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REPORT

Additional Information Related to DR128 - Delineation of Jurisdictional Waters

Willow Rock Energy Storage Center (21-AFC-02)

Submitted to:

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Submitted by:

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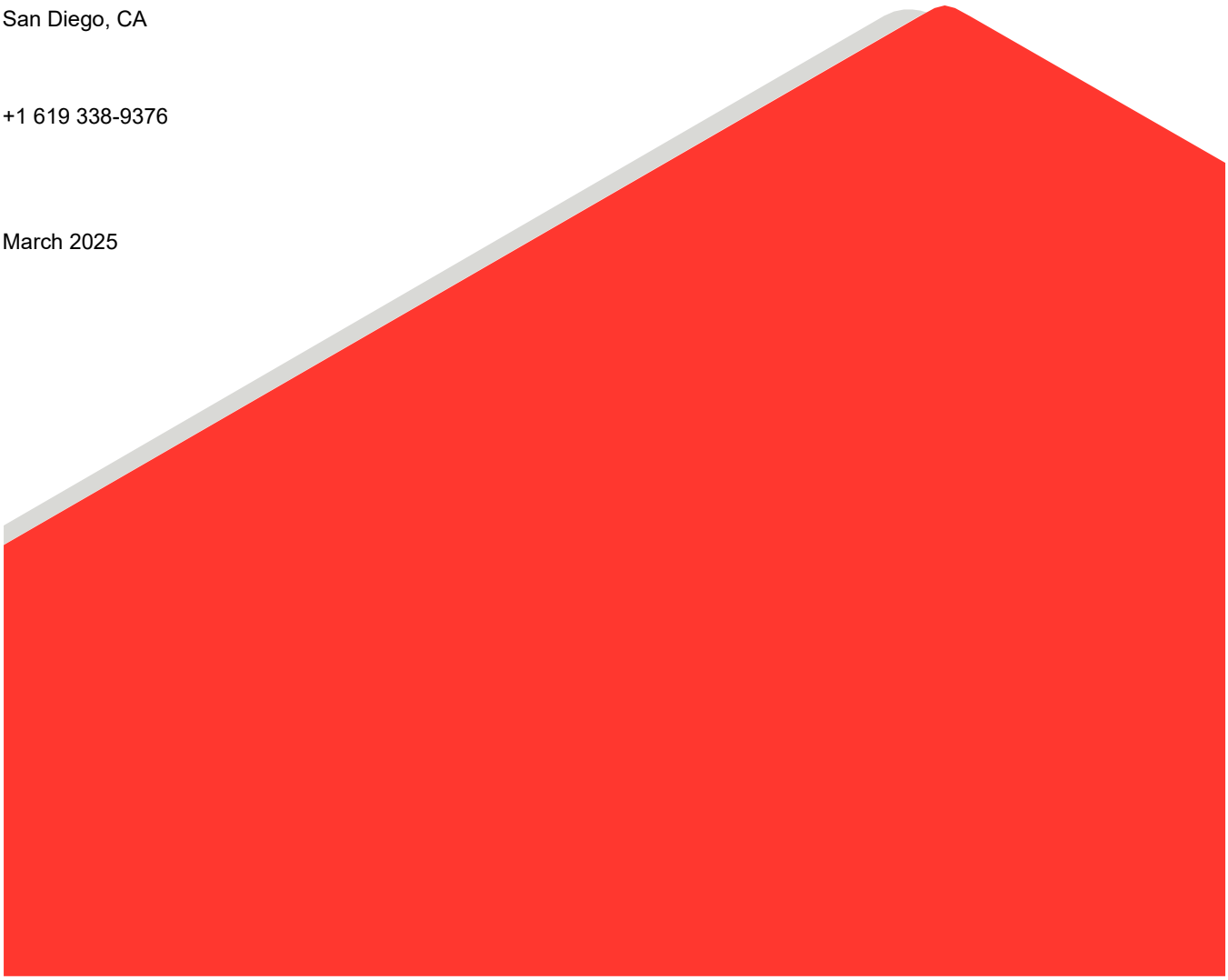

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Jurisdictional Delineation Map Book – Temporary Impacts

1.0 INTRODUCTION

WSP USA Inc. (WSP) was contracted by GEM A-CAES LLC (GEM) to conduct a jurisdictional delineation and prepare a report for the Willow Rock Energy Storage Center (WRESC) located in Kern County, California. The *Supplemental Preliminary Delineation of Jurisdictional Waters* (TN# 261511) was docketed on January 31, 2025, via the California Energy Commission's (CEC) *Kiteworks* network.

At the request of the Lahontan Regional Water Quality Control Board (LRWQCB), WSP is providing additional information on surveyed features that didn't display traditional characteristics of a state or federal jurisdictional waterbody.

The purpose of this technical memorandum is to:

- Summarize all potential non-jurisdictional waters within the study area and provide justification for non-jurisdictional classification of features (**Section 2.0**).
- Provide a summary of potential temporary construction impacts to both jurisdictional and non-jurisdictional drainages (**Section 3.0**).

2.0 JUSTIFICATION FOR NON-JURISDICTIONAL DRAINAGE (JD) DELINEATION

A total of 49 non-State and federal JD drainages were mapped within the study area, covering 9.357 acres and 26,301.41 linear feet. **Table 1** details the non-jurisdictional drainage features and their related acreages and linear feet. A more detailed narrative of each drainage feature determined as non-jurisdictional is included below, along with site photos of representative portions of the on-site drainages.

Table 1: Mapped Non-Jurisdictional Drainages (Study Area)

Drainage	Recommended Jurisdictional Determination	Acres/Linear Feet
2a	Non JD	2.744 acres/ 4,464.69 linear feet
2b	Non JD	4.854 acres/ 2,139.58 linear feet
3	Non JD	0.005 acres/ 172.36 linear feet
4	Non JD	0.017 acres/ 323.80 linear feet
5a	Non JD	0.006 acres/ 216.39 linear feet
5b	Non JD	0.005 acres/ 201.85 linear feet
5c	Non JD	0.020 acres/ 537.25 linear feet
5d	Non JD	0.007 acres/ 179.55 linear feet
5e	Non JD	0.020 acres/ 489.16 linear feet
9	Non JD	0.072 acres/ 426.81 linear feet
11a	Non JD	0.032 acres/ 171.32 linear feet
11b	Non JD	0.007 acres/ 161.51 linear feet
13	Non JD	0.009 acres/ 294.41 linear feet
17	Non JD	0.012 acres/ 240.68 linear feet

