

Exhibit DD: Response to 1.5-19

Route Segment Alternatives Screening Matrix Parts A and B

Exhibit DD has been compiled in response to Item 1.5-19. To accommodate the large number of Route Segment Alternatives in this analysis, the screening matrix has been divided into two separate tables with the same criteria, and appear in Table 1: Route Segment Alternatives Screening Matrix Part A and Table 2: Route Segment Alternatives Screening Matrix Part B.

Table 1: Route Segment Alternatives Screening Matrix Part A includes the following Route Segment Alternatives:

- Rainbow Route Segment Alternative,
- Rocking Horse Road Route Segment Alternative,
- West Lilac Road Route Segment Alternative,
- Bear Valley Parkway Route Segment Alternative,
- South Centre City Parkway/Escondido Boulevard Route Segment Alternative,
- South Centre City Parkway Route Segment Alternative,
- La Verona Route Segment Alternative,
- Lake Hodges Route Segment Alternative,
- El Ku Avenue Route Segment Alternative, and
- Community Road Route Segment Alternative.

Table 2: Route Segment Alternatives Screening Matrix Part B includes the following Route Segment Alternatives:

- Scripps Poway Parkway Route Segment Alternative,
- Spring Canyon Road Route Segment Alternative,
- Creek Road Route Segment Alternative,
- Kearny Villa Road Route Segment Alternative,
- Mission Trails Route Segment Alternative,
- Marine Corps Air Station (MCAS)/Mission Trails Route Segment Alternative,
- Clairemont Mesa Road Route Segment Alternative,
- Black Mountain Option – Mira Mesa Route Segment Alternative, and
- Black Mountain Option Route Segment Alternative.

For the purposes of this response, Table 1: Route Segment Alternatives Screening Matrix Part A and Table 2: Route Segment Alternatives Screening Matrix Part B use the same methodology that was used for Table 5-1: Alternatives Screening Matrix in Chapter 5 – Discussion of Significant Impacts and Project Alternatives in the Proponent’s Environmental Assessment (PEA) for the Pipeline Safety & Reliability Project (Proposed Project). Numbers in this exhibit may differ somewhat from descriptions in Section 5.2.4 Route Segment Alternatives Considered in Chapter 5 – Discussion of Significant Impacts and Project Alternatives of the PEA because the numbers in Table 5-1: Alternatives Screening Matrix were generated from a geographic information system (GIS) analysis and the numbers in Section 5.2.4 Route Segment Alternatives were based on a desktop-level analysis in Google Earth Pro.

Table 1: Route Segment Alternatives Screening Matrix Part A

Criteria	Rainbow Route Segment Alternative	Rocking Horse Road Route Segment Alternative	West Lilac Road Route Segment Alternative	Bear Valley Parkway Route Segment Alternative	South Centre City Parkway/Escondido Boulevard Route Segment Alternative	South Centre City Parkway Route Segment Alternative	La Verona Route Segment Alternative	Lake Hodges Route Segment Alternative	El Ku Avenue Route Segment Alternative	Community Road Route Segment Alternative
SITE SUITABILITY										
Dimensions/Location (miles)										
Length of line	4.5	2.1	3.7	1.8	2.8	1.1	0.6	12.3	0.3	6.8
Undeveloped/cross-country crossed	4.2	2.1	3.7	1.1	0	0.5	0	2.3	0	0
Urban areas crossed ¹	0.3	0	0	0.7	2.8	0.6	0.6	10	0.3	6.8
JURISDICTIONAL BOUNDARIES										
Land Ownership (miles)										
Federal	0	0	0	0	0	0	0	0	0	0
United States (U.S.) Bureau of Indian Affairs (BIA)	0	0	0	0	0	0	0	0	0	0
U.S. Department of Defense (DOD)	0	0	0	0	0	0	0	0	0	0
U.S. Bureau of Land Management (BLM)	0	0	0	0	0	0	0	0	0	0
U.S. Fish and Wildlife Service (USFWS)	0	0	0	0	0	0	0	0	0	0
U.S. Forest Service (USFS)	0	0	0	0	0	0	0	0	0	0
U.S. Bureau of Reclamation	0	0	0	0	0	0	0	0	0	0
State	0.3	0	0	0	0	0	0	0	0	0
California Department of Fish and Wildlife (CDFW)	0	0	0	0	0	0	0	0	0	0
California Department of Parks and Recreation (DPR)	0	0	0	0	0	0	0	0	0	0
California State Lands Commission (CSLC)	0.3	0	0	0	0	0	0	0	0	0
University of California	0	0	0	0	0	0	0	0	0	0
Private ²	4.2	2.1	3.7	1.8	2.4	1.0	0.2	8.1	0.2	6.4
Number of Local Jurisdictions										
Counties	2	1	1	1	1	1	1	1	1	1
Cities	1	0	0	1	2	1	1	3	1	2

¹ The urban areas that would be crossed were identified using the California Department of Transportation’s (Caltrans’s) GIS data and were not field-verified.

