

**DRAFT**

**ENVIRONMENTAL ASSESSMENT**

**CHECKLIST**

**Spotted Dog Wildlife Management Area Floodplain  
and Slope Wetland Restoration**

**FWP-CEA-WLD-R2-2024-002**



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## I. Compliance with the Montana Environmental Policy Act

*Before a proposed project may be approved, environmental review must be conducted to identify and consider potential impacts of the proposed project on the human and physical environment affected by the project. The Montana Environmental Policy Act (MEPA) and its implementing rules and regulations require different levels of environmental review, depending on the proposed project, significance of potential impacts, and the review timeline. § 75-1-201, Montana Code Annotated (“MCA”), and the Administrative Rules of Montana (“ARM”) 12.2.430, General Requirements of the Environmental Review Process.*

*FWP must prepare an EA when:*

- *It is considering a “state-proposed project,” which is defined in § 75-1-220(8)(a) as:
  - (i) a project, program, or activity initiated and directly undertaken by a state agency;
  - (ii) ... a project or activity supported through a contract, grant, subsidy, loan, or other form of funding assistance from a state agency, either singly or in combination with one or more other state agencies; or
  - (iii) ... a project or activity authorized by a state agency acting in a land management capacity for a lease, easement, license, or other authorization to act.*
- *It is not clear without preparation of an EA whether the proposed project is a major one significantly affecting the quality of the human environment. ARM 12.2.430(3)(a));*
- *FWP has not otherwise implemented the interdisciplinary analysis and public review purposes listed in ARM 12.2.430(2) (a) and (d) through a similar planning and decision-making process (ARM 12.2.430(3)(b));*
- *Statutory requirements do not allow sufficient time for the FWP to prepare an EIS (ARM 12.2.430(3)(c));*
- *The project is not specifically excluded from MEPA review according to § 75-1-220(8)(b) or ARM 12.2.430(5); or*
- *As an alternative to preparing an EIS, prepare an EA whenever the project is one that might normally require an EIS, but effects which might otherwise be deemed significant appear to be mitigable below the level of significance through design, or enforceable controls or stipulations or both imposed by the agency or other government agencies. For an EA to suffice in this instance, the agency must determine that all the impacts of the proposed project have been accurately identified, that they will be mitigated below the level of significance, and that no significant impact is likely to occur. The agency may not consider compensation for purposes of determining that impacts have been mitigated below the level of significance (ARM 12.2.430(4)).*

*MEPA is procedural; its intent is to ensure that impacts to the environment associated with a proposed project are fully considered and the public is informed of potential impacts resulting from the project.*

## II. Background and Description of Proposed Project

**Name of Project:** Spotted Dog Wildlife Management Area Floodplain and Slope Wetland Restoration

**Project Description:**

Montana Fish, Wildlife and Parks (FWP), in partnership with the Montana Natural Resource Damage Program (NRDP) and the Montana Department of Natural Resources and Conservation (DNRC), propose to implement an array of restoration techniques to restore degraded floodplains and slope wetlands on the Spotted Dog Wildlife Management Area (SDWMA). The proposed action, referred to in this environmental assessment as a single project, will involve many smaller projects implemented in floodplains and slope wetlands across the WMA over

time. The ultimate project goal is to restore and enhance the interconnected web of streams, wetlands, riparian areas, and floodplains that are critical to overall ecosystem function on SDWMA and on the larger landscape of which SDWMA is a part.

Dozens of miles of streams on SDWMA exist in a degraded state due to a long legacy of livestock grazing, fluctuating populations of native grazers and browsers (e.g., elk and moose), removal of beavers, and invasion by noxious weeds and other non-native plants (Figure 1). These degraded streams and wetlands function well below their ecological capacity, providing minimal habitat for fish and wildlife species that use the WMA relative to their potential (Hansen et al. 2015). Additionally, these streams and wetlands function below capacity for providing ecosystem services to humans, such as landscape water storage, water quality improvements, and recreational opportunities like hunting, fishing, and wildlife watching. The proposed project would use a variety of techniques to reconnect degraded streams to their floodplains, enhance and expand wetland and riparian vegetation growth, and hold water on the landscape longer into the dry season each year.

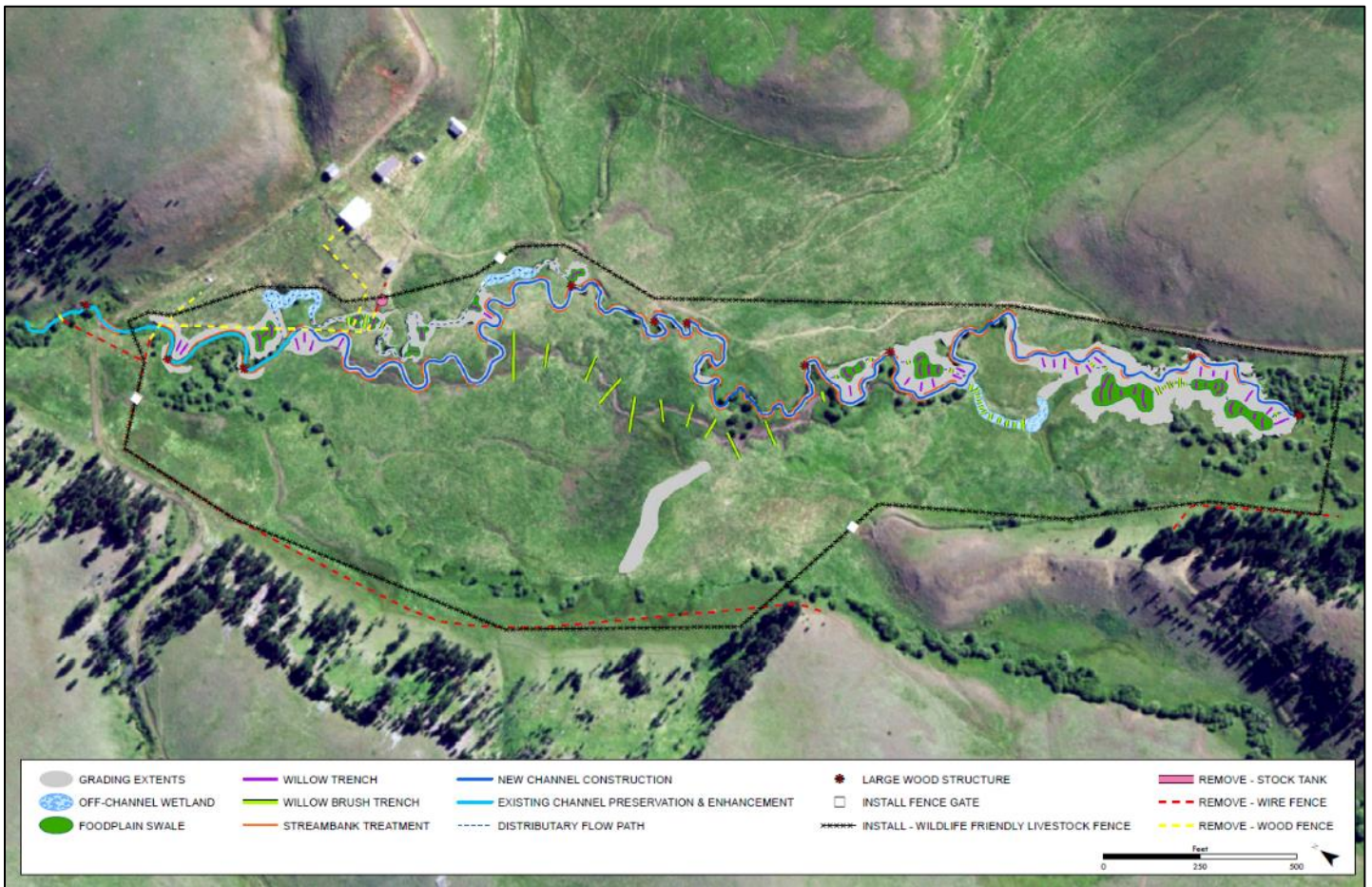


**Figure 1.** Example of heavily degraded stream channel along the main stem of Spotted Dog Creek. Large swaths of the streams on the Spotted Dog WMA have undergone channel incision whereby the stream becomes disconnected from its floodplain, leading to diminished ecosystem services (e.g., water storage) and less productive fish and wildlife habitat.