Drainage	Recommended Jurisdictional Determination	Acres/Linear Feet
18a	Non JD	0.030 acres/ 887.63 linear feet
18b	Non JD	0.097 acres/ 1,378.22 linear feet
20a	Non JD	0.029 acres/ 692.93 linear feet
20b	Non JD	0.037 acres/ 889.49 linear feet
20c	Non JD	0.002 acres/ 119.00 linear feet
21a	Non JD	0.142 acres/ 192.50 linear feet
21b	Non JD	0.019 acres/ 419.63 linear feet
22a	Non JD	0.009 acres/ 212.28 linear feet
22b	Non JD	0.002 acres/ 85.27 linear feet
22c	Non JD	0.001 acres/ 57.61 linear feet
23a	Non JD	0.018 acres/ 546.06 linear feet
23b	Non JD	0.020 acres/ 499.95 linear feet
24	Non JD	0.014 acres/ 306.12 linear feet
25	Non JD	0.020 acres/ 461.90 linear feet
27	Non JD	0.002 acres/ 56.30 linear feet
28	Non JD	0.004 acres/ 63.79 linear feet
29	Non JD	0.002 acres/ 58.37 linear feet
31	Non JD	0.003 acres/ 72.08 linear feet
33	Non JD	0.012 acres/ 225.70 linear feet
34	Non JD	0.007 acres/ 185.97 linear feet
35	Non JD	0.467 acres/ 205.36 linear feet
38	Non JD	0.024 acres/ 252.08 linear feet
39	Non JD	0.038 acres/ 297.55 linear feet
43a	Non JD	0.053 acres/ 787.45 linear feet
43b	Non JD	0.032 acres/ 385.60 linear feet
44a	Non JD	0.213 acres/ 1,526.56 linear feet
44b	Non JD	0.054 acres/ 826.27 linear feet
45	Non JD	0.010 acres/ 158.25 linear feet
46	Non JD	0.015 acres/ 279.42 linear feet
47	Non JD	0.007 acres/ 99.21 linear feet
48	Non JD	0.003 acres/ 117.24 linear feet
49	Non JD	0.003 acres/ 104.10 linear feet
50	Non JD	0.005 acres/ 175.00 linear feet
51	Non JD	0.003 acres/ 88.79 linear feet
52	Non JD	0.010 acres/ 301.95 linear feet

Drainage	Recommended Jurisdictional Determination	Acres/Linear Feet
53	Non JD	0.014 acres/ 455.30 linear feet
54	Non JD	0.012 acres/ 270.01 linear feet
55	Non JD	0.018 acres/ 257.90 linear feet
56	Non JD	0.002 acres/ 86.41 linear feet
58a	Non JD	0.073 acres/ 1,124.23 linear feet
58b	Non JD	0.073 acres/ 1,009.26 linear feet
59	Non JD	0.004 acres/ 142.23 linear feet
60	Non JD	0.002 acres/ 66.42 linear feet
61	Non JD	0.004 acres/ 169.23 linear feet
62	Non JD	0.002 acres/ 89.01 linear feet
64a	Non JD	0.059 acres/ 661.20 linear feet
64b	Non JD	0.003 acres/ 71.10 linear feet
64c	Non JD	0.005 acres/ 75.36 linear feet
64d	Non JD	0.005 acres/ 90.59 linear feet
64e	Non JD	0.008 acres/ 167.00 linear feet
65a	Non JD	0.030 acres/ 253.84 linear feet
65b	Non JD	0.006 acres/ 137.79 linear feet
66	Non JD	0.027 acres/ 492.82 linear feet
69	Non JD	0.009 acres/ 182.27 linear feet
70	Non JD	0.004 acres/ 192.96 linear feet
72	Non JD	0.001 acres/ 140.03 linear feet
		Total 9.357 acres / 26,301.41 linear feet

2.1 Description and Photos of Recommended Non-Jurisdictional Water Features Delineated

Drainage 2a

Drainage 2a is classified as an active artificial flow diversion surrounding the northern side of the SCE Whirlwind Substation, west of 170th Street W. This feature is a rock-bottom erosion riprap approximately 15 feet in width (**Photo Drainage 2a-1**). Bordering vegetation primarily consists of disturbed/developed communities, with scattered grasses. This drainage was dry during all site visits with no indication of flowing water. Drainage 2a is recommended as a state and federal non-jurisdictional feature as it is an excavated ditch which lacks riparian vegetation and does not carry a relatively permanent flow of water. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 2a-1. Looking southeast at Drainage 2a from the northeast corner of the SCE Whirlwind substation.

Drainage 2b

Drainage 2b is classified as an active artificial flow diversion surrounding the south-eastern side of the SCE Whirlwind Substation, west of 170th Street W. This feature is a rock-bottom erosion riprap approximately 20 feet in width (**Photo Drainage 2b-1**). Bordering vegetation primarily consists of disturbed/developed communities with scattered desert grasses and with no indication of riparian vegetation. This drainage was dry during all site visits with no indication of flowing water. Drainage 2b is recommended as a state and federal non-jurisdictional feature as it is an excavated ditch which does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 2b-1. Looking south at Drainage 2b along the eastern side of the SCE substation.

Drainage 3

Drainage 3 is classified as a roadside flow diversion on the south side of Rosamond Boulevard. This drainage has an approximate width of 55 inches, with a flow direction from north to south. Bordering vegetation primarily consists of cheesebush scrub and disturbed/developed communities with scattered in-channel desert grass (**Photo Drainage 3-1**). This drainage was dry during all site visits with no indication of running water or riparian vegetation. Drainage 3 is recommended as a state and federal non-jurisdictional feature as it is considered an artificial flow conveyance ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 3-1. Looking southeast at Drainage 3 flow diversion Rosamond Boulevard.

Drainage 4

Drainage 4 is classified as an active roadside flow diversion on the south side of Rosamond boulevard. This drainage flows north to south and is characterized by a shallow depression in soil approximately 12 feet wide. The bordering and in channel vegetation primarily consists of cheesebush scrub and disturbed/developed communities (**Photo Drainage 4-1**). This drainage was dry during all site visits with no indication of running water or riparian vegetation. Drainage 4 is classified as a recommended state and federal non-jurisdictional feature as it is considered a flow conveyance which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 4-1. Looking southeast at Drainage 4 flow diversion from Rosamond Boulevard.

Drainage 5a

Drainage 5a is classified as an active roadside drainage ditch located along the south side of Rosamond Boulevard. No clear banks or vegetation were delineated in the field and the site was dry during all site visits (**Photo Drainage 5a-1**). Drainage 5a is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water, does not connect to any jurisdictional waters and has no evidence of riparian vegetation. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 5a-1. Looking west at Drainage 5a, a roadside drainage ditch on the south edge of Rosamond Boulevard.

