



## ARTHUR CARHART NATIONAL WILDERNESS TRAINING CENTER

# MINIMUM REQUIREMENTS DECISION GUIDE WORKBOOK

*"...except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act..."*

-- The Wilderness Act of 1964

**Project Title:** **Whitebark Pine Seed Caging**

### MRDG Step 1: Determination

*Determine if Administrative Action is Necessary*

#### Description of the Situation

*What is the situation that may prompt administrative action?*

The Pine Forest Range Wilderness (PFRW) was designated with the passage of the National Defense Authorization Act (2014). The Pahute Peak Wilderness (PPW) was designated with the passage of the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area Act (2000) (Amended 2001).

Both wilderness areas contain isolated populations of Whitebark pine, a candidate species for listing under the Endangered Species Act. These populations have been determined to be in excellent health, with no observed effects of mountain pine beetle or white-pine blister rust by Forest Service ecologist Andrew Bower in 2013.

Threats to Whitebark pine have historically been outbreaks of mountain pine beetle, which is a naturally occurring pest, and white pine blister rust, an introduced species.

The BLM Winnemucca District (WD) is currently developing a WD Vegetation Management Plan. As part of that plan, the WD proposes to collect Whitebark pine cones to gather seeds for scientific research and propagation purposes. In order to collect the seeds, the BLM would need to install protective cages around the cones. The cones to be protected by the cages would be accessed by either an orchard ladder or peavey tool (or similar long-handled hook tool). Access to the collection sites would be on foot. Collection times would generally occur between April and October depending on availability of cones and environmental conditions. Collection efforts may occur over several years but are unlikely to occur every year over a time period of fifteen years. Approximately 100 cones would be collected per year in the Pine Forest Wilderness and 25 cones in the Pahute Peak Wilderness.

### Options Outside of Wilderness

Can action be taken outside of wilderness that adequately addresses the situation?

- YES    **STOP – DO NOT TAKE ACTION IN WILDERNESS**  
 NO    **EXPLAIN AND COMPLETE STEP 1 OF THE MRDG**

Explain:

Within the Winnemucca District, white-bark pine is only found within these two wilderness areas. These populations are unique because they are geographically isolated from other white-bark pine stands and appear resistant to white pine blister rust.

### Criteria for Determining Necessity

Is action necessary to meet any of the criteria below?

#### A. Valid Existing Rights or Special Provisions of Wilderness Legislation

Is action necessary to satisfy valid existing rights or a special provision in wilderness legislation (the Wilderness Act of 1964 or subsequent wilderness laws) that **requires** action? Cite law and section.

- YES     NO

Explain:

Wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use (Wilderness Act 4(b)). The project is deemed necessary to provide opportunity for scientific research and education.

#### B. Requirements of Other Legislation

Is action necessary to meet the requirements of other federal laws? Cite law and section.

- YES     NO

Explain:

### C. Wilderness Character

*Is action necessary to preserve one or more of the qualities of wilderness character, including: Untrammeled, Undeveloped, Natural, Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation, or Other Features of Value?*

#### UNTRAMMELED

YES  NO

Explain:

The action is not necessary to preserve the untrammeled characteristic. Currently, the Whitebark pine population in the wilderness area is not subject to any type of manipulation or human control. Impacts arising from the proposed action to the untrammeled character of the wilderness are described in the alternatives comparison.

#### UNDEVELOPED

YES  NO

Explain:

The action is not necessary to preserve the undeveloped characteristic. The action may have an impact to this character (discussed in alternatives comparison section).

#### NATURAL

YES  NO

Explain:

The action is necessary for the protection of the Whitebark pine, a native and candidate species. Allowing for scientific research, as proposed, would provide the BLM and potentially other federal agencies with necessary data that would help guide management recommendations for Whitebark pine populations around the western United States. Moreover, seeds collected would allow for propagation of the species and ensure the genetic traits of these specific populations are preserved. This is particularly important if either area should become damaged by fire, as this species is not fire dependent.

#### SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

YES  NO

Explain:

The action is not necessary to preserve the solitude or primitive and unconfined recreation characteristic. The action may have an impact to this character (discussed in alternatives comparison section).

## OTHER FEATURES OF VALUE

YES  NO

Explain:

No other features of value would be impacted by the proposed action.

### Step 1 Decision

Is administrative action necessary in wilderness?

#### Decision Criteria

- |  |   |  |
|--|---|--|
| A. Existing Rights or Special Provisions | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| B. Requirements of Other Legislation     | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| C. Wilderness Character                  |   |  |
| Untrammeled                              | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| Undeveloped                              | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| Natural                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| Outstanding Opportunities                | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| Other Features of Value                  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |

Is administrative action necessary in wilderness?

YES **EXPLAIN AND PROCEED TO STEP 2 OF THE MRDG**

NO **STOP – DO NOT TAKE ACTION IN WILDERNESS**

Explain:

As mentioned above, these populations of Whitebark pine are distinct in the region in that they are disease and beetle free. They are also isolated stands and if they were to become damaged by fire the genetic traits of these trees would be lost forever. Collecting the seed would allow scientific study to help understand the genetic traits and the resiliency of this population and would ensure their survival in these wilderness areas.

## MRDG Step 2

Determine the Minimum Activity

### Other Direction

Is there "special provisions" language in legislation (or other Congressional direction) that explicitly **allows** consideration of a use otherwise prohibited by Section 4(c)?

**AND/OR**

Has the issue been addressed in agency policy, management plans, species recovery plans, or agreements with other agencies or partners?

YES

**DESCRIBE OTHER DIRECTION BELOW**

NO

**SKIP AHEAD TO TIME CONSTRAINTS BELOW**

### Describe Other Direction:

Wilderness Act of 1964 Sec. 4 (b), 43 CFR Sections 6302.40, 6302.15 and 6302.16 and Wilderness management objectives described in Section 2.2.6. of the NCA RMP and NCA Act allow for uses of wilderness areas in order to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the unique and nationally important scientific and biological (including wildlife and endangered species) resources associated with wilderness areas. The project is consistent with the wilderness goals and objectives as they relate to wildlife populations, specifically Section 1.6.C.21 of BLM Manual 6340 - Management of Designated Wilderness.

Additionally the proposed action meets the intent of the objectives identified for BLM special status species in BLM Manual 6840:

A. To conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species.

B. To initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA.

### Time Constraints

*What, if any, are the time constraints that may affect the action?*

Seed collecting efforts would only occur between April and October and be dependent on availability of cones and environmental conditions.

### Components of the Action

*What are the discrete components or phases of the action?*

Component X: *Example: Transportation of personnel to the project site*

Component 1: Access to the site for installation and removal of seed cages

Component 2: Collection of cones (seeds)

### Proceed to the alternatives.

Refer to the [MRDG Instructions](#) regarding alternatives and the effects to each of the comparison criteria.

## MRDG Step 2: Alternatives

### Alternative 1: Installation of Seed Cages

#### Description of the Alternative

*What are the details of this alternative? When, where, and how will the action occur? What mitigation measures will be taken?*

Installation of seed cages would be the most effective way to harvest seeds. The seed cages would serve to protect the cones from damage caused by wildlife. During each gathering cycle, selected trees would be fitted with seed cages around individual pine cones. The pine cones would be reached through the use of an orchard ladder or a peavey tool (or similar long-handled hook tool). The seed cages would be left in place from April through October. The goal would be to collect approximately 100 cones in the Pine Forest Wilderness and 25 cones in the Pahute Peak Wilderness per collection cycle. Crews would hike to the collection sites and carry in the seed cages, ladder or peavey tool, wire cutters and other needed supplies.

