

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Dammel Dam Breach	Proposed Implementation Date: Fall 2010
Proponent: Charles Bronec (Lessee, Lease #10132)	
<p>Type and Purpose of Action:</p> <p>The current lessee has proposed to breach the dam on Flat Creek which forms Dammel Reservoir. Recent erosion around the outlet works has caused a piping failure of the structure. The dam was recently classified by DNRC as Not High Hazard. The planned breach will consist of the removal of a portion of the existing embankment and the failed outlet works. The lower extent of excavation will match the elevation of the base of the erosion beneath the downstream end of the outlet pipe. The side slopes of the breach will be excavated to a stable grade given the soil type (2:1 or flatter). Spoil areas for excavated material have been designated at both downstream groins of the existing embankment. Existing riprap from the upstream face of the dam will be used to armor portions of the breach if necessary. Flat Creek will be allowed to reestablish its original channel. The formerly flooded pool will be reseeded to salt tolerant grass species over a period of five years as conditions allow.</p> <p>(A DRAFT design Plan and Profile sheet is attached hereto.)</p>	
Location: NW ¼, Sec. 36, T23N, R12E	County: Chouteau

I. PROJECT DEVELOPMENT

<p>1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.</p>	<p>DNRC—surface owner DFWP—regarding rehabilitation of the dam DU—regarding rehabilitation of the dam</p>
<p>2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:</p>	<p>COE—Section 404 Permit DFWP—SPA 124 Permit DEQ—318 Authorization</p>
<p>3. ALTERNATIVES CONSIDERED:</p>	<p>No Action: No Action will result in dam failure and an unacceptable threat to human health and safety.</p> <p>Rehabilitate the dam: Salinity of the water has rendered the reservoir unusable for most purposes in most years. The Department of Fish Wildlife and Parks and Ducks Unlimited were contacted regarding interest in dam rehabilitation. No interest has been expressed in assisting in a full rehabilitation of the dam.</p> <p>Approve the requested breach of the dam.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactable or unstable soils present? Are there unusual geological features? Are there special reclamation considerations?</p>	<p>[N]The soil type at the dam is Flatcreek-Nobe silty clays with 0 to 2% slopes. This soil type is not particularly suited to steep excavation or reclamation. Excavated slopes will be 2:1 or flatter and fertilizer will be added to the reclamation seed mix.</p>
<p>5. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[N] Water impounded by Dammel Reservoir is saline and is not suitable for livestock or irrigation use. Use by waterfowl and other wildlife is also limited by salinity. After the dam is breached, the reservoir will no longer store surface runoff. The dam will be breached in the fall at low water conditions. There will be some short term increase in stream turbidity.</p>
<p>6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[N]The project is located within a Class II airshed. Minimal, short-term dust and particulate matter is expected during construction. Under current conditions as the reservoir dries it is subject to salt blowing off the exposed soil. This condition is expected to continue or worsen until the drained lake is re-vegetated. In the long term, salt blow is expected to be reduced from the existing condition.</p>
<p>7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[N]Vegetation will be disturbed during excavation and spoil activities. Spoil areas will be reseeded with native species. There are no plant species of concern or potential species of concern noted on the NRIS survey.</p>
<p>8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N]The area is not considered critical wildlife habitat due to the salinity of reservoir water. However, the adjacent land provides habitat for pronghorn antelope, mule deer, predators, upland game birds, other non-game mammals, raptors, and songbirds. In high water years, the reservoir is less saline and receives some use by waterfowl. Storage of water in Dammel Reservoir will be lost. The former flooded pool will be re-vegetated and will provide additional habitat.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

