Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. **Applicant name and addresses:**

SPP Montana, LLC
6304 Peake Road
Macon, GA 31210

2. **Type of action:**

3. Surface Water Change Application for Statement of Claim 76C 215024-00 (Change Application # 76C 30162542)

4. **Water source name:**

Wolf Creek

5. **Location affected by project:**

The historical place of use (POU) reaches 109.2 acres in the SE ¼ of the SE ¼ of Section 21, W ½ of the SW ¼ of Section 22, W ½ of the NW ¼ of Section 27, and E ½ of the NE ¼ of Section 28, Township 30 N, Range 27 W, Lincoln County, Montana. The proposed change will result in an entirely new POU occurring in 30.3 acres in the W ½ of the SW ¼ of Section 27, 4.3 acres in the NW ¼ of the SW ¼ of Section 27, 12.8 acres in the SW ¼ of the NW ¼ of Section 27, and 31.0 acres in the E ½ of the E ½ of Section 28, Township 30 N, Range 27 W, Lincoln County Montana.

6. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to change the point of diversion, place of use, and means of conveyance and irrigation infrastructure of Statement of Claim 76C 215024-00 in this Application. Statement of Claim 76C 215024-00 is filed for a diversion of water from Wolf Creek at a headgate located in the NW ¼ of the NW ¼ of the NE ¼ of Section 22, Township 30N, Range 27W in Lincoln County Montana, at a rate of diversion of 1,918.62 gallons per minute (GPM) (4.27 cubic feet per second (CFS)) up to a diverted volume of 202.71 acre feet (AF) for irrigation. Water is transported via the 4,050 foot length Conley Ditch to the place of use. The place of use (POU) reaches 109.2 acres in the SE ¼ of the SE ¼ of Section 21, W ½ of the SW ¼ of Section 22, W ½ of the NW ¼ of Section 27, and E ½ of the NE ¼ of Section 28, Township 30 N, Range 27 W, Lincoln County, Montana.

The Applicant proposes to:

- Change the means of diversion from a head gate and ditch utilizing flood irrigation to an in-creek pump and sprinkler irrigation including pivot, wheel line, and water-reel.

- Change the POU to 30.3 acres in the W ½ of the SW ¼ of Section 27, 4.3 acres in the NW ¼ of the SW ¼ of Section 27, 12.8 acres in the SW ¼ of the NW ¼ of Section 27, and 31.0 acres in the E ½ of the E ½ of Section 28, Township 30 N, Range 27 W, Lincoln County Montana. This location is outside of, and just south of the historical place of use.
- Change the POD to the NE ¼ of the NW ¼ of the SE ¼ of Section 28, Township 30 N, Range 27 W in Lincoln County, Montana. This location is downstream of the historical POD.
- Reduce the flow rate from 4.27 CFS to 1.38 CFS.
- Reduce the irrigated acreage from 109.2 acres to 78.4 acres.
- Reduce the total diverted volume from 202.71 AF per year to 93.91 AF per year.
- Reduce the consumptive volume from 75.23 AF per year to 75.16 AF per year.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311 MCA are met.

