United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Ely District
702 North Industrial Way, HC 33 Box 33500
Ely, NV 89301
http://www.blm.gov/nv/st/en/fo/ely_field_office.html

In Reply Refer To:
9210 (NVL0200)

DECISION RECORD

Pioche/Caselton Wildland Urban Interface Project

Background

The Bureau of Land Management has completed planning and an environmental assessment (EA) to conduct a wildland urban interface project within the vicinity of Pioche and Caselton, Nevada. The purpose of the Proposed Action is to reduce hazardous fuels and the threat of wildfire to the communities and infrastructure of Pioche and Caselton, Nevada, and the Pioche Historic Mining District. The total project area perimeter includes approximately 11,300 acres, although only an estimated 28 to 41 percent of the total acreage (approximately 3,246 to 4,711 acres) within the boundary is targeted for treatment. On July 15, 2010 a Finding of No Significant Impact (FONSI) for the Pioche/Caselton Wildland Urban Interface Project was signed. The FONSI was based on environmental effects disclosed in EA (DOI-BLM-NV-L030-2010-0029-EA) that was completed for the project. The FONSI demonstrates that an environmental impact statement pursuant to Section 102(C) of the National Environmental Policy Act is not required. The above referenced FONSI and EA are attached to this decision.

Decision

It is my decision to implement the Pioche/Caselton Wildland Urban Interface Project as described in the proposed action of the attached EA (DOI-BLM-NV-L030-2010-0029-EA). All actions, mitigation measures, standard operating procedures and monitoring as described in the proposed action will be incorporated during project implementation.

This decision is in conformance with fire management, vegetation, and forest/woodland product resource goals, objectives and decisions as described in the Ely District Resource Management Plan (2008). This decision also complies with the Healthy Forest Restoration Act (2003). The decision is also consistent with plans and policies of neighboring local, county, state and federal agencies and governments including A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, Ten-Year Comprehensive Strategy (2001), and Healthy Forests Initiative for Wildfire Prevention and Stronger Communities (2002).

Rationale

The decision to implement the proposed action of the Pioche/Caselton Wildland Urban Interface Project was selected as it will best meet the need purpose and need for action. Implementation of treatments outlined in the EA will reduce the fuel loading and continuity thus reducing the threat of wildfire the communities and infrastructure of Pioche and Caselton, Nevada, and the Historic Pioche Mining District.

Public Involvement

On February 8, 2010, a letter was mailed indicating the BLM's intent on initiating the planning and public scoping processes and describing the project goals to groups and individuals who have expressed an interest in participating in fuels reduction projects as well as state, county and federal agencies. A notice was placed under "Public Scoping Documents" at *http://www.blm.gov/nv/st/en/fo/ely_field_office.html*. An informational table was setup in front of the Pioche, Nevada Post Office on March 2, 2010 from 11:00 a.m. to 2:00 p.m. to provide information and answer questions concerning to project. The Ely District Native American Coordinator discussed the proposed action and alternatives with Native American Tribes on May 20, 2010 with no concerns identified.

Comments received from the public during the initial planning stages and public scoping period were concerning migratory birds. General requests to remain on the project mailing list were also received.

The preliminary EA was mailed on May 28, 2010 to interested public who responded to the scoping letter and on June 1, 2010 a letter was mail to all post office box holders in Pioche and Caselton indicating that the preliminary environmental assessment was available on the Ely District web page or by requesting one from the Caliente Field Office. A notice was placed under "Environmental Assessments" at *http://www.blm.gov/nv/st/en/fo/ely_field_office.html*. An article was placed in the Lincoln County Record on June 3, 2010 followed by an aid on June 10, 2010. The preliminary EA was provided to the Nevada State Clearinghouse for their agencies review. The public review and comment period on the preliminary EA ended on June 30, 2010. During the review and comment period responses were received from six individual/agencies. Responses included support of the project, requests that chemicals not be used, expressed doing the least about necessary, indicated that air force training would occur in the skies over the project area and an alternative was suggested. Comments and questions relevant to the proposed project were considered and incorporated into the Final EA.

Appeal Procedures

All of the documents supporting this decision are available for review by the public.

Appeal procedures for this decision are outlined in Title 43 of the Code of Federal Regulations (CFR), Part 4.

In accordance with Title 43 CFR 4.410, any party to a case who is adversely affected by the decision of an officer of the Bureau of Land Management shall have a right to appeal to the Interior Board of Land Appeals (Board). In accordance with Title 43 CFR 4.411, a person who wishes to appeal the decision must file a notice that he wishes to appeal in the office of the authorized officer who made the decision. In accordance with Title 43 CFR 4.413, within 15 days of filing the notice of appeal and any petition for stay, the appellant also must serve a copy of the appeal and any petition for stay on any person named in the decision and on the Office of the Solicitor in the manner prescribed in Title 43 CFR 4.401(c). The office to file notice of appeal and a copy of the notice to appeal:

Bureau of Land Management Ely District Office HC 33 Box 33500 Ely, NV 89301	and a copy to	Office of the Regional Solicitor Pacific Southwest Region U.S. Department of the Interior 2800 Cottage Way, Room E-2753 Sacramento, CA 95825-1890

A person served with the decision being appealed must transmit the notice of appeal in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. In accordance with Title 43 CFR 4.411 (b), the notice of appeal may include a statement of reasons for the appeal, a statement of standing if required by Title 43 CFR 4.412 (b), and any arguments the appellant wishes to make. In accordance with Title 43 CFR 4.412 (a), if the notice of appeal did not include a statement of reasons for the appeal or the appellant wishes to file additional statements of reasons, the appellant shall file such statements with the Board within 30 days after the appeal was filed. The address to file such statements to the Board is:

Board of Land Appeals
Office of Hearings and Appeals
801 North Quincy Street
Arlington, VA 22203

If statement of reasons for appealing were filed with the "Notice of Appeal", no additional statement is necessary.

Pursuant to Title 43 CFR 4.21 (b), an appellant also may petition for a stay of the final decision pending appeal by filing a petition for stay along with the notice of appeal.

At the conclusion of any document that a party must serve, the party or its representative must sign a written statement certifying that service has been or will be made in accordance with the applicable rules and specifying the date and manner of such service [Title 43 CFR 4.422 (c)(2)].

Approval

/s/ Tye H. Petersen	7/15/2010
Tye H. Petersen Fire Management Officer Ely District	Date

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Ely District
702 North Industrial Way, HR 33 Box 33500
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In Reply Refer To:
9210 (NVL0200)

Finding of No Significant Impact
Pioche/Caselton Wildland Urban Interface Project
DOI-BLM-NV-L030-2010-0029-EA

Introduction

I have reviewed the attached environmental assessment (EA) for the proposed Pioche/Caselton Wildland Urban Interface Project (DOI-BLM-NV-L030-2010-0029-EA), dated July 14, 2010.

I have also considered the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), with regard to the context and the intensity of impacts described in the EA.

Context:

The project area being analyzed in this environmental assessment (EA) includes the Pioche Historic Mining District and surrounds the towns on Pioche and Caselton, Nevada. The project area is located partially within Township 1 North, Range 66 East, Sections 12, 13, 23, 24, 25, 26, 33, 34, 35, and 36; Township 1 South, Range 66 East, Section 3; Township 1 North, Range 67 East, Sections 1, 2, 3, 7, 13, 18, 19, 20, 24, 25, 29, 30, 32, 33, 34, 35, and 36; Township 1 North, Range 68 East, Sections 5, 6, 7, 8, 17, 18, 19, and 30; Township 1 South, Range 67 East, Sections 1, 2, 3, 11, 12, and 13; and Township 1 South, Range 68 East, Sections 6, 7, and 18 (Map 1). All above locations are based on Mt. Diablo Base and Meridian (MDM). The primary vegetation within the project areas consists of brush and pinyon and juniper communities. The total project area perimeter includes approximately 11,300 acres, although only an estimated 28 to 41 percent of the total acreage (approximately 3,246 to 4,711 acres) within the boundary is targeted for treatment. All of the lands within the project areas perimeter are public lands administered by the Bureau of Land Management (BLM).

Intensity:

The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into BLM's Critical Elements of the Human Environment list (H-1790-1), and supplemental Instruction Memorandum, Acts, regulations and Executive Orders. The following have been considered in evaluating intensity for this proposal:

1. Impacts that may be both beneficial and adverse.

The environmental assessment has considered both beneficial and adverse impacts of the proposed project. Considering all impacts, the project will reduce the fuel loads and continuity thus reducing the threat of wildland fire to the communities and infrastructure of Pioche and Caselton, Nevada, and the Pioche Historic Mining District.

2. The degree to which the proposed action affects public health or safety.

Resource Concepts, Inc. completed a risk/hazard assessment for the towns of Pioche and Caselton on behalf of Lincoln County. This assessment classified Pioche and Caselton in the **Extreme Hazard** category for wildland fire risk. The proposed action will result in improved public health and safety by reducing the fuel loads and continuity within the wildland urban interface of Pioche and Caselton. Treatment designs and mitigating measures incorporated into the proposed action will minimize impacts to public health and safety.

The treatments will be conducted according to BLM safety standards. Workplace hazard risks assessments will be completed by the workforce supervisor prior to on-the-ground activities.

The proposed action will have very minimal effects on air quality for the short term. Dust, during treatment activities is expected to occur but is not expected to exceed Nevada and National Ambient Air Quality Standards. Emissions from equipment will also occur, but air quality will not be affected beyond the current emission levels. Air quality will be minimally impacted, as wind will sufficiently transport particles from the area. All State and National air quality standards are expected to be met.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas.

The project area is representative of the Great Basin in terms of vegetative condition and ecological functionality. Treatment design features and mitigating measures associated with the proposed action will reduce the overall fuel loading and continuity around Pioche and Caselton. The project area does not contain any park lands, wetlands or wild and scenic rivers. Prime and unique farmlands, located within the project area are currently not being used for production agriculture and implementation of the project would not change the characteristics of properties of these soils. A historical mining district is located within the project area. A cultural inventory has been completed and all historically significant resources will be avoided. A portion of the project area overlaps with the Highland Range Area of Critical Environmental Concern (ACEC). Implementation of the project would not alter the overall integrity and/or environmental condition of the ACEC.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The methods of vegetation treatment activities are scientifically accepted, and are commonly employed to meet resource or management objectives. The effects of hazardous fuels reduction are well known and documented and are not highly controversial in that reduced fuels equate to reduced fire severity and better manageability. The effects from implementing the treatments are well known and documented and not considered to be highly controversial. No controversial issues were brought forward during the planning and scoping phases of this project.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no known effects of the proposed action identified in the EA that are considered uncertain or involve unique or unknown risks. All vegetation treatment methods proposed are accepted standard management practices that have been successfully implemented in similar vegetation types within the Great Basin area.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The proposed action will not establish a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration. All future hazardous fuels reduction projects, if they occur would be subject to the same environmental assessment standards and independent decision making.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

All resources have been evaluated for cumulative impacts in the EA and no significant impacts were identified. Other fuels reduction and habitat improvement projects may be proposed within the Panaca Valley and Patterson Wash Watersheds based on fuel loading and vegetation conditions. These projects seen together with anticipated future proposed land disturbing activities in the area will not result in cumulatively significant impacts at the local or watershed scale.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources:

The proposed action will not adversely affect districts, sites, highways, structures or objects listed on or eligible for listing in the National Register of Historic Places, nor will it cause the loss or destruction of significant scientific, cultural or historical places. A cultural inventory has been completed and all historically significant resources will be avoided. The project will help protect existing Historic sites within the Historic Pioche Mining District.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973:

It has been determined that no federally listed threatened or endangered species occur within the proposed project area.

10. Whether the action threatens a violation of Federal, State or local law or requirements imposed for the protection of the environment.

