it has been determined that an

Antidegradation Review is Required.

XI. Colorado River Salinity Forum Considerations

Discharges in the Colorado River Basin are required to have their discharge at a TDS loading of less than 1.00 tons/day unless certain exemptions apply. Refer to the Forum's Guidelines for additional information allowing for an exceedence of this value.

XII. Summary Comments

The mathematical modeling and best professional judgement indicate that violations of receiving water beneficial uses with their associated water quality standards, including important down-stream segments, will not occur for the evaluated parameters of concern as discussed above if the effluent limitations indicated above are met.

**Utah Division of Water Quality
Salt Lake City, Utah**

XIII. Notice of UPDES Requirement

This Addendum to the Statement of Basis does not authorize any entity or party to discharge to the waters of the State of Utah. That authority is granted through a UPDES permit issued by the Utah Division of Water Quality. The numbers presented here may be changed as a function of other factors. Dischargers are strongly urged to contact the Permits Section for further information. Permit writers may utilize other information to adjust these limits and/or to determine other limits based upon best available technology and other considerations provided that the values in this wasteload analysis [TMDL] are not compromised. See special provisions in Utah Water Quality Standards for adjustments in the Total Dissolved Solids values based upon background concentration.

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801-538-6052
File Name: Coalville_WLA_3-16-09.xls

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Salt Lake City, Utah**

APPENDIX - Coefficients and Other Model Information

CBOD Coeff. (Kd)20 1/day 2.000	CBOD Coeff. FORCED (Kd)/day 0.000	CBOD Coeff. (Ka)T 1/day 1.649	REAER. Coeff. (Ka)20 (Ka)/day 68.686	REAER. Coeff. FORCED 1/day 0.000	REAER. Coeff. (Ka)T 1/day 62.174	NBOD Coeff. (Kn)20 1/day 0.400	NBOD Coeff. (Kn)T 1/day 0.290
Open Coeff. (K4)20 1/day 0.000	Open Coeff. (K4)T 1/day 0.000	NH3 LOSS (K5)20 1/day 4.000	NH3 (K5)T 1/day 3.298	NO2+NO3 LOSS (K6)20 1/day 0.000	NO2+NO3 (K6)T 1/day 0.000	TRC Decay K(CI)20 1/day 32.000	TRC K(CI)(T) 1/day 25.053
BENTHIC DEMAND (SOD)20 gm/m2/day 1.000	BENTHIC DEMAND (SOD)T gm/m2/day 0.768						
K1 CBOD {theta} 1.0	K2 Reaer. {theta} 1.0	K3 NH3 {theta} 1.1	K4 Open {theta} 1.0	K5 NH3 Loss {theta} 1.0	K6 NO2+3 {theta} 1.0	K(CI) TRC {theta} 1.1	S Benthic {theta} 1.1

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Salt Lake City, Utah

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Review by: _____

2/21/2012



J-U-B ENGINEERS, INC.

J-U-B COMPANIES



THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

MEETING MINUTES

Subject: Coalville Anti-Degradation Review Coordination Meeting

Date: July 28, 2011

Attendees: DWQ – Lisa Nelson, Nick Von Stackelberg, Dave Wham, Bill Damery, Kim Shelley, Kari Lundeen. JUB Engineers – Trevor Lindley, Jim Goodley

Purpose of the Meeting: Coalville Anti-Deg Review (ADR)

1. **Welcome – Bill Damery.**
2. **Project Status – JUB Engineers.** Trevor Lindley gave a brief history of the existing facility including the negotiations with the Bureau of Reclamation (BOR) and the BORs desire to have the facility relocated. The current status is JUB is putting together USDA submittal packages for USDA to review in anticipation of USDA serving as a funding partner. The WQ Board has already agreed to funding 50 percent of the project with a mix of grant and loan. The City is actively pursuing two parcels of land that are the most feasible for the new site. Those negotiations have been going relatively slow. The City has increased the offer on the land to move an agreement forward. The City would rather not pursue imminent domain.
3. **Anti-Degradation Review.** The primary questions JUB has on the ADR is (1) how/who determines constituents of concern and what might they be (2) how many alternatives need to be investigated.

Constituents of Concern:

Nick and Dave explained the permittee (Coalville/JUB) essentially needs to look at background water quality concentrations and the effluent quality and if an effluent concentration is greater than background then potentially that item is a constituents of concern. After some discussion and review of the background water quality concentrations it was determined the most likely constituents of concern include: BOD, TSS, phosphorus, dissolved oxygen, ammonia, and TDS. Of note on these items:

- a. Phosphorus and oxygen will not have to be included in the ADR because they are addressed in the TMDL.
- b. There is no nitrate data; our goal of TN of 10 is to prepare for future secondary limits.
- c. With the plant making a TN of 10 the ammonia concentration will likely be around 1-2 mg/l which is higher than background. David noted the wasteload allocation for Chalk Creek has ample assimilative capacity.
- d. TDS will be addressed briefly by noting the challenges of brine disposal, cost of TDS removal, and the fact that the proposed system takes the user rates to maximum on MAGI.

