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:

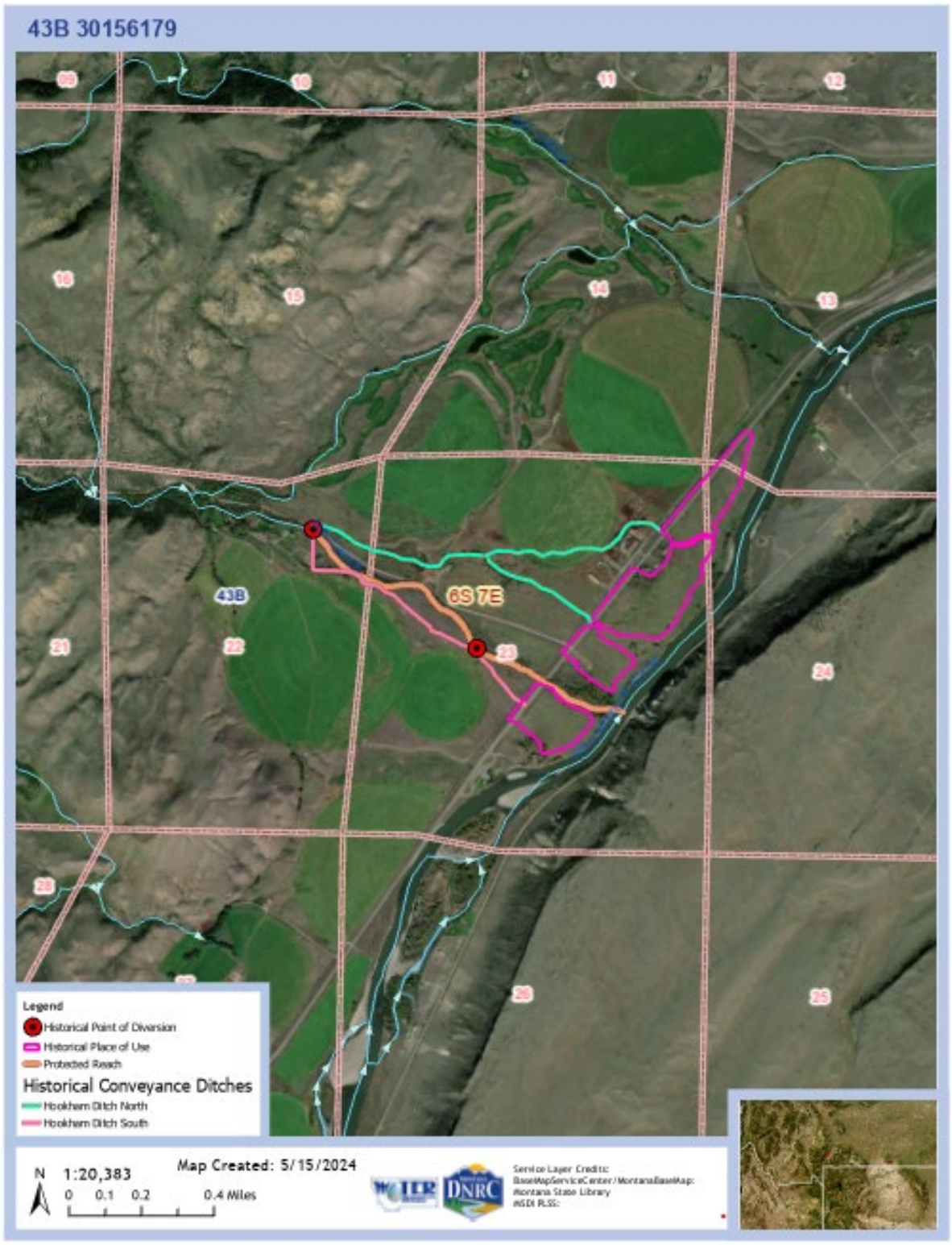
   STATE OF MONTANA, DEPT. OF FISH WILDLIFE & PARKS
   PO BOX 200701
   HELENA, MT 59620-0701

2. Type of action: APPLICATION TO CHANGE WATER RIGHT NO. 43B 30156179 BY STATE OF MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS

3. Water source name: Big Creek

4. Location affected by project: Protected reach on Big Creek that is 5518.2 ft in length between SENWNE Sec 22 T6S R7E Park County and SWNESE Sec 23 T6S R7E Park County. Historical place of use at 72-acre place of use in the following areas in Sections 13, 23, and 24 of Township 6 South (T6S) Range 7 East (R7E), Park County: Government Lot (Govt. Lot) 5 SWSW Section (Sec.) 13, Govt. Lot 1 NENE Sec. 23, Govt. Lot 6 NESE Sec. 23, NESW Sec. 23, Govt. Lot 3 NWNE Sec. 23, Govt. Lot 2 SENE Sec. 23, SWNE Sec. 23, and Govt. Lot 1 NWNW Sec. 24.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: Applicant proposes to temporarily change the purpose, place of use, and point of diversion of Claim No. 43B 30110714 and Claim No. 43B 30110715 (Figure 1). Applicant proposes to temporarily change the 0.7 CFS of Claim No. 43B 30110715 remaining with an irrigation purpose and the entire volume of Claim No. 43B 30110715, totaling the decreed volume of 792.9 AF. Applicant proposes to temporarily change the previously unchanged Claim No. 43B 30110714, totaling 0.88 CFS and the decreed volume of 93.6 AF. Applicant proposes to temporarily change the purpose of Claim No. 43B 30110715 and Claim No. 43B 30110714 to an instream fishery purpose. Applicant proposes to retire all historical ditches and to cease irrigating the entire 72-acre historical place of use with Claim No. 43B 30110715 and Claim No. 43B 30110714. Applicant proposes to temporarily change the points of diversion and places of use for Claim No. 43B 30110715 and Claim No. 43B 30110714 to a protected reach on Big Creek that is 5518.2 FT in length between SENWNE Sec 22 T6S R7E Park County and SWNESE Sec 23 T6S R7E Park County. Applicant proposes to leave water historically consumed from the source in the protected reach from May 1 to November 1. The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.



6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
   - Montana Department of Fish, Wildlife & Parks (DFWP) – Montana Fisheries Information System (MFISH)

https://myfwp.mt.gov/fishMT/explore

- Montana Department of Fish, Wildlife & Parks (DFWP) – Dewatered Streams
  https://gis-mtfwp.opendata.arcgis.com/datasets/e0849312c41b415992a075f8696164c8_0/explore?location=46.751212%2C-110.425168%2C7.85
- Montana Department of Environmental Quality (DEQ) – Clean Water Act Information Center (CWAIC)
  http://deq.mt.gov/Water/Resources/cwaic
- Montana National Heritage Program (MTNHP) – Natural Heritage Map Viewer
  https://mtnhp.org/mapviewer/?t=7
- U.S. Fish & Wildlife Service (USFWS) – National Wetlands Inventory Wetlands Mapper
  http://www.fws.gov/wetlands/Data/Mapper.html
- Yellowstone River Conservation Districts Council
  https://yellowstonerivercouncil.org/
- Park County Growth Policy 2017
  https://www.parkcounty.org/uploads/files/pages/43/Growth-Policy-with-Appendices-attached.pdf
- Natural Resource Conservation Service (NRCS) – Web Soil Survey (WSS)
  http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

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 impact identified.

As determined by the DFWP Dewatered Streams Map, Big Creek near the confluence of Yellowstone River is chronically dewatered. Water left instream in Big Creek will increase the quantity of water available instream and may improve the condition of the chronically dewatered portion of Big Creek. Median monthly flows for Big Creek have been less than the DFWP instream water reservation for June and July for most years since 2005. Increased water left instream will reduce the time spent below the instream water reservation. All water applied to the historical place of use for irrigation returned to Yellowstone River, rather than big creek, so retiring acres will not cause a loss of return flows to Big Creek. Irrigation will continue for the historical place of use with a permit from Yellowstone River. The proposed project will not negatively impact water quantity for Big Creek and is anticipated to improve water quantity.

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 impact identified.

A May 31, 2024, search of DEQ Impaired Waters 2020 data on the CWAIC lists Big Creek, National Forest boundary to mouth (Yellowstone River), as impaired. The aquatic life beneficial use is not fully supported because of habitat modification and dewatering. The probable cause of impairment is listed as flow regime modification and the probable source is water diversions. No TMDL is required for this section of Big Creek. The agricultural, drinking water, and primary contact beneficial uses were not assessed. The proposed change is anticipated to improve water quality because it will reduce water diversions from Big Creek, which are listed as the probable source of impairment.

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 identified.

The source of the water right being changed is surface water and, as such, does not entail groundwater diversions.

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 identified.

The proposed project will not entail diversion works. Water will be left instream rather than diverted.

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 identified.

A May 31, 2024, search of the Montana National Heritage Program's website for Township 6 South Range 7 East produced the following results:

Animal Species

- 51 Species of Concern: Grizzly Bear, Long-legged Myotis, Merriam's Shrew, Wolverine, American Bittern, American Goshawk, American White Pelican, Black Rosy-Finch, Black-backed Woodpecker, Black-necked Stilt, Bobolink, Brewer's Sparrow, Brown

Creeper, Burrowing Owl, Caspian Tern, Cassin's Finch, Chestnut-collared Longspur, Clark's Grebe, Clark's Nutcracker, Common Loon, Common Tern, Evening Grosbeak, Ferruginous Hawk, Forster's Tern, Franklin's Gull, Golden Eagle, Gray-crowned Rosy-Finch, Great Blue Heron, Great Gray Owl, Green-tailed Towhee, Harlequin Duck, Horned Grebe, Lewis's Woodpecker, Loggerhead Shrike, Long-billed Curlew, Pacific Wren, Pinyon Jay, Piping Plover, Sage Thrasher, Sharp-tailed Grouse, Trumpeter Swan, Varied Thrush, Veery, White-faced Ibis, Whooping Crane, Western Toad, Westslope Cutthroat Trout, Yellowstone Cutthroat Trout, Suckley Cuckoo Bumble Bee, Striate Disc, Alberta Snowfly

