Draft
Environmental Assessment

Nevada Spring Creek
Water Rights Acquisition

November 3, 2012

Montana Fish, Wildlife & Parks

DRAFT ENVIRONMENTAL ASSESSMENT
Nevada Spring Creek Water Rights Acquisition
Fisheries Division
Montana Fish, Wildlife & Parks

I. General Purpose:

The 1973 Montana Legislature enacted §87-1-209, Montana Code Annotated (MCA), which authorizes Montana Fish, Wildlife & Parks (FWP) to acquire water rights for water suitable for fish restoration, propagation or protection. Additionally, the 2009 Montana Legislature amended §85-2-436, MCA authorizing FWP to permanently change water rights to instream flow purposes to benefit the fishery on 12 stream reaches.

The Nevada Spring Creek Partners (hereafter, Partners) currently own statements of claim for 6 irrigation, and 5 "direct from source" stock water rights. Flow rates on individual irrigation water rights range from 5 to 12.88 cubic feet per second (cfs) (see Table 1). The source for these water rights is Nevada Spring Creek, which is a tributary of Nevada Creek in the Upper Blackfoot River Drainage. Historically, there was only one other irrigation water right on Nevada Spring Creek—that right however, moved its point of diversion to the Blackfoot River in 2010. The water rights identified in Table 1 are the only consumptive-use water rights on Nevada Spring Creek. Over the past several years, Partners, in collaboration with a number of cooperating entities and individuals, have engaged in an ambitious and comprehensive restoration of the aquatic habitat on Nevada Spring Creek and the adjoining wetlands. As a party to this restoration project, Trout Unlimited (TU) has been approached by, and, is in negotiations with the Partners to purchase these water rights. TU offered to donate the water rights to FWP. FWP is hereby contemplating the acceptance of the donation of these water rights pending the outcome of comments on this draft environmental assessment (EA), the decision notice for this EA, and required approval from the FWP Commission.

FWP proposes to accept the donation of these water rights, and convert them to instream flow in an effort to secure long term benefits to the Nevada Spring Creek, Wasson Creek, Nevada Creek, and upper and middle Blackfoot fisheries. The project would also supplement the restoration efforts that have taken place along Nevada Spring Creek.

Table 1: Nevada Spring Creek Water Rights

Water Right Number	Priority Date	Purpose	Claimed Flow Rate (cfs)	Claimed Acreage (Overlapping)
76F-098119-00	2/24/1920	Irrigation	12.88	340
76F-098121-00	6/11/1887	Irrigation	5.00	340
76F-098122-00	10/3/1919	Irrigation	7.00	480
76F-098123-00	7/20/1910	Irrigation	12.50	480
76F-098124-00	2/26/1920	Irrigation	5.00	340
76F-098125-00	6/11/1887	Irrigation	5.00	340
76F-98100-00	2/24/1920	Stock Water	N/A	N/A
76F-98108-00	2/26/1920	Stock Water	N/A	N/A
76F-98109-00	6/11/1887	Stock Water	N/A	N/A
76F-98110-00	6/11/1887	Stock Water	N/A	N/A
76F-98112-00	7/20/1910	Stock Water	N/A	N/A

II. Location of Project:

This project involves maintaining stream flow in the entire reach of Nevada Spring Creek from the spring head, to its confluence with Nevada Creek. Nevada Spring Creek is located approximately 2 miles north of the town of Helmville, MT in Sections 9, 10 and 11, T13N, R11W in Powell County (see Appendix A map).