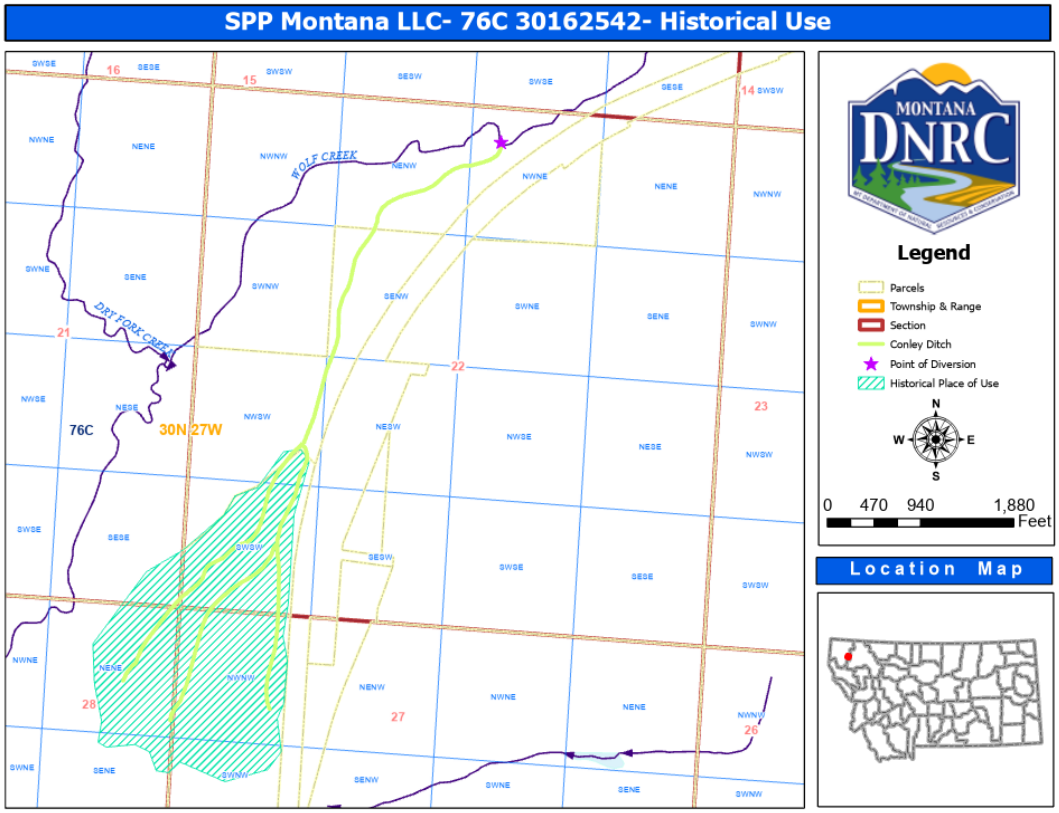


Figure 1- Map of Historic Place of Use and Point of Diversion

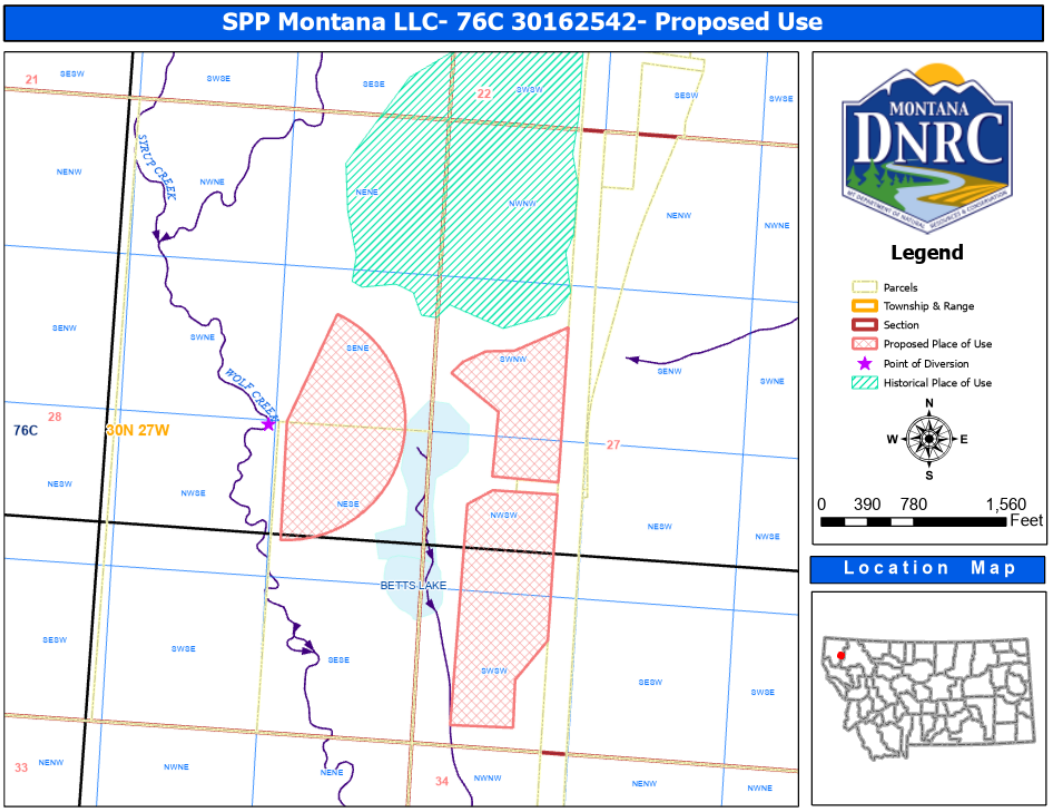


Figure 2- Map of Proposed Place of Use and Point of Diversion

7. Agencies consulted during preparation of the Environmental Assessment:

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (DFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MDEQ): Clean Water Act Information Center
- U.S. Natural Resource Conservation Service (NRCS): Web Soil Survey

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The Applicant plans to divert water from Wolf Creek, which is not on the DFWP list of chronically or periodically dewatered streams.

Determination: No significant impact.

