CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Lease Improvement Request to Repair Two Irrigation Head gates and One Bridge.
Proposed Implementation Date:	Winter 2012
Proponents:	Four Season Cattle LLC, C/O Dusty Crary, PO Box 1347, Choteau, MT 59422 Clay Crawford Revocable Trust, C/O Wells Fargo Bank, PO Box 5011, Great Falls, MT 59403
Location:	See Below List of Tracts.
County:	Teton
Trust:	Common Schools, (CS) and Capitol Buildings, (CB)

I. TYPE AND PURPOSE OF ACTION

Four Seasons Cattle LLC has requested to repair two existing irrigation head gates and one existing bridge. The Teton River flooded severely in the 2011 season and damaged the existing structures. No damages or changes to the existing environment will occur as the two irrigation head gates and the bridge are existing structures. The head gate diversion in Section 29, T25N, R6W provides water to Clay Crawford for three private water rights and the head gate diversion in Section 36, T25N, R7W provides water to Dusty Crary for a private water right. The bridge provides access across the Teton River to deeded and state land.

Township	Range	Section	Portion	Lease #	Improvement Type	Trust
25N	6W	29	SW4SE4SE4	9909	Irrigation head gate Repair	CS
25N	6W	31	NE4NW4NE4	2129	Bridge Repair	CB
25N	7W	36	SE4NW4NW4	3878	Irrigation head gate Repair	CS

II. PROJECT DEVELOPMENT

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

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

Four Season Cattle LLC, C/O Dusty Crary, Proponent, Surface Lessee, Lease #2129 and #9909
Clay Crawford Revocable Trust, C/O Wells Fargo Bank -Proponent, Surface Lessee, Lease #3878
DNRC-Surface Owner
Teton County Conservation District-310 Permit
Dave Yerk-FWP Region 4 Fisheries Biologist

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

A 310 permit has been approved for this project. DNRC is not aware of any other agencies with jurisdiction or other permits needed to complete this project.

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action) – Deny Four Seasons Cattle LLC and Clay Crawford permission to repair the existing irrigation head gates and bridge.

Alternative B (the Proposed action) – Grant Four Seasons Cattle LLC and Clay Crawford permission to repair the existing irrigation head gates and bridge.

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.

Section 29, T25N, R6W will require the repair of a berm that was blown out between the elevation riser and the irrigation head gate. The berm is approximately 200' long and will be repaired using new and existing material. Some minor channel work needs to be done to prevent further erosion that is occurring near the base of the Teton Canyon Road.

Section 31, T25N, R6W will require the removal of stone and gravel deposits to allow water to flow under the bridge. The 2011 high water deposited stone and gravel under the bridge and moved the channel around the bridge causing severe erosion. The project will remove the deposits and allow water to flow under the bridge and put the Teton River back into the original channel preventing further stream bank erosion.

Section 36, T25N, R7W will require the repair of a concrete block structure that diverted water to the irrigation head gate. The project will require moving existing material to shore up the stream banks that are currently being undercut due to the stream channel moving north. Some minor channel work needs to be done to move the stream flow to follow the concrete block structure.

The soils within the proposed project areas consist of stone, sand, and gravel deposits. The terrain is mainly flat consisting of mainly native rangeland. The proposed action may cause localized areas of soil erosion and compaction from the manipulation of vehicles and equipment on the surface. The proposed repair work will be done during low stream flow to minimize soil erosion and compaction. The areas were disturbed due to the extremely high stream flows in the Teton River during the 2011 season. The proposed action will temporarily disturb a small portion of the landscape. Any impacts to the soil are expected to be minor and temporary.

No cumulative effects to the soils are anticipated.

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.

There are numerous water rights associated with the irrigation head gates on these tracts, see the below table.

Township	Range	Section	Water Right #	Owner	Priority Date	State Ownership Date
25N	6W	29	41O17824600	Clay Crawford	1882	1909
25N	6W	29	41O17825000	Clay Crawford	1953	1909
25N	6W	29	41O21480600	Clay Crawford	1973	1909
25N	7W	36	41O15777700	Dusty Crary	1887	1889

No important surface or groundwater resources will be impacted by the proposed project as the irrigation head gates are used to service existing water rights.

Construction will be completed this winter, during low flows to minimize impact to water quality.

Other water quality and/or quantity issues will not be impacted by the proposed action.

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.

The proposed action will not impact the air quality.

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 vegetation within the proposed project area consists primarily of native rangeland grasses, forbs, and shrubs. Vehicle traffic will flatten some standing, native vegetation. Compacted (trampled) vegetation is expected to recover quickly and naturally. The repairs are necessary as the Teton River flooded severely in the 2011 season and damaged the structures. No damages or changes to the existing environment will occur because the area has been disturbed by the Teton River.

A review of Natural Heritage data through the NRIS was conducted for T25N, R6W: There were no plant species of concern noted or potential species of concern noted.

