

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:

Colleen A. Eldred and Ann W. Rodman  
P.O. Box 182  
Yellowstone National Park, WY 82190-0182

2. Type of action: Yellowstone Controlled Groundwater Area Permit Application No. 43B 30102777. The Applicant has drilled a well and proposes to appropriate 12 gallons per minute (GPM) up to 0.25 acre-feet (AF) per year of water between April 1 and October 31 within the Yellowstone Controlled Groundwater Area (YCGA).

3. Water source name: Groundwater. The well is located approximately 940 feet from the Yellowstone River, on the Applicant's property.

4. Location affected by project: NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, Section 23, T09 S, R08 E, Park County. The well is located at 204 Bigelow Lane within the town of Gardiner. (See Figure 1 for a map on the next page.)

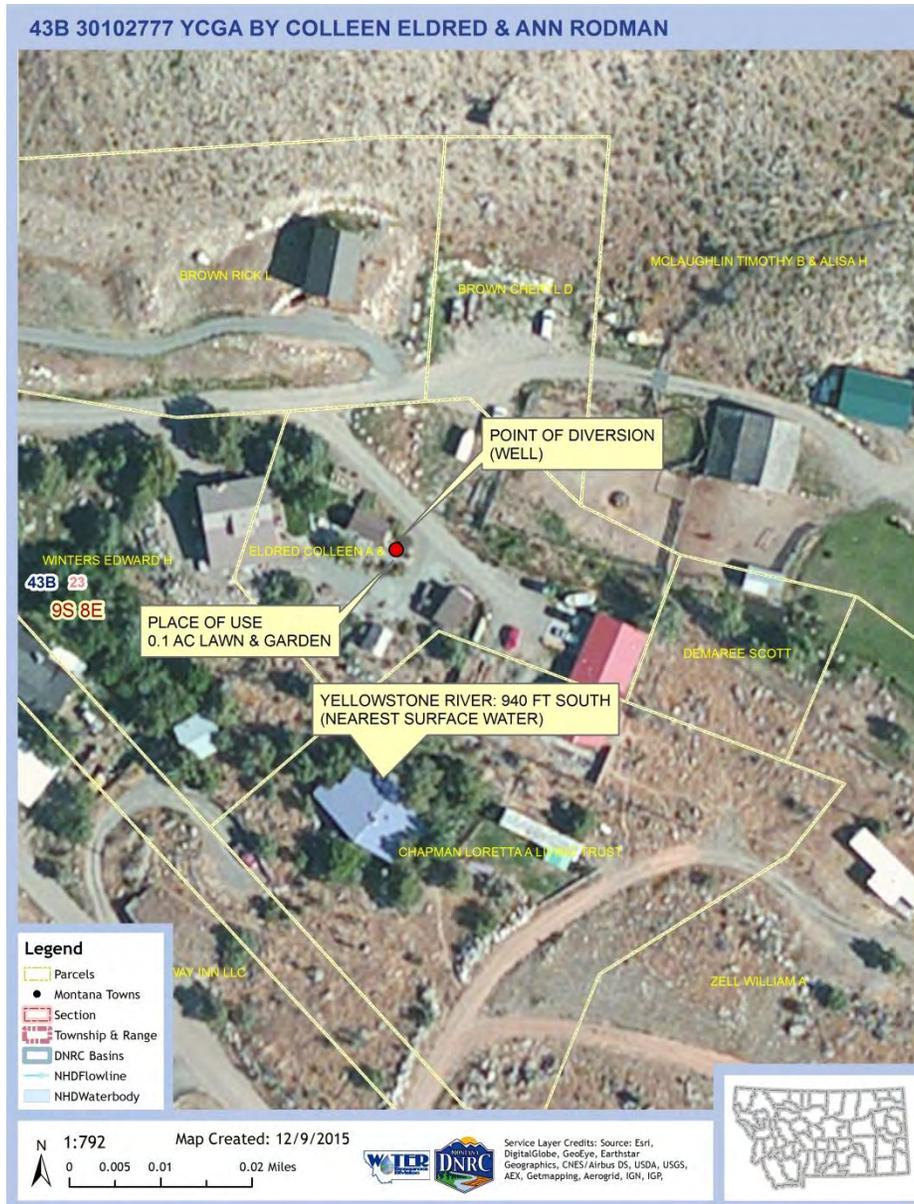


Figure 1: Map of location affected by project.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to pump 12 GPM not to exceed 0.25 AF per year of water for the lawn and garden irrigation of 0.1 acres. Irrigation will occur between April 1 and October 31 of each year. This well is located within the YCGA. The water from this well measured 52 degrees Fahrenheit at the wellhead. The water had a specific conductance of 729 microhms when measured later at the Bozeman Water Resources Regional Office.

The National Park Service has received notification of this application. No response was received.

6. Agencies consulted during preparation of the Environmental Assessment:
- Montana Department of Fish, Wildlife & Parks (DFWP) – Montana Fisheries Information System (MFISH):  
<http://fwp.mt.gov/fishing/mFish/>
  - Montana Department of Environmental Quality (DEQ) – Clean Water Act Information Center (CWAIC):  
<http://deq.mt.gov/wqinfo/CWAIC/default.mcp>
  - Montana National Heritage Program (MTNHP) – Species of Concern:  
<http://mtnhp.org/SpeciesOfConcern>
  - U.S. Fish & Wildlife Service (USFWS) – National Wetlands Inventory Wetlands Mapper:  
<http://www.fws.gov/wetlands/Data/Mapper.html>
  - National Resources Conservation Service (NRCS) – Soil Survey:  
<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<b>PHYSICAL ENVIRONMENT</b>
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#### **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 source of water is groundwater, which is not listed as chronically or periodically dewatered by DFWP. The nearest surface water source is the Yellowstone River. As determined by a search of MFISH conducted on January 28, 2016, DFWP does not list this reach of the Yellowstone as chronically or periodically dewatered. The well's proposed flow rate of 12 GPM and annual volumetric usage of 0.25 AF will not have a significant impact on nearby surface water flow or water users.

