

Appendix D
Impact Data Tables

Impacts to Vegetation by Mile

Mile				Resource	Disturbance	Permanent	Permanent	Temporary	Temporary	Initial	Mitigation	Residual
From	To	Length	Feature	Sensitivity	Level	Acres Disturbed/Mile	Acres of Habitat Disturbed	Acres Disturbed/Mile	Acres of Habitat Disturbed	Impact	Measures Applied	Impact
0.0	3.5	3.5	Rosy two-tone penstemon, yellow two-tone penstemon	M	1	3.3	11.55	2.8	9.8	M	1, 2, 3, 4	
3.5	6.0	2.5	Rosy two-tone penstemon, yellow two-tone penstemon	M	4	8.7	21.75	3.3	8.25	NI	NA	N
6.0	14.6	8.6	No known species or habitat	NI	1	3.3	28.38	2.8	24.08	NI	NA	N
14.6	15.8	1.2	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	1	3.3	3.96	2.8	3.36	L	1, 2, 3, 4	
15.8	16.4	0.6	Las Vegas bearpoppy	M	1	3.3	1.98	2.8	1.68	M	1, 2, 3, 4	L
16.4	19.0	2.6	Las Vegas bearpoppy, sticky ringstem	M	1	3.3	8.58	2.8	7.28	M	1, 2, 3, 4	
19.0	19.8	0.8	Las Vegas bearpoppy, sticky ringstem, milkvetch	M	1	3.3	2.64	2.8	2.24	M	1, 2, 3, 4	
19.8	21.0	1.2	Milkvetch	L	1	3.3	3.96	2.8	3.36	L	1, 2, 3, 4	
21.0	22.0	1.0	No known species or habitat	NI	1	3.3	3.3	2.8	2.8	NI	NA	
22.0	23.0	1.0	Rosy two-tone penstemon, yellow two-tone penstemon, gypsum soils	M	1	3.3	3.3	2.8	2.8	M	1, 2, 3, 4	
23.0	26.0	3.0	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	1	3.3	9.9	2.8	8.4	L	1, 2, 3, 4	
26.0	28.0	2.0	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	2	5.3	10.6	4.2	8.4	L	1, 2, 3, 4	
28.0	36.0	8	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	1	3.3	26.4	2.8	22.4	L	1, 2, 3, 4	N
36.0	36.5	0.5	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	3	4.8	2.4	2.8	1.4	L	1, 2, 3, 4	N

H-high impact; M-moderate impact; L-low impact; NI-no identifiable impact

Impacts to Vegetation by Mile

Mile				Resource	Disturbance	Permanent	Permanent	Temporary	Temporary	Initial	Mitigation	Residual
From	To	Length	Feature	Sensitivity	Level	Acres Disturbed/Mile	Acres of Habitat Disturbed	Acres Disturbed/Mile	Acres of Habitat Disturbed	Impact	Measures Applied	Impact
36.5	38.0	1.5	No known species or habitat	NI	3	4.8	7.2	2.8	4.2	NI	NA	
38.0	39.0	1	Rosy two-tone penstemon, yellow two-tone penstemon	M	3	4.8	4.8	2.8	2.8	M	1, 2, 3, 4	L
39.0	42.0	3.0	No known species or habitat	NI	3	4.8	14.4	2.8	8.4	NI	NA	N
42.0	44.5	2.5	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	1	3.3	8.25	2.8	7	L	1, 2, 3, 4	L
44.5	47.5	3	No known species or habitat	NI	1	3.3	9.9	2.8	8.4	Ni		
47.5	48.0	0.5	Gypsum Soils-Potential habitat for Las Vegas bearpoppy, sticky ringstem and Las Vegas buckwheat	L	1	3.3	1.65	2.8	1.4	L	1, 2, 3, 4	L

Total Acres of Gypsum Soils-Potential Las Vegas Bearpoppy, Sticky Ringstem and Las Vegas Buckwheat Habitat Disturbed Permanent - **81.4** Temporary - **67.2**

Total Acres of Potential Penstemon Habitat Disturbed Permanent - **41.4** Temporary - **23.7**