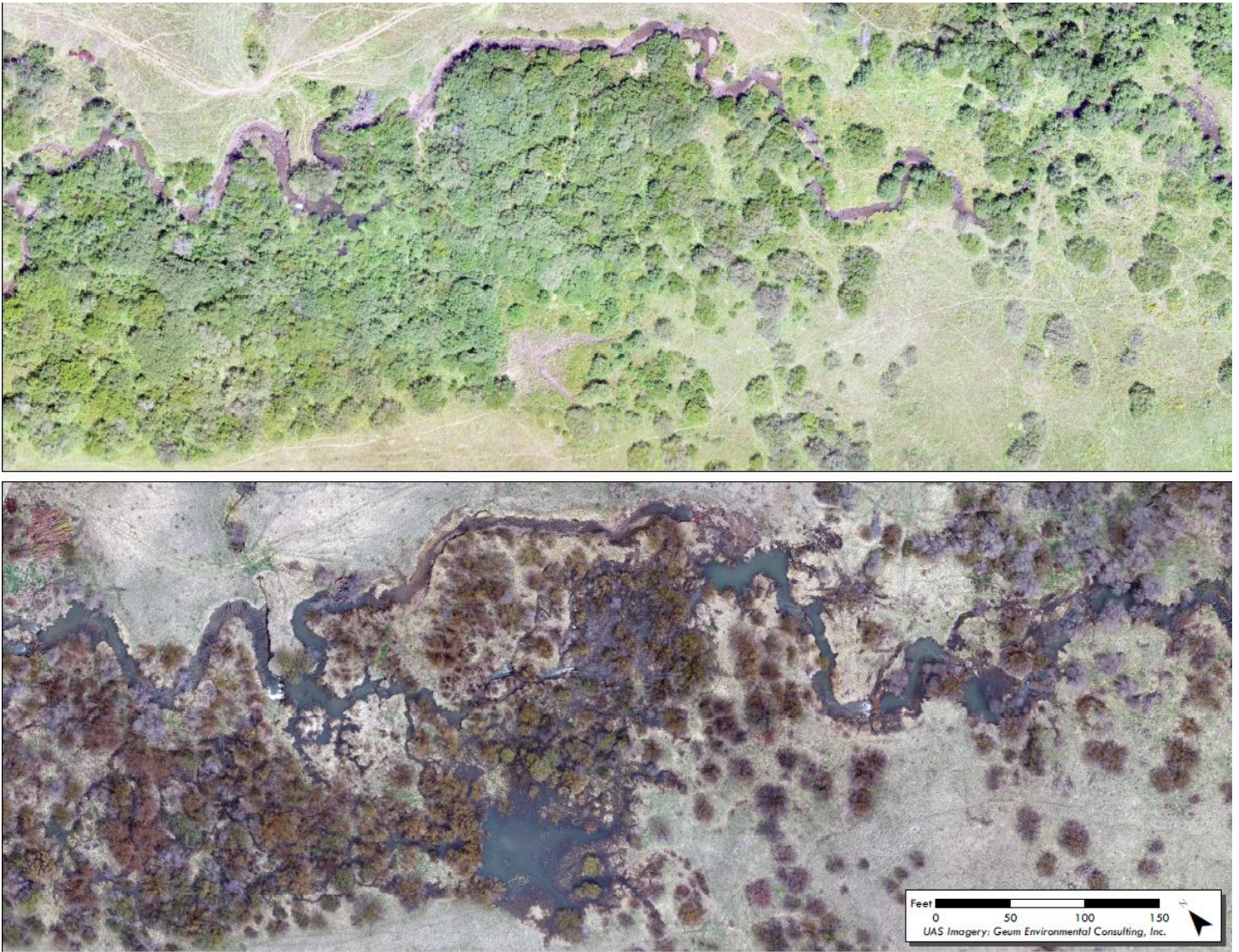
In 2015, an Ecological Inventory and Health Assessment of Spotted Dog WMA (Hansen et al. 2015) was completed and formed a foundation for FWP's approach to future management. This product described the SDWMA landscape in terms of a mosaic of ecological health, ranging from near pristine to unhealthy and nonfunctional, depending on the site in question. In the Hansen et al. 2015 survey, riparian and wetland habitats and adjacent uplands were the most negatively impacted plant communities on the WMA, indicating a significant need for restoration.

In 2013, the Spotted Dog Work Group was formed, consisting of constituents and agency partners tasked with providing input and guidance on the management of SDWMA. The Work Group originally comprised 18 citizens, mostly from the vicinity of the WMA, representing landowners, sportspeople, government, education, and other interested parties. The Spotted Dog Work Group developed the Spotted Dog WMA Habitat Plan in 2018 (Spotted Dog Work Group 2018) to guide future management actions on the WMA. The Habitat Plan identifies wetland and riparian restoration, particularly in areas that may be occupied by beavers, as a focused management direction for the WMA.

During 2020 to 2022, NRDP and FWP undertook a series of stream and slope wetland restoration projects on the main stem of Spotted Dog Creek from approximately the boundary with USFS lands on the upstream end down to the old homestead known as the Pauley Place (Figures 2-6; MFWP 2020). These projects were designed to restore incised and otherwise degraded stream channels and recover ditched slope wetlands to benefit water storage and fish and wildlife habitat. The techniques ranged from heavy equipment used to re-grade floodplains, realign channels, and introduce large wood and willow plantings, to low-tech techniques including beaver habitat structures and channel plugs that were meant to promote rapid floodplain reconnection and encourage beavers to re-establish and succeed in areas of their historical range. Many of these same techniques would be used as part of the proposed projects in this EA.



**Figure 2.** Schematic of channel reconstruction effort along the main stem of Spotted Dog Creek in the Pauley Place meadow. This area represents the furthest downstream extent of restoration work on the main stem of Spotted Dog Creek. While some of these techniques would be used elsewhere on the WMA under the proposed actions in this EA, generally this level of impact would not be needed as more low-tech techniques can be used to guide these stream systems towards recovery with the help of beaver occupancy, multiple phases of work, and adaptive management. Schematic provided by Geum Environmental Consulting, Inc.