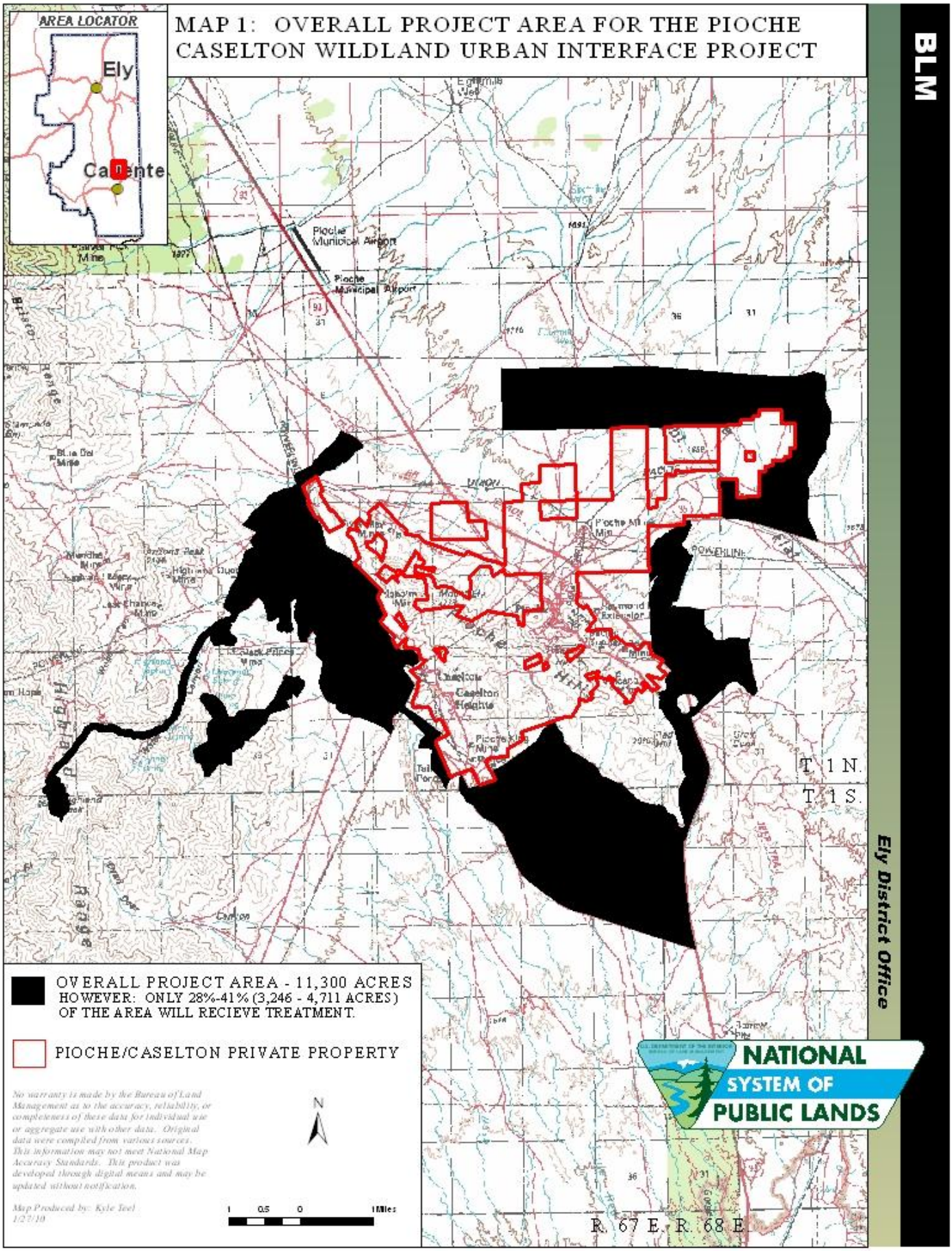
The proposed action will not violate or threaten to violate any Federal, State or local law or requirement imposed for the protection of the environment.

FINDING OF NO SIGNIFICANT IMPACT

After consideration of the environmental effects as described in the Pioche/Caselton Wildland Urban Interface Project EA (DOI-BLM-NV-L030-2010-0029-EA), I have determined that the proposed action with the design specifications, including minimization or mitigation measures identified in the EA will not significantly affect the quality of the human environment and that an Environmental Impact Statement (EIS) is not required.

__/s/ Tye H. Petersen_____ __7/15/2010_____
Fire Management Officer Date
Ely District

MAP 1: OVERALL PROJECT AREA FOR THE PIOCHE CASELTON WILDLAND URBAN INTERFACE PROJECT



U.S. Department of the Interior
Bureau of Land Management

Environmental Assessment
DOI-BLM-NV-L030-2010-0029-EA
July 14, 2010

PIOCHE/CASELTON
WILDLAND URBAN INTERFACE PROJECT

Pioche and Caselton Nevada
Lincoln County

Ely District Office
Ely, Nevada
Phone: (775) 726-8117
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BLM

Table of Contents

1.0 BACKGROUND 3

1.1 Introduction 3
1.2 Purpose and Need for Action 3
1.3 Relationship to Planning 9
1.4 Issues: 11

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES 11

2.1 Proposed Action 11
2.2 No Action Alternative 15
2.3 Alternatives Considered, but Eliminated from Detailed Analysis 15

3.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES & CUMULATIVE IMPACTS 15

3.1 Introduction: 15
3.2 Soils 17
3.3 Vegetation 19
3.4 Special Status Plants 21
3.5 Springs, Wetlands, & Riparian 22
3.6 Migratory Birds 23
3.7 Special Status Animals 26
3.8 Fire & Hazardous Fuels 27
3.9 Special Designation Other Than Wilderness 29

4.0 PROPOSED MITIGATION MEASURES 31

5.0 CONSULTATION AND COORDINATION 31

6.0 REFERENCES 32

7.0 APPENDIX 34

1.0 BACKGROUND

1.1 Introduction

The project area analyzed in this environmental assessment (EA) is located around the towns of Pioche and Caselton, Nevada; Lincoln County, Nevada. The town of Pioche is located in the middle of the Pioche Historic Mining District (Johnson 2004). The project area is located on public land partially within Township 1 North, Range 66 East, Sections 12, 13, 23, 24, 25, 26, 33, 34, 35, and 36; Township 1 South, Range 66 East, Section 3; Township 1 North, Range 67 East, Sections 1, 2, 3, 7, 13, 18, 19, 20, 24, 25, 29, 30, 32, 33, 34, 35, and 36; Township 1 North, Range 68 East, Sections 5, 6, 7, 8, 17, 18, 19, and 30; Township 1 South, Range 67 East, Sections 1, 2, 3, 11, 12, and 13; and Township 1 South, Range 68 East, Sections 6, 7, and 18 (Map 1). All above locations are based on Mt. Diablo Base and Meridian (MDM).

The primary vegetation within the project area consists of sagebrush communities and established stands of single-leaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*). The fuel hazard classification within the project area is high to extreme (RCI 2002). The total project area perimeter includes approximately 11,300 acres, although only an estimated 28 to 41 percent of the total acreage (approximately 3,246 to 4,711 acres) within the boundary is targeted for treatment. All of the lands within the project area parameter are public lands administered by the Bureau of Land Management (BLM).

1.2 Purpose and Need for Action

The purpose of the Proposed Action is to reduce hazardous fuels and the threat of wildfire to the communities and infrastructure of Pioche and Caselton, Nevada, and the Pioche Historic Mining District.

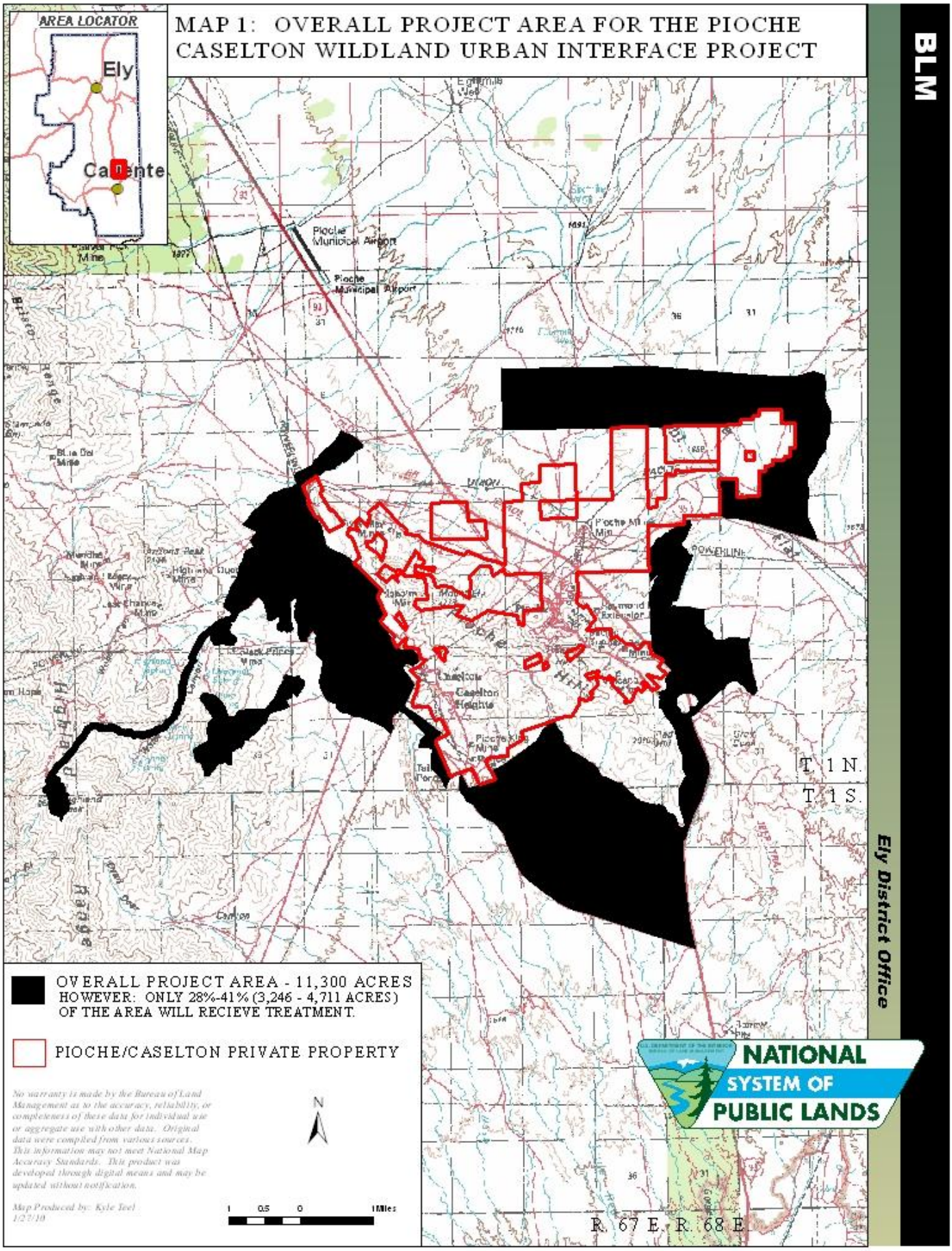
Based on BLM fire data from 1980 to 2008, 149 fires have been recorded within the vicinity on Pioche and Caselton (Map 2). Nine of these fires consumed approximately 3,000 acres, with 6 of the 9 burning within or immediately adjacent to town limits.

A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, Ten-Year Comprehensive Strategy developed in 2001 listed Pioche, NV as an urban-wildland interface community in the vicinity of federal lands that are at high risk from wildfire (Federal Register Vol. 66, No. 3 Thursday, January 4, 2001).

