June 2019

Joplin Parks Project
Joplin, Missouri

DRAFT RESTORATION PLAN

Prepared by:

U.S. Fish and Wildlife Service

Missouri Department of Natural Resources

1.0 INTRODUCTION

The Missouri Trustee Council (Trustees) comprised of the State of Missouri, represented by the Missouri Department of Natural Resources (MDNR), and the U.S. Department of the Interior, represented by the U.S. Fish and Wildlife Service (USFWS). In May 2012, the Trustees finalized the Springfield Plateau Regional Restoration Plan and Environmental Assessment (SPRRP), a comprehensive plan that describes the process by which the Trustees will use recovered funds to restore natural resources injured by the release of hazardous substances within the Springfield Plateau.

This Draft Restoration Plan (Draft RP) identifies and evaluates restoration alternatives considered for achieving the restoration objectives, and identifies the preferred alternative that the Trustees are considering in order to compensate the public.

1.1 Background

Lead and zinc mining began in Jasper County in the mid-19th century and reached peak production around 1916. However, diminishing production led to the closure of the mining industry in Jasper County by 1957. After nearly 150 years of mining and smelting, the prominent features of the landscape were chat piles, tailings sites, waste rock piles, and subsidence ponds.

The Environmental Protection Agency (EPA) listed the Jasper County Site on the National Priority List (NPL) in 1990. Un-vegetated and partially vegetated mine wastes covered over 3,600 acres, and contaminated soil covers an additional 4,000 acres at the Site. Cleanup was initiated in 2007, since which time approximately 7 million cubic yards of mine waste have been addressed. Remedial activities remain ongoing with a scheduled completion around 2020. Such response actions, however, are not intended, nor are they sufficient, to restore the local floral and faunal communities impacted by the releases to baseline conditions or to compensate the public for the ecological services lost in the interim.

This project takes place within the Turkey and Shoal Creek watersheds, tributaries to the Spring River, within Jasper County, Missouri . Past mineral processing operations from Eagle Picher and others resulted in the release of hazardous substances and high concentrations of heavy metals in soils around Joplin, triggering clean up actions. As a result of the release of heavy metals, migratory bird habitat has declined. The funds for this project are derived from the “Settlement Agreement Regarding EaglePicher Holdings, Inc. et al” This Settlement Agreement was approved by the Court on August 13, 2012. The cooperating natural resource trustees (Trustees) include the State of Missouri and the U.S. Department of the Interior (DOI). The Trustees are directed to use these funds for the restoration of injured resources.

1.2 Purpose and Need for Restoration

As described in §2 of the SPRRP, the Trustees developed the SPRRP to identify a preferred alternative to restore injured natural resources and to establish criteria for selecting projects to implement such restoration alternatives. The Trustee-selected

alternative in the SPRRP included a combination of restoration activities and projects to accomplish restoration goals at or near the site of injury.

The purpose and need of this draft RP, in accordance with the analysis contained in the SPRRP, is to propose and analyze a primary restoration project to restore injured natural resources as part of the on-going restoration process. This draft RP/ presents a range of alternatives to meet the Trustees' goal of restoring and/or enhancing natural resources affected by historical mining activities and to compensate the public for ecological services lost in the interim.

1.3 Relationship to the SPRRP

This draft RP complements the information and analysis contained within the SPRRP. The SPRRP can be accessed at: https://www.fws.gov/midwest/es/ec/nrda/motristate/index.html The Selected Action, as described in §3.3.1 and §3.5.1 of the SPRRP, is an Upland Resource Restoration Project. The Trustees believe that the activities associated with this draft RP are in alignment with the goals of the SPRRP, and compliant with the Selected Action.

1.4 Authorities and Legal Requirements

This draft RP was prepared by the Trustees pursuant to their respective authority and responsibilities as natural resource trustees under CERCLA (42 U.S.C. § 9601, *et seq*.) and its implementing regulations.

In addition, federal trustees must comply with NEPA, 42 U.S.C. § 4321 *et seq*., and its regulations, 40 C.F.R. § 1500 *et seq*., when planning restoration projects. NEPA requires federal agencies to consider the potential environmental impacts of planned actions. NEPA provides a mandate and framework for federal agencies to determine if their proposed actions have significant environmental effects and related social and economic effects, consider these effects when choosing between alternative approaches, and inform and involve the public in the environmental analysis and decision-making process.

