

# Post-Fire Cheatgrass Control Project

## Finding of No Significant Impact

Bonneville Power Administration

DOE/EA-2102

April 2019

### SUMMARY

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Bonneville Power Administration (BPA) announces its environmental findings for its proposal to fund the Shoshone-Paiute Indian Tribe (ShoPai) to aerially apply herbicide (Imazapic) and soil inoculant (MB-906) to control cheatgrass on a 139-acre hillside south of Mountain City, Nevada that has become dominated by this invasive species following the 2012 Brown's Gulch fire. The cheatgrass is hindering this area's post-fire recovery to its native sagebrush-steppe plant community. The treatment would begin in the spring of 2019 and may be repeated in the fall and spring for up to three years total.

BPA prepared an environmental assessment (EA) evaluating the Proposed Action and No Action Alternative. Based on the analysis in the EA, BPA has determined that the Proposed Action is not a major federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 et seq.). Therefore, the preparation of an environmental impact statement (EIS) is not required and BPA is issuing this Finding of No Significant Impact (FONSI) for the Proposed Action.

No comments were received on the draft EA so changes made to the EA between Draft and Final were for minor grammatical corrections and clarity only. No changes to the Proposed Action or the analysis were made.

The attached Mitigation Action Plan identifies the mitigation measures that BPA and the ShoPai are committed to implementing as part of the Proposed Action.

### PUBLIC AVAILABILITY

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This FONSI will be mailed to individuals who previously requested it; a notification of availability will be mailed to other potentially affected parties; and the EA and FONSI will be posted on BPA's project website: <http://www.bpa.gov/goto/Cheatgrass>.

### PROPOSED ACTION

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Under the Proposed Action, BPA would fund the ShoPai to aerially spray approximately 139 acres of the Wilson Ranch Parcel 1 for cheatgrass control.

The proposed treatment consists of ground-based and aerial application of Imazapic ("Plateau" is the trade name), an EPA-registered herbicide known to be effective on cheatgrass. This would be applied in combination with MB-906, which is a bacterial soil inoculant. Imazapic would be applied at a rate of 6 ounces per acre (up to a maximum of 0.19 pounds of active ingredient per acre per year) in combination with MB-906 at a rate of 163 ounces per acre (up to a maximum of 1 gallon of active ingredient per acre). Herbicide would be applied utilizing water as a carrier, with no less than an average of 5 gallons per acre of tank mix applied for Plateau and no less than 30 gallons per acre of MB-906. The treatment would be applied in the spring and fall of 2019 and repeated twice annually (spring and fall) in the two subsequent years for a total of three years (six applications total), if necessary, to achieve cheatgrass control objectives.

## **NO ACTION ALTERNATIVE**

Under the No Action Alternative, BPA would not fund the ShoPai to aerially spray parcels of the Wilson/101 Ranch for cheatgrass control. The Proposed Action is a Federal funding decision by BPA, not a decision for the ShoPai to proceed or not proceed with this project. The ShoPai could acquire funding from other sources and proceed with these actions. For the purposes of this EA, however, the No Action Alternative was evaluated as if it were a decision to not proceed with these actions, and the ShoPai would not aerially spray using other funding sources.

## **SIGNIFICANCE OF POTENTIAL IMPACTS OF THE PROPOSED ACTION**

To determine whether the Proposed Action has the potential to cause significant environmental effects, the potential impacts on human and natural resources were evaluated and presented in Chapter 3 of the EA. To summarize potential impacts, four impact levels were used: high, moderate, low, and no impact. These impact levels are based on the considerations of context and intensity defined in the Council on Environmental Quality regulations for implementing NEPA (40 CFR 1508.27). High impacts could be considered significant impacts, if not mitigated, while moderate and low impacts are not. Based on the analysis, the Proposed Action would have no significant impacts.

The following discussion provides a summary of the Proposed Action's potential impacts and the reasons these impacts would not be significant. Many of the effects discussed below would be minimized through the application of mitigation measures identified in the Mitigation Action Plan.

### **Vegetation**

The impacts to vegetation would be low to moderate.