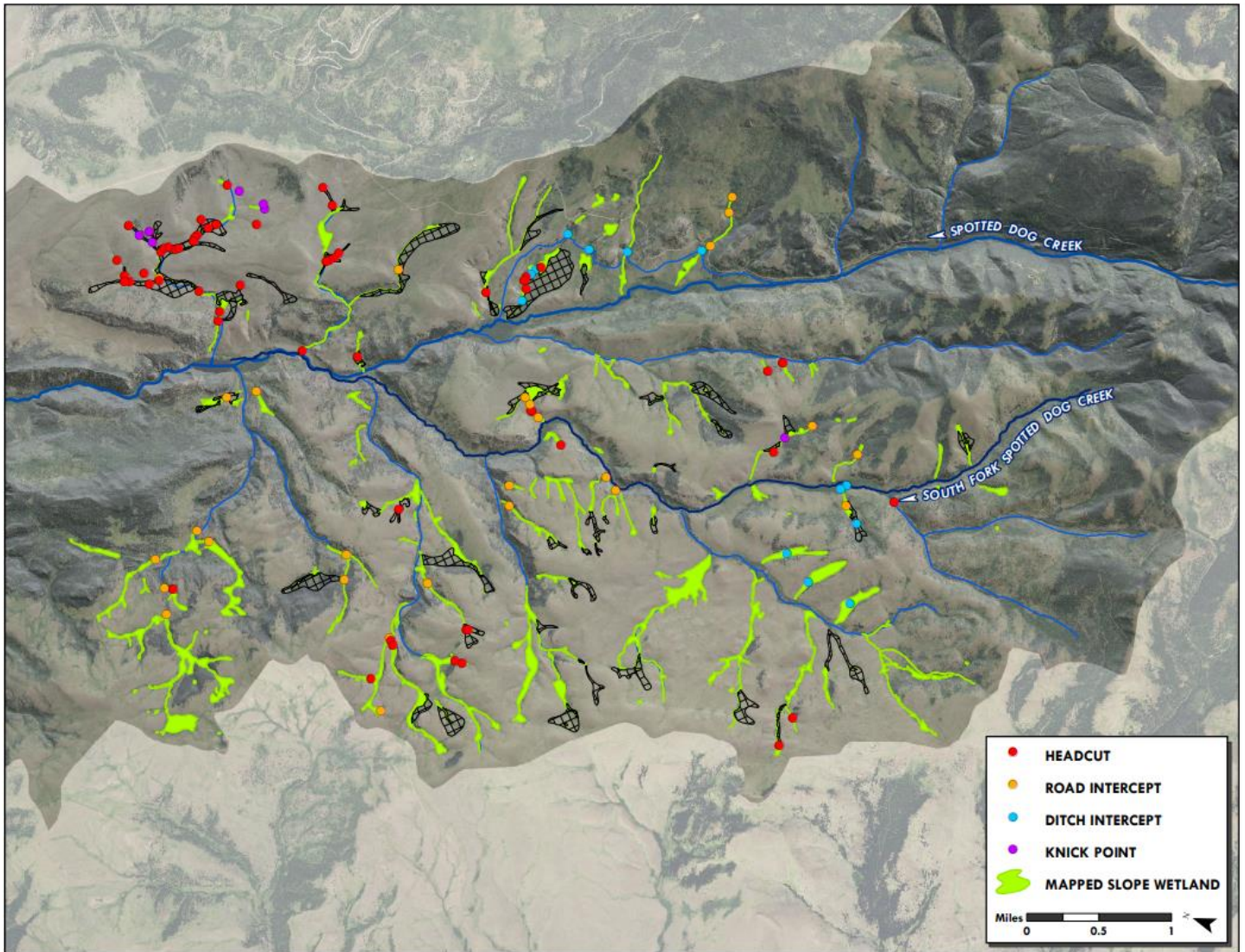


**Figure 3.** Example of a section of the main stem of Spotted Dog Creek where a channel plug was installed to re-establish floodplain connection. This channel plug was strategically placed to abandon a severely incised channel and route flows into a historical beaver complex. Within three months of the channel plug being installed, beavers moved into the area and repaired decades-old dam berms and constructed dozens of new dams. These activities helped expand and maintain the newly established floodplain area and added considerable habitat complexity.



**Figure 4.** Example of Beaver Habitat Structures (BHS) installed in the main stem of Spotted Dog Creek. These structures are meant to mimic beaver dams but are created with coarse bed material so that they can survive multiple runoff pulses even in incised channels. The BHSs are designed to route flows out of the incised channel and onto the floodplain during high-water events and provide scaffolding from which beavers can build robust dam complexes that will lead to long-term recovery of the stream channel and floodplain. The left panel shows a BHS just after construction, where a mat of willows is placed on the structure to encourage adventitious root growth and attract beavers to the site. The right panel shows a BHS during a high flow event. BHSs are built in a series of 5-10 structures that all back up water to the next structure upstream. This arrangement mimics natural beaver dam complexes and provides structural redundancy in the stream channel so that the effectiveness and resiliency of these BHS complexes does not depend on any single structure.





**Figure 5.** Map of slope wetlands on the Spotted Dog WMA. These wetlands are created by intermittent and ephemeral stream drainages, springs, and groundwater seeps and are generally characterized by sedge meadows with pockets of willow and aspen. Slope wetlands are important as wildlife habitat but also store water on the landscape, releasing it slower throughout the dry season. Many of these slope wetlands are degraded due a myriad of factors outlined in the map legend. Hatched areas represent slope wetlands that have been heavily impacted and are no longer functional and are therefore in need of restoration. Map and mapping effort provided by Geum Environmental Consulting, Inc.



**Figure 6.** Example of a degraded slope wetland after a simple, low-tech restoration effort. This slope wetland had been purposefully ditched to expedite the transport of water from the spring that feeds the wetland to Spotted Dog Creek, greatly diminishing its size and water storage capacity. Restoration practitioners used strategic filling-in of the ditch channel and placement of sod mat dams to slow and pool water to allow the slope wetland to recover over time. By pooling water, sediment can collect behind these sod mat dams which promotes the growth of sedge communities and allows water to soak into surrounding soils.

Three years since the work started on the main stem of Spotted Dog Creek, stream and associated slope wetlands are recovering well and are on a trajectory to become a self-sustaining, restored system with a few more years of maintenance and adaptive management (Sacry 2020, Sacry and Gulley 2022). Beaver activity has increased substantially, and floodplain connection has been greatly enhanced along most of the treated stream segments. These projects served as the precursor to the proposed projects in this EA, demonstrating that these techniques are effective for restoring degraded streams in the larger Spotted Dog drainage.

To address long-term stream, riparian, and floodplain degradation on SDWMA, in accordance with the SDWMA Habitat Plan, FWP proposes to implement the following techniques in stream sections and slope wetlands on SDWMA to achieve restoration goals:

- Earth moving to regrade old, unused ditches that keep water from reaching natural stream channels.
- Salvaging and transplanting riparian vegetation disturbed during earth-moving activities.
- Stopping the progression of headcuts and incision using rock step dams, rock mulch, rock layback, Zuni bowls, sod and alluvium plugs, and brush bank treatments.
- Re-routing stream channels out of incised channels and back into historic flow paths using channel plugs made of alluvium and locally sourced vegetation (e.g., willow cuttings and large wood).
- Piloting small channels to divert high flows into historical flow pathways on the floodplain.
- Reshaping heavily eroding banks and using brush bank treatments to stabilize these newly constructed banks.
- Installing channel and floodplain roughness features including beaver mimicry structures, beaver habitat structures, low profile channel plugs, brush and sod check dams, willow and brush trenches, and woody debris matrices.
- Planting of woody riparian vegetation in areas where woody vegetation growth may need a head-start to re-establish in a reasonable timeframe.
- Removing and/or rehabilitating old, unused road crossings at streams.
- Filling in deeply incised stream channels with locally sourced gravel and soils from areas with major weed infestations or where floodplain lowering could aid in floodplain reconnection.
- Removing old and decrepit fences that cross and run alongside streams, wetlands, floodplains, and riparian areas.

The suite of restoration techniques outlined above would be used across SDWMA where such treatments would be expected to result in tangible benefits to fish and wildlife habitat and ecosystem services. The ultimate goal of these treatments would be to restore natural conditions along these streams and wetlands and remedy long-term degradation where possible. In some areas, only one technique would be used, while in others many techniques would be used to achieve the project goals.

The restoration techniques outlined above are inherently low-tech, and the method of implementation is to re-initiate natural processes in these stream and wetlands systems that will become self-sustaining. For the purposes of this proposal, “natural processes” include:

- Woody debris input into the stream channel and floodplain either from natural channel migration or through re-establishment of beavers in areas of their former range. Channel migration can undermine streamside trees and shrubs and cause them to fall into the stream or may flood out certain plants causing them to die and enter the stream channel during high water events. Beavers introduce woody debris through dam, lodge, and cache construction and subsequent abandonment; tunnel and channel digging that can undermine streamside vegetation; vegetation death and toppling due to flooding; or through direct tree/shrub felling into the stream channel and floodplain through beaver foraging.
- Changing the way sediment moves through these systems, primarily focused on retaining sediment in slope wetlands and in incised channels to rebuild wetland soils and raise stream beds to re-establish floodplain connection. Alternatively, introduction of structural elements to the stream channel and re-establishing beavers can force the widening of incised stream channels that can lead to more balanced erosion and depositional processes that enhance floodplain connection. Sediment accumulation behind beaver dams may either largely stay in place after beavers leave the area resulting in a wet meadow

characterized by sedges and other hydrophytic vegetation or may be fully or partially vacated downstream after dam failure resulting in variable pulses of sediment to the stream system.

- Raising of the water table around beaver habitat structures and channel plugs, and eventually around natural beaver dams and dam complexes. The higher water table would sub-irrigate surrounding floodplain habitats and may kill off certain plant species (e.g., conifers, grasses) while encouraging the growth of others (e.g., willows, sedges).
- Greater channel-floodplain connectivity through a combination of effects including those listed above, resulting in a greater propensity for the stream channel to braid and to migrate across the valley bottom over time.
- Changes in streamside and floodplain vegetation types, communities, and age classes through a combination of effects including those listed above, and associated changes in stream form and function that can result.

The proposed project would focus on these natural processes and would be implemented under an adaptive management framework. Under adaptive management, FWP would implement these techniques in suitable stream reaches and then carefully monitor the response of the stream channel, sediment movement, water flow paths, vegetation, and wildlife to those actions. FWP would then respond with repairs, re-sizing, construction of additional structures, or implementation of additional techniques to continue guiding the affected area towards a self-sustaining state. For the purposes of this proposal, a self-sustaining state is one where the stream system or slope wetland maintains the restored state via natural processes and is resilient to normal disturbances without continued human intervention. Therefore, the timeframes for individual projects under the larger project would be anywhere from one season to many years, depending on the site under consideration and the level of degradation being addressed.