Wildlife Impacts by Mile

Mile						Permanent Acres Disturbed/ Mile	Permanent Acres Disturbed	Temporary Acres Disturbed/ Mile	Temporary Acres Disturbed			
From	To	Length	Habitat Type	Resource Sensitivity	Disturbance Level					Initial Impact	Mitigation Measures	Residual Impact
0.0	3.5	3.5	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	1	3.3	11.6	2.8	9.8	L	1,2,3,4,5	L
3.5	6.0	2.5	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	4	8.7	21.8	3.3	8.3	M	1,2,3,4,5	L
6.0	26.0	20.0	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	1	3.3	66.0	2.8	56.0	L	1,2,3,4,5	L
26.0	26.4	0.4	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	2	5.3	2.1	4.2	1.7	L	1,2,3,4,5	L
26.4	27.4	1.0	Chuckwalla, Y.C. Rail, Per. Falcon, SW W. Flycatcher, Tortoise, Bur. Owl, Gila Monster	H	2	5.3	5.3	4.2	4.2	M/L	1,2,3,4,5	L
27.4	28.2	0.8	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	2	5.3	4.2	4.2	3.4	L	1,2,3,4,5	L
28.2	35.0	6.8	Tortoise, Bur. Owl, Gila Monster, Chuckwalla, Bighorn Sheep	H	1	3.3	22.4	2.8	19.0	L	1,2,3,4,5	L
35.0	36.0	1.0	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	1	3.3	3.3	2.8	2.8	L	1,2,3,4,5	L
36.0	42.0	6.0	Tortoise, Bur. Owl, Gila Monster, Chuckwalla, Bighorn Sheep	H	3	4.8	28.8	2.8	16.8	M	1,2,3,4,5	M
42.0	47.9	5.9	Tortoise, Bur. Owl, Gila Monster, Chuckwalla	M	1	0.0	0.0	0.5	3.2	L	1,2,3,4,5	L
			Total Acres Disturbed				165.5		125.1			
			Potential Bighorn Sheep Habitat Disturbed				51.2		35.8			

H-high impact; M-moderate impact; L-low impact; NI-no identifiable impact

Visual Impacts by Mile

Key: FG=Foreground, MG=Middle Ground, BG=Background, Y=Yes

Milepost		Moderate Sensitivity Views				High Sensitivity Views				Residual Impact
From	To	Planned Park Views	Planned Residential/Institutional Views	Gen. Travel Route Views	Park Views	Residential Views	Rec. Dest. Road Views	Mitigation Measure	Impact Description	
0.0	1.7	None	None	MG	None	None	None	6	route parallels multiple T-line corridor	Y
1.7	1.8	None	None	MG	None	None	None	6	route parallels multiple T-line corridor	Y
1.8	3.4	None	None	FG	None	None	None	6	views from I-15	Y
3.4	3.5	None	None	FG	None	None	None	6,9,10	route would not parallel other T-lines	Y
3.5	3.6	None	None	MG	None	None	None	6,9,10	route would not parallel other T-lines	Y
3.6	5.5	None	None	MG	None	None	None	6,9,10	route would not parallel other T-lines	Y
5.5	11.6	None	None	None	None	None	None	6	route parallels two existing 500kV T-lines	Y
11.6	12.0	None	None	BG	None	None	None	6	route parallels two existing 500kV T-lines	Y
12.0	14.5	None	None	None	None	None	None	6	route parallels two existing 500kV T-lines	Y
14.5	17.0	None	None	None	None	None	BG	6	route parallels two existing 500kV T-lines	Y
17.0	19.4	None	None	None	None	None	MG	1,6,9,10	place towers furthest from viewpoint at MP 17.4	Y
19.4	19.6	None	None	None	None	None	FG	6,9,10	views from NV 147	Y
19.6	20.3	None	None	None	BG	BG	FG	6,9,10	views from NV 147	Y
20.3	21.4	BG	None	None	BG	BG	FG	6,9,10	views from NV 147	Y
21.4	21.5	None	None	None	BG	BG	FG	6,9,10	views from NV 147	Y
21.5	22.0	BG	None	None	BG	BG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
22.0	22.1	BG	None	None	BG	BG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
22.1	22.3	None	None	None	BG	BG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
22.3	22.4	None	None	None	BG	None	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
22.4	22.9	None	None	None	None	None	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
22.9	23.0	None	None	None	None	BG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
23.0	23.5	BG	BG	None	BG	BG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
23.5	23.6	BG	BG	None	MG	BG	BG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
23.6	23.7	BG	BG	None	MG	MG	BG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
23.7	24.0	MG	BG	None	MG	MG	BG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
24.0	24.7	MG	MG	None	MG	MG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y