Alternatives

It was noted the draft facility plan completed in 2007 proposed maximizing the use of the existing facility. With BOR's stance on vacating the parcel; the Facility Plan Update (December 2010) focused on feasible technologies to meet secondary standards and remove nutrients to a TN of < 10 mg/l and a TP of < 1 mg/l. The alternatives also considered site constraints for the land parcels the City considered to be favorable. The two alternatives for the new site include conventional activated sludge using an MLE process (modified Ludzack-Ettinger) or a membrane bioreactor (MBR). The MLE process targets biological nitrogen removal to reliably meet a TN limit of < 10 mg/l. The MLE process would be site planned for anaerobic zones (bio-P removal) and tertiary filters (Type 1 reuse or further TP removal). The MLE process would start with chemical addition to target effluent TP of < 1 mg/l. The MLE process was selected due to estimated lower capital and operational costs.

The only other potentially viable alternative that was not investigated was an alternative to "get out of the river" and might include aerated lagoons, winter storage, and land application. After some discussion, JUB will investigate that kind of an alternative to see how the numbers come in. The big challenge continues to be finding viable land. This alternative can be discussed in generic terms without specific land being identified.

DWQ noted they will review the ADR but it would likely be an outside stakeholder that would challenge the ADR with regard to if appropriate alternatives have been investigated.

- 4. Ambient WQ and Facility Wasteload.** Dave Wham provided ambient WQ data and the draft wasteload. Of all the constituents discussed and included in the wasteload, DO may need the most attention in the design. The current design does not have re-aeration. The design may need to include re-aeration or try to accommodate a cascade weir at the back end of the facility.

There was quite a lengthy discussion on receiving water. It was noted in the late spring and early summer the receiving water will essentially be the backwaters of Echo Reservoir. In the fall and winter the receiving water will be un-named tributary to Chalk Creek. DWQ at this point has run the wasteload and background on Chalk Creek. After some discussion it was decided to maintain Chalk Creek as the receiving water. However, once the land is finalized DWQ will want to walk the site and look at the un-named tributary. If the un-named tributary has a year round flow it is possible the receiving water will be reclassified. All agreed the un-named tributary was likely a "water of the state" (defined as such if it crosses property boundaries). It was also noted the un-named tributary enters Chalk Creek only a short distance above its own confluence with the Weber River.

- 5. TMDL Status (Kari Lundeen).** DWQ is gathering background data. TMDL will likely go out to contract next year. It will cover Echo and Rockport Reservoirs and the Weber drainage above these two reservoirs. Kari would like to be done in 2014. No stakeholder meetings have been held to date.
- 6. UPDES Timing (Kim Shelley):** DWQ is pushing to have UPDES permits issued prior to construction. All agreed that would be a good thing to have done. Trevor highlighted the schedule with ADR, funding, environmental spanning July, August, September, October. Design October through May and bidding and construction starting summer of 2012. So under that

type of schedule the permit would be issued in about May of 2012. DWQ is starting a fee schedule for permittees. The upside to issuing a permit prior to construction is it seems to give citizens and elected officials a better feeling that the facility will get the permit. The downside is with the permit being issued the 5 year clock starts ticking so for 1 to 2 years during construction the permit is active but in a sense not being used. For Coalville they would have two permits at the same time. The old permit expires August of 2014 which should fit fine with the new permit.

7. Action Items/Other Discussion:

- a. Schedule: JUB anticipates sending out the agency notices early in August and giving them 30 days to respond. JUB would hope to have a draft Env. Report/ADR available early in September. DWQ will need at least 30 days to review the ADR. So the public comment period would potentially be mid-October through mid-November.
- b. The Env. Report will have an ADR section. We proposed referring to an Appendix in the Env. Report and including the ADR forms and narrative in that Appendix. That will allow DWQ to focus on the ADR appendix.
- c. We may have to re-open the Facility Plan if any new alternatives (like land application) are more fully developed. We would rather not re-open the facility plan and just make the Env. Report cover the items necessary for ADR.
- d. JUB will keep the group informed on the land so DWQ can perform a site walk if they need to as part of the Env. Report.

APPENDIX M
USDA-RURAL DEVELOPMENT ENVIRONMENTAL JUSTICE AND
CIVIL RIGHTS IMPACT ANALYSIS CERTIFICATION

Rural Development
Environmental Justice (EJ) and Civil Rights Impact Analysis (CRIA)
Certification

1. Applicant's name and proposed project description: Coalville City Wastewater Treatment
New wastewater treatment project for the town of Coalville.

2. Rural Development's loan/grant program/guarantee or other Agency action: W&W Direct

3. Attach a map of the proposal's area of effect identifying location or EJ populations, location of the proposal, area of impact or

Attach results of EJ analysis from the Environmental Protection Agency's (EPAs) EnviroMapper with proposed project location and impact footprint delineated.

4. Does the applicant's proposal or Agency action directly, indirectly or cumulatively affect the quality and/or level of services provided to the community?

Yes No N/A *positively*

5. Is the applicant's proposal or Agency action likely to result in a change in the current land use patterns (types of land use, development densities, etc)?