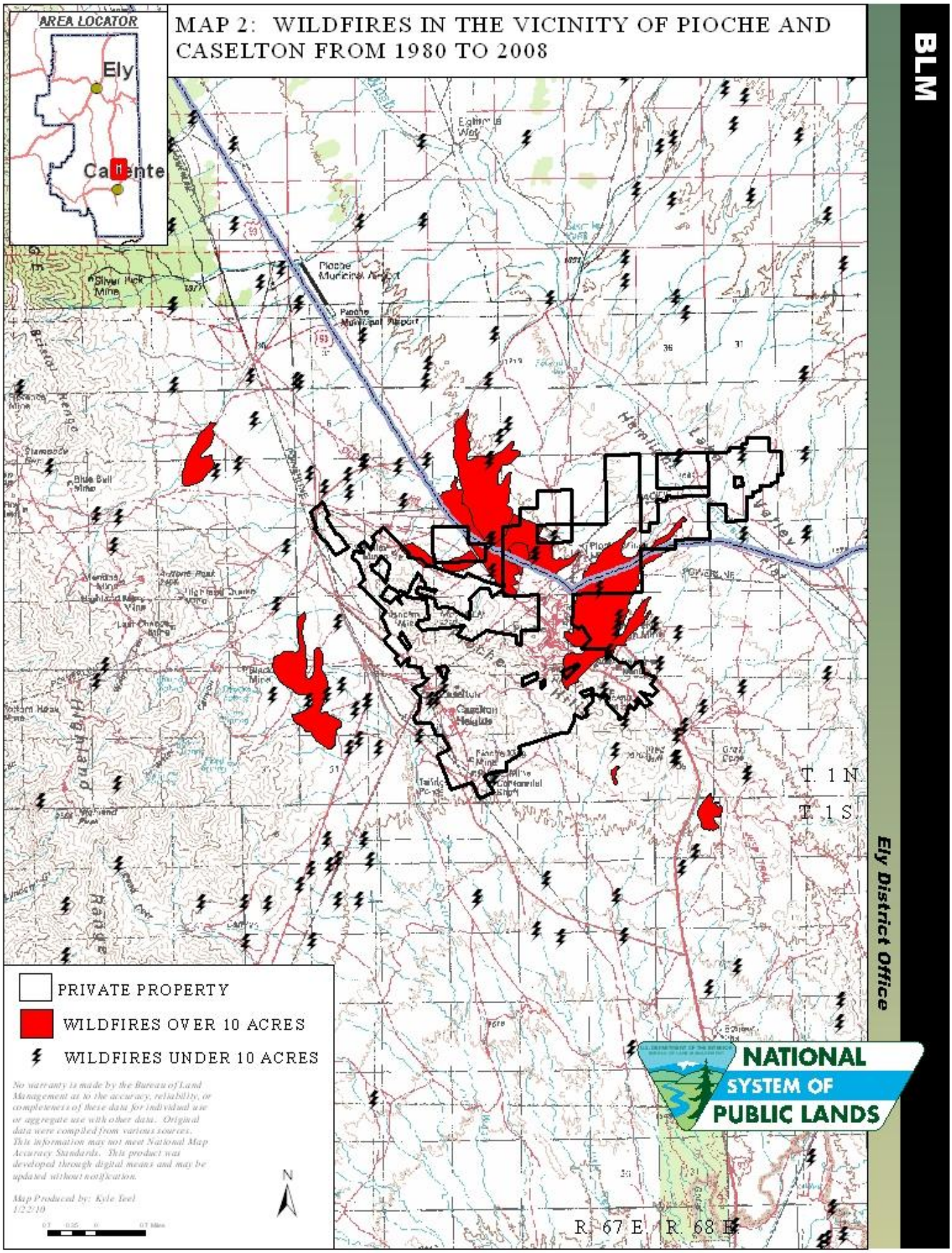
In 2002, Resource Concepts, Inc. completed a risk/hazard assessment for the towns of Pioche and Caselton on behalf of Lincoln County. This assessment classified Pioche and Caselton in the Extreme Hazard category for wildland fire risk. The extreme rating was attributed to heavy fuel loading, steep slopes in some areas of the community, and inadequate defensible space. Figure 12-3 (included below) from the Pioche/Caselton risk/hazard assessment indicates high to extreme fuel hazard around Pioche and Caselton. The risk assessment indicated that in a worst-case scenario a wildfire ignition south to west of Pioche and Caselton under high wind conditions would develop into a crown fire in the dense pinyon-juniper vegetation and be driven

directly toward the communities. There is a strong likelihood that a fire starting in Caselton could quickly spread over the mountain toward Pioche driven by strong west winds (RCI 2002).

MAP 1: OVERALL PROJECT AREA FOR THE PIOCHE CASELTON WILDLAND URBAN INTERFACE PROJECT



MAP 2: WILDFIRES IN THE VICINITY OF PIOCHE AND CASELTON FROM 1980 TO 2008



The Pioche/Caselton Risk Assessment recommends implementing fuel reduction treatments on a larger scale than normal defensible space treatments. Permanently changing the fuel characteristics over large blocks of land to a lower volume and altered distribution reduces the risk of a catastrophic wildfire in the treated area. Reducing vegetation along roadways and driveways could reduce the likelihood of wildfire spreading across roads and improve firefighter access and safety for protecting homes and significant historic structures (RCI 2002).

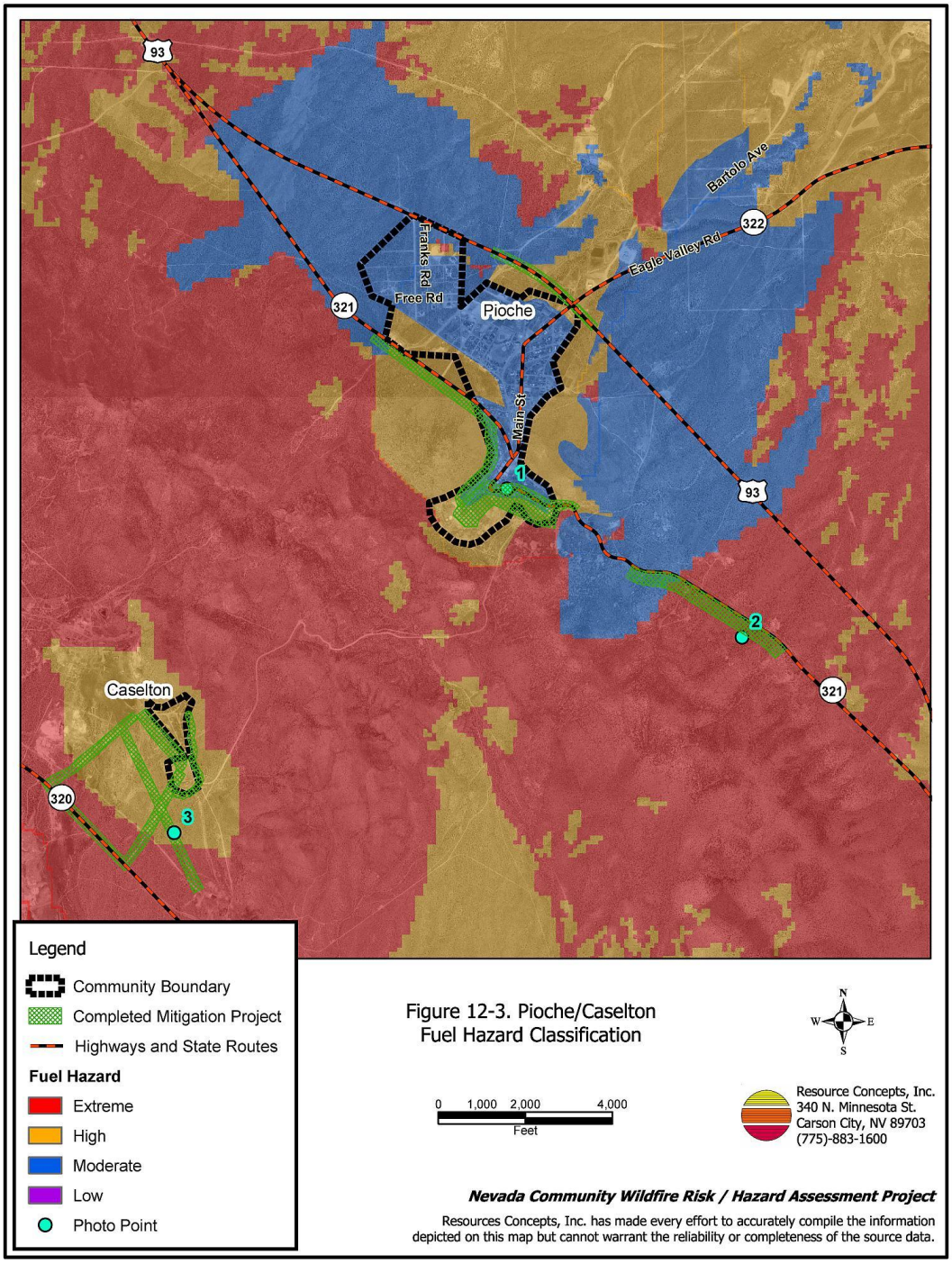


Figure 12-3. Pioche/Caselton Fuel Hazard Classification

Fire Regime Condition Class (FRCC) is an interagency, standardized tool for determining the degree of departure from reference condition vegetation, fuels and disturbance regimes (http://www.frcc.gov/). Assessing FRCC can help guide management objectives and set priorities for treatments. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure is described as changes to one or more of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure and mosaic pattern); fuel composition; fire frequency, severity and pattern; and other associated disturbances (e.g. insects and disease mortality, grazing and drought). The three classes are based on low (0-33% departure; FRCC1), moderate (34-66% departure; FRCC2) and high (67-100% departure; FRCC3) departure from central tendency of the natural (historical) regime. Low departure is considered to be within the natural (historical) range of variability, while moderate and high departures are outside the range of variability. The FRCC rating is accompanied by a series of indicators of the potential risks that may result from the changes to the associated ecological components when disturbance is applied. Reference descriptions for a typical FRCC1 community have been developed for all major vegetation types in the Great Basin (LANDFIRE 2010). Reference conditions are compared to actual conditions for purposes of determining current FRCC classes.

The majority of the proposed project area has been rated at FRCC 2 (moderately departed). This indicates that fire regimes have been moderately altered from their historical range. Fire frequencies are departed from historical frequencies by multiple return intervals. Risk of losing key ecosystem components is moderate. Vegetation attributes have been moderately altered from their historical range. There is a need to assure each fuel type with the project area is within the natural regime. The goal is to meet FRCC 1 for each fuel type or biophysical setting within the project area.

The proposal is being considered in order to achieve the following resource management goals:

- Reduce the threat of wildfire to communities of Pioche and Caselton, Nevada through implementation of fuel reduction treatments on a larger scale (RCI 2002).

- Reduce the risk of large, uncontrolled wild fires by reducing fuel loading and continuity within the Patterson Wash and Panaca Valley Watersheds and meet FRCC 1.

- Restore the historic disturbance regime within the project area and the Patterson Wash and Panaca Valley Watersheds.

<u>Short Term (immediately post treatment)</u>

- Reduce the canopy cover and fuel continuity of single-leaf pinyon, Utah juniper, and shrub species to prevent crown fire potential within 28 to 41 percent of the project area.

Long Term (5 to 10 years post treatment)

- Reduce the FRCC rating within the project area from FRCC 2 to FRCC 1.

1.3 Relationship to Planning

The Proposed Action and Alternative Action are in conformance with, and tiers to the analysis in the Ely District Proposed Resource Management Plan/Final Environmental Impact Statement completed for the *Ely District Record of Decision and Approved Resource Management Plan (August 2008)*.

The Proposed Action and Alternative Action are in conformance with the following Resource Goals and Management Actions:

Fire Management

Goals – Provide an appropriate management response to all wildland fires, with emphasis on firefighter and public safety, consistent with overall management objectives. Return fire to its natural role in the ecological system and implement fuels treatments, where applicable, to aid in returning fire to the ecological system. Establish a community education program that includes fuels reduction within the wildland urban interface to create fire-safe communities.

Management Actions – Fire Management

FM-3: Implement and update the Ely Fire Management Plan, as needed. Tier the Ely Fire Management Plan to the general fire management actions in this RMP. Fire management units within the planning area have been identified on the basis of similar vegetation type and condition, management constraints, issues, and objectives and strategies. The following management actions will take place within those fire management units.

2) **Fuels treatments** – develop and implement prescribed fire and non-fire fuels treatments (mechanical, chemical, and biological) to create fire-safe communities, protect private property, achieve resource management objectives (see the discussion on Vegetation Resources), and restore ecological system health;

5) **Community assistance/protection** – establish an active community education and assistance program where needed to create fire-safe communities and prevent catastrophic impacts on sensitive natural resources.

FM-5: In addition to fire, implement mechanical, biological, and chemical treatments along with other tools and techniques to achieve vegetation, fuels, and other resource objectives.

FM-6: Base fire management priorities on: 1) firefighter and public safety, and 2) resource protection objectives.

Forest/Woodland Products

Goals – Provide opportunities for traditional and non-traditional uses of vegetation products on a sustainable, multiple-use basis.

Management Actions – Forest/Woodland Products

Parameter – Biomass Products

FP-22: Allow biomass harvest in areas where vegetation projects require vegetation removal and meet project objectives.

Vegetation Resources

Goals - Manage vegetation resources to achieve or maintain resistant and resilient ecological conditions while providing for sustainable multiple uses and options for the future across the landscape.

Management Actions – Vegetation Resources

Parameter – Pinyon-Juniper Woodlands

VEG-9: Integrate treatment priorities to include:

1. Public safety and protection from catastrophic wildland fire above other considerations.

The proposal is also consistent with other Federal, State and local plans including, but not limited to, the following:

- *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, Ten-Year Comprehensive Strategy* was a policy developed in 2001 that placed emphasis on reducing risk to communities and the environment by managing wildland fire, hazardous fuels and ecosystem restoration and rehabilitation on both forests and rangelands. Three of the four goals outlined in this policy include: (1) Improve fire prevention and suppression; (2) Reduce hazardous fuels and (3) Restore fire adapted ecosystems.

- The Healthy Forests Initiative for Wildfire Prevention and Stronger Communities. The Healthy Forests Initiative implements core components of the Cohesive Strategy agreed to by Federal, State and local agencies as well as Tribal Governments and stakeholders. The purpose of the Cohesive Strategy is to ensure a coordinated effort to provide fire

protection for communities while improving the health of watersheds and vegetative communities.