Visual Impacts by Mile

Key: FG=Foreground, MG=Middle Ground, BG=Background, Y=Yes

Milepost		Moderate Sensitivity Views				High Sensitivity Views				
From	To	Planned Park Views	Planned Residential/Institutional Views	Gen. Travel Route Views	Park Views	Residential Views	Rec. Dest. Road Views	Mitigation Measure	Impact Description	Residual Impact
24.7	24.9	MG	MG	BG	MG	MG	BG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
24.9	25.6	MG	MG	None	MG	MG	MG	6,9,10	views from dispersed recreationists, minimize road widening in Sunrise Mgmt Area	Y
25.6	25.8	MG	MG	None	FG	FG	MG	6,9,10	views from resort residential areas, foothills reduce project visibility	Y
25.8	25.9	MG	MG	BG	FG	FG	MG	6,9,10	views from resort residential areas, foothills reduce project visibility	Y
25.9	26.3	FG	MG	BG	FG	FG	MG	6,9,10	views from resort residential areas, foothills reduce project visibility	Y
26.3	27.3	FG	FG	BG	FG	FG	MG	6,9,10	views from resort residential areas, foothills reduce project visibility	Y
27.3	27.4	FG	FG	BG	MG	MG	MG	6,9,10	views from wetlands park, minimize road widening in Sunrise Mgmt Area	Y
27.4	27.6	FG	FG	BG	MG	FG	MG	6,9,10	views from wetlands park, minimize road widening in Sunrise Mgmt Area	Y
27.6	28.2	FG	FG	BG	FG	FG	FG	6	route parallels two existing 500kV T-lines	Y
28.2	28.6	FG	FG	BG	FG	FG	FG	7,8	views from suburban residential areas	Y
28.6	28.7	FG	MG	BG	FG	FG	FG	7,8	views from suburban residential areas	Y
28.7	29.1	FG	MG	BG	FG	FG	FG	7,8	views from suburban residential areas	Y
29.1	29.2	MG	MG	BG	FG	FG	FG	7,8	views from suburban residential areas	Y
29.2	29.3	MG	MG	BG	FG	FG	MG	7,8	views from suburban residential areas	Y
29.3	30.4	MG	MG	MG	FG	FG	MG	7,8	views from suburban residential areas	Y
30.4	30.5	MG	MG	MG	FG	FG	MG	7,8	views from suburban residential areas	Y
30.5	30.9	MG	BG	MG	FG	FG	MG	7,8	views from suburban residential areas	Y
30.9	31.0	MG	BG	MG	FG	MG	MG	7,8	views from suburban residential areas	Y
31.0	31.7	MG	MG	MG	FG	MG	MG	7,8	views from suburban residential areas	Y
31.7	32.4	MG	MG	MG	FG	MG	BG	7,8	views from suburban residential areas	Y
32.4	32.6	FG	MG	MG	FG	MG	BG	7,8	views from suburban residential areas	Y
32.6	33.4	FG	MG	MG	FG	FG	BG	7,8	views from suburban residential areas	Y
33.4	33.7	FG	MG	MG	FG	FG	BG	7,8	views from suburban residential areas	Y
33.7	34.3	FG	FG	MG	FG	FG	BG	7,8	views from suburban residential areas	Y
34.3	34.5	FG	FG	FG	FG	FG	BG	7,8	views from suburban residential areas	Y
34.5	35.0	FG	FG	FG	FG	MG	BG	7,8	views from suburban residential areas	Y
35.0	36.0	FG	FG	FG	FG	MG	BG	7,8	views from US 93	Y
36.0	36.2	FG	MG	FG	FG	MG	BG	7,8	views from Henderson State College	Y
36.2	36.3	MG	MG	FG	MG	MG	BG	7,8	views from Henderson State College	Y
36.3	36.6	MG	MG	MG	MG	MG	BG	7,8	views from Henderson State College	Y