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

According to the MDEQ Clean Water Act Information Center's 2020 Water Quality Information, Wolf Creek is listed as "Not Fully Supporting" for aquatic life due to temperature, streambank modifications/destabilization, sedimentation/siltation and alteration in stream-side or littoral vegetative covers leading to channelization. Activities listed that enhance these stream detriments do not include irrigation: the proposed beneficial use of this application. It will the Applicant's responsibility to work with the local Conservation District to obtain a 310 permit and minimize impacts on Wolf Creek during new pump installation.

Determination: No significant impact.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: N/A, this project diverts from a surface water source.

DIVERSION WORKS *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Applicants will divert water from Flathead Lake at a maximum rate of 13.6 GPM. The diversion will use a Franklin Electric 15FA07 4" Tri-Seal 0.75-horsepower submersible pump affixed to the end of a dock in the lake. The pump will be controlled by a Hunter Pro C Control Box and relay switch. A 1.25-inch PVC pipe will transmit water 100-feet from the pump where it necks down to a 1.0-inch poly pipe extending 50-ft to the farthest irrigation zone.

The total dynamic head (TDH) of the system at the highest and farthest zone is 160-feet, based on:

i. The minimum system operating pressure of 30-psi (equivalent to 69-feet of head);

ii. The 25-foot elevation gain from Whitefish Lake's surface to the control room; and,

iii. The friction losses (equivalent to 66-feet of head) in the transmission and distribution lines at approximately 14.0 GPM (rounded up from 13.6 GPM for the sake of calculating from friction loss characteristic tables).

Seven zones, six rotary/spray sprinkler zones and one drip zone, will irrigate the place of use. Three zones each with four Hunter PGP Red Nozzle 5, 6, or 7 rotary emitters will operate between 30-50 psi depending on their distance from the pump. The closest of these zones will output 3.4 GPM per emitter at 50 psi, representing the highest demand and total requested flow rate of 13.6 GPM (3.4 GPM x 4 emitters = 13.6 GPM). Three zones each with four to five Hunter Pro-Spray 10A spray emitters will operate with a 180-degree arc at 30 psi for a water demand of 1.0 GPM per emitter. The final zone consists of 50 1.0 gallon per hour drip emitters. Zones will operate one at a time once per day.

This project will not create any channel impacts, flow modifications, barriers, dams, or riparian impacts to Flathead Lake, nor will it affect any wells.

Determination: No significant impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern" in Township 26N, Range 25W that could be impacted by the proposed project. Thirty-two animal and five plant species of concern (Tables 1 and 2, respectively) were identified within the township and range where the project is located. Of these species, the Canada Lynx (*lynx canadensis),* and the Grizzly Bear (*Ursus arctos*) are listed as threatened by the USFWS. This area is already developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

Table 1. Animal Species of Concern in Township 26 N, Range 25 W, Flathead County.

	Common Name	Scientific Name	U.S. FWS – Status under the Federal Endangered Species Act of 1973
Mammals	Canada Lynx	*Lynx canadensis*	Listed Threatened (LT); Critical Habitat (CH)
	Fisher	*Pekania pennanti*	
	Grizzly Bear	*Ursus arctos*	Listed Threatened (LT)
	Little Brown Myotis	*Myotis lucifugus*	
	Long-eared Myotis	*Myotis evotis*	
	Townsend's Big-eared Bat	*Corynorhinus townsendii*	
	Western Pygmy Shrew	*Sorex eximius*	
	Wolverine	*Gulo gulo*	Listed Threatened (LT)
Birds	American Goshawk	*Accipiter atricpillus*	Migratory Bird Treaty Act (MBTA)
	Black-backed Woodpecker	*Picoides arcticus*	Migratory Bird Treaty Act (MBTA)
	Brown Creeper	*Certhia americana*	Migratory Bird Treaty Act (MBTA)
	Cassin's Finch	*Haemorthous cassinii*	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Region 10
	Evening Grosbeak	*Coccothraustes vespertinus*	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Region 10
	Flammulated Owl	*Psiloscops flammeolus*	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Region 10

	Great Blue Heron	*Ardea herodias*	Migratory Bird Treaty Act (MBTA)
	Great Gray Owl	*Strix nebulosa*	Migratory Bird Treaty Act (MBTA)
	Pacific Wren	*Troglodytes pacificus*	Migratory Bird Treaty Act (MBTA)
	Pileated Woodpecker	*Dryocopus pileatus*	Migratory Bird Treaty Act (MBTA)
	Varied Thrush	*Ixoreus naevius*	Migratory Bird Treaty Act (MBTA)
Amphibians	Western Toad	*Anaxyrus boreas*	
Fish	Columbia River Redband Trout	*Oncorhynchus mykiss gairdneri*	
	Torrent Sculpin	*Cottus rhotheus*	
	Westslope Cutthroat Trout	*Oncorhynchus clarkia lewisi*	
Invertebrates	Western Pearshell	*Margaritifera falcata*	

Table 2. Plant Species of Concern in Township 26 N, Range 25 W, Flathead County.