#### Component Activities

*How will each of the components of the action be performed under this alternative?*

<u>Component of the Action</u>	Activity for this Alternative
X <i>Example: Transportation of personnel to the project site</i>	<i>Example: Personnel will travel by horseback</i>
1 Access to the site	BLM staff of 2 individuals hike to collection

		sites and carry supplies.
2	Installation of seed cage	Seed cage (wired mesh and duct tape) would be wrapped around the upper portions of selected branches of Whitebark pine trees. Selected cones would be reached through the use of an orchard ladder or peavey tool (or similar long-handled hook tool)
3	Collection of seeds	Personnel would collect seeds when mature (October) and access the cones with the use of an orchard ladder or peavey tool (or similar long-handled hook tool)

### Wilderness Character

*What is the effect of each component activity on the qualities of wilderness character? What mitigation measures will be taken?*

### UNTRAMMELED

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Installation of seed cage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Collection of seeds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			2	NE
<u>Untrammeled Total Rating</u>		-2		

### Explain:

Minor trammeling would occur as a result of the seed cage and harvesting of pine cones. Wildlife that feed on the seeds would be restricted from using all available pine cones for food. This impact would be temporary – limited to the time the cages are in place, and to the years in which collections are occurring. This impact would also be variable depending on the overall availability of pine cones. Not all available pine cones would be caged, leaving the majority of available cones for wildlife.

### UNDEVELOPED

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Installation of seed cage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Collection of seeds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects			1	NE
<b>Undeveloped Total Rating</b>		<b>-1</b>		

Explain:

Seed cages would be considered as an installation and therefore would impact the undeveloped character of the wilderness. This impact would be short term, limited to the time the cages are in place, and to the years in which collections are occurring.

#### NATURAL

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Installation of seed cage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Collection of seeds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects		2	-1	NE
<b>Natural Total Rating</b>		<b>1</b>		

Explain:

The collection of seeds would have a minor impact on natural processes. However, the cages and collection of the seeds would provide protection for the native Whitebark pine populations within these wilderness areas, assist in the population's resiliency, and ensure their survival in case of catastrophic damage by fire.

#### SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Installation of seed cage	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Collection of seeds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects		0	2	NE
<b>Solitude or Primitive &amp; Unconfined Rec. Total Rating</b>		<b>-2</b>		

**Explain:**

Opportunities for solitude could be impacted when personnel are in the area installing seed cages or collecting the cones. This impact would be short term – on a scale of hours twice a year. Seed cages are usually installed in upper sections of the tree and would not be readily visible. No impacts to the opportunities for primitive and unconfined recreation are anticipated.

**OTHER FEATURES OF VALUE**

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Installation of seed cage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Collection of seeds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects		2	0	NE
<u>Other Features of Value Total Rating</u>		2		

**Explain:**

Installation of the seed cages would preserve these specific populations of Whitebark pine. These populations are unique because of their resiliency to rust and beetles. Whitebark pine was cited as being a supplemental value for the Pine Forest Range Wilderness. Seed collection would provide the opportunity for scientific study of these populations that would assist in management of the wilderness areas.

**Traditional Skills**  
*What is the effect of each component activity on traditional skills?*

**TRADITIONAL SKILLS**

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Installation of seed cage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Collection of seeds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects		3		NE
<u>Traditional Skills Total Rating</u>		3		

**Explain:**

Accessing the collection sites and installing the seed cages via foot and by hand maintains traditional skills of not relying on mechanized transport or using motorized or mechanized equipment. Collecting seeds maintains traditional skills used by Native Americans for generations.

**Economics**

*What is the estimated cost of each component activity?*

**COST**

<u>Component Activity for this Alternative</u>		Estimated Cost
X	<i>Example: Personnel will travel by horseback</i>	\$1,900
1	Access to the site and labor	\$2,240
2	Cage manufacturing and materials	\$430
<b><u>Total Estimated Cost</u></b>		<b>\$2,670</b>

**Explain:**

Estimated costs include labor and transportation of 2 staff members collecting the seeds (two 10 hour days), materials for seed cages and time needed to manufacture the cages.