Visual Impacts by Mile

Key: FG=Foreground, MG=Middle Ground, BG=Background, Y=Yes

Milepost		Moderate Sensitivity Views					High Sensitivity Views				
From	To	Planned Park Views	Planned Residential/Institutional Views	Gen. Travel Route Views	Park Views	Residential Views	Rec. Dest. Road Views	Mitigation Measure	Impact Description	Residual Impact	
36.6	38.0	MG	MG	MG	MG	MG	BG	6	route parallels two existing 500kV T-lines	Y	
38.0	38.5	MG	MG	MG	MG	MG	BG	6	route parallels two existing 500kV T-lines	Y	
38.5	38.6	BG	None	MG	BG	MG	None	6	route parallels two existing 500kV T-lines	Y	
38.6	38.8	None	None	MG	BG	MG	BG	6	route parallels two existing 500kV T-lines	Y	
38.8	39.0	None	None	BG	BG	MG	BG	6	route parallels two existing 500kV T-lines	Y	
39.0	40.5	None	None	BG	None	None	None	6,9,10	route would not parallel other T-lines	Y	
40.5	41.2	None	None	MG	None	None	None	6	route parallels two existing 230kV T-lines	Y	
41.2	41.3	None	None	MG	None	MG	None	6	route parallels two existing 230kV T-lines	Y	
41.3	42.5	None	None	MG	BG	MG	BG	6	route parallels two existing 230kV T-lines	Y	
42.5	42.8	None	None	MG	MG	MG	BG	6	route parallels two existing 230kV T-lines	Y	
42.8	42.9	None	None	FG	MG	FG	BG	6	views from dispersed rural residences	Y	
42.9	43.3	None	None	FG	MG	FG	MG	6	views from dispersed rural residences	Y	
43.3	43.5	None	None	FG	MG	MG	MG	6	views from US 95	Y	
43.5	44.6	None	None	FG	MG	MG	MG	6	views from US 95	Y	
44.6	47.9	None	None	MG	MG	MG	MG	6	route parallels multiple T-line corridor	Y	
47.9	48.0	None	None	BG	MG	MG	BG	6	route parallels multiple T-line corridor	Y	

Impacts to NRHP-Eligible Sites^A

Site	Corridor	NRHP	Era	Type	Potential Effect	Recommendation
26Ck	Segment	Eligible				
5	North	A, B, D	PH	Complex Feature/Assemblage - Gypsum Cave	Indirect impact	Mitigation
1085	North	D	PH	Complex Feature/Assemblage - Rockshelter	In corridor	Mitigation
1086	North	D	PH	Complex Feature/Assemblage – Open-air	Access road	Mitigation
1116	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ SRL	In P/T	Redesign P/T to avoid
1124	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	In P/T	No Effect if impacts confined to south end of site (North Locus only is significant.)
1129	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	In corridor	Mitigation
1131	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	In corridor	Mitigation
1132	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	In corridor	Mitigation
1134	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	In corridor	Mitigation
1138	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	Access road	Avoid. Use existing haul road
1169*	South	D	H	Hoover Dam Squatters Camp	In corridor	Mitigation
1281	Las Vegas Wash	C, D	PH	Fragile Pattern Site	In corridor	Mitigation
1282	Las Vegas Wash	C, D	PH	Complex Feature/Assemblage	Access road	Avoid. Use existing haul road
1284	Las Vegas Wash	C, D	PH	Fragile Pattern Site/Rockshelter	In corridor	Mitigation
1315	Las Vegas Wash	C, D	PH	Fragile Pattern Site	In corridor	Mitigation
3221	Las Vegas Wash	C, D	PH	Fragile Pattern Site w/ Simple Flake Scatter	In P/T	Mitigation
4786	North	A, D	H	Transportation railroad shoofly	In corridor	Mitigation
5414	South	A, C	H	Transportation Boulder City Brand RR	In corridor	Mitigation
5685	North	A, D	H	Transportation SPLA&SL Railroad	In corridor	Mitigation
6797	South	D	PH	Petroglyph	In P/T	Redesign P/T to avoid
6804	South	D	PH	Complex Feature/Assemblage	In corridor, P/T	Mitigation
6805	South	D	H	Hoover Dam (?) Squatters' Camp	In corridor	Mitigation
6808	South	D	PH	Quarry	Access road	Avoid with road closure
6809	South	D	PH	Quarry	Access road	Avoid with road closure

NOTE: A – Sites within the Las Vegas Wash Corridor Segment, eligibility to the NRHP under Criterion C are contributing properties in the Las Vegas Wash Archaeological District

