

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Feeley Hill, 36 inch potable water pipeline
Proposed Implementation Date:	Summer of 2013
Proponent:	City & County of Butte-Silverbow Public Works Department
Location:	Sec. 35 W1/2, Sec. 24S1/2NW1/4, N1/2SW1/4, Township 2 North, Range 9 West. P.M
County:	Silverbow

I. TYPE AND PURPOSE OF ACTION

Butte Silver Bow Municipal Corporation (BSBMC) of Butte Montana has requested a permanent easement to cross multiple sections of School Trust land, managed by the Department of Natural Resources and Conservation (DNRC). They are proposing to install a 36 inch potable water supply line connecting the Feeley Hill water treatment plant with the Cleveland storage tank. This proposal is a continuation of their upgrade to the water system supplying Butte. This water is originating from the newly constructed pumping station on the Big Hole River.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

A scoping notice was mailed to potential external interested parties along with a map identifying the project location on April 24th, 2013. Internal DNRC parties were notified by email on the same date and an electronic notification and request for input was placed on DNRC's website. The following external individuals were contacted by written notices;

- Butte Silver Bow Council of Commissioners
- Region 2 Fish Wildlife & Parks
- Divide Creek Cattle
- Morris Angus Ranch Ltd.
- Farm in the Dell Int. Inc.
- 1124 LLC
- Smith 6 Bar S Livestock

Internal scoping

- Jeff Collins, DNRC SWLO Soil Scientist/Hydrologist
- Garrett Schairer, DNRC SWLO Wildlife Biologist
- Patrick Rennie, DNRC Archaeologist

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Other permits and authorizations required by Department of Environmental Quality, Montana Department of Transportation, and adjacent private citizens.

- 124 permit from the Department of Fish Wildlife and Parks
- 318 floodplain permit

3. ALTERNATIVES CONSIDERED:

No Action

Authorization to replace the failing pipeline would not be provided to the BSBMC. Since the water treatment plant is located on School Trust Land in section 35, the proponents would have no options other than canceling the project. The update of this line is important to the long term functionality of the system.

Action Alternative

A permanent easement would be issued to SBMC to cover the installation and operation of a 36 inch potable water supply line to connect the Feeley Hill water treatment plant with the Cleveland Hill storage tank.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES* potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain **POTENTIAL IMPACTS AND MITIGATIONS** following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

A search of the soils mapping for the tracts involved in this proposal identified the following soils as being present;

Danielvil-Bearmouth complex	Gnojek-Libeg-Philipsburg Complex
Bearmouth Coarse sandy loam	Monaberg-Bridger-Libey Stony Complex
Philipsburg-Monaberg Complex	

The project area consists of sandy loams to fine silt soils with moderate to low gravel contents. Soils on the state parcels are generally deep and common material for excavation. Erosion potential is moderate and can be controlled by providing surface drainage where needed (slope over 8%) off the trenched site. Surface soils are generally shallow and subsoil materials are subject to slower revegetation on these droughty sites. Revegetation success can be improved by stockpiling/windrowing at least 4 " of surface soil to one side of excavation. The existing nearby pipeline has revegetated over time.

Alternative A No Action Alternative:

The effects of No-Action would be the same as those described under the existing conditions and are not expected to cause direct, indirect and cumulative impacts to soils.

Alternative B Action Alternative:

The proposed pipeline is expected to have minor direct, indirect and cumulative impacts to soils based on implementation of standard excavation and backfilling practices for pipelines, stockpiling the surface 4" of topsoils for replacement following burial of the pipeline and prompt revegetation. Revegetation studies found that erosion was controlled and up to 90% of grass productivity was maintained on mine spoils where 4" or more of stockpiled surface soil was re-spread over excavated materials. Dry site adapted grasses should be used on the disturbed soils to control erosion.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Alternative A No Action Alternative – There would be little change to existing conditions. There is one perennial stream, an unnamed tributary of Sand Creek, within the proposed project area. No impacts are expected under this alternative.