A review of Natural Heritage data through the NRIS was conducted for T25N, R7W: There were three plant species of concern noted or zero potential species of concern noted. Monocots-Crawe's Sedge, Beaked Spikerush, and Tufted Club-rush. This particular tract of native rangeland does not contain many, if any of these species. However, since the irrigation head gate is an existing structure and the Teton River has disturbed the area, no direct, indirect, or cumulative effects are expected to the species of concern due to the proposed action

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.

Dave Yerk, FWP Region 4 Fisheries Biologist was onsite with the Teton County Conservation District and DNRC on January 9, 2012 to discuss the proposed repair of the existing irrigation head gates and bridge. Dave did provide site specific comments and construction suggestions regarding the proposed project and generally supported it. Minimal impacts to fish and other aquatic life are expected.

The area is not considered critical wildlife habitat. However, this tract provides habitat for a variety of big game species (mule deer, whitetail deer, pronghorn antelope), predators (coyote, fox, badger), upland game birds (sharp tail grouse, Hungarian partridge), other non-game mammals, raptors and various songbirds. The proposal does not include any land use change which would yield changes to the wildlife habitat. The proposed action will not impact wildlife forage, cover, or traveling corridors. Nor will this action change the juxtaposition of wildlife forage, water, or hiding and thermal cover.

---

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.

This parcel is located in the NCD grizzly bear recovery zone. Grizzly bears are will not be impacted by the project because construction will occur when bears are hibernating. The proposal is to repair the existing irrigation head gates and bridge. Threatened or endangered species, sensitive habitat types, or other species of special concern or potential species of concern will not be impacted by proposal.

A review of Natural Heritage data through the NRIS was conducted for T25N, R6W. There were six species of concern and three potential species of concern noted on the NRIS survey: Birds-Ferruginous Hawk, Black Tern, Bald Eagle, Horned Grebe, McCown's Longspur, Swainson's Hawk, and Hooded Merganser. Fish-Northern Redbelly X Finescale Dace and Brook Stickleback. These particular tracts of native rangeland do not contain many, if any of these species. However, since the irrigation head gate and bridge are existing structures, no direct, indirect, or cumulative effects are expected to the species of concern due to the proposed action.

A review of Natural Heritage data through the NRIS was conducted for T25N, R7W. There were thirteen species of concern and six potential species of concern noted on the NRIS survey: Birds-Sprague's Pipit, American Bittern, Chestnut-collared Longspur, Cassin's Finch, Veery, Bobolink, Alder Flycatcher, Clark's Nutcracker, Long-billed Curlew, Horned Grebe, McCown's Longspur, Brewer's Sparrow, Pacific Wren, Barrow's Goldeneye, Swainson's Hawk, Ovenbird, and Rufous Hummingbird. Fish-Brook Stickleback and Brassy Minnow. This particular tract of native rangeland does not contain many, if any of these species. However, since the irrigation head gate is an existing structure, no direct, indirect, or cumulative effects are expected to the species of concern due to the proposed action.

---

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

As the irrigation head gates and bridge are currently in place and the project will take place in an area disturbed by the Teton River, no historical, archaeological, or paleontological resources will be impacted.

---

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.

As the irrigation head gates and bridge are currently in place, the aesthetic character of the land will not be altered.

---

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.

The demand on environmental resources such as land, water, air, or energy will not be affected by the proposed action. The proposed action will not consume resources that are limited in the area. There are no other projects in the area that will affect the proposed project.

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.

There are no other projects or plans being considered on the tracts listed on this EA.

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.

The proposed project will not change human safety in the area.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The existing irrigation head gates and bridge are vital to Four Season Cattle LLC and Clay Crawford's ranching operation. The irrigation head gates are used both for livestock water and irrigation purposes. The bridge is used for access to deeded and state land for ranching operations.

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.

This project will not create any new jobs as the irrigation head gates and bridge have been previously installed.

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.

The proposed action will not affect the tax base or tax revenues.

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

There will be no excessive stress placed on the existing infrastructure of the area as the irrigation head gates and bridge have been previously installed.

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.

The proposed action is in compliance with 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:
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.

The tracts of state land are rural and generally have high recreational value. The majority of the tracts are legally accessible and the proposed action is not expected to impact general recreational and wilderness activities on the state tracts.

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

The proposal does not include any changes to housing or developments.

No direct or cumulative effects to population or housing are anticipated.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

There are no native, unique or traditional lifestyles or communities in the vicinity that would be impacted by the proposal.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

The proposed action will not impact the cultural uniqueness or diversity of the area.

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.

Cumulative impacts are not likely as the area is only used for livestock grazing and the repair of the two irrigation head gates and one bridge will not affect the long-term viability of grazing on the tracts. The repair of the irrigation head gates will provide water for livestock and irrigation and the repair of the bridge will provide access to deeded and state land. This project is authorized under the improvement request form.