- The goal is to kill specific vegetation (cheatgrass), but the adverse effects would be the potential killing of non-target vegetation outside of the treatment area by off-site transport of herbicide via runoff, wind erosion of soil, spray drift, or unintended direct spray. Adherence to mitigation measures would essentially prevent spray outside of the treatment area, and would minimize drift by avoiding windy days.
- Though Imazapic can be relatively mobile in the environment, there is low risk of it being transported overland by water because of low rainfall in the area, and the mitigation measure directing application only during dry conditions. Should Imazapic enter a surface water source, studies have shown it to be inconsequential both because of its low concentration in these applications and because it degrades quickly in water.
- There is little concern with MB-906's effects on vegetation. It is found naturally in soil and water and the strain to be used in the Proposed Action has been developed specifically for this application on cheatgrass.
- This action would not contribute to the cumulative effect of other land use actions that have degraded rangeland vegetation in the area. Rather, the Proposed Action would retard such degradation and begin the process of restoration. The cumulative effect of the Proposed Action on vegetation would be low.

### **Geology and Soils**

Impacts to geology and soils would be low.

- Imazapic binds readily to soil particles, and though moderately persistent in soils, it does not move laterally with surface flows. Its primary risk of off-site movement comes with the erosive movement of the soil to which it is bound, and though the soils are erosive here,

mitigation measures require applications only during dry periods. Therefore, the risk of such runoff is low. It has a half-life of less than one year.

- MB-906 (*P. fluorescens*) is a non-toxic, naturally-occurring, native microbe; thus, there are no soil or geology concerns.
- The Proposed Action does not contribute cumulatively with those actions that increase erosion potential on these soils. This action would contribute to restoring native plant communities that are more resistant to erosion than current conditions; thus, the cumulative effect of the Proposed Action on soils and geology would be low.

## Water

The impacts to water resources would be low.

- With the implementation of the following mitigation measures, the risk of surface water contamination is low: limiting storage, handling, mixing, and application of Imazapic near water; and applications only during dry periods.
- Imazapic transport to open bodies of water from the treated areas would be unlikely. There would be time delays between application and weather events (allowing for microbial breakdown), long distances to cover, and minimum overland flow (from infrequent rainfall events with large volumes of water).
- Imazapic has low potential for leaching into groundwater since it binds to soil readily and is not carried by water through soils more than about 18 inches; even in areas not low in rainfall, as this area is.
- Even if spilled into surface waters, modeling reveals that likely scenarios would not reach a level of concern for water quality that presents a risk.
- Imazapic degrades in water in a matter of one to two days, thus impacts from accidental spills would be short-lived.
- MB-906 (*P. fluorescens*) is a non-toxic, naturally-occurring, native microbe; thus, there are no water quality concerns.
- This action is anticipated to contribute very little to cumulative impacts on water quality in the East Fork Owyhee River because of the very low likelihood that Imazapic would enter the river for reasons listed above. The cumulative effects on water from the Proposed Action would be low.

## Fish and Other Aquatic Species

The impacts to fish would be low.

- Aquatic species' exposure to Imazapic would be low because the likelihood of this herbicide reaching aquatic habitats would be low for the reasons listed above. Further, aquatic animals were relatively insensitive to Imazapic exposures in recent laboratory studies.
- Research has shown that even under worst-case exposure assumptions, adverse effects to aquatic organisms were unlikely.
- No toxicity studies for the strain of *P. fluorescens* used as MB-906 have been conducted, since that bacterium is a non-toxic, naturally-occurring, native microbe, but *P. fluorescens* (and other similar, naturally-occurring bacteria) is a known cause of fin rot in aquaria, aquaculture fish, and native populations. Studies on related strains, however, revealed low effects to fish species not targeted in those studies.
- The cumulative degradation of fish habitat in the East Fork Owyhee River has occurred because of the reasons listed under "Water" (above) and the modified flow regime driven by irrigation practices. The Proposed Action has no impact on water withdrawal or the flow

regime in the river, has a very low likelihood of water contamination, and has very short-term effects if contamination were to occur. The cumulative effects on fish and aquatic species from the Proposed Action would be low.

