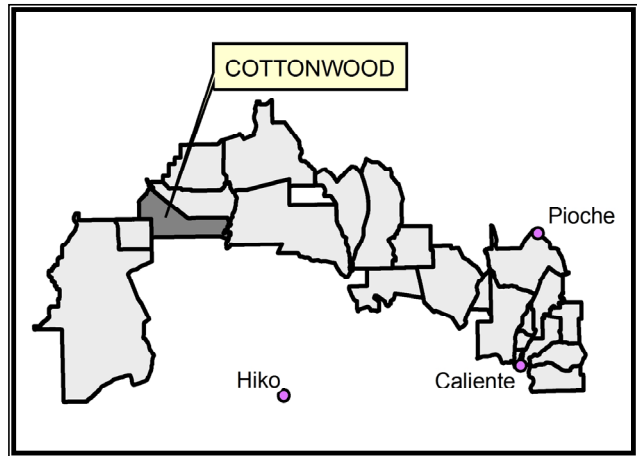


17.0 COTTONWOOD ALLOTMENT

Permittee: Kay Wright Ranch LLC
Contact: Rocky and Linda Hatch
City/State: Hiko, Nevada

Base Property: 25 percent Water (Carpenter Spring and the Carpenter Spring Pipeline) and 75 percent Land.



17.1 ALLOTMENT DESCRIPTION

The Cottonwood Allotment is bordered by the Golden Gate Range to the east, and the Quinn Canyon Range to the west.

Table 17.1: Cottonwood Allotment Details

ALLOTMENT ACRES		GRAZING PERMIT					
Public	Private	Number/Type of Livestock		Season of Use	AUMs		
					Total	Active	Suspended
41,135	302	233	Cattle	10/01 - 12/31 4/01 - 5/31	3,016	1,177	1,839

17.1.1 Grazing System

This allotment uses a three pasture rotational grazing system.

17.1.2 Stockwaters and Water Rights

The allotment is watered by a nine-mile long pipeline from Carpenter Spring with a series of troughs, in addition to wells, springs, ponds, reservoirs, and intermittent creeks. The stockwater improvements are authorized by BLM under Cooperative Agreements.

The stockwaters are all vested, certified, or permitted under Nevada State Law. They are private property rights. All the watering troughs constitute authorized “points of diversion” under state law.

17.1.3 Existing Fencing

The majority of the allotment is fenced with the exception of natural barriers. Two internal fences create the pastures.

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

The DOE proposed alignment would enter the Cottonwood Allotment on the northern side of the western half, and would exit near the northeastern corner of the McCutcheon Spring Allotment.

Rail Length Within Allotment: 4.10 miles
1,000' Construction Right-of-Way Area: 496.97 acres

17.2.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the railroad right-of-way (ROW) remain unfenced, preferring to take the risk of death loss from collisions on an unfenced track and receive compensation, than lose the freedom for cattle to graze on both sides of the track.

17.2.2 Impacts and Mitigation

17.2.2.1 Base Property

The proposed alignment intersects the Carpenter Spring Pipeline, which, along with Carpenter Spring, makes up 25 percent of the base property for the Cottonwood Allotment. There are 181 AUMs attached to the pipeline and 110 AUMs attached to the spring. The balance of the permit is attached to land. The Base Property classification adds a level of value and importance to the spring and pipeline beyond the level of private property rights under state law.

See Section 17.2.2.4 for proposed mitigation.

17.2.2.2 Grazing System

The railroad will impede cattle movement and grazing habits to some degree by creating a barrier over which cattle must travel to get from one side of the pasture to the other. The deeper the cuts and fills, the more interference to livestock movement.

A cattle crossing will be required in both the central and western pastures. These features should be constructed with less than a 25 percent grade.

17.2.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross two fences.

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

17.2.2.4 Stockwaters and Associated Infrastructure

The proposed alignment would run within four miles of twelve different stockwaters, including three troughs, three wells, three springs and three reservoirs. Of these twelve stockwaters, one trough, one well, and two reservoirs are within one mile of the track. This is of particular concern due to potential increase for livestock-train collisions. The proposed alignment would also cross the Carpenter Spring Pipeline, which is a base property.

The stockwaters within one mile of the track should be move away from the track to allow for a buffer in excess of one mile. The pipeline that would be crossed by the track would need to be protected to allow for continuous flow through the duration of construction and operation of the rail.

17.2.2.5 Road and Trails

The proposed alignment would cross one road 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.

17.2.2.6 Vegetation and Forage

A permanent loss of forage will occur within the railway footprint as well as within the fenced ROW. Other concerns include the temporary loss of forage due to construction activities and railway operations. There is also the potential for long-term loss of desirable forage within disturbed areas due to difficulty of rehabilitation, establishment of noxious or invasive weeds, and fires resulting from railway operations.

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.

17.2.2.7 Loss of Livestock

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

17.2.2.8 Other Impacts and Mitigations

None known.