9.	UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern?	<p>[N]A review of Natural Heritage data through NRIS revealed no species of concern or potential species of concern. No wetlands will receive fill as a result of the proposed action. The 200-acre area of the flooded pool will be lost. Some amount of seasonal ponding of water is expected to remain after breaching. 400 acres of adjacent seasonally flooded lands will no longer receive water. The quality and utility of these seasonally flooded areas is limited by water salinity.</p>
10.	HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archeological, or paleontological resources present?	<p>[N]The dam embankment is by definition a disturbed area. The proposed spoil disposal areas were likely also disturbed as borrow areas during the original construction of the dam. Just the same, these areas were surveyed. No historical, archaeological, or paleontological resources were found.</p>
11.	AESTHETICS: Is the project on a prominent topographical feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	<p>[N]The project is in a relatively remote area. The only aesthetic impact likely from the proposal is the creation of a dry, saline lake bed. The dry lake bed will create salt blow until re-vegetated.</p>
12.	DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	<p>[N]The demand on environmental resources such as land, water, air, or energy will not be affected by the proposed project. The stored water is currently not being beneficially used. The proposed project will not consume resources that are limited in the area. There are no other projects in the area that will affect the proposed project.</p>
13.	OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?	<p>[N]There are no other environmental documents pertinent to the area.</p>

III. IMPACTS ON THE HUMAN POPULATION

14.	HUMAN HEALTH AND SAFETY: Will this project add to health and safety risk in the area?	<p>[N] The primary reason for breaching the Dammel Reservoir is to eliminate the threat of an uncontrolled breach of the failing dam structure. An uncontrolled breach would likely over top and damage the Flat Creek county road and may harm road users unaware of the failure. Dam breaching will eliminate the current hazard associated with vehicle or pedestrian travel across the dam structure.</p>
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III. IMPACTS ON THE HUMAN POPULATION

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]The proposed project will not add to or alter the listed activities. The stored water is currently not being used.
16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]The proposed action will have no impact on the quantity and distribution of employment. All work will be conducted by the lessee.
17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]The project will neither create nor eliminate any tax revenue.
18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N]No additional demands for government services will result either during or after construction.
19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc., zoning or management plans in effect?	[N]The proposed project is in compliance with all Federal, State, and County laws. No other management plans are in effect for the area.
20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]The proposed project is on a relatively remote parcel of Trust Land. The property will be closed to recreational use during de-construction. Post breach the property will be open for general recreational use. Due to salinity, the Reservoir receives little recreational use. The adjacent lands receive light big game and upland bird hunting.
21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]The proposed project will have no impact on the density and distribution of population and housing.
22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]The social structure of the surrounding native communities will not be altered by the project.
23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]The proposed project will cause no shift in cultural uniqueness and diversity of the area.

III. IMPACTS ON THE HUMAN POPULATION

24. OTHER APPROPRIATE SOCIAL AND ECONOMICAL CIRCUMSTANCES:

[N]No appropriate social and economic circumstances have been identified that may be impacted by the proposed project. The tract is currently leased for ag grazing and will likely continue to be used as such in the future. There are no likely cumulative impacts anticipated as a result of this action.

EA Checklist Prepared By:
JOHN SANDERS, P.E., Trust Lands Dam Safety Engineer

/S/John Sanders

Signature

Date: 27 October 2010

24. RESPONSE TO COMMENTS

Six comments were received to the draft environmental analysis. Comments generally supported dam removal and land rehabilitation.

Comment - The Department of Fish, Wildlife and Parks, Montana Department of Transportation and Ducks Unlimited expressed interest in establishing wetland and / or upland habitat in the formerly flooded pool.

Response - Decisions related to management of the formerly flooded pool will be deferred to a later date and opportunity provided for agency input in future management.

Comment - DFWP commented that the cause of Dammel Reservoir salinity should be determined.

Response - Determination of the cause of Dammel Reservoir salinity is beyond the scope of this analysis. DNRC proposed actions will not change land use practices upstream of Dammel Reservoir and the agency has limited ability to influence potential causes of salinity.

Comment - Dammel Reservoir produces an unpleasant odor and the reservoir is of no value to anyone. Clean it up.

Response - Drawdown of the reservoir will decrease unpleasant odors as soils dry and a smaller flooded pool is created.