² Mileage does not include where the pipeline would likely be located in franchises and roads, but only where it would cross private property. “Private” is assumed to be land that is not federally, state, or locally owned.

Criteria	Rainbow Route Segment Alternative	Rocking Horse Road Route Segment Alternative	West Lilac Road Route Segment Alternative	Bear Valley Parkway Route Segment Alternative	South Centre City Parkway/Escondido Boulevard Route Segment Alternative	South Centre City Parkway Route Segment Alternative	La Verona Route Segment Alternative	Lake Hodges Route Segment Alternative	El Ku Avenue Route Segment Alternative	Community Road Route Segment Alternative
Number of Infrastructure Crossings										
Rivers and streams	6	0	3	2	2	1	2	10	0	5
Man-made waterways ³	0	0	1	0	0	0	0	0	0	0
Major highways	1	1	1	1	0	1	0	3	0	0
Railroads	0	0	0	0	0	0	0	1	0	0
PROJECT OBJECTIVES COMPATIBILITY										
Implement pipeline safety requirements for existing Line 1600 and modernize the system with state-of-the-art materials as soon as practicable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Improve system reliability and resiliency by minimizing dependence on a single pipeline	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enhance operational flexibility to manage stress conditions by increasing system capacity	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FEASIBILITY										
Able to be permitted and constructed in a reasonable period of time ⁴	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Relative cost compared to the Proposed Project ⁵	Slightly Higher	Slightly Higher	Slightly Higher	Similar	Similar	Similar	Similar	Higher	Similar	Slightly Higher
Avoids lands that have legal protections that may prohibit or substantially limit the feasibility of permitting ⁶	No	Yes	Yes	Yes	No	No	No	No	No	No
Known conservation easements crossed (miles)	0.2	0	0	0	0.1	0.1	0.4	4.2	0.1	0.7
BLM Areas of Critical Environmental Concern Crossed (miles)	0.3	0	0	0	0	0	0	0	0	0
Able to meet technological requirements, considering available technology and the construction, operation, and maintenance or spacing requirements of multiple facilities using common rights-of-way (ROWs)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

³ Man-made waterways include canals, ditches, water pipelines, and underground conduit.

⁴ This criterion assumes landowner approval and land access requirements can be met.

⁵ The following criteria were used to assign the relative cost of alternatives compared to the Proposed Project: Similar (up to 50-percent cost increase); Slightly Higher (50- to 100-percent cost increase); Higher (100- to 200-percent cost increase); and Much Higher (more than 200-percent cost increase).

⁶ Lands with legal protections that may prohibit or substantially limit the feasibility of permitting include known conservation easements, BLM Areas of Critical Environmental Concern, and Mission Trails Regional Park.

Criteria	Rainbow Route Segment Alternative	Rocking Horse Road Route Segment Alternative	West Lilac Road Route Segment Alternative	Bear Valley Parkway Route Segment Alternative	South Centre City Parkway/Escondido Boulevard Route Segment Alternative	South Centre City Parkway Route Segment Alternative	La Verona Route Segment Alternative	Lake Hodges Route Segment Alternative	El Ku Avenue Route Segment Alternative	Community Road Route Segment Alternative
ENVIRONMENTAL CONSTRAINTS										
Biological Sensitivity										
USFWS critical habitat crossed ⁷ (miles)	3.5	1.6	1.3	0	0.1	0.1	0.4	0.1	0.1	0
Number of California Natural Diversity Database (CNDDDB) records within 1 mile	0	5	9	8	18	15	10	20	10	19
Number of unique species reported in CNDDDB within 1 mile	0	2	3	5	6	6	4	6	4	7
Cultural sensitivity ⁸	Low	Low	Low	Low	Low	Low	Medium	High	Low	Low
Protected parks and forests ⁹ crossed (miles)	0	0	0	0	0.4	0.1	0.4	4.2	0.1	0.4
Designated scenic roads within 0.5 mile	0	0	0	0	0	0	0	0	0	0
Potential for encountering hazardous material based on known hazardous contamination within 0.25 mile ¹⁰	Low	Low	Low	Low	Low	Low	Low	Low	Low	Medium

⁷ USFWS critical habitat includes all critical habitat designated for various species by the USFWS.

⁸ Cultural sensitivity was determined based on the number of known cultural resource sites intersected by the route, taking into account the percentage of the route that was covered by available records.

⁹ Protected parks and forests include those managed by federal, state, and local agencies.

¹⁰ Hazard potential was determined by the number of existing hazardous sites within 0.25 mile of each alternative. The following criteria was used: Low (zero to 20); Medium (21 to 40); and High (41 to 60+).

