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:

LORENZ CONSTRUCTION, LLC
2050 BROADWATER AVE, STE B
BILLINGS, MT 59102-4843

MARSICH INVESTMENTS, INC
4804 VERDE LANE
BILLINGS, MT 59106-2708

Type of action: Application for Beneficial Water Use Permit 43Q 30161830

Water source name: Groundwater: Yellowstone River Terrace Level 2 Aquifer

Location affected by project: Serenity Subdivision generally located in the NE of Section 4, Township 1S, Range 25E, Yellowstone County

Narrative summary of the proposed project, purpose, action to be taken, and benefits: The proposed project is to divert groundwater from the Yellowstone River Terrace 2 alluvial aquifer, by means of 58 wells, averaging 45 feet in depth, to serve 57 individual lots and one park lawn. Water will be diverted from January 1 to December 31 for multiple domestic use, and from May 1 to October 31 for lawn and garden irrigation, at 394 GPM and 132.9 AF. The project proposes 58 points of diversion in the NE of Section 28, Township 1S, Range 25E, Yellowstone County in the proposed Serenity Subdivision. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

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

Montana Department of Natural Resources & Conservation (DNRC)
Montana Natural Heritage Program
Montana Department of Fish Wildlife & Parks (FWP)
Montana Department of Environmental Quality (DEQ)
USDA – Natural Resources Conservation Service (NRCS)
DOI – U.S. Fish & Wildlife Service (USFWS)

Part II. Environmental Review

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: No Significant Impact

The proposed project would draw from groundwater in West Billings. The modeled 0.01-foot drawdown contour (zone of influence, or ZOI) occurs at 13,400 feet from the proposed wells. The aquifer flux is greater than the current legal demands on groundwater in the area. A Montana Department of Natural Resources and Conservation (DNRC) groundwater hydrologist concluded that the appropriation of groundwater for this project will cause depletions to Canyon Creek. The depleted reach of Canyon Creek is downstream a point on Canyon Creek in the NENWSE Section 21, Township 01 South, Range 24 East, Yellowstone County to its confluence with the Yellowstone River. Canyon Creek is not included on the Montana Department of Fish, Wildlife, and Parks (FWP) list of chronically or periodically dewatered streams. Groundwater is the source of water for the proposed project and is not identified as dewatered by FWP. Modeling by DNRC groundwater hydrologists indicates an available surface and groundwater supply in excess of all physical demands.

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: Possible Significant Impact

Some of the groundwater appropriated by this project would be returned to the aquifer through lawn and garden irrigation and through individual drain fields at each of the 57 residences. Groundwater in the West Billings area has high dissolved constituents and is undesirable for drinking water (Olson and Reiten, 2002). In many areas, nitrate concentrations with isotopic signatures indicating manure and septic system sources are near or above recommended limits for human health. Based on DNRC standards and analysis, roughly 30% of appropriated water will return to the aquifer either through drain fields or by infiltration of irrigation water. The return of water from drain fields and residential irrigation could potentially degrade groundwater quality. The Montana Department of Environmental Quality (DEQ) and the Yellowstone County Health Department monitor and regulate public water supply and drain field installation. If water quality falls below health limits, treatment of the water supply would be required.

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: Possible Significant Impact

The proposed project will divert 132.9 AF/YR of groundwater from the alluvial aquifer of the Yellowstone River Valley. The amount of water available in the area exceeds legal demands on the aquifer based on analysis by a DNRC groundwater hydrologist and drawdown from the well is within normal impacts. The return of water to the aquifer through drain fields and infiltration of lawn and garden irrigation water could potentially add dissolved constituents, fertilizer, and nitrates to the groundwater locally. The appropriation will likely deplete surface water in Canyon Creek. The depletion to Canyon Creek is estimated to be 81.6 AF/YR. This source is not listed as chronically or periodically dewatered by the FWP.

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: No Significant Impact

The 58 wells proposed for the subdivision will be drilled by a licensed well driller and can be assumed to be properly constructed. The diversion will not create barriers or alter riparian environments or stream channels. The area for the subdivision was previously in agricultural use and is not adjacent to any naturally occurring watercourse. The soils in the area are stable.

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: No Significant Impact

The Natural Heritage Program identified the following animal species of concern in the project area: Plains Hog-nosed Snake, Spotted Bat, Great Blue Heron, Cassin's Finch, Pinyon Jay, and Loggerhead Shrike. No plant species of concern are identified in the project area. The project area was formerly agricultural land and does not provide appropriate habitat for the listed species of concern. The State of Montana, Office of the Governor has issued Executive Order No. 12-2015 creating the Montana Sage Grouse Oversight Team and the Montana Sage Grouse Habitat Conservation Program. The proposed project does not fall within currently mapped sage grouse 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: No Impact

There are no wetlands shown on the USFWS National Wetlands Inventory within the proposed project area. No wetland resources should be impacted due to the new diversion.

