# L300B ENVIRONMENTAL FEASIBILITY STUDY TO RAISE THE PIPELINE MAOP OVER THE Redacted

**Land and Environmental Services Department Analysis of the Permitting Option 2B. October 8, 2012**

Pacific Gas and Electric's (PG&E) natural gas pipeline L300B crosses over the Redacted on a cable suspension bridge located immediately south of the Redacted. The Redacted and pipeline were constructed in 1956 and are jointly owned by PG&E and El Paso Natural Gas. The operating pressure of L300B, which normally operates at a Maximum Allowable Operating Pressure (MAOP) of 550 psig was reduced the Maximum Allowable Operating Pressure (MAOP) to 528 psig.

PG&E Land Department was asked to review all the options and develop a permit analysis (see agency summary below). This analysis was developed by Redacted with 30 years of experience with input for legal issues have been reviewed by PG&E's outside legal counsel on environmental permitting matters, including Redacted of Cox Castle & Nicholson LLP on CEQA issues, Latham & Watkins LLP 505 on NEPA issues, Cox, Castle & Nicholson LLP on CEQA issues, and Insignia Environmental on overall permitting timeframes. This analysis investigates various permit and regulatory options to raise the MAOP of the L300B pipeline to 700 psig.

Project Options:
Option 1 - Hydrotest the existing pipeline on the existing L300B Bridge
Option 2A - Replace the existing pipeline and hydrotest new pipe on the existing L300B Bridge
Option 2B - Replace the existing pipeline on the L300B Bridge with new pipe hydrotested on shore.

After analysis, it was recommended that Option 2B be the preferred engineering and permitting alternative to increase the pipeline MAOP to 700 psig. Options 1 and 2A are not recommended because of bridge and pipe overstress conditions resulting from the additional loads caused by the added weight of water during the hydrotest operations.

## BACKGROUND

PG&E's natural gas pipeline L300B crosses over the Redacted on a cable suspension bridge located south of the Redacted and north of the Redacted
The L300B bridge and pipeline were constructed in 1956 and are jointly owned by PG&E and El Paso Natural Gas. PG&E was recently required to reduce the operating pressure of L300B (34" x 0.50" WT, API 5LX52 pipe) by 20% to 528 psig, from an MAOP of 660 psig.
The L300B bridge main cables are supported by "H" frame towers spaced 1080' apart. These main cables are anchored behind the bridge towers in large concrete anchorages approximately 250' and 300' feet behind the bridge towers, on the California and Arizona sides, respectively. The main cables are comprised of two sets of (2) 2-3/8" galvanized bridge rope with each of the four cables specified with a breaking strength of 261 tons. The pipeline is supported by these main cables at 30'

intervals by pipe cradles connected to (2) ½" vertical galvanized bridge strands. On either side of the bridge towers, the L300B pipeline has expansion loops before the pipe goes underground.

**Detailed Options**

PG&E analyzed various options to raise the MAOP of the L300B pipeline to 700 psig. The options investigated were:

1. Hydrotest existing pipe on the existing L300B Bridge
2. Install new pipe on existing L300B Bridge
    - A. Replace existing pipe and hydrotest new pipe on the existing L300B bridge
    - B. Replace existing pipe with new pipe hydrotested on shore
3. Abandon Existing L300B Pipe/Bridge
    - A. Install new L300B pipeline under river using Horizontal Direction Drilling (HDD)
    - B. Install new L300B pipeline on existing L300A Arch Bridge
    - C. Install new L300B pipeline on existing Redacted
    - D. Install new L300B pipeline on existing Redacted
    - E. Construct new L300B Pipe/Bridge at existing location
    - F. Construct new L300B Pipe/Bridge at adjacent location

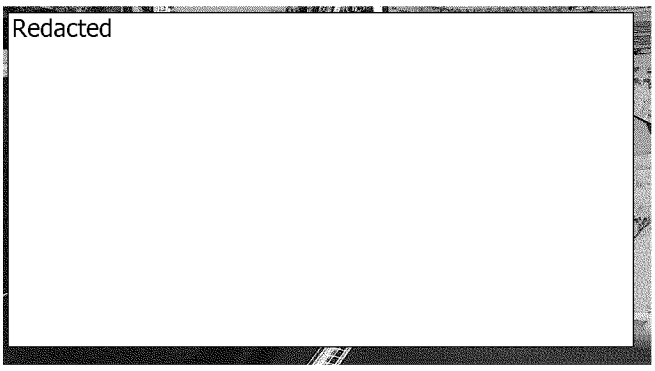
Options 3A through 3F are less likely to be implemented than others because they do not provide the same degree of operational security or would require more environmental review and permitting but were included in PG&E's analysis for completeness.