Alternative B Action Alternative:

The excavation and installation of the 36" water pipeline would affect a narrow strip of land at the crossing site. The proposed excavation and pipeline burial is expected to have low and short term effects to water quality based on implementation of all laws, rules, BMP's, stream crossing permit requirements and mitigation measures and low risk of in-direct or cumulative effects to water quality or water resources. Mitigation measures include the following:

- * Requiring dewatering of the excavation during pipeline placement
- * Excavated material is to be stockpiled outside the designated floodway during excavation
- * Retain surface sedges and grass separately as feasible to place and restore channel banks.
- * Bury pipeline at a depth at least twice the calculated maximum depth of scour for base flood. The depth of

scour can be determined by any accepted hydraulic engineering methods. However, this is subject to approval by the permit issuing authority.

- * The pipeline should be firmly anchored to prevent flotation.
- * Restore the channel banks, floodplain width and stream profile to match adjacent banks.
- * Implement erosion control measures at the crossing and grass seed adjacent disturbed soils.

The small scale of this project would have a short term increase in sedimentation during construction and is expected to quickly subside and direct, indirect and cumulative impacts to water quality are expected to be minimal.

All disturbed areas will be vegetated with the following certified weed free grass seed mixture;

Bluebunch Wheat Grass	4 lbs. PLS/ac.
Streambank Wheat Grass	3 lbs. PLS/ac.
Slender Wheat Grass	4 lbs. PLS/ac.
Western Wheat Grass	6 lbs. PLS/ac.
Alsike Clover	1 lbs. PLS/a
Total	18 lbs. PLS/ac.

The proposed pipeline would be buried in close proximity to the existing line. There is one proposed buried crossing of an unnamed perennial tributary of Sand Creek. This small stream has a narrow floodplain and supports sedges and grasses. The adjacent slopes on either side of the stream are gently sloping up to the drier upland range sites. Sand Creek is not listed as an impaired stream. The existing nearby pipeline crossing streambed is relatively stable.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

No Action – No impacts are anticipated

Action – We anticipate there would be minor amounts of airborne particulates generated during excavation and backfill of the trench. This increase would be localized to the immediate proximity of trench construction.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The Natural Heritage data base was queried for any sensitive plant species which might be located in the area. No plant species of special concern were noted.

No Action – The existing native vegetation would not be disturbed.

Action – The native grass plant community would be disrupted by the pipeline excavation and associated site disturbance. All excavations would be returned to their original contour and reseeded with the following certified weed free grass seed mixture;

Bluebunch Wheat Grass	4 lbs. PLS/ac.
Streambank Wheat Grass	3 lbs. PLS/ac.
Slender Wheat Grass	4 lbs. PLS/ac.
Western Wheat Grass	6 lbs. PLS/ac.
Alsike Clover	1 lbs. PLS/ac
Total	18 lbs. PLS/ac.

BSBMC is responsible for any State listed noxious weeds which occur in association with the pipe installation. After discovery of any State listed noxious weeds annual herbicide applications will begin and continue until the weed infestation has been eradicated.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

No Action Impacts from existing land uses would remain the same. No additional ones would be generated.

Action These tracts are dominated by native species grasslands composed of bluebunch wheatgrass, western wheatgrass, Idaho fescue, prairie june grass and assorted forbs. Immediately adjacent to the unnamed tributary of Sand Creek the vegetation is dominated by wet site species such as sedges, rushes, Kentucky blue grass, and red top. There are several species of birds which nest in the grassland habitats. To reduce the potential for any disturbance to nesting birds and any big game which might use these tracts during the spring, operations will not be allowed from April 15th to July 1 of each year.

No known fisheries are identified for Sand Creek or the unnamed tributary stream where the pipeline crossing is proposed (MFISH 2013). The flow in the small unnamed tributary is low and warm water and unlikely to support fish, yet may support temporal use by warm water fish only during spring flow.

The small scale of this project would have a short term increase in sedimentation during construction and is expected to quickly subside and direct, indirect and cumulative impacts to aquatic life or warm water fish habitat are expected to be minimal based on implementation of laws, rules, permit requirements and the mitigation measures outlined in the water quality section of this EA.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Four wildlife species were identified by the Natural Heritage Program as potentially being in the vicinity of the proposed project, Wolverine, Pileated Woodpecker, Western Toad, and Westslope Cutthroat.

No Action – No impacts are anticipated to any of the species identified above under this alternative.