**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 impact.

The source of water is groundwater, which is not listed by DEQ. The well is unlikely to affect adjacent surface water quality, as Hayes Drilling, a licensed driller (license number WWC-361), has constructed the well in accordance with the rules of the Board of Water Well Contractors. A January 28, 2016, search of the CWAIC website lists this stretch of the Yellowstone River as having identified threats or impairments related to copper, lead, ammonia, sedimentation/siltation, nitrate/nitrite, and arsenic from various mining, highway/road/bridge runoff, and natural source issues.

**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 impact.

The source of water is groundwater. Groundwater quality is not likely to be affected by the proposed well, as Hayes Drilling, a licensed driller, has constructed the well in accordance with rules of the Board of Water Well Contractors.

This well is also unlikely to impact surface water flows. The well is located approximately 940 feet from the Yellowstone. The proposed 12 GPM up to 0.25 AF are not likely to have a significant impact on surface water flows.

The U.S. National Park Service was notified of this application pursuant to the State of Montana/U.S. National Park Service Compact, Article II, Section B.2.b.ii.3.(b).

**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.

Consistent with applicable laws and locally accepted practices, water will be diverted using a well with a pump, and use will be measured using a water meter supplied by the Department. Hayes Drilling, a licensed driller, has constructed the well in accordance with rules of the Board of Water Well Contractors. No significant impacts to existing resources have been identified.

#### **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.

A search of the MTNHP Species of Concern website conducted on January 28, 2016, returned the following results.

- Fifteen (15) animal Species of Concern: Bison, Wolverine, Hoary Bat, Canada Lynx, Little Brown Myotis, Grizzly Bear, Golden Eagle, Evening Grosbeak, Pinyon Jay, Cassin's Finch, Harlequin Duck, Clark's Nutcracker, Green-tailed Towhee, Brewer's Sparrow, and Yellowstone Cutthroat Trout.
- Zero (0) animal Potential Species of Concern.
- One (1) animal Special Status Species: Bald Eagle.
- One (1) plant Species of Special Concern: Spiny Hopsage.
- Zero (0) plant Potential Species of Concern or plant Special Status Species.