Table 2: Route Segment Alternatives Screening Matrix Part B

Criteria	Scripps Poway Parkway Route Segment Alternative	Spring Canyon Road Route Segment Alternative	Creek Road Route Segment Alternative	Kearny Villa Road Route Segment Alternative	Mission Trails Route Segment Alternative	MCAS/Mission Trails Route Segment Alternative	Clairemont Mesa Road Route Segment Alternative	Black Mountain Option – Mira Mesa Route Segment Alternative	Black Mountain Option Route Segment Alternative
SITE SUITABILITY									
Dimensions/Location (miles)									
Length of line	13	7.3	4.8	6.3	4.2	5.4	10.2	12.9	13.1
Undeveloped/cross-country crossed	1.4	0	0	0.8	0	0	0	0.8	1.5
Urban areas crossed ¹¹	11.6	7.3	4.8	5.5	4.2	5.4	10.2	12.1	11.6
JURISDICTIONAL BOUNDARIES									
Land Ownership (miles)									
Federal	1.6	4.9	3.4	1.9	1.1	1.1	1.0	0	0
U.S. BIA	0	0	0	0	0	0	0	0	0
U.S. DOD	1.6	4.9	3.4	1.9	1.1	1.1	1.0	0	0
U.S. BLM	0	0	0	0	0	0	0	0	0
USFWS	0	0	0	0	0	0	0	0	0
USFS	0	0	0	0	0	0	0	0	0
U.S. Bureau of Reclamation	0	0	0	0	0	0	0	0	0
State	1.2	0	0	0	0	0	0	0	0
CDFW	1.2	0	0	0	0	0	0	0	0
California DPR	0	0	0	0	0	0	0	0	0
CSLC	0	0	0	0	0	0	0	0	0
University of California	0	0	0	0	0	0	0	0	0
Private ¹²	7.2	1.5	1.4	4.4	0.6	1.3	6.5	12.7	12.9
Number of Local Jurisdictions									
Counties	1	1	1	1	1	1	1	1	1
Cities	3	1	1	1	1	1	1	1	1
Number of Infrastructure Crossings									
Rivers and streams	11	0	6	7	8	9	8	11	10
Man-made waterways ¹³	1	0	0	0	0	1	1	1	2

¹¹ The urban areas that would be crossed were identified using Caltrans’s GIS data and were not field-verified.

¹² Mileage does not include where the pipeline would likely be located in franchises and roads, but only where it would cross private property.

¹³ Man-made waterways include canals, ditches, water pipelines, and underground conduit.

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Major highways	0	0	0	4	0	0	4	2	2
Railroads	0	0	0	0	0	0	0	0	0
PROJECT OBJECTIVES COMPATIBILITY									
Implement pipeline safety requirements for existing Line 1600 and modernize the system with state-of-the-art materials as soon as practicable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Improve system reliability and resiliency by minimizing dependence on a single pipeline	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enhance operational flexibility to manage stress conditions by increasing system capacity	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FEASIBILITY									
Able to be permitted and constructed in a reasonable period of time ¹⁴	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Relative cost compared to the Proposed Project ¹⁵	Much Higher	Higher	Higher	Much Higher	Much Higher	Much Higher	Much Higher	Similar	Similar
Avoids lands that have legal protections that may prohibit or substantially limit the feasibility of permitting	No	No	No	Yes	No	No	No	No	No
Known conservation easements crossed (miles)	1.2	1.5	1.0	0	2.9	3.8	3.3	0.2	0.2
BLM Areas of Critical Environmental Concern Crossed (miles)	0	0	0	0	0	0	0	0	0
Able to meet technological requirements, considering available technology and the construction, operation, and maintenance or spacing requirements of multiple facilities using common ROWs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ENVIRONMENTAL CONSTRAINTS									
Biological Sensitivity									
USFWS critical habitat crossed ¹⁶ (miles)	1.8	0	0	0.2	0.7	0.8	1.8	0	0
Number of CNDDDB records within 1 mile	39	27	26	41	26	31	61	36	38
Number of unique species reported in CNDDDB within 1 mile	8	7	6	8	8	11	13	13	12

¹⁴ This criterion assumes landowner approval and land access requirements can be met.

¹⁵ The following criteria were used to assign the relative cost of alternatives compared to the Proposed Project: Similar (up to 50-percent cost increase); Slightly Higher (50- to 100-percent cost increase); Higher (100- to 200-percent cost increase); and Much Higher (more than 200-percent cost increase).

¹⁶ USFWS critical habitat includes all critical habitat designated for various species by the USFWS.

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Cultural sensitivity ¹⁷	High	Medium	Low	Low	Medium	Medium	Medium	Low	Low
Protected parks and forests ¹⁸ crossed (miles)	1.2	0.9	0	0	2.5	3	2.7	0.2	0.2
Designated scenic roads within 0.5 mile	0	0	0	0	0	0	0	0	0
Potential for encountering hazardous material based on known hazardous contamination within 0.25 mile ¹⁹	Low	Low	Low	Low	Low	Low	Low	Low	Low

¹⁷ Cultural sensitivity was determined based on the number of known cultural resource sites intersected by the route, taking into account the percentage of the route that was covered by available records.

¹⁸ Protected parks and forests include those managed by federal, state, and local agencies.

¹⁹ Hazard potential was determined by the number of existing hazardous sites within 0.25 mile of each alternative. The following criteria was used: Low (zero to 20); Medium (21 to 40); and High (41 to 60+).