

**SOUTHERN CALIFORNIA GAS COMPANY**  
**PG&E'S 851 APPLICATION TO SELL L306 TO SOCALGAS**  
**(A.19-04-003)**

**(CalPA Data Request-01)**

**Date Requested: April 05, 2019**

**Date Responded: May 09, 2019**

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**QUESTION 01:**

Please provide all workpapers and supporting documents related to SoCalGas's analysis regarding PG&E's 851 Application to Sell Line 306 filing in searchable and original "live" format (spreadsheet, etc.).

By analysis, the Public Advocates Office means the identification of costs, candidacy for pressure testing, costs for replacement, etc as identified in the March 26, 2019 letter "Statement in Support of Application of Pacific Gas and Electric Company for Commission Approval Under Public Utilities Code Section 851 to Sell the Gas Local Transmission Line 306 to Southern California Gas Company."

**RESPONSE 01:**

The attached supporting documents include Confidential and Protected Materials provided pursuant to PUC Section 583, GO 66-D, D.17-09-023, the accompanying declaration, and/or non-disclosure agreement.

SoCalGas, as phrased, objects to this Request with respect to documents owned by PG&E as overbroad and unduly burdensome, seeking documents not in SoCalGas' possession, and seeking documents more appropriately requested from the applicant. Following a discussion on April 29, 2019, the Public Advocates Office agreed that, in lieu of responding to this data request in full with documents that were provided by PG&E to SoCalGas, SoCalGas may simply identify the documents so the Public Advocates Office may request the same from PG&E.

SoCalGas analyzed the options related to the remediation of Line 44-1008 by reviewing our historical records and assessing the viability and preliminary cost of each option. To determine the viability of purchasing PG&E's Line 306 as a remediation option, SoCalGas reviewed documentation provided by PG&E at their offices in a designated data room; SoCalGas is not in possession of those documents. In addition, SoCalGas received responses to ten data requests from PG&E wherein documentation was provided under a non-disclosure agreement (NDA). Examples of the PG&E documents examined were External Corrosion Direct Assessment Surveys, Valve Maintenance Reports, Tap load information, Strength Test Records, Leak Surveys, Measurement & Regulation (M&R) records, and asbestos coating testing forms.

Attached are the SoCalGas documents used in the analysis of Line 44-1008 and summary reports of the analysis and findings regarding the potential purchase of Line 306, the ten data request responses from PG&E; and pursuant to the April 29, 2019 discussion with the Public Advocates Office, a spreadsheet summarizing the PG&E documentation received or reviewed by SoCalGas through the aforementioned data requests propounded on PG&E.

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Document Description/Notes	Document Title
<b>1. Feature Study Data (FSD)</b> Shows the FSD Data Extract for 44-1008 including all pipeline attributes	<i>CalPA DR-01_Q01 CONFIDENTIAL 44-1008 FSD Data Extract.xlsx</i>
<b>2. Request for Engineering Assessment (RER) #15-0667</b> Assessment of options to remediate 44-1008	<i>CalPA DR-01_Q01 CONFIDENTIAL 44-1008_127_EC_RER15-0667.pdf</i>
<b>3. Request for Engineering Assessment (RER) #16-0006</b> Revision to RER 15-0667	<i>CalPA DR-01_Q01 CONFIDENTIAL 44-1008_127_EC_RER16-0006.pdf</i>
<b>4. Request for Engineering Assessment (RER) #19-0052</b> Compilation of all of the RER's submitted to the region that contain any information about PG&E's Line 306	<i>CalPA DR-01_Q01 CONFIDENTIAL 44-1008_127_EC_RER19-0052.pdf</i>
<b>5. Preliminary estimate to refurbish Line 306</b> Identifies costs of activities that may need to be performed on PG&E L306 and SL 44-1008	<i>CalPA DR-01_Q01 CONFIDENTIAL Line 306 Estimate Template Rev B 6-02-17.xlsx</i>
<b>6. First Data Review Executive Summary</b> Describes the first data review and condition of Line 306	<i>CalPA DR-01_Q01 CONFIDENTIAL PG&amp;E L306 First Visit Data Summary.docx</i>
<b>7. PG&amp;E Line 306 Potential Acquisition Documentation</b> Provides a condensed summary containing the due diligence of environmental, land and engineering research	<i>CalPA DR-01_Q01 CONFIDENTIAL PGE 306 Potential Acquisition Summary 10-31-18.docx</i>
<b>8. Second Data Review Summary Report</b> Report describing the scope of the second data review	<i>CalPA DR-01_Q01 CONFIDENTIAL PGE Line 306 2nd Visit Summary Report.pdf</i>
<b>9. PGE Line 306 Valuation Report</b> Third-party appraisal of the valuation of PG&E's L306 by Pipeline Equities in 2017 as requested SoCalGas through Jacobs Engineering	<i>CalPA DR-01_Q01 CONFIDENTIAL PGE Line 306 Appraisal 20170901.pdf</i>
<b>10. Decision Tree for 44-1008 and Segment Explanation</b> Addresses Line 306's candidacy for pressure testing	<i>CalPA DR-01_Q01 CONFIDENTIAL 44-1008_138_EC_Preliminary Decision Tree and Explanation.xlsx</i>
<b>11. 2019 GRC Direct Testimony of Rick Phillips, Extract of Page A-53</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL SCG-15 RPhillips_p53.pdf</i>

