

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: **Elk Creek Colony Inc**
PO Box 627
Augusta, MT 59410-0627
2. Type of action: **Application for Beneficial Water Use Permit No. 30047925 41K and**
Application to Change a Water Right No. 30047926 41K
(Statements of Claim Nos. 96231, 216326 41K)
3. Water source name: **Groundwater Wells – 30047925 41K**
Elk Creek – 30047926 41K

Location affected by action: **Application No. 30047925 41K**
SEWNNE, Sec 23, Twp 20N, Rge 6W, Lewis and Clark County
NWSWSW, Sec 24, Twp 20N, Rge 6W, Lewis and Clark County
SWSWSW, Sec 24, Twp 20N, Rge 6W, Lewis and Clark County

Application No. 30047926 41K
SWSWNE, Sec 30, Twp 20N, Rge 6W, Lewis and Clark County

4. Narrative summary of the proposed project, purpose, action to be taken, and objectives:
The application (30047925 41K) proposes to appropriate groundwater from three wells to supply water for domestic, industrial and stock water. The water would be used for multiple domestic purposes for 28 households from January 1 to December 31; a concrete batch plant, and machine, carpenter, and plumbing shops for industrial from January 1 to December 31; stock water for pigs, cows, chickens, and turkeys from January 1 to December 31 of each year. The place of use would be within the Elk Creek Colony boundaries. The Applicant is requesting 52 gpm up to 49.8 acre-feet per year for the proposed project.

The application (30047926 41K) proposes to change a portion of the purpose and place of use of two historic water rights. The proposed change is to be used to offset possible surface water depletion of Elk Creek and the Sun River by pumping the water supply wells for the Elk Creek Colony. The Applicant would retire 64.8 acres of irrigation to provide 53.1 acre-feet of mitigation water. The water would be diverted and conveyed by ditch into an infiltration trench that would then introduce water back into the aquifer.

The DNRC shall issue a Beneficial Water Use permit to the Applicant if the criteria in §85-2-311, MCA are met.

The DNRC shall issue an Authorization to Change to the Applicant if the criteria in §85-2-402, MCA are met.

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

Jim Beck, DNRC-Helena Regional Office Engineer
Russell Levens, DNRC Hydrogeologist
Montana Department of Fish, Wildlife & Parks (DFWP)(MFISH)
Montana Department of Environmental Quality (TMDL listing 2010 303(d)(list)
Montana Natural Heritage Program (MTNHP)

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: **No significant adverse impact.**

Application No. 30047925 41K – The proposed project would not affect chronically or periodically dewatered streams as identified by DFWP. The water is to be diverted from groundwater wells.

Application No. 30047926 41K – According to DFWP, there is an area of Elk Creek from the mouth to the vicinity of Augusta, a distance of approximately 7 miles, that is considered chronically dewatered. Chronic dewatering is a significant problem in virtually all years. This is a change for mitigation and water consumed will be totally mitigated with no net loss to the aquifer or to nearby surface water.

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: **No significant adverse impact.**

Application No. 30047925 41K – The proposed project will be diverting water from groundwater wells.

Application No. 30047926 41K – Elk Creek is not listed as a water quality impaired stream by DEQ. The proposed project will not have an effect on water quality.

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: **No significant adverse impact.**

Application No. 30047925 41K – The proposed project will be diverting water from groundwater wells. The wells will be fully mitigated thus no impact on adjacent surface water flows.

Application No. 30047926 41K - This is a change for mitigation and water consumed will be totally mitigated with no net loss to the aquifer or to nearby surface water.

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 adverse impact.**

Application No. 30047925 41K - The proposed project will not have any impact on channel impacts, flow modifications, barriers, riparian areas, dams, or well construction. The domestic well #1 and stock well #2 will divert water using Goulds GT 103 centrifugal pumps equipped with Emerson 1hp, 3450 rpm motors. Well #3 will divert water using a Goulds 18GS307, a ¾ hp submersible pump. All three wells are dug wells with well #1 at 22 feet, well #2 at 20 feet and well #3 at 18 feet.

From the wells, water will be diverted to four 15,000-gallon PVC storage tanks prior to use. Two of the storage tanks totaling 30,000 gallons will be utilized for domestic water and two storage tanks totaling 30,000 gallons will be utilized for stock water and industrial uses. Water will be conveyed from the wells to the storage tanks through a 3-inch PVC pipe, which will then be reduced to 2-inch lines that will loop between residential buildings, the church, school, shops and the kitchen.