## **Wildlife**

Impacts to wildlife would be moderate.

- Applications would occur outside of migratory bird nesting seasons.
- Small wildlife may be directly sprayed during application. Larger animals would likely flee the site prior to direct contact. However, in laboratory tests, the acute toxicity of direct exposure to Imazapic by mammals, birds, and insects was found to be low; and the application rate is far lower than those identified toxicity rates.
- Indirect exposure could occur through dermal contact, grooming, or ingestion of treated plants.
- No toxicity is anticipated from MB-906 since it is a naturally occurring microbe.
- The cumulative effect of the Proposed Action on wildlife would be low because the action is not contributing additional adverse effects to native habitat degradation or losses, but rather, the restoration of them.

## **Land Use, Recreation, and Transportation**

Impacts to land use and recreation would be low to moderate.

- The Proposed Action makes no changes to land uses or roads, nor would active applications hinder ongoing land uses.
- Recreation may be affected for a time, while recreationists avoid treated areas, but that impact is anticipated to be minor since the area to be treated is very small and surrounded by thousands of acres of public land available for such recreational pursuits.
- There would be no cumulative effect from the Proposed Action on land use, recreation, or transportation.

## **Cultural and Historic Resources**

Impacts to cultural resources would be low.

- There are no ground-disturbing actions with this Proposed Action, nor any impacts to historical structures on the site.
- Traditional uses of the site by tribal members may be affected for a time, if they avoid treated areas, but that impact is anticipated to be low since the area to be treated is very small and surrounded by many thousands of acres of untreated tribal and public land available for such uses.
- With no ground-disturbing actions and only short-term impacts to traditional uses, there would be no long-term cumulative effect on cultural resources.

## **Public Health and Safety**

The effect of the Proposed Action on public health and safety would be low to moderate.

- Imazapic and MB-906 would be properly handled and applied according to the label requirements.
- Imazapic has very low toxicity if individuals accidentally eat, touch, or inhale residues; and no evidence of carcinogenicity was observed in animal trials.

- The implementation of mitigation measures would prevent Imazapic from entering any water sources or gardens, or contacting local residents, thus minimizing impacts to public health and safety.
- With low toxicities, and low exposure levels, there would be no long-term contribution to cumulative effects on public health.

### **Visual Resources**

There would be no impacts to visual resources.

- The Proposed Action would make no changes to any structures, land forms, or land uses; thus, there would be no impact to the visual character of the area.
- With no changes to any structures, land forms, or land uses, there would be no long-term cumulative effect that might degrade the visual quality of this area.

### **Air Quality**

The impacts on air quality would be low.

- The Proposed Action would reduce air quality in the immediate area being treated during treatment and for a short period thereafter. Though properly applied, the smell may linger in the immediate application area for a few hours.
- There would be no effect on air quality outside of the immediate application area.
- The impacts of the Proposed Action are localized and short-term. There would be no long-term cumulative effect that might degrade the high air quality in this area.

### **Socioeconomics and Environmental Justice**

The impacts on socioeconomics and environmental justice would be low.

- Little economic benefit would accrue to the local community from the small-scale and short-term Proposed Action.
- The spraying would have no effect on the land that could either generate new economic activity or detract from existing activity.
- There may be a short-term impact to opportunities for traditional hunting or gathering on treated acres.
- There would be no long-term beneficial or adverse cumulative socioeconomic or environmental justice effect.

## **DETERMINATION**

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Based on the information in the EA, as summarized here, BPA determines that the Proposed Action is not a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA (42 USC 4321 *et seq.*). Therefore, an EIS will not be prepared and BPA is issuing this FONSI for the Proposed Action.