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Briefly describes SoCalGas/SDG&E's proposed Line 44-1008 replacement, including cost	
<b>12. 2019 GRC Line 44-1008 Workpaper</b> Describes SoCalGas/SDG&E's proposed Line 44-1008 replacement	<i>CalPA DR-01_Q01 CONFIDENTIAL 44-1008_164_EC_2019 GRC Workpaper.pdf</i>
<b>13. Right of Way Estimate (Line 306)</b> Identifies Right of Way costs	<i>CalPA DR-01_Q01 CONFIDENTIAL SoCalGas 16-277 Estimate.pdf</i>
<b>14. Phase I Environmental Site Assessment of PG&amp;E L306<sup>1</sup></b> Identifies any 'recognized environmental conditions' (REC), historical REC's (HREC), or controlled REC's (CREC) associated with the line, as defined in the ASTM E 1527-13 Standard	<i>CalPA DR-01_Q01 CONFIDENTIAL L306 ASTM Phase 1 Environmental Site Assessment</i>
<b>15. PG&amp;E Data Request No. 6217</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 6217.pdf</i>
<b>16. PG&amp;E Data Request No. 6576</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 6576.pdf</i>
<b>17. PG&amp;E Data Request No. 7641</b>	<i>CalPA DR-01_Q01 Data Request No. 7641.pdf</i>
<b>18. PG&amp;E Data Request No. 7925</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 7925.pdf</i>
<b>19. PG&amp;E Data Request No. 10640</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 10640.pdf</i>
<b>20. PG&amp;E Data Request No. 10997</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 10997.pdf</i>
<b>21. PG&amp;E Data Request No. 11533</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 11533.pdf</i>
<b>22. PG&amp;E Data Request No. 11911</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 11911.pdf</i>
<b>23. PG&amp;E Data Request No. 12106</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 12106.pdf</i>
<b>24. PG&amp;E Data Request No. 12284</b>	<i>CalPA DR-01_Q01 CONFIDENTIAL Data Request No. 12284.pdf</i>

<sup>1</sup> This document consists of a 35-page report and 4,610 pages of appendices. The appendices primarily consist of a voluminous environmental database records search pertaining to properties that lie within various search distances from PG&E's Line 306. Due to the large volume of the appendices and the extensive effort that would be needed to mark these documents for confidentiality, SoCalGas has not provided the appendices in response to this Data Request. SoCalGas can provide onsite access to the appendices upon request.

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<p><b>25. PG&amp;E Data Request Status Tracker</b> Identifies data request status completion and list of documents received from PG&amp;E.</p>	<p><i>CalPA DR-01_Q01 CONFIDENTIAL Data Response Status Tracker.xlsx</i></p>
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COMPANY	REGION	JURISDICTION	CLASSIFICATION	DISTRICT	PIPELINENAME	BEGCUMSTA	ENDCUMSTA	BEGENGSTA	ENDENGSTA	CLASS_LOC	CLASS_LOC_LBL	CLASS_LOC_GEO	HCA	LENGTH_FT
SoCal	Northwest	DOT - T - LP	Distribution	VISALIA	44-1008					1	Class 1	Class 1	NO	26997
SoCal	Northwest	DOT - T - LP	Distribution	VISALIA	44-1008					1	Class 1	Class 1	NO	39680.44
SoCal	Northwest	DOT - T - LP	Distribution	BAKERSFIELD	44-1008					1	Class 1	Class 1	NO	23030.29
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	43342.27
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	66
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	4830
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	770
SoCal	Northwest	DOT - D - Main	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	406
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	806
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	2709
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	1761
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	506
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	6680.94
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	YES	36.06
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	YES	16.51
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	YES	820.61
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	YES	33.27
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	106.61
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	2607.91
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	221.7
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	2829.39
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	893
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	4725
SoCal	Northwest	DOT - D - Main	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	403
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	982.54
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					2	Class 2	Class 2	NO	438.32
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	179.2
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					2	Class 2	Class 2	NO	3084.06
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	32888.88
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	295
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	22912
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	41
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	11862
SoCal	Northwest	DOT - D - Main	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	5
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	164
SoCal	Northwest	DOT - D - Main	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	66
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	891
SoCal	Northwest	DOT - D - Main	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	8
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	16602.82
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					2	Class 2	Class 2	NO	3569.19
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					1	Class 1	Class 1	NO	2411.17
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	474.82
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	3162.3
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	49.7
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	159
SoCal	Northwest	DOT - D - Main	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	612.1
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	35.9
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	81
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	4364
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	NO	7.47
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	YES	689.53
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	YES	233
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	YES	15
SoCal	Northwest	DOT - T - LP	Distribution	SAN LUIS OBISPO	44-1008					3	Class 3	Class 3	YES	316

