

Commissioner
Minutes
Journal # 56

CASCADE COUNTY COMMISSION MEETING
August 23, 2016
COMMISSION CHAMBERS
COURTHOUSE ANNEX, ROOM 111
9:30 A.M.

Notice: These minutes are paraphrased and reflect the proceedings of the Board of Commissioners. MCA 7-4-2611 (2) (b). These minutes were officially approved at the September 27, 2016 meeting.

Commission: Chairman Joe Briggs, Commissioner Jane Weber, and Commissioner Jim Larson.

Present: Carey Ann Haight, Bonnie Fogerty, Jamie Bailey, Fernando Terrones', Autumn Coleman, Tom Henderson, Kim Wells, Jo-Viviane Jones, Leslie Southworth, Bonnie Fogerty, Mitch Tropila, and Marie Johnson.

Reading of the Commissioners calendar: Bonnie Fogerty, read the weekly calendar.

Treasurer's Monthly Report; Bank Balances, Investments, Revenues and Disbursements. Treasurer Jamie Bailey read this report which can be found in the Agenda packet dated August 23, 2016.

Purchase orders and accounts payable warrants: Commissioner Weber made a **MOTION** to approve purchase orders and accounts payable checks #265641 thru #265835 totaling \$958,574.97 dated 08/08/2016 thru 07/12/2016. And purchase orders and accounts payable checks #265503 through #265840 totaling \$1,716,663.71 dated 08/01/2016 thru 08/05/2016. **Motion carries 3-0**

Consent agenda: The consent agenda is made up of routine day-to-day items that require Commission action. Any Commissioner may pull items from the Consent Agenda for further discussion/vote.

Approval of the Minutes and Consent Agenda Items: Commissioner Larson made a **MOTION** to approve minute entries and the approval of routine contracts as follows;

◆ **Contract 16-152:** Collective Bargaining Agreement between Cascade County and Montana Nurses' Association. Effective Dates: July 1, 2016 - June 30, 2019. *R0327547*

◆ **Contract 16-153:** MT DPHHS Contract 17-331-74101-0 Addictive & Mental Disorders Division with Cascade County for Crisis Intervention and Jail Diversion. Effective: July 1, 2016 - June 30, 2017.

◆ **Contract 16-155:** Agreement with KD Ranch, LLC for county use of easement to access County's radio site at Belt Butte. Effective: June 20, 2016. Payment: \$100/annual. *R0327374*

◆ **Contract 16-156:** Montana Department of Natural Resources & Conservation (DNRC) Subaward #: VFA-16-071 Volunteer Fire Assistance Program Contract. Additional Federal Funds not to exceed \$500. (Ref: Contract 15-22, R0310944) *R0327937*

◆ **Contract 16-157:** Montana Department of Natural Resources & Conservation (DNRC) Subaward #: VFA-17-070 Volunteer Fire Assistance Program Contract for the 2016 Volunteer Fire Assistance Program. Federal Funds not to exceed \$8,000. *R0327938*

◆ **Contract 16-159:** Amendment #1 Business Assistance Agreement between Cascade County and Anderson Steel Supply, Inc. for Montana Department of Commerce Big Sky Economic Development Trust Fund Program, Contract #MT-BSTF-1-16-20. (Ref: Contract 16-126, R0325235) *R0327376*

♦ **Contract 16-160:** Amendment #1 Management Plan between Cascade County and Great Falls Development Authority for the implementation of the Big Sky Trust Funds for the Anderson Steel Supply, Inc. expansion and job creation. (Ref: Contract 16-129, R0325631). *R0327377*

City County Health Department

♦ **Contract 16-154:** Professional Services Agreement between Great Falls Child and Family Services Division (CFSD) and CCHD. Purpose: To clarify roles, responsibilities and compensation for services. Effective Dates: July 1, 2016 - June 30, 2017. Total Amount: \$90.00/child/month.