The hazardous fuels reduction portion of the strategy states, "Assign the highest priority for hazardous fuels reduction to communities at risk, readily accessible municipal watersheds, threatened and endangered species habitat and other important local features where conditions favor uncharacteristically intense fires." (Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy, page 9).

The Pioche/Caselton WUI Project responds to the fuels reduction element of the Cohesive Strategy.

1.4 Issues

Issues are consequences or potential consequences to the human environment. The identification of issues for this environmental assessment was accomplished by considering the resources that could be affected by implementation of the proposed action or any of the alternatives, through involvement with the public and input from a BLM interdisciplinary team. Internal scoping with the BLM interdisciplinary team was held on February 18, 2010 with migratory birds, sensitive species (plant and animal), noxious and invasive species, and Areas of Critical Environmental Concern (ACEC) issues being identified. The public also identified migratory birds as an issue during the project scoping period.

2.0 DESCRIPTION of PROPOSED ACTION and ALTERNATIVES

2.1 Proposed Action

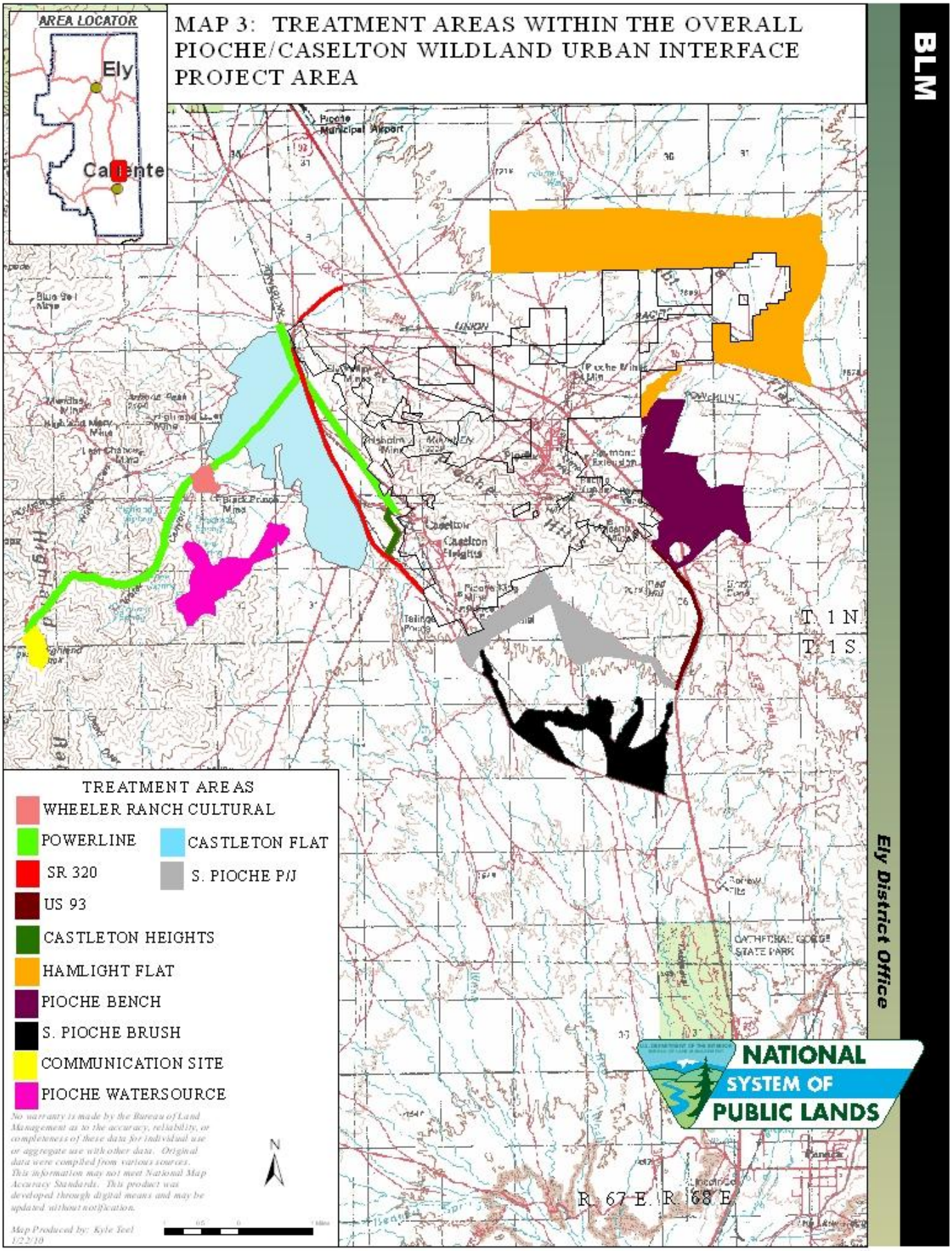
The proposal is to reduce the threat of wildfire to the Pioche Historic Mining District, towns of Pioche and Caselton, and supporting infrastructures on the Highland Range by reducing fuel loading and continuity within the Pinyon, Juniper, and shrub (sagebrush and cliffrose) communities on approximately 3,246 to 4,711 acres within an overall project area of 11,300 acres (Map 1). A variety of manual and mechanical treatment methods would be used within the project area to reduce fuel loading and continuity. Table 1 indicates the general type of treatment that could occur. Map 3 depicts where each treatment technique could occur.

Table 1: Treatment areas and proposed treatment type within the Pioche/Caselton WUI Project area.

Treatment Area	Treatment	PRESCRIPTION	Acres
Communication Site	Removal and Thinning	Mechanical and/or manually remove trees and brush from 75 up to 250 feet from structures	87
Power Line	Removal and thinning	Manual and/or mechanical remove trees and brush around power poles and thin trees and brush up to 250 feet on each side of the powerline.	514
Pioche Water Source	Removal and thinning	Manual and/or mechanical removal and thinning of trees and brush within the 435 acre project area	Treatments would only occur on 40 – 75% (175 – 325) acres of the area
State Route 320	Thinning	Manual and/or mechanical thinning of trees and brush within 250 feet of State Route 320. Trees would be thinned down to 15 to 20 trees per acre.	136
Caselton Heights	Thinning	Manual and/or mechanical thinning of trees and brush within 400 feet of the private/public boundary west of Caselton. Trees would be thinned down to 15 to 20 trees per acre.	34
Caselton Flat	Removal	Manual and/or mechanical treat the trees and brush within the 1,840 acre project area.	Treatments would only occur on 40 – 75% (740 – 1,380 acres) of the area
South Pioche PJ Area	Removal and/or thinning	Manual and/or mechanical removal and/or thinning of trees and brush within the 640 acre project area	Treatments would only occur on 40 – 75% (255 – 480 acres) of the area
South Pioche Brush Area	Mastication	Mastication of brush within the 770 acre project area	Treatments would only occur on 40 – 75% (310 – 580 acres) of the area
US 93	Thinning	Manual and/or mechanical thinning of trees and brush from US 93 to frontage road. Trees would be thinned down to 15 to 20 trees per acre.	66
Pioche Bench	Removal	Manual or mechanical remove trees and brush within the 1,040 acre area	Treatments would only occur on 40 – 75% (415 – 780 acres) of the area
Hamlight Flat	Mastication	Mastication of brush within the 2,975 acre project area	Treatment would only occur on 15 - 25% (450 – 745 acres) of the area
Wheeler Ranch Cultural	Removal and Thinning	Manually and/or mechanical remove trees and brush necessary to protect the historical structures and cultural resources present.	64
	Total	11,300 acres	3,246 – 4,711 (28 – 41%) of the area

Both manual and mechanical treatment methods would be used during project implementation. Manual methods would involve the use of a chainsaw or similar type of equipment to cut the trees and/or brush. Mechanical methods for trees would involve the use of equipment that would knock them over (chaining), masticate them or cut them whole. Mechanical methods for brush would involve the use of equipment that could masticate them or cut them whole (i.e. mowing). Slash/biomass creation and disposal would depend on the technique used. Manual methods would create slash in the form of limbs and large pieces or bole of the tree trunk. Slash would be chipped and spread back on the ground, chipped and hauled off as biomass, the boles removed as biomass (firewood) or the limbs chipped or piled and disposed of later through prescribed fire. Slash created through methods that simply knock the trees over would remain on site to degrade naturally or be disposed of through prescribed fire. Mastication equipment would shred or chip the trees/brush with the resulting biomass being spread back out on the ground. Slash from equipment that cuts the trees whole would be piled and disposed of through prescribed fire or processed through a chipper with the residual spread back out on the ground or hauled off as biomass. Slash created from mowing of brush would be left of the ground to degrade naturally. Potential biomass utilization from the reduction of fuel loading and continuity would include but is not limited to chips and firewood.

MAP 3: TREATMENT AREAS WITHIN THE OVERALL PIOCHE/CASELTON WILDLAND URBAN INTERFACE PROJECT AREA



The project area would be seeded, aerially or on the ground (drill seed) with a mixture of species adapted to the ecological site and resistant to fire.

Project implementation would occur year round depending on the technique used, except for the Hamlight Flat treatment unit. Project implementation within the Hamlight Flat treatment unit would not occur from November 1 through March 31 and from May 15 through July 15. This would avoid the winter and nesting seasons for the sage grouse (*Centrocercus urophasianu).* The entire project or individual treatment areas would be completed when funding and resources become available.

All treatment areas that create surface disturbance would be inventoried for cultural resources to identify eligible (Historic Properties) and sensitive sites prior to implementing treatments. Identified cultural sites would be recorded and evaluated to determine eligibility for the National Register of Historic Places. Eligible cultural resources would be avoided or impacts mitigated as necessary before any surface disturbing treatments are initiated.

A survey for mining claim markers in documented active claim sites would be conducted prior to implementing treatments. All active mining claim marker locations and tag information would be recorded. Active mining claim marker or stakes would be avoided to the extent practical. Active mining claim markers that are destroyed by thinning or chaining operations would be re-staked using a legal mining claim marker. The re-staking of mining claim markers would occur in coordination with the existing mining claimants to assure accurate, legal staking procedures that would minimize damage to claims.

The Ely District Noxious Weed Prevention Schedule would be adhered to during all phases of project implementation. Mitigation measures identified in the Noxious and Invasive Weeds Risk Assessment (Appendix A) would be implemented as part of the proposed action.

No new roads would be constructed or created during project implementation. Off-road travel with heavy equipment would occur during tree thinning activities. Loading and unloading any equipment would occur on existing roads to minimize off-road disturbances and impacts. If determined necessary, signs would be posted along roads within or adjacent to the treatment areas in regards to travel restrictions in order to assist in mitigating impacts from future cross country travel. When the ground is saturated to where ruts could be created, project implementation would cease until the ground dries out sufficiently.

The treatment areas would be monitored following project implementation to determine success towards meeting vegetative resource management objectives. All monitoring techniques would follow BLM approved methods. The treatment areas would also be monitored to ensure any potential noxious weeds and undesirable species infestations are controlled. If noxious weeds are found, suppression measures would be taken. The noxious weed infestations would be reported to the Ely District Office Weed Coordinator in order to be included on the treatment schedule as soon as possible.

Future treatment actions similar to those listed above, including manual or mechanical thinning would occur on the site over the next twenty years to maintain vegetation treatment objectives.

Maintenance treatments would not be allowed if causing more disturbance than the proposed treatment methods listed above.

2.2 No Action Alternative

The No Action Alternative is the current management situation. Under the No Action Alternative, there would be no treatments implemented within the proposed project areas.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

Broadcast prescribed fire and the use of chemical treatments (Tebuthiuron) were considered as methods to thin pinyon and juniper within the project area. Broadcast prescribed burning as opposed to pile prescribed burning as described in the Proposed Action was eliminated from detailed analysis because of the close proximity of Pioche and Caselton and a fuels reduction treatment would still be needed to reduce the threat of the broadcast prescribed burn impacting the communities. Tebuthiron was eliminated from detailed analysis because this type of treatment would result in red slash remaining on the trees, and sagebrush skeletons still standing which would not redue the fuel continuity in sufficient time to protect the communities from wildfire. An alternative from the public to hand water vegetation was also considered but eliminated from detailed analysis because it would be cost prohibitive and impractical.

3.0 DESCRIPTION of the AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES and CUMULATIVE IMPACTS

3.1 Introduction:

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) and the potential consequences to this environment resulting from the Proposed Action and No Action Alternative.