**Safety of Visitors & Workers**

*What is the risk of this alternative to the safety of visitors and workers? What mitigation measures will be taken?*

RISK ASSESSMENT Severity of Accident	Probability of Accident				
	Frequent	Likely	Common	Unlikely	Rare
Catastrophic: Death or permanent disability	1 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>
Critical: Permanent partial disability or temporary total disability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>
Marginal: Compensable injury or illness, treatment, lost work	2 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
Negligible: Superficial injury or illness, first aid only, no lost work	3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>
<b><u>Risk Assessment</u></b>	<b>3.5</b>				

Risk Assessment Code

1 = Extremely High Risk	2 = High Risk	3 = Moderate Risk	4 = Low Risk
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**Explain:**

Minor cuts from the wire mesh may occur, but this would be mitigated by the use of gloves. Minor injuries resulting from walking to the site may also occur, but this would also be mitigated by the use of proper footwear. Accessing the individual pine cones with the use of a ladder would create additional risk of falls and associated injuries. This risk would be present twice a year (once to install the seed cages and once to collect the cones).

**Summary Ratings for Alternative 1**

<b>Wilderness Character</b>	
<u>Untrammeled</u>	-2
<u>Undeveloped</u>	-1
<u>Natural</u>	1
<u>Solitude or Primitive &amp; Unconfined Recreation</u>	-2
<u>Other Features of Value</u>	2
<b>Wilderness Character Summary Rating</b>	<b>-2</b>
<b>Traditional Skills</b>	
<u>Traditional Skills</u>	3
<b>Economics</b>	
<u>Cost</u>	\$2,670
<b>Safety</b>	
<u>Risk Assessment</u>	3.5

**MRDG Step 2: Alternatives**

**Alternative 2:** Collection of seeds without cages

**Description of the Alternative**  
*What are the details of this alternative? When, where, and how will the action occur? What mitigation measures will be taken?*

This alternative is similar to Alternative 1 except that no seed cages would be used. BLM personnel would attempt to collect seeds when cones are mature at the end of the season (October). Crew would access pine cones with the use of orchard ladder or peavey tool (or other similar long-handled tool).

**Component Activities**

*How will each of the components of the action be performed under this alternative?*

<u>Component of the Action</u>		Activity for this Alternative
X	<i>Example: Transportation of personnel to the project site</i>	<i>Example: Personnel will travel by horseback</i>
1	Access to the site	Personnel access collection sites by foot.
2	No use of cages	No protection would be applied to seed cones.
3	Collection of seeds	Personnel would attempt to collect seeds that have not been protected by seed cages.

**Wilderness Character**

*What is the effect of each component activity on the qualities of wilderness character? What mitigation measures will be taken?*

**UNTRAMMELED**

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	No use of cages	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Collection of seeds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects			-1	NE
<u>Untrammled Total Rating</u>		-1		

Explain:

Minor trammeling would occur as a result of the harvesting of pine cones. Wildlife that feed on the seeds would be restricted from using all available pine cones for food. This impact would be less than the impacts under Alternative 1 in that wildlife would have unhindered access to pine cones until October. The likelihood of obtaining viable seeds is small without

the protection the seed cages provide.

### UNDEVELOPED

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	No use of cages	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Collection of seeds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects				NE
<b><u>Undeveloped Total Rating</u></b>		<b>0</b>		

Explain:

No developments would be installed in the wilderness areas.

### NATURAL

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	No use of cages	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Collection of seeds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total Number of Effects		1	-2	NE
<b><u>Natural Total Rating</u></b>		<b>-1</b>		

Explain:

The collection of seeds would have a minor impact on natural processes as described in Alternative 1. The availability of seeds by the end of the season would minimal, if any. Not having the protection of the seed cages would reduce project success significantly.

