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September 7, 2014

Eric Chiang  
Project Manager  
Energy Division, CEQA Unit  
California Public Utilities Commission  
505 Van Ness Avenue  
California, California 94102

**RE: A.13-12-013 - SoCalGas/SDG&E Application for Authority to Recover North-South Project Revenue Requirement in Customer Rates and for Approval of Related Cost Allocation and Rate Design Proposals**

Dear Eric:

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) appreciates the initial review conducted by the California Public Utilities Commission (CPUC) of the Proponent's Environmental Assessment (PEA) for the North-South Project.

The attachments to this letter provide detailed responses to your request for additional information set forth in your July 7<sup>th</sup> letter. We believe that you will find the responses helpful in further understanding the North-South Project and its potential impacts, as necessary for preparing an EIR. Please note that SoCalGas and SDG&E's response to Question 9 of this data response contains confidential information and is being provided pursuant to Section 583 of the Public Utilities Code and General Order 66-C.

As noted in the CPUC's Information and Criteria list Decision, PEAs are required to supply sufficient information to determine whether a Negative Declaration or Environmental Impact Report (EIR) is necessary for a project (Decision No. 89905, January 30, 1979). The PEA provides a comprehensive analysis of the proposed project and determined that there is evidence that the project may have a significant effect on the environment. Consequently, we believe the PEA already provides sufficient information for the CPUC to determine that an EIR is necessary. As such, SoCalGas and SDG&E respectfully request the CPUC proceed with releasing a notice of preparation (NOP) and initiate preparation of an EIR. Releasing the NOP and initiating the scoping process will enable Energy Division staff to engage the public and incorporate comments early on in the EIR process.

As always, SoCalGas and SDG&E look forward to answering any questions, and providing any additional information needed by the CPUC to ensure that environmental

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Project Manager, Energy Division  
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review for the Proposed Project complies with CEQA and provides the analysis needed to approve this critical gas reliability project. Please feel free to contact me should you have any additional questions regarding this communication or any matters related to SoCalGas and SDG&E's A.13-12-013.

Sincerely,  
Southern California Gas Company

A handwritten signature in black ink, appearing to read "Jessica Kinnahan". The signature is cursive and somewhat stylized.

Jessica Kinnahan, AICP  
Team Lead-Environmental Services

CC: Douglas Long, CPUC, Administrative Law Judge  
Mary Jo Borak, CPUC, Infrastructure Permitting and CEQA  
David Buczkowski, SoCalGas/SDG&E  
Jill Tracy, SoCalGas/SDG&E  
Al Garcia, SoCalGas/SDG&E  
Mike Thorp, SoCalGas/SDG&E

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**QUESTION #1**

From ICL 14 (b) more analysis and information is needed for the alternatives, including no project. “The discussion of alternatives shall include alternatives capable of substantially reducing or eliminating any significant environmental effects, even if these alternatives substantially impede the attainment of the project objectives, and are more costly.” The analysis must be sufficiently detailed to inform the Commission in its independent formulation of project objectives, which will aid any appropriate CEQA alternatives screening process.

**Applicant Response:**

As described in Section 7 of the Proponent’s Environmental Assessment (PEA), SoCalGas considered and dismissed several alternatives. These alternatives included three non-physical alternatives: contracting for upstream supplies (contract supplies from the originating basins to the California border and interstate capacity); Southern System minimum flow requirement (supplementing or replacing the existing System Operator tools with a minimum flowing supply requirement); and Operational Flow Order/System Balancing (imposing tighter balancing requirements on customers). For the reasons set forth in Section 7.1.1 of the PEA, these non-physical alternatives would not meet the project objectives set forth in Section 2.2 of the PEA. Section 7.2 of the PEA also assessed two infrastructure alternatives (River Route and Cross Desert Route), purchase of existing infrastructure alternative, the no project alternative and the Proposed Project. As set forth in Section 7.3 of the PEA, alignment alternatives that would result in modifications to the Proposed Project were also considered.<sup>1</sup>

Energy Division staff specifically mention the “no project” alternative in their letter dated July 7, 2014. Effectively, the no project alternative represents the baseline condition within SoCalGas’ Southern System. Testimony provided by Ms. Beth Musich and Mr. David Bisi describes in detail the baseline conditions within the Southern System and the reliability constraints that the Proposed Project seeks to address. Their testimony is summarized below.

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<sup>1</sup> Intervenor testimony was submitted on August 15, 2014 in response to SoCalGas/SDG&E’s North-South Project application. Pursuant to Commissioner Florio’s May 5, 2014 Scoping Memo the intervenor testimony was limited to addressing project alternatives to the North-South Pipeline. Five parties submitted testimony. SoCalGas will provide a detailed response to intervenor testimony in our rebuttal testimony to the Commission on December 19, 2014.

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SoCalGas' transmission system is a dynamic system that adapts to the demands placed on it daily. Eight transmission pipelines convey gas into SoCalGas' overall system<sup>2</sup>. Within SoCalGas' overall system is the Southern System, which generally includes the load centers within the geographic areas of the Inland Empire, Imperial Valley, San Diego and the Los Angeles service territories. Nearly all of the flowing supplies that arrive at Southern System receipt points are sourced from the El Paso Natural Gas Company LLC pipeline, a high-pressure transmission line, which connects to the SoCalGas system at the Colorado River near Blythe. Gas is conveyed from Blythe to load centers on three high-pressure transmission pipelines with telescoping operating pressure, which results in higher pressure at Blythe and lower pressure at the load centers. Gas supplies can also enter the Southern System from the Chino and Prado Stations within the cities of Chino and Corona, respectively; the Otay Mesa receipt point in San Diego; and, from the Northern System via pipeline 6916. Unlike SoCalGas' northern service territory, the Southern System is 100% dependent on gas imports and does not have access to storage in the north.

As previously noted, the Southern System's primary source of gas is via Blythe from the El Paso pipeline. If gas supplies at Blythe are affected by intervening events such as extreme weather, the entire Southern System is at risk. For example, the Southern System reliability was compromised and gas curtailment necessitated in February 2011, when extreme cold weather caused well freeze offs upstream of the SoCalGas system. El Paso issued an emergency Critical Operating Condition on February 2, 2011. SoCalGas secured additional supplies to offset the decrease; however, curtailment of 200 mmfcd was required. Gas deliveries into the SoCalGas system were at a historic low throughout the SoCalGas territory, yet the ensuing curtailment was confined to the Southern System because the demand in the remainder of the system was met by storage withdrawals. On February 6, 2014, gas reliability in the Southern System was similarly compromised due to extremely cold weather in much of the United States and Canada, resulting in impacted fuel supplies to power plants in Southern California. In response, the California Independent System Operator (CAISO), which regulates the State's electricity grid, issued a Statewide Flex Alert and noted that a Stage 1 Emergency (when operating reserves fall below 7%) was imminent (CAISO 2014a). SoCalGas anticipates that risks to the Southern System will

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<sup>2</sup> The interstate pipelines that supply the SoCalGas transmission system are El Paso Natural Gas Company (El Paso), North Baja Pipeline (North Baja), Transwestern Pipeline Company (Transwestern), Kern River Gas Transmission Company (Kern River), Mojave Pipeline Company (Mojave), Questar Southern Trails Pipeline Company (Southern Trails), Transportadora de Gas Natural de Baja California (TGN), and Gas Transmission Northwest (GTN) via the intrastate system of Pacific Gas and Electric Company (PG&E).

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continue and likely increase into the future due to increase in exports from the El Paso pipeline to Mexico<sup>3</sup> as well as a robust electric generation demand as detailed in A.13-12-013<sup>4</sup>.

The availability of water is also a driver for reliable natural gas supplies. CAISO in its 2014 Summer Assessment states that the present drought conditions will limit the capability of the State’s hydroelectric resources and may cause up to 1,150 MW of thermal units to shut down due to water supply curtailments. CAISO goes on to state “the main impact from the drought during 2014 summer will be an increase in natural gas generation” (CAISO 2014b).

Likewise, the closure of the San Onofre Nuclear Generating Station (SONGS) created a demand for additional electric generating capacity. Since the closure of SONGS, demand for natural gas by Southern System electric generators has increased by approximately 80-100 MMcfd because the California electric supply is largely based on natural gas (60% or greater of the electric fuel supply). As of April 22, 2014, the net dependable capacity of the ISO balancing authority was 65,226 MW, of which generation in the ISO balancing authority is primarily fueled by natural gas (60.8%), followed by 22.0% renewables portfolio standard (RPS) resources, 12.5% large hydro, 3.5% nuclear units and a small amount of oil and coal (CAISO 2014b). The CAISO states that “until longer term mitigations are in place, southern Orange County and San Diego will remain susceptible to reliability concerns” (CAISO 2014b).

These facts further underscore the critical importance of a reliable natural gas supply in California and consequences to Southern California and the nation. Worldwide natural gas markets, already linked to petroleum markets, have converged with electricity markets, a fact that multiplies the complexity of interactions among them (Braithwaite et al, 2011). Because natural gas represents a large percentage of California’s energy mix, and will continue to do so for the foreseeable future, it is important to ensure reliable supplies through assessments of future natural gas demand, supply, prices, and infrastructure needs (California Energy Commission 2013 and U.S. Energy Information Administration 2014).

The North-South Project meets the stated objectives by providing a vital infrastructure pathway that will enable gas from multiple sources to be delivered to the region in most need within the alignment that minimizes environmental effects and provides the most direct path into the region.

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<sup>3</sup> By 2018, U.S. exports to Mexico are expected to increase more than 100 percent based on a report by Bentek Energy (3.6 Bcf per day).

<sup>4</sup> U.S. Energy Information Administration estimates in the 2014 Reference case that total domestic natural gas consumption will increase by 19% from 2012 to 2035 when it totals 30.4Tcf. The 2014 Reference case projects power sector consumption to increase by 15%, to 10.7 Tcf in 2035.

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**References**

Brathwaite, Leon D., Paul Deaver, Robert Kennedy, Ross Miller, Peter Puglia, William Wood. 2011. *2011 Natural Gas Market Assessment: Outlook*. California Energy Commission, Electricity Supply Analysis Division. Publication Number: CEC-200-2011-012-SF.

California Energy Commission. 2013. *2013 Integrated Energy Policy Report*. Publication Number: CEC-100-2013-001-CMF.

CAISO (California Independent System Operator). 2014a.  
<http://www.caiso.com/Documents/ISOIssuesStatewideFlexAlert.pdf>

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Rocco Canonica, Ellen Nelson, Darrell Proctor, and Tricia Bulson. 2013. *Growing Mexican Gas Market Creates Southwest Price Premiums*. Energy Market Fundamentals Report. Bentek Energy, Platts, May 2013, p 393.

U.S. Energy Information Administration. 2014. *Annual Energy Outlook 2014*. April 2014.

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**QUESTION #2**

Provide GIS (or equivalent) data layers for the Proposed Project preliminary engineering including estimated locations of all physical components of the Proposed Project as well as those related to construction. For physical components, this could include but is not limited to the existing components (e.g., ROWs, facility locations, wells, pipelines, transmission lines, etc.). For elements related to construction include proposed or likely laydown areas, work areas, access roads (e.g., temporary, permanent, existing, etc.), areas where special construction methods may need to be employed, areas where vegetation removal may occur, areas to be heavily graded, etc.

**Applicant Response:**

SoCalGas continues to refine the project scope based on additional technical and site constraint information. The physical components of the Proposed Project and the requested construction details will be provided to the CPUC in January 2015. GIS data layers for all project features will be provided to the CPUC at that time.

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**QUESTION #3**

Please include information on Operations and Maintenance PEA Section 2.13. For example, describe the general system monitoring and control (i.e., use of standard monitoring protection equipment, pressure sensors, automatic shut-off valves, etc.), facility inspection and survey, and ongoing general maintenance.

**Applicant Response:**

Operations and maintenance activities are described in Section 3.9 of the PEA (the North–South Project PEA does not contain Section 2.13, as referenced above). The description of operations and maintenance activities included in the PEA has been expanded and is provided in Attachment A in this response.

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**QUESTION #4**

Provide visual simulations of prominent public view locations for the compressor and limiting stations, including scenic highways to demonstrate the before and after project implementation. Additional simulations of affected private view locations are highly recommended.

**Applicant Response:**

A Visual Resources Technical Report will be prepared by the Applicant and submitted to the CPUC in March 2015. The Visual Resources Technical Report will address the anticipated visual changes to the existing landscape setting resulting from the proposed modifications to the Adelanto Compressor Station, pressure limiting stations, block valve stations, and other above-ground appurtenances. The Visual Resources Technical Report will also address the short- and long-term visual effects likely to occur due to vegetation removal and ground disturbance associated with the construction of the proposed pipeline.

As part of the Visual Resources Technical Report, a variety of key observation points will be selected from public vantage points. Although not required under CEQA, impacts to private viewsheds may also be considered. Three-dimensional photo simulations of the project components on finished grade, as viewed from the selected key observation points, will be prepared to support the visual analysis. Simulations for the Adelanto Compressor Station will include existing site photographs as background images and true-scale three-dimensional models of the proposed natural gas turbine-driven compressors rendered onto the existing photographs. Simulations for the pipeline segments will include existing site photographs as background images and will illustrate the anticipated effects of vegetation removal and ground disturbance in the pipeline ROWs. It is anticipated that the key observation points would include the following: Adelanto Compressor Station, Moreno Pressure Limiting Station, Whitewater Pressure Limiting Station, Shaver Summit Pressure Limiting Station, Desert Center Compressor Station, and three locations along the pipeline alignment.

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**QUESTION #5**

According to the Agricultural Resources analysis, there are no impacts and therefore no mitigation measures. However it is noted that temporary work areas and additional right of way acquisitions may be needed. There should be measures to mitigate potential issues with these topics as the no impacts assessment may be inconsistent with the analysis.

**Applicant Response:**

The Agricultural Resources analysis contained in the Applicant’s PEA assesses the potential for the Proposed Project to affect farmland and forest resources relative to the criteria provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). The criteria provided in Appendix G address whether the Proposed Project would have the potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as designated by the Farmland Mapping and Monitoring Program (FMMP) to a non-agricultural use, whether the Proposed Project would conflict with existing agricultural zoning or a Williamson Act contract, and whether the Proposed Project would involve changes to the existing environment that could result in conversion of Farmland. In response to these criteria, the analysis states that the Proposed Project would not result in the conversion of Farmland to non-agricultural use, that it would not conflict with the existing zoning or Williamson Act contracts, and that it would not result in indirect conversion of farmlands to non-agricultural use.

Table 5.2-3 of the Applicant’s PEA shows the acreages of existing FMMP-designated land within a 500-foot buffer of the proposed alignment. Figure 5.2-1 shows FMMP-designated areas within this 500-foot buffer and identifies the types of FMMP designations along the pipeline route. Figure 5.2-2 shows the Williamson Act contract lands located within the vicinity of the proposed alignment and provides detail of the area where the proposed alignment runs adjacent to Williamson Act contract lands. According to Table 5.2-3 and Figures 5.2-1 and 5.2-2, the Adelanto Compressor Station site and the pressure limiting station locations are not located within designated farmland; however, the proposed alignment would run through lands currently identified by the FMMP as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. Additionally, the proposed alignment would run through areas that are currently zoned for agricultural use and/or that are under a Williamson Act contract. Lands within the 500-foot buffer around the proposed alignment that have been designated by the FMMP as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland total 18.2 acres out of a total buffer area of approximately 6,000 acres.

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The analysis provided in the Applicant’s PEA states that after the pipeline has been installed, the construction area would be returned to its original condition to an extent that is reasonably possible. As a result, long-term operation of the Proposed Project would not convert farmland to non-agricultural use. Additionally, the analysis states that farming activities currently occurring within and in the vicinity of the alignment would not be restricted in any way that they are not currently restricted, and that the Proposed Project would therefore result in no impact to existing zoning or Williamson Act contracts. Furthermore, because construction and operation would take place largely within existing SoCalGas right-of-way or public right-of-way, the Proposed Project would not result in changes to the infrastructure of the area affecting the agricultural economy and would not result in indirect conversion of farmlands to non-agricultural uses.