Suitable sites for restoration would be those where the stream is in a degraded state and natural recovery is either moving very slowly or not occurring at all. Restoration efforts would prioritize stream sections where significant enhancement of fish and wildlife habitat and ecosystem services is expected.

To implement the restoration techniques outlined above and provide protection for the restored areas until they reach a recovered state, additional actions will be needed that are not restoration actions in and of themselves. These supportive actions include:

- **Fencing:** Installing new, temporary fencing where needed to protect restoration actions from authorized and unauthorized livestock grazing and excessive wildlife browsing while the area recovers. Temporary fencing may need to remain in place for anywhere from 1-10 years, depending on the site.
- **Wood Acquisition:** Acquiring large wood from slopes adjacent to restoration project areas where needed. Large wood would be acquired from stands of Douglas-fir that are abundant on SDWMA and would involve gathering dead and downed wood and harvesting some live trees. Overall amounts of large wood removed would be minimal and would not cause a noticeable change in the appearance or ecological function of Douglas-fir stands. No ponderosa pine would be harvested for restoration treatments. No wood, live or dead, greater than approximately 18" diameter-at-breast-height (DBH) would be harvested for restoration treatments, and most wood would be less than 12" DBH.

- **Fish Salvage:** In areas that receive a channel plug treatment, whereby the existing degraded channel would be fully or partially abandoned, native fish would be salvaged and relocated to an existing, stable channel nearby. Fish salvage would be performed by FWP staff and volunteers as needed and would involve the use of electro-fishing and hand-netting. Per the standard protocol, non-native fish would be left in the abandoned channel.
- **Road Use:** The use of roads on SDWMA and adjacent USFS roads to haul rock and other materials to and from the restoration sites. This would require associated staff to travel on roads that are closed to the general public on the WMA. The only USFS roads that would be used would be those that are open to the public. Minor road repairs and clearing may be needed to facilitate transport of restoration materials and staff, but these would not exceed the needed repairs and clearing done by WMA maintenance staff as part of fence and weed maintenance activities that occur annually on SDWMA.
- **User Conflicts:** Travel by those working on the restoration projects in areas on SDWMA that are not open to the public. This work may include windows that overlap archery hunting season on SDWMA. All work in areas typically not open to the public would cease one week before the opening of the general hunting season. However, some work may continue into the general hunting season in areas where the probability of disturbing hunting activities is very low (e.g., near open roads). FWP would inform the public about these activities through press releases and signs posted at SDWMA kiosks. Because the initial implementation phase of these projects, in general, would require much greater effort and disturbance, the potential for conflict with the public would be highest at this time. In response, FWP and its partners would compile the initial implementation of many projects into a single season. Subsequent adaptive management of restoration sites would require fewer resources and visits by staff and could be done well before the start of archery season.

The Natural Resource Damage Program (NRDP) would provide the majority of funding for the Spotted Dog WMA Floodplain and Slope Wetland Restoration Project as described in the updated State Wetlands/Riparian Areas Plan (NRDP 2023). Additional funding may be provided by the Migratory Bird Wetland Program, Future Fisheries, and other state and federal grant programs. FWP would work with NRDP to hire contractors to design and implement the work on SDWMA. FWP, contractors, and volunteers would conduct monitoring that speaks to the restoration goals of the proposed projects. The projects would commence in the fall of 2024 and would continue until treated areas reach a self-sustaining state as defined above.

**Description of the Affected Area:**

SDWMA includes approximately 45 miles of streams including reaches of the Spotted Dog Creek, Trout Creek, Freezeout Creek, and O’Neill Creek, several perennial and ephemeral springs, and a portion of Spotted Dog Reservoir (Figure 7). These streams drain into the Little Blackfoot and Clark Fork Rivers. While lotic and lentic wetland sites in SDWMA occupy a very small portion of the entire property, these sites are disproportionately important as wildlife habitat and, ecologically, as riparian habitat types.

An ecologic assessment, completed in 2015, determined a large portion of the lotic wetland sites (39 percent of the total acres) were categorized as Unhealthy, and most of the remainder were categorized as Healthy, but with Problems (Hansen et al. 2015). Of the few small lentic sites, over half (56 percent) were rated Unhealthy. The condition of these lotic and lentic wetland sites reflects the long history of livestock use and the habit of the livestock to disproportionately impact these wetland systems.

The proposed project would largely focus on perennial streams other than the slope wetland restoration, which would target some intermittent and ephemeral drainages.

In the eastern portion of SDWMA, perennial streams start in the Boulder Mountains and flow through SDWMA, eventually ending up in the Little Blackfoot River, which then flows into the Clark Fork River near the town of Garrison. These streams start in areas with nearly continuous coverage of conifer forests and relatively confined valley bottoms. Once they reach SDWMA, the valley bottoms tend to widen and flow through largely grassland dominated landscapes. In some stream sections, the valley bottom is wide enough that the streams are essentially unconstrained and can form multi-thread channels and extensive beaver-mediated wetland complexes. It is these areas with wider valley bottoms where most of the proposed floodplain restoration work would take place. These areas would be targeted because they have the most severe degradation from past land-use practices and because they have the greatest potential to become productive fish and wildlife habitat and provide ecosystem services.

On the west side of the WMA, perennial streams originate on SDWMA and flow west where they enter the Clark Fork River directly. These streams are generally smaller and more confined than on the east side of the WMA, though there are still extensive current and former beaver colonies in some sections of these streams. The streams flow through a mix of grasslands, aspen stands, and conifer forested areas. No restoration work is currently planned for these streams, but the techniques outlined for the proposed action could be useful in the future for addressing stream degradation that has been previously identified in these streams (Hansen et al. 2015).

Slope wetlands occur across SDWMA and are generally found in the headwaters of perennial and intermittent streams (Figure 5). These slope wetlands are characterized by sedges and other native vegetation, and invasive plants where they have been heavily impacted by livestock grazing. Some slope wetlands were previously ditched to collect and transport water downhill to streams and livestock watering areas.

Perennial streams on SDWMA contain non-native brook trout and native westslope cutthroat trout, as well as other nongame fish species such as largescale suckers and sculpins. Some streams and stream sections have genetically pure westslope cutthroat with varying mixes of cutthroat trout and brook trout. Generally, brook trout become more common as the streams get lower in elevation. Riparian areas, wetlands, and floodplain features provide habitat for at least 159 nongame species including 46 vertebrate and invertebrate species considered to be Species of Greatest Conservation Need (SGCN) as identified by the Montana Natural Heritage Program and the 2015 State Wildlife Action Plan (FWP 2015). There are an additional 36 plant species considered SGCN under the 2015 State Wildlife Action Plan that are known to occur on SDWMA, but their relative abundance in the types of habitats affected by the proposed action is unknown.

The affected areas have been impaired by past land-use practices including road building, timber harvest, and livestock grazing. MFWP has been working to control unauthorized livestock on the WMA since the last authorized livestock left the landscape in 2013. MFWP continues to develop relationships with neighboring producers, repair and replace damaged boundary fence, and undertake land acquisition projects to simplify WMA boundaries, all to reduce unauthorized livestock use on the WMA. Concurrent with the proposed projects in this EA, MFWP is working to re-introduce livestock grazing to portions of SDWMA to benefit grassland plant communities (MFWP 2024). This reintroduction of controlled grazing will be done in a way to avoid damage to sensitive floodplain, slope wetland, and aspen habitat types using electric fencing and virtual fence technology.

Because of ongoing efforts to reduce unauthorized livestock grazing and the controls placed on new, authorized grazing on the WMA, MFWP is confident investments in stream and slope wetland restoration on SDWMA will not be undermined by livestock grazing.

The proposed projects in this EA would restore naturally functioning stream systems and slope wetlands that more closely match historical conditions that were in place on SDWMA prior to degradation. The proposed project would result in enhanced habitat for native aquatic and terrestrial life. For streams, this would include occupancy and subsequent habitat modification by beavers in areas of their historical range.

**Affected Area / Location of Proposed Project:**

The Spotted Dog Wildlife Management Area is located within FWP Administrative Region 2 in the foothills of the Boulder Range northeast of Deer Lodge in Powell County, Montana (Figure 1).