Issued in Portland, Oregon

/s/ Scott G. Armentrout

Scott G. Armentrout

Vice President

Environment, Fish and Wildlife

March 28, 2019

Date

# **Post-Fire Cheatgrass Control Project**

## **Mitigation Action Plan**

### **Mitigation Action Plan**

This Mitigation Action Plan is part of the Finding of No Significant Impact (FONSI) for the Post-Fire Cheatgrass Control Project. This action would provide funding to the Shoshone Paiute Indian Tribe (ShoPai) to aerially apply herbicide (Imazapic) and soil inoculant (MB-906) to control cheatgrass on a 139-acre hillside south of Mountain City, Nevada. The treatment would begin in the spring of 2019 and may be repeated in the fall or spring for up to three years.

This Mitigation Action Plan is for the Proposed Action and includes all of the integral elements and commitments made in the Environmental Assessment (EA) to mitigate potential adverse environmental impacts.

The BPA, the ShoPai, and their contractors would be responsible for implementing the mitigation measures during various phases of project work. Relevant portions of this Mitigation Action Plan would be included in the treatment contract specifications. This would obligate the contractor to implement the mitigation measures identified in the Mitigation Action Plan that relate to contractor responsibilities during treatment and post-treatment.

If you have any general questions about the project, contact the Project Manager, Cecilia Brown at 503-230-3462, or email [ckbrown@bpa.gov](mailto:ckbrown@bpa.gov).

The Mitigation Action Plan may be amended if revisions are needed due to new information or if there are any significant project changes.

## Mitigation Measures

Minimization and mitigation measures have been identified to reduce potential impacts associated with the Proposed Action, and are provided in the table below.

## Mitigation Action Plan

Mitigation Measure	Implementation
<b>Vegetation</b>	
Herbicide shall be applied within the designated area only.	During treatment (Contractor)
A Differentially Correctable Global Positioning System (DGPS) shall be utilized for tracking of herbicide application and data collection. The system shall be sufficiently sensitive to provide immediate deviation indications, and must be capable of determining a differentially corrected location with an error of no more than one to two meters in the horizontal plane. The guidance system shall be capable of updating current position at a rate of a minimum of one time per second with differential correction covering the complete operational area, and the signal being accurately recorded at least 90% of the operational time.	During treatment (Contractor)
Aerial applications shall occur along evenly-spaced, straight and regular paths of flight.	After treatment (Contractor and ShoPai)
<b>Geology and Soils</b>	
Prepare a spill contingency plan in advance of treatment.	Before and during treatment (Contractor)
Follow approved procedures for clean-up of accidental spills as defined by herbicide Safety Data Sheets.	During and after treatment (Contractor)
<b>Water</b>	
Herbicide shall not be applied within 150 feet of water sources (troughs, ponds, open water).	During treatment (Contractor)
Provide a spill kit capable of containing and preventing release of chemical into adjacent water sources. Have it readily available during mixing and loading operations.	Before, during, and after treatment (Contractor)
Herbicide shall not be applied if there is rain, snow, or fog.	During treatment (Contractor)
<b>Public Health, and Safety</b>	
Follow proper herbicide handling, transport, storage, and disposal methods and precautions as defined by herbicide Safety Data Sheets.	Before, during, and after treatment (Contractor)
Ensure proper exposure control and personal protection is provided as defined by herbicide Safety Data Sheets.	Before, during, and after treatment (Contractor)

<b>Mitigation Measure</b>	<b>Implementation</b>
A copy of the Plateau/Imazapic Material Safety Data Sheets shall be available at all work sites.	Before, during, and after treatment (Contractor)
All vegetation control measures shall comply with all Tribal, Federal, state, and local regulations.	Before, during, and after treatment (Contractor)
Apply the most stringent interpretation of specification, law, regulation, or label direction if a contradiction among them is found concerning application of the proposed chemicals.	Before, during, and after treatment (Contractor and ShoPai)
The contractor must hold a current Nevada Commercial Applicator License.	Before and during treatment (Contractor, ShoPai)
Pilots shall meet certification requirements of the Federal Aviation Administration Regulations for this type of work.	Before and during treatment (Contractor, ShoPai)
Fully comply with product label directions and advisory statements.	Before, during, and after treatment (Contractor)
Notify adjacent landowners prior to treatment.	Before treatment (Contractor, ShoPai)