Drainage 5b

Drainage 5b is an active roadside drainage ditch located along the south side of Rosamond Boulevard situated between Drainages 6 and 7. No clear banks were delineated in the field and the site was dry during all site visits (**Photo Drainage 5b-1**). Bordering vegetation on the south bank was dominated by allscale scrub and disturbed/developed communities. Drainage 5b is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water and has no indication of riparian vegetation or past flow. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 5b-1. Looking east at Drainage 5b, a roadside drainage ditch on the south side of Rosamond Boulevard.

Drainage 5c

Drainage 5c is an active roadside drainage ditch located along the south side of Rosamond Boulevard situated between Drainages 7 and 8. This drainage is characterized by a shallow depression in sediment and a vegetated south bank consisting of allscale scrub and disturbed/developed vegetation (**Photo Drainage 5c-1**). Drainage 5c is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water and has no indication of riparian vegetation or past flow. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 5c-1. Looking west at Drainage 5c, a roadside drainage ditch on the south side of Rosamond Boulevard.

Drainage 5d

Drainage 5d is an active roadside drainage ditch located along the south side of Rosamond Boulevard (**Photo Drainage 5d-1**). Bordering vegetation on the south bank was dominated by allscale scrub and disturbed/developed communities. No soil indicators or signs of erosion were delineated in the field for this feature. Drainage 5d is classified as a potential non-jurisdictional feature as it does not carry a relatively permanent flow of water and has no indication of riparian vegetation or past flow. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 5d-1. Looking west at Drainage 5d, a roadside drainage ditch on the south side of Rosamond Boulevard.

Drainage 5e

Drainage 5e is an active roadside drainage ditch located along the north side of Rosamond Boulevard across from Drainage 5c (**Photo Drainage 5e-1**). The northern bank of this feature is bordered predominantly by disturbed/developed vegetation community. Drainage 5e is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water and has no indication of riparian vegetation or past flow. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 5e-1. Looking west at Drainage 5e, a roadside drainage ditch located along the north side of Rosamond Boulevard.

Drainage 9

Drainage 9 is an abandoned ephemeral swale on the south side of Rosamond Boulevard. This feature is south flowing and characterized by a shallow depression in soil with an approximate width of 9 feet (**Photo Drainage 9-1**). Bank and in-channel vegetation are predominantly allscale shrub and non-native grassland and forbes communities. Drainage 9 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and is not connected to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 9-1. Looking south at Drainage 9 from Rosamond Boulevard.

Drainage 11a

Drainage 11a is classified as an active roadside drainage ditch along 155th Street W, near the intersection with the south side of Rosamond Boulevard. This feature is characterized by a slight depression in soil and has allscale scrub and disturbed/developed vegetation communities along its western bank (**Photo Drainage 11a-1**). Drainage 11a is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and is not connected to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 11a-1. Photo taken from the south side of Rosamond Boulevard looking south toward downstream of Drainage 11a on 155th Street.

Drainage 11b

Drainage 11b is classified as an active upland swale located downstream of Drainage 11a, on the east side of 155th Street W near the intersection with Rosamond Boulevard. This drainage is characterized by a gap in vegetation approximately 4 feet wide, with bordering vegetation primarily consisting of desert grasses and allscale scrub (**Photo Drainage 11b-1**). Drainage 11b is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and is not connected to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 11b-1. Looking west at Drainage 11b on the south side of Rosamond Boulevard.

Drainage 13

Drainage 13 is classified as an active roadside drainage ditch located along the north side of Rosamond Boulevard. This feature is characterized by a disturbed/developed vegetation community (**Photo Drainage 13-1**). No evidence of erosion or soil indicators were delineated in the field for this feature. Drainage 13 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and is not connected to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 13-1. Looking east at Drainage 13, a roadside drainage ditch on the north side of Rosamond Boulevard.

Drainage 17

Drainage 17 is classified as an active roadside swale located on the west side of 2nd Avenue near the intersection at Rosamond Boulevard. This feature flows north to south and has an approximate width of 68 inches (**Photo Drainage 17-1**). The bordering vegetation community is co-dominated by creosote bush scrub and disturbed/developed communities, with desert grass growing inside the channel. This feature was dry during all site visits with limited evidence of scouring approximately 10 inches deep. Drainage 17 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and is not connected to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 17-1. Looking north at Drainage 17 from Rosamond Boulevard toward 2nd Avenue.

Drainage 18a

Drainage 18a is classified as an active roadside drainage ditch located along the north side of Rosamond Boulevard east of 145th Street W. The northern edge of this feature is bordered by allscale scrub, creosote bushscrub and disturbed/developed vegetation communities (**Photo Drainage 18a-1**). This drainage was dry during all site visits with no indication of running water. Drainage 18a is classified as a potential non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 18a-1. Looking east at Drainage 18a, a roadside drainage ditch on the north side of Rosamond Boulevard.

Drainage 18b

Drainage 18b is classified as an active roadside drainage ditch located along the north side of Rosamond Boulevard, adjacent to Drainage 18a, west of 140th Street W. The northern edge of this feature is bordered by rubber rabbitbrush scrub and disturbed/developed vegetation communities (**Photo Drainage 18b-1**). This drainage was dry during all site visits with no indication of running water. Drainage 18b is classified as a recommended state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 18b-1. Looking east at Drainage 18b, a roadside drainage ditch on the north side of Rosamond Boulevard.

Drainage 20a

Drainage 20a is classified as an active roadside drainage ditch along the north side of Rosamond Boulevard, located east of 140th Street W, near the Duke Energy North Rosamond Solar Site. The northern edge of this feature is bordered predominantly by disturbed/developed vegetation communities (**Photo Drainage 20a-1**). This drainage was dry during all site visits with no indication of running water. Drainage 20a is classified as a potential non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California "Waters of the State" for this area.

Photo Drainage 20a-1. Looking east at Drainage 20a, a roadside drainage ditch on the north side of Rosamond Boulevard.

Drainage 20b

Drainage 20b is classified as an active roadside drainage ditch along the north side of Rosamond Boulevard, located just east of Drainage 20a. The northern edge of this feature is bordered predominantly by disturbed/developed vegetation communities (**Photo Drainage 20b-1**). This drainage was dry during all site visits with no indication of running water. Drainage 20b is classified as a potential non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, Lahontan Regional Water Quality Control Board has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California "Waters of the State" for this area.

Photo Drainage 20b-1. Looking west at Drainage 20b. The photo depicts a roadside drainage ditch on the north side of Rosamond Boulevard surrounded by North Rosamond Solar facilities to the north and south.