Existing Land Use Impacts by Mile

MILEPOST			FEATURE	DISTURBANCE	INITIAL	MITIGATION	RESIDUAL
FROM	TO	LENGTH		LEVEL	IMPACT	MEASURE(S)	IMPACT
0.5	0.6	0.1	Kern River 36" Gas Pipeline/Kern River 36" Gas Pipeline (2003 Kern River Expansion Project)	1	M	1	NI
1.2	1.3	0.1	Kern River 36" Gas Pipeline/Kern River 36" Gas Pipeline (2003 Kern River Expansion Project)	1	M	1	NI
2.0	2.3	0.3	BLM Designated Utility Corridor (Dry Lake Valley)	1	NI		NI
2.3	2.4	0.1	BLM Designated Utility Corridor (Dry Lake Valley), 230kV Transmission Line	1	M	1	NI
2.4	2.5	0.1	BLM Designated Utility Corridor (Dry Lake Valley), (3) 230kV Transmission Line, 345kV Transmission Line	1	M	1	NI
2.5	2.6	0.1	BLM Designated Utility Corridor (Dry Lake Valley)	1	NI		NI
2.6	2.7	0.1	Interstate 15	1	M	1	NI
6.0	14.9	8.9	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
14.9	15.0	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), PABCO Gypsum Railroad Spur	1	M	1	NI
15.0	16.3	1.3	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
16.3	17.6	1.3	BLM Designated Utility Corridor (Black Mountain-Crystal), Pabco Gypsum (patented mining claims)	1	NI		NI
17.6	20.4	2.8	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
20.4	20.5	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), State Route 147	1	M	1	NI
20.5	26.0	5.5	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
26.0	26.6	0.6	BLM Designated Utility Corridor (Black Mountain-Crystal)	2	NI		NI
26.6	26.7	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), Clark County Regional Flood Control District Flood Control Facility (Conveyance)	2	M	1	NI
26.7	26.8	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal)	2	NI		NI
26.8	26.9	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), Clark County Regional Flood Control District Flood Control Facility (Conveyance)	2	M	1	NI
26.9	27.5	0.6	BLM Designated Utility Corridor (Black Mountain-Crystal)	2	NI		NI
27.5	27.6	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), (2) 500kV Transmission Lines	2	M	1	NI
27.6	28.0	0.4	BLM Designated Utility Corridor (Black Mountain-Crystal)	2	NI		NI
28.0	28.4	0.4	BLM Designated Utility Corridor (Black Mountain-Crystal), State Route 146, Southern Nevada Water Authority Las Vegas Valley Lateral (90") and Pittman Lateral (102")	1	M	1	NI
28.4	28.6	0.2	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
28.6	28.7	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 69kV Transmission Line	1	M	1	NI
28.7	29.5	0.8	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
29.5	29.6	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 69kV Transmission Line, Southern Nevada Water Authority River Mountains Aqueduct (108") and River Mountains Lateral (72")	1	M	1	NI
29.6	29.9	0.3	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
29.9	30.0	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 69kV Transmission Line	1	M	1	NI

