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

Applicant/Contact name and address: Twin Hills Colony Inc.
4177 Beaverslide Rd.
Carter, MT 59420

1.

2. *Type of action*: : Beneficial Water Use Permit Application No. 41P 30049669

3. *Water source name*: Dugout Coulee

4. *Location affected by project*: The proposed point of diversion is a dam located in the NE SE SW of Section 33, T27N, R05E, Chouteau County. The 40 acre place of use is located in the S2 SE SW of Section 33, T27N, R05E and the NE NW of Section 04, T26N, R05E all in Chouteau County.

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*: The Applicant proposes to divert and store surface water from Dugout Coulee by means of a dam from January 1 through December 31. Water will be stored in a 345 acre-feet (AF) reservoir. The stored water will be used to sprinkle irrigate 40 acres of cropland using a wheel line and pump irrigation system.

The DNRC shall issue a Beneficial Water Use Permit if the applicant proves the criteria in 85-2-311 and 85-20-1001(22), MCA are met.

6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Natural Resources Conservation Service (NRCS) Soils Data Website
Dept. of Environmental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website
Natural Resource Information System

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 source of supply, Dugout Coulee is not identified as a chronically or periodically dewatered stream by DFWP. The proposed use of water is not anticipated to cause a dewatered condition on the source of supply.

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.*

Dugout Coulee is not listed as water quality impaired or threatened by DEQ. The development of the proposed irrigation project should not affect water quality.

Determination: No significant impacts to water quality are anticipated.

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 surface water use should have minimal impacts to groundwater quality or supply as the dam included in this project has been in place prior to the enactment of the Montana Water Use Act. No substantial changes in surface flow patterns are anticipated therefore impacts to groundwater are expected to be minimal.

Determination: No significant impacts ground water quality or supply adjacent surface water flows are anticipated.

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 Applicant plans to divert water from the reservoir via a tractor power take off driving a Caprari MED-D2/80A trailer mounted centrifugal pump. Water will be conveyed from the pump to the irrigated place of use by 4-5 inch mainline pipe. Water will then be applied to the place of use using a ¼ mile wheel line sprinkler with 32 sprinkler heads.

Determination: No significant impacts are anticipated from the proposed means of diversion, construction and operation of the appropriation works of the proposed project.

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."*

According to the information provided by the Montana Natural Heritage program, there is no species of concern located in the project area.

Determination: The proposed project is located in a sparsely populated area primarily composed of dry cropland, it is not anticipated that the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or the species of special concern identified. It is also not anticipated that the proposed project will create a barrier to the migration or movement of fish or wildlife because there will not be any substantial changes to existing 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.*

There are no wetlands identified from GIS mapping of the proposed project utilizing NWI data.

Determination: Because there are no wetlands identified within the proposed project area, there are no impacts anticipated.

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

The reservoir that is proposed in this water permit application has been in place prior to 1973. As such, there have been no reports that wildlife, waterfowl or fisheries resources have been impacted.

Determination: Existing wildlife, waterfowl, or fisheries resources will likely not be impacted if a beneficial water permit is issued.

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.*

Data from the NRCS soils website indicate soil types within the proposed project area. Two soil types dominate the proposed project area. The dominate soil types are identified as Kobase clay loam and 4 to 8 percent slopes and Ethridge silty clay loam, 0 to 4 percent slopes.

Determination: Degradation of soil quality, alteration of soil stability or moisture content is expected to be minimal to non-existent. Saline seepage in the area does not appear to be problematic nor does the proposed project appear to worsen any saline seepage problems.

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.*

There will be some disturbance during the construction process as proposed. The proposed project is located in an area that the current land use is dry cropland.

Determination: The construction of the proposed project should not have a significant impact to existing vegetative cover. However, it is the applicant's responsibility to control noxious weeds on their property.

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

The applicant included plans in their application to utilize a diesel engine to drive a centrifugal pump.

Determination: Minimal affects to air quality or adverse effects on vegetation due to an increase in air pollutants is expected.

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

The proposed project is located in an area that the current land use is dry cropland.

Determination: Site disturbance has already taken place. The Montana State Historic Preservation Office (SHPO) may be consulted at the private property owner's discretion.

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

No additional impacts on other environmental resources were identified.

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.*

There are no known environmental plans or goals in this area.

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 should have no significant or harmful impact on recreational or wilderness activities.

Determination: No significant impact

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

The development should have no impact on human health.

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.

No adverse effect on private property rights is anticipated from this development.

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 as the proposed project is consistent with other land uses in the region.

(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? No secondary impacts have been identified.

Cumulative Impacts? No cumulative impacts have been 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:***

No action alternative:

The applicant would not be able to develop their project as proposed.

Alternative 1:

Approve the application if the applicant proves the statutory criterion has been met.

PART III. Conclusion

1. ***Preferred Alternative:*** Alternative 1

2. ***Comments and Responses:*** None

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

If an EIS is not required, explain <u>why</u> 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: /s/ Matt Miles
Title: Water Resources Specialist
Date: 07/28/2011