Drainage 20c

Drainage 20c is classified as an active roadside drainage ditch along the north side of Rosamond Boulevard, located near the 135th Street W intersection. This feature is predominantly bordered by disturbed/developed vegetation communities (**Photo Drainage 20c-1**). This drainage was dry during all site visits with no indication of running water. Drainage 20c is classified as a recommended state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 20c-1. Looking west at Drainage 20c. The photo depicts a roadside drainage ditch on the north side of Rosamond Boulevard. Photo taken at intersection with 135th Street W.

Drainage 21a

Drainage 21a is classified as an active detention basin swale located north-west of the Rosamond Boulevard and 120th Street W intersection. This feature is characterized by a gap in vegetation predominated by disturbed/developed communities (**Photo Drainage 21a-1**). This drainage was dry during all site visits with no indication of running water, or riparian vegetation. Drainage 21a is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water, and it does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 21a-1. Looking north at Drainage 21a from the north side of Rosamond Boulevard just west of 120th Street W intersection.

Drainage 21b

Drainage 21b is classified as an active roadside drainage ditch located along the east side of 120th Street W and the north side of Rosamond Boulevard. This feature is bordered by non-native grassland and forbes and disturbed/developed vegetation communities (**Photo Drainage 21b-1**). This drainage was dry during all site visits with no indication of running water, or riparian vegetation. Drainage 21b is classified as a recommended state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters.

Photo Drainage 21b-1. Looking east at Drainage 21b along the north side of Rosamond Boulevard.

Drainage 22a

Drainage 22a is classified as an active roadside drainage ditch located along the north side of Rosamond Boulevard west of 115th Street W. This feature is predominantly bordered by disturbed/developed vegetation communities (**Photo Drainage 22a-1).** This drainage was dry during all site visits with no indication of running water, or riparian vegetation. Drainage 22a is classified as a state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 22a-1. Looking west at Drainage 22a, a roadside drainage ditch along the north side of Rosamond Boulevard.

Drainage 22b

Drainage 22b is classified as an active roadside drainage ditch along the north side of Rosamond Boulevard. East of 115th Street W. This feature is predominantly bordered by allscale scrub and disturbed/developed vegetation communities (**Photo Drainage 22b-1**). During all site visits, this feature was observed to be dry with no signs of flowing water or presence of riparian vegetation. Drainage 22b is classified as a potential non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, Lahontan Regional Water Quality Control Board has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 22b-1. Looking west at Drainage 22b, a roadside drainage ditch on the north side of Rosamond Boulevard.

Drainage 22c

Drainage 22c is classified as an active roadside drainage ditch located along the north side of Rosamond Boulevard. This feature is predominantly bordered by disturbed/developed vegetation communities (**Photo Drainage 22c-1**). During all site visits, this feature was observed to be dry with no signs of flowing water or presence of riparian vegetation. Drainage 22c is classified as a recommended state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters.

Photo Drainage 22c-1. Looking west at Drainage 22c, a roadside drainage ditch along the north side of Rosamond Boulevard.

Drainage 23a

Drainage 23a is classified as an active roadside drainage ditch located along the south side of Rosamond Boulevard, west of 110th Street W. This feature is predominantly bordered by disturbed/developed vegetation with no evidence of riparian communities (**Photo Drainage 23a-1**). Drainage 23a was dry during all site visits with minimal indication of flowing water. Drainage 23a is classified as a potential non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, Lahontan Regional Water Quality Control Board has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California "Waters of the State" for this area.

Photo Drainage 23a-1. Looking west at Drainage 23a, a roadside drainage ditch along the south side of Rosamond Boulevard. Photo taken near intersection of Rosamond Boulevard and 110th Street W.

Drainage 23b

Drainage 23b is classified as an active roadside drainage ditch located along the south side of Rosamond Boulevard, east of 110th Street W. This feature is predominantly bordered by disturbed/developed vegetation with no evidence of riparian communities (**Photo Drainage 23b-1**). Drainage 23b was dry during all site visits with minimal indication of flowing water. Drainage 23b is classified as a recommended state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 23b-1. Looking east at Drainage 23b, a roadside drainage ditch along the south side of Rosamond Boulevard.

Drainage 24

Drainage 24 is classified as a roadside drainage ditch located along the south side of Rosamond Boulevard, east of Los Angeles DWP Easement Road. This feature is predominantly bordered by disturbed/developed vegetation with scattered allscale scrub and no evidence of riparian communities (**Photo Drainage 24-1**). Drainage 24 was dry during all site visits with minimal indication of flowing water. Drainage 24 is classified as a recommended state and federal non-jurisdictional feature as it is a roadside drainage ditch which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California "Waters of the State" for this area.

Photo Drainage 24-1. Looking East at Drainage 24, a roadside drainage ditch along the south side of Rosamond Boulevard.

Drainage 25

Drainage 25 is classified as an active ephemeral swale located on the south side of Rosamond Boulevard, west of 90th Street W. This feature flows north to south from its upstream at Rosamond Boulevard. The vegetation community observed at this feature consist of allscale scrub and disturbed/developed vegetation, with no evidence of riparian communities (**Photo Drainage 25-1**). Drainage 25 was dry during all site visits with minimal indication of flowing water. Drainage 25 is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 25-1. Looking northwest from the downstream portion of Drainage 25 toward the upstream near the south side of Rosamond Boulevard.

Drainage 27

Drainage 27 is an active underground culvert located beneath Rosamond Boulevard, east of 85th Street W. This feature flows north to south and is associated with predominantly disturbed/developed vegetation communities (**Photo Drainage 27-1**). Drainage 27 was dry during all site visits with minimal evidence of flowing water. Drainage 27 is classified as a potential non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 27-1. Looking south at Drainage 27, a culvert below Rosamond Boulevard just east of the intersection with 85th Street W.

Drainage 28

Drainage 28 is an active underground culvert located beneath Rosamond Boulevard, east of 83rd Street. This feature flows north to south and is associated with predominantly disturbed/developed vegetation communities (**Photo Drainage 28-1**). Drainage 28 was dry during all site visits with minimal evidence of flowing water. Drainage 28 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 28-1. Looking south at Drainage 28, a culvert below Rosamond Boulevard just east of intersection with 83rd Street W.

Drainage 29

Drainage 29 is an active underground culvert located beneath Rosamond Boulevard, west of 80th Street W. This feature flows north to south and is predominantly associated with rubber rabbitbrush scrub and disturbed/developed vegetation communities (**Photo Drainage 29-1**). Drainage 29 was dry during all site visits with no evidence of flowing water. Drainage 29 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 29-1. Looking north at Drainage 29 on the south side of Rosamond Boulevard pictured in the background.

