CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Santana LLC Improvement Request for a spring Development and Stock Tank
Proposed Implementation Date:	Summer 2016
Proponent:	Santana LLC
Location:	Section 1, Township 13 South- Range 5 West
County:	Beaverhead

I. TYPE AND PURPOSE OF ACTION

Santana LLC has submitted an Improvement Request to develop a spring in the upper reaches of First Wolverine Creek drainage on state land in the Centennial Valley. The improvement would consist of developing an existing spring, put in a spring box and approximately 1320' (feet) of underground pipeline to deliver water into a 1200 gallon stock tank for livestock use.

The proposal will help better disperse cattle over the uplands and get them out of the bottom where the intermittent stream and spring is located. An escape ramp would be installed into the stock tank for wildlife.

II. PROJECT DEVELOPMENT

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

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

MT Fish Wildlife & Parks Wildlife Biologist, Dean Waltee
MT DNRC Archeologist, Patrick Renee
MT DNRC Agriculture & Grazing Bureau Chief Kevin Chappell
Martin Miller, Montana Natural Heritage Program
Montana Sage Grouse Conservation Habitat Program

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

No other government oversite or agencies with Jurisdiction or permits needed for this request.

3. ALTERNATIVES CONSIDERED:

Alternative A, Action Alternative: Allow Santana LLC to develop a spring in the First Wolverine Creek drainage, install a spring box, and underground pipeline, that will be used to fill a 1200 gallon stock tank on state land.

Alternative B, No Action Alternative: Deny Santana LLC to develop a spring in the First Wolverine Creek drainage, install a spring box, and underground pipeline, that will be used to fill a 1200 gallon stock tank on state land.

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.

The NRCS soil survey of the area describes the soils as being, 911F- Bridger-Rooset, stony-Ratiopeak, stony complex, 15 to 50 percent slopes. The soils are derived from slide deposits derived from sedimentary rock. The typical profile is:

- A - 0 to 10 inches: cobbly loam
- Bt - 10 to 20 inches: clay
- Btk - 20 to 30 inches: gravelly clay loam
- Bk - 30 to 60 inches: loam

These types of soils are well drained, and have a land capability classification of 7e.

The spring development and installation of an underground pipeline and stock tank will have little impact to the soils in the area. The soils are well drained and little disturbance of the area would occur with this improvement request.

Action Alternative: Under this alternative some minor soil disturbance may occur, however if development of the spring and installation of pipeline and stock tank occur during dry conditions disturbance would be minor. As a mitigation measure the project should only be allowed to occur during dry weather conditions during mid to late summer or fall, to avoid working in the area when soils could be saturated and rutting of the soil might occur.

No Action Alternative: No changes to the existing soil conditions would occur under this alternative.

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.

The spring development that would occur under this improvement request runs into, or is part of an intermittent stream that is a tributary of First Wolverine Creek. Wolverine Creek delivers into the Red Rock River. This proposal will not affect ambient water Quality standards, drinking water maximum contaminant levels, or degrade water quality. Very little disturbance will occur under either of the proposed alternatives.

Action Alternative: The development of the spring under this proposal will not affect ambient water quality standards or cause any long term or cumulative effects water resources. Some short term sedimentation could occur during the installation of the spring box at the spring site under this alternative, however the disturbance will be of a short duration.

No Action Alternative: No changes to water quality standards would occur under this alternative.

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.

Neither of the proposed alternatives, Action and No-Action, will have any long term or cumulative effects on ambient air quality standards in the area. Air quality in the Centennial Valley is considered to be good, and this proposal should cause little disturbance and not impact air quality standards. The Centennial Valley is not located in a class one air shed.

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 area is a mixture of native grasslands with the dominant decreaser species being Bluebunch wheat grass, Bluegrass species, slender wheatgrass, basin wildrye, and pubescent wheatgrass. There isn't much sage brush present on any of these sections. In checking the records the area was treated with spike in 1998 and the herbicide did a good job of removing nearly all of the plants.

The location of the proposal is located within an area identified as core sage grouse habitat.

