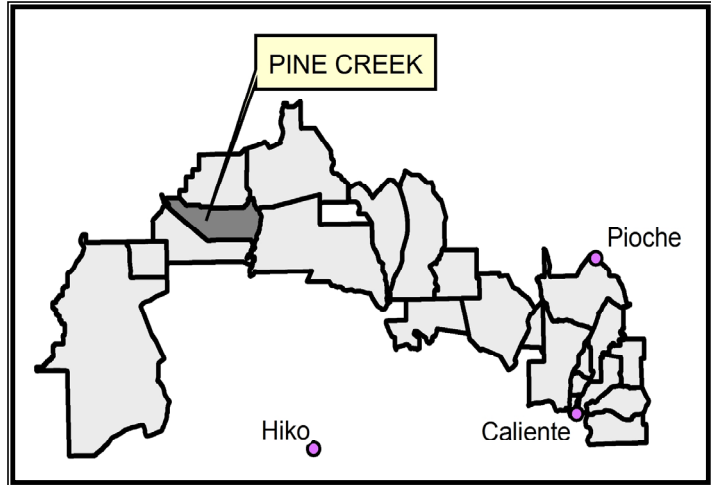


16.0 PINE CREEK ALLOTMENT

Permittee: Thomas Steele
Contact: Robert Steele
City/State: Alamo, NV

Base Property: Land



16.1 ALLOTMENT DESCRIPTION

The Pine Creek Allotment is located 35 miles northwest of Hiko. The northwest side of the allotment joins the southeast unit of the Humboldt-Toiyabe National Forest. The allotment is approximately five miles wide north and south and thirteen miles long east and west.

Table 16.1: Pine Creek Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT				
Public	Private	Number/Type of Livestock	Season of Use	AUMs		
				Total	Active	Suspended
33211	1617	331	5/01-12/31	2,666	2,667	0

16.1.1 Grazing System

The allotment is grazed from summer into winter, although cattle may come out early. Cattle are free to move about the allotment and graze as they choose. It is also important to note that several bands of sheep travel through portions of the allotment and use the Water Gap at the east end of the allotment.

16.1.2 Stockwaters and Water Rights

The allotment is thoroughly watered by the convergence of four creeks and a pipeline that feeds five tanks with dirt pits.

16.1.3 Existing Fencing

The allotment boundary is fenced except when natural barriers are present and fencing is not needed. There are no internal pasture fences.

16.2 PROPOSED RAILROAD ALIGNMENT – DOE PROPOSED ROUTE – GARDEN VALLEY ALTERNATIVE 1

The GV1 alternative and the associated service road enter the allotment from the northeast out of the Batterman Wash Allotment. The track will travel in a southwest direction for approximately 4.7 miles, and exit into the Cottonwood Allotment.

Rail Length Within Allotment: 4.7 miles
1,000' Construction Right-of-Way Area: 569.7 acres

16.2.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the route be fenced.

16.2.2 Impacts and Mitigation

16.2.2.1 Base Property

The proposed alignment will not have any impacts on base property.

16.2.2.2 Grazing System

GV1 separates the higher elevations on the west side of the allotment from the lower elevations to the east, splitting the allotment into two areas, which will be referred to as the High Pasture and the Low Pasture. The track will be an impediment to the movement of cattle; causing them to work up and down the track causing concentrated use and heavy grazing along the track.

Construct five cattle crossings with approaches not to exceed 25 percent grade. The road and trail crossings cannot be used as cattle crossings if the right-of-way (ROW) is fenced.

Gates will be required at each cattle crossing, one on each side of the track. The gates should be sixteen-foot heavy steel, hinged from ten-inch well casings set in concrete. The Permittee can lock the gates when not in use to prevent the gates being left open. This will entail a total of five crossings and ten gates. An in-rail cattleguard will be needed at the terminal end of the ROW fence.

16.2.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross one allotment fence.

All fence crossings will require an in-rail cattleguard, as well as a road cattleguard and gate for the rail service road.

16.2.2.4 Stockwaters and Associated Infrastructure

GV1 will reduce the service area of the water tanks and dirt pit at Map Reference 23. The track will cut across a ditch ROW in the Cottonwood Allotment, and run across Pine Creek impacting livestock watering on the allotment. The track will also cross one pipeline. There are seven stockwaters within the four-mile impact zone. Two of these stockwaters are within one mile of the proposed alignment.

A new trough and dirt pit must be installed in the northern pasture to avoid reducing the service area of the trough and dirt pit at Map Reference 23. All creeks, pipelines, and ditches must be culverted with culverts significantly large enough to cope with potential run off, in order to allow water from the higher elevations to reach the Low Pasture. During construction flow of water through the pipeline must remain sufficient enough to keep the water tanks full.