Community Health Care Center

♦ **Contract 16-158:** Amendment #1 Memorandum of Understanding between Gateway Community, Center for Mental Health and the Community Health Care Center. Effective Dates: June 30, 2016 - June 30, 2017. (Ref: Contract 16-150) *R0327375*

Motion carries 3-0

AGENDA ITEM #1

Presentation from Montana Department of Environmental Quality

Autumn Coleman and Tom Henderson gave a power point presentation on the Belt Acid Mine Damage Water Treatment Plant (see exhibit "A" for handout). It was also noted that they will conduct other public hearing then open it to public comment. It was also announced that more information can be found on their website. They thanked the Commission for allowing them to present their information at this public meeting.

Commissioner Briggs called for public comment; which there was none.

Public Participation in decisions of the Board and allowance of public comment on matters the Commission has jurisdiction, on items not covered by Today's agenda. (MCA 2-3-103)

Adjournment: Chairman Briggs adjourned this Commission meeting at 10:30 a.m.

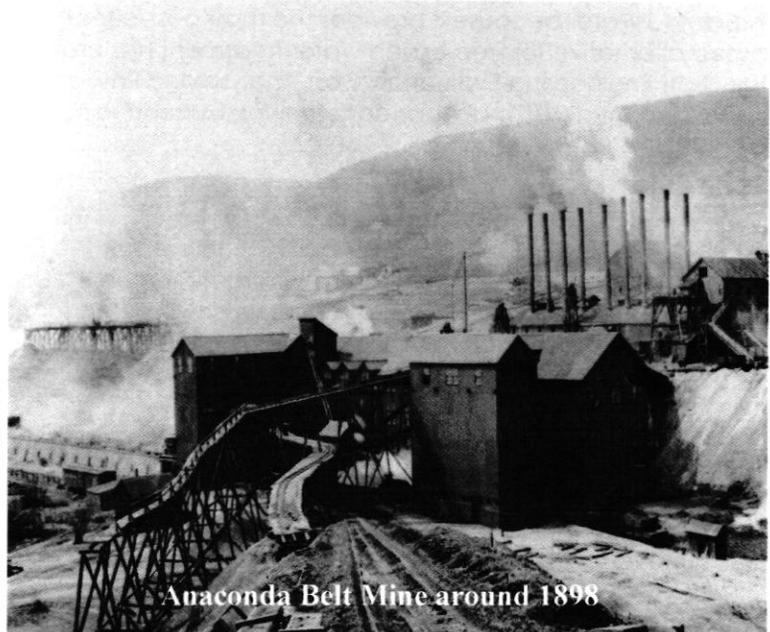
Water Treatment for Acid Mine Drainage in Belt, Cascade County

Abandoned Mine Lands

August 2016

Background

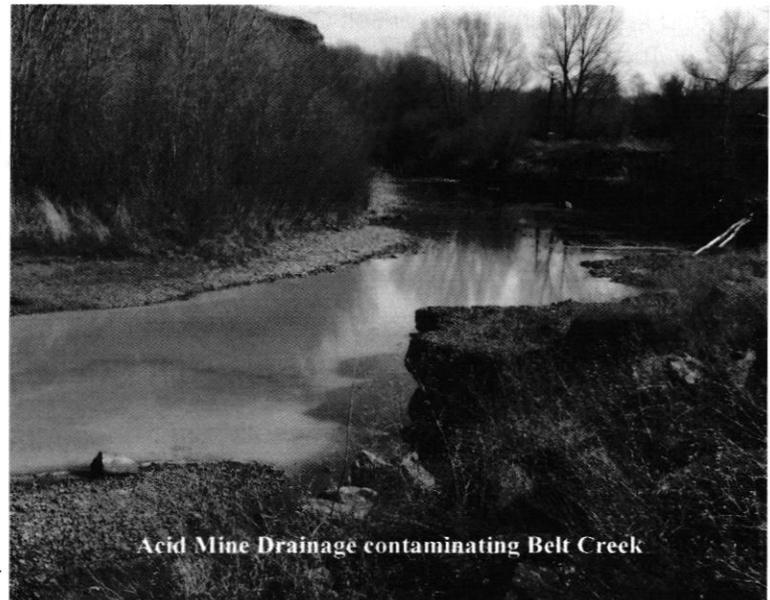
Numerous coal mines once operated around Belt starting with the mine opened by John Castner in 1877. In 1893, Anaconda Copper Mining purchased Castner's coal mine and the size of the operation increased rapidly. Coal production from the Anaconda Belt Mine peaked in the late 1890s and included a workforce of 1200 employees. The mine followed a six foot coal seam over 12,000 feet west from the mine adit, which was near the current location of the Belt water storage tanks. Room and pillar mining was conducted with coal removed from rooms and pillars of coal left to support the roof of the mine. The operation included one hundred beehive ovens producing coke for copper ore smelting in Anaconda and Great Falls. Following the turn of the century, coal production from the mine slowed and the mine closed in 1924. Smaller mines located on the east side of Belt Creek operated as late as 1963.