	Common Name	**Scientific Name**	**U.S. FWS – Status under the Federal Endangered Species Act of 1973**
Vascular Plants	Upward-lobed Moonwort	*Botrychium ascendens*	
	Lanceleaf Moonwort	*Botrychium lanceolatum*	
	Least Moonwort	*Botrychium lanceolatum*	
	Marsh Horsetail	*Equisetum palustre*	
	Meadow Horsetail	Equisetum pratense	

Determination: No significant impact.

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

A 27.33 acre Freshwater Emergent Wetland classified by the USFWS exists withing immediate proximity of the project and given the code **PEM1Ad** meaning:

- **P-** Palustrine system including all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following characteristics:
    - Area less than 8 ha (20 acres);
    - Active wave formed or bedrock shoreline features lacking;
    - Water depth in the deepest part of the basin less than 3.5 m (8.2 ft) at low water;
    - And salinity due to ocean derived salts less than 0.5 ppt.
- **EM-** Emergent class characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens with vegetation present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

- **1-** Persistent (1) subclass dominated by species that normally remain standing at least until the beginning of the next growing season.
- **A-** Temporary Flooded water regime where surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.
- **d-** Partially Drained/Ditched special modifier, meaning a partly drained wetland has been altered hydrologically, but soil moisture is still sufficient to support hydrophytes. Drained areas that can no longer support hydrophytes are not considered wetland. This modifier is also used to identify wetlands containing, or connected to, ditches. The Partly Drained/Ditched Modifier can be applied even if the ditches are too small to delineate.

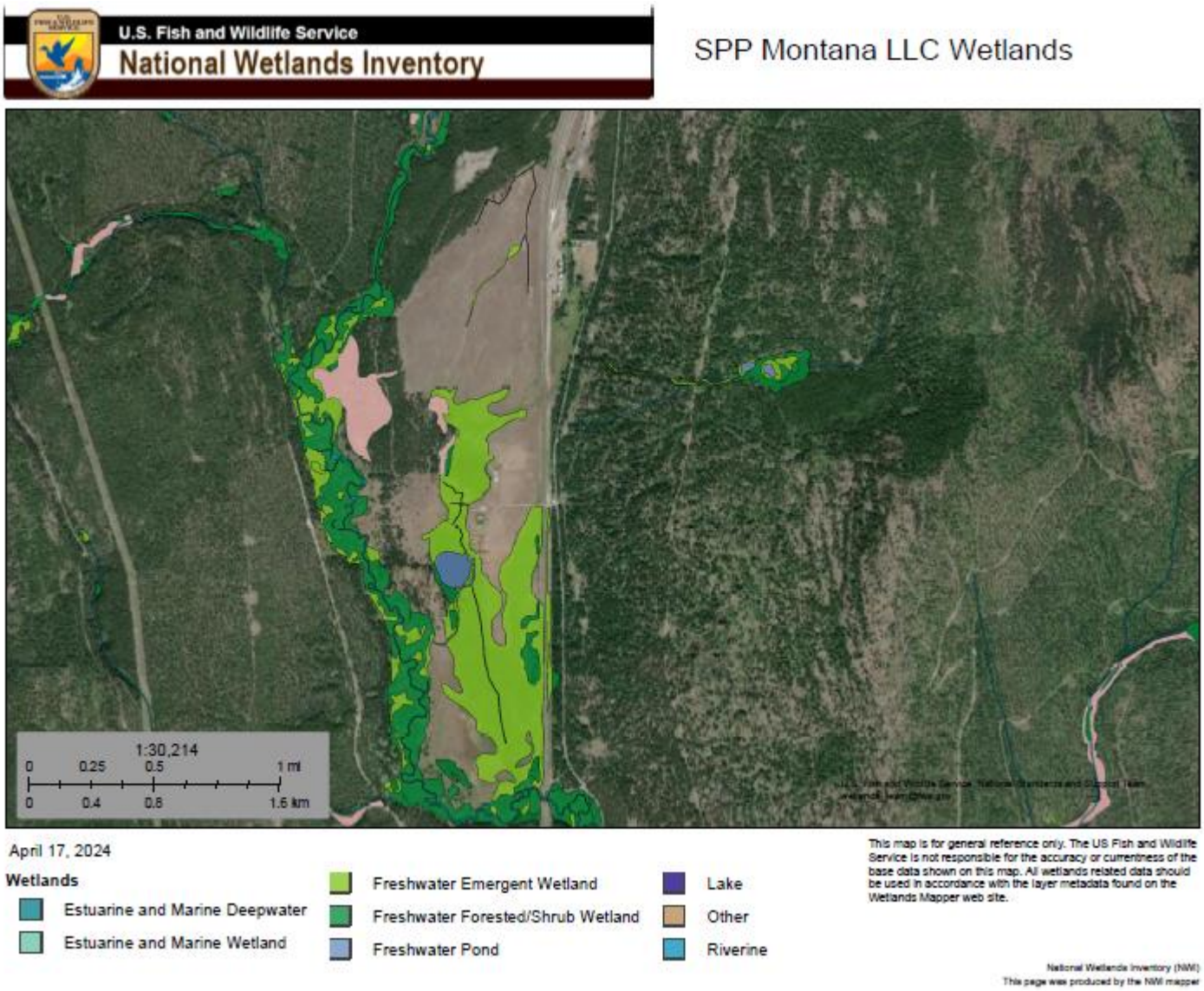
Intermingled within the **PEM1Ad** wetland are several small (less than 1 acre) Freshwater Forested/Shrub Wetlands classified by the USFWS as **PSS1C** meaning:

- **P**- same as above.
- **SS**- Scrub-Shrub class, including areas dominated by woody vegetation less than 6m (20 feet) tall. The species include tree shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.
- **1**- Broad-Leaved Deciduous (1) subclass dominated by woody angiosperms (trees or shurbs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (Fraxinus nigra).
- **C**- Seasonally Flooded water regime where surface water is present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Additionally, within the vicinity of the project there are 3 Forested/Shrub Riparian wetlands classified as **Rp1FO** by the USFWS, meaning:

- **RP**- Riparian system meaning flowing water with connection to surface or subsurface water, and less amount or duration of water than a wetland.
- **1-** Lotic subsystem, indicated by woody vegetation existing in flowing water.
- **FO**- Forested class, containing woody vegetation usually greater than 6 meters in height.

Determination: The proposed change involves shifting the irrigated area to an area directly south of historical irrigation. It is not anticipated that the change in irrigation method or location of irrigation will have significant impact on surrounding wetlands beyond the historical use. The department will issue the change application so long as the Applicant meets the criteria outlined in Montana Code Annotated (MCA) § 85.2.402.



Ponds **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: N/A, project does not involve ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

It is not anticipated that the proposed irrigation of 79.6 acres alfalfa hay will have a negative impact on the soil quality, stability, or moisture content. The soil in the project area consists of fluvents as flood plains, andic dystric Eutrochrepts as lacustrine terraces, and andic dystrochrepts as alluvial terraces. The soil erodibility factor, Kf, for soils in the project area are around 0.4 meaning that there is a moderate potential for runoff. The soils are classified as non-saline and is therefore not susceptible to saline seep.

Determination: No significant impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

It is not anticipated that issuance of a water use change will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners, who must follow local noxious weed regulations.

Determination: No significant impact.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of surface water.

Determination: No significant impact.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: N/A, project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water, and energy not already addressed.*

All impacts to land, water, and energy have been identified and no further impacts are anticipated.

Determination: No significant impact.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is consistent with planned land uses.

Determination: No significant impact.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No significant impact.

HUMAN HEALTH - *Assess whether the proposed project impacts human health.*

No negative impact on human health is anticipated from this proposed use.

Determination: No significant impact.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights. Yes___ No_X_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

Determination: No impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity? None identified.

(*b) Local and state tax base and tax revenues?* None identified.

(c) Existing land uses? None identified.

(*d) Quantity and distribution of employment?* None identified.

(e) Distribution and density of population and housing? None identified.

(f) Demands for government services? None identified.

(g) Industrial and commercial activity? None identified.

(h) Utilities? None identified.

(i) Transportation? None identified.

(j) Safety? None identified.

(k) Other appropriate social and economic circumstances? None identified.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

3. *Describe any mitigation/stipulation measures:*

None.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the change in diversion of water from Wolf Creek.

Part III. Conclusion

1. Preferred Alternative

Issue a water use permit if the Applicant proves the criteria in 85-2-402 MCA are met.

2. Comments and Responses

None.

3. Finding:

*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant impacts related to the proposed project have been identified.

Name of person(s) responsible for preparation of EA:

Name: Kristal Kiel
Title: Water Resource Specialist
Date: April 18, 2024