LENGTH_MI	Criteria Miles (Y/N)	CUR_CATEGORY	WORK_ORDER_GEO	HAOP_GEO	INST_DATE_GEO	DIAMETER_OD	WT	PIPEGRADE	LONGSEAM_GEO	MAOP	MAOP_UPRATE	MOP	TEST_WO_G	TESTPRESS
5.1131	N	CAT 2	C-216757		500	1/1/1937					No			
7.5152	N	CAT 2	C-216757		500	1/1/1937					No			
4.3618	N	CAT 2	C-216757		500	1/1/1937					No			
8.2088	N	CAT 2	C-216757		500	1/1/1937					No			
0.0125	N	CAT 2	69124		500	7/8/1992					No			
0.9148	N	CAT 2	C-216757		500	1/1/1937					No			
0.1458	N	CAT 2	86810		500	9/2/1975					No			
0.0769	N	CAT 2	54492-144		500	9/25/2002					No			
0.1527	N	CAT 2	86810		500	9/2/1975					No			
0.5131	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.3335	N	CAT 1	88623		500	10/30/1978					No			
0.0958	N	CAT 1	C-231897		500	8/29/1966					No			
1.2653	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.0068	Y	CAT 2	C-216757		500	1/1/1937					No		141116	
0.0031	Y	CAT 2	C-216757		500	1/1/1937					No		141116	
0.1554	Y	CAT 2	C-216757		500	1/1/1937					No		141116	
0.0063	Y	CAT 2	C-216757		500	1/1/1937					No		141116	
0.0202	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.4939	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.042	Y	CAT 2	C-216757		500	1/1/1937					No		141116	
0.5359	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.1691	N	CAT 1	87939		500	7/29/1977					No			
0.8949	N	CAT 2	C-216757		500	1/1/1937					No			
0.0763	N	CAT 1	C-233594		500	11/3/1967					No			
0.1861	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.083	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.0339	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.5841	N	CAT 2	C-216757		500	1/1/1937					No		141116	
6.229	N	CAT 2	C-216757		500	1/1/1937					No		141116	
0.0559	N	CAT 2	72724		500	7/8/1996					No			
4.3394	N	CAT 2	C-216757		500	1/1/1937					No			
0.0078	N	CAT 4	74581		500	7/2/1997					No			
2.2466	N	CAT 2	C-216757		500	1/1/1937					No			
0.0009	N	CAT 2	81944		500	8/1/2013					No		81944	
0.0311	N	CAT 2	C-216757		500	1/1/1937					No			
0.0125	N	CAT 2	81944		500	8/1/2013					No		81944	
0.1688	N	CAT 2	C-216757		500	1/1/1937					No			
0.0015	N	CAT 2	81944		500	8/1/2013					No		81944	
3.1445	N	CAT 2	C-216757		500	1/1/1937					No			
0.676	N	CAT 2	C-216757		500	1/1/1937					No			
0.4567	N	CAT 2	C-216757		500	1/1/1937					No			
0.0899	Y	CAT 2	C-216757		500	1/1/1937					No			
0.5989	Y	CAT 2	C-216757		500	1/1/1937					No			
0.0094	Y	CAT 1	81025		500	10/8/2012					No		81025	
0.0301	Y	CAT 1	81025		500	10/8/2012					No		81025	
0.1159	Y	CAT 1	81025		500	10/8/2012					No		81025	
0.0068	Y	CAT 1	C-225669		500	1/1/1963					No			
0.0153	Y	CAT 1	C-225669		500	1/1/1963					No			
0.8265	Y	CAT 1	C-216757		500	1/1/1937					No			
0.0014	Y	CAT 1	87530		500	11/4/1976					No			
0.1306	Y	CAT 1	87530		500	11/4/1976					No			
0.0441	Y	CAT 1	C-216757		500	1/1/1937					No			
0.0028	Y	CAT 1	87329		500	5/27/1976					No			
0.0598	Y	CAT 1	C-216757		500	1/1/1937					No			

TESTDATE	TESTMED_GEO	TESTDUR_GEO	PERCENT_SMYS	PERCENT_SMYS_GEO	CLASS_LOC_192_111	CLASS_VER	Geo_MAOP_V_192_619_A1	Geo_MAOP_V_192_619_A2	Geo_MAOP_V_192_619_A2_RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
7/2/1992	Nitrogen	1			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/28/1975	Unknown	24			4	Class Okay			WITH RECORDS
9/19/2002	Nitrogen	1			4	Class Okay			WITH RECORDS
8/28/1975	Unknown	24			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
10/25/1978	Water	8			4	Class Okay			WITH RECORDS
9/2/1966	Water	24			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
7/26/1977	Water	21			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
11/3/1967	Water	24			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
7/3/1996	Nitrogen	1			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
7/2/1997	Unknown	-99			4	Class Okay			WITHOUT RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
6/3/2013	Nitrogen	2.5			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
6/3/2013	Nitrogen	2.5			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
6/3/2013	Nitrogen	2.5			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
8/18/1958	Gas	4			4	Class Okay			WITH RECORDS
9/27/2012	Water	8			4	Class Okay			WITH RECORDS
9/27/2012	Water	8			4	Class Okay			WITH RECORDS
9/27/2012	Water	8			4	Class Okay			WITH RECORDS
9/24/1964	Water	19			4	Class Okay			WITH RECORDS
9/24/1964	Water	19			4	Class Okay			WITH RECORDS
3/25/1958	Water	1			4	Class Okay			WITH RECORDS
11/2/1976	Water	20			4	Class Okay			WITH RECORDS
11/2/1976	Water	20			4	Class Okay			WITH RECORDS
3/25/1958	Water	1			4	Class Okay			WITH RECORDS
5/28/1976	Water	20			4	Class Okay			WITH RECORDS
3/25/1958	Water	1			4	Class Okay			WITH RECORDS





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Geo\_MAOP\_V\_192\_619\_GOV\_CASE

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Geo_MAOP_V_192_619_Arr_GOV_CASE	Geo_MAOP_V_192_619_Arrr_COMB_MIN	Geo_MAOP_V_192_619_Arrr_GOV_CASE	PROJECTNAME	PROJECTNAME_MAN	PROJECTSECTION_MAN	PROJECTNAME_MAN_R
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
				PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3				
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A3		A3				
A3		A3				
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3				
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A3		A3		PSEP-SL44-1008-P1B-01	0	
A2 - 2 CLASS OUT						
A2 - 2 CLASS OUT				PSEP-SL44-1008-P1B-01	0	
A3		A3				
A3		A3		SL 44-1008 Section 2B		Section 2B
A3		A3		SL 44-1008 Section 2B		Section 2B
A2 - 2 CLASS OUT				SL 44-1008 Section 2B		Section 2B
A2 - 2 CLASS OUT				SL 44-1008 Section 2B		Section 2B
A3		A3		SL 44-1008 Section 2B		Section 2B
A2 - 2 CLASS OUT				SL 44-1008 Section 2B		Section 2B
A3		A3		SL 44-1008 Section 2B		Section 2B