The spring is located in a patch of aspen and willow trees. The trees surrounding the spring sustained heavy snow damage approximately 3-4 years ago. Most of the aspen are dead or dying. There are some young aspen trees regenerating, however they are heavily browsed by elk and deer.

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.

A variety of big game, small mammals, raptors and songbirds potentially use this area. The majority of the sage brush on the section was removed in with herbicide treatment in 1998. The area sustains heavy hunting pressure during the first two weeks of the big game hunting season with large camps of hunters using the area with ATV's and horses.

The Fish Wildlife and Parks wildlife biologist for the area, Dean Waltee is concerned with the proposed location of the stock tank. FWP states that "deciduous dominated woodlands make up only 1% of Montana's landcover and provides important habitat for 32 Montana species of greatest conservation need. Because of these factors, deciduous dominated woodlands have been categorized as a Tier 1 community type- meaning that "*efforts should be made to address the conservation actions identified for these community types across an Ecoregion regardless if they fall within a Focal Area.*" For the same reasons, the willow-dominated Flood Plain and Riparian Community type, including willow communities, are also categorized as a Type 1 community types. These limited aspen forest and willow riparian areas provide extremely valuable year round habitat for all big game, large carnivore, and upland game bird species found across southwest Montana, with sage-grouse being an exception."

Dean Waltee, Chuck Maddox, and the Santana ranch manager visited the proposed location in the spring of 2016 and made adjustments to the location of the stock tank to lessen any significant impacts to ungulates in the area.

Action Alternative: This alternative could have minor impacts to big game species from cattle trampling deciduous woodlands. Mitigation measures included moving the stock tank location further away from the aspen stand.

No Action Alternative: No changes to terrestrial, avian and aquatic life would occur under this alternative.

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.

The Montana Natural Heritage program, NRIS was contacted regarding species of concern within the project area. No endangered species were listed within the project area. However the area is listed as core sage grouse habitat. There were six sensitive species of concern identified in the area including; Greater Sage Grouse, Pygmy Rabbit, Wolverine, Little Brown Myotis, Hoary Bat and Ferruginous Hawk.

Greater Sage-grouse (**Centrocercus Urophasianus**) Greater sage Grouse use has been recorded in the project area and the project location is listed as core sage grouse habitat. The FWP has identified 2 leks in the vicinity of the proposal. Both leks are over three miles away from the proposal.

The first lek is approximately 0.6 miles away from the junction of the North Centennial Road and Wolverine Creek Road and the second is 0.8 miles from the same junction. Sections 1, 10, 11, 12, and 14 were treated with the herbicide Spike in 1998 to remove the heavy sage brush component from the range. The project was approved by the DNRC at that time and was successful in removing the sage brush. At this time the area does have sage brush habitat or good cover for the birds.

If the proposal is approved all construction work is planned for mid to late summer of 2016. The proponent applied to the Montana Sage Grouse Habitat Conservation Program for approval of this proposal. When that approval is received all requirements required mitigation measures prescribed will be made part of this improvement request.

Ferruginous Hawk (**Buteo Regalis)** Ferruginous hawks have been documented using the general area around the project as nesting and hunting habitat. The state of Montana lists the bird as an S3B species meaning it's, at potential risk because of limited and potentially declining numbers, extent or habitat even though it may be abundant in some areas. The low surface impacts resulting from the project would not significantly alter the vegetative composition or nesting habitat for the hawks. The primary vegetation on-site is native grass species and they would not be impacted if the project is approved. The project would not cause direct, indirect, or cumulative effects to this species.

Pygmy Rabbit **(Brachylagus idahoensis**) Pygmy Rabbits were observed in the project area in 1996 where the road passes through in the SW ¼ of Section 12, T 13S – R5 W. The species is listed as a S3 species by the state of Montana meaning it's at potential risk because of limited and potentially declining numbers, extent or habitat even though it may be abundant in some areas. The area of the siting was where the sage brush was treated with spike herbicide in 1998 to remove the sage brush which is the main habitat for the rabbit. At this time there isn't good habitat for pygmy rabbits at the location of the proposal. All sage brush has been removed.. This proposal will not change any conditions as they currently exist. The proposal is approximately 1.5 miles away from the location where the rabbits were observed. No direct, indirect or cumulative effects would be anticipated from either of the proposed alternatives.