III. Need for the Project:

In 2005, FWP developed a guidance document titled, An Integrated Stream Restoration and Native Fish Conservation Strategy for the Blackfoot River Basin. A key objective of this document is to establish restoration priorities based on common stakeholder interests in native and recreational fisheries, and improvements to water quality and instream flow (Pierce et al. 2005). In line with the restoration strategy of the Blackfoot River Basin is the goal of the Instream Flow Protection Program as described in the Fisheries Habitat Program Section of the Draft 2013-2018 Statewide Fisheries Management Plan. (MFWP 2012) The Instream Flow Protection Program calls for FWP to physically and legally protect, restore, and manage the instream flows required to sustain Montana's aquatic species, their habitats, and related ecosystems with focus on the increasing competition for water resources, limited supplies, and changing hydrological conditions (MFWP 2012). One of the ways FWP accomplishes this goal is through enhancing stream flow in priority dewatered streams through water leasing, donations, purchase, market transaction, and other voluntary needs (MFWP 2012). This proposed project would help meet these goals set forth in both the Blackfoot restoration strategy and the Draft 2013-2018 Statewide Fisheries Management Plan by acquiring water rights from the Partners, and converting them to instream flow for Nevada Spring Creek.

Nevada Spring Creek is located on the eastern edge of the lower Nevada Creek Valley, and flows from a single-source artesian aquifer (spring head). The artesian generates an average discharge of 8 cfs although flow ranges from about 5 to 13 cfs with the highest output between June and October (Peters 2002). Water temperatures at the spring are constant with a narrow range between 44 and 45 $^{\circ}$F (Pierce et al. 1997). The stream meanders through an alluvial valley for approximately 4.2 miles before its confluence with Nevada Creek. Early habitat surveys conducted in 1990 indicated a stream in poor riparian health due to channel alterations and heavy grazing pressure (Fitzgerald 1996, Pierce et al. 2002).

Streams like Nevada Spring Creek have gained the increasing attention of fish biologists and mangers because of their potential to help restore wild trout populations, improve water quality and provide for recreational fishing. Coldwater streams like Nevada Spring Creek are especially important to native trout such as westslope cutthroat trout and bull trout because these fish spawn and rear in tributaries before migrating to the Blackfoot River where they grow to maturity before returning to natal streams to spawn (Pierce et al. 2005). In 1997, Nevada Spring Creek was chosen by FWP as a key restoration priority to the Blackfoot River because of its potential to reduce temperatures and improve water quality in Nevada Creek, and its potential to help recover native trout of the Blackfoot River (Pierce et al. 1997, Pierce and Podner 2011).

The full restoration of Nevada Spring Creek was completed between 2001 and 2009. The restoration work involved full reconstruction of 4.2 miles of stream along with riparian grazing changes, instream flow enhancement, wetland restoration activities and shrub plantings and the placement of conservation easements on the property (see photos in Appendix B).

Prior to channel restoration, Nevada Spring Creek supported low densities of brown trout in upper reaches and non-game species (redside shiners, northern pikeminnow, and largescale sucker) in the lower reaches (Pierce et al. 2002). Westslope cutthroat trout were present in very low abundance. In 2009-10, FWP conducted post-project fish population monitoring, which has shown increases in westslope cutthroat trout thoughout Nevada Spring Creek (Pierce and Podner 2011).

Restoration activities have reduced water temperature while also increasing flows in Nevada Creek. Water temperature reductions have had a corresponding temperature reduction in Nevada Creek. Here, wild trout densities have also increased in recent years due to the beneficial changes resulting from the restoration of Nevada Spring Creek (Pierce and Podner 2011). Sustaining instream flows would be critical in maintaining the restored conditions of Nevada Spring Creek as well as Nevada Creek.

IV. Scope of the Project:

The project proposes to accept a donation of water rights on Nevada Spring Creek from TU. FWP would then apply to the Department of Natural Resources and Conservation (DNRC) to permanently convert these water rights from irrigation and stock water to instream flow. As provided by, and limited under §85-2-436 (3)(d) MCA, the full diversionary rate of the water rights(s) can be protected to the historic diversion. However, only the amount of water consumed by the historic use can be protected below the point of diversion (Nevada Creek to the confluence of the Blackfoot or further downstream). DNRC's *Change of Use* process would aid in defining and approving these quantities. The proposed project would protect instream flow on Nevada Spring Creek within the constraints of the statute outlined above. Because the water rights are the only consumptive-use rights on the creek, the acquistion of the rights and a change to instream flow would effectively result in a complete protection of the flow in the creek. Once the DNRC has reviewed and approved the conversion of these water rights to instream flow, the proposed project would further aid the restoration efforts that have already taken place on the stream. The entire reach of Nevada Spring Creek would directly benefit from the project.

V. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

Under the No Action Alternative, FWP would not accept the donation of water rights from TU along Nevada Spring Creek, and would not convert them to permanent instream flow. The Partners might proceed with an application for a temporary 10-year renewable change to instream flow as allowed for under §85-2-407 MCA, or they might sell the right to other parties for other purposes. In either circumstance, not accepting the donation of these water rights would make the future legal protection of instream flows in Nevada Spring Creek uncertain, and may jeopardize the enhancement and production of the Nevada Spring Creek, Wasson Creek, Nevada Creek, and Upper Blackfoot fisheries.

2. The Proposed Alternative

Under the Proposed (Preferred) Alternative, FWP would accept the donation of Nevada Spring Creek water rights from TU, and would apply to DNRC to permanently convert them to instream flow for fisheries. Accepting the proposed alternative would ensure legal protection of Nevada

Spring Creek's instream flow in perpetuity, contingent on DNRC's authorization of the change to instream flow. This alternative would further enhance the restoration efforts that have already taken place on Nevada Spring Creek, and serve to ensure further improvements to the recruitment of juvenile westslope cutthroat trout in the Upper Blackfoot Basin. The proposed alternative would also provide benefits in regulating temperature in Nevada Creek, and would aid in improved trout densities.

VI. Environmental Impact Checklist: Impacts on Physical Environment

Table 2: Potential Impacts on Physical Environment

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENT # IN SECTION VII
1. Terrestrial & aquatic life and habitats			X			1
2. Water quality, quantity & distribution			X			2
3. Geology & soil quality, stability & moisture				X		
4. Vegetation cover, quantity & quality				X		
5. Aesthetics				X		
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			3
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		

VII. Explanation of Impacts to the Physical Environment

The affected environment of the project includes the entire reach of Nevada Spring Creek from its spring head to its confluence with Nevada Creek. Historically, the land adjacent to the stream had been used for agricultural irrigation and livestock production. Over time, Nevada Spring Creek became impaired due to intensive livestock management practices which led to an over-widened channel that caused increasing temperatures that often exceeded 75° F (Pierce et al. 2002). The increased temperature, coupled with agricultural runoff from adjacent lands developed unsuitable conditions for coldwater salmonids (Pierce et al. 2002). Beginning in 2001, FWP, TU, the Partners, and the U.S. Fish and Wildlife Service (USFWS) initiated an extensive restoration initiative with the aim of restoring the stream to a more natural state. This project required a reconstruction of the upper and lower channels of Nevada Spring Creek (Pierce and Podner 2011). Beyond the reconstruction of the Nevada Spring Creek channel, other aspects of the project included the modification of livestock management practices within the riparian zone, and the revegetation of the stream bank and associated wetlands (Pierce et al. 2006). Since the restoration activities have concluded, Nevada Spring Creek has shown an increase in native westslope cutthroat. Bull trout are also now present within the restored areas (FWP unpublished data).

1. Terrestrial & Aquatic Life and Habitats

   This project would benefit the existing and future conditions of the terrestrial and aquatic habitat. If FWP accepts the donated water rights, the agency would apply to convert them to instream flow using DNRC's *Change of Use* process. The instream flow of Nevada Spring Creek would be legally protected based on the constraints established in §85-2-436 (3)(d) MCA. The protected instream flow amount would have direct benefits to the aquatic and terrestrial habitat, especially in water short years.