While the analysis provided in the Applicant’s PEA confirms that the Proposed Project would not result in the conversion of Farmland, would not conflict with a Williamson Act contract or with agricultural zoning, and would not cause changes to the environment that would result in conversion of Farmland, there is the potential that construction and operational activities associated with the Proposed Project could temporarily interfere with agricultural activities occurring on farmland within the proposed construction impact area. While temporary impacts to farmland are not addressed by the criteria listed in Appendix G of the CEQA Guidelines, the Applicant proposes the following Applicant Proposed Measures (APMs) to minimize and/or avoid interruptions in farming activities caused during construction and maintenance. It should be noted, however, that the majority of the proposed alignment would be situated within or adjacent to existing SoCalGas right-of-way, along other existing utility corridors, and/or along existing paved roads.

The following new APMs are based on recommendations for natural gas pipeline construction within agricultural areas provided by the Interstate Natural Gas Association of America (INGAA) in their report “Building Interstate Natural Gas Transmission Pipelines: A Primer” (INGAA 2013).

**New Applicant Proposed Measures**

**APM-AG-1 Construction Methods.** Pipeline construction activities occurring within farmland that is designated by the Farmland Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, within farmland that is protected under a Williamson Act contract, or within farmland that is zoned for agricultural use by a local jurisdiction will adhere to the following specifications:

- **Depth of Cover.** A minimum of 42 inches of cover (unless constraints prevent the extra cover) will be placed over the pipe to allow continuation of

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plowing after construction. The depth of cover will be measured from the top of the pipe. While 42 inches is the depth of cover recommended for traversing agricultural lands, circumstances such as deep plowing or existing drainage systems may necessitate additional depth of cover. The Applicant will consult with landowners to determine whether deep plowing activities occur on the agricultural lands traversed by the pipeline and will work with the landowner(s) to establish a depth of cover that would allow deep plowing practices to continue.

- **Topsoil Conservation.** During excavation, the topsoil will be removed and segregated from the subsoil. The topsoil will be segregated by storing it in separate windrows. Breaks in the topsoil and subsoil stockpiles will be provided to maintain the natural flow patterns of the fields.
- **Protection of Drainage Structures and Irrigation Facilities.** The Applicant will work with landowners to locate any existing drainage structures and irrigation facilities. If construction activities damage or alter drainage structures and/or irrigation facilities, the Applicant will restore these structures and facilities to pre-project condition. While the Applicant will avoid shutoff of crop irrigation systems to the extent practicable, the Applicant will coordinate with the affected parties in the event that crop irrigation systems may need to be temporarily shutoff during construction.

**APM-AG-2 Construction Site Restoration.** Where construction occurs within farmland that is designated by the Farmland Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, within farmland that is protected under a Williamson Act contract, or within farmland that is zoned for agricultural use by a local jurisdiction, the Applicant will perform the following actions to restore the farmland:

- **Repair of Rutting or Compaction.** Any rutting or compaction will be repaired prior to spreading the topsoil that was removed and segregated from the subsoil.
- **Rock Removal.** Rocks and stones larger and/or higher in densities than those in adjacent undisturbed areas will be collected and properly disposed.
- **Preservation of Natural Grade.** If requested by the landowner, the backfill will be crowned to allow for subsidence so that the construction site will be near natural grade when the backfill settles. Where subsidence is determined

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to be a result of construction activities, the Applicant will reestablish natural grade to the extent practicable.

**APM-AG-3 Operational Practices.** For any construction activities associated with maintenance or emergency produces that occur on agricultural lands, the Applicant will comply with the construction measures provided in APM-AG-1 and APM-AG-2.

## **References**

14 CCR 15000–15387 and Appendices A–L. California Environmental Quality Act Guidelines.

INGAA (Interstate Natural Gas Association of America). 2013. *Building Interstate Natural Gas Transmission Pipelines: A Primer*. January 2013.

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**QUESTION #6**

The measures designed to address the potentially significant impacts in the Air Quality/Greenhouse Gas Emissions section do not seem to mitigate the impacts. In four of the five measures, the resolution is to identify appropriate measures to reduce the impact. For example, are there any design changes, climate action programs or offsets to purchase/retire that could be considered as measures.

**Applicant Response:**

The APMs listed in the Air Quality/Greenhouse Gas Emissions section of the Applicant's PEA identify several air quality technical analyses that will be prepared for the Proposed Project. These technical reports will involve an analysis of anticipated construction and operational emissions of the Proposed Project components and will be based on construction and operational details that were not available at the time that the PEA was submitted. As discussed in **APM-AIR-2**, **APM-AIR-3**, **APM-AIR-4**, and **APM-AIR-5** below, for any emissions identified in the technical analyses that are determined to exceed applicable significance thresholds, measures will be identified to reduce the impacts. Measures may include specific actions to minimize air quality and greenhouse gas (GHG) emissions, such as measures to reduce air quality emissions during construction and/or operation and measures to offset emissions. The APMs are provided on pages 5-110 through 5-112 of the PEA and are also included below. The air quality technical reports, along with measures to reduce impacts, will be provided to the CPUC in April 2015.

**APM-AIR-1 Construction Fugitive Dust Control Plan.** The Applicant will develop a Fugitive Dust Emission Control Plan (FDECP) for construction work. The plan will be completed prior to construction and approved by the appropriate agency. Measures to be incorporated into the plan will include, but will not be limited to the following:

- Non-toxic soil binders, equivalent or better in efficiencies than the CARB approved soil binders, shall be applied per manufacturer recommendations to active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction to reduce fugitive dust emissions. On USFS lands, the Applicant will obtain USFS approval of any soil binders to be used.
- Water the disturbed areas of the active construction sites as needed if uncontrolled fugitive dust is noted.

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- Enclose, cover, and/or apply non-toxic soil binders according to manufacturer’s specifications to exposed piles with a 5% or greater silt content.
- Maintain unpaved road vehicle travel to the lowest practical speeds, and no greater than 15 miles per hour (mph), to reduce fugitive dust emissions.
- Cover all trucks hauling soil and other loose material, or require at least two feet of freeboard.
- Establish a vegetative ground cover (in compliance with biological resources impact mitigation measures) or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.

**APM-AIR-2 Construction Emissions Analysis.** The Applicant will prepare an analysis of potential project-generated air quality and GHG construction impacts. This analysis will include an estimation of criteria air pollutant emissions and GHG emissions associated with the Proposed Project including construction of the natural gas pipelines and the modifications to the existing Adelanto Compressor Station facility. Estimated construction emissions will be based on anticipated schedule (e.g., overall construction duration, phasing and phase timing) and probable construction activities (e.g., construction equipment type and quantity, workers, and haul trucks). The significance of potential air quality and GHG impacts resulting from construction activities within the MDAQMD’s jurisdiction will be determined using the MDAQMD daily criteria air pollutant and GHG thresholds. For construction activities located within the SCAQMD’s jurisdiction, estimated emissions will be compared to the SCAQMD daily construction thresholds and annual GHG thresholds for industrial projects to determine the significance of potential impacts. Measures will be identified as appropriate to reduce air quality impacts that exceed applicable significance thresholds.

**APM-AIR-3 Existing Operational Emissions of the Adelanto Compressor Station.** The Applicant will calculate existing criteria air pollutant emissions and GHG emissions generated by the current compressor station equipment based on current operating data. These emissions will represent the baseline to determine the net change in operational criteria air pollutant emissions and GHG emissions associated with the modifications to the compressor station. Measures will be identified, as appropriate, to reduce air quality impacts that exceed applicable thresholds.

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**APM-AIR-4 Sensitive Receptors.** For portions of the Proposed Project within the SCAQMD, the Applicant will prepare an evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Proposed Project as a result of construction and operational activities. The localized significance threshold analyses are intended to assess whether development of a project—primarily the carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions generated during construction and operation—would cause or contribute to exceedances of ambient air quality standards at sensitive receptors near the Proposed Project. The localized significance threshold analysis will be prepared in accordance with SCAQMD guidance (SCAQMD 2008). Measures will be identified, as appropriate, to reduce localized air quality impacts that exceed applicable significance thresholds.

**APM-AIR-5 Local Climate Action Plans.** The Applicant will perform a comprehensive analysis and research of potentially applicable plans, policies, or regulations (e.g., GHG reduction plans and climate action plans) adopted for the purpose of reducing GHG emissions by the jurisdictions the Proposed Project is located within to determine if the Proposed Project would potentially conflict with such plans, policies, or regulations.

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**QUESTION #7**

Please provide a copy of special status surveys for wildlife, botanical and aquatic species, as applicable. Any GIS data documenting locations of special-status species should be provided.

**Applicant Response:**

The APMs listed in the Biological Resources section of the PEA identify a number of biological surveys that will be conducted for the Proposed Project. The biological surveys will involve identification of special-status wildlife and plant species, vegetation communities, and jurisdictional waters including wetlands located along the proposed alignment and within the vicinity of the proposed alignment. The survey results and associated GIS data documenting the results will be provided to the CPUC as part of a biological technical report. The biological technical report will be provided to the CPUC in October 2015, although interim biological survey results may be provided as appropriate. The results of fairy shrimp surveys may be provided as an appendix at a later date, due to the more extensive requirements for fairy shrimp surveys.

**APM-BIO-1** lists all of the required biological surveys for the project, the results of which will be included in the biological technical report. Additionally, **APM-BIO-5**, **APM-BIO-18**, **APM-BIO-19**, **APM-BIO-21**, **APM-BIO-24**, and **APM-BIO-25** include further commitments for biological surveys to be conducted prior to construction. The APMs requiring biological surveys are provided on pages 5-169 through 5-183 of the PEA. **APM-BIO-1** is included below followed by a list describing the timing of each survey.

**APM-BIO-1 Biological Surveys.** Biological surveys will be conducted for the Proposed Project to determine the extent of sensitive biological resources and will serve to inform avoidance and minimization measures. Biological surveys will include vegetation community mapping, habitat assessments for special-status species, special-status plant surveys, focused wildlife surveys, vernal pool assessment, delineation of jurisdictional waters and wetlands, tree surveys, and invasive weed survey.

- **Vegetation mapping.** Mapping of vegetation will be conducted within the study area and will be consistent with the Protocols for Surveying and Evaluating Impacts to Special-status Native Populations and Natural Communities (CDFG 2009), and vegetation communities will be identified using the Manual of California Vegetation, Second Edition (Sawyer et al. 2009).

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- **Jurisdictional delineation.** The delineation of jurisdictional waters and wetlands will be conducted within the right-of-way and within 100 feet of proposed disturbance areas. The delineation will be completed according to agency guidelines (ACOE, RWQCB, and CDFW) and generally accepted practices.
- **Tree surveys.** Certified arborists will conduct an inventory of regulated trees within 25 feet of all impact areas and as required by City of Adelanto Municipal Code (Section 17.57.040), City of Highland (Chapter 8.36), and San Bernardino County Municipal Code (Chapter 88.01) policy. Regulated trees include Joshua trees, native oaks over 5 inches diameter at breast height (DBH), native trees over 6 inches DBH, three or more palm trees in linear plantings, 50 feet or greater in length; and heritage trees.
- **Townsend’s big-eared bat.** Passive acoustic bat surveys will be conducted to determine general bat presence, activity levels, and species composition along high-probability areas, and representative areas of the alignments. Broadband acoustic detectors (Anabat II zero-crossing ultrasonic detectors and CF-ZCAIM storage units) will be programmed to record bat calls each day from one half-hour before sunset to one half-hour after sunrise each day of the study.
- **Burrowing owl.** Focused burrowing owl surveys will be conducted within all suitable habitat within the study area in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012b) or WRMSHCP protocol, as appropriate.
- **Breeding raptor survey.** Breeding raptor surveys will be conducted in accordance with the methods described by Fuller and Mosher (1987). In general, these methods involve conducting road surveys early in the breeding season with follow-up road or walking surveys to provide additional locations.
- **Desert tortoise.** Desert tortoise focused surveys will be conducted in accordance with the USFWS 2010 protocols.
- **California gnatcatcher.** Coastal California gnatcatcher focused surveys will be conducted in accordance with the USFWS 1997 protocols.
- **Riparian birds.** Southwestern willow flycatcher and least Bell’s vireo focused surveys will be conducted in accordance with the latest protocols (Sogge et al. 1997; USFWS 2000; USFWS 2001; USFWS 2004).
- **Small mammals.** Trapping surveys will be conducted for Mohave ground squirrel (Starr 1991), Stephens’ kangaroo rat (Dudek & Associates 1996), San

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Bernardino kangaroo rat (Braden et al. 2000), Los Angeles pocket mouse (Biological Monitoring Team 2007), Palm Springs pocket mouse (Barrows et al. 2009), and Coachella Valley round-tailed ground squirrel (CVAG 2007).

- **Focused special-status plant surveys.** Will conform to CNPS Botanical Survey Guidelines (CNPS 2001); Protocols for Surveying and Evaluating Impacts to Special-status Native Populations and Natural Communities (CDFG 2009); and U.S. Fish and Wildlife Services General Rare Plant Survey Guidelines (Cypher 2002).
- **Habitat assessment.** A habitat assessment will be completed for all other special-status species with potential to occur within the Proposed Project area and will be based on the vegetation mapping and observations during other focused surveys.

The anticipated timeframe(s) for the biological surveys described above are summarized in the Table 1.

**Table 1**  
**Anticipated Biological Survey Timeframes**

Species	Survey Period 1	Survey Period 2	Survey Period 3
Vegetation Mapping	July–August 2014		
Jurisdictional Delineation	Fall 2014 into Spring 2015		
Townsend's Big-Eared Bat	No official survey window for this species, but likely Spring/Summer 2015		
Burrowing Owl	Feb 15–April 15, 2015	April 15–July 15, 2015	N/A
Breeding Raptors	April, 2015	June/July, 2015	NA
Desert Tortoise <sup>1</sup>	April–May 2015	Sept–Oct 2015	N/A
Coastal California Gnatcatcher	March 15–June 30, 2015	July 1, 2015–March 14, 2016 (only if surveys are not completed during Survey Period 1)	N/A
Least Bell's Vireo	April 10–July 31, 2015	N/A	N/A
Southwestern Willow Flycatcher	May 15–May 31, 2015	June 1–June 21, 2015	June 22–July 17, 2015
Mojave Ground Squirrel	March 15–April 30, 2015	May 1–May 31, 2015	June 15–July 15, 2015
Other Small Mammals (Stephens' kangaroo rat, San Bernardino kangaroo rat, Los Angeles pocket mouse, Palm Springs pocket mouse, and Coachella Valley round-tailed ground squirrel)	Late spring/early summer, 2015		
Focused Special-Status Plant Surveys <sup>2</sup>	April 2015	June 2015	Sept/Oct 2015
Habitat Assessment	Sept–Oct 2014		

1. Desert Tortoise surveys may be conducted during the Fall 2014 season, anticipated Sept/Oct 2014.

2. Rare Plant surveys may be conducted during the Fall 2014 season, anticipated Sept/Oct 2014.

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**QUESTION #8**

There is no discussion of impacts during the operations and maintenance stages in the Biological Resources section. Please include an analysis of these activities and potential impacts post construction.

**Applicant Response:**

The Biological Resources section of the PEA included an analysis of impacts to biological resources, focusing on the aspects of the Proposed Project that would involve ground disturbance, permanent or temporary removal of habitat, other potential effects on habitat, and direct or indirect effects to special-status species known to occur on or near the proposed alignment. As the magnitude of ground-disturbance and the resulting effects to habitat and special-status species would be greatest during the construction stage of the Proposed Project, the analysis in the PEA provides a more detailed analysis of construction effects. A more extensive analysis of both construction and operational effects of the Proposed Project will be provided as part of a biological technical report, which will be provided to the CPUC in October 2015. The biological technical report will include an analysis of impacts potentially resulting from operations and maintenance activities.

Additionally, the Biological Resources section of the PEA contains a number of APMs that address both construction and operational impacts of the Proposed Project. For example, **APM-BIO-9**, BMPs for Avoidance and Minimization of Impacts to Special-status Wildlife Species, directs construction and operations crew to use best management practices where applicable. **APM-BIO-20**, Riparian Birds Avoidance, requires that construction and maintenance activities occur outside of breeding season. Otherwise, adhering to other buffer and/or sound barrier requirements would be required. These APMs are provided on pages 5-174, 5-175, 5-179, and 5-189 of the PEA. Depending on the biological survey results and the biological impacts analysis provided in the biological technical report, additional APMs specific to operations and maintenance may be developed and implemented to ensure impacts to sensitive biological resources can be avoided and/or minimized.