Anaconda Belt Mine around 1898

The Problem

The coal includes sulfur in pyrite nodules up to 4 inches in diameter. Groundwater flows through the open mine workings and pyrite in the coal breaks down forming sulfuric acid. The water discharging from the mines is highly acidic and contains extremely high levels of dissolved metals. The abandoned mines discharge approximately 250 acre-feet of contaminated water to Belt Creek each year. On average, approximately 700 pounds of iron and 500 pounds of aluminum are discharged each day. This contaminated water accounts for much of the flow in Belt Creek during base flow conditions from the late summer through early spring each year. Lower Belt Creek has been identified as an impaired water body not fully supporting its beneficial uses.



Acid Mine Drainage contaminating Belt Creek

Cleanup Alternatives

The high metal loads and extended winters limit the effectiveness of passive treatment approaches such as the use of constructed wetlands. The Abandoned Mine Lands Program is evaluating active treatment technologies to address the acid mine drainage and contamination of Belt Creek.

Active treatment of mine impacted water has proven to be successful in Montana and across the country. An **Engineering Evaluation/Cost Analysis and Environmental Assessment for Water Treatment of Acid Mine Discharges in Belt, Montana** has been developed. The evaluation considers multiple treatment technologies and options for disposal of the byproducts of the treatment process. The preferred alternative employs hydrated lime to neutralize the acidity of the mine discharges. The second step in the treatment process is the clarification of the water in which precipitated metals are removed. Hydrated lime is widely used in treating mine impacted water because it provides the most cost-effective means of neutralizing acidic water. The proposed alternative for lime-based water treatment has proven to be robust and effective in many applications. The draft Engineering Evaluation/Cost Analysis and Environmental Assessment document is available online at <http://deq.mt.gov/Land/AbandonedMines/CurrentProjects>.

Schedule

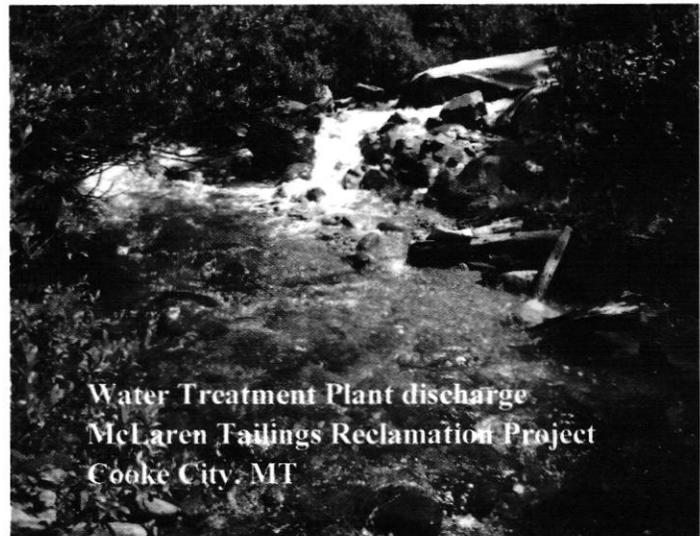
A Public Meeting will occur in October 2016 to present the Engineering Evaluation/Cost Analysis and Environmental Assessment and solicit comments from the public. Drilling will be conducted over the extent of the Anaconda Belt mine in the Fall of 2016. This work will be performed to evaluate the conditions inside the mine including the amount of open workings and the amount of water inside the mine. The information is necessary to determine if conditions are favorable for injecting the sludges generated by the treatment process into the mine.