**Permitting Issues Option 2B:**

The Preliminary Environmental Permitting Identification Matrix identifies primarily environmental permits or notifications that may be necessary for Options 1, 2A and 2B. In this report we will discuss the preferred option 2b.

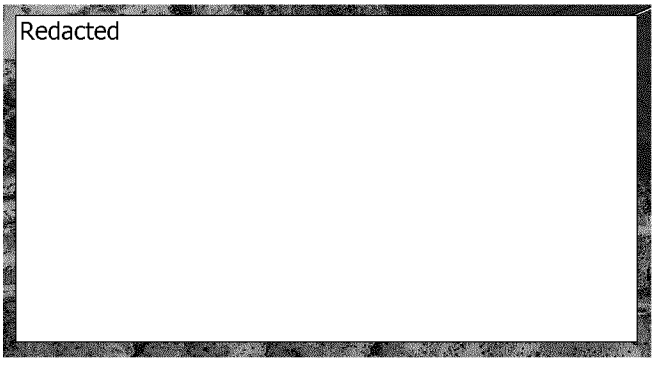
**Land Use Option 2B:**

Use of land on the Arizona side will be limited to El Paso Natural Gas property (see below) both below and above the bridge tower. El Paso Natural Gas has stated they have a good relationship with the neighbors so construction access and equipment storage agreements with the homeowners should not be difficult to obtain.




On the California side, the bridge tower was constructed on a bench cut into the hillside over the river. The available work areas for Option 2B on the California side are limited to the bench and the

dirt roadway above the bench (see below). If it is necessary to block the roadway above the bench with equipment and materials, access to the L300A Bridge is available on a secondary dirt road that traverses above and reconnects to the lower road south of the L300B bridge tower. PG&E has a possessory interest in this land and no other property owner permission is required.




The preliminary environmental permitting analysis identified primarily environmental permits or notifications that may be necessary for Option 2B using an engineered design plan that provides for all work to take place above the ordinary high water mark. The hydrotesting itself would be conducted on the Arizona side of the river on an already disturbed area.

Pipe removal:

El Paso Natural Gas has historically done all the maintenance on the bridge span. They have stated that the L300B pipeline and bridge do not contain lead paint. However paint samples will be tested prior to the start of removal/construction. The Mojave Desert Air Quality Management District will be contacted for a demo permit if any asbestos or lead paint will be removed during the project.

**Permits and Notification Option 2B: Below is a general discussion of some of the permits/notifications that may be required. This project has not been specifically discussed with these agencies.**

**Federal**

- **BLM/FWS.** Assuming the work can be conducted within the existing ROW, no permit should be needed as the work should be covered by an existing ROW with BLM and Stipulation with FWS.

- **US Coast Guard, Rivers and Harbors Act, Section 9/General Bridge Act.** A Section 9 permit is required to "construct or commence the construction of any bridge, dam, dike, or causeway over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States." Section 9 applies to both construction and modification of bridges. 33 CFR § 115.01. Certain repairs to bridges are exempted from the requirement to obtain a permit – "Repairs to a bridge which do not alter the clearances, type of structure, or any integral part of the substructure or superstructure or navigation conditions, but which consist only in the replacement of worn or obsolete parts, may, if the bridge is a legally approved structure, be made as routine maintenance without approval of the U.S. Coast Guard." 33 CFR § 115.40. PG&E plans to contact the U.S. Coast Guard to confirm this exemption applies to the Line 300B work. If it does not apply, a Section 9 permit would be required and PG&E anticipates the permitting process could take 12-15 months.