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**QUESTION #9**

Please provide a copy of all letters and documentation of Native American consultation.

**Applicant Response:**

Letters and documentation of Native American consultation are provided in Attachment B. This attachment consists of (1) a letter to the Native American Heritage Commission that explains the Proposed Project and (2) a letter from the Native American Heritage Commission regarding the Sacred Lands File Search and Native American Contacts list. These two letters constitute the communication that has occurred between the Applicant and Native Americans to date for this project. The tribes and entities named by the Native American Heritage Commission in their letter have not been contacted at the time of this response. However, in accordance with **APM-CUL-1**, these tribes and entities will be contacted as part of the Cultural Resources Technical Report effort, which would take place in spring of 2015. Documentation of the Native American consultation associated with the Cultural Resources Technical Report effort will be provided to the CPUC in July 2015. **APM-CUL-1**, which requires further Native American consultation, is listed on page 5-348 and is included below:

**APM-CUL-1 Native American Traditional Sites and Places.** Additional coordination with Native Americans tribes and individuals will be conducted prior to initiation of the Proposed Project to identify traditional Native American sites and places in the cultural resources study area. These might include locations of on-going religious and ceremonial activities, traditional plant gathering areas, and landscape elements important to the cultural practices of the tribes. This effort will implement the recommendations made by the NAHC to follow-up by telephone and in writing with the tribes and entities named by the NAHC. Any information learned during the follow-up will be considered during subsequent identification, evaluation, and mitigation efforts. This information will also be available to the CEQA lead agency and federal lead agency for use during government-to-government Native American consultation for the Proposed Project.

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**QUESTION #10**

Please provide a clearer and more detailed fault and seismicity map along with shrink/swell potential map, if any, for the project area in the Geology, Soils and Seismicity section.

**Applicant Response:**

The Geology, Soils, and Seismicity section in the PEA contained a series of geology maps, including a fault activity map and a geologic formations map. The Geology, Soils, and Seismicity section also identified faults located within the region of the Proposed Project, the estimated peak ground acceleration along the proposed alignment, and areas along the proposed alignment that would be potentially susceptible to soil hazards such as liquefaction. Additional analysis of geology hazards, including geology maps such as fault and seismicity maps and soil hazards maps, will be provided as part of the geology and soils report to be prepared in accordance with **APM-GEO-1** and **APM-GEO-2**. These APMs are provided on page 5-388 of the PEA and are also included below. The geology and soils report, along with the associated maps, will be provided to the CPUC in April 2015.

**APM-GEO-1 Geotechnical Investigation.** One or more project-specific geotechnical investigations conducted under the most current state and county guidelines will be completed by a California-licensed geotechnical engineer and California-certified engineering geologist. The investigation will address the Proposed Project design to minimize effects from: adverse soil conditions including any liquefiable or otherwise unstable/consolidation-prone soils; bedrock characteristics; subsidence; earthquake ground shaking; slope instability; subsurface gas; groundwater; fault rupture; and/or other geotechnical and engineering geologic hazards. The design and construction recommendations will be incorporated into the foundation, structural, and pipeline design of Proposed Project components, implemented in accordance with the design, and subjected to inspection by the relevant entities/agencies. Grading/building inspectors would perform site inspections to assure construction occurs in accordance with any building permits and plans.

**APM-GEO-2 Fault Rupture.** It will be necessary to determine each location where the pipeline crosses an active or potentially active fault. For each fault crossing location, determination will be made as to the estimated fault rupture characteristics, such as movement direction and amount, likely intervals between movements, and the

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width of the zone that may experience movement. Design recommendations will be incorporated to establish block valve locations.

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**QUESTION #11**

Please refer to PEA checklist for Hazards and Hazardous Materials, Section 4.7 and provide an impact analysis for gas and odorizing agents migration and emissions. Also include as much information from the list as possible: Environmental Data Resources report, Hazardous Substance Control and Emergency Response Plan, Health and Safety Plan, Health Risk Assessment, Worker Environmental Awareness Program (WEAP) and chemicals used during construction and operation of the Proposed Project.

**Applicant Response:**

As noted in the response to Question #6, the APMs listed in the Air Quality/Greenhouse Gas Emissions section of the Applicant’s PEA identify several air quality technical analyses that will be prepared for the Proposed Project. These technical reports will involve an analysis of anticipated construction and operational emissions of the Proposed Project components and will be based on construction and operational details that were not available at the time that the PEA was submitted. The air quality technical report will include an analysis of gas and odorizing agents migration and emissions. As discussed in **APM-AIR-2**, **APM-AIR-3**, **APM-AIR-4**, and **APM-AIR-5** (included in response to Question #6), for any emissions identified in the technical analyses that are determined to exceed applicable significance thresholds, measures will be identified to reduce the impacts. Measures may include specific actions to minimize air quality and greenhouse gas (GHG) emissions, such as measures to reduce air quality emissions during construction and/or operation and measures to offset emissions. The air quality technical reports, along with measures to reduce impacts, will be provided to the CPUC in April 2015.

Energy Division staff also request information from the following sources: Environmental Data Resources report, Hazardous Substance Control and Emergency Response Plan, Health and Safety Plan, Health Risk Assessment, Worker Environmental Awareness Program (WEAP) and chemicals used during construction and operation of the Proposed Project. A response to each item is provided below.

**Environmental Data Resources (EDR) Report**

A hazardous materials database search (equivalent to an EDR Report) will be compiled as part of the Hazards Technical Report to be prepared for the Proposed Project. The Hazards Report, along with the associated database search results, will be provided to the CPUC in March 2015. **APM-HAZ-11**, provided on page 5-434 of the PEA and listed below, identifies the additional hazardous materials research that would be undertaken for the project.

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**APM-HAZ-11 Additional Hazardous Materials Research.** The Applicant will determine if additional research of potential hazardous waste sites more than 0.50 miles from the Proposed Project area is necessary and/or if there are additional regulatory databases that should be searched. The local Certified Unified Program Agency (e.g., county environment health department) shall be contacted to obtain further details regarding the seven sites of concern identified in Section 5.7.1. In addition, historical aerial photographs that have more detail should be reviewed to verify or eliminate the Proposed Project areas identified as potentially being used for agriculture, and thereby potentially containing pesticides and metals in shallow soils.

**Hazardous Substance Control and Emergency Response Plan**

A number of APMs were provided in the Hazards and Hazardous Materials section of the PEA to address the control of hazardous substances, spills during construction, and emergency response during project construction and operation. Specifically, the relevant APMs are found on pages 5-431, 5-432, and 5-458 of the PEA and are included below:

**APM-HAZ-1 Hazardous Materials and Hazardous Waste Handling.** A project-specific hazardous materials management and hazardous waste management program will be developed prior to initiation of the Proposed Project. The program will outline proper hazardous materials use, storage, and disposal requirements as well as hazardous waste management procedures. The program will identify the types of hazardous materials to be used during the Project and the types of wastes that will be generated. All Project personnel will be provided with Project-specific training. This program will be developed such that hazardous materials and wastes will be handled in a safe and environmentally sound manner. Hazardous materials will not be disposed of or released onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment will be provided for all trash. All construction waste, including trash and litter, garbage, other solid waste, petroleum products and other potentially hazardous materials, will be removed to a waste facility permitted to treat, store, or dispose of such materials. Hazardous wastes will be handled and disposed of according to applicable rules and regulations. Employees handling hazardous materials and wastes will receive hazardous materials training and will be trained in hazardous waste procedures, spill contingencies, and waste minimization procedures in accordance with Occupational Safety and Health Administration (OSHA) Hazard Communication Standards and Title 22 of the California Code of Regulations (CCR).

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**APM-HAZ-2 Transport of Hazardous Materials.** Hazardous materials that will be transported by truck include fuel (diesel fuel and gasoline) and oil and lubricants for equipment. Containers used to store hazardous materials will be properly labeled and kept in good condition. Written procedures for the transport of hazardous materials used will be established in accordance with U.S. Department of Transportation and California Department of Transportation (Caltrans) regulations. A qualified transporter will be selected to comply with U.S. Department of Transportation and Caltrans regulations.

**APM-HAZ-3 Fueling and Maintenance of Construction Equipment.** Written procedures for fueling and maintenance of construction equipment will be prepared prior to construction. Vehicles and equipment will be refueled on site or by tanker trucks. Procedures will include the use of drop cloths made of plastic, drip pans, and trays to be placed under refilling areas to prevent chemicals from coming into contact with the ground. Refueling stations will be located in designated areas where absorbent pad and trays will be available. Fuel storage tanks will be placed in secondary containment to prevent accidental spillage from occurring. Drip pans or other collection devices will be placed under the equipment at night to capture drips or spills. Equipment will be inspected daily for potential leakage or failures. Hazardous materials such as paints, solvents, and penetrants will be kept in an approved locker or storage cabinet.

**APM-HAZ-4 Emergency Release Response Procedures.** An Emergency Response Plan detailing responses to releases of hazardous materials will be developed prior to construction activities. It will prescribe hazardous materials handling procedures for reducing the potential for a spill during construction and will include an emergency response program to ensure quick and safe cleanup of accidental spills. All hazardous materials spills or threatened releases, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of the quantity spilled, will be immediately reported if the spill entered a navigable water, stream, lake, wetland, or storm drain; affected any sensitive area, including conservation areas and wildlife preserves; or caused injury to a person or threatened injury to public health. All construction personnel, including environmental monitors, shall be aware of state and federal emergency response reporting guidelines.

**APM-HAZ-5 Containment and Disposal of HDD Drilling Waste.** Drilling mud and cuttings from HDD drilling activities will be contained in portable tanks. Samples will be analyzed as necessary (to determine waste classification) and waste will be disposed of at an approved disposal facility.

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**Health and Safety Plan**

SoCalGas has a robust companywide health and safety program. Once the pipeline is in operation, staff will perform activities in accordance with standard company procedures as outlined in the Health and Safety Plan. A construction-specific Health and Safety Plan that will account for construction workforce safety as well as public safety will be developed and implemented by the selected contractor.

**Health Risk Assessment**

A human health risk assessment (HRA) is the process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future. SoCalGas will prepare a HRA to evaluate potential operational impacts associated with the Adelanto Compressor Station in accordance with the latest Mojave Desert Air Quality Management District HRA guidelines. The HRA will be provided in April 2015 to the CPUC.

**Worker Environmental Awareness Program**

SoCalGas will prepare a detailed and thorough WEAP that will address construction-related environmental requirements. This document will incorporate the relevant APMs and mitigation measures included in the EIR and as such, the WEAP will be submitted upon completion of the EIR process.

**Chemicals During Construction and Operation of the Proposed Project**

As described above, the APMs provided in the Hazards and Hazardous Materials section of the PEA provide for measures that would address control of chemicals during construction and operation of the project.

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**QUESTION #12**

For the Hydrology and Water Quality section, please provide a flood zone map, if any, for the project area. Also are there any water monitoring plans to address water quality degradation impacts from excess sediments, discharges, releases and spills during construction.

**Applicant Response:**

A flood zone map has been provided in Attachment C. The Hydrology and Water Quality section of the PEA evaluated potential impacts to water quality, including the Proposed Project's potential to affect stormwater quality and drainage patterns, to release sediment loads to nearby waterbodies, to result in accidental spills, and to result in the spread of contaminated water, among other potential impacts. Additionally, the potential impacts of specialized construction procedures, such as hydrostatic testing, dewatering, and directional drilling, were examined for their potential to result in increases of surface water turbidity, water pollution, and erosion. The APMs provided in both the Hydrology and Water Quality section and the Hazards and Hazardous Materials section of the PEA and provide for measures that would address water quality degradation impacts from excess sediments, discharges, releases, and spills during construction. Specifically, the relevant APMs are found on pages 5-431, 5-432, and 5-458 of the PEA and are listed below or reflected in the response to Question #11 above:

**APM-HYDRO-1 Construction SWPPP.** A Project-specific construction SWPPP will be prepared and implemented prior to the start of construction of the Proposed Project. The SWPPP shall use BMPs to address the storage and handling of hazardous materials and sediment runoff during construction activities (California Stormwater Quality Association 2004). BMPs may also be selected from the California Stormwater BMP Handbook (CASQA 2011).

**APM-HYDRO-2 Equipment Maintenance and Refueling Near Sensitive Areas.** To reduce the potential of contamination by spills, no refueling, storage, servicing, or maintenance of equipment (including washdown activities) will be performed within 100 feet of any waterbodies, wetlands, or other sensitive environmental areas. Additionally, all refueling or servicing will be done with absorbent material or drip pans underneath equipment to contain spilled fuel or fluids. Any fluids drained from the machinery during servicing will be collected in leak-proof containers and taken to an appropriate disposal or recycling facility. If such activities result in spillage or accumulation of a product on the soil, the contaminated soil will be assessed and disposed of properly. Under no circumstances would contaminated soils be added to a spoils pile.

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### **QUESTION #13**

For the Transportation and Traffic section, the proposed APM does not address the inadequate emergency access impact for the community. Please provide an access plan for resident along the project alignment in case of emergencies and the timing of providing the plan.

#### **Applicant Response:**

The PEA describes project design features and APMs that address emergency access for the communities and residents along the project alignment. Additionally, a traffic study will be provided to the CPUC in April 2015 that will further describe the potential impacts associated with pipeline construction activities, including traffic flow, emergency access, and property access.

#### **Project Design Features**

There are a variety of project design features provided in the project description of the PEA that address emergency access during construction. Relevant features are listed below, along with the page of the PEA on which the design feature is described:

- **PEA pages 3-19 and 3-20:** Emergency response providers near the proposed route would be notified in advance of construction locations, road closure schedules, if required, and potential alternate routes. Businesses and residents directly affected would be given ample notice and information to plan for alternative site access. Signage would be provided to direct motorists to alternate routes. The selected contractor would work with local police and traffic engineers to plan appropriate access alternatives for temporary street closures and traffic disruptions.
- **PEA page 3-32:** Temporary alternative vehicle and pedestrian access would also be established, if necessary, in accordance with local regulations and permitting requirements, outside of normal construction periods. Local and emergency access would be maintained.

#### **Applicant Proposed Measures**

As required by **APM-TRF-1**, the construction contractor would prepare a construction traffic control plan prior to constructing within the right-of-way of a roadway. The components of the construction traffic plans would increase the awareness of residents in the area regarding construction activities and potential access issues, would provide for alternate routes allowing access to be maintained throughout construction, and would allow emergency response providers

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to be made aware of the construction efforts. **APM-TRF-1** is provided below and is located on page 5-551 of the PEA.

**APM-TRF-1 Construction Traffic Control Plan.** Prior to construction within the right-of-way of a roadway, the contractor shall prepare and implement a construction traffic control plan. The plan shall be submitted to the agency of jurisdiction (city, county, Caltrans, and/or USFS). The plan shall contain the following elements:

- Anticipated days and time of construction.
- Signage and traffic control plan.
- Prior notification of property owners/residents whose access will be affected.
- Detour routes, if necessary.
- Alternate pedestrian/bicycle access, if necessary.
- Coordination with local transit agencies.
- Coordination with local emergency response providers (local police, fire, and medical dispatch).
- Provisions for night work, if necessary.

**Reliability and Safety Study**

In addition to addressing construction access, emergency access and response during operation of the Proposed Project would be described in the Emergency Response Plan for Pipeline Safety. This plan is required as part of compliance with **APM-HAZ-10** and will be part of the Reliability and Safety Assessment that is being prepared for the Proposed Project. The Reliability and Safety Assessment, along with the associated Emergency Response Plan for Pipeline Safety, will be provided to the CPUC in April 2015. **APM-HAZ-10** is provided on pages 5-433 and 5-434 of the PEA and was provided in response to Question #11, above.

# ATTACHMENT A

## *Pipeline Operations and Maintenance Details*

# ATTACHMENT A

## Pipeline Operations and Maintenance Details

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### OPERATIONS AND MAINTENANCE

SoCalGas operates approximately 100,270 miles of interconnecting pipelines within the service territory that transport natural gas to residential, commercial, industrial, and utility electric generating customers throughout Central and Southern California. The system consists of high-, medium-, and low-pressure pipelines and includes appurtenant and support facilities, such as compressor stations, natural gas storage fields, numerous valve and metering stations, cathodic protection equipment, and aerial and ground markers, as well as telecommunications equipment and access roads. To assure that the pipeline system operates in compliance with environmental and safety regulations, SoCalGas performs routine O&M activities and upgrades throughout the system.