PROJECT_LENGTH	Reroute Added Footage	PTRANGE	PTRANGE_GEO	ACTION_PLN	ACTION_CAL	ACTION_MAN	ACTION_MAN_R	PHASE_PLN	PHASE_NEW	PHASE_CAL	PHASE_MAN	GROUP_PLN	GROUP_MAN
133050		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
133050		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
133050		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
133050		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
66		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1B		NA	Phase 1B		
4830		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
1982		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
1982		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
1982		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
2709		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
1761		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
506		0 PT >= 1.25 * MAOP		Replace	Replace			Phase 3		Phase 3			
13353		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
13353		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
13353		0 PT >= 1.25 * MAOP		Replace	Replace			Phase 1B		Phase 1B			
13353		0 PT >= 1.25 * MAOP		Replace	Replace			Phase 1B		Phase 1B			
13353		0 PT >= 1.25 * MAOP		Replace	Replace			Phase 1B		Phase 1B			
13353		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
13353		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
13353		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
13353		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
893		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
4725		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
403		0 PT >= 1.25 * MAOP		NA	Replace			NA		NA			
37573		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
37573		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
37573		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
37573		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
37573		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
295		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
22912		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
41		0 PT = 0		Replace	Replace	Replace		Phase 1B		Phase P70	Phase 1B		
11862		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
5		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1B		NA	Phase 1B		
164		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
66		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1B		NA	Phase 1B		
891		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
8		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1B		NA	Phase 1B		
26220.3		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
26220.3		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
26220.3		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
26220.3		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1B		Phase 1B	Phase 1B		
26220.3		0 PT >= 1.25 * MAOP		Replace	Replace			Phase 1B		Phase 1B			
820.8		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
820.8		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1B		NA	Phase 1B		
820.8		0 PT >= 1.25 * MAOP		NA	NA			NA		NA			
116.9		0 PT >= 1.25 * MAOP		Replace	Replace			Phase 3		Phase 3			
116.9		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1A		Phase 3	Phase 1A		SLO
4364		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1A		Phase 1B	Phase 1A		SLO
697		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1A		NA	Phase 1A		SLO
697		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1A		NA	Phase 1A		SLO
233		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1A		Phase 1B	Phase 1A		SLO
15		0 PT >= 1.25 * MAOP		Replace	NA	Replace		Phase 1A		NA	Phase 1A		SLO
316		0 PT >= 1.25 * MAOP		Replace	Replace	Replace		Phase 1A		Phase 1B	Phase 1A		SLO

SMARTPIGGABLE	PIGGABLE	VINTAGE	VINTAGE2	VINTAGE3	TPOVERMAOPRATIO	SHAREH	GTE30PERCSMYS	PRIORITY_PHASE2	ADT_NUM	MILEAGECLASS	GTE50PERCSMYS
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	7	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	1961-1970	1961-1970	1961-1970		N	N	3. Pre Modern Standards	H10		N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7		N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7		N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7		N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	7	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	7	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	7	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	7	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	7	Phase 1B	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	7	Incidental	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	9		N
No	No	1961-1970	1961-1970	1961-1970		N	N	3. Pre Modern Standards	H10		N
No	No	1961-1970	1961-1970	1961-1970		N	N	3. Pre Modern Standards	17A	Accelerated	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	17A	Accelerated	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	17A	Incidental	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	17A	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	17A	Accelerated	N
No	No	Post 1970	Post 1970	Post 1970		N	N	NA	17A	Incidental	N
No	No	Pre 1946	Pre 1946	Pre 1946		N	N	3. Pre Modern Standards	17A	Accelerated	N

REQUEST FOR ENGINEERING REVIEW (RER)

FOR INTERNAL USE ONLY

ML SC9337 (Chatsworth); ML SC9521 (Compton)  
ML SC8321 (Anaheim); ML SC8031 (Redlands)

RER Valid for 6 Months From Approved Date



RER # 15-0667

Project Name:	PI: PG&E L306 P1B	Requested By:	[REDACTED]
Date Submitted:	08/06/15	Phone Number:	[REDACTED]
Project Start Date:	TBD	Requesting Department:	PSEP
RER Needed By:	08/27/15	WO#:	82106.000
Address/Intersection:	Various Locations	WR/NOT/SAP #:	
City:	Various		
District/Cost Center:	SLO/Templeton - 2200-0501	Planned By:	TBD
Leak Survey Area ID:		Supervisor:	[REDACTED]
Pressure Dist./Iso. Area:			
SL/TL/Gas Pressure Zone:	SL 44-1008 & L306	Project Type:	PSEP
Set Pressure:	[REDACTED]	➤ Dreams Project #:	
MAOP:	[REDACTED]	➤ If Other:	

**Reason for Request:**

PSEP needs to remediate approximately 48.2 miles of pipe for SL 44-1008, but wants to consider all possible options which are: 1) Can it be abandoned, 2) can it be de-rated, 3) can it be retested, or 4) does it need to be replaced? In addition, can PG&E L306 serve as an alternate source to the Northern Coastal system?

Steel Seasoning (if applicable)

Diameter (IN.)	Length (FT.)	Min Flow (MSCFH)	Set Pressure (PSIG)

The following response is based on a Synergi analysis conducted by Region Engineering. When deciding what course of action to take, Region Leadership approval is required.

**Response to Request:**

**Abandon**

The first option of abandoning SL 44-1008 is *infeasible*. This is due to the fact that SL 44-1008 is a critical feed to the northern coastal high pressure system. Without SL 44-1008, the entire northern coastal high pressure system would experience outages to both Core and Non-Core customers. Due to the northern gas pressure zone being at a lower maximum allowable operating pressure (MAOP) than the southern gas pressure zone, the amount of flow being supplied from Suey Junction (ID 428N) is insufficient to supply all the way to the most northern area of the coast.

Table 1: Coastal Pressure Zones Divided by ID 428N

Gas Pressure Zone	MAOP (psig)	Design Level (psig)
7271 (North)	[REDACTED]	[REDACTED]
7230 (South)	[REDACTED]	[REDACTED]

Analysis By: [REDACTED]  
Reviewed By: [REDACTED]  
Region Office: Northwest Chatsworth

Approved By: [REDACTED]  
Approved Date: 9/14/15

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De-rate

The second option of de-rating SL 44-1008 is also *infeasible*. If SL 44-1008 is de-rated below 20% SMYS in its current condition, it can no longer supply the necessary flow to feed all Core customers in the northern coastal system for both normal winter and 1 in 35 conditions.

Re-test

The third option of retesting SL 44-1008 is an *impractical solution*. This is due to approximately 97.3% of the entire pipe line being installed before 1946, which only makes the pipeline eligible for either abandonment or replacement per PSEP's decision tree.