Drainage 31

Drainage 31 is classified as a dormant underground culvert located beneath Rosamond Boulevard, east of 70th Street W. This feature flows north to south from its upstream at the base of Horsethief Trail on the north side of Rosamond Boulevard and measured approximately 7 feet in width (**Photo Drainage 31-1**). Bordering vegetation is predominantly non-native grass and forbes, as well as disturbed/developed communities. Drainage 31 was dry during all site visits, with little indication of flowing water. Drainage 31 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 31-1. Looking north at Drainage 31 on the south side of Rosamond Boulevard pictured in the background.

Drainage 33

Drainage 33 is classified as an active roadside drainage ditch along the west side of 65th Street W. This feature flows north to south from the south side of Rosamond Boulevard and is characterized by an artificial berm along its west bank. Bordering vegetation is comprised predominantly of disturbed/developed communities (**Photo Drainage 33-1**). This feature was dry during all site visits, with no indication of flowing water. Drainage 33 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 33-1. Looking south at upstream portion of Drainage 33, a roadside drainage ditch along the west side of 65th Street W. Depicted is an artificially created berm.

Drainage 34

Drainage 34 is classified as an active roadside drainage ditch along the north side of Rosamond Boulevard, west of the 60th Street W intersection. This feature is predominantly bordered by disturbed/developed vegetation communities (**Photo Drainage 34-1**). Drainage 34 was dry during all site visits with little indication of flowing water. Drainage 34 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 34-1. Looking east at Drainage 34, a roadside drainage ditch along the north side of Rosamond Boulevard toward the 60th Street W intersection.

Drainage 35

Drainage 35 is classified as an active detention basin located northeast of the Rosamond Boulevard and Tropico Road intersection. This feature is dominated by disturbed/developed vegetation communities (**Photo Drainage 35-1**). Drainage 35 was dry during all site visits with no indication of flowing water. Drainage 35 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 35-1. Looking northwest at Drainage 35. Photo was taken from the edge of the southeast portion from the north side of Rosamond Boulevard.

Drainage 38

Drainage 38 is classified as an active artificial roadside flow diversion flowing south-east from Mojave Tropico Road. This feature is approximately 15 feet wide, with bordering vegetation comprised of allscale scrub and disturbed/developed communities (**Photo Drainage 38-1**). Drainage 38 was dry during all site visits with little indication of flowing water and is classified as a recommended state and federal non-jurisdictional feature as it is an artificial flow conveyance which lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 38-1. Looking North at the downstream portion of Drainage 38.

Drainage 39

Drainage 39 is classified as an active artificial roadside flow diversion flowing south-east from Mojave Tropico Road. This feature is approximately 15 feet wide, with bordering vegetation comprised of creosote bush-white bursage scrub and disturbed/developed communities (**Photo Drainage 39-1**). Drainage 39 was dry during all site visits with little indication of flowing water. This Feature is classified as a recommended state and federal non-jurisdictional feature as it is an artificial flow conveyance that lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 39-1. Looking northeast at the downstream portion of Drainage 39.

Drainage 43a

Drainage 43a is an active roadside drainage ditch along the east side of Mojave Tropico Road, spanning across its intersection with Dawn Road. This feature has bordering vegetation comprised of creosote bush-white bursage scrub, allscale scrub and disturbed/developed communities (**Photo Drainage 43a-1**). Drainage 43a was dry during all site visits with little indication of flowing water. Drainage 43a is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 43a-1. Looking south at Drainage 43a.

Drainage 43b

Drainage 43b is classified as an active roadside drainage ditch located along the west side of Mojave Tropico Road, across from Drainage 43a. This feature is bordered predominantly by disturbed/developed vegetation with scattered creosote bush and white bursage shrubs (**Photo Drainage 43b-1**). Drainage 43b was dry during all site visits with little indication of flowing water. Drainage 43b is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 43b-1. Looking north at Drainage 43b, a roadside drainage ditch along the west side of Mojave Tropico Road.

Drainage 44a

Drainage 44a is classified as an active ephemeral swale located on the north side of the western portion of Dawn Road, near Mojave Tropico Road. This feature has a flow direction of north to south and is dominated by creosote bush-white bursage scrub and disturbed/developed vegetation communities (**Photo Drainage 44a-1**). Drainage 44a was dry during all site visits with little indication of flowing water. Drainage 44a is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 44a-1. Looking north from downstream of Drainage 44a on the north side of Dawn Road.

Drainage 44b

Drainage 44b is classified as an active ephemeral swale located on the south side of the western portion of Dawn Road, across from Drainage 44a. This feature has a flow direction of north to south and a width of approximately 30 inches in some areas (**Photo Drainage 44b-1**). Drainage 44b is dominated by creosote bush-white bursage scrub and was dry during all site visits with little indication of flowing water. Drainage 44b is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 44b-1. Looking south from the upstream of Drainage 44b on the south side of Dawn Road.

Drainage 45

Drainage 45 is classified as an active ephemeral swale located on the south side of the western portion of Dawn Road. This feature has a flow direction of north to south and is characterized by a gap in vegetation approximately 4 inches wide (**Photo Drainage 45-1**). Drainage 45 is dominated by creosote bush-white bursage scrub and was dry during all site visits with little indication of flowing water. Drainage 45 is classified as a potential non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, the LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 45-1. Looking southwest from upstream of Drainage 45 on the south side of Dawn Road.

Drainage 46

Drainage 46 is classified as an active ephemeral swale located on the south side of the western part of Dawn Road near its intersection with Budlong Avenue. This feature flows north to south and is characterized by a meandering channel approximately 17 inches wide (**Photo Drainage 46-1**). Bordering vegetation is dominated by disturbed/developed vegetation communities. This drainage was dry during all site visits with little indication of flowing water. Drainage 46 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 46-1. Looking southwest upstream of Drainage 46 on the south side of Dawn Road intersection with Budlong Avenue.

Drainage 47

Drainage 47 is classified as an active ephemeral swale located on the south side of the western portion of Dawn Road. This feature flows north to south and is characterized by a gap in vegetation approximately 12 inches wide (**Photo Drainage 47-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits with little indication of flowing water. Drainage 47 is classified as a potential non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 47-1. Looking south upstream of Drainage 47 on the south side of Dawn Road.

Drainage 48

Drainage 48 is classified as an active roadside swale along the western side of an unnamed access road on the north side of Dawn Road. This feature flows north to south and is approximately 12 inches wide (**Photo Drainage 48-1**). Bordering vegetation include creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits with no indication of flowing water. Drainage 48 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 48-1. Looking west at Drainage 48, a roadside drainage ditch on an unnamed access road intersecting the north side of Dawn Road.

