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: Salt Creek Partners LLC
PO Box 485
Gallatin Gateway, MT 59730

2. Type of action: Application for Beneficial Water Use Permit 30028945-41S

3. Water source name: East Fork of Salt Creek, Tributary to the Judith River

4. Location affected by project: An onstream point of diversion (dike) is proposed in the SE NW NW Section 32 and an offstream point of diversion will be located in both the SW NW NW Section 32 and the SE NE NE Section 31 all in T20N, R18E, Fergus County.

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

This permit application is one of two applications submitted jointly for the shared purpose of Wetland Development for Waterfowl Habitat. This application refers to the source of water supply as the East Fork Salt Creek. The applicant has applied to divert up to 32.3 acre-feet (AF) annually, with a requested period of diversion and period of use from 1/1-12/31. The two wetland areas described in this application have the same legal descriptions as the points of diversion listed above; they cover a combined total surface area of 8.7 acres with an associated capacity of 13.2 AF. The wetland area located in the SW NW NW Section 32 and the SE NE NE Section 31 will be offstream and designed to capture runoff associated with high flow events on East Fork Salt Creek.

The applicant anticipates the direct benefits from this project would include use for recreation and wildlife. They state that the enhancement of waterfowl habitat and the creation of wetland areas will increase the recreational value of the property. The applicant predicts that indirect benefits will consist of wild bird habitat, flood attenuation, and improved water quality by filtering Salt Creek flows through the wetland complex.

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

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

Dept. of Environmental Quality Website - TMDL 303d listing
MT. National Heritage Program Website - Species of Concern

USDI Fish & Wildlife Service Website - Endangered and Threatened Species Fergus County, MT
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper
MT Fish, Wildlife & Parks – Montana Fisheries Information System Database Query
Montana Field Guide

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.*

Determination: Minor to moderate impact.

Water quantity could be diminished by up to 32.3 AF in some years. The East Fork of Salt Creek is not currently classified as a dewatered stream according to the MFISH website sponsored by Montana Fish, Wildlife & Parks (MFWP). MFWP water rights specialist, Andy Brummond, is concerned that their instream flow reservation on the Judith River has often not been met in the last several years and the decline of water available from tributaries to the Judith River will impact their protected flows.

The applicant estimates that the volume of annual runoff associated with the East Fork of Salt Creek Drainage is 592.6 AF assuming a mean annual runoff of 0.82 CFS. The mean annual runoff was calculated using the Omang and Parrett regression analysis equations based on drainage area, mean annual precipitation, and percent of forest cover. The depletion of 32.3 AF could have a minor to moderate impact on this source of supply depending on obtainable downstream flows when presented with low water availability periods.

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.*

Determination: Minor impact.

According to the Clean Water Act Information Center (DEQ Website), the East Fork of Salt Creek has not been assessed and therefore is not designated as needing a TMDL plan at this time. There will likely be increased turbidity in the creek during the construction phase of the project and the applicant has applied to obtain a 310 Permit from the local conservation district. Although the increased turbidity during construction will likely induce a short period of sediment influx to the stream and the depletion of 32.3 AF to the source will change the flow regimen; the

impacts to water quality are anticipated to be minor. The applicant believes the project will enhance downstream water quality by filtering Salt Creek flows through the wetland complex.

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: Minor to moderate impact.

The localized groundwater table near Salt Creek may elevate due to the impoundment of runoff from high spring flows. The applicant estimates that the timing of these high spring flows will be temporarily interrupted and attenuated downstream over a longer time frame. As stated above, the dike to be constructed in Sections 32 & 31 will not span the entire stream channel and will be designed to capture runoff associated with high flows. The alteration of the historic flow patterns in Salt Creek by changing the timing effects of spring runoff could have a minor to moderate impact on downstream surface water availability.

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.*

Determination: Minor to moderate impact.