Wolverine (**Gulo gulo**) Wolverines have relatively continuous habitat within the Gravelly, Greenhorn and Snowcrest mountain ranges. This project falls outside the wolverine range by several miles. The BLM and US Forest Service list the wolverine as a sensitive species. Wolverines could and may pass through the state sections when moving between mountain ranges, however the state sections do not provide the necessary habitat for sustained use by wolverines. Because of this, this project would not cause direct, indirect, or cumulative effects on this species and the area of this proposal is not considered prime habitat for wolverines.

Westslope Cutthroat Trout (**Oncorhynchus clarkia lewis**) are found in West Creek which is approximately 1.5 miles east of the spring development proposal. Westslope Cutthroat Trout are considered a sensitive species and are rated S2 by the state of Montana which means that they are at risk because of very limited and potentially declining numbers, extent and /or habitat, making it highly vulnerable to extirpation in the state. On a global scale the fish are considered to be uncommon but not rare.

Because the proposed alternatives will not affect West Creek, or the habitat in West Creek, no long term or cumulative effects to Westslope Cutthroat Trout will occur from either of the proposed alternatives.

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

There are no known cultural resource concerns recorded at this area. A field inspection by Chuck Maddox on September 29, 2015 did not reveal any archeological artifacts at the location. Patrick Rennie DNRC archeologist didn't identify any cultural concerns with proposal.

Neither of the proposed alternatives will affect cultural resources.

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.

Action Alternative: Aesthetics to the area would be altered slightly under this alternative. A 1200 gallon stock tank would be visible on the section that could be seen if in the vicinity of the spring development site.

No Action Alternative: no changes to the existing conditions to aesthetics would occur under this alternative.

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.

Action Alternative: This alternative may improve water quality of the area around the spring by concentrating use of livestock around the water tank that is installed and reducing use in the spring location.

No Action Alternative: No changes to existing conditions would occur under this alternative.

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.

No other known environmental documents pertinent to the area were identified during the scoping process. The BLM has applied and obtained an easement from the DNRC to make minor changes to the existing public road to improve water quality problems and reduce rutting in wet areas. The BLM will install 3 new culverts in the Wolverine Creek drainage on state land.

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.

Neither of the proposed alternatives will affect human health or safety, nor increase the risk of injury.

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

Neither of the proposed alternatives will affect industrial, commercial, and agricultural activities and or production.

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.

Neither of the proposed alternatives will affect quantity and distribution of employment in the area.

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.

Neither of the proposed alternatives will affect local and state 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.

Neither of the proposed alternatives will affect the demands for government services.

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.

Neither of the proposed alternatives will affect the demands for government services.

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 proposed alternatives will not impact or alter recreational activities on the tract of state land.

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.

Neither of the proposed alternatives will affect the density and distribution of population and housing in the area.

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

Neither of the proposed alternatives will affect social structures and mores.

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

Neither of the proposed alternatives will affect the cultural uniqueness and 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.

There would be no monetary increase to the trust as a result of this proposed project. Potential benefits of the project, if completed, would be improved water availability to livestock and a decrease or elimination of livestock use in the bottoms and better grass utilization in the uplands.

EA Checklist Prepared By:	**Name:** Timothy Egan	**Date:** 6/30/2016	
	Title: Dillon Unit Manager		

V. FINDING

25. ALTERNATIVE SELECTED:

Allow Santana LLC to develop a spring in the First Wolverine Creek drainage, install a spring box, and underground pipeline, to be used to fill a 1200 gallon stock tank on state land.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

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

EA Checklist Approved By:	**Name:** Martin Balukas	
	Title: Trust Lands Program Manager	
Signature:		**Date:** 7/8/16