Drainage 49

Drainage 49 is classified as an active ephemeral swale located along the east side of an unnamed access road on the north side of Dawn Road. This feature flows north to south and is approximately 20 inches wide (**Photo Drainage 49-1**). Bordering vegetation include creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits with limited evidence of scouring. Drainage 49 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 49-1. Looking northeast at Drainage 49 on the north side of Dawn Road.

Drainage 50

Drainage 50 is classified as an active ephemeral swale located predominantly on the south side of Dawn Road. This feature flows north to south and is bordered by creosote bush-white bursage scrub and disturbed/developed vegetation communities (**Photo Drainage 50-1**). This feature was dry during all site visits with no indication of flowing water. Drainage 50 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 50-1. Looking north at upstream of Drainage 50 on the north side of Dawn Road.

Drainage 51

Drainage 51 is classified as an active ephemeral swale located across Dawn Road. This feature flows south from its upstream on the northern side of Dawn Road toward its downstream near Beaudette Road (**Photo Drainage 51-1**). Bordering vegetation consists of creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits, with little indication of flowing water. Drainage 51 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 51-1. Looking north toward the upstream of Drainage 51 on the north side of Dawn Road. The feature runs parallel to an unnamed access road pictured on the right.

Drainage 52

Drainage 52 is classified as an active ephemeral swale located on the south side of Dawn Road. This feature flows north to south and is characterized by a gap in vegetation with a bank width of approximately 6 inches (**Photo Drainage 52-1**). Bordering vegetation consists of creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits, with little indication of flowing water Drainage 52 is classified as a state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 52-1. Looking south upstream of Drainage 52 from the south side of Dawn Road. Shallow depression can be seen between vegetation.

Drainage 53

Drainage 53 is classified as an active ephemeral swale located on the south side of Dawn Road with a flow direction of north to south and a channel width of approximately 7 inches. This feature is characterized by a shallow depression in soil and a meandering gap in vegetation, with a bordering vegetation community comprised of creosote bush-white bursage scrub (**Photo Drainage 53-1**). This feature was dry during all site visits with little indication of flowing water. Drainage 53 is classified as a potential non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters.

Photo Drainage 53-1. Looking south/southwest at the upstream portion of Drainage 53 on the south side of Dawn Road.

Drainage 54

Drainage 54 is classified as an active ephemeral swale located on the south side of Dawn Road, west of the 40th Street W intersection. This feature flows north to south and is characterized by a braided gap in vegetation approximately 7 inches wide (**Photo Drainage 54-1**). Bordering vegetation includes creosote bush-white bursage scrub and disturbed/developed vegetation communities. Drainage 54 was dry during all site visits with little indication of flowing water. Drainage 54 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 54-1. Looking south at Drainage 54 from the south side of Dawn Road, just west of the intersection with 40th Street West.

Drainage 55

Drainage 55 is classified as an active ephemeral swale located on the south side of Dawn Road. This feature flows north to south and is characterized by a shallow depression in soil and a channel of approximately 20 inches (**Photo Drainage 55-1).** Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits, with little indication of flowing water. Drainage 55 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 55-1. Looking south at the upstream portion of Drainage 55 on the south side of Dawn Road.

Drainage 56

Drainage 56 is classified as an active ephemeral swale located on the south side of Dawn Road. This feature flows north to south and is characterized by a gap in vegetation approximately 8 inches wide (**Photo Drainage 56-1**). Bordering vegetation is predominantly creosote bush-white bursage scrub. This feature was dry during all site visits, with little indication of flowing water. Drainage 56 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 56-1. Looking south upstream of Drainage 56 on the south side of Dawn Road. Shallow depression can be seen between vegetation.

Drainage 58a

Drainage 58a is classified as an active ephemeral swale located on the north side of Dawn Road. This feature flows north to south toward Dawn Road and is characterized by a gap in vegetation approximately 45 inches wide (**Photo Drainage 58a-1**). Bordering vegetation includes creosote bush-white bursage scrub and disturbed/developed vegetation communities. Drainage 58a was dry during all site visits with little indication of flowing water. Drainage 58a is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 58a-1. Looking north at the downstream portion of Drainage 58a on the north side of Dawn Road.

Drainage 58b

Drainage 58b is classified as an active ephemeral swale located on the south side of Dawn Road, across from Drainage 58a. This feature flows north to south and is characterized by gap in vegetation approximately 8 inches in width (**Photo Drainage 58b-1**). Bordering vegetation includes creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits with little indication of flowing water. Drainage 58b is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 58b-1. Looking southeast at the upstream portion of Drainage 58b on the south side of Dawn Road.

Drainage 59

Drainage 59 is classified as an active ephemeral swale located on the south side of Dawn Road, near a residential area. This feature flows north to south and is characterized by a gap in vegetation approximately 10 inches in width (**Photo Drainage 59-1**). Bordering vegetation includes creosote bush-white bursage scrub and disturbed/developed vegetation communities. This feature was dry during all site visits with little indication of flowing water. Drainage 59 is classified as a potential non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 59-1. Looking south at the upstream portion of Drainage 59 on the south side of Dawn Road.

Drainage 60

Drainage 60 is classified as an active ephemeral swale located on the south side of Dawn Road, at the base of a residential driveway. This feature flows north to south and is characterized by a slight depression in soil (**Photo Drainage 60-1**). Bordering vegetation is dominated by disturbed/developed vegetation communities. This feature was dry during all site visits with little indication of flowing water. Drainage 60 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, the LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 60-1. Looking southeast at Drainage 60 from the south side of Dawn Road toward a residence.

Drainage 61

Drainage 61 is classified as an active ephemeral swale located on the south side of Dawn Road, in a residential area. This feature flows north to south and is characterized by a slight depression in soil with a channel width of approximately 10 inches (**Photo Drainage 61-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits with little indication of flowing water. Drainage 61 is classified as a recommended state non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 61-1. Looking south at the upstream portion of Drainage 61 from the south side of Dawn Road.

Drainage 62

Drainage 62 is classified as an active ephemeral swale located on the south side of Dawn Road, in a residential area. This feature flows north to south and is characterized by a slight depression in soil with a channel width of approximately 7 inches (**Photo Drainage 62-1).** Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits with little indication of flowing water. Drainage 62 is classified as a recommended state and federal non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, Lahontan Regional Water Quality Control Board has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 62-1. Looking southwest at the upstream portion of Drainage 62 from the south side of Dawn Road. Shallow depression can be seen in soil between vegetation.

Drainage 64a

Drainage 64a is classified as an artificial roadside flow diversion located on the south side of central Dawn Road. This feature flows south-west where it combines with Drainages 64c and 64b, and has a channel width of approximately 4 feet (**Photo Drainage 64a-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits with little indication of flowing water or riparian vegetation. Drainage 64a is classified as a recommended state and federal non-jurisdictional feature as it is an artificial flow conveyance for Dawn Road which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 64a-1. Looking south at the eastern upstream end of Drainage 64a from the south side of Dawn Road. Flow direction from east to west. Soil scouring can be seen along banks.