The North South project will be operated and maintained in accordance with CPUC General Order 112-E, which incorporates the Federal Pipeline Safety Regulations under Title 49 of the Code of Federal Regulations, Parts 190, 191, 192, 193, and 199. SoCalGas activities include, without limitation, all current and future actions arising out of, or in any way connected with the siting (including any site assessment, surveying, testing, or planning), design, installation, construction, use, maintenance, operation, repair and removal of facilities within the service territory. Table A-1 lists the Covered Activities that will occur in association with the Project and along and adjacent to its rights-of-way (ROWs). These activities have been grouped into five general categories, and include activities that are performed on a regular basis at a given location (“regularly re-occurring activities”) as well as those that are rarely, if ever, repeated at a given location (“non-recurring activities”). Unless otherwise noted, activities described for pipelines are also relevant to pressure limiting stations. Compressor station activities are described separately.

**Table A-1  
Covered Activities**

Category	Activity
I. Inspection	I-1 Pipeline Inspection* I-2 Underground Facility Location and Identification I-3 Telemeter and Power Supply Equipment* I-4 Fuel and Gas Flow Meters* I-5 Leakage Surveys* I-6 Pipeline Span Inspections* I-7 Cathodic Protection Surveys*
II. Above Ground Repair or Replacement	II-1 Line Break Control* II-2 Valve Inspection and Lubrication* II-3 Modulating (Pressure Limiting) Valves* II-4 Chart and Sample Bottle Changing* II-5 Install, Replace and Modify Odorant System II-6 Collecting Pipeline Condensate II-7 Cathodic Protection Test Station Repair, Maintenance and Inspection*

## ATTACHMENT A (Continued)

**Table A-1  
Covered Activities**

Category	Activity
	II-8 Valve Operation Repairs II-9 Span Repair II-10 Span Painting* II-11 Rectifier Maintenance* II-12 Anode Irrigation*
III. Pest and Vegetation Management	III-1 Pesticide and Herbicide Application* III-2 Vegetation Trimming* III-3 Brush Clearance* III-4 Roadway and Pipeline Weeding*
IV. Below Ground Construction	IV-1 Access Road Grading* IV-2 Access Road Crossing Maintenance IV-3 Repair, Installation, and Abandon Pipeline Components IV-4 Pipeline Segment Replacement IV-5 Tap Installation IV-6 Hydrostatic Testing IV-7 Leak Excavation and Repair IV-8 Conduit Trenching IV-9 Installation of Magnesium Anodes IV-10 Installation of Deep Well Anodes IV-11 Installation of Replacement Horizontal Anodes IV-12 Buried Pipe and Coating Inspections IV-13 Valve and Pipeline Excavation and Recoating IV-14 External Corrosion Direct Assessment IV-15 Close Internal Survey* IV-16 In-Line Inspection: Pigging* IV-17 In-Line Inspection: Pigging Span Supports* IV-18 In-Line Inspection: Pigging AGM Setting and Tracking* IV-19 In-Line Inspection: Pigging Retrofitting the Pipeline IV-20 In-Line Inspection: Correlation Dig for Verification IV-21 In-Line Inspection: Correlation Dig to Inspect Anomaly IV-22 Drip Leg Inspection, Removal and Installation IV-23 Potholing IV-24 Bores IV-25 Open-Trench Crossings IV-26 Water Diversion IV-27 Installation of New Facilities IV-28 Sump Investigation and Remediation IV-29 Pipeline Erosion Repair IV-30 Coating Applications
V. Time-Sensitive Repairs (Emergency Response Activities)	VI-1 Emergency Situations VI-2 Fire Response VI-3 Slope, Slump and Slide Stabilization VI-4 Emergency Repairs VI-5 Emergency PIP Response

\* Under typical circumstances, this activity would be considered a "regularly re-occurring activity."

## ATTACHMENT A (Continued)

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The descriptions that follow identify key components of the semi routine activities, and may include associated actions such as clearing of work areas, digging shallow trenches, and removal of waste materials. Access to a SoCalGas activity site generally occurs via paved roads within urban areas, unpaved dirt patrol roads within natural areas, and on foot where vehicular access is prohibited. Cross-country travel will be prohibited unless permitted by an agency having jurisdictional authority and the activity is critical to the operation and/or maintenance of the pipeline, compressor station, or their appurtenances. For all activities, the areal extent of disturbance will be as small as feasible.

### **I. Inspection**

#### **Pipeline Inspection**

Pipeline inspection is regularly conducted over all portions of the pipeline system using on-the-ground visual inspection while driving a truck. Inspections include the pipelines, maintenance roads, and support facilities. Personnel check and record the ROW conditions, clear debris, replace missing or damaged pipeline markers and aerial patrol signs, assure that pipeline markers are clearly visible, perform minor maintenance activities, and record conditions that may impact pipeline operations. Pipeline patrols are conducted throughout the year, and are completed once to four times annually.

Consistent with SoCalGas' Pipeline Safety Enhancement Plan and applicable industry BMPs related to methane emission reductions, the pipeline would be equipped throughout its routing with right-of-way intrusion detection/monitoring systems to provide early warning when digging, drilling, boring, cutting, compacting, or unplanned vehicle operations pose a threat to pipeline integrity.

#### ***Underground Facility Location and Identification***

State law requires that every person planning an excavation must first advise a regional notification center of the excavation location. The regional notification center then requires operators of underground pipelines and other underground facilities in the area to locate and mark their facilities to avoid damage during excavation (California Government Code Section 2416, *et seq.*). In compliance with this law, and for the protection of the public and to ensure safe operation of the pipeline, SoCalGas has dedicated personnel that respond to locate and mark the pipeline, and provide on-site surveillance during construction activities near the pipelines. These employees will utilize four-wheel drive, rubber-tired pickup trucks and locating equipment to conduct this task. This activity can occur at any time during the year, and anywhere along the right-of-way.

## **ATTACHMENT A (Continued)**

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### ***Telemeter and Power Supply Equipment***

Telemeters are used for remote sensing of pipelines. Telemeters and power supply equipment are located at main line valve stations, which are typically 8 to 10 miles apart. Both the telemeter and the power supply equipment require monthly inspections to ensure that they are functioning properly. This activity can occur throughout the year, and is an ongoing process.

### ***Fuel and Gas Flow Meters***

Fuel and flow meters measure the flow of gas through the pipeline. These meters must be inspected each month to ensure that they maintain their integrity and accuracy. Fuel and gas flow meters are located at main line valve stations. This activity can occur throughout the year, and is an ongoing process.

### ***Leakage Surveys***

Gas leak surveys are conducted on pipelines. Leaking gas from pressurized pipelines can present hazardous conditions which must be avoided. These surveys are conducted once each year, or more if needed. Leakage survey activities are regularly conducted over all portions of the pipeline system using a combination of on-the-ground visual inspection while driving a truck, as well as truck mounted leak detection equipment. This activity occurs throughout the year for the entire system.

### ***Cathodic Protection Surveys***

Cathodic protection surveys are completed bi-monthly and determine pipe and soil electrical potentials. Cathodic protection prevents metal corrosion by making the pipeline surface a cathode in an electrochemical cell. Surveys are performed to ensure that the system is operating effectively. Simple testing instruments are needed, and typical surveys require 10 days (dependent on weather conditions) to complete. Surveys are conducted bimonthly throughout the year.

### ***Line Break Control***

Line break controls on valve actuators are inspected and calibrated twice annually. Line break controller inspections and calibrations are normally completed within five to ten days for the entire pipeline system each year. A small crew in a pickup truck using various test instruments completes the work. This activity can occur at any time during the year.

### ***Valve Inspection and Lubrication***

Valve inspection, lubrication, and general maintenance are completed annually but can occur more frequently depending upon a particular valve's classification as critical or non-critical. General

## **ATTACHMENT A (Continued)**

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maintenance includes removing weeds and debris from the valve station enclosures, and touch-up painting of valves and related equipment using lead-free paint. Herbicides are only used near equipment and inside fences on disturbed or previously cleared land. Herbicides are used minimally, in accordance with the manufacturer's product label, and as recommended by a State Certified Pest Control Advisor. Valve inspection, lubrication, and maintenance activities occur throughout the year.

### ***Modulating (Pressure Limiting) Valves***

Modulating valves regulate the flow of gas through a pipeline. These valves are inspected and lubricated every two weeks throughout the year to ensure that they are functioning properly. Equipment used for this activity includes a three-ton, six wheeled rubber-tired truck and lubricating equipment. One operator typically completes this task. This activity can occur throughout the year, and is an ongoing process.

## **II. Above-Ground Repair/Replacement**

### **Enhanced Pipeline Monitoring**

To further support the early detection and management of potential gas releases, gas detection sensors would be employed at key locations along the alignment. These sensors are particularly important where the alignment would be situated near earthquake faults or in proximity to facilities that pose special consideration for evacuation and/or commerce impact in the event of a pipeline incident. Up to 30 monitoring locations would be installed

### **Valve Inspection and Lubrication**

Valve inspection, lubrication, and general maintenance are completed annually but can occur more frequently depending upon a particular valve's classification as critical or non-critical. General maintenance includes removing weeds and debris from the valve station enclosures, and touch-up painting of valves and related equipment using lead-free paint. Herbicides are only used near equipment and inside fences on disturbed or previously cleared land. Herbicides are used minimally, in accordance with the manufacturer's product label, and as recommended by a State Certified Pest Control Advisor. Valve inspection, lubrication, and maintenance activities occur throughout the year.

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## **ATTACHMENT A (Continued)**

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### **Chart and Sample Bottle Changing**

Pressure and temperature charts and sample bottles are located at valve and regulator stations. These charts and bottles are changed weekly. This activity can occur throughout the year, and is an ongoing process.

### **Collecting Pipeline Condensate**

Pipeline condensate is created as pressurized natural gas travels through the pipeline under differing temperature conditions. Most of the condensate is produced from the transmission lines, although small amounts may be collected from the distribution lines. This condensate is collected in drums from collection points along the transmission and distribution lines. Crews collect the condensate at intervals dependent upon the rate of liquid accumulation in the particular pipeline. The condensate is sold as product or disposed of in compliance with state and federal regulations. This activity can occur throughout the year, and is an ongoing process.

### **Cathodic Protection Test Station Maintenance and Inspection**

Cathodic protection is a method of preventing metal corrosion by making the pipeline surface a cathode in an electrochemical cell. Inspections are needed to assure that the system is operating effectively. The Cathodic Protection Test Stations (or Electrolysis Test Stations) are exposed to the elements and require ongoing repair and maintenance following natural events such as earthquake, fire and wildlife damage to wires (chewing through lines). Human caused damage includes vandalism, reckless four-wheeled drive use, and farming activities. Crews routinely inspect and maintain Cathodic Protection Test Stations by conducting pipe to soil surveys and bond reads. Maintenance and inspection typically take seven days to complete for each pipeline, but may require up to 30 days in some cases. Surveys are conducted bimonthly throughout the year.

### **Valve Operation Repairs**

Valve operators are inspected annually. If deficiencies are detected, they are repaired as soon as practicable. Excavation is typically not necessary, however some valves may require excavation to expose grease and stem fittings needed for repair. Steps are taken to ensure that oil spills are avoided during the repair of valves that are operated by pneumatic hydraulic action (e.g., tarps or buckets are placed under the valve). This activity can occur at any time during the year.

### **Span Painting**

A pipeline span inspection may determine that a section of pipeline needs to be painted. Span painting is completed near brush to avoid overspray, and tarps are hung below the area being painted to avoid degraded paint or wet paint from dropping to the ground. Tarps may also to be placed within

## **ATTACHMENT A (Continued)**

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waterways. Span painting normally requires up to three days by a crew of three. Painting can occur at any time of the year. Impacts may include foot traffic through stream channels, and tree trimming and brush clearing may be necessary to properly access the pipeline prior to painting.

### **Rectifier Maintenance**

An alternating current (AC) rectifier provides direct current for cathodic protection systems. Rectifiers must be serviced so that they are in operating condition to protect the pipeline. Crews maintain and service rectifiers annually and maintenance activities typically require ten days to complete.

### **Anode Irrigation**

A water-tank truck is used to irrigate the anode of a cathodic protection system in order to increase the efficiency of the AC rectifier. Approximately 200 to 2,400 gallons of water is directed into a vent tube to irrigate the anodes. All of the water remains underground. Irrigation can require up to 20 days and is performed as necessary on the pipeline system. This activity can occur at any time during the year. It should be noted that anode irrigation is only conducted to extend the anode life; due to current drought conditions and low ground water, irrigation would help extend anode life.

## **III. Pest and Vegetation Management**

### **Pesticide and Herbicide Application**

Pesticides are used to maintain enclosed facilities while herbicide applications are used to maintain access to pipeline facilities. Application is conducted either by SoCalGas personnel or a contractor. Prior to application, a site and product specific recommendation is obtained from a State Certified Pest Control Advisor, which is then reviewed by the employees and contractors. Herbicides are used minimally, in accordance with the manufacturer's product label, and as recommended by a State Certified Pest Control Advisor. All pesticides and herbicides are applied per label directions and restrictions. This activity can occur at any time during the year.

### **Vegetation Trimming**

Vegetation trimming and removal is necessary to provide ROW access to the pipelines and facilities. Downed vegetation blocking pipeline and facilities access is removed. Vegetation that has become diseased and could eventually fall in part or in its entirety is also removed to prevent damage to the pipeline or facilities. Vegetation trimming or removal may also be conducted at the request of local agencies, and could occur at any time during the year.

## **ATTACHMENT A (Continued)**

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### **Brush Clearance**

Clearing brush and other dense vegetation may be required as part of local fire ordinances to eliminate or minimize fire risk, and is particularly important on hillsides. Although brush removal may occur at any point during the year, it is typically conducted prior to the start of the spring fire season. Small crews typically conduct the work over several days using light weeding and clearing equipment.

### **Roadway and Pipeline Weeding**

Weeding and brush removal is essential along pipelines and facilities so that they can be properly inspected and maintained. Additionally, regular roadside vegetation management is necessary to maintain access to pipelines and facilities, and to allow movement of equipment. Vegetation removal occurs throughout the year, as necessary. Pipeline weeding and brush removal is typically conducted by small crews using various hand tools. This activity can occur throughout the year, and is an ongoing process.

## **IV. Below-Ground Construction**

### **Access Road Grading**

Access roads are typically maintained by grading to a depth of one or two inches and without altering the road profile. Occasionally, additional actions are needed to repair erosional rills and other storm-related access road damage. Access road surface maintenance occurs on an as-needed basis to keep the road in operational condition, generally every one to two years depending on storm intensity and extreme weather events that have become more recent. This activity can occur at any time during the year.

### **Access Road Crossing Maintenance**

Regular maintenance is required to keep roads in operational condition at stream crossings. Maintenance structures may be installed to prevent erosion, including culverts, sand bags, or riprap. Ground disturbance associated with maintenance is typically 200 square feet or less. The time required for this activity will vary depending on the complexity of the crossing, the extent of the damage to the road, and the installation of new equipment to prevent future road damage (e.g., a culvert installation). This activity may require permitting from the appropriate resource agencies, including the U.S. Army Corps of Engineers, the California Department of Fish and Wildlife, the Regional Water Quality Control Board, and local flood control districts. All permits would be obtained prior to implementing any work at stream crossings, and all activities would be completed according to the permits. This activity can occur at any time of the year, but is typically only conducted during the dry season to avoid flowing water.

## **ATTACHMENT A (Continued)**

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### **Repair, Installation, and Abandon Pipeline Components**

Pipelines require regular maintenance to ensure that they are operating correctly and to maintain their integrity. Pipeline maintenance activities can involve installation, repair, and abandonment of pipeline components. These pipeline components can include rectifiers, valve boxes, risers, producers, and drip legs. Depending on the nature of the repairs needed, several days or weeks may be required to complete a single job. This activity can occur throughout the year, and is an ongoing process.

### **Pipeline Segment Replacement**

Anomalies or 3rd party damage to a pipeline may be revealed through a below-grade inspection or an in-line-inspection process, and will need to be excavated and replaced. A typical excavation is 1 to 1½ feet below the bottom of the line to allow line removal and replacement. To avoid shoring, the excavation usually has a slope of 18 inches of width per 12 inches of depth. Excavated soil is staged in piles nearby until repairs are completed and is used for backfill. Alternatively, imported soil may be utilized as back fill depending on native soil conditions. The disturbance area and time required to complete the job is dependent upon the pipeline segment length requiring replacement. This activity can occur at any time during the year.