Table 2: SL 44-1008 Pipeline Installation Timelines and Footage

Year Range	Length (feet)	% of Total Length
1937	263,497	97.275
1963-1967	1,025.9	0.379
1970 - Present	6,649.8	2.455
<b>Total</b>	<b>270,878</b>	<b>100</b>

Replace

**SL 44-1008 Pipeline Replacement:**

After considering the first three options, the final option of replacing SL 44-1008 is the *only feasible option*. Within the option to replace 48.2 miles of SL 44-1008, Region Engineering recommends replacing the existing [redacted] steel pipe with a minimum of [redacted] diameter pipe. The upsizing from [redacted] is recommended in order to maintain system integrity and guarantee continuous supply to both our Core and Non-Core customers for all weather conditions. Further analysis needs to be conducted by Gas Transmission Planning on the effects increasing the pipeline size, any larger than [redacted] diameter, can have on the transmission system and the San Joaquin Valley system (Bakersfield and Visalia).

**PG&E Continuous Feed:**

PG&E's L306 is a [redacted] diameter pipeline, approximately 65 miles in length, which extends from Kettleman City and Avenal to Morro Bay. If the supply from L306 were to be maintained permanently through the existing two taps, Morro Bay (ID 431N) and Edleman Ranch (ID 424N), the northern coastal high pressure system would be a reliable system that can sustain both Core and Non-Core customers for both normal winter and 1 and 35 conditions.

Once a continuous supply from PG&E is acquired, SL 44-1008 would need to be de-rated below 20% SMYS. For a future contingency plan, Northwest Region Engineering recommends replacing two sections of SL 44-1008 to operate at a pressure that can *temporarily* support Core customers in the event that service from L306 is interrupted. Approximately 160 feet of SL 44-1008 must be replaced with a minimum of [redacted] diameter [redacted] pipe. These sections are the following (per HPPD):

Analysis By: [redacted]  
Reviewed By: [redacted]  
Region Office: [redacted]

Approved By: [redacted]  
Approved Date: 9/14/15



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Table 3: Required Replacement Sections on SL 44-1008

Year Installed	Beginning Stationing (feet)	Ending Stationing (feet)	Footage (feet)	Nominal Diameter (inch)	Wall Thickness (inch)	Grade (psig)
1997	225058	225099	41	[REDACTED]	[REDACTED]	[REDACTED]
1963	265136.1	265253	116.9	[REDACTED]	Unknown	Unknown

A de-rate of the line would require the MAOP to be lowered from [REDACTED] to a minimum of [REDACTED]. In addition, the high pressure line would have a maximum operating pressure (MOP) of [REDACTED] which is recommended for the overpressure protection configuration. This MAOP value is based on the specifications for the sections of the pipeline listed above. In addition, de-rating would require the installation of pressure controlling equipment at both ends of the line in order to regulate at the source and isolate the supply line at the end where it connects to the rest of the northern gas pressure system.

**Important Notes & Reminders:**

All analysis was done for Normal Winter and 1 and 35 conditions.

Please consult Gas Transmission Planning for further details regarding the effects the replacement of SL 44-1008 or acquisition of continuous supply from PG&E through L306 will have on the transmission system.

Please contact Region Engineering regarding replacement projects that are currently underway on SL 44-1008 that affects the pipeline replacement cost estimate analysis.

**Analysis & Evaluation Results:**

The following 14 customers are present on SL 44-1008 and will need to continue to be fed.

Customer Name	Customer Address	Summer(mcf/h)	Winter(mcf/h)	GNN	Req. Delivery Pressure (psig)
[REDACTED]	[REDACTED]	0.0033	0.0033	780153700	[REDACTED]
[REDACTED]	[REDACTED]	0.0014	0.0108	801153700	[REDACTED]
[REDACTED]	[REDACTED]	0.0039	0.0039	759153700	[REDACTED]
[REDACTED]	[REDACTED]	0.0025	0.0025	738153700	[REDACTED]
[REDACTED]	[REDACTED]	0.0003	0.0517	718160000	[REDACTED]
[REDACTED]	[REDACTED]	0.0117	0.0117	634160000	[REDACTED]
[REDACTED]	[REDACTED]	0.0092	0.0092	655160000	[REDACTED]
[REDACTED]	[REDACTED]	0.0057	0.0057	1224636800	[REDACTED]
[REDACTED]	[REDACTED]	0.0045	0.0045	823160000	[REDACTED]
[REDACTED]	[REDACTED]	0	0.055	844160000	[REDACTED]
[REDACTED]	[REDACTED]	0.0021	0.032	697160000	[REDACTED]
[REDACTED]	[REDACTED]	0.0007	0.016	676160000	[REDACTED]
[REDACTED]	[REDACTED]	0.1	0.1	-	[REDACTED]
[REDACTED]	[REDACTED]	7.1	7.1	-	[REDACTED]

Analysis By: [REDACTED]  
Reviewed By: [REDACTED]  
Region Office: [REDACTED]

Approved By: [REDACTED]  
Approved Date: 9/14/15 ✓

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RER # 15-0667

Project Location (Map):