Drainage 64b

Drainage 64b is classified as an artificial roadside flow diversion located on the south side of central Dawn Road. This feature flows south-west where it combines with Drainages 64a and has a maximum channel width of approximately 16 inches and maximum depth of 10 inches (**Photo Drainage 64b-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits with limited evidence of downstream scouring. Drainage 64b is classified as a recommended state and federal non-jurisdictional feature as it is an artificial flow conveyance for Dawn Road which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 64b-1. Looking northeast at the downstream portion of drainage 64b facing Dawn Road.

Drainage 64c

Drainage 64c is classified as an artificial roadside flow diversion located on the south side of central Dawn Road, situated between the upstream of Drainage 64a and Drainage 64b. This feature flows south-west where it combines with Drainages 64a and has a channel width of approximately 72 inches (**Photo Drainage 64c-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits and is classified as a potential non-jurisdictional feature as it is an artificial flow conveyance for Dawn Road which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 64c-1. Looking southwest at the upstream portion of Drainage 64c from the south side of Dawn Road. Flow direction southwest toward the upstream portion of Drainage 64a.

Drainage 64d

Drainage 64d is classified as an artificial roadside flow diversion located on the south side of central Dawn Road, east of the upstream of Drainage 64a. This feature flows south-west and has a channel width of approximately 86 inches (**Photo Drainage 64d-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits and is classified as a recommended state and federal non-jurisdictional feature as it is an artificial flow conveyance for Dawn Road which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 64d-1. Looking southwest at the upstream portion of Drainage 64d on the south side of Dawn Road.

Drainage 64e

Drainage 64e is classified as an artificial roadside flow diversion located on the south side of central Dawn Road. This feature flows south-west and is characterized by a slight depression in sediment with no clear banks (**Photo Drainage 64e-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits and is classified as a recommended state and federal non-jurisdictional feature as it is an artificial flow conveyance for Dawn Road which does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 64e-1. Looking west toward the upstream portion of Drainage 64e on the south side of Dawn Road pictured on the right.

Drainage 65a

Drainage 65a is classified as an active ephemeral swale located on the south side of the central part of Dawn Road. This feature has two upstreams at Dawn Road, which converge at the southern downstream portion. Drainage 65a showed signs of scouring and has a channel width of approximately 18 inches (**Photo Drainage 65a-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub and disturbed/developed communities. This feature was dry during all site visits with limited evidence of scouring indicating historical flow. Drainage 65a is classified as a potential non-jurisdictional feature as it lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 65a-1. Looking south at the upstream portion of Drainage 65a running parallel to unnamed access road on the south side of Dawn Road. Soil scouring can be seen.

Drainage 65b

Drainage 65b is classified as an active ephemeral swale located on the north side of central Dawn Road, across from Drainage 65a. This feature flows south toward its downstream at Dawn Road and is characterized by a shallow depression in sediment with an approximate channel width of 32 inches (**Photo Drainage 65b-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits, with little indication of flowing water. Drainage 65b is classified as a recommended state and federal non-jurisdictional feature as it does lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 65b-1. Looking northwest at the upstream portion of Drainage 65b on the north side of Dawn Road.

Drainage 66

Drainage 66 is classified as an active ephemeral swale located on the south side of central Dawn Road. This feature flows south-east from its upstream at Dawn Road and is characterized by a meandering gap in vegetation of approximately 6 inches (**Photo Drainage 66-1**). Bordering vegetation is dominated by creosote bush-white bursage scrub. This feature was dry during all site visits and is classified as a recommended state and federal non -jurisdictional feature as it does lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 66-1. Looking south/southeast at the upstream portion of Drainage 66 on the south side of Dawn Road.

Drainage 69

Drainage 69 is classified as an active ephemeral swale located on the north side of the eastern portion of Dawn Road. This feature flows north to south and is characterized by a shallow depression in sediment with a channel width of approximately 10 feet (**Photo Drainage 69-1**). Bordeing vegetation is dominated by creosote bush-white bursage scrub and disturbed/developed communities. This feature was dry during all site visits with little indication of flowing water. Drainage 69 is classified as a recommended state and federal non -jurisdictional feature as it does lacks riparian vegetation, does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 69-1. Looking northeast at the downstream portion of Drainage 69 on the north side of Dawn Road. Shallow depression in soil can be seen between vegetation.

Drainage 70

Drainage 70 is classified as an active ephemeral swale located southeast of the eastern Dawn Road intersection with an unnamed access road. This feature flows southeast and is characterized by a meandering channel approximately 15 inches wide (**Photo Drainage 70-1)**. Bordering vegetation is predominantly creosote bush-white bursage scrub, with no indication of riparian vegetation. This feature was dry during all site visits, and had limited evidence of scouring on its west bank. Drainage 70. is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 70-1. Looking northwest downstream portion of Drainage 70 towards Desert Highland Parkway.

Drainage 72

Drainage 72 is classified as an active ephemeral swale located on the south side of the eastern part of Dawn Road near Aerospace Highway. This feature has a channel width of approximately 86 inches at its upstream at Dawn Road, however the channel becomes less defined toward the southern downstream portion (**Photo Drainage 72-1**). Bordering vegetation includes creosote bush-white bursage scrub, with no indication of riparian vegetation. This feature was dry during all site visits and is classified as a recommended state and federal non-jurisdictional feature as it does not carry a relatively permanent flow of water and does not connect to any jurisdictional waters. However, LRWQCB has indicated that a natural or manmade geomorphological feature need only the ability to convey water to meet their interpretation of California “Waters of the State” for this area.

Photo Drainage 72-1. Looking south at the upstream portion of Drainage 72 on the south side of Dawn Road.

3.0 SUMMARY OF POTENTIAL TEMPORARY CONSTRUCTION IMPACTS TO BOTH JURISDICTIONAL AND NON-JURISDICTIONAL DRAINAGES

LRWQCB is using its broad authority under the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) to request additional information on temporary impacts to roadside ditches and depressions from the installation of transmission line poles as these features could collect or convey water.