- **Army Corps of Engineers (Rivers and Harbors Act, Section 10 and CWA Section 404).** A Section 10 permit is required for "structures and/or work in or affecting navigable waters of the United States." 33 CFR § 322.3(a). A temporary hanging platform will be constructed above the River, and a net or tarp will be utilized to prevent any materials from falling into the River and for this reason it is anticipated no Section 10 permit will be needed (i.e., there will be no work affecting the Redacted).
    - Section 404 of the Clean Water Act and the regulations thereunder provide that a permit is required "for the discharge of dredged or fill material into waters of the United States." 33 CFR § 323.3(a). Because PG&E plans to protect against the discharge of fill materials into the Redacted through the use of netting, PG&E does not believe a Section 404 permit is needed.
    - If a Section 10 or Section 404 permit is needed, PG&E anticipates the permitting process could take 12-18 months. If Nationwide Permit No. 12 can be used, the permitting process is anticipated to take approximately 8 to 12 months.

- **Endangered Species Act.** ESA issues are expected to be minimal. Two listed species of fish are present in the Redacted. However no work will be done either below the high water mark or in the River. Additionally, desert tortoise is not present at this location and best management practices will be established to protect nesting birds, including pre-construction surveys.
    - If federal approvals are required, ESA Section 7 will be triggered. PG&E Biological Opinion for O&M of its pipeline is expected to encompass the Line 300B work.
    - If required, potential additional ESA compliance process could range from approximately 2 months (for informal consultation) to approximately nine months (for formal consultation) with the US Fish and Wildlife Service. PG&E does not anticipate any take of listed species associated with the proposed activities.

- **National Historic Preservation Act**. The NHPA will only be triggered if other federal approvals are needed (i.e., from the ACOE or Coast Guard). If the NHPA is triggered, the Section 106 compliance process could take approximately 1 year given that it is possible that there may be historic properties and/or cultural resources in the area of potential effect.

- **National Environmental Policy Act**. NEPA will only be triggered if certain other federal permits are needed (i.e., from the ACOE or Coast Guard). If NEPA is triggered, the NEPA compliance process could take approximately 1 year, assuming an environmental assessment is required.

- Redacted Notification would be required. PG&E has a possessory interest on the California side of the Redacted.

**State**

- **California Environmental Quality Act**. CEQA will only be triggered if certain other state permits are needed (i.e., from the CDFW or RWQCB). If CEQA is triggered, the CEQA compliance process could take approximately 1 year, assuming an environmental impact report is required. It is possible that the work may be able to proceed under one or more exemptions from CEQA, with a substantially shorter permitting track.

- If CEQA review is required, either the California Department of Fish and Wildlife (formerly Fish and Game) or another California state Agency, would act as CEQA Lead Agency. If the project is determined to be exempt from CEQA as a modification to an existing facility, or as necessary to avoid an emergency (or on some other basis), the timeframe for the CEQA exemption determination would be up to two to four months. If a Mitigated Negative Declaration is required, the timeframe for CEQA review would be up to 12 months. If an EIR is required, the timeframe would be closer to 18 months.

- **California Department of Fish and Wildlife**. California Department of Fish and Wildlife (renamed "Fish and Wildlife" pursuant to 2012 legislation) will issue a section 1600 Streambed Alteration Permit, if one is needed. Given that all work will be above the high water mark, and the hydrotesting will be conducted in Arizona, we anticipate that such a permit will not be required.

- **California and Arizona State Lands Commission.** Update Lease, modify if needed. Letter of permission could be required. The timeframe for approval by the California Commission would depend on the level of required CEQA review.

- **State Water Resources Control Board.** SWPPP plan and approval for construction (NOI).] This is only required for disturbance of one or more acres. A Waste Discharge Identification (WDID) number can be issued within 10 days.

- Redacted **Board.** Notification within 30 days prior to construction.

**County, Local, and Private**

- Redacted **).** An Encroachment Permit is needed for work within a San Redacted within 2 months.

- **Mojave Desert Air Quality.** Demo permit for asbestos and lead based paint. Any work that involves the removal or disturbing of any material containing more than 1 percent asbestos and at least 260 linear feet on pipes, or at least 160 square feet on other facility components requires an abatement permit within 2 months.

- **Land owners (AZ) Access Agreements.** Within 3 to 6 months.

- **Kinder Morgan. (AZ).** Land and bridge rights within 3 to 6 months.

The analysis presented here represents a realistic or "best" case scenario where the regulatory or environmental agencies either agree that PG&E's existing rights are sufficient and no additional permits are required or agree that all necessary NEPA and CEQA reviews will be completed and approval issued within one year. However, with so many permits required, it would not be unreasonable to expect that securing all necessary permits could take two or three times as long.