

Exhibit QQ: Response to 1.5-4
Line 1600 Existing Alignment Alternatives Screening Matrix

Screening Criteria	Line 1600 Existing Alignment Alternative
Site Suitability (miles)	
Length of line	49.7
Undeveloped/cross-country crossed	19.5
Urban areas crossed ¹	30.2
Federal Lands Crossed (miles)	
United States (U.S.) Bureau of Indian Affairs	0
U.S. Department of Defense	2.7
U.S. Bureau of Land Management (BLM)	0
U.S. Fish and Wildlife Service (USFWS)	0
U.S. Forest Service	0
U.S. Bureau of Reclamation	0
State Lands Crossed (miles)	
California Department of Fish and Wildlife (CDFW)	0
California Department of Parks and Recreation	0
California State Lands Commission	0
University of California	0
Private² Lands Crossed (miles)	
41.8	
Number of Local Jurisdictions Crossed	
Counties	1
Cities	2
Number of Infrastructure Crossings	
Rivers and streams	50
Man-made waterways ³	9
Major highways	7
Railroads	12

¹ The urban areas that would be crossed were identified using the California Department of Transportation's (Caltrans') geographic information system 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.

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

Screening Criteria	Line 1600 Existing Alignment Alternative
Compatible with Project Objectives? (Yes/No)	
Implement pipeline safety requirements for existing Line 1600 and modernize the system with state-of-the-art materials as soon as practicable	Yes
Improve system reliability and resiliency by minimizing dependence on a single pipeline	No
Enhance operational flexibility to manage stress conditions by increasing system capacity	No
Feasibility Criteria	
Able to be permitted and constructed in a reasonable period of time ⁴ ?	Yes
Relative cost compared to the Pipeline Safety & Reliability Project (Proposed Project) ⁵	Lower
Avoids lands that have legal protections that may prohibit or substantially limit the feasibility of permitting	Yes
Known conservation easements crossed (miles)	0
BLM Areas of Critical Environmental Concern Crossed (miles)	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	Yes
Environmental Constraints	
USFWS critical habitat crossed ⁶ (miles)	9.6
Number of California Natural Diversity Database (CNDDDB) records within one mile	183
Number of unique species reported in CNDDDB within one mile	76
Cultural sensitivity ⁷	Low ⁸
Protected parks and forests ⁹ crossed (miles)	5.3
Designated scenic roads within 0.5 mile	0

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

⁷ 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.

⁸ Line 1600 is over 50 years old, and could therefore be considered a historic resource; however, it has not been formally evaluated for eligibility for listing on the National Register of Historic Places, the California Register of Historic Resources, the Local Register, or the County of San Diego’s Resource Protection Ordinance.

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

Screening Criteria	Line 1600 Existing Alignment Alternative
Potential for encountering hazardous material based on known hazardous contamination within 0.25 mile ¹⁰	Low (20)

Sources: Caltrans 2010 and 2014, California Protected Areas Data Portal 2014, U.S. Geological Survey (USGS) National Hydrography Dataset 1999, USGS/Teale Data GIS Solutions Group 2000, USFWS Critical Habitat 2015 CDFW Biogeographic Data Branch CNDDDB 2015, CDFW Owned and Operated Lands 2013, California Conservation Easement Database 2015.

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+).