17.3 PROPOSED RAILROAD ALIGNMENT – DOE PROPOSED ROUTE – GARDEN VALLEY ALTERNATIVES 1

The DOE proposed alignment would enter the Cottonwood Allotment on the northern side of the western half, and would exit near the northeastern corner of the McCutcheon Spring Allotment.

Rail Length Within Allotment: 4.42 miles
1,000' Construction Right-of-Way Area: 535.76 acres

17.3.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the railroad ROW remain unfenced, preferring to take the risk of death loss from collisions on an unfenced track and receive compensation, than lose the freedom for cattle to graze on both sides of the track.

17.3.2 Impacts and Mitigation

17.3.2.1 Base Property

The proposed alignment intersects the Carpenter Spring Pipeline, which, along with Carpenter Spring, makes up 25 percent of the base property for the Cottonwood Allotment. There are 181 AUMs attached to the pipeline and 110 AUMs attached to the spring. The balance of the permit is attached to land. The Base Property classification adds a level of value and importance to the spring and pipeline beyond the level of private property rights under state law.

See Section 17.3.2.4 for proposed mitigation.

17.3.2.2 Grazing System

See Section 17.2.2.2 as the same impacts apply.

A cattle crossing will be required in both the central and western pastures. These features should be constructed with less than a 25 percent grade.

17.3.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross two fences.

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

17.3.2.4 Stockwaters and Associated Infrastructure

The proposed alignment would run within four miles of thirteen different stockwaters, including three springs, two pipeline troughs, five ponds, and three wells. One trough, one well, and two ponds are within a mile of the rail, subjecting the cattle to increased risk of collision and death because of congestion proximity to the rail. The proposed alignment would also cross the Carpenter Spring Pipeline, which is a base property.

The stockwaters within one mile of the track should be move away from the track to allow for a buffer in excess of one mile. The pipeline that would be crossed by the track would need to be protected to allow for continuous flow through the duration of construction and operation of the rail. In addition a new stockwater well will be required to mitigate the impact of the rail of the stockwaters in the four-mile impact zone.

17.3.2.5 Road and Trails

Two roads and two trails are intersected by the proposed railroad.

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.

17.3.2.6 Vegetation and Forage

A permanent loss of forage will occur within the railway footprint as well as within the fenced ROW. Other concerns include the temporary loss of forage due to construction activities and railway operations. There is also the potential for long-term loss of desirable forage within disturbed areas due to difficulty of rehabilitation, establishment of noxious or invasive weeds, and fires resulting from railway operations.

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.

17.3.2.7 Loss of Livestock

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

17.3.2.8 Other Impacts and Mitigations

None known.

17.4 PROPOSED RAILROAD ALIGNMENT – DOE PROPOSED ROUTE – GARDEN VALLEY ALTERNATIVES 2

The DOE proposed alignment would enter the Cottonwood Allotment on the northern side of the western half, and would exit near the northeastern corner of the McCutcheon Spring Allotment.

Rail Length Within Allotment: 5.14 miles
1,000' Construction Right-of-Way Area: 623.03 acres

17.4.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the railroad ROW remain unfenced, preferring to take the risk of death loss from collisions on an unfenced track and receive compensation, than lose the freedom for cattle to graze on both sides of the track.

17.4.2 Impacts and Mitigation

17.4.2.1 Base Property

The proposed alignment intersects the Carpenter Spring Pipeline, which, along with Carpenter Spring, makes up 25 percent of the base property for the Cottonwood Allotment. There are 181 AUMs attached to the pipeline and 110 AUMs attached to the spring. The balance of the permit is attached to land. The Base Property classification adds a level of value and importance to the spring and pipeline beyond the level of private property rights under state law.

See Section 17.4.2.4 for proposed mitigation.

17.4.2.2 Grazing System

See Section 17.2.2.2 as the same impacts apply.

A cattle crossing will be required in both the central and western pastures. These features should be constructed with less than a 25 percent grade.

17.4.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross two fences.

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

17.4.2.4 Stockwaters and Associated Infrastructure

The impacts to stockwaters are the same as those for the GV1 alternative, except for the number of stockwaters that are within one mile of the railroad. In the case of GV2, one trough and one reservoir are within one mile.

Mitigation is the same as for the GV1 alternative.

17.4.2.5 Road and Trails

One road and three trails would be intersected by the proposed rail alignment.

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.

17.4.2.6 Vegetation and Forage

A permanent loss of forage will occur within the railway footprint as well as within the fenced ROW. Other concerns include the temporary loss of forage due to construction activities and railway operations. There is also the potential for long-term loss of desirable forage within disturbed areas due to difficulty of rehabilitation, establishment of noxious or invasive weeds, and fires resulting from railway operations.

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.

17.4.2.7 Loss of Livestock

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

17.4.2.8 Other Impacts and Mitigations

None known.

