EA Form R 1/2007

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/Contact name and address: Pinnacle Ranch Inc
1204 Prairie Elk RD
Wolf Point, MT 59201

2. Type of action: Application to Change a Water Right – Additional Stock Tanks 40S 30162715

3. Water source name: Groundwater

4. Location affected by project: NENENE Sec 16, T23N, R46E

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

PINNACLE RANCH IS PROPOSING TO ADD A STOCK TANK ON STATE LAND IN NENENE SECTION 16, T24N, R46E, MCCONE COUNTY. THIS CHANGE WOULD BE A TEMPORARY AUTHORIZATION FOR THE DURATION OF THE APPLICANT'S STATE LEASE THROUGH FEBRUARY 28, 2030. THE APPLICANT CURRENTLY USES GROUNDWATER CERTIFICATE 40S 30162424 TO SUPPLY 7.65 AF OF WATER AT 18 GPM TO 450 AU LIVESTOCK WITH 17 STOCK TANKS ON PRIVATE LAND YEAR-ROUND. THE WELL IS LOCATED IN SESENW SECTION 2, T23N R46E, MCCONE COUNTY.

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

Montana Department of Natural Resources and Conservation (DNRC)
United States Bureau of Land Management (BLM)
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
Montana Department of Environmental Quality (DEQ)
United States Department of Agriculture (USDA)

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 proposed project is within DNRC Basin 40S, Missouri River Below Fort Peck Dam. Water is diverted through a well 480 feet deep, with the static water level at 265 feet. The flow rate and volume of the historic use are 18 GPM and 7.65 AF. It will remain the same under the proposed change. The applicant has been providing water for 400 animal units since 1992, and an additional 50 since 2023. There is one other Statement of Claim on the place of use, which is owned by State Land for livestock direct from Prairie Elk Creek.

The historic appropriation is not to exceed 35 GPM or 10 AF per year and is thus excepted from the requirement of aquifer testing and demonstration of physically and legally availability of water [MCA 85-2-306(5)]. In this semi-arid region of eastern Montana, surface channels are predominantly ephemeral streams—streams which flow only in response to snowmelt and precipitation events. Therefore, the well is not expected to disrupt adjacent surface water flows.

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 McCone County Water Resources Survey, the point of diversion of the original water right draws from the Fort Union aquifer formation. The well log report for this well shows mostly sand and shale. Water from these sandstones are relatively high in soda salts and due to the presence of sodium bicarbonate can have deleterious action on soil. Water will mainly be contained to stock tanks and should not have abundant access to the nearby soil.

The proposed stock tank is contained in the Middle Prairie Elk Creek watershed and is within 3 miles of the Lower Prairie Elk Creek which is on the Montana Department of Environmental Qualities list of impaired waters. According to the Redwater River Nutrient and Salinity TMDLs and Framework Water Quality Improvement Plan by the Montana DEQ, the total nitrogen and phosphorus concentrations are high due to nearby agricultural uses, which has caused impairment of aquatic life and warm water fishery.

According to the State of Montana Trust Land Management Division, this section of land has historically been grazed. The addition of a stock tank will not increase the amount of grazing, and the addition of the stock tanks is expected to distribute grazing more evenly. More distributed grazing is more aligned with best management practices as described in the Redwater River Nutrient and Salinity TMDLs and Framework Water Quality Improvement Plan, which could assist in improving the water quality.

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.*

The proposed project is a groundwater appropriation not to exceed 35 GPM or 10 AF per year and is thus excepted from the requirement of aquifer testing and demonstration of physical and legal availability of water [MCA 85-2-306(5)]. The applicant stated that the well has been reliable for their livestock operation since 1992. Because the proposed project will not increase the flow rate and volume, the addition of one stock tank is not expected to impact the groundwater supply. Furthermore, the well is not expected to disrupt surface ephemeral streams in the watershed.

Determination: No Significant Impact

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.*

The point of diversion is a well located in SESENW, Section 2, T23N, 46E, McCone County. The well was completed to a depth of 480 feet, with the static water level at 265 feet. Diversion is operated with a 3-HP variable frequency drive pump, which pumps water uphill 165 feet with a pipeline buried 5.5 feet to a 16,000-gallon storage tank. From the storage tank, water gravity feeds to a total of 18 stock tanks (one included in this change). All stock tanks have a float switch and shut off valve.

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."*

While only the Greater Sage Grouse has been observed near the place of use, the Montana Natural Heritage Program shows other potential species of concern could include the following:

Species Group	Common Name	Scientific Name
Amphibians	Northern Leopard Frog	Lithobates pipiens
Amphibians	Great Plains Toad	Anaxyrus cognatus
Birds	Sharp-tailed Grouse	Tympanuchus phasianellus
Birds	Greater Sage Grouse	Centrocercus urophasianus