While many issues may arise during scoping, not all of the issues raised warrant analysis. Issues raised through scoping are analyzed if:

- Analysis of the issue is necessary to make a reasoned choice between alternatives.
- The issue is significant (an issue associated with a significant direct, indirect, or cumulative impact or where analysis is necessary to determine the significance of impacts).
- If there is a disagreement about the best way to use a resource, or resolve an unwanted resource condition, or potentially significant effects of a proposed action or alternative.

A description of the affected environment, followed by the environmental consequences for each resource is described below. The geographic scope for the cumulative impacts analysis for each resource except the Highland Range Area of Critical Environmental Concern (ACEC) and Special Status Animals is the 487,722 acre Panaca Valley and Patterson Wash Watersheds. Cumulative effects are the effects on the environment which result from the incremental impacts of actions in this EA when added to other past, present and reasonably foreseeable actions.

The identification of issues to be analyzed, and the resulting effect from the proposed action is summarized in Table 2.

Table 2: Summary of issues and resources analyzed.

Resource/Concern	Analyzed	Rationale for Analysis or Dismissal from Analysis
Air Quality	No	Short-term dust and smoke during implementation.
Water Quality, Drinking/Ground	No	Three municipal water wells are located within the project area. However, project implementation would not affect the quality and/or quantity of surface or ground water.
Water Rights	No	No new water rights applications will be filed as a result of project. Water rights exist on the springs within the project area. However, project implementation would not affect the quality and/or quantity of surface or ground water.
Farmlands, Prime and Unique	No	Farmlands, prime and unique are located within the project area. However, these soils are not currently used for production agriculture and implementation of the project would not change the characteristics of properties of these soils.
Soils	Yes	Mainly short-term impacts until vegetative establishment.
Forest Health	No	The project's goals reflect the intent of the HFRA.
Rangeland Standards and Guidelines	No	The Mojave/Southern Great Basin Resource Advisory Council set the standards and guidelines for this resource. The Proposed Action implements recommended guidelines to meet rangeland health standards.
Vegetation	Yes	Short-term impacts until vegetative establishment
Special Status Plants	Yes	The Nevada Natural Heritage Program database indicates the potential for habitat of several special status plant species.
Wetlands/Riparian	Yes	Floral and Lime Springs are located within the project area
Fish and Wildlife	No	Short-term displacement during implementation but sufficient habitat nearby project area.
Migratory Birds	Yes	Migratory birds may be present
FWS listed or proposed threatened (T) or endangered (E) species or critical habitat	No	None Present in the project area
Special Status Animals	Yes	The eastern portion of the project area is within sage grouse habitat.
Wild Horses	No	The project area is located within portions of the Silver King and Eagle Herd Management Area. Short-term displacement during project implementation but sufficient habitat nearby.
Livestock Grazing	No	The portions of the allotments that overlap with the project area are not being currently grazed
Native American Religious Concerns	No	None identified
Cultural Resources	No	Eligible cultural sites would be avoided
Paleontological Resources	No	None present
Visual Resource Management (VRM)	No	Within VRM Class II, III, & IV areas. Class II areas experience short term impacts from the treatment due to the production of dead vegetation. However, long term VRM improvements would occur due to creation of a variety of patterns, forms, and textures. This would be

		consistent with Class II areas by retaining the existing character of the landscape. Treatments in Class III areas would partially retain the existing character of the landscape and Class IV areas are the least scenic of all the visual resources which lends to management activities which require major modification of the existing character of the landscape. Treatments would be implemented to conform with the goals and objectives of these VRM classes.
Land Uses	No	No affects to existing ROWs
Recreation	No	No affects on recreation in the area
Commercial Products	No	No affect, numerous other areas available nearby for commercial products
Mineral Resources	No	No active mining claims present
Fire and Fuels	Yes	Project area in FRCC 2; goal is to modify vegetation characteristics to meet FRCC 1
Invasive, Non-Native Species	No	Within the project area are Scotch thistle, spotted knapweed, Dalmatian toadflax and Russian knapweed. All four of these plants spread easily into disturbance areas. Knapweeds are the most challenging to native plants, because in addition to competing with natives for resources, knapweeds also release a chemical from the root that inhibits the growth of other plants. The design features of the Proposed Action including preventive measures during implementation; treating areas where weeds spread; and improving native vegetation, will decrease impacts to weeds. Due to processes outlined in the design features no cumulative effects are anticipated. No additional analysis is needed.
Special Designations other than Wilderness	Yes	Portion of the project area is located within the highland Range ACEC.
Environmental Justice	No	No minority or low income populations identified near or within project vicinity

3.2 Soils

Affected Environment

Several different soil mapping units occur within the project area. Table 3 outlines the soil types and general characteristics of each type.

Table 3: Soil mapping units and general characteristics within the project area.

Soil Survey	Soil Mapping Unit Name	Landform	Major Soil Type	% Slope
Meadow Valley (NRCS, 2008)	Ursine gravelly loam 2 to 15 % slopes	Fan piedmont	gravelly loam	2 to 15
	Jarab-Ursine association	Fan piedmont	cobbly loam	2 to 15
	Pamsdel-Jarab complex 2 to 15 % slopes	Fan piedmont	gravelly loam	2 to 15
	Eaglepass-Rock outcrop complex 15 to 70 % slopes	Mountains	very gravelly loam	15 to 50
	Indicove association	Fan piedmont	gravelly loam	8 to 30
	Chiefpan-Linco association	Fan piedmont	extremely gravelly sandy loam	2 to 8
	Blackcan association	Fan piedmont	very gravelly sandy loam	0 to 8
	Blackcan-Linco association	Fan piedmont	very gravelly sandy loam	2 to 15
	Xeric Torriorthents-Xeric Torriorthents very gravelly association	Fan piedmont	fine sandy loam	15 to 50
	Jarab-Blackcan association	Fan piedmont	cobbly loam	2 to 15
	Checkett-Rubbleland complex 15 to 50 % slopes	Mountains	extremely gravelly loam	15 to 50
	Roval-Linco association	None assigned	very gravelly sandy loam	8 to 50
North Lincoln (NRCS, 2007)	Monarch-Highup-Eganroc Association	Mountains	very gravelly loam	15 to 50
	Ursine-Jacob-Pamsdel Association	Fan remnants	gravelly loam	2 to 8

Potential Environmental Consequences

Proposed Action

There should be minimal soil erosion expected from implementation of the treatment methods. Under all of the treatment methods, minimal to no impacts are expected to the existing grass and shrub communities which should remain on the site and provide for soil protection and stability. Manual treatments would result in scattered slash providing a protective layer for soils from erosion and establishing understory vegetation. Consequences from chaining treatment to the existing grass community and younger shrub communities are also expected to be minimal. Chaining should remove the targeted pinyon and juniper trees and older, decadent shrubs on the project site. Potential consequences to soils could result in some soil scarification and furrowing to depths up to approximately 4 to 6 inches through the chaining methods, soil scarification by the equipment in the mastication method, and limited soil disturbance through the manual methods. Some soil compaction could occur from the equipment used in the chaining and mastication methods. The uprooting of targeted trees could create holes or impressions where the root mass occurred but should eventually fill in or level out over time. The grasses and younger, more vigorous shrubs should remain and continue to provide soil protection and stability while trees and larger, more decadent shrubs which are chained should be left on the landscape in a scattered fashion. The scattered material should provide a protective layer for soils from erosion and promote soil fertility by increasing organic matter over time through decomposition. Biomass from mastication treatments and mowing should assist in preventing soil erosion and improve soil water holding capacity. Seeding of the treatment areas, along with the recruitment and establishment of perennial grasses and native shrubs following treatments should further promote soil health over the long term along with assisting the ecological sites in achieving site potential. A diverse vegetative understory of grasses, forbs and shrubs assists in preventing soil erosion by minimizing bare soil. Over the long term, standing plant density is expected to increase and plant biomass or litter is expected to increase which should stabilize and protect the soil resource. No new roads would be constructed or created during the treatments. Off road travel from equipment would occur during implementation of the treatments. Soil compaction is also expected to be minimal because the type of equipment and treatment methods would break up the majority of any compaction that may occur.

No Action Alternative

Current erosion rates should remain the same until such time that an uncontrolled wildfire occurs. If trees continue to establish on sagebrush ecological sites, the perennial grass and shrub component could continue to be reduced. Continued tree establishment could out-compete understory grasses and shrubs leaving unoccupied spaces and bare ground. This competition from trees could reduce the amount of vegetation available to stabilize and protect soils. Soil erosion rates could increase under this action. Following an uncontrolled wildfire event which removes a majority of the vegetation on site, the soils could be more exposed and vulnerable to water events. Grasses and shrubs regenerate at a much faster rate than tree species. If the grass and shrub component continues to be reduced over time and a high intensity wildfire event occurs in the area, vegetation establishment could be minimal after a fire and the likelihood of cheatgrass establishment becomes much greater. Soils could be more vulnerable to erosion due to the absence of desirable, perennial grasses and native shrubs which provide much greater protection to soils than undesirable annuals due to root depth and longevity. Higher erosion rates could occur and increase potential for gully formation. Sedimentation in lower drainage areas is expected to occur under such a situation.

Cumulative Impacts

Past actions, effecting soil resources include approximately 8,840 acres of wildfire, approximately 3,235 acres of wildfire rehabilitation, and 13,660 acres of habitat improvements, 740 acres of wildland urban interface projects and other land use activities may have affected soils on areas outside the proposed project area. Goals of habitat improvement, wildfire rehabilitation, and wildand urban interface projects were to prevent further soil erosion, and to establish perennial vegetation to meet habitat and rangeland standards. The projects also minimized soil erosion potential from wildfire. Implementing the Proposed Action, could aid in reducing soil erosion through the improvement of the overall condition of vegetative communities, their resiliency to future disturbance and provide a mosaic of differing ecological conditions which would reduce and minimize cumulative impacts. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. Presently, there is an additional 2,000 acres of fuels treatments/habitat improvement activities being considered that would affect soils within the watershed watershed similar to the effects described in the Proposed Action. The overall cumulative impacts from all past, present and future actions are expected to be minimal.

3.3 Vegetation

Affected Environment

The primary vegetation within the project area consists of pinyon and juniper and sagebrush communities. Perennial grasses within the proposed project area include species such as Indian ricegrass (*Achnatherum hymenoides*), needle and thread (*Hesperostipa comata*), bottlebrush

squirreltail (*Elymus elymoides*), bluegrasses (*Poa spp.*) and galleta (*Pleuraphis rigida*). Undesirable, non-native, annuals such as cheatgrass (*Bromus tectorum*) occur within the proposed project area. Native shrubs include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), black sagebrush (*Artemisia nova*), rabbitbrush (*Chrysothamnus sp.*), Nevada tea (*Ephedra nevadensis*), stansbury cliffrose (*Purshia stansburiana)*, and antelope bitterbrush (*Purshia tridentata*). The primary tree species are single-leaf pinyon pine (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*). Additional species present as elevations increase on the Highland Range include curl-leaf mountain mahogany (*Cercocarpus ledifolius), ponderosa pine (Pinus ponderosa*), white fir (*Abies concolor*), and Gambel's oak (*Quercus gambelii*). There has been an overall reduction in the production and vigor of perennial grasses within the proposed treatment areas and in some areas, brush communities have become even-aged, mature, decadent stands with minimal to no understory. Pinyon and juniper is becoming established on sagebrush habitats within the proposed treatment area.

Potential Environmental Consequences

Proposed Action

Vegetative conditions are expected to improve the site potential (e.g., variety of understory grasses and forbs with sagebrush overstory) following implementation of the proposed treatments. Reducing and removing pinyon and juniper density on sagebrush ecological sites should remove competition for nutrients, and assist in establishment and recruitment of understory grasses and forbs, and improving shrub vigor and health. In areas where biomass is left on the ground (e.g. chaining and mastication areas), residual woody vegetation should provide protection to regenerating grasses and shrubs. Felled and scattered trees should also continue to provide protective cover for wildlife species. The decomposition of woody plant material should also improve soil nutrient content which could enhance the recruitment, establishment and long-term viability of the grass and shrub community, as well as provide protection to the soil resource.

No Action Alternative

Vegetative conditions are expected to remain the same for the short-term and decline in condition over the long-term. The health, vigor, recruitment and production of native and non-native, perennial grasses and native shrubs would continue to decline in the long-term due to shrubs becoming older and decadent and the increasing cover of pinyon and juniper. The establishment of pinyon and juniper onto sagebrush ecological sites would continue to further decline the health and vigor of the understory grasses, forbs and shrubs which are important for soil protection, soil stability and other watershed values.

Cumulative Effects

Past actions, effecting vegetation resources include approximately 8,840 acres of wildfire, approximately 3,235 acres of wildfire rehabilitation, and 13,660 acres of habitat improvements, 740 acres of wildland urban interface projects, livestock, wild horse, wildlife use, land actions, and recreation activities. These activities have created varying ecological conditions.