### **Tap Installation**

Tap installations are common for new customer extensions. Tap installations may also be necessary for some types of maintenance activities, when installing a blow-down stack or a drip facility, or during smart pigging operations when a pipeline is tapped into to obtain “kicker gas.” The excavation size for the tap installation operation can range from several square feet to over a hundred square feet. The crew and equipment required for this activity will depend on the size of the tap being installed. This activity can occur at any time during the year.

### **Hydrostatic Testing**

Pipelines may need to be hydrostatically tested to comply with the U.S. Department of Transportation (DOT) Office of Pipeline Safety’s (OPS) gas pipeline integrity regulations. The three primary purposes of hydrostatic testing include: 1) qualify new pipelines for operation; 2) increase pressure rating of an existing pipeline; and 3) provide a potential future alternative method to ensure proof of integrity per OPS. Field crews at determined test breaks are required to cut and cap the pipeline, fill the pipeline with water, monitor testing, dewater and tie back to service. The number of places and size of the space needed for the test breaks will depend upon the size, length and elevation changes of pipeline to be tested. This activity can occur at any time during the year. Typical sizes for the work spaces are 100

## **ATTACHMENT A (Continued)**

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feet by 300 feet. The following describe various aspects and components necessary when conducting a hydrostatic test:

- Monitoring of water fill, test and de-watering by company and contract personnel along the ROW will be required. A pig is typically pushed by the water to purge air from the line.
- Branch or tap connections will need to be excavated and isolated from the test section. It may be necessary to install new taps to maintain some customer supply. These taps may be installed on an adjacent line not involved in the test.
- Pipeline spans may require temporary supports due to excessive weight in the line.
- A supply of water will either be trucked or temporarily piped to the fill site. A pump will be set up if temporary piping is used. Filtration equipment may be set up to filter the incoming water.
- Baker tanks (or similar temporary liquid holding tanks) used for volume surge will be placed at the fill and dewatering sites.
- Water disposal will be subject to agency approval at approved disposal facilities.
- If allowed and convenient, hydrotest water may be used for dust control.

### **Leak Excavation and Repair**

Pipeline inspections may detect signs of escaping gas. In these instances, that portion of the pipe would be excavated for visual inspection and confirmation of the leak. The pipe inspections for locating potential leaks would disturb 1,000 to 2,000 square feet of pipeline ROW, and typical excavation is 1 to 1½ feet below the bottom of the line to allow thorough inspection and repairs. To avoid shoring, the excavation usually has a slope of 18 inches of width per 12 inches of depth. As a pipeline usually has 30 to 48 inches of cover, the excavation for a 24-inch line would be approximately 4 to 6 feet deep. Typical repairs are by welding bands or replacing the affected pipeline segment. Excavated soil is staged in piles near the hole until the inspection is complete and then used for backfill. This activity can occur at time of the year.

### **Conduit Trenching**

Trenches are dug to install conduit, which provides a protective casing for the power and telephone cables that service existing valve stations. A small crew digs the trenches by hand using hand tools. This activity can occur at any time during the year.

## **ATTACHMENT A (Continued)**

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### **Installation of Magnesium Anodes**

Magnesium anodes are installed when cathodic protection surveys indicate pipeline segments with low pipe-to-soil electrical potentials. After the anodes are installed, a shallow trench is excavated between the pipeline and the anodes. Connecting wires are placed within the trench and welded into place around the pipeline. Crews typically install anodes in a single day, and conduct three to six installations annually. This activity can occur at any time during the year.

### **Installation of Deep Well Anodes**

Deep well anodes are installed 200 to 600 feet below the surface. During drilling, mud is removed by a vacuum truck and disposed off-site in designated areas. After the anodes are installed, a shallow trench is excavated between the pipeline and the anodes. Connecting wires are placed within the trench and welded into place around the pipeline. Installation typically requires four days to complete. This activity can occur at any time during the year.

### **Installation of Replacement Horizontal Anodes**

Horizontal anodes are installed when shallow-depth cathodic protection units do not maintain the desired pipe-to-soil electrical potentials. Horizontal anodes parallel the pipeline 400 to 800 feet from the ROW centerline, and are installed at approximately the same depth as the pipeline. Shallow trenches are excavated to connect the anodes to the pipeline with connecting wires, which are cad welded around the pipe. Typically, horizontal anode installation requires a crew of five, takes five to seven days to complete, and disturbs approximately 20,000 to 25,000 square feet of soil. Although this activity can occur at any time during the year, the installation of horizontal anodes would occur on a very limited basis due to the space requirements.

### **Buried Pipe and Coating Inspections**

Pipelines are excavated and inspected when cathodic protection surveys indicate low pipe-to-soil electrical potentials, or vulnerable areas of the pipeline are identified through the Pipeline Integrity Program (PIP). Pipe inspection disturbs 1,000 to 2,000 square feet of pipeline ROW, and a typical excavation is 1 to 1.5 feet below the bottom of the line to allow thorough inspection. To avoid shoring, the excavation usually has a slope of 18 inches of width per 12 inches of depth. Excavated soil is staged in piles near the hole until the inspection is complete and then used for backfill. Visual inspection of buried pipelines involves excavation, inspection, repair, if necessary, and backfill. This activity can occur at any time of the year.

## **ATTACHMENT A (Continued)**

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### **External Corrosion Direct Assessment**

Assessments of pipeline integrity are conducted to ensure that the pipe is not showing signs of degradation. Crews conduct this assessment by excavating along a pipeline and inspecting the pipe and protective wraps. Inspection locations by this method are randomly selected. Internal inspections are also conducted by in-line assessment. This activity can occur at any time during the year.

### **Close Internal Survey**

A close internal survey is conducted in order to ascertain the condition of the pipeline wrap. This method involves a small crew walking along the ROW over the pipeline. A small electrical device is used to measure the pipe-to-soil potential. This activity typically precedes an external corrosion direct assessment. The integrity of the pipeline wrap is important in order to protect the pipe and prevent degradation through corrosion. This activity can occur at any time during the year.

### **In-Line Inspection: Pigging**

SoCalGas' Pipeline Integrity Inspection Program (PIP) consists of in-line inspections in accordance with California Public Utility Commission (CPUC) requirements, the Federal Pipeline Safety Improvement Act of 2002 (49 CFR, Title 49, section 195.452), and DOT regulations. SoCalGas internally inspects the integrity of its natural gas transmission lines once every five to seven years to assure pipeline integrity. The inspection involves several phases to prepare the pipeline for the "Smart Pig" (pipeline inspection device or "pig") inspection. The phases may include replacements and retrofits of valves, "ELLS," "Tees," and other fittings, installation of span supports, temporary or permanent gas bypass line, and in-line inspection tool launcher and receiver sites. In addition, multiple cleaning and geometry runs are typically required to ensure the pipeline is free of debris and physical restrictions before the smart tool is run. This activity can occur at any time during the year and inspections occur once every five to seven years.

### **In-Line Inspection: Pigging Span Supports**

SoCalGas Engineering may consider a pipeline span to be too long to support the weight of a pipeline inspection device (smart pig). In these cases, the span will require either temporary or permanent supports to decrease the unsupported length of the span.

Temporary supports are typically a crisscross stack of four inch by four inch wood skids (cribbing) placed under the span, and are usually removed within several days of the completion of the pigging operation. Permanent supports are installed when constraints are absent. These supports consist of a steel pipe/cradle apparatus under the pipeline. This activity can occur at any time during the year.

## **ATTACHMENT A (Continued)**

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### **In-Line Inspection: Pigging AGM Setting and Tracking**

Prior to beginning pigging operations above ground marker locations along the pipeline route are determined at one to three mile intervals. Either company or pig tracking personnel will drive along the road closest the pipeline, either a patrol road or a public road, so as to have easy access to the area directly above the pipeline to install the above ground marker. An above ground marker consists of a wood lath (when the surface above the pipeline is dirt), street paint (when the surface above the pipeline is a paved road), or a mark on exposed pipe, identifying the above ground marker numeric sequence.

During a pigging operation, the pig is fitted with a radio frequency transmitter and progress through the pipeline, being propelled by gas pressure. Pig tracking personnel drive to the above ground marker locations and wait for the pig to pass. They can use a geophone and a radio frequency receiver to listen for and track pig progress.

### **In-Line Inspection: Pigging Retrofitting the Pipeline**

Pipeline facilities may require retrofitting in order to prepare older pipelines for pigging operations. This may include retrofitting main line valves, replacing open Tees with barred Tees, installing launcher and receiver barrels and associated main line valves and Tees, and replacing sharp radius Ells (pipe bends) with long smooth radius Ells. These retrofits involve excavating the pipeline, cutting the old facility from the pipeline, and then welding in a new fitting. This retrofit work is typically only required once per pipeline segment, as once the pipeline is 'piggable,' future pigging operations will not require the same additional retrofitting. However some launchers and receivers may need to be retrofitted again in order to accommodate changing in-line inspection technology and tool dimensions. This activity can occur at any time during the year.

### **In-Line Inspection: Correlation Dig for Verification**

Once a pipeline is inspected, correlation digs are required to verify the inspection results, even if no anomalies are reported. At least three to five correlation digs are required to verify the data from the smart pig inspection. A visual inspection may be needed if an anomaly is detected by the smart pig data. Correlation digs consist of excavating the pipeline, pipeline inspection, and backfill. This activity can occur at any time of the year.

### **In-Line Inspection: Correlation Dig to Inspect Anomaly**

If inspection data identifies pipeline anomalies, at least three to five correlation digs are necessary to inspect and repair the pipeline. Repairs typically consist of installation of a band repair or segment replacement. Anomalies are usually repaired during the same excavation period as the correlations digs. The location of the correlation digs and subsequent repairs are not determined until the smart

## **ATTACHMENT A (Continued)**

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pig data is analyzed. Correlation digs to inspect an anomaly consist of excavating the pipeline, pipeline inspection, repairs, and backfill. This activity can occur at any time of the year.

### **Drip Leg Inspection, Removal and Installation**

Drip legs, which are collection points for liquids, are not in-line with the pipeline. Instead, they are usually a separate section of pipe under the pipeline connected with a short section of smaller diameter pipe. Therefore, they cannot be inspected with an in-line inspection device (smart pig). New drip legs have electronic devices attached, which provide constant corrosion monitoring. However, older drip legs require physical inspection, which involves excavating the drip leg and either visually inspecting the leg or using X-Ray/Ultrasonics to determine its integrity. At this time, old drip legs may be replaced with new legs that have the electronic monitoring device installed so that further excavations are unnecessary. This activity can occur at any time during the year.

### **Potholing**

Prior to third-party construction in the vicinity of pipelines, relocating, or replacing a pipeline segment, several small excavations (called potholes) over the pipeline may be required to collect data on the amount of material covering the pipeline, and to determine the exact location and direction of pipeline fittings and/or other pipelines or utilities. These excavations are generally very small and only open for a short period of time. One method of potholing is using an air-knife, which is a vacuum truck using compressed air to create a hole over the pipeline. A vacuum is used to remove the excavated soil into a holding tank. The hole using this method is approximately 10 inches in diameter. Once the crew has collected the required data and inspected the pipe coating, the soil in the holding tank is placed back in the excavated hole. This activity can occur at any time during the year.

### **Bores**

Boring techniques are used to install pipelines underground without trenching or excavation. Boring methods include jack and bore, directional bore, and micro tunnel. Boring may be used to cross highways, roads, railroads, rivers, or streams. Boring operations typically include an entrance and exit pit at which the new pipeline is connected to existing facilities. This activity can occur at any time during the year.

### **Open-Trench Crossings**

Open-trench crossings are used to install pipelines across waterways and vary according to local geology and the width, depth, flow of the waterway. After completion of pipeline installation using the open-trench crossing method, the pipeline trench is back-filled and conditions are returned to pre-project conditions.

## **ATTACHMENT A (Continued)**

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### **Water Diversion**

Water diversions are typically used when construction occurs at pipeline crossings within streams, creeks, or other bodies of water. The diversion is used to isolate construction activities to minimize the potential for impacts to water quality and create a safe and dry work area. The type of water diversion used at each project site will vary according to local stream topography and geology and the width, depth, and flow of the waterway. Water diversions are either gravity fed or mechanically pumped. Gravity diversions are created by blocking the flow at an upstream location and conveying the water around or through the site to a downstream discharge location using irrigation, PVC pipe or other appropriate method. Pumped diversions are similar but capture the water at the upstream location and the water is pumped downstream through hoses or irrigation pipe to a discharge location. Both methods usually require the installation of energy dissipaters at the discharge location and sediment control devices to protect water quality. This activity can occur at any time during the year but typically occur outside the rainy season.

### **Installation of New Facilities**

New construction may include the installation of pipelines and other natural gas infrastructure, such as pressure regulating stations, cathodic protection test stations, or other support facilities. New pipelines and infrastructure may replace deteriorated facilities or upgrade the gas service to provide for more reliable gas deliveries. Additionally, when new customers are located in an area without existing natural gas service, SoCalGas is required by law to extend an existing pipeline to provide gas service. These “new customer extensions” are generally less than ten miles in length, tend to be in existing public ROWs, and originate from existing supply or distribution pipelines. This activity can occur at any time during the year. Impacts to natural areas associated with new construction that occurs outside existing ROWs will be capped at 250 acres per five-year period: limited to 50 linear miles and 240 acres of new pipeline construction, and ten acres of new support facility construction. The 50 miles of new pipeline will be constructed within an average 40-foot-wide work strip (actual work strips will range between 25 and 100 feet wide).

### **Pipeline Erosion Repair**

Buried pipelines crossing beneath streams can become exposed due to natural erosive forces that constantly change the composition and structure of stream bottoms and banks. Storms can also move rocks and/or boulders in the stream, which can cause substantial damage to the pipeline coating and can compromise the integrity of the pipeline, potentially leading to pipeline rupture. To protect the pipeline from additional external corrosion or possible failure, the preferred method is to use protective “Articulated concrete block” mats. Concrete mats are installed on top of the pipeline to stabilize the stream bottom and reduce erosion above the pipeline. Typical pipeline exposure repairs often require cyclical maintenance or replacement after heavy rain

## **ATTACHMENT A (Continued)**

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events. In an effort to provide a more permanent solution, concrete mats provide a more proactive, long-term solution, and allow for vegetation to reestablish through the flexible concrete mats. This activity may include removing obstructions, installing all stream protection and dust prevention measures, installing stream diversions around work areas, and performing ground dewatering of work area around pipeline. This activity may also require performing full circumference excavations; removing the existing pipeline wrap, inspecting the pipeline for external wall loss, and repairing the pipeline using bands of larger pipe welded in place (also see IV-13 Valve and Pipeline Excavation and Recoating This activity typically occurs during the dry (generally April to September) season.

### **Coating Applications**

Coatings are applied to tanks, vessels, and pipelines to prevent corrosion. If necessary, old paint may be removed with high pressure equipment, chemicals, or by hand, prior to new coatings being applied. Ground tarps and other equipment are used to ensure that all the old paint is captured during removal. Although coatings can be applied at any time during the year, they are typically applied in the dry spring and summer months. A small crew and standard painting equipment is generally all that is necessary. This activity can occur at any time during the year, but it usually occurs in the spring and summer months to avoid the rain.

## **V. Time-sensitive Repairs**

### **Emergency Response Activities – Emergency Situations**

Emergency situations are defined as any natural or human caused event that requires an immediate response by SoCalGas to protect human health, welfare, property, the natural environment, or system reliability. Emergency response actions are not limited to the actual repair of SoCalGas facilities, but also include preliminary site assessments conducted to understand the extent of the potential problem. These response actions are also designed to limit further potential threats. Most operation and maintenance activities can routinely be conducted on specific schedules. Emergency situations, however, may require SoCalGas to take immediate responsive action, and in some instances, implementation of avoidance and minimization measures will not be practical. Emergency repairs may be necessary to address pipeline leaks or breaks, to prevent leaks from occurring in the near future, to fix access roads severely damaged by storms or earthquakes, or any other property, or the environment. This activity can occur at any time of the year.