Birds	Common Poorwill	Phalaenoptilus nuttallii
Birds	Brewer's Sparrow	Spizella breweri
Birds	Loggerhead Shrike	Lanius ludovicianus
Birds	Sprague's Pipit	Anthus spragueii
Birds	Bobolink	Dolichonyx oryzivorus
Birds	Burrowing Owl	Athene cunicularia
Birds	Chestnut-collared Longspur	Calcarius ornatus
Birds	Golden Eagle	Aquila chrysaetos
Birds	American Bittern	Botaurus lentiginosus
Birds	American White Pelican	Pelecanus erythrorhynchos
Birds	Black-billed Cuckoo	Coccyzus erythropthalmus
Birds	Dickcissel	Spiza americana
Birds	Eastern Bluebird	Sialia sialis
Birds	Ferruginous Hawk	Buteo regalis
Birds	Long-billed Curlew	Numenius americanus
Birds	Thick-billed Longspur	Rhynchophanes mccownii
Birds	Whooping Crane*	Grus americana
Birds	Short-eared Owl	Asio flammeus
Birds	Baird's Sparrow	Centronyx bairdii
Birds	Black-and-white Warbler	Mniotilta varia
Birds	Sage Thrasher	Oreoscoptes montanus
Birds	Eastern Screech-Owl	Megascops asio
Birds	Great Blue Heron	Ardea herodias
Birds	Horned Grebe	Podiceps auritus
Birds	Mountain Plover	Charadrius montanus
Birds	Piping Plover**	Charadrius melodus
Invertebrates	Monarch	Danaus plexippus
Mammals	Preble's Shrew	Sorex preblei
Mammals	North American Porcupine	Erethizon dorsatum
Mammals	Dwarf Shrew	Sorex nanus
Mammals	Silver-haired Bat	Lasionycteris noctivagans
Mammals	Black-tailed Prairie Dog	Cynomys ludovicianus
Mammals	Little Brown Myotis	Myotis lucifugus
Mammals	Long-eared Myotis	Myotis evotis
Mammals	Eastern Red Bat	Lasiurus borealis
Mammals	Hoary Bat	Lasiurus cinereus
Mammals	Spotted Bat	Euderma maculatum
Mammals	Hayden's Shrew	Sorex haydeni
Mammals	Long-legged Myotis	Myotis volans
Mammals	Swift Fox	Vulpes velox
Mammals	Townsend's Big-eared Bat	Corynorhinus townsendii
Reptiles	Greater Short-horned Lizard	Phrynosoma hernandesi
Reptiles	Plains Hog-nosed Snake	Heterodon nasicus

Reptiles	Snapping Turtle	Chelydra serpentina
Vascular Plants	Dwarf woolly-heads	Psilocarphus brevissimus
Vascular Plants	Scribner's Ragwort	Senecio integerrimus var. scribneri
Vascular Plants	Slim-pod Venus'-looking-glass	Triodanis leptocarpa
Vascular Plants	Suckley's Saltbush	Atriplex suckleyi
Vascular Plants	Long-sheath Waterweed	Elodea bifoliata
Vascular Plants	Schweinitz's Flatsedge	Cyperus schweinitzii
Vascular Plants	Silver Bladderpod	Physaria ludoviciana
Vascular Plants	Smooth Goosefoot	Chenopodium subglabrum
Vascular Plants	Platte Cinquefoil	Potentilla plattensis

* On Endangered list by BLM and USFWS
** On Threatened List by BLM and USFWS

The proposed project is located within the Greater Sage-Grouse (Centrocercus urophasianus) Core Area. The United States Bureau of Land Management (BLM) classifies all or a portion of this area as a Priority Habitat Management Area (PHMA). The applicant consulted with the Montana Sage Grouse Habitat Conservation Program, which concluded that the Project Density Disturbance Calculation Tool Analysis result was 5.15%. Although this is over the 5% threshold stipulated in Executive Order 12-2015, the project meets the requirement of approved deviations for a range improvement project. Range improvement projects are required to implement appropriate measures to avoid and minimize impacts to sage-grouse and their habitat. The activities of Pinnacle Ranch were found to be consistent with the Montana Sage Grouse Conservation Strategy.

The Piping Plover (Charadrius melodus) is listed by USFWS and BLM as a threatened species. Piping Plovers primarily select unvegetated sand or pebble beaches on shorelines or islands in freshwater and saline wetlands. They usually arrive in Montana in early May and leave the state by late August. Most of the observations reported in the state are for breeding individuals. If conditions are right, alkali wetlands, lakes, reservoirs, and rivers can all provide the essential features required for nesting. Although the proposed stock tank location is in the Piping Plover habitat range, there are no recorded observations of them in that area. Most sightings in Northeast Montana are located near Fort Peck Lake and the Missouri River.

The Whooping Crane (Grus americana) is listed by the USFWS and BLM as an endangered species. The Whooping Crane is known to fly through Montana during both spring and fall migration. The Whooping Crane has been observed in the marsh habitat present at Medicine Lake National Wildlife Refuge and Red Rock Lakes National Wildlife Refuge. Observations of individual birds in other areas of the state include grain and stubble fields as well as wet meadows, wet prairie habitat, and freshwater marshes that are usually shallow and broad with safe roosting sites and nearby foraging opportunities. There are no recorded observations of the Whooping Crane near the location of the proposed stock tank.