### SOLITUDE OR PRIMITIVE & UNCONFINED RECREATION

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	No use of cages	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3	Collection of seeds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects		1	2	NE
<b>Solitude or Primitive &amp; Unconfined Rec. Total Rating</b>		<b>-1</b>		

Explain:

Opportunities for solitude could be impacted when personnel are in the area collecting seeds. This impact would be short term – on a scale of hours once a year. This impact would be reduced from Alternative 1 in that the sites would be accessed only once a year.

### OTHER FEATURES OF VALUE

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	No use of cages	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Collection of seeds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Number of Effects		1	-2	NE
<b>Other Features of Value Total Rating</b>		<b>-1</b>		

Explain:

Not using seed cages would reduce the probability of available seeds when the cones are mature. Although collecting seeds would have positive benefits to the Whitebark pine's continued presence in these wilderness areas, the ability to successfully collect seeds under this alternative would be significantly reduced. Unsuccessful seed collection would have negative impacts, particularly if these populations are lost due to wildfire damage.

### Traditional Skills

*What is the effect of each component activity on traditional skills?*

### TRADITIONAL SKILLS

<u>Component Activity for this Alternative</u>		Positive	Negative	No Effect
X	<i>Example: Personnel will travel by horseback</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	Access to the site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	No use of cages	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Collection of seeds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Number of Effects	2	0	NE
<b>Traditional Skills Total Rating</b>	2		

Explain:

Accessing the collection sites via foot maintains traditional skills of not relying on mechanized transport or using motorized or mechanized equipment. Collecting seeds maintains traditional skills used by Native Americans for generations.

### Economics

*What is the estimated cost of each component activity?*

### COST

<u>Component Activity for this Alternative</u>		Estimated Cost
X	<i>Example: Personnel will travel by horseback</i>	\$1,900
1	Access to the site and labor	\$2,240
2		
<b>Total Estimated Cost</b>		

Explain:

Estimated costs include labor and transportation of 2 staff members to access the site in an attempt to collect seeds or to verify seed cones were utilized by predators (two 10 hour days). It is anticipated under this alternative all seed cones would be predated upon by birds and small mammals.

### Safety of Visitors & Workers

*What is the risk of this alternative to the safety of visitors and workers? What mitigation measures will be taken?*

RISK ASSESSMENT Severity of Accident	Probability of Accident				
	Frequent	Likely	Common	Unlikely	Rare
Catastrophic: Death or permanent disability	1 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>
Critical: Permanent partial disability or temporary total disability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>
Marginal: Compensable injury or illness, treatment, lost work	2 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>

Negligible: Superficial injury or illness, first aid only, no lost work	3 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>
<b>Risk Assessment</b>	<b>3.75</b>				

**Risk Assessment Code**

<b>1 = Extremely High Risk</b>	<b>2 = High Risk</b>	<b>3 = Moderate Risk</b>	<b>4 = Low Risk</b>
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**Explain:**

Similar to Alternative 1. Small reduction in risk of scratches from mesh. Falls associated with use of ladder or hiking to the site would be similar to Alternative 1. Probability of injury under this alternative is reduced slightly. This is due to the once a year visit and attempts to access cones versus twice a year under Alternative 1.

**Summary Ratings for Alternative 2**

<b>Wilderness Character</b>	
<a href="#">Untrammeled</a>	-1
<a href="#">Undeveloped</a>	0
<a href="#">Natural</a>	-1
<a href="#">Solitude or Primitive &amp; Unconfined Recreation</a>	-1
<a href="#">Other Features of Value</a>	-1
<b>Wilderness Character Summary Rating</b>	<b>-4</b>
<b>Traditional Skills</b>	
<a href="#">Traditional Skills</a>	2
<b>Economics</b>	
<a href="#">Cost</a>	\$2,240
<b>Safety</b>	
<a href="#">Risk Assessment</a>	3.75

**MRDG Step 2: Alternatives Not Analyzed**

<b>Alternatives Not Analyzed</b>
<i>What alternatives were considered but not analyzed? Why were they not analyzed?</i>

The alternative of no seed collection was not analyzed. This alternative would not meet the intent of the Wilderness Act to allow wilderness areas to be used for scientific research or to protect sensitive species.