Implementing the Proposed Action, combined with past actions, could result in ecological conditions that meet site potential and mimic the natural disturbance regime. This would provide a mosaic of differing ecological conditions which would increase the vegetative communities' resiliency to future disturbances while reducing and minimizing cumulative effects associated with disturbances. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. Presently, there is an additional 2,000 acres of fuels treatments/habitat improvement activities being considered that would affect vegetation within the watersheds. The overall cumulative effects from all past, present and future actions are expected to move the vegetation communities to a more natural range of variability.

3.4 Special Status Plants

Affected Environment

According to Nevada Natural Heritage Program data, there is a potential of habitat or individuals of the Pioche Blazingstar (*Mentzelia argillicola*), Long-Calyx Eggvetch (*Astragalus oophorus var. longocalyx*), White River Catseye (*Cryptantha welshii*), and Waxflower (*Jamesia tetrapetala*) to be located within the project area. Table 4 describes the habitat type of each of the species.

Table 4: Habitat type description for special status plants.

SPECIES	HABITAT DESCRIPTION
Pioche Blazingstar	Dry soft, silty clay soils on knolls and slopes with sparse vegetation (Holmgren, N and P. Holmgren, 2002)
Long-Calyx Eggvetch	Limestone mountains (Barneby, 1954)
White River Catseye	Exposed rounded ancient playa remnant of white "tuffaceous" material, occasionally mixed with sand and valley fill (Thorne and Higgins, 1982)
Waxflower	Cracks and crevices in limestone cliffs and talus at the base of cliffs (Holmgren, N and P. Holmgren, 1989)

Potential Environmental Consequences

Proposed Action

There should be minimal consequences to these plant species because their potential habitat is located in areas with difficult access that would be excluded from treatment. As described in the table above, these species are growing on rocky to barren hillside areas. These areas are not favorable for the types of treatments described in the Proposed Action. However, recent surveys in other areas have found White River Catseye within sagebrush ecological sites. Environmental consequences to this species are still expected to be minimal should they occur in the sagebrush ecological sites. Slash/biomass left onsite should provide protection for seedling establishment, removal of pinyon and juniper trees should reduce competition for mineral and moisture, and reduce the potential for a catastrophic wildfire. In addition, chaining and mastication equipment usually do not disturb smaller grass and forb species as the equipment generally roll over the

smaller plants without uprooting them. The treatments would provide fuel breaks from wildfires, which would reduce the size of future wildfire events that could possibly burn special status plants.

No Action Alternative,

Conditions are expected to remain the same for these species.

Cumulative Impacts

Past actions within the watersheds include approximately 8,840 acres of wildfire, approximately 13,660 acres of habitat improvements, approximately 3,235 acres of wildfire rehabilitation, 740 acres of wildland urban interface projects, along with livestock, wild horse, wildlife use, land actions, and recreation activities. These activities have created varying ecological conditions. Implementing the Proposed Action, combined with past actions, could result in ecological conditions that meet site potential and mimic the natural disturbance regime. This would provide a mosaic of differing ecological conditions which would increase the vegetative communities' resiliency to future disturbances while reducing and minimizing cumulative effects associated with disturbances. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. Presently, there are an additional 2,000 acres of fuels treatments/habitat improvement activities being considered that would affect vegetation within the watershed. The overall cumulative impacts from all past, present and future actions are expected to reduce impacts to special status species by providing a more natural ecological community that could respond favorably to disturbance, and prevent destruction of special status plants.

3.5 Springs, Wetlands, and Riparian Areas

Affected Environment

Floral and Lime springs are located along the western side of the project area in a canyon at the base of the Highland Range. Water from Floral Spring is used for culinary purposes in Caselton and Pioche resulting in no surface water or riparian vegetation. Riparian vegetation is present around Lime Spring. There are no perennial or intermittent streams, only ephemeral washes within the proposed project area boundaries.

Potential Environmental Consequences

Proposed Action

The removal and/or thinning of pinyon and juniper trees which occur near springs should increase spring flow and improve riparian vegetation near the spring sources. As water flow increases, riparian vegetation would also increase to near site potential. Over the long term, establishment of desirable riparian vegetation should increase in those areas. Currently occupied

with undesirable vegetation or with vegetation levels less than site potential. This would increase soil protection and stability and reduce soil erosion and potential sedimentation caused flooding or other natural weather events.

No Action Alternative

Impacts to riparian and wetland areas are expected to occur over time as with a continued increase in the establishment of pinyon, juniper and other upland species around riparian zones. The establishment of upland vegetation and tree species could reduce the opportunity for the establishment of desirable riparian species, and decrease perennial surface water flow at springs. Impacts to riparian and wetland areas could also occur in the event that a large wildfire burned and resulted in large scale vegetative destruction. Following an event of this nature, major run-off events could impact drainages and riparian areas through soil deposition and erosion patterns. Erosion potential following an uncontrolled wildfire could be high due to the potential size and intensity of a wildfire, particularly on those sites with a denser pinyon and juniper fuel type which are capable of producing crown fires. Under a natural wildfire event, water flow at spring sources could increase more than or similar to the Proposed Action due to widespread vegetation removal that could occur. The decreased water intake by burned vegetation could cause flow at spring sources to increase, although sedimentation that could occur as a result of erosion associated with a large wildfire could potentially destroy existing riparian vegetation.

Cumulative Impacts

Past actions within the watersheds include approximately 8,840 acres of wildfire, approximately 13,660 acres of habitat improvements, approximately 3,235 acres of wildfire rehabilitation, 740 acres of wildland urban interface projects, along with livestock, wild horse, wildlife use, land actions, water diversions from pipelines, road construction and maintenance and recreation activities. Most of the existing activities are expected to continue to some extent in the future and could continue to impact riparian/wetland areas in a similar fashion. Implementation of the Proposed Action should assist in approving overall riparian/wetland health. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. Presently, there is an additional 2,000 acres of fuels treatments/habitat improvement activities being considered that would affect wetland/riparian habitat within the watershed. The overall cumulative impacts from all past, present and future actions are expected to assist moving riparian areas toward potential natural community or FRCC 1.

3.6 Migratory Birds

Affected Environment

Migratory bird species that may be present, possibly present and/or possibly breeding within the proposed treatment units can be found in Appendix B. Species of conservation concern include the black-throated gray warbler (*Dendroica nigrescens*), Brewer's sparrow (*Spizella breweri*),

Golden eagle (Aquila chrysaetos), Gray vireo (*Vireo vicinior*), Loggerhead shrike (Lanius ludovicianus), Northern Harrier (*Circus cyaneus),* Pinyon jay (Gymnorhinus cyanocephalus), Prairie falcon (Falco mexicanus), and Sage sparrow (Amphispiza belli).

The black-throated gray warbler, Gray vireo, and pinyon jay mostly utilize pinyon and juniper woodlands areas. The Gray vireo is also associated with habitats that commonly border or are interspersed with pinyon and juniper. The black-chinned sparrow occupies pinyon, juniper, and montane shrub habitats in the Mojave and the Brewer's sparrow, prairie falcon, and loggerhead shrike utilize sagebrush habitats. Northern harriers are found in all sorts of treeless expanses, but they are especially fond of marshes and agricultural areas. Golden eagles are associated with areas containing rocky cliffs for nesting and open shrub lands for hunting. This information was determined using data reflect survey blocks and/or incidental sightings of bird species within or adjacent to the treatment units from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). These data are not comprehensive, and additional species not listed here may be present within the harvest units.

Environmental Consequences

Proposed Action

Effects to migratory birds would be limited and short term in nature. During periods when the treatments are occurring birds could be temporarily displaced due to noise and human presence. Disturbances would be limited to a small portion of the treatment sites as they would not all occur simultaneously. Displacement of individual birds is expected to range from 10 to 50 acres per day during the breeding and nesting season. Once treatments are completed in a particular area, it is expected that birds would return to the area or move to other non-treated areas. Effects to individual birds could include nest disturbance, destruction of eggs and small scale habitat modification. It is difficult to determine how many nests would be disturbed or destroyed as a result of project implementation. However, any nest(s) that were destroyed or lost due to disturbance would likely result in re-nesting in an undisturbed area. Implementation would create small scale habitat modifications resulting in a mosaic of plant communities throughout the project area. The effect of the small scale habitat modifications would depend on the particular species of migratory bird. Some actions that are taken would benefit some migratory bird populations while affecting other migratory bird populations and actions that may provide long-term benefits to migratory birds may have short-term impacts on individual birds. For example the black-throated gray warbler, pinyon jay, and Gray vireo could be affected since they are more associated with pinyon and juniper woodlands. However, the majority of the project areas consist of pinyon and juniper trees encroaching into sagebrush communities rather than pinyon and juniper woodlands communities. There is also a large amount of available pinyon and juniper woodland community adjacent to the treatment areas. The gray vireo could receive some benefit from the treatments due to the mosaic creation in habitats adjacent to the pinyon and juniper woodlands. Treatments that remove or thin pinyon and juniper trees encroaching into sagebrush communities should assist in creating a more natural and resilient sagebrush community, which would provide better habitat conditions for the Brewer's and sage sparrows. Treatments would also benefit the loggerhead shrike, northern harrier, golden eagle, and prairie falcon by creating more mosaics of open habitat types. Overall impacts to the entire population

of migratory birds would be limited as treatments during the breeding and nesting season would be restricted to small acreage each day.

No Action Alternative

Resource conditions are expected to stay the same for a short term period. Pinyon and juniper would continue to mature and increase in sagebrush communities which would provide habitat favoring the black-throated gray warbler, pinyon jay, and gray vireo. Habitat for the Gray vireo may not benefit as much due to the habitats that are commonly border or area intersperse with pinyon and juniper converting to woodlands. Habitat fot the Brewer's and sage sparrows, loggerhead shrike, golden eagle, prairie falcon, and northern harrier would decrease as open sagebrush ecological sites continue to convert to denser pinyon and juniper woodlands.

Cumulative Effects

Past actions effecting migratory birds within the watersheds include approximately 8,840 acres of wildfire, approximately 13,660 acres of habitat improvements, approximately 3,235 acres of wildfire rehabilitation, 740 acres of wildland urban interface projects, along with livestock and wild horse use, road construction and maintenance, recreation activities including off-highway travel, and camping, fence construction, and rights-of-way construction. Implementation of the Proposed Action along with the past actions accounts for approximately six percent of the habitat available in the watersheds. These past actions along with the Proposed Action would have varying effects on the species of conservation concern depending on the habitat type they are more associated with. These affects are somewhat limited locally due to the large acreages of similar habitat located within and adjacent to the watershed. Regionally these cumulative effects are limited depending on the species of conservation concern due to large amounts of habitat located throughout Nevada. The black-throated gray warbler occurs throughout Central Nevada. The entire State of Nevada with the exception of Southern Nevada contains habitat for the Brewer's and sage sparrows. The Gray vireos' habitat occurs in southern to eastern Nevada and the northern harriers' habitat occurs throughout Nevada, more frequently in the northern than in the southern half of the state. The golden eagle also occurs throughout the state, although less frequently toward the south. The prairie falcon is distributed fairly evenly across the state. The loggerhead shrikes are widely distributed around the state. Pinyon jays occur throughout Nevada except for the northwestern tier of counties.

The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. Presently, there are approximately 2,000 acres of additional fuels treatments and/or habitat improvement activities planned within the watersheds. The overall cumulative effects from past, present and future actions are expected to be minimal to migratory birds.

3.7 Special Status Animals

Affected Environment

Special status animals species or their habitat that may be present within the project area include the greater sage grouse, golden eagle, gray vireo, juniper titmouse, loggerhead shrike, pinyon jay, and prairie falcon. Sage grouse will be the only species analyzed in this section. The remaining species have been analyzed in the migratory birds section.

Approximately 1,955 acres of potential summer, winter, and nesting sage grouse habitat occurs on the eastern side of the project area within the Hamlight Flat treatment area. There are no known leks within the project area.

Environmental Consequences

Proposed Action

Effects to sage grouse birds would be limited and short term in nature. Project implementation within the Hamlight Flat treatment unit outside of the winter season (11/1 – 3/31) and nesting season (5/15 – 7/15) would eliminate potential environmental consequences during these important seasons. Project implantation could result in temporarily displaced due to noise and human presence. However, adequate habitat is adjacent to the treatment unit and once treatments are completed the birds would be able to return to the area. Of the approximate 1,955 acres of sage grouse habitat only 15 to 25 percent (295 – 485 acres) would be treated. Implementation of the treatment would create small scale habitat modifications resulting in a mosaic of plant communities within the treatment unit.