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

Determination: No Impact

This application does not include a pond.

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: No Significant Impact

The soil survey from the USDA Natural Resources Conservation Services shows the primary soil type in the project area is predominately Lohmiller silty clay (78.5%) and Haverson loam (20.4%), with 1% of the area made of McRae loam and Alluvial land, all with 0 to 1 percent slopes. Lohmiller silty clay is considered nonsaline or moderately saline, while the other three types are considered nonsaline to slightly saline. These soil types are well drained, with the exception of the alluvial land, which is considered poorly drained. Lohmiller silty clay and McRae loam are considered prime farmland if irrigated, while Halverson loam is considered farmland of statewide importance. Alluvial land is not considered prime farmland. The transition from agricultural use to residential use may decrease soil moisture.

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: No Significant Impact

The project area has historically been used for agricultural purposes. The subdivision alters the vegetation from agriculture to lawns and residential homes. No existing vegetation is critical to habitat.

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

Determination: No Significant Impact

Subdivision development changes the land use from agricultural to residential. This transition could decrease dust associated with tilling and harvest but could increase emissions associated with transportation, heating, and cooling.

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: Not Applicable – 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.*

Determination: No Significant Impact

No other impacts are considered which have not already been addressed.

HUMAN ENVIRONMENT

Locally adopted environmental plans and goals *- Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: No Significant Impact

The proposed project is located within Yellowstone County and would be subject to county zoning regulations, subdivision review, and public water and wastewater regulations. This proposed use is not inconsistent with locally adopted environmental plans or goals for Yellowstone County.

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: No Significant Impact

The proposed project lies within a rapidly developing area of West Billings. There are no nearby wilderness areas or recreational sites and no changes to the transportation system are expected.

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

Determination: No Significant Impact

The proposed project could have limited impact on public health. Dust may be reduced by abandoning previous agricultural use and drinking water quality could be affected by residential drain fields.

Private property *- Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No__**X**_

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. Fifty-seven (57) additional residential homes may potentially increase county and state tax base.

c) Existing land uses? No Significant Impact

d) Quantity and distribution of employment? No Significant Impact. Fifty-seven (57) additional residential homes may increase need for employment opportunities in Billings west end.

e) Distribution and density of population and housing? No Significant Impact. Fifty-seven (57) additional residential homes may increase population density in developing Billings west end.

f) Demands for government services? No Significant Impact. Fifty-seven (57) additional residential homes may increase demand for government services in developing Billings west end.

g) Industrial and commercial activity? No Significant Impact.

h) Utilities? No Significant Impact. Fifty-seven (57) additional residential homes may increase demand for utilities in developing Billings west end.

i) Transportation? No Significant Impact. Fifty-seven (57) additional residential homes may possibly increase demand for transportation in developing Billings west end.

j) Safety? No Significant Impact. Fifty-seven (57) additional residential homes may possibly increase demand for safety services in developing Billings west end.

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

Secondary and cumulative impacts on the physical environment and human population:

a) Secondary Impacts. None Identified

b) Cumulative Impacts. Multiple subdivisions have been created in recent years as the Billings west end develops at a rapid rate. The continued use of groundwater for residential subdivisions in the area west of Billings has potential for cumulative impacts on surface and groundwater availability and quality. Traffic, utilities, and government services are additional cumulative impacts.

Describe any mitigation/stipulation measures: There are no mitigation or stipulation measures required.

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 proposed action is to grant Beneficial Water Use Permit 43Q 30161830 to Lorenz Construction, LLC and Marsich Investments, Inc. The no action alternative would be to deny Beneficial Water Use Permit 43Q 30161830 which would require Serenity Subdivision to connect to city water, which is currently unavailable in the area, or to install domestic cisterns and haul water for residents. This alternative is reasonable , however water is legally and physically available in the amount requested by the Applicants and there are no significant reasons to deny the proposed action.

Part III. Conclusion

1. Preferred Alternative: To authorize the beneficial water use permit if the Applicant proves the criteria in 85-2-311 MCA are met.

2 Comments and Responses:

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 environmental impacts were identified. No EIS required.

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

Name: Veronica Corbett
Title: Water Resource Specialist
Date: November 19, 2024