2. Water Quality, Quantity & Distribution

   The proposed project would likely benefit water availability and quality in the Upper Blackfoot Watershed. The conversion of the existing irrigation water rights to permanent instream flow would increase a legally protected amount of flow from Nevada Spring Creek, and increase water availability to Nevada Creek, and the Upper Blackfoot River, especially during water short years. In addition, having a legally protected instream flow in Nevada Spring Creek would assist in the cooling of Nevada Creek and improve its water quality. The hydrologic regime of Nevada Spring Creek would not be changed with respect to this proposed project, and would continue within the context of the climatic effects on stream flow.

3. Unique, Endangered, Fragile or Limited Environmental Resources

   The conversion of these water rights to permanent instream flow would supplement restoration efforts on Nevada Spring Creek, which aims to increase native westslope cutthroat and bull trout populations in the Upper Blackfoot River. According to Montana's Natural Heritage Programs' (NHP) Animal Species of Concern (SOC) Database, westslope cutthroat trout are listed as a state ranking as S2, which means the species is at risk because of very limited and/or potentially declining population numbers, range and/or habitat, making it vulnerable to global extinction or extirpation in the state (NHP 2012). Bull trout share an S2 state ranking with the westslope cutthroat trout, but are also listed as threatened by the USFWS, meaning that the species could likely become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). It is likely that having a legally protected instream flow on Nevada Spring Creek would have a direct benefit in improving native westslope cutthroat trout and bull trout populations in the Upper Blackfoot River.

   Using the query available on the Natural Heritage Program's website, FWP found other species of concern that may benefit from this proposed project. Among these species include: Hoary Bat (*Lasiurus cinerius*), Fringed Myotis (*Myotis thysanodes*), Great Blue Heron (*Ardea herodias*), Bobolink (*Dolinchonyx oryzivorus*), and Long-billed Curlew (*Numenius americanus*) (NHP 2012). Each of these species are said to inhabit riparian areas and adjacent grasslands within the Nevada Spring Creek region. The project would increase water availability to species within the immediate area of Nevada Spring Creek, especially during water short years.

VIII. Environmental Impact Checklist: Impacts on Human Environment

Table 3: Potential Impacts on the Human Environment

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENT # IN SECTION IX
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue			X			1
4. Agricultural or industrial production			X			2
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			3
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

IX. Explanation of Impacts on the Human Environment

1. Local & State Tax Base & Tax Revenue

The proposed project would have a minor effect on future tax revenue. The project aims to convert water rights that were used historically for grass hay irrigation to instream flow. This conversion, if approved by the DNRC in the agency's *Change of Use* process would take land that was historically irrigated out of future crop production. The lands adjacent to Nevada Spring Creek have not been irrigated since restoration activities began. However, they are currently being grazed by livestock. While there may be a reduction to local and state revenues with respect to the possibility of future irrigation, the proposed project would not have an immediate impact. The lands adjacent to Nevada Spring Creek would be assessed at the same value, and taxed at the same rate they have been since irrigation was discontinued.

2. Agricultural or Industrial Production

As discussed above, the proposed project would have a minor effect on future agricultural production. The historic irrigation from Nevada Spring Creek would be altered, as FWP would convert the water rights from irrigation to instream flow. This action would result in a minor loss to agricultural lands that have been irrigated from Nevada Spring Creek in the past. It should be noted that much of the lands adjacent to Nevada Spring Creek have been restored to riparian wetlands and have not been irrigated since restoration activities began in the upper and lower reaches of the stream. Thus, the proposed project is not likely to lead to a direct reduction of current agricultural production along Nevada Spring Creek

Historically, Nevada Spring Creek has been the source of agricultural irrigation. The first appropriation of water from the stream has a priority date as far back as June 11, 1887, for 5 cfs, and was granted as a decreed right in 1925 (*Wilcox v. Walker et al*. 1925). Data published by the Montana State Engineer in the 1959 Water Resource Survey (WRS) of Powell County indicated that approximately 255 acres were being irrigated from Nevada Spring Creek via Pott's and Beck's Ditches (see Appendix C).