H-high impact; M-moderate impact; L-low impact; NI-no identifiable impact

Existing Land Use Impacts by Mile

MILEPOST		LENGTH	FEATURE	DISTURBANCE	INITIAL	MITIGATION	RESIDUAL
FROM	TO			LEVEL	IMPACT	MEASURE(S)	IMPACT
30.0	32.2	2.2	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
32.2	32.3	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 69kV Transmission Lines, 230kV Transmission Line, Clark County Regional Flood Control District Flood Control Facility (Conveyance)	1	M	1	NI
32.6	32.7	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 230kV Transmission Line	1	M	1	NI
32.7	34.9	2.2	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
34.9	35.0	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 230kV Transmission Line	1	M	1	NI
35.0	35.3	0.3	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
35.3	35.4	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), Southern Nevada Water Authority Boulder City Raw Water Delivery System (30")	1	M	1	NI
35.4	35.5	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), U.S. Highway 93/95	1	M	1	NI
35.5	35.6	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
35.6	35.7	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), Union Pacific Railroad, 230kV Transmission Line	1	M	1	NI
35.7	36.0	0.3	BLM Designated Utility Corridor (Black Mountain-Crystal)	1	NI		NI
36.0	36.7	0.7	BLM Designated Utility Corridor (Black Mountain-Crystal)	3	NI		NI
36.7	36.8	0.1	BLM Designated Utility Corridor (Black Mountain-Crystal), 500kV Transmission Line	3	M	1	NI
36.8	38.6	1.8	BLM Designated Utility Corridor (Black Mountain-Crystal)	3	NI		NI
38.8	38.9	0.1	500kV Transmission Line	3	M	1	NI
40.2	41.8	1.6	(2) 230kV Transmission Lines	3	M	1	NI
42.7	43.0	0.3	Gornowich Sand and Gravel Operation	1	M	1	L
43.1	43.2	0.1	Commercial Facility (Automotive)	1	M	1	L
43.7	43.8	0.1	U.S. Highway 95	1	M	1	NI
44.0	44.1	0.1	BLM Designated Utility Corridor (Boulder-Primm North)	1	NI		NI
44.1	44.2	0.1	BLM Designated Utility Corridor (Boulder-Primm North), (2) 230kV Transmission Lines	1	M	1	NI
44.2	46.5	2.3	BLM Designated Utility Corridor (Boulder-Primm North)	1	NI		NI
46.5	46.6	0.1	BLM Designated Utility Corridor (Boulder-Primm South), 230kV Transmission Line, 69kV Transmission Line	1	M	1	NI
46.6	46.8	0.2	BLM Designated Utility Corridor (Boulder-Primm South)	1	NI		NI
46.8	46.9	0.1	BLM Designated Utility Corridor (Boulder-Primm South), 230kV Transmission Line	1	M	1	NI
46.9	47.0	0.1	BLM Designated Utility Corridor (Boulder-Primm South)	1	NI		NI
47.0	47.2	0.2	BLM Designated Utility Corridor (Boulder-Primm South), (3) 500kV Transmission Lines	1	M	1	NI
47.2	47.5	0.3	BLM Designated Utility Corridor (Boulder-Primm South)	1	NI		NI
47.7	47.8	0.1	500kV Transmission Line	1	M	1	NI
47.8	48.0	0.2	Mead Substation	1	NI		NI

H-high impact; M-moderate impact; L-low impact; NI-no identifiable impact

Planned Land Use Impacts by Mile

MILEPOST			FEATURE	DISTURBANCE	INITIAL	MITIGATION	RESIDUAL
FROM	TO	LENGTH		LEVEL	IMPACT	MEASURE(S)	IMPACT
3.0	3.1	0.1	Proposed Kern River 16" Gas Pipeline Tap	1	M	1	NI
26.6	26.7	0.1	Clark County Regional Flood Control District Flood Control Facility (2 Las Vegas Wash Conveyances)	2	M	1	NI
27.1	27.2	0.1	Lake Las Vegas Resort (Medium Density Residential) (within BLM Utility Corridor Right-of-Way Reservation N-73903)	2	M	1, 9	L
27.2	27.9	0.7	Lake Las Vegas Resort (Commercial) (within BLM Utility Corridor Right-of-Way Reservation N-73903)	2	M	1, 9	L
27.9	28.0	0.1	Lake Las Vegas Resort (Commercial) (within BLM Utility Corridor Right-of-Way Reservation N-73903)	2	M	1, 10	L
28.0	28.1	0.1	Lake Las Vegas Resort (Commercial) (within BLM Utility Corridor Right-of-Way Reservation N-73903), Southern Nevada Water Authority East Valley Lateral (River Mountains Reservoir to Desert Inn Rd.) (78")	1	M	1, 9	L
28.1	28.2	0.1	Lake Las Vegas Resort (Commercial) (within BLM Utility Corridor Right-of-Way Reservation N-73903)	1	M	1, 9	L
28.2	28.4	0.2	Lake Las Vegas Resort (Public/Semi-Public) (within BLM Utility Corridor Right-of-Way Reservation N-73903)	1	M	1, 9	L
29.9	30.4	0.5	Clark County Regional Flood Control District Flood Control Facility (N.E. C-1 Detention Basin)	1	M	1, 9	L
31.1	31.2	0.1	Clark County Regional Flood Control District Flood Control Facility (Conveyance)	1	M	1	NI
35.4	35.5	0.1	Boulder City/U.S. 93 Corridor Study Preferred Alternative	1	M	1	NI

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Parks, Recreation, and Preservation Area Impacts by Mile