Yes No N/A

6. Does a demographic analysis indicate the applicant's proposal or Agency's action may disproportionately affect a significant minority and/or low-income populations?

Yes No N/A

If answer is no, skip to item 12. If answer is yes, continue with items 7 through 12.

7. Identify, describe, and provide location of EJ population _____

8. If a disproportionate adverse affect is expected to impact an EJ population, identify type/level of public outreach implemented. _____

9. Identify disproportionately high and adverse impacts on EJ populations. _____

10. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts expected on non-minority/low-income populations?

Yes No N/A

11. Are alternatives and/or mitigation required to avoid impacts to EJ populations?

Yes No N/A

If yes, describe _____

12. I certify that I have reviewed the appropriate documentation and have determined that:

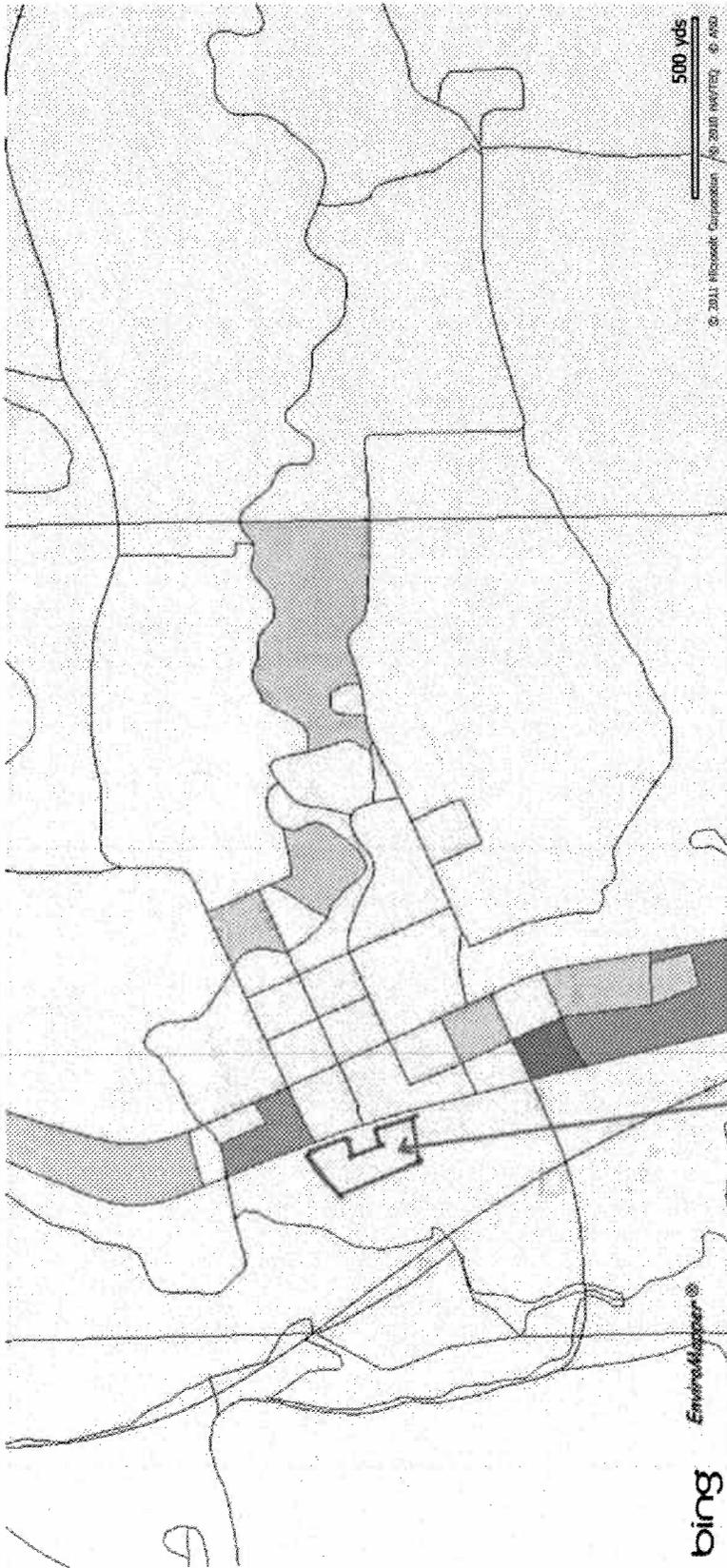
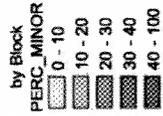
No major EJ or civil rights impact is likely to result if the proposal is implemented.
 A major EJ or civil rights impact is likely to result if the proposal is implemented.

Amy Ivie/Area Specialist
Name and Title of Certifying Official

10-22-2011
Date

Amy Ivie

Click and Add Title Here



500 yds

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Emmett-Kasper

bing

Preferred Area for
Location of Future
Wastewater
Treatment Plant

APPENDIX N
FINDING OF NO SIGNIFICANT IMPACT

Place holder. To be included.