Action – The habitat requirements for each of the four species identified were compared to those habitats involved in the proposed project.

Wolverine Wolverines preferred habitat is a boreal forest or alpine area. The project area is dominated by 10-14 inch and 15-19 inch precipitation zone native grass lands. There is little chance that any actions within the project area are going to impact these animals. There is the possibility that these animals could occasionally use this area as a travel corridor. It is unlikely that the proposal would alter landscape connectivity.

Pileated Woodpecker Preferred habitat for this species consists of moist conifer forests. The state land involved in this proposal consists of native grassland. It is unlikely that there will be any negative impacts to this species with the implementation of this project.

Western Toad Toads prefer wetlands, floodplains and pools. There is a wet area adjacent to Sand Gulch which flows through section 24. This site may be favorable habitat for toads. Eggs for this toad are generally laid between early May and Late June after which they turn into tadpoles. To reduce any potential for negative impacts to toads operations will be restricted from April 15 through July 1 to provide the tadpoles enough time to develop and be mobile enough to stay with the water should they be in the disturbed portion of the stream.

Fisheries No known fisheries are identified for Sand Creek or the unnamed tributary stream where the pipeline crossing is proposed (MFISH 2013). The flow in the small unnamed tributary is low and warm water and unlikely to support fish, yet may support temporal use by warm water fish only during spring flow. This is not identified as bull trout habitat and there is low risk of direct in-direct or cumulative effects to fish habitat or aquatic life with the proposed action.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search results revealed that no cultural or paleontological resources have been identified in the APE, but it should be noted that Class III level inventory work has not been conducted there to date.

No additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

No Action – No change to the viewshed would be expected under this alternative.

Action – There would be a short term negative impact to the naturally occurring grassland from the disturbance caused by excavation. This will be mitigated to some extent by backfilling and compacting the trench, returning it to a natural contour. This will be further aided by reestablishing a grass vegetative cover similar to what occurred naturally.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No Action – Little change from the existing condition is expected under this alternative.

Action – Replacement of the supply line between the Feeley Hill water treatment plant and the Cleveland storage tank involves disturbing native grassland vegetation for approximately 9 miles, located predominately on private land. Approximately 1 mile of this route is located on School Trust Land.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

No Action – Under this alternative the line would not be authorized on Trust Land. This would prohibit the entire project since the Feeley Hill treatment plant is located on trust land. This entire project would not occur forcing BSBMC to use existing facilities. The existing pipeline is not functioning adequately for the demands Butte's population is placing on it. This would likely lead to higher maintenance costs and a reduction in the water supply available to the community.

Action – The pipeline would be replaced helping Butte Silver develop an adequate, quality municipal water system.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

No Action – No impacts are anticipated under this alternative

Action – Construction of the ditch to lay pipe will provide a safety hazard for grazing livestock. In order to reduce the potential for harm to livestock occurring, the applicant will be required to fill in his excavation each night or provide a barrier which will keep livestock out of the trench.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

No Action – No change in local employment would occur

Action – The portion of this project which crosses School Trust Land would provide employment to 10 people for at least 2 weeks

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

No Action – No change in the tax base would occur

Action – Installation of the pipeline would not increase the tax base since it is owned by a municipal corporation and is located on School Trust Land. Additional tax revenues would be generated in income taxes from wages generated by this project.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

No Action – Without the installation of a new pipeline, maintenance demands on Butte Silver Bow will continue to increase to repair leaks and ruptures

Action – The new pipeline would substantially reduce the potential for maintenance while improving delivery efficiency.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

NONE

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

NONE

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

NONE

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

NONE

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

NONE

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

Under the Action Alternative, a one-time fee of approximately \$12,000 would be assessed for the easement, revenues which would be placed in the permanent trust for Common Schools.

EA Checklist Prepared By:	Name: Fred Staedler Title: Anaconda Unit Manager	Date: May 13, 2013
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V. FINDING

25. ALTERNATIVE SELECTED:

Action Alternative

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

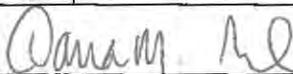
No Significant impacts are anticipated

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis

EA Checklist Approved By:	Name: Dana Boruch Title: Right of Way Specialist SW Land Office
Signature: 	Date: 5-13-13