When the statements of claim for existing water rights were filed in April of 1982, approximately 1,120 acres were claimed to have been flood irrigated from the waters of Nevada Spring Creek. In 2004, research from TU found it likely that the amount of acres irrigated as identified in the 1982 claims had been overstated. In 2006, the Partners filed amendments to the claims reducing the amount of claimed acres to 820, an amount more representative of what had been irrigated historically. When the preliminary decree was issued in 2011, the amendments were noted along with a statement suggesting that several of the irrigation claims have overlapping places of use and can be comingled accordingly so long as the volume does not exceed the amount put to historic and beneficial use.

In addition, there are other outstanding issues associated with these water rights. These issues directly relate to Montana's general statewide adjudication process, which is currently underway for the Blackfoot Basin (76F). While researching these claims, FWP found that objections have been filed by Avista Corporation on: 76F-98100-00, 76F-98108-00, 76F-98110-00, 76F-98112-00, 76F-98119-00, 76F-98121-00, 76F-98122-00, and 76F-98123-00. Avista's objections appear to be associated with the historic basis of some of these water rights and the priority date claimed. The issues associated with Avista Corporation's objection would be addressed during the adjudication process. While this resolution could require a hearing before the Water Court, resolution is likely to occur through settlement discussions and stipulation. These concerns are likely to require resolution prior to proceeding through the *Change of Use* process administered by the DNRC under §85- 2-436 MCA.

During FWP's review of these water right claims, it is the agency's assessment that these are, by statutory definition existing water rights developed and used prior to 1973. The waters were being used, and were documented in the WRS (Montana State Engineer 1959).

3. Access to and Quality of Recreation and Wilderness Activities

The Blackfoot River supports a very popular recreational fishery. The restoration of Nevada Spring Creek was intended to improve habitat conditions and thereby help recover native trout in the upper Blackfoot River. As a result of this and other restoration work, the abundance of native trout and the quality of the recreational fishery in the Blackfoot River have improved. The proposed project would supplement restoration activities that have already taken place on Nevada Spring Creek, and would have a positive effect on the recreational fishery of the Upper Blackfoot River.

X. Environmental Assessment Conclusion

1. Is an EIS required? No.

We conclude from this review that the proposed activities would have not have a significant negative impact to the physical environment, and would have only a minor impact to the human environment (specific to a loss of agricultural production from irrigated lands).

2. Level of public involvement.

The public will be notified in the following manners to comment on this current EA, the proposed action and alternative:

- One statewide press release;
- Two legal notices in each of these newspapers: *Blackfoot Dispatch* (Lincoln), *Independent Record* (Helena), *Missoulian*, and *Silver State Post* (Deer Lodge);
- Direct mailing or email notification to adjacent landowners and interested parties (individuals, groups, agencies);
- Public notice on the FWP web page: *http://fwp.mt.gov* ("Public Notices").

Copies of this EA will be available for public review at FWP Headquarters in Helena and FWP Region 2 Headquarters in Missoula, and the EA will be posted on FWP's web site *http://fwp.mt.gov* ("Submit Public Comments"). This level of public notice and participation is appropriate for a project of this scope having few and minor physical and human impacts.

If FWP were to issue a Decision Notice that recommends accepting the water rights donation, then the Fish, Wildlife and Parks Commission would review the proposed project. The authority to accept the donated water rights from TU would be contingent upon the Commission's approval.

3. Duration of comment period?

The public comment period will begin November 2, 2012, and comments will be accepted by FWP until 5:00 PM on December 3 (a period of 32 calendar days).

Comments may be submitted on FWP's web site *http://fwp.mt.gov* ("Submit Public Comments," or may be mailed, phoned or emailed to J. Stephen Begley at the contact information in #6 below.

4. Other groups or agencies contacted or which may have overlapping jurisdiction:

   U.S. Fish and Wildlife Service, Trout Unlimited, and Nevada Spring Creek Partners

5. Individuals or groups contributing to this EA:

   Ron Pierce, FWP Fisheries Biologist

6. Person responsible for preparing the EA:

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