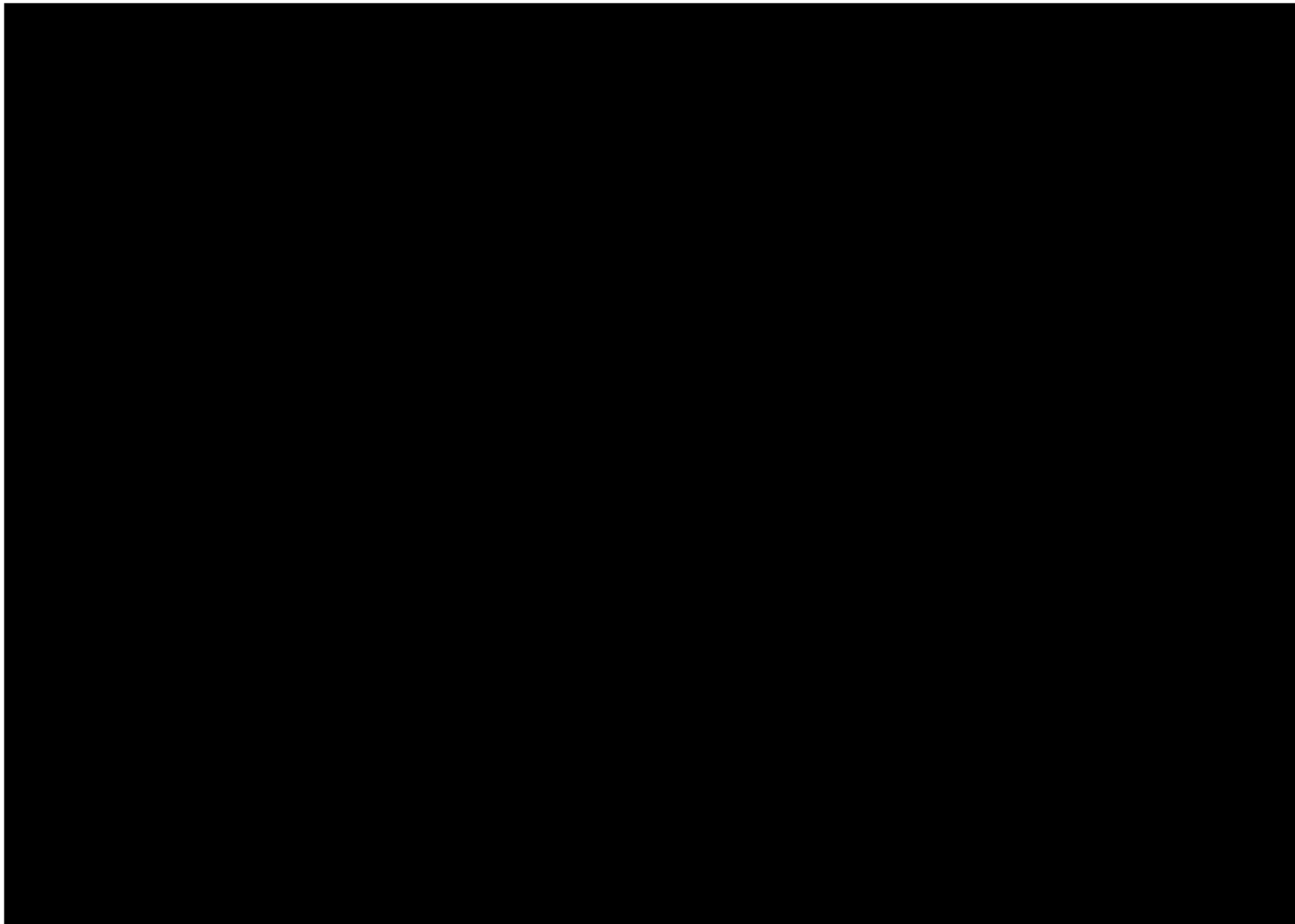


Analysis By: [Redacted]  
Reviewed By: [Redacted]  
Region Office: [Redacted]

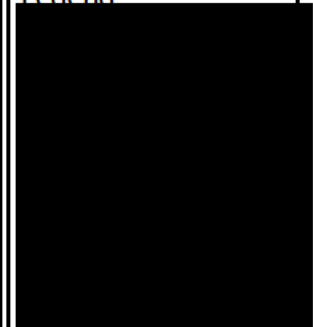
Approved By: [Redacted]  
Approved Date: 9/14/15

SL 44-1008 Pipe Sizing (Based on 1 in 35 Conditions and No PG&E Taps Online)							
Recommendation	Measurements	Points of Interest					
Diameter (Inch)		Suey Jct - ID 428N (44548)	Avenal - L85	Camp Roberts Rd (44102)	Atascadero - EOL 44-1008 (44551)	Morro Bay (44053)	ID 2587 - 36-9-09 & 36-9-06 Intersection (44548)
	Lowest Recorded Pressure (PSIG) - 12/08/2013						
	Pressure (PSIG)						
	Flow (MSCFH)	2955.69	761.03	-	-	-	-
		2850.95	865.78	-	-	-	-
		2759.92	956.8	-	-	-	-
2705.4		1011.32	-	-	-	-	