3.1 Methodology for Determining Temporary Impacts

During the December 2024 field visit, 25 jurisdictional wetlands and 49 non-jurisdictional ephemeral drainages were identified within the study area, covering a total of 1,055,696.10 square feet. Temporary impacts to these drainages were assessed by calculating the square footage per drainage that intersected with the footprint of the following construction activities:

- **Proposed Transmission Pole Construction and Access Sites:** Proposed transmission pole construction and access sites are anticipated to have a 75ft-by-75ft impact footprint. Drainages located within this footprint are anticipated to be temporarily impacted because of construction vehicles needing to cross the drainages to reach pole locations. If a feature cannot be crossed directly, it is anticipated that a steel plate will be placed over the drainage to allow safe passage of construction vehicles and equipment.
- **Proposed Pull Tensioning Sites:** Proposed pull tensioning sites are anticipated to have a 100ft by 300ft impact footprint. Drainages located within this footprint are anticipated to be temporarily impacted because of possible grading, equipment operation and access requirements necessary for transmission line pull tensioning activities.
- **Proposed Underground Transmission Line Sites:** Proposed underground transmission lines are anticipated to be installed within 6-foot-wide trenches. Drainages located within trench sites are anticipated to be temporarily impacted by trenching activities, including excavation and operation of heavy machinery.
- **Proposed Western Joshua Tree Relocation:** As part of the project footprint, Western Joshua Tree relocation may occur within an approximately 13-acre subsection of the Villa Haines site. While Western Joshua Trees would not be directly relocated within drainages, drainages within the Villa Haines may be temporarily impacted from access vehicles and personnel.

3.2 Results

In all events, the Applicant commits to restoring the impacted feature to its preconstruction condition or better. Of the 74 identified drainages, 20 are anticipated to be temporarily impacted by one or more of the above referenced construction activities, covering an estimated total impacted area of approximately 4,759.3 square feet. **Table 2** details the identified drainage features, their related square footage, and potentially impacted areas and causes. Temporary impacts to drainage features referenced in Table 2 are illustrated in attached **Figure 1**.

Table 2: Temporary Construction Impacts on Mapped Drainages

Drainage	Total Drainage Area (Square Feet)	Temporary Construction and Access Impacts on Drainages (Square Feet)	Temporary Impact Type
1	2587.4	No Impact	--
2a	119519.4	No Impact	--
2b	211427.1	No Impact	--
3	213.6	No Impact	--
4	745.4	No Impact	--
5a	252.4	No Impact	--
5b	208.5	No Impact	--
5c	889.7	No Impact	--
5d	300.8	No Impact	--
5e	850.6	**138.0**	Proposed Transmission Pole Construction and Access Site
6	3911.4	No Impact	--
7	1840.4	No Impact	--
8	5567.9	No Impact	--
9	3139.0	No Impact	--
10	25048.7	No Impact	--
11a	1380.6	No Impact	--
11b	289.7	No Impact	--
12	1634.4	No Impact	--
13	385.6	**121.2**	Proposed Transmission Pole Construction and Access Site
14	347564.4	No Impact	--
15	38650.2	No Impact	--
16	1681.4	No Impact	--
17	507.6	**94.7**	Proposed Transmission Pole Construction and Access Site
18a	1285.8	**193.0**	Proposed Transmission Pole Construction and Access Site
18b	4223.8	**1185.0**	Proposed Transmission Pole Construction and Access Site, Proposed Pull and Tensioning Site, Proposed Underground Transmission Site
19	131952.0	No Impact	--
20a	1281.9	**26.4**	Proposed Pull and Tensioning Site
20b	1611.0	No Impact	--
20c	99.0	No Impact	--
21a	6195.7	**100.3**	Proposed Pull and Tensioning Site
21b	844.0	No Impact	--
22a	379.8	No Impact	--
22b	108.7	No Impact	--

Drainage	Total Drainage Area (Square Feet)	Temporary Construction and Access Impacts on Drainages (Square Feet)	Temporary Impact Type
22c	63.6	No Impact	--
23a	763.9	No Impact	--
23b	868.5	No Impact	--
24	614.2	No Impact	--
25	892.3	No Impact	--
26	70.7	No Impact	--
27	97.1	**71.3**	Proposed Transmission Pole Construction and Access Site
28	176.2	**127.3**	Proposed Transmission Pole Construction and Access Site
29	78.2	No Impact	--
30	490.9	No Impact	--
31	128.7	**58.8**	Proposed Transmission Pole Construction and Access Site
32	1058.2	No Impact	--
33	536.7	**536.7**	Proposed Transmission Pole Construction and Access Site, Proposed Pull and Tensioning Site
34	326.1	No Impact	--
35	20341.2	No Impact	--
36	7113.0	**5.3**	Proposed Transmission Pole Construction and Access Site
37	2124.3	No Impact	--
38	1028.4	No Impact	--
39	1635.2	No Impact	--
40	1527.5	No Impact	--
41	2311.9	No Impact	--
42	1391.8	No Impact	--
43a	9281.6	No Impact	--
43b	2342.1	**231.8**	Proposed Transmission Pole Construction and Access Site
44a	418.7	No Impact	--
44b	650.1	No Impact	--
45	306.5	No Impact	--
46	124.0	No Impact	--
47	130.7	No Impact	--
48	211.3	No Impact	--
49	113.3	No Impact	--
50	456.0	No Impact	--
51	627.6	**118.8**	Proposed Transmission Pole Construction and Access Site
52	512.7	No Impact	--

Drainage	Total Drainage Area (Square Feet)	Temporary Construction and Access Impacts on Drainages (Square Feet)	Temporary Impact Type
53	772.1	No Impact	--
54	85.2	**12.1**	Proposed Transmission Pole Construction and Access Site
55	206.9	No Impact	--
56	64.6	No Impact	--
57a	3165.7	No Impact	--
57b	3162.3	No Impact	--
58a	165.9	No Impact	--
58b	86.4	No Impact	--
59	94.9	**60.6**	Proposed Transmission Pole Construction and Access Site
60	105.8	**70.2**	Proposed Transmission Pole Construction and Access Site
61	192.7	No Impact	--
62	81.4	No Impact	--
63a	15899.6	No Impact	--
63b	342.8	No Impact	--
63c	3140.0	No Impact	--
64a	2553.4	**296.7**	Proposed Transmission Pole Construction and Access Site
64b	150.2	No Impact	--
64c	221.6	No Impact	--
64d	239.5	**192.4**	--
64e	354.8	No Impact	--
65a	1310.1	No Impact	--
65b	241.5	No Impact	--
66	1181.6	No Impact	--
67	4441.6	No Impact	--
68a	882.2	**744.2**	Proposed Western Joshua Tree relocation
68b	1204.5	No Impact	--
69	374.4	**374.4**	Proposed Western Joshua Tree relocation
70	192.9	No Impact	--
71	5176.4	No Impact	--
72	57.4	No Impact	--
73	8356.4	No Impact	--
74	25800.3	No Impact	--
Grand Total		**4759.3**	

Notes:

'-- = No Temporary Impact