Application No. 30047926 41K – The diversion of the water will not change. A portion of the water will still be used for irrigation. The portion of the water being changed for mitigation will be conveyed by ditch into an infiltration trench that would then introduce water back into the aquifer.

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: **According to MTNHP there is one species of concern in the project area and that is the Gray Wolf or Canis lupus. It is doubtful there would be an impact to the wolves from this project. There will be no impacts to any threatened or endangered species or species of special concern that would result from this proposal.**

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 functional wetlands have been identified in the project area.**

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

Determination: **There are no ponds involved in the proposed project area.**

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 adverse impact.**

No degradation of soil will occur nor will there be any increase in salts that could cause saline seep located in the proposed area.

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 adverse impact.**

The wells were dug to determine the effect of pumping on other users and surface water. The ditches used to convey the mitigation water from irrigation use to the infiltration trenches already exist and have been in use for several years. The majority of the pipeline has been constructed and installed. There may be additional disturbance to the ground cover if this permit and change is granted. The landowner is responsible for controlling any noxious weeds on the property.

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 adverse impact.**

The project will not result in the deterioration of air quality or adverse effects on vegetation due to increased air pollutants.

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: **NA-project is 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 adverse impacts have been determined at this time.**

HUMAN ENVIRONMENT

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

Determination: **The proposal is within the guidelines and direction of locally adopted environmental plans and goals.**

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: **The project has no anticipated impact on access to quality recreational and wilderness activities.**

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

Determination: **There are no anticipated impacts to human health.**

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:

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 adverse impact.**
 - (b) Local and state tax base and tax revenues? **No significant adverse impact.**
 - (c) Existing land uses? **The existing land use is for agriculture and residential farming.**
 - (d) Quantity and distribution of employment? **No significant adverse impact.**
 - (e) Distribution and density of population and housing? **No significant adverse impact.**
 - (f) Demands for government services? **No significant adverse impact.**
 - (g) Industrial and commercial activity? **No significant adverse impact.**
 - (h) Utilities? **No significant adverse impact.**
 - (i) Transportation? **No significant adverse impact.**
 - (j) Safety? **No significant adverse impact.**
 - (k) Other appropriate social and economic circumstances? **No significant adverse impact.**
2. Secondary and cumulative impacts on the physical environment and human population:
- Secondary Impacts: **No significant adverse secondary impacts have been identified.**
- Cumulative Impacts: **No significant adverse cumulative impacts have been identified.**
3. Describe any mitigation/stipulation measures:
Application No. 30047925 41K – The permit, if issued would be subject to all prior existing water rights in the source of supply. The application will go through the DNRC public notice procedure, and water users concerned with potential impacts will be given the opportunity to object to the application. The applicant will be

required to keep measurement records and supply them to the DNRC by November 30th of each year or upon demand.

Application No. 30047926 41K – The authorization, if issued, would be subject to all prior existing water rights in the source of supply. The applicant will The application will go through the DNRC public notice procedure, and water users concerned with potential impacts will be given the opportunity to object to the application. The applicant will be required to keep measurement records and supply them to the DNRC by November 30th of each year or upon demand.

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: **Application No. 30047925 41K – The no action alternative for the permit would not allow the Applicant to proceed with the development of the Elk Creek Colony in such a manner that would allow the colony to develop and become a productive entity. It does not appear that any alternative is reasonable or prudent.**

Application No. 30047926 41K – The no action alternative for the change would prevent the Applicant from mitigating the possible surface water impacts on Elk Creek and the Sun River made by the pumping of the Elk Creek Colony wells. The permit application cannot be granted without a mitigation plan in place. Two types of mitigation plans were discussed. One would have allowed Elk Creek water to remain in the source to offset the net depletion to the surface water source. The Applicant chose to divert the water and convey it by ditch into an infiltration trench to offset the net depletion to surface water and the aquifer.

PART II. Conclusion

1. Preferred Alternative: **The preferred alternative is to proceed with the Applicants proposal and issue the authorization as applied for by the Applicant, or in some modified form considered reasonable.**
2. Comments and Responses: **There have not been any comments and/or responses at this time.**
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: **Based on a consideration of the criteria found in DNRC Administrative Rule 36.2.524, “Determining the Significance of Impacts,” there is not a significant adverse impact. An EA is sufficient for this level of action and does not warrant an EIS.**

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

Name: Terry Eccles
Title: Helena/Bozeman Regional Manager
Date: September 30, 2010