# Model Name: Coastal System\_SL 44-1008 Only



Legend



Nodes Color By

Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
8/21/2015 10:27:36  
AM

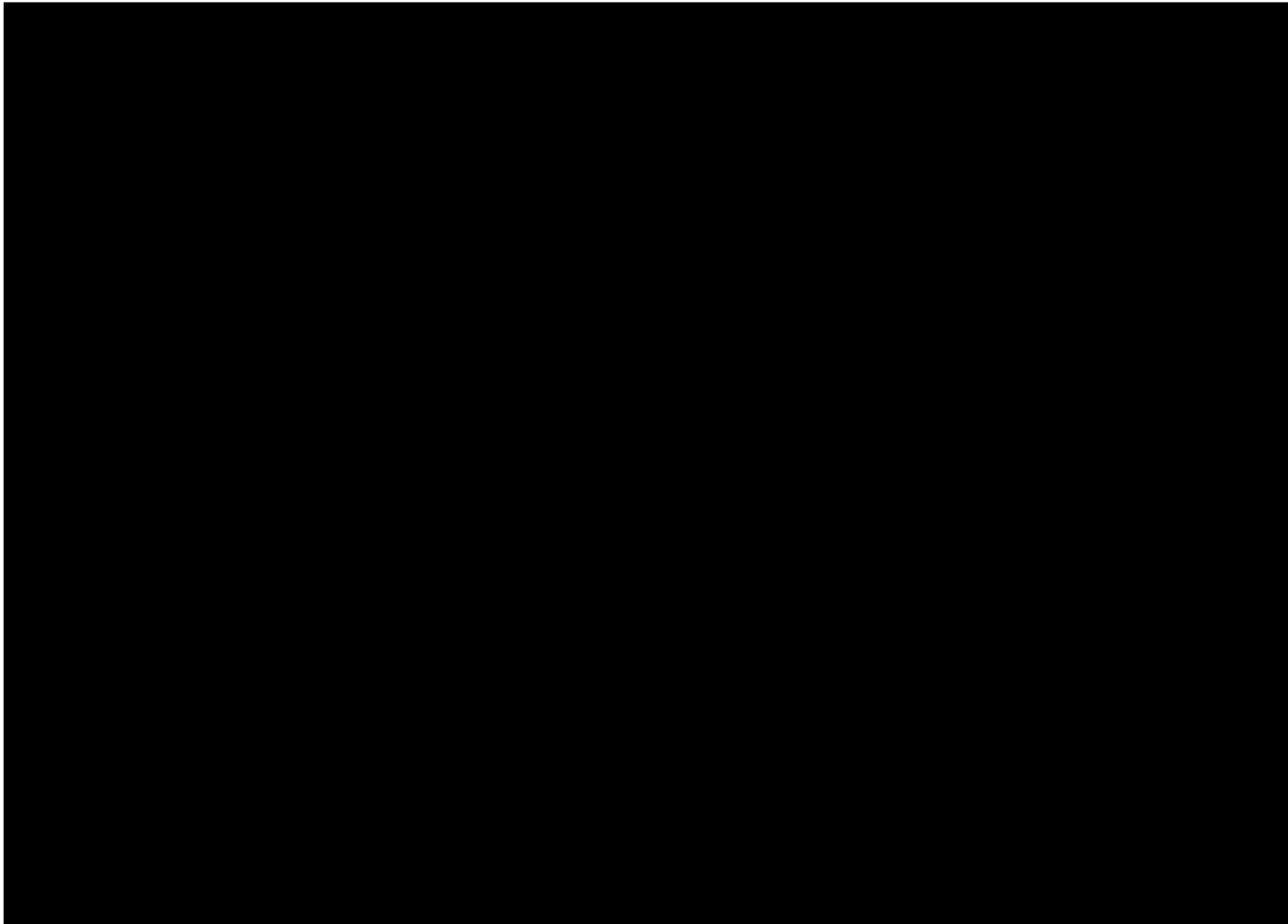
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 14,500 29,000 58,000 87,000 116,000 Feet



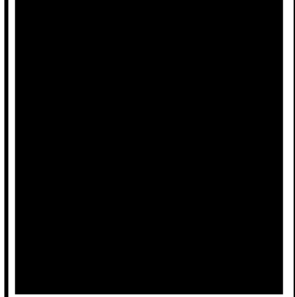
Scale: 1 = 786,700

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By



## Simulation Data:

State:  
Unsolved Infeasible

Model Created On:  
7/24/2008

Model Printed On:  
9/11/2015 3:22:21  
PM

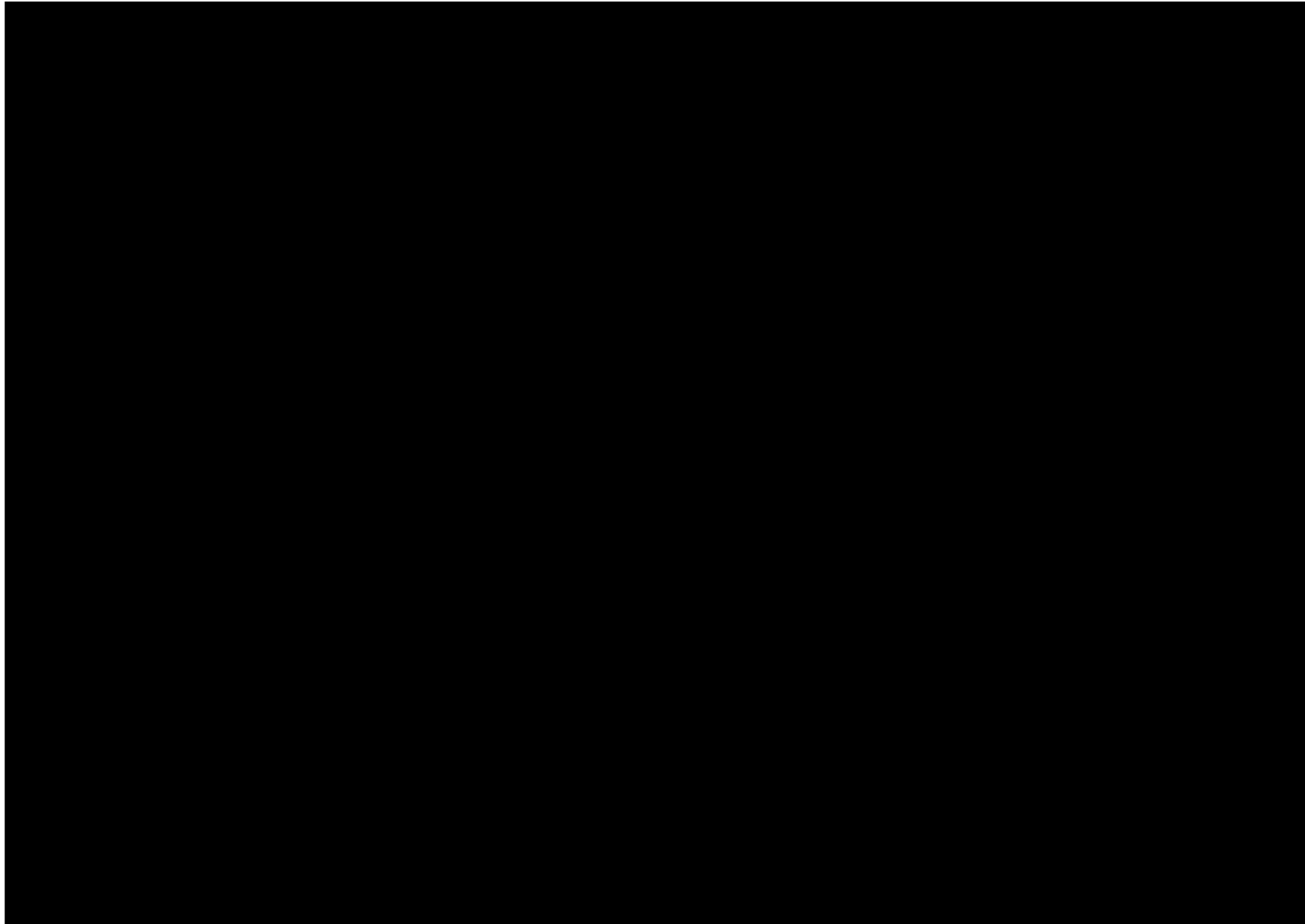
Prepared by:   
Northwest Region - Chatsworth Base