### **Emergency Response Activities – Fire Response**

Fires may threaten above ground structures, including pipelines and facilities. They may also damage the protective coating of the pipeline and cause substantial damage to facilities resulting

## **ATTACHMENT A (Continued)**

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in loss of facility use or possible rupture of the gas pipeline. When these situations arise, crews will work with the local fire department to create firebreaks or fire roads in an effort to stop the fire, or minimize the resulting damage. These activities are conducted on an as-needed basis, and would be performed at the request of the local fire departments. Actual fire-related activities are dependent upon the local fire department allowing the work to be performed when conditions are safe. This activity can occur throughout the year, as needed in emergency situations.

### **Emergency Response Activities – Slope, Slump and Slide Stabilization**

Geologic activities, such as storm water saturation or erosion, result in unstable slopes, slumps, landslides, and other conditions that may threaten pipelines and facilities. When these emergency situations arise, crews are required to stabilize the surrounding areas immediately. An immediate response is particularly important when pipeline pressure must be reduced or shut-off. Often during these response actions, the slopes are stabilized temporarily until long-term solutions can be planned or implemented. Large earth moving equipment will be necessary but the amount of equipment and crew size will be dependent upon the urgency and complexity of each situation. This activity can occur throughout the year, as needed in emergency situations.

### **Emergency Response Activities – Emergency Repairs**

Most emergency repair situations affect less than one acre although the amount of habitat disturbance varies depending upon the nature of the emergency and the weather conditions. Weather conditions may require additional equipment such as dewatering equipment, vacuum trucks or dust abatement equipment. Firefighting equipment may also be required. This activity can occur throughout the year.

### **Emergency Response Activities – Emergency Pipeline Integrity Program Response**

In some instances, inspection data identifies pipeline anomalies that require an immediate response to identify the problem, possibly resulting in emergency work. Depending upon the nature of the anomaly and the urgency, several correlation digs may be necessary to inspect and verify the anomaly. Repair activities will be conducted in accordance with federal regulations. Digs to inspect and repair the anomaly will consist, at a minimum, of excavating and inspecting the pipeline, repair the anomaly, and backfilling the excavation hole. In emergency situations, crews are required to excavate and repair or replace pipelines that have serious anomalies. In this situation, crews are required by law to locate and fix the anomaly within five days. This activity can occur at any time of the year.

## **ATTACHMENT A (Continued)**

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### **Compressor Station – Operations and Maintenance Activities**

Compressor stations are designed to be remotely operated in a safe and efficient manner. There is no requirement for employees to be at the site during normal operation, although the sites are checked regularly by operations personnel who monitor, inspect and maintain the equipment. Processes are continuously monitored from a centralized control center. Much of the maintenance activities described above for the pipeline are also applicable to the compressor station. Other unique compressor station maintenance activities are described below.

#### ***Emergency Shut Down***

Operations and maintenance of the Adelanto Compressor Station emergency shut down (ESD) system occurs once a year, in accordance with 49 CFR 192.731(c). The ESD system would be tested to ensure it operates properly. The test will result in an actual station blow down.

#### ***Filter Separator Inspection***

Filter separator inspections will occur when the valves on the inlet and outlet sides of the filter separator would be closed and the filter separator de-pressurized to safely open it for inspection and filter replacement. This is conducted on an as-needed basis, but usually infrequently.

ATTACHMENT B  
*Native American Consultation*



# STATISTICAL RESEARCH, Inc.

ARCHAEOLOGY • ANTHROPOLOGY • HISTORY • HISTORIC ARCHITECTURE

May 14, 2014

Dave Singleton  
Program Analyst  
Native American Heritage Commission  
915 Capitol Mall, Room 364  
Sacramento, CA 95814

Subject: Southern California Gas Company Southern Gas System Reliability Project, San Bernardino and Riverside Counties, California.

Dear Mr. Singleton,

The Southern California Gas Company (SoCalGas) is proposing to upgrade its natural gas delivery system in Southern California. DUDEK, on behalf of SoCalGas, has contracted with Statistical Research, Inc. (SRI) to conduct a cultural resource study for the Southern Gas System Reliability Project, a proposed natural gas pipeline that runs from the town of Adelanto in the Mojave Desert to Moreno Valley and then to Whitewater, in the Coachella Valley (Figure 1). The project would improve natural gas supply on the Southern System of San Diego Gas and Electric's (SDG&E) and SoCalGas' integrated gas transmission system. The project involves three major components:

1. A compressor station upgrade in Adelanto;
2. A natural gas pipeline running from Adelanto to Moreno Valley and a pressure limiting station (PLS) at the pipeline terminus in Moreno Valley;
3. A secondary natural gas pipeline running from Moreno Valley to Whitewater and a PLS at the Whitewater terminus.

The entire length of the project runs approximately 91 miles from Adelanto to Whitewater. The cultural resources study area for the proposed pipeline is 300 ft. wide. The project area is located on the Adelanto, Baldy Mesa, Cajon, San Bernardino North, Devore, and San Bernardino South 7.5 minute USGS Quadrangle maps in San Bernardino County, and Redlands, San Bernardino South, Desert Hot Springs, White Water, Cabazon, Beaumont, El Casco, and Sunnymead 7.5 minute USGS Quadrangle maps in Riverside County. Township, range and sections that include portions of the project area are listed in Table 1. The purpose of the study is to prepare the relevant cultural resource documents in support of the Proponent's Environmental Assessment (PEA) and the Environmental Impact Report (EIR). The California Public Utilities Commission (CPUC) will be the California Environmental Quality Act (CEQA) Lead Agency. Recent aerial photographs show the project area is a mix of open land, rural settlements, and dense urban developments.

## CALIFORNIA

*Redlands*  
21 W. Stuart Ave.  
P.O. Box 390  
Redlands, CA  
92373-0123  
(909) 335-1896  
(909) 335-0808 (fax)

*San Diego*  
3990 Old Town Ave.  
Suite B-102  
P.O. Box 82404  
San Diego, CA  
92138  
(619) 299-9766  
(619) 299-9774 (fax)

*Woodland*  
211 Court St.  
Woodland, CA  
95695  
(530) 661-1400  
(530) 662-5500 (fax)

## ARIZONA

*Phoenix*  
P.O. Box 27748  
Tempe, AZ  
85285-2681  
(480) 774-1920  
(voice & fax)  
(480) 600-8692 (cell)

*Tucson*  
6099 E. Speedway Blvd.  
P.O. Box 31865  
Tucson, AZ  
85751-1865  
(520) 721-4309  
(520) 298-7044 (fax)

## NEW MEXICO

*Albuquerque*  
4425 Juan Tabo Blvd. NE  
Suite 112  
Albuquerque, NM  
87111-2681  
(505) 323-8300  
(505) 323-8314 (fax)  
(505) 331-2491 (cell)

## TEXAS

*El Paso*  
8201 Lockheed Dr.  
Suite 125  
El Paso, TX  
79925  
(915) 781-2200  
(877) 781-2205  
(915) 781-2201 (fax)

## WASHINGTON

*Lacey*  
1110 Golf Club Rd. SE  
Suite 102  
Lacey, WA  
98503  
(360) 918-8621  
(360) 915-6531 (fax)  
(360) 480-5601 (cell)

[www.sricrm.com](http://www.sricrm.com)

**Table 1. Sections that Include Portions of the Project Area**

County	USGS 7.5' Quad	Township	Range	Section
Riverside	Redlands	2S	3W	7, and 18
Riverside	Redlands	2S	4W	12, and 13
Riverside	Sunnymead	2S	3W	17, 18, 20, 21, 27, 28, 29, 34, 35, and 36
Riverside	El Casco	3S	1W	17
Riverside	San Bernardino South	2S	4W	2, 11, and 12
Riverside	White Water	3S	3E	7, 8, 9, and 10
Riverside	White Water	3S	2E	11, and 12
Riverside	Cabazon	3S	2E	7, 8, 9, 10, 11, 15, 16, and 17
Riverside	Desert Hot Springs	3S	3E	13
Riverside	White Water	3S	3E	13, 14, and 15
Riverside	Desert Hot Springs	3S	4E	18
Riverside	Cabazon	3S	1E	10, 11, 12, 14, and 15
Riverside	Beaumont	3S	1E	7, 8, 9, 10, 16, 17, and 18
Riverside	Beaumont	3S	1W	11, 12, 13, 14, 15, 16, and 17
Riverside	Sunnymead	3S	2W	6, and 7
Riverside	Sunnymead	3S	3W	1, 2, and 12
Riverside	El Casco	3S	2W	7, 8, 13, 14, 15, 16,17, and 18
Riverside	El Casco	3S	1W	18
San Bernardino	Adelanto	5N	5W	6, 7, 18, and 19
San Bernardino	Adelanto	5N	6W	1, 12, 13, and 24
San Bernardino	Baldy Mesa	5N	5W	19, 30, and 31
San Bernardino	Baldy Mesa	5N	6W	24, 25, and 36
San Bernardino	Baldy Mesa	4N	5W	6, 7, 18, 19, 30, and 31
San Bernardino	Baldy Mesa	4N	6W	1, 12, 13, 24, 25, and 36
San Bernardino	Baldy Mesa	3N	6W	1
San Bernardino	Cajon	3N	6W	1, 11, 12, 14, 23, 25, 26, and 36
San Bernardino	Cajon	2N	5W	6, 7, and 19
San Bernardino	Cajon	2N	6W	1, 12, 13, and 24
San Bernardino	Devore	2N	5W	19, 20, 28, 29, 33, and 34
San Bernardino	San Bernardino North	1N	5W	1, 2, 11, and 12
San Bernardino	Devore	1N	5W	2, and 3
San Bernardino	San Bernardino North	1N	4W	7, 14, 15, 16, 17, 18, 21, 22, 23, 25, 26, 35, and 36
San Bernardino	San Bernardino South	1N	4W	35, and 36
San Bernardino	San Bernardino South	1S	4W	1, 2, 11, 12, 13, 23, 24, 25, 26, 27, and 34
San Bernardino	San Bernardino South	2S	4W	2, and 3

Our scope of work includes Native American coordination to identify and assess the potential effect of the proposed project on Native American sacred sites or other traditional cultural properties (TCPs). We request a review of your Sacred Lands Inventory for areas within and adjacent to the project area, as well as your recommendations for Native American tribes, groups, and individuals we should consult.

Thank you very much for your assistance. I look forward to hearing from you at your earliest convenience. If you would like further information, please call me at (909) 335-1896 or contact me by email at kbecker@sicrm.com.

Sincerely,

A handwritten signature in black ink that reads "Kenneth M. Becker". The signature is written in a cursive style with a long, sweeping underline.

Kenneth Becker  
Principal Investigator



Figure 1: Vicinity Map

## NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard, Suite 100  
West Sacramento, CA 95691  
(916) 373-3715  
Fax (916) 373-5471  
Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)  
Ds\_nahc@pacbell.net



May 21, 2014

Mr. Kenneth M. Becker, RPA, Principal Investigator  
**Statistical Research, Inc. (SRI)**  
21 W. Stuart Avenue  
Redlands, CA 92373-0123

Sent FAX to: 909-335-0808  
No. of Pages: 5

RE: Sacred Lands File Search and Native American Contacts list for the **"southern California Gas Company's Southern Gas System Reliability Project;"** located in the Mojave Desert at Adelanto, San Bernardino County to the Whitewater River area near Desert Hot Springs in the upper Coachella Valley; Riverside County, California. The project will include A compressor station upgrade in Adelanto; a natural gas pipeline extending from Adelanto to the Moreno Valley and a pressure limiting station at the pipeline terminus in Moreno Valley; then a secondary natural gas pipeline running from Moreno Valley to the Whitewater River near the Community of Desert Hot Springs in the Coachella Valley; Riverside County, California

Dear Mr. Becker:

A record search of the NAHC Sacred Lands Inventory **failed to indicate** the presence of Native American traditional sites/places of the Project site(s) or 'areas of Potential effect' (APE), submitted to this office in most of the areas identified by USGS coordinates with the following exceptions and comments: Desert Hot Springs USGS Quad, an area considered very culturally sensitive with nearby ancient Serrano villages (contact Ernest Siva for more data); also in the Cajon USGS Quad, also a sensitive area, surveyed with some assistance from Dr. Lowell Bean. The areas near the communities of Beaumont and Banning and one and near the Morongo Indian Reservation are also considered culturally sensitive by local tribes but no documentation on those areas have been submitted to the NAHC – but should be approached carefully. Note also that the absence of archaeological resources does not preclude their existence at the subsurface level.

In the 1985 Appellate Court decision (170 Cal App 3<sup>rd</sup> 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

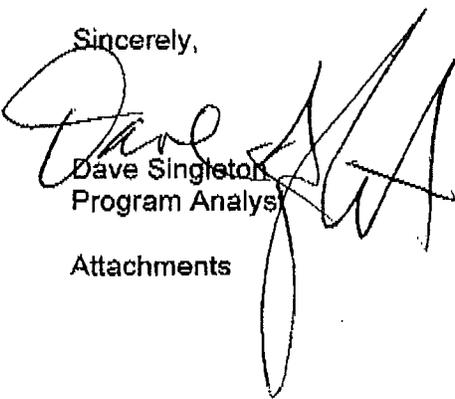
When the project becomes public, please inform the Native American contacts as to the nature of the project (e.g. residential, renewable energy, infrastructure or other

appropriate type). Attached is a list of Native American tribes, Native American individuals or organizations that may have knowledge of cultural resources in or near the proposed project area (APE). As part of the consultation process, the NAHC recommends that local government and project developers contact the tribal governments and Native American individuals on the list in order to determine if the proposed action might impact any cultural places or sacred sites. If a response from those listed on the attachment is not received in two weeks of notification, the NAHC recommends that a follow-up telephone call be made to ensure the project information has been received.

California Government Code Sections 65040.12(e) defines 'environmental justice' to provide "fair treatment of people...with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." Also, Executive Order B-10-11 requires that state agencies "consult with Native American tribes, their elected officials and other representatives of tribal governments in order to provide meaningful input into...the development of legislation, regulations, rules and policies on matter that may affect tribal communities."

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

  
Dave Singleton  
Program Analyst

Attachments

**Native American Contacts  
Riverside and San Bernardino Counties California  
May 21, 2014**

Cabazon Band of Mission Indians  
Doug Welmas, Chairperson  
84-245 Indio Springs                      Cahuilla  
Indio                      , CA 92203-3499  
(760) 342-2593  
(760) 347-7880 Fax

Torres-Martinez Desert Cahuilla Indians  
Mary Resvaloso, Chairperson  
PO Box 1160                                      Cahuilla  
Thermal                      , CA 92274  
mresvaloso@torresmartinez.  
(760) 397-0300  
(760) 397-8146 Fax

Los Coyotes Band of Mission Indians  
Shane Chapparosa, Chairman  
P.O. Box 189                                      Cahuilla  
Warner                      , CA 92086  
(760) 782-0711  
(760) 782-2701 - FAX

Twenty-Nine Palms Band of Mission Indians  
Darrell Mike, Chairperson  
46-200 Harrison Place                      Chemehuevi  
Coachella                      , CA 92236  
lthomas@29palmsbomi-nsi.gov  
760-863-2444  
  
760-863-2449 - Fax

Ramona Band of Cahuilla Mission Indians  
Joseph Hamilton, Chairman  
P.O. Box 391670                                      Cahuilla  
Anza                      , CA 92539  
admin@ramonatribe.com  
(951) 763-4105  
(951) 763-4325 Fax

Joseph R. Benitez (Mike)  
P.O. Box 1829                                      Chemehuevi  
Indio                      , CA 92201  
(760) 347-0488  
(760) 408-4089 - cell

San Manuel Band of Mission Indians  
Hon. Lynn Valbuena, Chairwoman  
26569 Community Center Drive                      Serrano  
Highland                      , CA 92346  
(909) 864-8933  
(909) 864-3724 - FAX  
(909) 864-3370 Fax

Chemehuevi Reservation  
Edward Smith, Chairperson  
P.O. Box 1976                                      Chemehuevi  
Chemehuevi Valley CA 92363  
chair1cit@yahoo.com  
(760) 858-4301  
(760) 858-5400 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.84 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting localive Americans with regard to cultural resources for the proposed Southern California Gas Company Southern Gas Systems Reliability Project; located from the Mojave Desert in the Victorville area to the Whitewater River area near Desert Hot Springs in the upper Coachella Valley; both San Bernardino and Riverside counties, California for

Confidential: Submitted Under the Provisions of General Order 66-C and Section 583 of the Public Utilities Code

**Native American Contacts  
Riverside and San Bernardino Counties California  
May 21, 2014**

Fort Mojave Indian Tribe  
Timothy Williams, Chairperson  
500 Merriman Ave Mojave  
Needles , CA 92363  
(760) 629-4591  
(760) 629-5767 Fax

Morongo Band of Mission Indians  
William Madrigal, Jr., Cultural Resources Manager  
12700 Pumarra Road Cahuilla  
Banning , CA 92220 Serrano  
**(951) 201-1866 - cell**  
wmadrigal@morongo-nsn.  
gov  
(951) 572-6004 Fax

Colorado River Indian Tribe  
Dennis Patch, Chairman  
26600 Mojave Road Mojave  
Parker , AZ 85344 Chemehuevi  
crit.museum@yahoo.com  
(928) 669-9211-Tribal Office  
(928) 669-8970 ext 21  
(928) 669-1925 Fax

San Manuel Band of Mission Indians  
Daniel McCarthy, M.S., Director-CRM Dept.  
26569 Community Center. Drive Serrano  
Highland , CA 92346  
(909) 864-8933, Ext 3248  
dmccarthy@sanmanuel-nsn.  
gov  
(909) 862-5152 Fax

AhaMaKav Cultural Society, Fort Mojave Indian  
Linda Otero, Director  
P.O. Box 5990 Mojave  
Mohave Valley AZ 86440  
**(928) 768-4475**  
LindaOtero@fortmojave.com  
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Torres-Martinez Desert Cahuilla Indians  
Matthew Krystal, Cultural Resources Manager  
P.O. Box 1160 Cahuilla  
Thermal , CA 92274  
mkrystall@tmdci-nsn.gov  
760) 397-0300,  
(760) 409-2987- cell  
(760) 397-8146 Fax

Santa Rosa Band of Mission Indians  
John Marcus, Chairman  
P.O. Box 391820 Cahuilla  
Anza , CA 92539  
(951) 659-2700  
(951) 659-2228 Fax

Cabazon Band of Mission Indians  
Judy Stapp, Director of Cultural Affairs  
84-245 Indio Springs Cahuilla  
Indio , CA 92203-3499  
**(760) 342-2593**  
jstapp@cabazonindians-nsn.  
gov  
(760) 347-7880 Fax

This list is current only as of the date of this document.