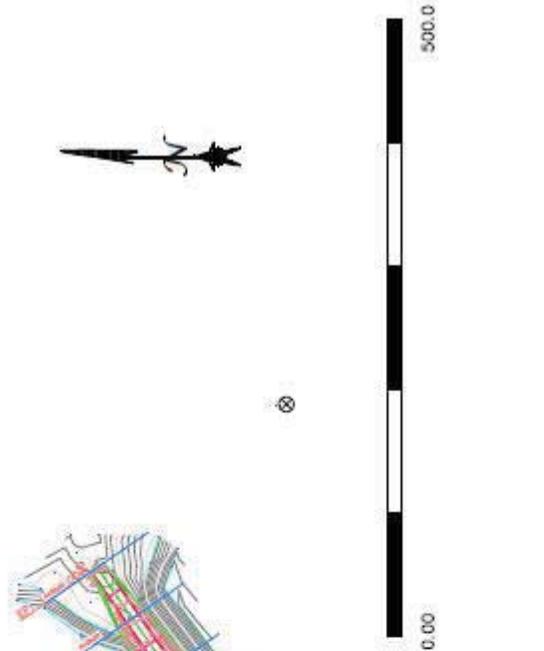
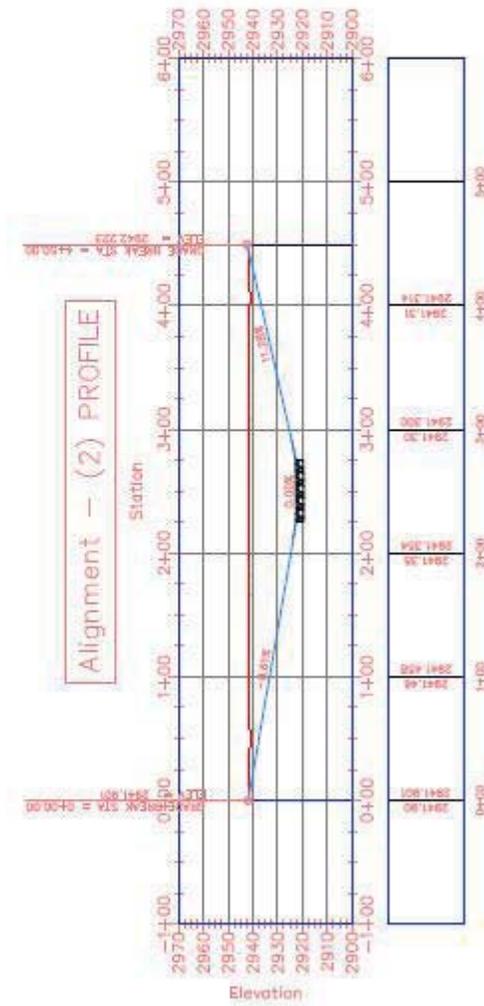
IV. FINDING

25. ALTERNATIVE SELECTED:	Action, removal of Dammel Dam. The action alternative is modified as follows: Actions associated with re-vegetation and management of the remaining flooded pool will be deferred to a later date. DNRC will hire and direct the work of a contractor operating a track hoe to remove the dam and establish a cascading rifle in the dam notch. DNRC will follow Streamside Preservation Act Permit R4DNRCCAT051 and Montana Water Quality Act Short Term Water Quality permit stipulations to minimize unnecessary impacts.
26. SIGNIFICANCE OF POTENTIAL IMPACTS:	No significant impact
27. Need for Further Environmental Analysis: <input type="checkbox"/> EIS <input type="checkbox"/> More Detailed EA <input checked="" type="checkbox"/> No Further Analysis	

EA Checklist Approved by:
CLIVE ROONEY, Area Manager, Northeastern Land Office

_____/S/Clive Rooney_____
Signature
Date: 10/28/10

DRAFT



Dammel Dam Breach Plan and Profile

2 August 2010