The two earthen diversion dikes to be constructed under this application are designed to modify the historic flow pattern of the East Fork of Salt Creek. The dikes themselves will be constructed to allow continued movement of water through the upper soil profile and are not intended to be used as an aquaclude. In other words, the dikes are not designed to be water tight. The applicant says the on-stream dike will be constructed with a primary spillway that allows control of water levels in the inundated wetland areas. The off-stream dike will not have a primary spillway design built in as the applicant believes the groundwater will continue moving with the same timing and rate as it did prior to the project. The applicants' design calls for two inlets in each of the primary spillways; the primary grated inlet will be located 4 feet above the ground surface and below the top of the dike. The secondary grated concrete inlet will be located at an equal elevation with that of the wetland/reservoir bottom. The applicant states that during general operation of the structure; the secondary inlet will be closed via a butterfly valve located on the discharge pipe that leads from the secondary inlet to the primary discharge pipe, only allowing water to pass through the primary inlet. During times when prior appropriators need to be satisfied; the applicant can open the butterfly valve on the secondary inlet; effectively draining the impounded storage. Also, the secondary inlet could be opened to allow the passage of excess water associated with low reoccurrence interval high flow events.

The creation of these two earthen dikes will act as barriers on Salt Creek and the associated modification of the flow regime is expected to have a minor to moderate impact on the drainage basin. The upstream side of the dikes will likely act as deposition areas for the silt and sediment moved through typical transport mechanisms.

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."

Determination: Moderate impact.

The Montana National Heritage Program lists 1 species as Species of Concern within Township 20 North Range 18 East. The common name for this bird species is the Greater Sage-grouse. The USDI Fish & Wildlife Service Website shows that Fergus County has one species listed as threatened; the Bald Eagle and one species listed as endangered: the Black-footed Ferret.

A Montana Fish, Wildlife, & Parks (MFWP) biologist is concerned that water will be insufficient to feed downstream riparian areas. He believes that although the waterfowl population may benefit as a result of this project; it will be detrimental to the upland game bird population and terrestrial wildlife in the area. If in fact the project is detrimental to upland game birds; impacts to Greater-sage Grouse habitat could be undesirable. He suggests that woody vegetation developed along the riparian zone adjacent to the stream would be more beneficial to local wildlife than this project.

Information from the regional MFWP fisheries biologist suggests that the berms associated with this project will create a significant barrier to fish movement. Six sucker and minnow species were sampled on 7/20/2004 on the property in question. MFWP personnel also sampled four sites on 9/24/2007. They obtained similar results to that found in 2004, with the exception of the presence of the northern redbelly dace X finescale dace hybrids, which are a species of special concern. The Montana Field Guide says this fish was placed on the species of concern list due to its rarity and unusual form of genetic reproduction.

This project is expected to create a mobility issue for fish; however conditions to allow fish passage could be designed into the dikes to reduce impacts. The regional extent of the impacts to the finescale dace hybrid habitat is somewhat unclear; little is known about their distribution and biology. The Montana Field Guide also says that the finescale dace hybrids are found in similar habitat to that of the Northern Redbelly Dace which prefers quiet waters from beaver ponds, bogs and clear streams, though the finescale dace can also be found in larger lakes. This project appears to be designed to develop the quite water habitat described above as the preferred habitat.

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

Determination: Low likelihood of impact.

There are existing functional wetlands associated with this application. The intent of this project is to enhance the existing wetland habitat on the East Fork of Salt Creek and therefore adverse impacts to the wetland resource are unlikely. Disturbances during the construction phase could have short term effects such as increased turbidity and sediment transport; however they are expected to be temporary. The USDI Fish & Wildlife Service – Wetlands Online Mapper has no data available for the project location of interest on Salt Creek.

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

Determination: Moderate impact.

Each of the dikes associated with this project will create an inundated wetland area. The applicant states that this project will enhance wildlife and waterfowl habitat. As stated previously, there is a low likelihood of adverse impact to waterfowl resources. A MFWP biologist does feel that this project will be detrimental to upland birds and indigenous wildlife; largely due to his belief that there will be insufficient water available to downstream riparian zones.