No Action Alternative

Sage grouse habitat conditions are expected to stay the same for a short term period. However, in the long term vegetative conditions could decline as the health, vigor, recruitment and production of native and non-native, perennial grasses and native shrubs could decline as shrubs becoming older and decadent.

Cumulative Effects

The geographic scope for the cumulative impacts analysis for the sage grouse is the 68,000 acres of sage grouse habitat within the Patterson Wash Watershed. Past actions effecting sage grouse habitat include approximately 523 acres of wildfire and approximately 10,789 acres of habitat improvements, along with livestock and wild horse use, road construction and maintenance, recreation activities including off-highway travel, and camping, fence construction, and rights-of-way construction. Implementation of the Proposed Action along with the past actions accounts for approximately 17 percent of the sage grouse habitat in the watershed. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur or acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be

determined at this time how many could occur and acres that could be effected. The overall cumulative effects from past, present and future actions are expected to be minimal.

3.8 Fire and Hazardous Fuels

Affected Environment

The proposed project area is located within the Lincoln County WUI and Southern Benches – Vegetation Fire Management Units (FMUs).

In 2002, Resource Concepts, Inc. completed a risk/hazard assessment for the towns of Pioche and Caselton on behalf of Lincoln County. This assessment classified Pioche and Caselton in the **Extreme Hazard** category for wildland fire risk. Based on BLM fire data from 1980 to 2008, 149 fires have been recorded within the vicinity on Pioche and Caselton (Map 2). Nine of these fires consumed approximately 3,000 acres, with 6 of the 9 burning within or immediately adjacent to town limits.

Historically, the valleys and mountains adjacent to Pioche and Caselton were fire adapted. Fire played a regular disturbance role in the ecosystem. Fire exclusion has occurred throughout the west since Europeans arrived, which is thought to have affected the natural role of fire. Vegetation volume has increased, and vegetative composition has changed as a result of this natural disturbance alteration resulting in mature sagebrush with increasing dead to live woody material and decreasing understory grasses and forbs. Fires prior to European settlement once carried through fine fuels and created structural and age class diversity in sagebrush sites. According to Miller and Tausch (2001), infrequent fires in the past 130 years have allowed pinyon and juniper to establish on sagebrush sites. This fuel type presents a unique fire hazard as the potential for crown fire is higher. Crown fires typically burn at higher wind speeds and are more difficult to control. When this occurs, fires are usually stand replacing with crown fire domination. When fires occur with little wind, as when a high pressure system is in place over the area, fires will typically burn minimal trees.

Fire history and fire effects in the Great Basin are a vital component of resource health. There is evidence to support the existence of repeated wildland fires in eastern Nevada. It is not uncommon to find thin lines of charcoal exposed in arroyo cuts, marking episodes of prehistoric burning. Often, more than one episode is visible in the exposure. In the pinyon and juniper woodlands, ancient burned-out stumps can sometimes be found among mature stands of trees.

The typical burn cycles for pinyon, juniper and sagebrush vegetation types vary from 15 to 50 years. The current burn cycle is about a 125 years. This has led to an accumulation of fuel loadings, increased stand densities and pushed the project area into higher fire regime condition classes.

Environmental Consequences

Proposed Action

Fire behavior should be decreased as a result of reduced fuel loading and continuity. Future natural fires within the proposed project area should be less extensive and smaller in size. Smaller wildfires should be easier to manage, reducing the risk to multiple natural resources, private lands, private withholdings, physical structures associated with ROWs and aesthetic values. Future fires should mimic natural severity. The danger of large, uncontrolled wildfires should be reduced under this alternative. Under the Proposed Action, implementation of the treatments should help the project area meet FRCC 1 by reducing fuel loading and continuity, and establishing more perennial grass and forb species which naturally occur within the ecological site potential. Studies have shown that fuels treatments conducted prior to a large, uncontrolled fire event reduce fire burn severity and extreme fire behavior. These treatments modify stand structure and extreme wildfire behavior. In a report written by the Apache-Sitgreaves National Forest in 2002 titled, "Rodeo-Chediski Fire Effects Report", studies showed the lessening of burn severity on treated areas prior to a wildfire burning through the area.

No Action Alternative

Fuel conditions could continue to increase and accumulate beyond levels representative of the natural (historic) fire regime which could increase the burn intensity potential. The risk of a large, uncontrolled wildfire could remain much greater. If a wildfire does occur in the area, fuel loading and the associated fire intensity should be reduced. The No Action Alternative should result in high fuel loading, continuity and fire intensity potential in the long-term.

Cumulative Impacts

Past actions within the watersheds include approximately 8,840 acres of wildfire, approximately 13,660 acres of habitat improvements, approximately 3,235 acres of wildfire rehabilitation, 740 acres of wildland urban interface projects, along with livestock, wild horse, wildlife use, land actions, and recreation activities. These activities have created varying ecological conditions. Implementing the Proposed Action, combined with past actions, could result in ecological conditions that meet site potential and mimic the natural disturbance regime. This would provide a mosaic of differing ecological conditions which would increase the vegetative communities' resiliency to future disturbances while reducing and minimizing cumulative effects associated with disturbances. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. Presently, there are an additional 2,000 acres of fuels treatments/habitat improvement activities being considered that would affect vegetation within the watershed. Overall, cumulative impacts from all past, present and future actions should be minimal and FRCC 1 should be achieved over the long term.

3.9 Special Designations other than Wilderness

Affected Environment

The western portion of the proposed project area (approximately 430 acres) overlaps with the 6,880 acre Highland Range ACEC (Map 4). This ACEC was designated for the protection of habitat for the intermediate Colorado hairstreak (Hypaurotis crysalus intermedia) and broadlined saepium hairstreak (Saytyrium saeplum latilinea) butterflies and habitat for the basin waxflower a BLM sensitive status species. Threats to this habitat include wildland fire (BLM, 2008).

Habitat for the butterflies is associated with chaparral, open forest, oak scrub and oak woodlands vegetation type, particularly Gambel's oak (Opler, Lotts, and Naberaus, 2010). Cracks and crevices in limestone cliffs and talus at the base of cliffs is the preferred habitat for the basin waxflower (Holmgren, N and P. Holmgren, 1989).

Environmental Consequences

Proposed Action

There should be minimal consequences to the habitat within the ACEC from implementation of the Proposed Action. Habitat for the basin waxflower occurs in areas where project implementation generally would not occur due to the terrain and nature of the habitat. Limited thinning of Gambel's oak could occur primarily along the lower elevation of the Highland Range within the power line treatment area. This would take place on approximately 240 acres. However, these affects would also be limited due to the presence of Gambel's oak habitat adjacent to and within the ACEC.

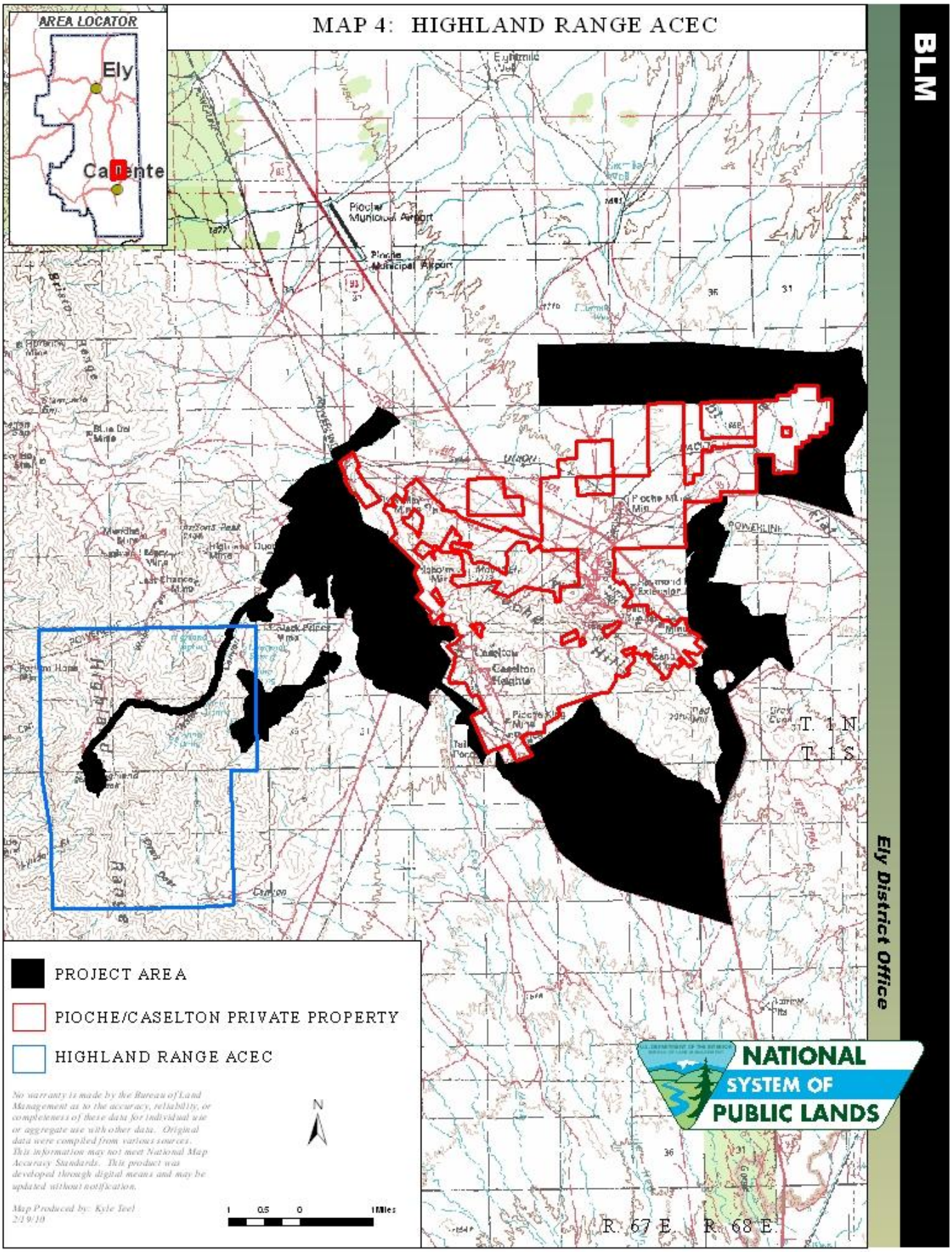
No Action Alternative

Habitat conditions within the ACEC are expected to remain the same

Cumulative Impacts

The geographic scope for the cumulative impacts for Special Designations other than Wilderness is the 6,880 acre Highland Range ACEC. Past actions within the ACEC include approximately 12 wildfires less than one acre each, livestock, wild horse, wildlife use, land actions, and recreation activities. Implementing the Proposed Action, combined with past actions, would have minimal consequences on the habitat integrity of the ACEC. The potential exists for future wildfire events and wildland fire use for resource benefits to occur, although it cannot be determined at this time how many could occur and acres that could be effected. With foreseeable wildfires, rehabilitation of these areas could also occur, although it cannot be determined at this time how many could occur and acres that could be effected. The overall cumulative impacts from all past, present and future actions are expected to be minimal.

MAP 4: HIGHLAND RANGE ACEC



4.0 PROPOSED MITIGATION MEASURES

Appropriate mitigation measures have been incorporated into the Proposed Action and none are proposed in response to the anticipated impacts. Mitigation measures include considerations for historic and cultural resources, mining claims, migratory birds, special status animal species, and noxious weeds and invasive species.

5.0 CONSULTATION and COORDINATION

Public Interest and Record of Contacts who Commented

On February 8, 2010, a letter was mailed indicating the BLM's intent on initiating the planning and public scoping processes and describing the project goals to groups and individuals who have expressed an interest in participating in fuels reduction projects as well as state, county and federal agencies. A notice was placed under "Public Scoping Documents" at *http://www.blm.gov/nv/st/en/fo/ely_field_office.html*. An informational table was setup in front of the Pioche, Nevada Post Office on March 2, 2010 from 11:00 a.m. to 2:00 p.m. to provide information and answer questions concerning to project. The Ely District Native American Coordinator discussed the proposed action and alternatives with Native American Tribes on May 20, 2010 with no concerns identified.

Comments received from the public during the initial planning stages and public scoping period were concerning migratory birds. General requests to remain on the project mailing list were also received.