Following the receipt of public comment, the Engineering Evaluation/Cost Analysis and Environmental Assessment will be finalized. Engineering specifications for the water treatment plant will be developed in 2017 and the project will be released for bidding. It is expected that construction of the facility will occur in 2017 and 2018. The facility is scheduled to be operational in 2019.

Public Benefit

The residents of Belt have lived with acid mine drainage and the contamination of Belt Creek for over a century. The ditches that convey the acid mine discharges are open and freely accessible to the public. The Anaconda Mine discharge enters Belt Creek opposite of the Belt City park. A sandy beach area is located on the opposite bank from the discharge, and this area is utilized as a swimming area by the community.

The proposed treatment provides the most certain method to minimize human exposure to the mine water and environmental contamination. Successful implementation of this project will greatly benefit residents of Belt and all Montanans by treating the mine discharges and returning Belt Creek to fully supporting its beneficial uses.



Contacts

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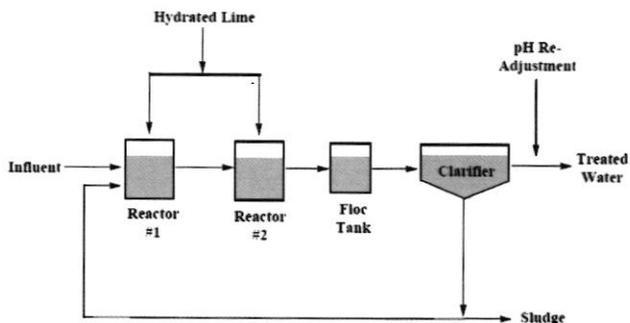
Autumn Coleman

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Water Treatment for Acid Mine Drainage in Belt, Cascade County

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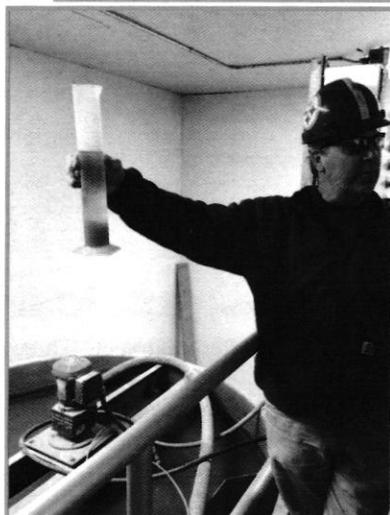
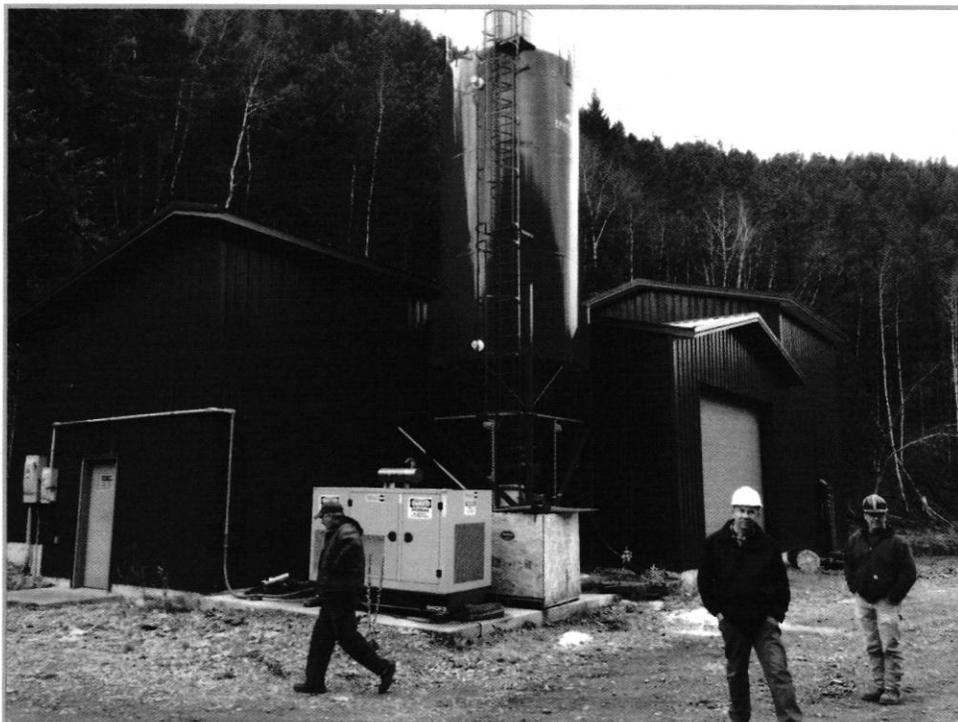
Process Flow Diagram 10-1: Preferred Alternative: Single-stage conventional hydrated lime treatment process depicting major equipment