EA Checklist Prepared By:	**Name:**	Tony Nickol	**Date:**	January 10, 2012
	Title:	Land Use Specialist, Conrad Unit, Central Land Office		

V. FINDINGS

25. ALTERNATIVE SELECTED:

Alternative B (the Proposed action) – Grant Four Seasons Cattle LLC and Clay Crawford permission to repair the existing irrigation head gates and bridge.

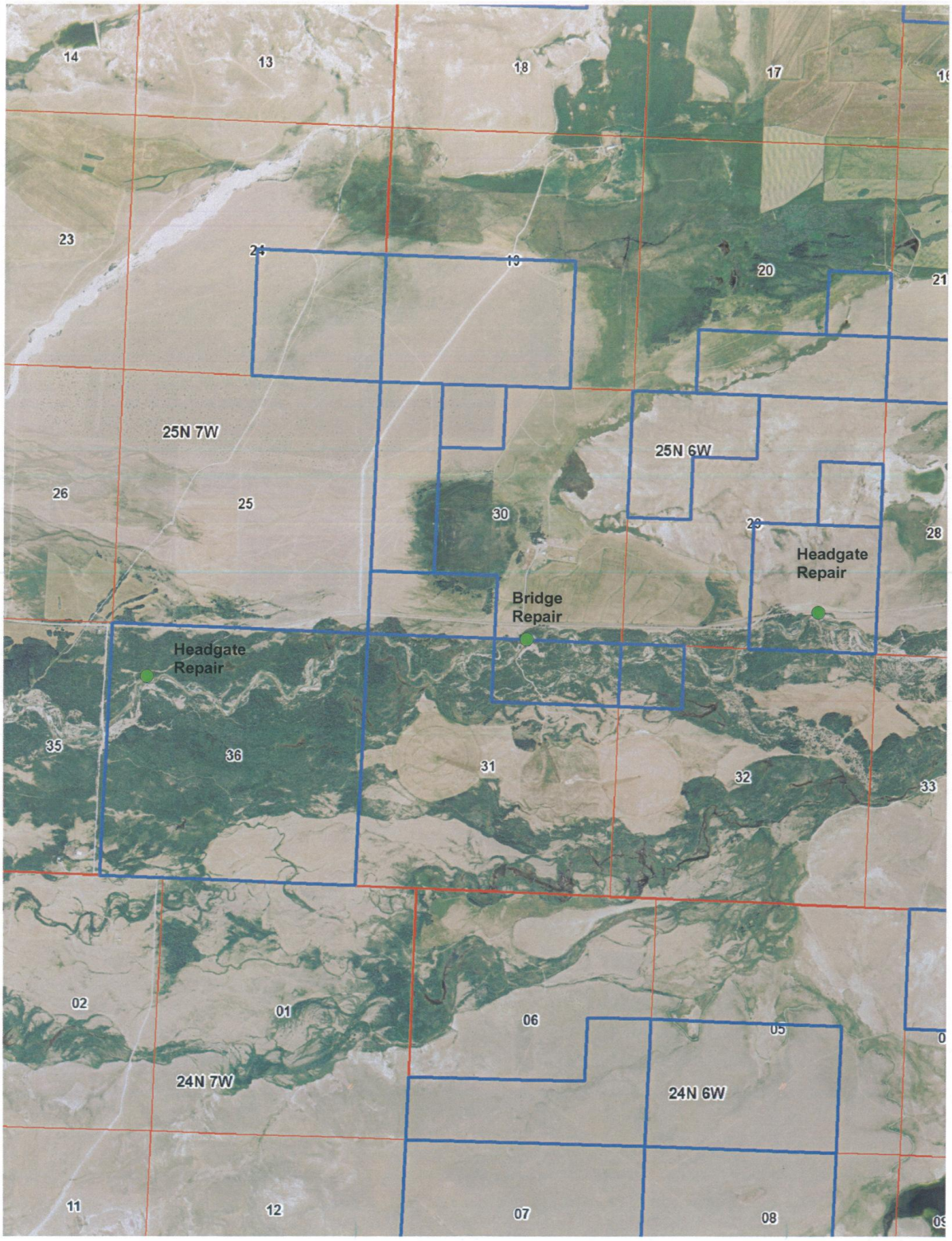
26. SIGNIFICANCE OF POTENTIAL IMPACTS:

The intent of this project is to repair existing infrastructure damaged by the 2011 flooding on the Teton River. A 310 permit has been approved by the Teton County Conservation District. Long term negative environmental impacts are not expected.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Approved By:	**Name:**	Erik Eneboe
	Title:	Conrad Unit Manger, CLO, DNRC
Signature:		**Date**: January 13, 2012


14
13
18
17
23
24
19
20
21
25N 7W
25N 6W
26
25
30
29
28
Headgate
Repair
Bridge
Repair
Headgate
Repair
35
36
31
32
33
02
01
06
05
24N 7W
24N 6W
11
12
07
08