- Legal Description
  - Latitude/Longitude: 46.47651, -112.58796
  - Section, Township, and Range:
    - All or a portion of Sections: 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, and 21, Township 8 North, Range 8 West
    - All of a portion of Sections: 2, 11, 13, 14, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 33, 34, 35, and 36, Township 9 North, Range 8 West
    - A portion of Section 35, Township 10 North, Range 8 West
    - Portions of Sections 24, 25, and 35, Township 9 North, Range 9 West
    - A portion of Section 2, Township 8 North, Range 9 West
  - Town/City, County, Montana: Deer Lodge, Powell County, Montana
- Location Map (Figure 1)

## Spotted Dog Wildlife Management Area Streams

MONTANA FWP

Streams located on the Spotted Dog WMA and associated public lands.

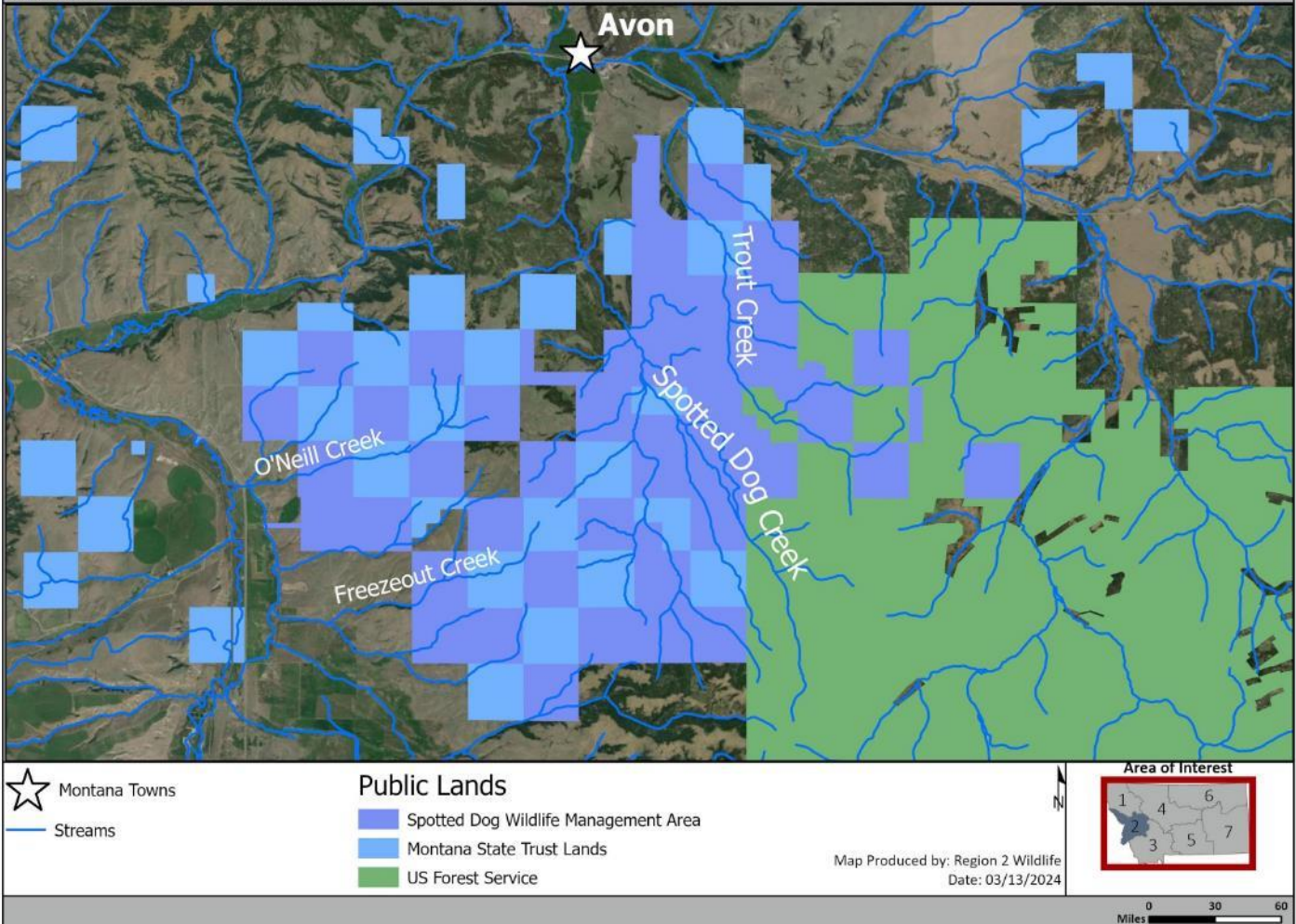


Figure 7: Spotted Dog Wildlife Management Area.

### III. Purpose and Need

*The EA must include a description of the purpose and need or benefits of the proposed project. ARM 12.2.432(3)(b). Benefits of the proposed project refer to benefits to the resource, public, department, state, and/or other.*

The purpose of the proposed project is to restore degraded slope wetlands and sections of streams on SDWMA using a variety of techniques that seek to re-establish natural processes that maintain these habitats in a high ecological state. Restoring these habitats would benefit a wide variety of game and nongame wildlife species as well as improving fisheries and aquatics. Restoration treatments on streams would focus on areas with wide valley bottoms where the potential for eventual occupancy by beavers is high. Restoration treatments on slope wetlands would focus on areas where degradation is ongoing and where the potential for enhancing natural water storage on the landscape is high.

More specifically, projects goals for habitat enhancement include the following:

- Increasing the extent and duration of beaver-mediated habitat modifications on perennial streams that are in areas of beavers' former range.



- Reconnecting perennial streams to their floodplains resulting in expanded areas of wetland and riparian vegetation and development of multi-thread channels and off-channel wetland features.
- Expanding areas of wetland vegetation in and around slope wetlands and halting ongoing degradation.

By implementing and achieving these habitat enhancement goals, FWP seeks the following wildlife benefits:

- Expansion of beaver activity in perennial streams on SDWMA.
- Increasing riparian and wetland bird species abundance and diversity.
- Enhancing instream and adjacent habitats to benefit fish, particularly westslope cutthroat trout.

The proposed actions are expected to benefit vegetative communities as well as aquatic and terrestrial wildlife species and encourage natural stream processes and healthy ecosystems. The proposed project would benefit people recreating on the WMA through enhanced wildlife habitats that would improve hunting and wildlife-viewing opportunities. The project would also benefit agricultural producers downstream of the project area through increased water storage in the restored floodplain and slope wetland areas.

FWP and NRDP would implement stream and slope wetland restoration on SDWMA starting in 2024 and continuing under an adaptive management framework until restoration goals are met at each individual site. The extent and duration of restoration work would be dependent on need and funding availability. FWP and NRDP have already secured funding for a series of projects on three different streams on SDWMA. Individual projects would not be undertaken until funding is secured to cover initial implementation costs, ongoing repairs and adjustments as needed under the adaptive management framework, as well as monitoring.

If FWP prepared a cost/benefit analysis before completion of the EA, the EA must contain the cost/benefit analysis or a reference to it. ARM 12.2.432(3)(b).

	Yes*	No
Was a cost/benefit analysis prepared for the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* If yes, a copy of the cost/benefit analysis prepared for the proposed project is included in Attachment A to this Draft EA

#### IV. Other Agency Regulatory Responsibilities

*FWP must list any federal, state, and/or local agencies that have overlapping or additional jurisdiction, or environmental review responsibility for the proposed project, as well as permits, licenses, and other required authorizations. ARM 12.2.432(3)(c).*

*A list of other required local, state, and federal approvals, such as permits, certificates, and/or licenses from affected agencies is included in **Table 1** below. **Table 1** provides a summary of requirements but does not necessarily represent a complete and comprehensive list of all permits, certificates, or approvals needed for the proposed project. Agency decision-making is governed by state and federal laws, including statutes, rules, and regulations, that form the legal basis for the conditions the proposed project must meet to obtain necessary permits, certificates, licenses, or other approvals. Further, these laws set forth the conditions under which each agency could deny the necessary approvals.*

**Table 1: Federal, State, and/or Local Regulatory Responsibilities**

Agency	Type of Authorization (permit, license, stipulation, other)	Purpose
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FWP	Stream Protection Act 124 Permit	Actions affecting the bed or banks of a stream on state-owned public lands
U.S. Army Corps of Engineers	Nationwide Permit 27	Aquatic Habitat Restoration in waters of the US
DEQ and FWP	318 Authorization	Short term water quality standard for turbidity
FWP	State Wildlife Action Plan (2015) - currently under revision	Guides priorities and conservation actions relevant to Species of Greatest Conservation Need and Community Types of Greatest Conservation Need in Montana
FWP	An Ecological Inventory and Health Assessment of Spotted Dog WMA (Hansen et al. 2015)	Provides data and assessments of ecological health of various habitats on the WMA, including streams and riparian areas affected by the proposed project
FWP	Spotted Dog WMA Habitat Plan (2018)	Provides guidance on habitat and restoration priorities on the WMA to enhance fish and wildlife habitat and recreational opportunities
FWP	FWP Integrated Noxious Weed Management Plan	Provides guidance on management of noxious weeds on properties owned and managed by FWP
SHPO	Guidance on effects of ground disturbance	Cultural Review
DNRC	Improvements Request	Restoration work on DNRC properties encompassed by SDWMA for which FWP holds the lease agreements

## V. List of Mitigations, Stipulations

Mitigations, stipulations, and other enforceable controls required by FWP, or another agency, may be relied upon to limit potential impacts associated with a proposed Project. The table below lists and evaluates enforceable conditions FWP may rely on to limit potential impacts associated with the proposed Project. ARM 12.2.432(3)(g).