16.2.2.5 Road and Trails

The proposed alignment will cross one road and one trail.

Each road crossing would require an approach with a maximum 6 percent approach. Each trail would require a crossing with a maximum 12 percent approach.

16.2.2.6 Vegetation and Forage

Inside the 570 acres of ROW, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the ROW, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

The amount of forage loss cannot be determined until construction is complete. Mitigation must include compensation for lost AUMs due to construction and/or operation of the railway. This includes deferred or suspend AUMs resulting from wildland fires caused by railway operations. Disturbed areas should be kept to a minimum, successfully revegetated to a predetermined condition, and managed for noxious weeds. It should be the responsibility of the rail operator to control noxious or invasive weed infestations for the life of the rail.

16.2.2.7 Loss of Livestock

The Permittee should be reimbursed for any loss of livestock due to railway operations.

16.2.2.8 Other Impacts and Mitigations

The proposed track will be located four to five miles from the ranch headquarters. The Permittee believes it will be audible and may be visible, but offers no mitigation suggestions.

16.3 PROPOSED RAILROAD ALIGNMENT – DOE PROPOSED ROUTE – GARDEN VALLEY ALTERNATIVE 2

Proposed track GV2 enters the allotment from the east from the Coal Valley Lake Allotment through the Water Gap. The track will run in a southwest direction across the allotment and will leave the allotment near the southwest corner. The potential for flooding makes the Water Gap a poor choice of route for the proposed railroad.

Rail Length Within Allotment: 9.6 miles
1,000' Construction Right-of-Way Area: 1,163.6 acres

16.3.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the route be fenced.

16.3.2 Impacts and Mitigation

16.3.2.1 Base Property

The proposed alignment will not have any impacts on base property.

16.3.2.2 Grazing System

The Garden Valley 2 alternative will split the allotment in to two pastures. The track presents a problem in that it will impede movement of cattle from the south side of the track to the north side of the track. The pasture configuration of the south side pasture will likely cause odd grazing patterns with heavy concentration of use along the track. The vegetation along Cottonwood Creek will be heavily used as well.

Construct a gated cattle crossing consisting of earth ramps on each side of the track with approaches not to exceed 25 percent grade, for each mile of track. The exact location will be determined after the centerline of the railroad is staked. This will entail a total of ten cattle crossings. Four of these crossings can be constructed as dual-purpose crossings in conjunction with road and trail crossings.

The cattle crossing gates should be sixteen-foot heavy steel hinged on ten-inch well casings set in concrete. The Permittee can lock the gates to prevent them being left open. This will entail a total of twenty gates, two at each of the previously described cattle crossings.

16.3.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross one allotment fence.

All fence crossings will require an in-rail cattleguard, as well as a road cattleguard and gate for the rail service road

16.3.2.4 Stockwaters and Associated Infrastructure

The GV2 alternative will cross Cottonwood Creek twice, Cherry Creek once, and will cross a pipeline and a proposed pipeline. In addition there are seven stockwaters within the four-mile impact zone, consisting of four reservoirs or tanks, one well, one trough, and one spring. Of these seven waters, one tank and trough are within one mile of the proposed alignment.

A trough will need to be installed in the northern portion of the allotment to help evenly distribute cattle through the area of the allotment above the track. Two pipelines with two troughs each must be added to the current pipeline for the same purpose in the area of the allotment south of the track. The trough and tank within the one-mile impact zone must be moved to a distance of at least one mile from the track in order to reduce the risk of livestock-train collisions.

16.3.2.5 Road and Trails

The proposed alignment crosses three major roads and three trails.

Each road crossing would require an approach with a maximum 6 percent approach. Each trail would require a crossing with a maximum 12 percent approach.

16.3.2.6 Vegetation and Forage

Inside the 1164 acres of ROW, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the ROW, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction

related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

The amount of forage loss cannot be determined until construction is complete. Mitigation must include compensation for lost AUMs due to construction and/or operation of the railway. This includes deferred or suspend AUMs resulting from wildland fires caused by railway operations. Disturbed areas should be kept to a minimum, successfully revegetated to a predetermined condition, and managed for noxious weeds. It should be the responsibility of the rail operator to control noxious or invasive weed infestations for the life of the rail.

16.3.2.7 Loss of Livestock

The Permittee should be reimbursed for any loss of livestock due to railway operations.

16.3.2.8 Other Impacts and Mitigations

None known.