As this proposed application is to divert water from a well located on private property within the town of Gardiner, no significant impacts will occur to threatened, endangered, or special concern species. The pumping of groundwater will not decrease surface water flows to significantly impact any of these species.

**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:* Not applicable.

According to a January 28, 2016, search of the USFWS Wetlands Mapper, no wetlands exist in the area. No wetlands are involved in the project.

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

*Determination:* Not applicable.

No ponds are involved in the project.

**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.

DEQ lists this stretch of the Yellowstone as having impairments related to various types of mining and runoff from highways, bridges, and roads. This well has been constructed by Hayes Drilling, a licensed driller, in accordance with rules of the Board of Water Well Contractors, so there should not be significant impacts on nearby streambanks or vegetative cover. Use of water will continue in a manner consistent with locally accepted practices and will not significantly impact soil quality. A January 28, 2016, search of the NRCS Soil Survey website did not identify any saline seeps in the 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 impact.

This well has been constructed by Hayes Drilling, a licensed driller, in accordance with rules of the Board of Water Well Contractors, so there should not be significant impacts on nearby streambanks and vegetative cover. A small area was disturbed by drilling the well, but this should have no significant impact on the surrounding area's vegetative cover and neither should it allow the establishment of noxious weeds. Under Montana law, owners are responsible for noxious weed control 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.*

*Determination:* No impact.

No deterioration of air quality will result from the drilling of this well or diversion of water from it.

**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.

The project is not located on State or Federal Lands. Furthermore, the Applicant made no mention of significant historical or archeological sites on the property.

**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 impact.

No other demands on environmental resources of land, water, and energy have been identified.

<b>HUMAN ENVIRONMENT</b>
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**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.

Drilling wells for water supply and using water for lawn and garden irrigation is a locally accepted practice within the state of Montana and Paradise Valley.

**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 impact.

The proposed project is located on private property within the town of Gardiner and will not impact access to or the quality of recreational and wilderness activities.

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

*Determination:* No impact. The use of water for lawn and garden irrigation will not impact 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:* The project does not impact government regulations on private property rights.

**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 impacts identified.
- (b) *Local and state tax base and tax revenues?* No significant impacts identified.
- (c) *Existing land uses?* No significant impacts identified. This permit would allow the Applicant to water their lawn.
- (d) *Quantity and distribution of employment?* No impacts identified.
- (e) *Distribution and density of population and housing?* No impacts identified.
- (f) *Demands for government services?* No significant impacts identified.
- (g) *Industrial and commercial activity?* No impacts identified.
- (h) *Utilities?* No significant impacts identified.
- (i) *Transportation?* No impacts identified.
- (j) *Safety?* No impacts identified.
- (k) *Other appropriate social and economic circumstances?* No impacts identified.

**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:** Pursuant to the State of Montana/National Park Service Compact, the Applicant is required to install a totalizing water use meter, which is provided by the Department.
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:** If the Applicant is not allowed to divert water from their well for lawn and garden purposes, they could use water supplied by the town of Gardiner. The house is located within the town limits. Presumably, their drinking water is provided by the town of Gardiner because Department records do not indicate any other water rights in their name, the current permit is for only lawn and garden use, and the house is located within the Gardiner service area. The no-action alternative would be not to water their lawn.

### *PART III. Conclusion*

1. **Preferred Alternative:** The preferred alternative is to obtain a water right permit to use the drilled well.
2. **Comments and Responses:** None 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:* The EA is the appropriate level of analysis because the proposed project is to drill a small well in the YCGA for lawn and garden irrigation, which is a locally accepted practice, and no significant impacts are anticipated. None of the identified impacts for any of the alternatives is significant as defined in ARM 36.2.524.

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

Name: Brent Zundel  
Title: Water Resource Specialist  
Date: February 11, 2016