**Table 2: Listing and Evaluation of Enforceable Mitigations Limiting Impacts**

Are enforceable controls limiting potential impacts of the proposed action? If not, no further evaluation is needed.			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
If yes, are these controls being relied upon to limit impacts below the level of significance? If yes, list the enforceable control(s) below			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Enforceable Control	Responsible Agency	Authority (Rule, Permit, Stipulation, Other)	Effect of Enforceable Control on Proposed Project	
Noxious Weeds	FWP	FWP Integrated Noxious Weed Management Plan	Limit the potential for noxious weed infestation	
Streamside Management Zone	DNRC	Streamside Management Zone Law	Protect and maintain function of streamside management zones	
Cultural Resource Protection	FWP, State Historic Preservation Office	Antiquities Law	Avoid actions that substantially alter heritage properties or paleontological remains on lands owned by the state	

## VI. Alternatives Considered

In addition to the proposed project, and as required by MEPA, FWP analyzes the "No-Action" alternative in this EA. Under the "No Action" alternative, the proposed project would not occur. Therefore, no additional impacts to the physical

environment or human population in the analysis area would occur. The “No Action” alternative forms the baseline from which the potential impacts of the proposed Project can be measured.

If the No Action alternative is selected, the perennial streams and slope wetlands proposed for restoration action would remain in a degraded state with limited natural recovery progressing slowly over time. Habitats associated with these areas would remain below ecological potential. Benefits of the proposed action, including enhanced fish and wildlife habitat and ecosystem services, would not be realized.

	Yes*	No
Were any additional alternatives considered and dismissed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* If yes, a list and description of the other alternatives considered, but not carried forward for detailed review is included below

## VII. Summary of Potential Impacts of the Proposed Project on the Physical Environment and Human Population

The impacts analysis identifies and evaluates **direct, secondary, and cumulative impacts**.

- **Direct impacts** are those that occur at the same time and place as the action that triggers the effect.
- **Secondary impacts** “are further impacts to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action.” ARM 12.2.429(18).
- **Cumulative impacts** “means the collective impacts on the human environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures.” ARM 12.2.429(7).

Where impacts are expected to occur, the impact analysis estimates the **extent, duration, frequency, and severity** of the impact. The duration of an impact is quantified as follows:

- **Short-Term:** impacts that would not last longer than the proposed project.
- **Long-Term:** impacts that would remain or occur following the proposed project.

The severity of an impact is measured using the following:

- **No Impact:** there would be no change from current conditions.
- **Negligible:** an adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** the effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** the effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** the effect would irretrievably alter the resource.

Some impacts may require mitigation. As defined in ARM 12.2.429, mitigation means:

- *Avoiding an impact by not taking a certain action or parts of a project;*
- *Minimizing impacts by limiting the degree or magnitude of a project and its implementation;*
- *Rectifying an impact by repairing, rehabilitating, or restoring the affected environment; or*
- *Reducing or eliminating an impact over time by preservation and maintenance operations during the life of a project or the time period thereafter that an impact continues.*

*A list of any mitigation strategies including, but not limited to, design, enforceable controls or stipulations, or both, as applicable to the proposed project is included in **Section VI** above.*

*FWP must analyze impacts to the physical and human environment for each alternative considered. The proposed project considered the following alternatives:*

- **Alternative 1: No Action. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population**

Under the “No Action” alternative, the proposed project would not occur. Therefore, no additional impacts to the physical environment or human population in the analysis area would occur. The “No Action” alternative forms the baseline from which the potential impacts of the proposed Project can be measured.

If the No Action alternative is selected, the slope wetlands and stream sections proposed for restoration action would remain in a stable, yet degraded state, and habitats associated with these stream sections would remain below their ecological potential. Benefits of the proposed action, including enhanced fish and wildlife habitat and natural water storage, would not be realized.

- **Alternative 2: Proposed Project. Evaluation and Summary of Potential Impacts on the Physical Environment and Human Population**

See **Table 3** (Impacts on Physical Environment) and **Table 4** (Impacts on Human Population) below.

**Table 3 - Potential Impacts of Proposed Project on the Physical Environment**

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
Terrestrial, avian, and aquatic life and habitats	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to terrestrial, avian, and aquatic life and habitats would be expected because of the proposed project. This project is intended to improve ecological health and function. The project would restore floodplain connectivity, natural stream processes, and slope wetlands, which is expected to provide enhanced and additional instream, riparian, wetland, and floodplain habitats. Recovery of natural stream processes and riparian vegetation is expected to result in long-term improvements to aquatic and terrestrial habitats and ecosystem services. Impacts would be short- and long-term, minor to moderate, and beneficial.
Water quality, quantity, and distribution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to water quality, quantity, and distribution would be expected because of the proposed project. Changes to flow pathways of the affected streams are expected to occur because of the proposed projects but there would be minor effects to overall stream flow in the affected systems. In the short-term, work would be completed in streams and along their banks, which may affect turbidity. Operation of equipment in the stream channel will be minimized to the extent practicable. A SPA 124 permit will be obtained to meet short-term water quality standards. In the long-term, the project is expected to maintain minimal sediment inputs and improved water quality through improved wetland and riparian vegetation and re-occupation of some of the affected areas by beavers. Impacts would be mitigated by SPA 124 requirements. Therefore, any impacts would be short- and long-term,

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
									minor, and adverse, as well as short- and long-term, minor to moderate, and beneficial.
Geology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to geology would be expected because of the proposed project. The proposed project would not affect any geologic features in the project area. Therefore, no impacts to geology would be expected because of the proposed project.
Soil quality, stability, and moisture	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to soil quality, stability, and moisture would be expected because of the proposed project. In the short-term, soil stability will be reduced in limited locations due to implementation of restoration techniques. In the long-term, this project is expected to result in minor to moderate improvements to soil stability and minimized erosion by halting ongoing sources of slope wetland and stream degradation while restoring natural channel function and riparian vegetation along streambanks, in the riparian area, and throughout the associated floodplain. Proposed restoration techniques are intended to encourage root growth and hold soil together. Reconnecting streams to their floodplains through restoration actions and subsequent occupancy by beavers would increase soil moisture in the floodplain. Rehabilitating slope wetlands would increase soil moisture at those sites as well. Channel instability because of restoration actions would be minimized through bank treatments, use of Best Management Practices during construction, and on-going maintenance of restoration actions. Adverse impacts would short-term and minor. Beneficial impacts would be short- and long-term, and minor to moderate.
Vegetation cover, quantity, and quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to vegetation cover, quantity, and quality would be expected because of the

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
									proposed project. This project would have a minor to moderate, long-term improvement on vegetation cover, quantity, and quality by enhancing vegetation growth and recruitment in and around slope wetlands, along stream banks, and in riparian areas and floodplains. Vegetative communities will be actively created through planting in limited areas. Natural recruitment of wetland and riparian vegetation will be encouraged through restoring slope wetland function, enhancing natural stream processes, and encouraging occupation by beavers in areas of their historical range. Increased overhead and in-stream vegetative cover should provide additional habitat for aquatic species. This project will encourage a functional and diverse stream and riparian corridor. Adverse impacts would be short-term and minor. Beneficial impacts would be short- and long-term, and minor to moderate.
Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to the aesthetic nature of the affected area would be expected because of the proposed project. The restoration actions would restore the affected slope wetlands and stream sections to a state more closely aligned with historical conditions, characterized by extensive areas of wetland vegetation, well-connected floodplains, and beaver-modified habitats. These improvements would be visually appealing. Areas of bare ground and damaged vegetation during initial implementation phases would result in short-term, negligible to minor, adverse impacts, though most sites are far from areas of heavy human use on the WMA. Beneficial impacts would be long-term and minor to moderate.
Air quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to air quality in the affected area would be expected because of the proposed

PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures	
	Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate		Major
										project. Air quality in the area affected by the proposed project is currently unclassifiable or in compliance with applicable National and Montana ambient air quality standards (NAAQS/MAAQS). Further, no significant point-sources of air pollution exist in the area affected by the proposed project. Existing sources of air pollution in the area are limited and generally include unpaved roads (fugitive dust source), vehicle exhaust emissions, and various agricultural practices (vehicle exhaust emissions and fugitive dust). The contractors employed for the project would follow best management practices for working near streams and wetlands, mitigating any potential impacts. Fugitive dust and vehicle exhaust emissions resulting from the movement of heavy equipment and materials during construction of the proposed project may directly impact air quality in the area. Any adverse impacts would be mitigated, short-term, and negligible.
Unique, endangered, fragile, or limited environmental resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No significant, adverse impacts are expected for any unique, endangered, fragile, or limited environmental resources in the affected area. Observations of Species of Greatest Conservation Need and ESA-nexus species that may use the affected habitats were assessed. This project would directly improve habitat for a wide range of SGCN by improving wetland, instream, riparian, and floodplain habitats on SDWMA. There are no SGCN that would be negatively impacted by the proposed project. Impacts to ESA-nexus species would be negligible and beneficial. Therefore, overall impacts would be short- and long-term, minor to moderate, and beneficial.	
Historical and archaeological sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant, adverse impacts are expected for historical and archaeological sites in the affected area. NRDP has	



PHYSICAL ENVIRONMENT	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
									completed a cultural resource inventory for the affected areas and there was a finding of No Historic Properties Affected. If cultural resources warranted for protection are discovered during project implementation, FWP would cease activities and consult with the State Historic Preservation Office. Therefore, no impacts to historical and archaeological sites would be expected because of the proposed project.
Demands on environmental resources of land, water, air, and energy	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant, adverse impacts to demands on the environmental resources of land, water, air, and energy would be expected because of the proposed project. Beyond those impacts identified in the summary analysis for water quality, quantity, and distribution; soil quality, stability, and moisture; vegetation cover, quantity, and quality; and air quality, no other demands on the environmental resources of land, water, air would be expected because of the proposed project. Some demand for energy resources would be realized as fuel would be required to operate heavy machinery and vehicles used for the proposed project. Any impacts to demands on environmental resources of land, water, air, and energy in the affected area would be short-term and negligible.

**Table 4 - Potential Impacts of Proposed Project on the Human Population**

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
Social structures and mores	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant impacts to social structures and mores in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities on state-owned lands. The proposed project would not impact current land use; therefore, the proposed project would not impact any pre-project social structures, customs, values, or conventions in the affected area.
Cultural uniqueness and diversity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant impacts to cultural uniqueness and diversity in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities on state-owned lands, and it is not expected this action would result in any relocation of people into or out of the affected area. Therefore, no impacts to the existing cultural uniqueness and diversity of the affected area would be expected because of the proposed project.
Access to and quality of recreational and wilderness activities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to access or the quality of recreational and wilderness activities would be expected because of the proposed project. Restoration activities could impact the quality of the recreational experience for some individuals, particularly hunters and anglers, during construction. Once the initial construction phases of the proposed projects are completed, some sections of stream may be less accessible to anglers due to dense vegetative cover and beaver activity. Long-term, quality of angling opportunities would be expected to improve thereby benefitting anglers. Hunting opportunities may be reduced during initial implementation phases of the proposed projects because implementation will need to

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures	
	Resource	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate		Major
										continue into the archery hunting season to avoid working on the WMA during the wet season and to avoid working on the WMA during periods of high fire danger. This may displace some wildlife that could be pursued by archery hunters. However, these impacts would be minimized by implementing the initial construction phase of as many project locations as possible in a single season, thereby eliminating the need to be working in areas closed to the public during hunting seasons in subsequent years. Any impact to access and the quality of recreational and wilderness activities in the affected area would be short-term, adverse, and minor, and long-term, beneficial, and minor.
Local and state tax base and tax revenues	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to the local and state tax base and tax revenue would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities on state-owned lands and, when completed, would not result in changes to local or state taxes. The proposed project would be expected to increase state and local tax revenues from the sale of fuel, supplies, and/or equipment to complete the project as well as the hiring of local contractors. Any impacts to the local and state tax base and tax revenue would be short-term and minor, lasting only as long as the proposed project.
Agricultural or Industrial production	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to agricultural or industrial production in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetlands, and vegetation restoration on state-owned lands that are currently not used for agricultural production. However, enhanced floodplain connectivity, expansion of beaver activity, and restoration

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
									of slope wetlands is expected to enhance natural water storage on the landscape and potentially bolster late-season streamflow downstream of the restored areas. Therefore, there would be minor, long-term impacts to agricultural or industrial production because of the proposed project, but these impacts would be considered beneficial for both the ecosystem and downstream agricultural producers.
Human health and safety	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant impacts to human health and safety would be expected because of the proposed project. This project takes place in relatively remote areas of state-owned land and is not expected to affect human safety as there are no current safety or health concerns and the project will be addressing natural stream, wetland, riparian, and floodplain function. Affected government staff and/or contractors hired to conduct the project may realize increased risk to human health and safety. However, FWP would require affected staff and/or contractors to operate in a safe manner and use best management practices, including the use of available and appropriate safety precautions. Therefore, any potential impacts to human health and safety would be short-term and negligible, lasting only as long as the proposed projects.
Quantity and distribution of employment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to the quantity and distribution of employment in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities in relatively remote areas of state-owned land and, when completed, would not impact the quantity and distribution of employment in the affected area. Short-term and minor impacts to the local quantity and distribution of employment may be realized because

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
Resource									
									of the need for contracted services to complete restoration activities.
Distribution and density of population and housing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant impacts to the distribution and density of population or housing in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities in relatively remote areas of state-owned land and would not impact the distribution and density of population or housing in the affected area.
Demands for government services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to the demands for government services in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities in relatively remote areas of state-owned land. Some minor road repairs on both USFS roads and WMA roads may be needed if vehicles traveling to and from restoration sites cause road wear. However, this impact would be short-term and negligible.
Industrial, agricultural, and commercial activity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to industrial, agricultural, or commercial activity in the affected area would be expected because of the proposed project. The proposed project constitutes stream, wetland, and vegetation restoration activities in relatively remote areas of state-owned land that are currently not used for agricultural production. However, enhanced floodplain connectivity, expansion of beaver activity, and restoration of slope wetlands is expected to enhance natural water storage on the landscape and potentially bolster late-season streamflow downstream of the restored areas, which may benefit agricultural activity. No industrial or commercial activities currently occur on the affected property. Therefore, no impacts to industrial or commercial activity

HUMAN POPULATION	Duration of Impact			Severity of Impact					Summary of Potential Direct, Secondary, and Cumulative Impacts and Mitigation Measures
	None	Short-Term	Long-Term	None	Negligible	Minor	Moderate	Major	
Resource									would be expected because of the proposed project. Any impacts to industrial, agricultural, or commercial activity because of the proposed project are expected to be long-term, negligible to minor, and beneficial.
Locally adopted environmental plans and goals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to locally adopted environmental plans and goals would be expected because of the proposed project. The affected area is in relatively remote areas of state-owned land and the primary objective of the proposed project is to improve the natural function of streams, wetlands, and riparian areas through restoration actions. FWP is unaware of any other locally adopted environmental plans and goals in the proposed project area. Therefore, no impacts to any locally adopted environmental plans and goals would be expected.
Other appropriate social and economic circumstances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No significant adverse impacts to other appropriate social and economic circumstances would be expected because of the proposed project. FWP is unaware of any other appropriate social and economic circumstances that may be impacted by the proposed project. Therefore, no impacts would be expected.