The preferred alternative in Belt is a Single-stage conventional hydrated lime treatment process with a clarifier.

Hydrated lime would be added to acid mine drainage, flocculent would be added and then sludge would settle in a clarifier.

The proposed Belt Water Treatment Plant would occupy approximately 2 acres in Coke Oven Flats outside of Belt, Montana.

Similar water treatment plant in Swift Gulch at the Zortman-Landusky Mine near Hayes, Montana.

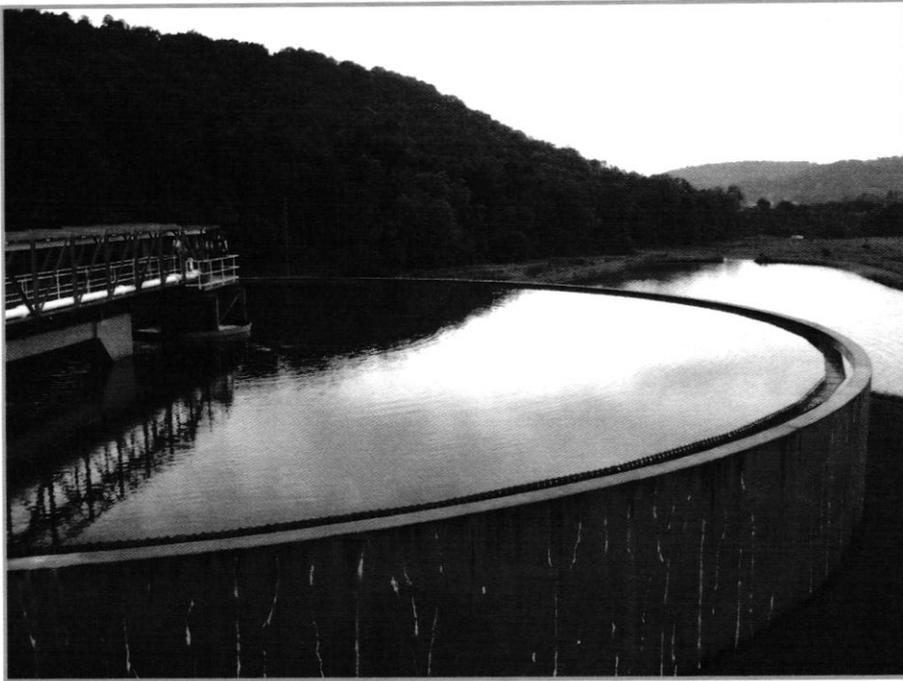


Flocculent is added to condense the sludge.

Water Treatment for Acid Mine Drainage in Belt, Cascade County

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Clarifier Unit designed to filter out the sludge for disposal. The result would be a discharge of clean water to Belt Creek.

Clarifier Unit will be similar to the one pictured here in Pennsylvania.



Acid mine drainage sludge created after treatment. Three alternatives are considered for sludge management:

1. ReInjection into the underground mine workings (no visible sludge ponds).
2. Disposal in a DEQ repository near Belt.
3. Disposal in a licensed landfill.