17.5 PROPOSED RAILROAD ALIGNMENT – LINCOLN COUNTY COTTONTAIL PASS ALTERNATIVE

The Lincoln County Cottontail Pass Alternative enters the east side of the Cottonwood Allotment at Cottontail Pass and would continue approximately due west until exiting the allotment near the northeastern corner of the McCutcheon Spring Allotment.

Rail Length Within Allotment: 10.89 miles
1,000' Construction Right-of-Way Area: 1,138.00 acres

17.5.1 Fencing Preference for Proposed Rail Alignment

The Permittee prefers that the railroad ROW remain unfenced, preferring to take the risk of death loss from collisions on an unfenced track and receive compensation, than lose the freedom for cattle to graze on both sides of the track.

17.5.2 Impacts and Mitigation

17.5.2.1 Base Property

The proposed alignment intersects the Carpenter Spring Pipeline. See Section 17.2.2.1 for further details.

See Section 17.2.2.4 for proposed mitigation.

17.5.2.2 Grazing System

The railroad will impede cattle movement and grazing habits to some degree by creating a barrier over which cattle must travel to get from one side of the pasture to the other. The deeper the cuts and fills, the more interference to livestock movement.

Cattle crossings must be constructed with less than 25 percent grade at approximately one-mile intervals between road crossings. This will require three cattle crossing.

17.5.2.3 Existing Fence and Capital Improvements

The proposed alignment would cross three fences.

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

17.5.2.4 Stockwaters and Associated Infrastructure

The proposed alignment would run within four miles of fourteen different stockwaters, including three troughs, three wells, five springs and three reservoirs. Of these fourteen stockwaters, one trough, one spring, and one reservoir are within one mile of the track. This is of particular concern due to potential increase for livestock-train collisions. The proposed alignment would also cross the Carpenter Spring Pipeline, which is a base property.

The stockwaters within one mile of the track should be moved away from the track to allow for a buffer in excess of one mile. The pipeline that would be crossed by the track would need to be protected to allow for continuous flow through the duration of construction and operation of the rail.

17.5.2.5 Road and Trails

The proposed alignment would cross two roads and four 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.

17.5.2.6 Vegetation and Forage

A permanent loss of forage will occur within the railway footprint as well as within the fenced ROW. Other concerns include the temporary loss of forage due to construction activities and railway operations. There is also the potential for long-term loss of desirable forage within disturbed areas due to difficulty of rehabilitation, establishment of noxious or invasive weeds, and fires resulting from railway operations.

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.

17.5.2.7 Loss of Livestock

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

17.5.2.8 Other Impacts

The Permittee feels very strongly that the complications associated with this alternative will make it impossible for his business to continue.

Table 17.2: Cottonwood Allotment Impacted Features

Impacted Features	DOE Proposed Route – Garden Valley Alternative 3	DOE Proposed Route – Garden Valley Alternative 1	DOE Proposed Route – Garden Valley Alternative 2	Lincoln County Cottontail Pass Alternative
Base Property (land)	0	0	0	0
Base Property (water within 4 miles)	4	3	3	3
Base Property (water within 1 mile)	1	1	0	1
Base Property (pipeline crossings)	1	1	1	1
Existing Fencing (ea)	2	2	2	3
Capital Improvements	0	0	0	0
Stockwaters within 4 miles	12	13	13	14
Stockwaters within 1 mile	4	4	2	3
Creeks (ea)	0	0	0	0
Pipelines (ea)	1	1	1	1
Roads (ea)	1	2	1	2
Trails (ea)	3	1	3	4
ROW Acreage	497	536	623	1,138

Table 17.3: Cottonwood Allotment Mitigation Summary

Proposed Mitigation Units	DOE Proposed Route – Garden Valley Alternative 3	DOE Proposed Route – Garden Valley Alternative 1	DOE Proposed Route – Garden Valley Alternative 2	Lincoln County Cottontail Pass Alternative
Fence Construction (miles)	0	0	0	0
Fence Removal	0	0	0	0
Gates (ea)	2	6	8	2
Railroad Cattleguards (ea)	2	2	1	2
Road Cattleguards (ea)	2	2	1	2
Grazing Management Plan	1	1	1	1
Corral Relocation	0	0	0	0
Chute Relocation	0	0	0	0
Wells (ea)	0	0	0	0
Troughs (ea)	2	2	2	2
Springs (ea)	0	0	0	0
Creek Crossings (ea)	0	0	0	0
Unspecified Stockwaters (ea)	2	2	2	1
Pipeline Crossings (ea)	1	1	1	1
Pipeline Construction (miles)	.5	.5	.5	.5
Road Crossings (ea)	1	2	1	0
Trail Crossings (ea)	3	2	3	0
Sheep Crossings (ea)	0	0	0	0
Cattle Crossings (ea)	2	2	2	3
Underpasses (ea)	0	0	0	0

Figure 17.1: Cottonwood Allotment

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17.1 Cottonwood.pdf