MILEPOST			FEATURE	DISTURBANCE LEVEL	INITIAL IMPACT	MITIGATION MEASURE(S)	RESIDUAL IMPACT
FROM	TO	LENGTH					
2.5	2.6	0.1	Old Spanish National Historic Trail	1	M	1	L
15.8	19.0	3.2	BLM Rainbow Gardens ACEC	1	M	9	L
19.0	20.4	1.4	BLM Rainbow Gardens ACEC, BLM Sunrise Mountain Natural Area	1	M	10	L
20.4	20.5	0.1	BLM Rainbow Gardens ACEC, BLM Sunrise Mountain Natural Area, Clark County Potential Trail Alignment	1	M	10	L
20.5	20.6	0.1	BLM Rainbow Gardens ACEC, BLM Sunrise Mountain Natural Area	1	M	10	L
20.6	23.5	2.9	BLM Rainbow Gardens ACEC	1	M	9	L
23.5	24.3	0.8	BLM Rainbow Gardens ACEC, UNLV Rainbow Gardens Geologic Preserve	1	M	9	L
24.3	26.0	1.7	BLM Rainbow Gardens ACEC	1	M	9	L
26.0	26.5	0.5	BLM Rainbow Gardens ACEC	2	M	9	L
26.5	26.9	0.4	BLM Rainbow Gardens ACEC, Clark County Wetlands Park, Clark County Wetlands Park Trail	2	M	1, 8, 10	L
26.9	27.2	0.30	BLM Rainbow Gardens ACEC, Clark County Wetlands Park	2	M	8, 9	L
27.2	27.3	0.10	City of Henderson Proposed Bike Lane	2	M	1	L
28.0	28.1	0.10	City of Henderson Proposed Shared Use Path (within BLM Utility Corridor Right-of-Way Reservation N-73903)	1	M	1	L
28.2	28.4	0.20	City of Henderson Proposed Park (Park A), City of Henderson Proposed Shared Use Path (within BLM Utility Corridor Right-of-Way Reservation N-73903)	1	M	1	L
28.8	28.9	0.10	City of Henderson Proposed Bike Route	1	M	1	L
29.4	29.7	0.30	BLM River Mountains ACEC	1	M	9	L
29.7	29.8	0.10	BLM River Mountains ACEC, River Mountains Loop Trail	1	M	1, 9	L
29.8	29.9	0.10	BLM River Mountains ACEC	1	M	9	L
29.9	30.0	0.10	BLM River Mountains ACEC, City of Henderson Proposed Bike Route	1	M	1, 9	L
30.1	30.2	0.10	BLM River Mountains ACEC	1	M	9	L
30.4	30.6	0.20	BLM River Mountains ACEC, City of Henderson Proposed Bike Route	1	M	1, 9	L
30.6	34.2	3.60	BLM River Mountains ACEC	1	M	9	L
35.4	35.5	0.10	River Mountains Loop Trail	1	M	1	NI
37.1	37.2	0.10	Clark County Proposed New Candidate Trail Corridor	3	M	1	NI

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Impacts to Paleontologic Resources

MP ^A	Geologic Deposit	Survey Localities	Sensitivity	Mitigation Recommendations
1	alluvium (carbonate clasts)	—	Low	PA-1
2	Toroweap Formation and Kaibab Formation, undifferentiated	SBCM 2.11.67, SBCM 2.11.70, SBCM 2.11.72, SBCM 2.11.73, SBCM 2.11.74	Low	PA-1, intermittent PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
3	alluvium (carbonate clasts)	—	Low	PA-1
4	Callville Limestone	SBCM 03Q6-5.1, SBCM 03Q6-5.2, SBCM 03CS6-5.1	Low	PA-1, intermittent PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
5	alluvium (carbonate clasts)	—	Low	PA-1
6	Callville Limestone	SBCM 03CM6-5.6	Low	PA-1, intermittent PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
7	alluvium (carbonate clasts)	—	Low	PA-1
8	Callville Limestone	—	Low	PA-1
9	alluvium (carbonate clasts)	—	Low	PA-1
10	Callville Limestone	—	Low	PA-1
11	alluvium (carbonate clasts)	—	Low	PA-1
12	Muddy Creek Formation (undifferentiated)	SBCM 2.11.84	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
13	Muddy Creek Formation (gypsiferous member); alluvium	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
14	Callville Limestone	—	Low	PA-1
15	Muddy Creek Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
16	Toroweap Formation (lower member); Kaibab Formation	—	Low	PA-1, intermittent PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
17	Muddy Creek Formation (gypsiferous member)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
18	alluvium (wash sediments, fan terraces); Muddy Creek Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
19	Muddy Creek Formation (sandstone – siltstone – conglomerate member)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
20	alluvium (wash sediments, fan terraces); Muddy Creek Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
21	Muddy Creek Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
22	Thumb Member of Horse Spring Formation; fan and terrace alluvium	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
23	Rainbow Gardens Member of Horse Spring Formation	—	Low	PA-1
24	Thumb Member of Horse Spring Formation; fan and terrace alluvium	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
25	alluvium (stream deposits and fan terrace alluvium)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply

MP ^A	Geologic Deposit	Survey Localities	Sensitivity	Mitigation Recommendations
26	Thumb Member of Horse Spring Formation alluvium (stream deposits and fan terrace alluvium); Thumb Member of Horse Spring Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
27	Thumb Member of Horse Spring Formation	SBCM 2.11.78	High	PA-1, PA-2, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
28	Thumb Member of Horse Spring Formation alluvium (stream deposits and fan terrace alluvium); Thumb Member of the Horse Spring Formation at depth	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
29	Thumb Member of the Horse Spring Formation at depth	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
30	Thumb Member of Horse Spring Formation alluvium (stream deposits and fan terrace alluvium); Thumb Member of the Horse Spring Formation at depth	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
31	Thumb Member of the Horse Spring Formation at depth	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
32	Thumb Member of Horse Spring Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
33	Thumb Member of Horse Spring Formation (gypsum-rich sequence)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
34	Rainbow Gardens Member of Horse Spring Formation	—	Low	PA-1
35	Thumb Member of Horse Spring Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
36	Thumb Member of Horse Spring Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
37	alluvium (pediment and fan deposits of Frenchman Mountain); Thumb Member of Horse Spring Formation	SBCM 2.11.76, SBCM 2.11.79, SBCM 2.11.80, SBCM 2.11.81, SBCM 2.11.82	High	PA-1, PA-2, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
38	Thumb Member of Horse Spring Formation	SBCM 2.11.83	High	PA-1, PA-2, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
39	alluvium (wash sediments)	—	Low	PA-1
40	alluvium (conglomerate of Las Vegas Wash)	—	Low	PA-1
41	Thumb Member of Horse Spring Formation	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
42	alluvium (fan deposits) ; Thumb Member of Horse Spring Formation (in subsurface)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
43	Thumb Member of Horse Spring Formation alluvium; Thumb Member of Horse Spring Formation (in subsurface)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
44	alluvium (fan deposits); Thumb Member of Horse Spring Formation (in subsurface)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
45	alluvium; Thumb Member of Horse Spring Formation (in subsurface)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
46	alluvium; Thumb Member of Horse Spring Formation (in subsurface)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply

MP ^A	Geologic Deposit	Survey Localities	Sensitivity	Mitigation Recommendations
47	alluvium (pediment fan deposits of River Mountains); Thumb Member of Horse Spring Formation (in subsurface)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
48	Thumb Member of Horse Spring Formation; alluvium (pediment fan deposits of River Mountains)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
49	alluvium (pediment fan deposits of River Mountains)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
50	alluvium (pediment fan deposits of River Mountains)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
51	Muddy Creek Formation (fine-grained facies)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
52	alluvium (fan deposits); Muddy Creek Formation in subsurface	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
53	alluvium (fan deposits)	—	Low	PA-1
54	Muddy Creek Formation (coarse-grained facies)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
55	alluvium (pediment fan deposits of River Mountains); Muddy Creek Formation in subsurface	—	High	PA-1, PA-3; if fossils are encountered during construction, PA-4 through PA-9 will apply, including access roads
56	Muddy Creek Formation (coarse-grained facies)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
57	alluvium (pediment fan deposits of the River Mountains); Muddy Creek Formation in subsurface	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
58	Muddy Creek Formation (coarse-grained facies)	—	High	PA-1, PA-3 (ROW and access roads); if fossils are encountered during construction, PA-4 through PA-9 will apply
59	alluvium (pediment fan deposits of River Mountains)	—	Low	PA-1
60	volcanics	—	Low	PA-1
61	alluvium (pediment fan deposits of River Mountains)	—	Low	PA-1
62	volcanics	—	Low	PA-1
63	alluvium (pediment fan deposits of River Mountains)	—	Low	PA-1
64	volcanics	—	Low	PA-1
65	alluvium	—	Low	PA-1
66	volcanics (undifferentiated)	SBCM 03Q6-8.1, SBCM 03CS6-8.1	Low	PA-1
67	alluvium	—	Low	PA-1

NOTE: A – Milepost locations have replaced with sequence numbers in the interest of preservation.