1.5 Public Participation

Public participation and input are important parts of the restoration planning process, and are required under NEPA. To comply with the statutory and regulatory processes, the Trustees will hold a public meeting on July 1, 2019 at the City of Joplin Council meeting, and will solicit comments on this draft RP for 30 days, beginning on June 19th 2019 . Comments can be provided to:

Scott_hamilton@fws.gov
or
Attn.: Scott Hamilton
US Fish and Wildlife Service
101 Park DeVille Dr suite A

Columbia, MO 65203

2.0 ALTERNATIVES CONSIDERED

2.1 Project Objectives

This chapter presents the Trustees preferred alternative for the Joplin Parks Restoration Project. The preferred alternative will focus on restoring native prairie vegetation. The Trustees are proposing the preferred alternative because it meets the objectives of the SPRRP. The objective of this draft RP is propose activities that will restore native prairie vegetation in currently mowed areas to create migratory bird habitat. The areas proposed for restoration include habitat within the Turkey and Shoal Creek watersheds, in areas that have been impacted by releases of hazardous substances at the Eagle Picher smelter facility. These areas will be managed for wildlife habitat and a diversity of plant species, and will be protected through an agreement with the City of Joplin for a minimum of 10 years.

2.2 Restoration Criteria

To guide the restoration process, the Trustees developed preliminary restoration objectives for the Springfield Plateau, described in detail in the SPRRP. The Trustees used multiple factors to identify and evaluate the proposed restoration alternatives. Below are the criteria used to evaluate the potential restoration projects described in this draft RP as part of the NRDAR process. The criteria reflect the "factors to consider when selecting the alternative to pursue" (NRDAR factors) as described in 43 C.F.R. § 11.82(d)(1-10).

Technical Feasibility (43 CFR 11.82(d)(1):
The preferred restoration alternative must be technically sound. The Trustees considered the level of risk or uncertainty involved in implementing a project. A proven record of accomplishment demonstrating the success of projects utilizing similar or identical restoration techniques can be used to satisfy this evaluation criterion.

Compliance with Laws, Regulations, and Policies (43 CFR 11.82(d)(9-10):
Development of this draft RP requires consideration of a variety of legal authorities and their potential applicability to the Preferred Alternative(s). As part of restoration planning process, the Trustees have initiated steps to ensure compliance with applicable laws, regulations, and policies. Implementation of the Preferred Alternative(s) would remain subject to meeting all permitting and other environmental compliance requirements to ensure the project is implemented in accordance with all applicable laws and regulations.

Consistency with the Trustees Restoration Goals:
The Preferred Alternative(s) should meet the Trustee's intent to restore the injured resources or the services those resources provide. Included in this criterion is the potential for success (meeting restoration goals) and the level of expected return of resources and resource services.

Public Health and Safety (43 CFR 11.82(d)(8):
The Preferred Alternative(s) ideally should not pose a threat to the health and safety of the public.

Avoidance of Further Injury (43 CFR 11.82(d)(5):
The Preferred Alternative(s) should avoid or minimize adverse impacts to the environment and the associated natural resources. The Trustees considered the future short- and long-term injuries, as well as mitigation of past injuries, when evaluating projects.

Time to Provide Benefits:
The Trustees considered the time expected for the project to begin providing benefits to the target ecosystem and/or public. A more rapid time to delivery of benefits is favorable.

Duration of Benefits:
The Trustees considered the expected duration of benefits from the restoration alternatives. Projects expected to provide longer-term benefits were regarded more favorably.

2.3 Restoration Alternatives

The Trustees considered the following restoration alternatives in developing this plan:

- Alternative 1 – No Action: As indicated, this alternative would not involve any active restoration projects.
- Alternative 2 – Restoration of Park Land: This alternative would involve establishing and managing native vegetation at existing city parks described in more detail in section 3.2 below.
- Alternative 3- Restoration of Riparian Park Land: This alternative would involve establishing and managing native vegetation at the city parks in Alternative 2 except for Mercy Park

2.3.1 Alternative 1 – No Action

The No Action alternative is included in this RP/EA as a basis for comparison of the other alternatives to the status quo. Under the No Action alternative, no restoration or rehabilitation would occur on the project lands. If the No Action alternative is selected, there would be no restoration of the injured resources and their services, and the public would not be made whole for past injuries from releases from the Site. The No Action Alternative would not meet the Restoration Criteria.

The Trustees concluded that the No Action Alternative would not meet the purpose and need for restoration under this draft RP, or the responsibilities of the Trustees under CERCLA and its associated regulations.

2.3.2 Alternative 2 (Preferred Alternative) – Parkland Restoration

This alternative includes the conversion of non-native vegetation to a native tallgrass prairie landscape on 53.77 acres. These areas will be managed as a tallgrass prairie for the benefit of wildlife.

The overall project will involve baseline vegetation monitoring, site preparation, seeding, and maintenance mowing and spraying. The area will be scouted for invasive weeds and those weeds will be treated through herbicide spraying or cultural practices. After weeds have been satisfactorily controlled, seed will be drilled or broadcast. The seed mix for an area will be specified by the Trustees, but will generally consist of five pounds total of grasses and sedges and forbs per acre. All seed should be of local ecotype, no greater than 200 miles from Joplin. The Missouri Prairie Foundation shall assist the City of Joplin in the restoration of wildflower/prairie habitat by spraying herbicide on exotic weeds, seeding native plant species, and conducting prescribed burns.