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Confidential: Submitted Under the Provisions of General Order 66-C and Section 583 of the Public Utilities Code

**Native American Contacts  
Riverside and San Bernardino Counties California  
May 21, 2014**

Morongo Band of Mission Indians  
Robert Martin, Chairperson  
12700 Pumarra Road      Cahuilla  
Banning      , CA 92220      Serrano  
(951) 849-8807  
(951) 755-5200  
(951) 922-8146 Fax

Ernest H. Siva  
Morongo Band of Mission Indians Tribal Elder  
9570 Mias Canyon Road      Serrano  
Banning      , CA 92220      Cahuilla  
**siva@dishmail.net**  
(951) 849-4676

Serrano Nation of Mission Indians  
Goldie Walker, Chairwoman  
P.O. Box 343      Serrano  
Patton      , CA 92369  
  
(909) 528-9027 or  
(909) 528-9032

Twenty-Nine Palms Band of Mission Indians  
Anthony Madrigal, Jr, THPO Officer  
46-200 Harrison Place      Chemehuevi  
Coachella      , CA 92236  
amadrigal@29palmsborni-nsi.gov  
760-863-2444  
760-625-7872-cell  
760-863-2449 - Fax

Agua Caliente Band of Cahuilla Indians THPO  
Patricia Garcia, Tribal Historic Perservation Officer  
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Palm Springs, CA 92264  
ptuck@augacaliente-nsn.gov  
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(760) 699-6924- Fax

Cahuilla Band of Indians  
Luther Salgado, Chairperson  
PO Box 391760      Cahuilla  
Anza      , CA 92539  
Chairman@cahuilla.net  
760-763-5549  
760-763-2631 - Tribal EPA

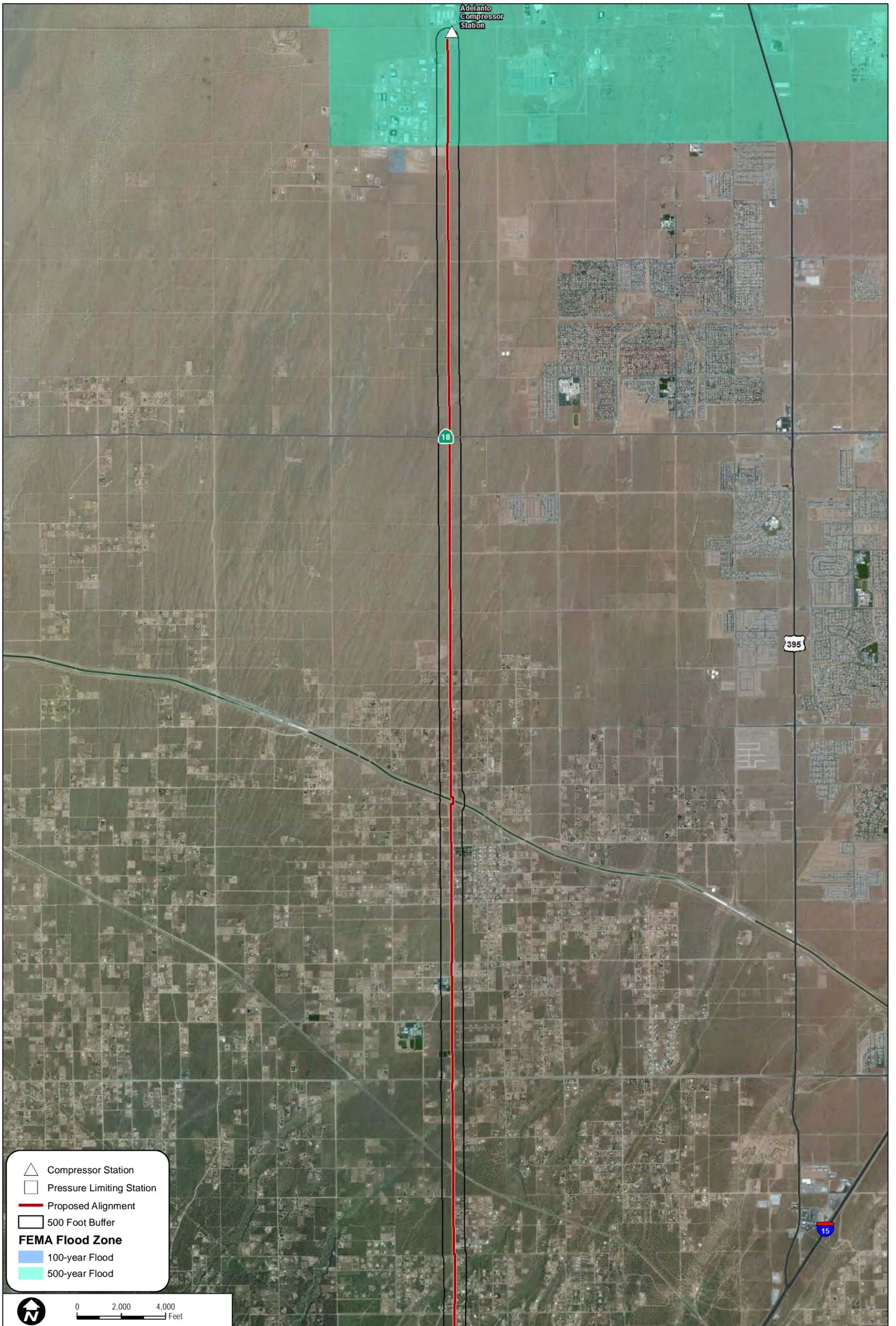
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This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed Southern California Gas Company Southern Gas Systems Reliability Project; located from the Mojave Desert in the Victorville area to the Whitewater River area near Desert Hot Springs in the upper Coachella Valley; both San Bernardino and Riverside counties, California for which Banning and Patton are members and Native American Contacts have been provided.

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ATTACHMENT C  
*Flood Zone Maps*



Adelanto  
Compressor  
Station

18

395

15

- △ Compressor Station
- Pressure Limiting Station
- Proposed Alignment
- 500 Foot Buffer
- FEMA Flood Zone**
- 100-year Flood
- 500-year Flood



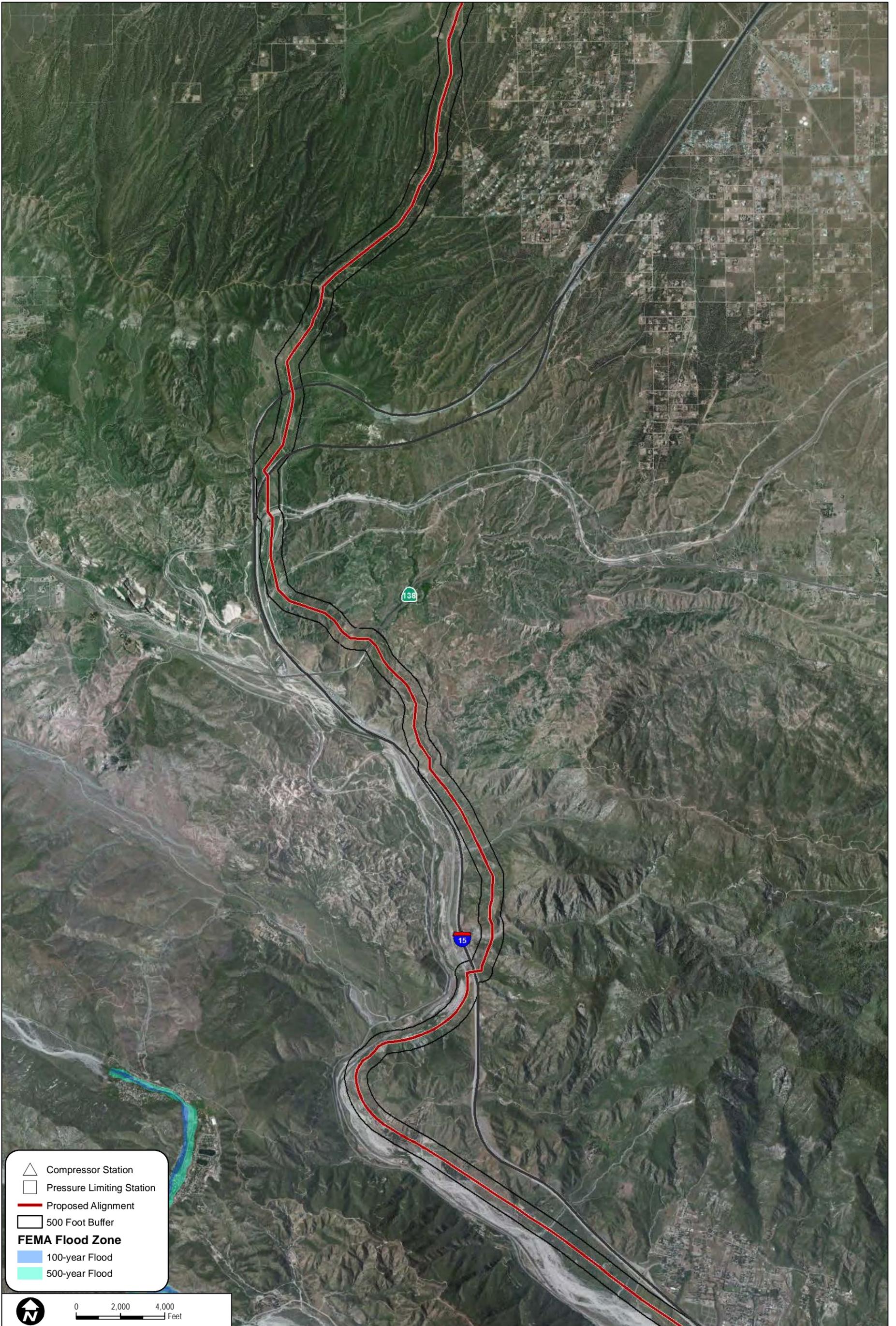
0 2,000 4,000  
Feet



SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014

North South Project

**FEMA Flood Zones**



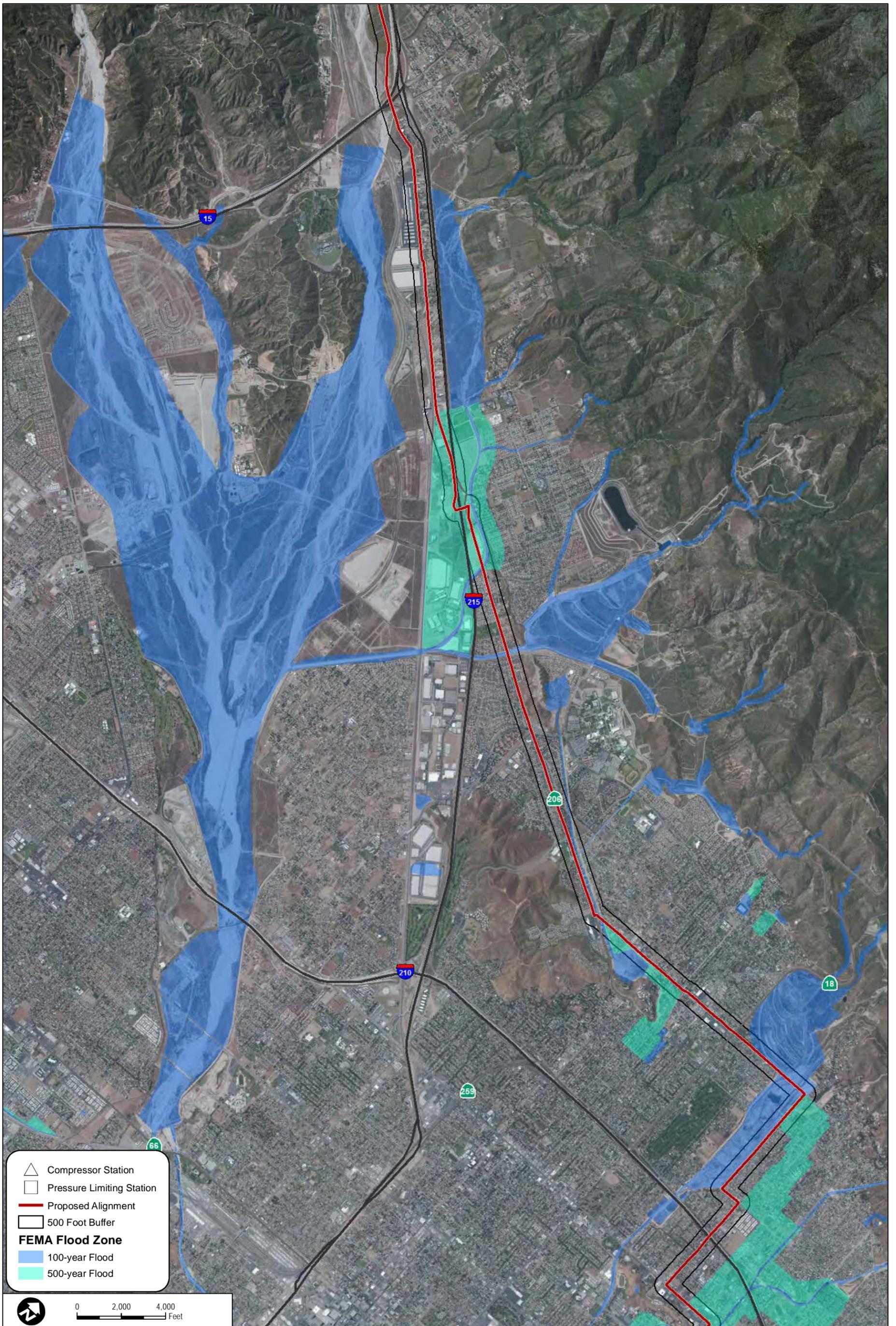
- △ Compressor Station
- Pressure Limiting Station
- Proposed Alignment
- ▭ 500 Foot Buffer
- FEMA Flood Zone**
- 100-year Flood
- 500-year Flood



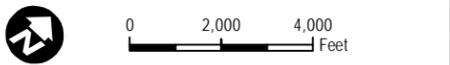
SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014