The preliminary EA was mailed on May 28, 2010 to interested public who responded to the scoping letter and on June 1, 2010 a letter was mail to all post office box holders in Pioche and Caselton indicating that the preliminary environmental assessment was available on the Ely District web page or by requesting one from the Caliente Field Office. A notice was placed under "Environmental Assessments" at *http://www.blm.gov/nv/st/en/fo/ely_field_office.html*. An article was placed in the Lincoln County Record on June 3, 2010 followed by an aid on June 10, 2010. The preliminary EA was provided to the Nevada State Clearinghouse for their agencies review. The public review and comment period on the preliminary EA ended on June 30, 2010. During the review and comment period responses were received from six individual/agencies. Responses included support of the project, requests that chemicals not be used, expressed doing the least about necessary, indicated that air force training would occur in the skies over the project area and an alternative was suggested. Comments and questions relevant to the proposed project were considered and incorporated into the Final EA.

Internal District Review

Kyle Teel	Fire Ecologist (Fire, Fuels, Vegetation)
Domenic Bolognani	Rangeland Management Specialist (Livestock Grazing)
Chelsy Simerson	Rangeland Management Specialist (Livestock Grazing)
Mark D'Aversa	Hydrologist (Riparian/Wetlands/Floodplains; Soil/Water/Air)
Andy Daniels	Wildlife Biologist (Wildlife; Migratory Birds; T&E and Special Status Species; ACECs)
Nancy Williams	Wildlife Biologist (Wildlife; Migratory Birds; T&E and Special Status Species; ACECs)
Mindy Seal	Natural Resource Specialist (Noxious Weeds, Invasive Species)
Benjamin Noyes	Wild Horse and Burro Specialist (Wild Horses)
Cameron Boyce	Outdoor Recreation Planner (VRM, Recreation)
John Miller	Outdoor Recreation Planner (VRM, Recreation)
Dave Jacobson	Wilderness Planner (Wilderness Values)
Kurt Braun	Archeologist (Cultural/Paleontological/Historical Resources)
Melanie Peterson	Environmental Protection Specialist (Hazardous Materials)
Elvis Wall	Native American Coordinator (Native American Religious Concerns) Realty Specialist (Lands and Realty Uses)
Alan Kunze	Geologist (Minerals)
Dave Davis	Geologist (Minerals)
Zachary Peterson	Forester
Cody Coombs	Natural Resource Specialist – Fuels (NEPA Compliance)

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7.0 APPENDIX

Appendix A

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS
Pioche Castleton Project
Lincoln County, Nevada

On April 29, 2010 a Noxious & Invasive Weed Risk Assessment was completed for the Pioche Castleton vegetation thinning project. See attached map for project location. The proposal is to conduct piñon and juniper tree removal throughout the entire approximate 2,100 acre project area (Map 2). The targeted areas for treatment are where piñon and juniper trees have become established on sagebrush ecological sites, which is estimated to be 60 to 75 percent (approximately 1,260 to 1,575 acres) of the treatment area.

Tree removal would be conducted by manual (chainsaw) and/or mechanical methods such as chaining or mastication. Slash/biomass removal would depend on the type of method used. A portion of the slash/biomass created from manual methods or equipment which provides whole tree cutting methods would be used to cover trails created by tree removal equipment and place in gullies were possible. The remaining slash could be scattered or consolidated into piles and disposed of later through prescribed burning or chipping, left whole on site to degrade by natural means or hauled off site for use as biomass. Biomass could take the form of firewood, posts, chips, and various other products. It is anticipated that fuel wood would be the main biomass taken from the project area. Slash/biomass created from mastication equipment would be left on site to decompose by natural means.

No new roads would be constructed during project implementation. Off-road travel consisting of pickups with trailers, and/or heavy equipment would occur during tree removal activities. Loading and unloading any equipment would occur on existing roads to minimize off-road disturbances and impacts. If determined necessary, signs would be posted along roads within or adjacent to the treatment areas in regards to travel restrictions in order to assist in mitigating impacts from future cross country travel. Some of the slash would be used to cover any routes created by manual tree cutting operations to reduce their visibility. Slash from mastication equipment would be left on site to cover routes taken during tree removal operations.

The treatment areas would be monitored before and following project implementation to determine success towards meeting resource management objectives. All monitoring techniques would follow BLM approved methods. The treatment areas would be monitored to ensure any potential noxious weeds and undesirable species infestations are controlled. If noxious weeds are found, suppression measures would be taken. The noxious weed infestations would be reported to the Ely District Weed Coordinator in order to be included on the treatment schedule as soon as possible.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following weed species are found within the project area:

Onopordum	Scotch Thistle
Centaurea	Spotted Knapweed
Linaria	Dalmation Toadflax
Acroptilon	Russian Knapweed

The following weed species are found along roads and drainages leading to the project area:

Onopordum	Scotch Thistle
Centaurea	Spotted Knapweed
Lepidium latifolium	Tall Whitetop
Linaria	Dalmation Toadflax
Hyoscyamus	Black Henbane
Tamarix spp.	Salt cedar
Lepidium	Whitetop/Hoary Cress
Acroptilon	Russian Knapweed

There is also probably cheatgrass (*Bromus tectorum*), red brome (*Bromus rubens),* filaree (*Erodium circutarium),* bur buttercup (*Ceratocephala testiculatus*), and Russian thistle (*Salsola kali*) scattered along roads in the area. The area was last inventoried for noxious weeds in 2009.

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (5) at the present time. Due to the heavy machinery use associated with this project and ground disturbance, it is likely that the project activities will result in new weed infestations to the area, especially of non-native, invasive weeds such as cheatgrass.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (6) at the present time. New infestations could establish within the project area and adversely impact those native plant communities. However, there are weed control design features in the proposed action that would reduce the probability of these adverse

effects. Also, this project over the long term would improve native plant communities so that native plants out compete invasive species for resources.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (30). This indicates that the project can proceed as planned as long as the following measures are followed:

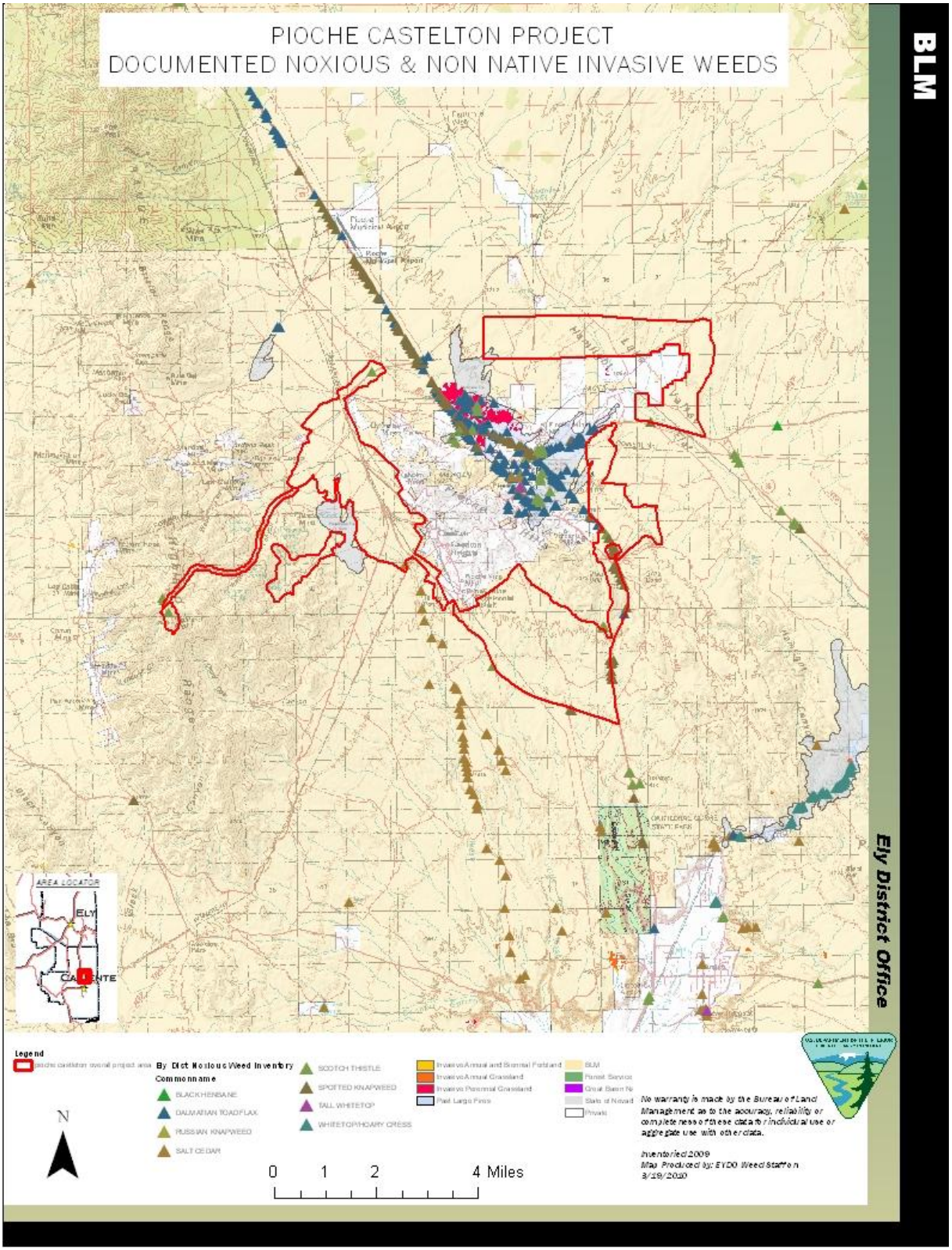
- Monitoring will be conducted for a period no shorter than three years and the spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.
- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global positioning systems or other mutually acceptable equipment and provided to the Ely District Weed Coordinator or designated contact person.
- Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)

Reviewed by: /s/Mindy Seal 4/29/2010

Mindy Seal Date

Natural Resource Specialist

Figure 1. Documented Noxious Weeds in the Project Area



APPENDIX B

Possible Migratory Birds within or Adjacent to the Project Area

The following data reflect survey blocks and/or incidental sightings of bird species within the project boundaries from the Atlas of the Breeding Birds of Nevada (Floyd et al. 2007). These data represent birds that were confirmed, probably, or possibly breeding within or near the project boundaries. Species also included are those that have a high probability of occurring within the project area. These data are not comprehensive, and additional species not listed here may be present within the project area.

* Indicates Ely District Special Status Species (Ely Proposed Resource Management Plan/Final Environmental Impact Statement, January, 2007)

American kestrel (*Falco sparverius*)
American robin (*Turdus migratorius*)
Bewick's wren (*Thryomanes bendirei*)
Black-throated sparrow (*Amphispiza bilineata*)
Black-throated gray warbler (*Dendroica nigrescens*)
Blue-gray gnatcatcher (*Polioptila caerulea*)
Brewer's blackbird (*Euphagus cyanocephalus*)
Brewer's sparrow (*Spizella breweri*)
Broad-tailed hummingbird (*Seasphorus platycersus*)
Brown-headed cowbird (*Molothrus ater*)
Bushtit (*Psaltriparus minimus*)
Canyon wren (*Catherpes mexicanus*)
Chipping sparrow (*Spizella passerine*)
Common nighthawk (*Chordeiles minor*)
Common raven (*Corvus corax*)
Dark-eyed junco (*Junco hyemalis*)
Golden eagle (*Aquila chrysaetos*)*
Gray flycatcher (*Empidonax wrightii*)
Gray vireo (*Vireo vicinior*)*
Great horned owl (*Bubo virginianus*)
Green-tailed towhee (*Pipilo chlorurus*)
Horned lark (*Eremophila alpestris*)
Juniper titmouse (*Baeolophus ridgwayi*)*
Lark sparrow (*Chondestes grammacus*)
Loggerhead shrike (*Lanius ludovicianus*)*
Mountain bluebird (*Sialia currucoides*)
Mountain Chickadee (*Poecile gambeli*)
Mourning dove (*Zenaida macroura*)
Northern flicker (*Colaptes auratus*)
Northern harrier (*Circus cyaneus*)
Northern mockingbird (*Mimus polyglottos*)
Pinyon jay (*Gymnorhinus cyanocephalus*)*

Plumbeous vireo (*Vireo plumbeus*)
Prairie falcon (*Falco mexicanus*)*
Red-tailed hawk (*Buteo jamaicensis*)
Rock wren (*Salpinctes obsoletus*)
Sage sparrow (*Amphispiza belli*)
Sage thrasher (*Oreoscoptes montanus*)
Spotted towhee (*Pipilo maculates*)
Turkey vulture (*Cathartes aura*)
Violet-green swallow (*Tachycineta thalassina*)
Western kingbird (*Tyrannus verticalis*)
Western meadowlark (*Sturnella neglecta*)
Western scrub-jay (*Aphelocoma californica*)