**Table 6: Determining the Significance of Impacts on the Quality of the Human Environment**

If the EA identifies impacts associated with the proposed project FWP must determine the significance of the impacts. ARM 12.2.431. This determination forms the basis for FWP's decision as to whether it is necessary to prepare an environmental impact statement. An impact may be adverse, beneficial, or both. If none of the adverse effects of the impact are significant, an EIS is not required. An EIS is required if an impact has a significant adverse effect, even if the agency believes that the effect on balance will be beneficial. ARM 12.2.431.

According to the applicable requirements of ARM 12.2.431, FWP must consider the criteria identified in this table to determine the significance of each impact on the quality of the human environment. The significance determination is made by giving weight to these criteria in their totality. For example, impacts identified as moderate or major in severity may not be significant if the duration is short-term. However, moderate or major impacts of short-term duration

may be significant if the quantity and quality of the resource is limited and/or the resource is unique or fragile. Further, moderate or major impacts to a resource may not be significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

**Criteria Used to Determine Significance**

1	<p>The <b>severity, duration, geographic extent, and frequency</b> of the occurrence of the impact</p> <p><b>“Severity”</b> describes the density of the potential impact, while <b>“extent”</b> describes the area where the impact will likely occur, e.g., a project may propagate ten noxious weeds on a surface area of 1 square foot. Here, the impact may be high in severity, but over a low extent. In contrast, if ten noxious weeds were distributed over ten acres, there may be low severity over a larger extent.</p> <p><b>“Duration”</b> describes the time period during which an impact may occur, while <b>“frequency”</b> describes how often the impact may occur, e.g., an operation that uses lights to mine at night may have frequent lighting impacts during one season (duration).</p>
2	<p>The probability that the impact will occur if the proposed project occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur</p>
3	<p>Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts</p>
4	<p>The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values</p>
5	<p>The importance to the state and to society of each environmental resource or value that would be affected</p>
6	<p>Any precedent that would be set as a result of an impact of the proposed project that would commit FWP to future actions with significant impacts or a decision in principle about such future actions</p>
7	<p>Potential conflict with local, state, or federal laws, requirements, or formal plans</p>

## VIII. Private Property Impact Analysis (Takings)

The 54<sup>th</sup> Montana Legislature enacted the Private Property Assessment Act, now found at § 2-10-101. The intent was to establish an orderly and consistent process by which state agencies evaluate their proposed projects under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency projects pertaining to land or water management or to some other environmental matter that, if adopted and enforced without due process of law and just compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agencies to assess the impact of a proposed agency project on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency project has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act.

**Table 7: Private Property Assessment (Takings)**

<b>PRIVATE PROPERTY ASSESMENT ACT (PPAA)</b>			
<b>Does the Proposed Action Have Takings Implications under the PPAA?</b>	<b>Question #</b>	<b>Yes</b>	<b>No</b>
Does the project pertain to land or water management or environmental regulations affecting private property or water rights?	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the action result in either a permanent or an indefinite physical occupation of private property?	2	<input type="checkbox"/>	<input type="checkbox"/>
Does the action deprive the owner of all economically viable uses of the property?	3	<input type="checkbox"/>	<input type="checkbox"/>
Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 4a and 4b and continue with question 5)	4	<input type="checkbox"/>	<input type="checkbox"/>
Is there a reasonable, specific connection between the government requirement and legitimate state interest?	4a	<input type="checkbox"/>	<input type="checkbox"/>
Is the government requirement roughly proportional to the impact of the proposed use of the property?	4b	<input type="checkbox"/>	<input type="checkbox"/>
Does the action deny a fundamental attribute of ownership?	5	<input type="checkbox"/>	<input type="checkbox"/>
Does the action have a severe impact of the value of the property?	6	<input type="checkbox"/>	<input type="checkbox"/>
Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public general? (If the answer is NO, skip questions 7a-7c.)	7	<input type="checkbox"/>	<input type="checkbox"/>
Is the impact of government action direct, peculiar, and significant?	7a	<input type="checkbox"/>	<input type="checkbox"/>
Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?	7b	<input type="checkbox"/>	<input type="checkbox"/>
Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?	7c	<input type="checkbox"/>	<input type="checkbox"/>
<b>Does the proposed action result in taking or damaging implications?</b>		<input type="checkbox"/>	<input checked="" type="checkbox"/>



Taking or damaging implications exist if **YES** is checked in response to Question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to question 4a or 4b.

If taking or damaging implications exist, the agency must comply with MCA § 2-10-105 of the PPAA, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

**Alternatives:**

The analysis under the Private Property Assessment Act, §§ 2-10-101 through -112, MCA, indicates no impact. FWP does not plan to impose conditions that would restrict the regulated person's use of private property to constitute a taking.

## IX. Public Participation

### Public Review of Environmental Assessments

The level of analysis in an EA will vary with the complexity and seriousness of environmental issues associated with a proposed action. The level of public interest will also vary. FWP is responsible for adjusting public review to match these factors (ARM 12.2.433(1)). For the proposed project, FWP determined the following public notice strategy will provide an appropriate level of public review:

- An EA is a public document and may be inspected upon request. Any person may obtain a copy of an EA by making a request to FWP.
- Public notice will be served on the Montana Fish, Wildlife and Parks website at: <https://fwp.mt.gov/public-notices>.
- Public notice will be served on the Montana Environmental Quality Council's MEPA Document List website at: <https://leg.mt.gov/mepa/search/>.
- Public notice will be served on the Natural Resource Damage Program's website at: <https://dojmt.gov/lands/nrdp-public-notices/notices-of-public-comment/>
- As applicable, copies will be distributed to neighboring landowners to ensure their knowledge of the proposed project and opportunity for review and comment on the proposed action.
- FWP maintains a list of persons interested in a particular action or type of action. FWP will notify all interested persons and distribute copies of the EA to those persons for review and comment (ARM 12.2.433(3)).

Public notice announces availability of the Draft EA for public review, summarizes the proposed project, identifies the time-period available for public comment, and provides direction for submitting comments.

- **Duration of Public Comment Period:** The public comment period begins on the date of publication of legal notice. Written or e-mailed comments will be accepted until 5:00 p.m., Mountain Time, on the last day of public comment, as listed below:
- **Length of Public Comment Period:** 15 days
- **Public Comment Period Begins:** May 8, 2024
- **Public Comment Period Ends:** May 23, 2024

Comments must be addressed to the FWP contact, as listed below.

- **Where to Mail or Email Comments on the Draft EA:**

**Name:** TORREY RITTER

**Email:** Torrey.Ritter@mt.gov

**Mailing Address:**

Montana Fish Wildlife & Parks

3201 Spurgin Rd, Missoula, MT 59804

## X. Recommendation for Further Environmental Analysis

<b>NO</b> further analysis is needed for the proposed action	<input checked="" type="checkbox"/>
FWP must conduct <b>EIS</b> level review for the proposed action	<input type="checkbox"/>

## XI. EA Preparation and Review

	<b>Name</b>	<b>Title</b>
<b>EA prepared by:</b>	Torrey Ritter, Caleb Uerling, Kirstie Yeager	Nongame Wildlife Biologist, Fisheries Biologist, Wildlife Biologist
<b>EA reviewed by:</b>	Liz Bradley	Region 2 Wildlife Manager

## XVII. References

- Sacry, A. 2020. Upper Spotted Dog Creek Phase 1 Restoration Project Construction Completion Summary. Geum Environmental Consulting, Inc. Hamilton, MT.
- Sacry, A and A. Gulley. 2022. Upper Spotted Dog Creek Restoration Project Phase 1 and Phase 2 Effectiveness Monitoring and Maintenance Evaluation. Geum Environmental Consulting, Inc. Hamilton, MT.
- Hansen, P. L., W. T. Thompson, M. Thompson, J. Anderson, R. Fox, and T. Keith. 2015. Ecological inventory and health assessment of Spotted Dog WMA. Ecological Solutions Group, LLC. Stevensville, MT.
- Montana Fish, Wildlife and Parks. 2020. Environmental Assessment for the Upper Spotted Dog Creek Restoration Project. Region 2, Missoula, MT.
- Montana Fish, Wildlife and Parks. 2024. Environmental Assessment for the Spotted Dog Wildlife Management Area Grazing and Water Development Plan. Region 2, Missoula, MT.
- Montana Natural Resource Damage Program. 2023. State Wetlands/Riparian Areas Plan, Updated June 2023.
- Spotted Dog Work Group. 2018. Spotted Dog Wildlife Management Area Habitat Plan. Montana Department of Fish, Wildlife and Parks – Region 2. Missoula, MT.