The Trustees concluded that Alternative 2 would best meet the purpose and need for restoration by maximizing acres to be restored.

2.3.2 Alternative 3 – Riparian Parkland Restoration

This alternative includes the conversion of 50 acres of non-native vegetation to a native tallgrass prairie landscape on the same areas as Alternative 2, without Mercy Park, since the baseline conditions are slightly different than the other parks, and will not directly benefit a stream. These areas will be managed as a tallgrass prairie for the benefit of wildlife, and the project will involve the same activities as above.

The Trustees concluded that Alternative 3 would meet the purpose and need for restoration, but would not maximize the acres to be restored.

4.0 ENVIRONMENTAL COMPLIANCE

Actions undertaken by a federal trustee to restore natural resources or services under CERCLA are subject to the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 *et seq.*) and other federal laws. NEPA requires an assessment of any federal action that may impact the human environment. NEPA applies to restoration actions undertaken by federal natural resource trustees. The Trustees evaluated this plan pursuant to a categorical exclusion as this project meets the criteria for a categorical exclusion under 516 DM 6, Appendix 1 and/or 516 DM 2, Appendix 1. Please see attached Form 3-2185, NEPA compliance checklist. No further NEPA documentation will be made.

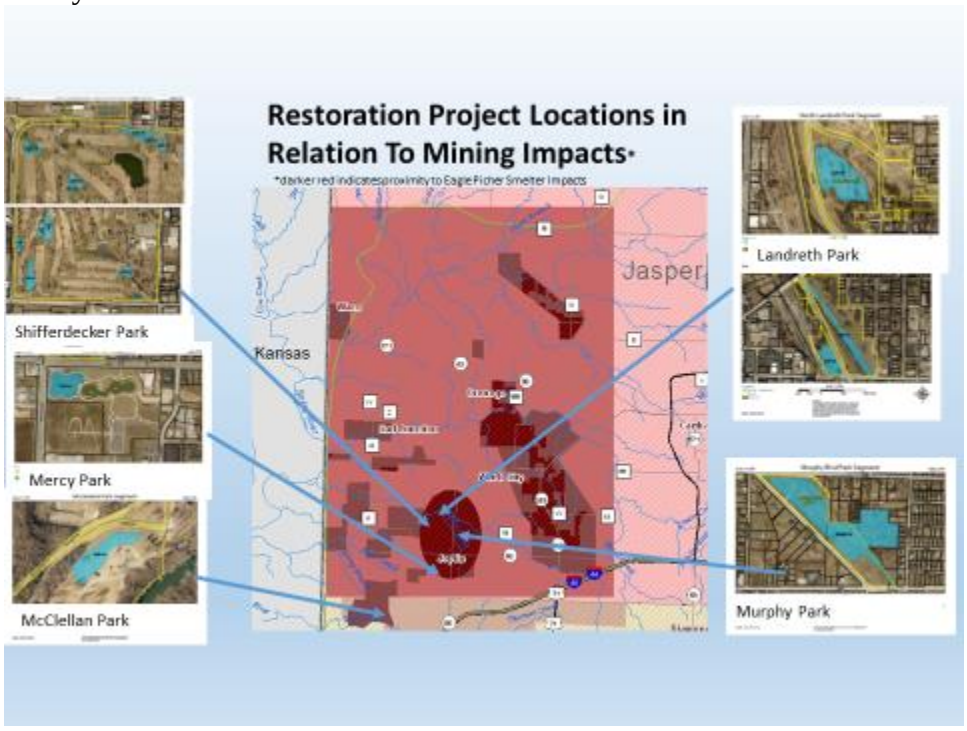
4.1 Affected Environment

General information such as the physical resources, biological setting, and socioeconomonic resources, is provided in the SPRRP.

The specific sites to be restored are within the city limits of Joplin, MO, and are within areas affected by historical mining operations. Soil samples from the park sites showed elevated levels of metals (residential clean-up level for Pb is 400ppm) typically associated with mining.

Park	**Pb**	**Cd**	**Zn**
Campbell Parkway	372	31	2085
Joplin Prairie	83	ND	456
McClelland Park	157	<10	590
Mercy Park	40	<10	98
Landreth Park (lower field)	565	18	1907
Landreth Park (upper field)	721	18	1399

All park sites are currently mowed (exotic) fescue fields with interspersed trees, with the exception of Mercy Park, which is a failed prairie restoration that has been invaded by weeds. All of the park sites have some stream/riparian area along waterbodies that have been affected by historical mining practices (Joplin Creek, Shoal Creek) except for Mercy Park and Shifferdecker Park.



5.0 AGENCIES, ORGANIZATIONS, AND PARTIES CONSULTED FOR INFORMATION

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Jefferson City , MO 65109
573 751-4115

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