MFWP personnel also feel that the creation of these storage facilities will impede fish movement within the Salt Creek drainage. As stated previously, fish passage measures could be designed into the construction phase of the project to reduce impacts to the fishery.

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.*

Determination: Low likelihood of impact.

The USDA-NRCS Web Soil Survey indicates the dominant soil unit in the area is the Fluvaquentic Haplaquolls. This soil lies predominantly in the riparian zone along the stream corridor and under the streambed itself. The sodium adsorption ratio for the majority of soil types in this area of interest is 0.0 signifying a low likelihood of impacts from saline seep. Soil moisture content may increase earlier in the season due to impoundment of high spring flow events.

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.*

Determination: Low likelihood of impact.

The construction phase of this project could temporarily reduce the vegetative cover in the near vicinity of each of the dikes, however that disturbance is expected to be short term. The long term effects of this project will likely result in an increase in riparian vegetation from the creation of the designated wetland areas. The applicant estimates that these areas will be inundated in the spring of the year and saturated during later months; both conducive for establishing water tolerable plants like hydrophytes (root system submerged) and phreatophytes (tap root extends to water table). No spread of noxious weeds would likely be associated with this application. Normal weed management should be used to control noxious weeds potentially invading disturbed areas. It is the responsibility of the property owner to control noxious weeds on their property. There is a low likelihood of adverse impact to vegetative cover as a result of this project.

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

Determination: Low likelihood of impact.

It is unlikely air quality would be impacted; this project would have no pollutant emissions other than typical construction activities.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: Potential impact.

The State Historic Preservation Office believes this project has the potential to impact cultural properties. Due to the amount of ground disturbance associated with this application and the lack of a previous inventory; they recommend a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted. This project is located on private property and is also privately funded at this time. This information will be provided to the applicant; however the landowner has sole discretion whether or not to act upon the recommendation. A cultural resource inventory may be warranted; should any state or federal funding be awarded to the project.

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: Low likelihood of impact.

No additional impacts are anticipated.

HUMAN ENVIRONMENT

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

Determination: Low likelihood of impact.

No locally adopted environmental plans or goals have been identified.

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.*

Determination: Low likelihood of impact.

This project will be completed on private property. The proposed action should not impact recreational activities in the area. The applicant maintains that this project will increase the recreational value of the property.

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

Determination: Minor impact.

Since its introduction to the U.S. in 1999, West Nile virus has become a potential threat in many states. In 2006, 4 in every 1000 mosquitoes captured on the Milk River near Malta, MT were infected with West Nile. Mosquito habitat development has been associated with standing water containing debris and vegetation. This project will create these development conditions; however proper weed management and pond maintenance will help to control the conditions required for larva growth, thus making the impacts associated with the stagnant water minor.

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 known impacts.

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**

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

(c) Existing land uses? **None**

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

(e) Distribution and density of population and housing? **None**

(f) Demands for government services? **None**

(g) Industrial and commercial activity? **None**

(h) Utilities? **None**

(i) Transportation? **None**

(j) Safety? **None**

(k) Other appropriate social and economic circumstances? **None**

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

Secondary Impacts – Possible increased waterfowl habitat.

Cumulative Impacts – As more private wetland applications are received by the department, the cumulative impacts from these types of projects may merit more consideration. According to DFWP personnel, this project has the potential to impede fish movement, be a detriment to upland game birds, and dewater riparian areas downstream. The amount and timing of flows will be altered on this source and could affect water availability on the larger drainages this water is tributary to.

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

None identified.

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:***

No action alternative: Deny the application. The no action alternative would provide none of the enhanced wildlife & waterfowl habitat or the increased recreational value of the property anticipated by the applicant as a result of this project.

PART III. Conclusion

1. ***Preferred Alternative***

The preferred alternative is the proposed alternative. Additional consideration may be justified for fish movement issues and downstream flow modifications.

2 ***Comments and Responses***

None Received.

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:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

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

Name: Douglas Mann
Title: Water Resources Specialist - LRO
Date: 10/7/2008