- 10 Potential Species of Concern: Uinta Ground Squirrel, Barrow's Goldeneye, Black-and-white Warbler, Boreal Owl, Broad-tailed Hummingbird, Hooded Merganser, Rufous Hummingbird, Tennessee Warbler, Western Screech-Owl, Brook Stickleback.
- One Special Status Species: Bald Eagle

Plant Species

- Four Species of Concern: Nevada Clubrush, Wedge-leaf Saltbush, Meadow Horsetail, Whitebark Pine
- One Potential Species of Concern: Suksdorf Monkeyflower
- Zero Special Status Species

The proposed project will protect additional water instream in Big Creek. The proposed project is specifically targeting improved habitat and increased connectivity to spawning grounds for Yellowstone Cutthroat Trout. Aquatic species will benefit from water left instream to reduce temperature and flow regime modifications. Riparian species will benefit if the proposed project leads to more connectivity between riparian areas and the stream channels. Terrestrial species may benefit from healthier populations of aquatic species through increase food sources.

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 significant impact identified.

According to a June 1, 2024, search of the USFWS Wetlands Mapper, wetlands are within the project area. The wetland types are primarily Forested/Shrub Riparian wetlands and Herbaceous Riparian wetlands. Improved flow regimes and water temperatures should have a positive impact on wetlands generally. Improved connectivity between channel and riparian areas will improve the health of riparian wetlands. The proposed project is anticipated to have positive impact on wetlands.

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

Determination: No significant impact identified.

No ponds are in the 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 impacts identified.

A June 3, 2024, search of the NRCS WSS website did not identify any saline seeps in the project area. The project is not predicted to increase soil salinization risk. Protecting water instream will not negatively affect soil characteristics and may improve them. Increased connectivity with riparian areas could promote riparian plants, which may improve soil stability. Increased riparian shade could increase the soil moisture content. No construction is associated with the project that could disturb the soil.

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 impacts identified.

The proposed project is not expected to negatively impact existing vegetative cover. No construction or other disturbances to vegetation will be caused by project. Increased connectivity with riparian areas could improve the quality of riparian vegetative cover. The proposed project should not result in the establishment or spread of noxious weeds, but the prevention of noxious weeds is the responsibility of the landowner.

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 impacts identified.

The proposed project will not impact air quality.

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: No significant impacts identified.

The protected reach does not run through State or Federal Lands, but is located near Custer Gallatin National Forest. The Applicant did not mention unique archeological or historical sites in the vicinity of the proposed project. Protecting water instream is not expected to degrade any such sites if they do exist. No construction activities associated with the proposed project will occur that could degrade archeological or historical sites if they do exist in the vicinity.

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 impacts identified.

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

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 impacts identified.

The goal of the proposed project goals is to improve the Big Creek fishery by increasing access to spawning grounds for Yellowstone Cutthroat Trout. The Applicant is a state agency with a mission of improving fisheries. The proposed project was undertaken to help achieve DFWP's environmental plans and goals. DFWP has identified Big Creek as important habitat for Yellowstone Cutthroat Trout, an native fish species of concern. The proposed project is consistent with achieving the environmental goals set forth by the Yellowstone River Conservation District Council and in the Park County 2017 Growth Policy.

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 impacts identified.

Significant recreational and wilderness activities exist in the area, but the proposed project should enhance the quality of these recreational and wilderness activities. Fishing is a major recreational industry in the area. Instream flows will enhance the quality of the fish habitat, which should be a benefit to the recreational fishing industry.

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

Determination: No significant impacts identified.

Protecting additional water instream 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: No significant impacts identified.

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 significant impacts identified.

(*b) Local and state tax base and tax revenues?* No significant impacts identified.

(c) Existing land uses? No significant impacts identified.

(*d) Quantity and distribution of employment?* No significant impacts identified.

(e) Distribution and density of population and housing? No significant impacts identified.

(f) Demands for government services? No significant impacts identified.

(g) Industrial and commercial activity? No significant impacts identified.

(h) Utilities? No significant impacts identified.

(i) Transportation? No significant impacts identified.

(j) Safety? No significant impacts identified.

(k) Other appropriate social and economic circumstances? No significant 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 secondary impacts have been identified.

3. ***Describe any mitigation/stipulation measures:*** The Applicant has proposed to continue to monitor stream flow levels at a measurement site. The measurement plan includes a still well, data logger, staff gage, and rating curve. The monitoring site has been active since 2005.

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 this change is not authorized, Big Creek will continue to show mean monthly flows in June and July that are less than the DFWP instream reservation. Big Creek will provide the less-than-optimal spawning habitat, as is provided currently.

PART III. Conclusion

1. Preferred Alternative: The preferred alternative is to grant the change application if the Applicant can prove that criteria in §85-2-402, MCA, are met.

2 Comments and Responses: None.

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 temporarily protect water instream in Big Creek. None of the identified impacts for any of the alternatives is significant as defined in ARM 36.2.254. No significant adverse effects are anticipated.

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

Name: Shannon Baumgardner
Title: New Appropriations Program Specialist
Date: June 7, 2024