## MRDG Step 2: Alternative Comparison

[Alternative 1](#): Installation of Seed Cages

[Alternative 2](#): Collection of seeds without cages

Wilderness Character	<a href="#">Alternative 1</a>		<a href="#">Alternative 2</a>	
	+	-	+	-
Untrammeled	0	2	0	1
Undeveloped	0	1	0	0
Natural	1	0	0	1
Solitude/Primitive/Unconfined	0	2	0	1
Other Features of Value	2	0	0	1
Total Number of Effects	3	-5	0	4
<b>Wilderness Character Rating</b>	-2		-4	
Traditional Skills	<a href="#">Alternative 1</a>		<a href="#">Alternative 2</a>	
	+	-	+	-
Traditional Skills	3	0	2	0
<b>Traditional Skills Rating</b>	3		2	
Economics	<a href="#">Alternative 1</a>		<a href="#">Alternative 2</a>	
	Cost		Cost	
	\$2,670		\$2,240	
Safety of Visitors & Workers	<a href="#">Alternative 1</a>		<a href="#">Alternative 2</a>	
	Risk Assessment		Risk Assessment	
	3.5		3.75	

## MRDG Step 2: Determination

Refer to the [MRDG Instructions](#) before identifying the selected alternative and explaining the rationale for the selection.

### Selected Alternative

- |                                     |                                |                                   |
|-------------------------------------|--------------------------------|-----------------------------------|
| <input checked="" type="checkbox"/> | <a href="#">Alternative 1:</a> | Installation of Seed Cages        |
| <input type="checkbox"/>            | <a href="#">Alternative 2:</a> | Collection of seeds without cages |

### Explain Rationale for Selection:

Allowing the installation of seed cages would ensure seed availability for collection. Seed collection is necessary to preserve the distinct Whitebark pine populations within the Pine Forest Range Wilderness and the Pahute Peak Wilderness areas, particularly in the event of fire which would be catastrophic to these populations. Seed collection would also allow for scientific study of these populations which would provide beneficial information to land managers who administer wilderness areas.

### Describe Monitoring & Reporting Requirements:

At the end of each collection cycle data regarding number of seeds collected and location of collections would be recorded. Data would also be collected on subsequent propagation efforts. Summary reports of the data would be submitted to the wilderness specialist every year by December 31. Research studies based on seeds collected in these areas would also be shared with the wilderness specialist and a copy of all reports would be filed in each wilderness areas case file.

### Approvals

Which of the prohibited uses found in Section 4(c) of the Wilderness Act are approved in the selected alternative and for what quantity?

#### Prohibited Use

#### Quantity

- |                          |                       |  |
|--------------------------|-----------------------|--|
| <input type="checkbox"/> | Mechanical Transport: |  |
| <input type="checkbox"/> | Motorized Equipment:  |  |
| <input type="checkbox"/> | Motor Vehicles:       |  |
| <input type="checkbox"/> | Motorboats:           |  |
| <input type="checkbox"/> | Landing of Aircraft:  |  |

<input type="checkbox"/>	Temporary Roads:	
<input type="checkbox"/>	Structures:	
<input checked="" type="checkbox"/>	Installations:	Up to 100 in the Pine Forest Range Wilderness. Up to 25 in the Pahute Peak Wilderness

Record and report any authorizations of Wilderness Act Section 4(c) prohibited uses according to agency policies or guidance.

Refer to agency policies for the following review and decision authorities:

Prepared	Name		Position	
	Zwaantje Rorex		Wilderness Specialist	
	Signature			Date
	<i>Zwaantje Rorex</i>			6/11/15

Recommended	Name		Position	
	Signature			Date

Recommended	Name		Position	
	Signature			Date

Approved	Name <i>GENE SEIDLITZ</i>		Position <i>DISTRICT MANAGER</i>	
	Signature			Date
	<i>Gene Seidlitz</i>			6/12/15