16.4 PROPOSED RAILROAD ALIGNMENT – DOE PROPOSED ROUTE – GARDEN VALLEY ALTERNATIVE 3

The GV3 alternative crosses the northwestern corner of the Pine Creek Allotment.

Rail Length Within Allotment: 2.9 miles
1,000' Construction Right-of-Way Area: 351.5 acres

16.4.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the route be fenced.

16.4.2 Impacts and Mitigation

16.4.2.1 Base Property

The proposed alignment will not have any impacts on base property.

16.4.2.2 Grazing System

The Garden Valley 3 alternative will isolate the northwestern corner of the allotment. As is the case with all alternatives the track will impede the movement of cattle between the northwestern corner and the remainder of the allotment.

Three gated cattle crossings will be required for mitigation. See Section 16.3.2.2 for construction specifics.

16.4.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross one allotment fence.

All fence crossings will require an in-rail cattleguard, as well as a road cattleguard and gate for the rail service road.

16.4.2.4 Stockwaters and Associated Infrastructure

The GV3 alternative will cross Pine Creek and a pipeline. In addition five stockwaters, consisting of one spring, one well, and three troughs, are located within the four-mile impact zone. Of these impacted stockwaters, one reservoir and one well are located in the one-mile impact zone.

The water source at the well within the one-mile impact zone must be moved to at least one mile from the proposed alignment. In addition, a new trough will need to be added along the existing pipeline to provide an additional water source at a safe distance from the track.

16.4.2.5 Road and Trails

The proposed alignment crosses one major road and one trail.

Each road crossing would require an approach with a maximum 6 percent approach. Each trail would require a crossing with a maximum 12 percent approach.

16.4.2.6 Vegetation and Forage

Inside the 352 acres of ROW, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the ROW, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

The amount of forage loss cannot be determined until construction is complete. Mitigation must include compensation for lost AUMs due to construction and/or operation of the railway. This includes deferred or suspend AUMs resulting from wildland fires caused by railway operations. Disturbed areas should be kept to a minimum, successfully revegetated to a predetermined condition, and managed for noxious weeds. It should be the responsibility of the rail operator to control noxious or invasive weed infestations for the life of the rail.

16.4.2.7 Loss of Livestock

The Permittee should be reimbursed for any loss of livestock due to railway operations.

16.4.2.8 Other Impacts and Mitigations

None known.

16.5 PROPOSED RAILROAD ALIGNMENT – DOE PROPOSED ROUTE – GARDEN VALLEY ALTERNATIVE 8

Proposed track GV8 enters the allotment from the east from the Coal Valley Lake Allotment through the Water Gap. The track will run in a southwest direction toward the bottom of the allotment before turning west-northwest and exiting the allotment in the same location as the GV2 alternative. The potential for flooding makes the Water Gap a poor choice of route for the proposed railroad.

Rail Length Within Allotment: 10.5 miles
1,000' Construction Right-of-Way Area: 1,272.7 acres

16.5.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the route be fenced.

16.5.2 Impacts and Mitigation

16.5.2.1 Base Property

The proposed alignment will not have any impacts on base property.

16.5.2.2 Grazing System

The Garden Valley 8 alternative would split the allotment into three pastures. The track presents a problem in that it will impede movement of cattle throughout the allotment. The pasture configurations will most likely cause odd grazing patterns south of the track, and heavy use along Cottonwood Creek.

Eight gated cattle crossings must be constructed, consisting of earth ramps on each side of the track with approaches not to exceed 25 percent grade. The exact location will be determined after the centerline of the railroad is staked. Two of these crossings can be constructed as dual-purpose crossings in conjunction with road and trail crossings.

The cattle crossing gates should be sixteen-foot heavy steel hinged on ten-inch well casings set in concrete. The Permittee can lock the gates to prevent them being left open. This will entail a total of sixteen gates, two at each of the previously described cattle crossings.

16.5.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross one allotment fence.

All fence crossings will require an in-rail cattleguard, as well as a road cattleguard and gate for the rail service road.

16.5.2.4 Stockwaters and Associated Infrastructure

The GV8 alternative will cross Cherry Creek once at the Water Gap. In addition there are seven stockwaters within the four-mile impact zone, consisting of four reservoirs or tanks, one well, one trough, and one spring. Of these seven waters, one tank, one trough, and one spring are within one mile of the proposed alignment.

A pipeline with a trough must be installed at the spring in the one-mile impact zone, to move the watering location to a distance of more than one mile from the proposed alignment.

16.5.2.5 Road and Trails

The proposed alignment crosses one major road and two trails. The proposed alignment runs parallel to the major road, and impacts cannot be determined until the final alignment is staked.