North South Project

**FEMA Flood Zones**



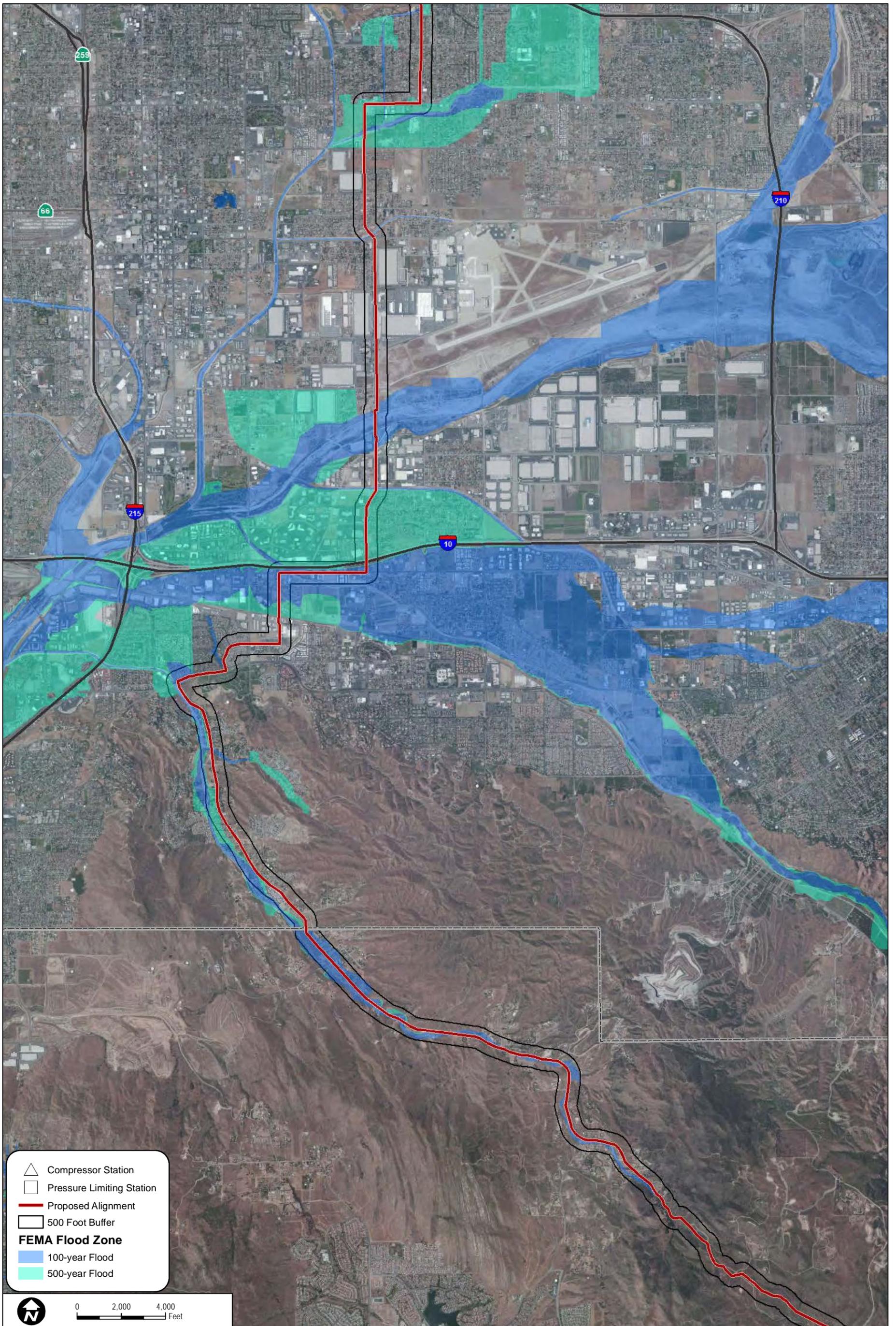
- △ Compressor Station
- Pressure Limiting Station
- Proposed Alignment
- ▭ 500 Foot Buffer
- FEMA Flood Zone**
- 100-year Flood
- 500-year Flood



SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014

North South Project

**FEMA Flood Zones**



- △ Compressor Station
- Pressure Limiting Station
- Proposed Alignment
- ▭ 500 Foot Buffer
- FEMA Flood Zone**
- 100-year Flood
- 500-year Flood

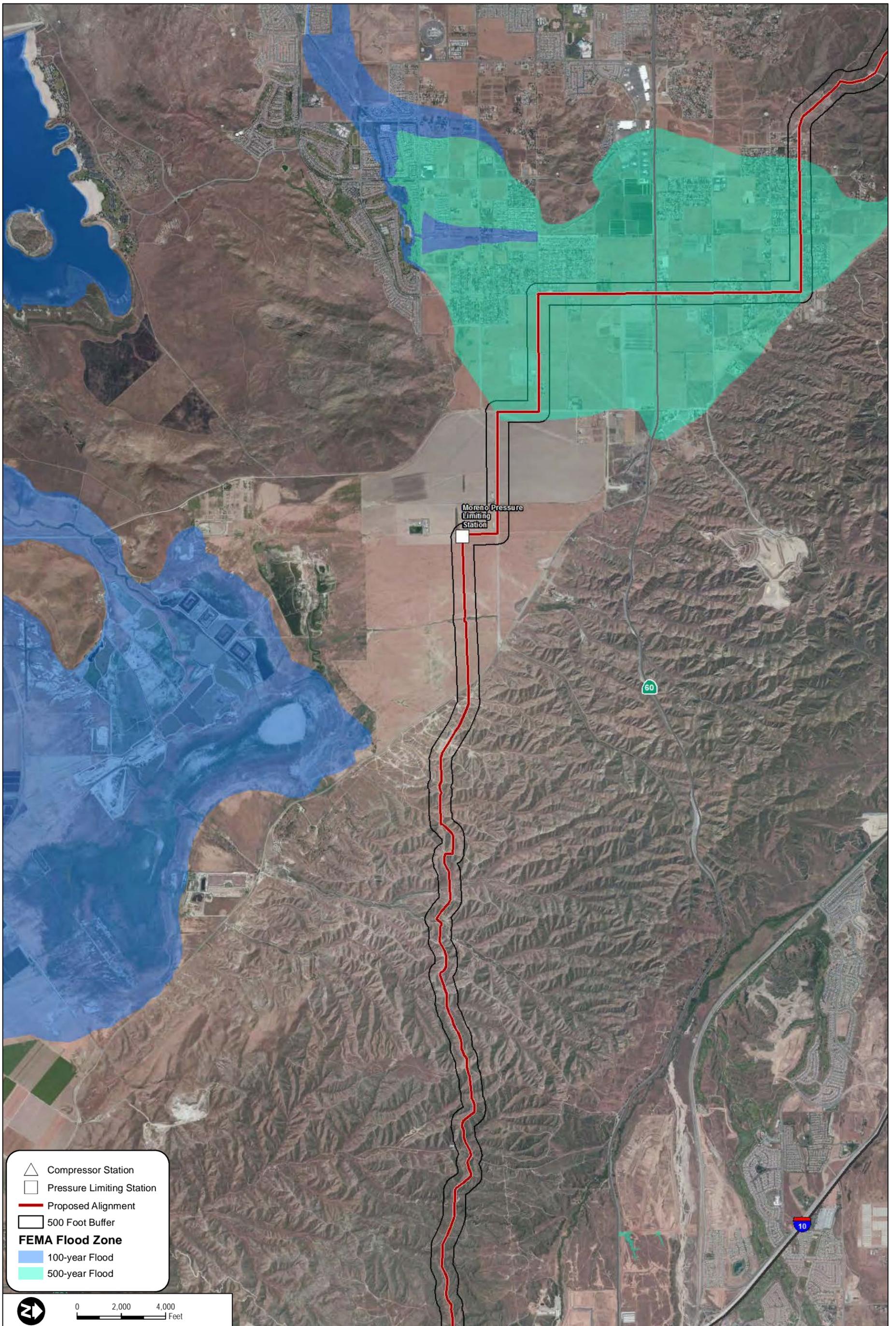


SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014

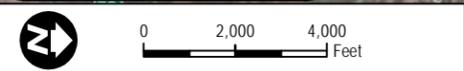


North South Project

**FEMA Flood Zones**



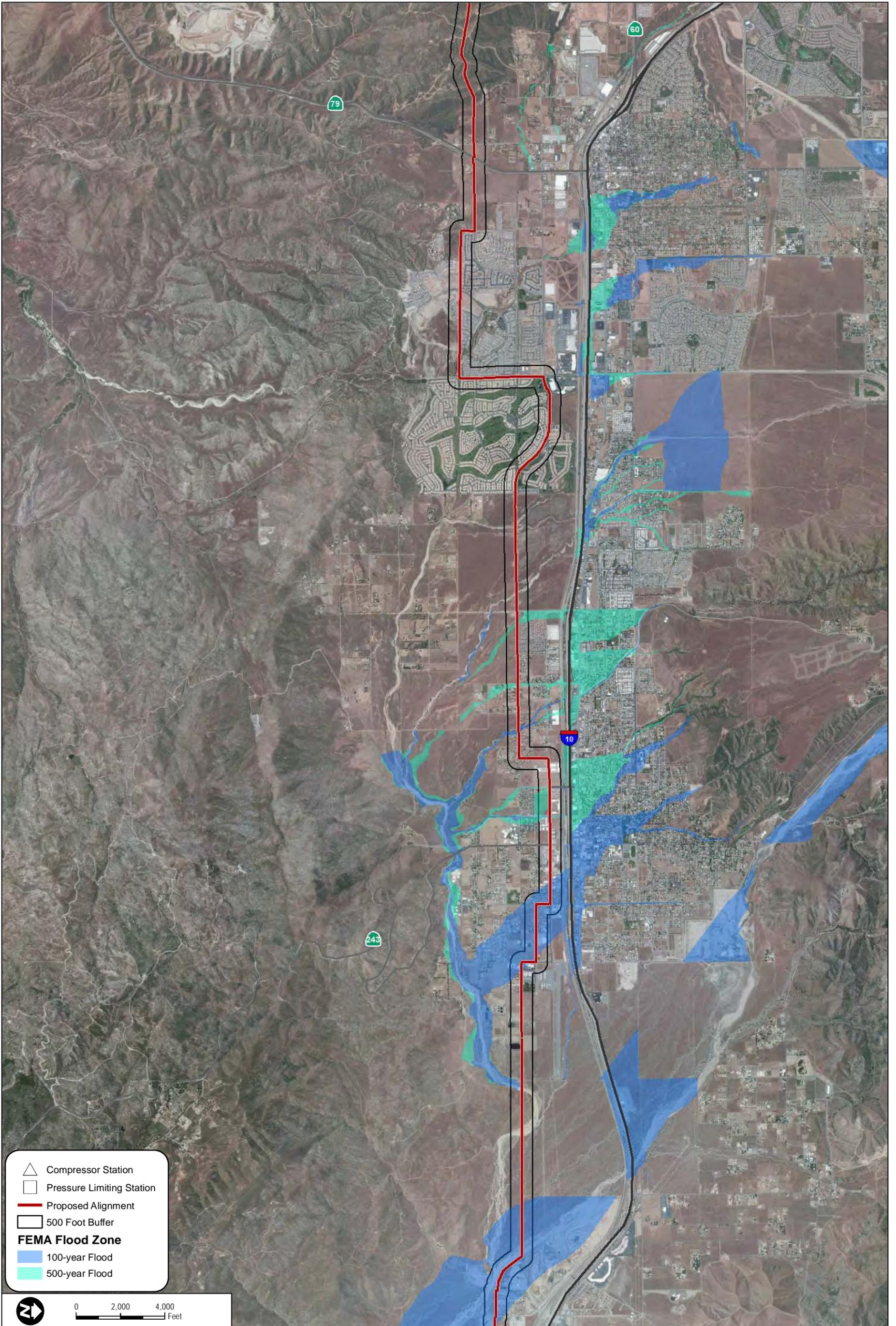
- △ Compressor Station
- Pressure Limiting Station
- Proposed Alignment
- ▭ 500 Foot Buffer
- FEMA Flood Zone**
- 100-year Flood
- 500-year Flood



SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014

North South Project

**FEMA Flood Zones**

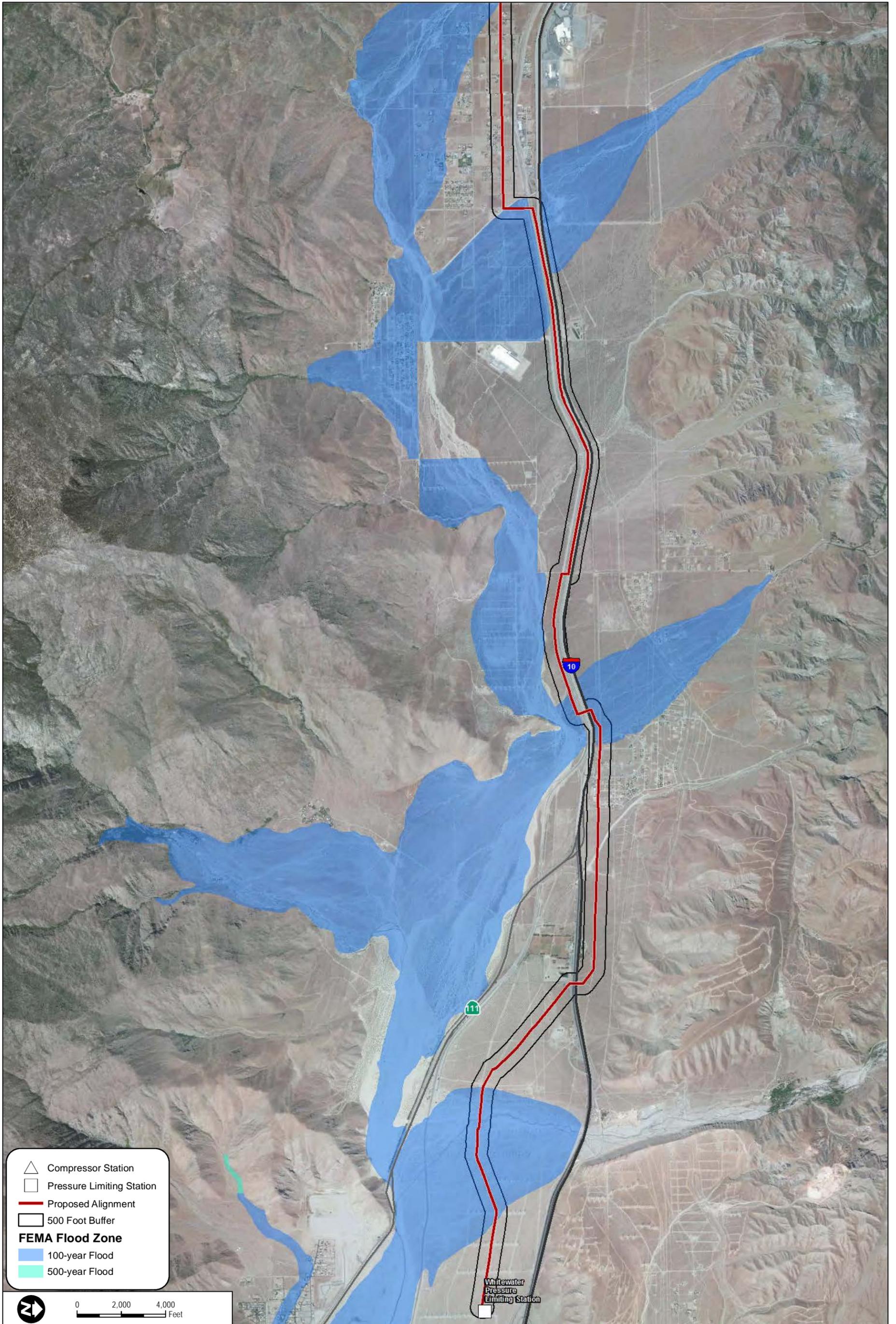


SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014



North South Project

FEMA Flood Zones



-  Compressor Station
-  Pressure Limiting Station
-  Proposed Alignment
-  500 Foot Buffer

**FEMA Flood Zone**

-  100-year Flood
-  500-year Flood



Whitewater  
Pressure  
Limiting  
Station



SOURCE: BING Maps 2014; Southern California Gas Company 2014; FEMA 2014

North South Project

**FEMA Flood Zones**