Only the Greater Sage-Grouse has been observed near the additional stock tank, and the project is in compliance with the Montana Sage Grouse Conservation Strategy. Because no other

potential species of concern have been observed in the immediate vicinity, there should be no substantial impact.

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.*

The proposed stock tank is adjacent to a 0.51-acre Freshwater Emergent Wetland habitat classified as a PEM1Ah.

- System Palustrine (P): The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, 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 four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class Emergent (EM): Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.
- Subclass Persistent (1): Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.
- Water Regime Temporary Flooded (A): 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.
- Special Modifier Diked/Impounded (h): These wetlands have been created or modified by a man-made barrier or dam that obstructs the inflow or outflow of water.

The proposed stock tank is near a 0.30-acre Riverine habitat and is classified as a R4SBC.

- System Riverine (R): The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.
- Subsystem Intermittent (4): This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.
- Class Streambed (SB): Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.
- Water Regime Seasonally Flooded (C): 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.

Determination: According to the United States Department of Agriculture, cattle grazing can be beneficial for wetlands due to nutrient supply and foliage management. No significant impact.

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

The proposed stock water tank is adjacent to a 0.45-acre freshwater pond that is classified as a PABfh.

- The Palustrine System (P): all nontidal wetlands dominated by trees, shrubs, persistent emergents, 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 four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class Aquatic Bed (AB): wetlands and deepwater habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.
- Water Regime Semi Permanently Flooded (F): surface water persists throughout the growing season most years. When surface water is absent, the water table is usually at or very near the land surface.
- Special Modifier Diked/Impounded (h): These wetlands have been created or modified by a man-made barrier or dam that obstructs the inflow or outflow of water.

Aerial photos show this area as dry most years, so there should be no significant impact to wildlife, waterfowls, or fisheries.

Determination: No significant impact.

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.*

According to the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey, the soil type for this area is a Cambeth-Twilight-Cabbart complex, which has a 4 to 15% slope and is set in low hills. Cambeth constitutes 40% of the complex, Twighlight is 30%, Cabbart is 20%, and other minor components make up the final 10%. Soil properties are summarized in the table below:

Series	Type	Parent Material	Salinity	Drainage Class	Frequency of Flooding
Cambeth	Silt Loam	Silty residuum weathered from interbedded sedimentary rock	Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)	Well Drained	None
Twilight	Fine Sandy Loam	Sandy residuum weathered from sandstone	Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)	Well Drained	None

Cabbart	Silt Loam/Loam	Loamy residuum weathered from interbedded sedimentary rock	Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)	Well Drained	None

While there may be increased soil erosion and compaction near the stock tank area, the addition of the stock tank was proposed to distribute grazing more evenly which is overall more beneficial for soil health. It is not anticipated that there will be degradation to the soil nor development of a saline seep caused by development of this project.

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.*

According to the MT DNRC Land Use Specialist that works with this Applicant, the addition of the stock tank is expected to distribute grazing more evenly across the tract, and no negative impacts to the vegetative community are expected.

MT DNRC Trust Lands does a field evaluation every 5-10 years dependent on the presence of noxious weeds. If weeds are present, the lessee is responsible for their control, as stipulated in the lease agreement.

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 could be a slight increase in dust during construction of the pipeline, but it would be largely insignificant and should be resolved quickly.

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.*

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, and a Class III review (pedestrian inventory) was conducted by the NRCS in 2020.

Because of a lack of cultural or palaeontologic resources, proposed stock water development activities are expected to have *No Effect* to *Antiquities*. 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.

Determination: No significant impact.

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

Determination: There are no known impacts on environmental resources of land, water, and energy.

HUMAN ENVIRONMENT

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

The only known local environmental plan is the Redwater River Nutrient and Salinity TMDLS and Framework Water Quality Improvement Plan. The addition of a stock tank for a more distributed grazing pattern seems consistent with the best management practices described in this plan.

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 project falls on Montana State Lands, which self regulates recreational use, per the state of Montana guidelines.

Determination: No significant impact.

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

The project falls on grazing pastures, where there is little human interaction.

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 significant 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? No Significant Impact

(*b) Local and state tax base and tax revenues?* No Significant Impact

(c) Existing land uses? No Significant Impact

(*d) Quantity and distribution of employment?* No Significant Impact

(e) Distribution and density of population and housing? No Significant Impact

(f) Demands for government services? No Significant Impact

(g) Industrial and commercial activity? No Significant Impact

(h) Utilities? No Significant Impact

(i) Transportation? No Significant Impact

(j) Safety? No Significant Impact

(k) Other appropriate social and economic circumstances? No Significant Impact

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

Secondary Impacts This application does not present possible secondary impacts on the physical environment and human population.

Cumulative Impacts This application does not present possible cumulative impacts on the physical environment and human population.

3. *Describe any mitigation/stipulation measures:* N/A

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:* An analysis of the project identified a No-Action alternative to the requested change. Under the No-Action alternative, the applicant would not be able to build the stock tank as requested and would continue to use the other stock tanks that were previously built.

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

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 have been identified, therefore an EIS is not necessary.

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

Name: Ashley Kemmis
Title: Water Resource Specialist
Date: 5/8/2024