Each road crossing would require an approach with a maximum 6 percent approach. Each trail would require a crossing with a maximum 12 percent approach.

16.5.2.6 Vegetation and Forage

Inside the 1,273 acres of ROW, there will be a permanent displacement of forage from the railroad pad, service road, road crossings, and cattle crossings. There will also be a loss of forage caused by construction activities, which may be temporary if the area can be, and is, rehabilitated and reseeded. Outside the ROW, there will be forage depletion from road construction, staging areas, material borrow areas, worker camps, and other construction related activities that will be partially permanent, and partially temporary to the extent the areas can be, and are, rehabilitated and reseeded. The loss of forage could result in a BLM Grazing Permit reduction.

The amount of forage loss cannot be determined until construction is complete. Mitigation must include compensation for lost AUMs due to construction and/or operation of the railway. This includes deferred or suspend AUMs resulting from wildland fires caused by railway operations. Disturbed areas should be kept to a minimum, successfully revegetated to a predetermined condition, and managed for noxious weeds. It should be the responsibility of the rail operator to control noxious or invasive weed infestations for the life of the rail.

16.5.2.7 Loss of Livestock

The Permittee should be reimbursed for any loss of livestock due to railway operations.

16.5.2.8 Other Impacts and Mitigations

None known.

16.6 PROPOSED RAILROAD ALIGNMENT – LINCOLN COUNTY COTTONTAIL PASS ALTERNATIVE

The Lincoln County Cottontail Pass Alternative closely follows the southern border of the Pine Creek Allotment.

Rail Length Within Allotment: 2 miles
1,000' Construction Right-of-Way Area: 182 acres

16.6.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the route be fenced.

16.6.2 Impacts and Mitigation

Impacts within the allotment are minimal and are limited to the loss of forage associated with the railroad ROW, and a major road crossing. No stockwaters are considered to be impacted due to the fact that the track would run along the allotment boundary and there would be no cattle movement over the track.

Standard mitigations as laid out in Sections 16.5.2.6 and 16.5.2.5 apply.

Table 16.2: Pine Creek Allotment Impacted Features

Impacted Features	DOE Proposed Route – Garden Valley Alternative 1	DOE Proposed Route – Garden Valley Alternative 2	DOE Proposed Route – Garden Valley Alternative 3	DOE Proposed Route – Garden Valley Alternative 8	Lincoln County Cottontail Pass Alternative
Base Property (land)	0	0	0	0	0
Base Property (water within 4 miles)	0	0	0	0	0
Base Property (water within 1 mile)	0	0	0	0	0
Base Property (pipeline crossings)	0	0	0	0	0
Existing Fencing (ea)	2	2	2	1	1
Capital Improvements	0	0	0	0	0
Stockwaters within 4 miles	7	7	5	7	0
Stockwaters within 1 mile	2	2	2	3	0
Creeks (ea)	3	3	1	1	0
Pipelines (ea)	1	1	1	0	0
Roads (ea)	1	3	1	1	1
Trails (ea)	1	3	1	2	0
ROW Acreage	570	1,161	349	1,270	182

Table 16.3: Pine Creek Allotment Mitigation Summary

Proposed Mitigation Units	DOE Proposed Route – Garden Valley Alternative 1	DOE Proposed Route – Garden Valley Alternative 2	DOE Proposed Route – Garden Valley Alternative 3	DOE Proposed Route – Garden Valley Alternative 8	Lincoln County Cottontail Pass Alternative
Fence Construction (miles)	9.4	19.2	5.8	21	8.5
Fence Removal	0	0	0	0	4
Gates (ea)	11	27	8	20	8
Railroad Cattleguards (ea)	2	21	4	18	16
Road Cattleguards (ea)	1	0	3	2	2
Grazing Management Plan	1	1	1	1	1
Corral Relocation	0	0	0	0	0
Chute Relocation	0	0	0	0	0
Wells (ea)	0	0	0	0	0
Troughs (ea)	1	6	2	1	0
Springs (ea)	0	0	0	0	0
Creek Crossings (ea)	2	3	1	1	0
Unspecified Stockwaters (ea)	1	1	0	0	0
Pipeline Crossings (ea)	1	2	1	0	0
Pipeline Construction (miles)	0	7.3	.75	1	0
Road Crossings (ea)	1	3	1	1	1
Trail Crossings (ea)	0	3	1	0	0
Road / Trail Realignment (mi)	1	0	0	0	0
Sheep Crossings (ea)	0	0	0	0	0
Cattle Crossings (ea)	5	0	3	0	0
Underpasses (ea)	0	0	0	0	0

Figure 16.1: Pine Creek Allotment

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16.1 Pine Creek.pdf