02,35,000,000 Feet



Scale: 1 = 813,100

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Infeasible

Model Created On:  
7/24/2008

Model Printed On:  
8/27/2015 3:13:25  
PM

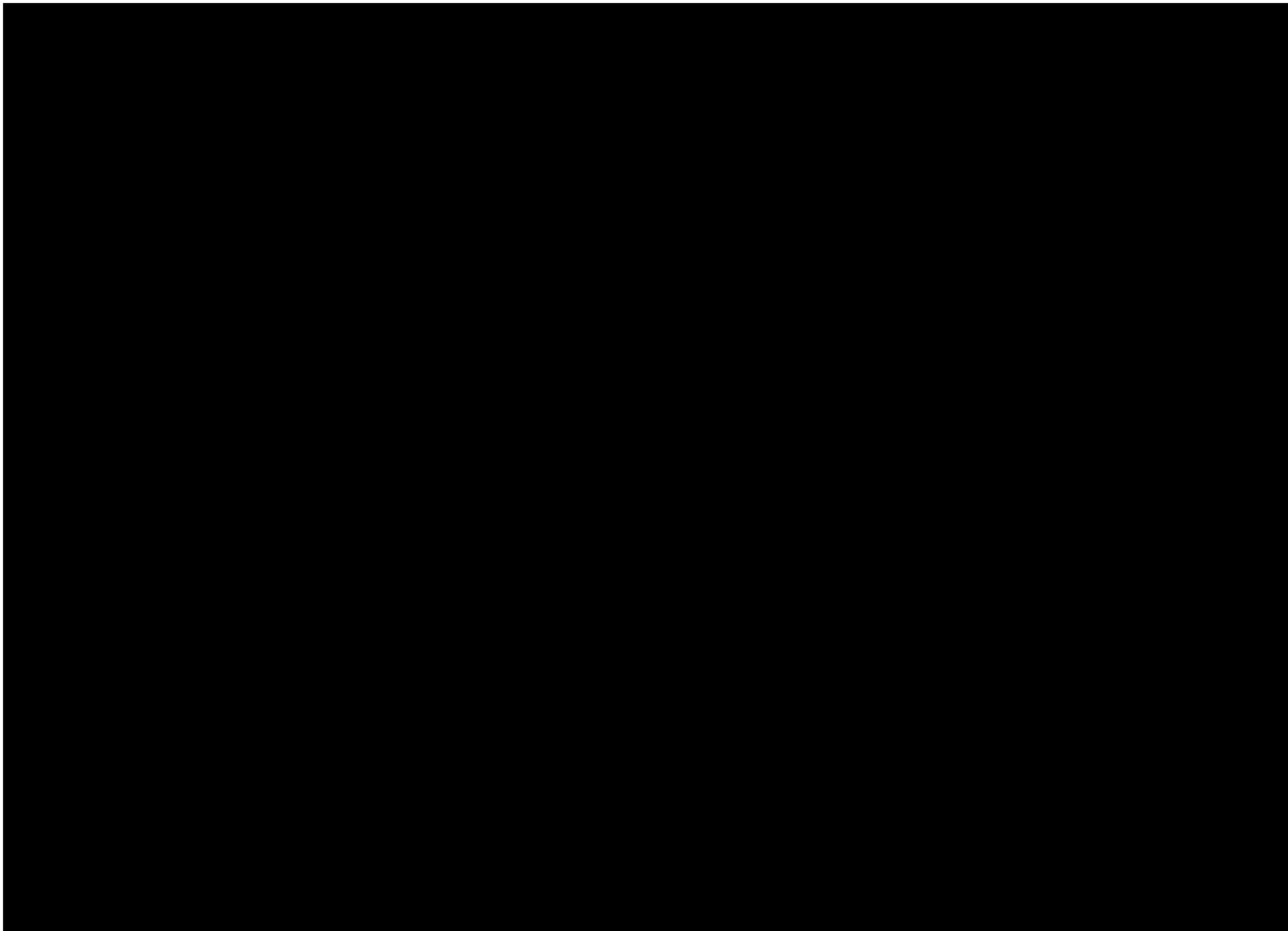
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

02,350,000 Feet

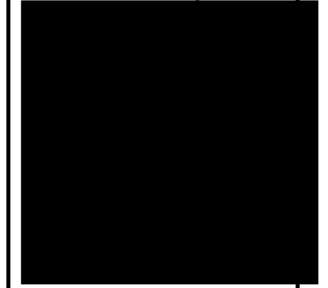


Scale: 1 = 813,100

# Model Name: Coastal System\_SL 44-1008 Only



Legend  
Facilities Color By



Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
8/21/2015 11:24:14  
AM

Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

0 14,500 29,000 58,000 87,000 116,000 Feet



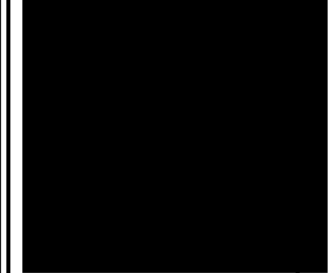
Scale: 1 = 786,700

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Solved Feasible

Model Created On:

7/24/2008

Model Printed On:

8/21/2015 11:23:18 AM

Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

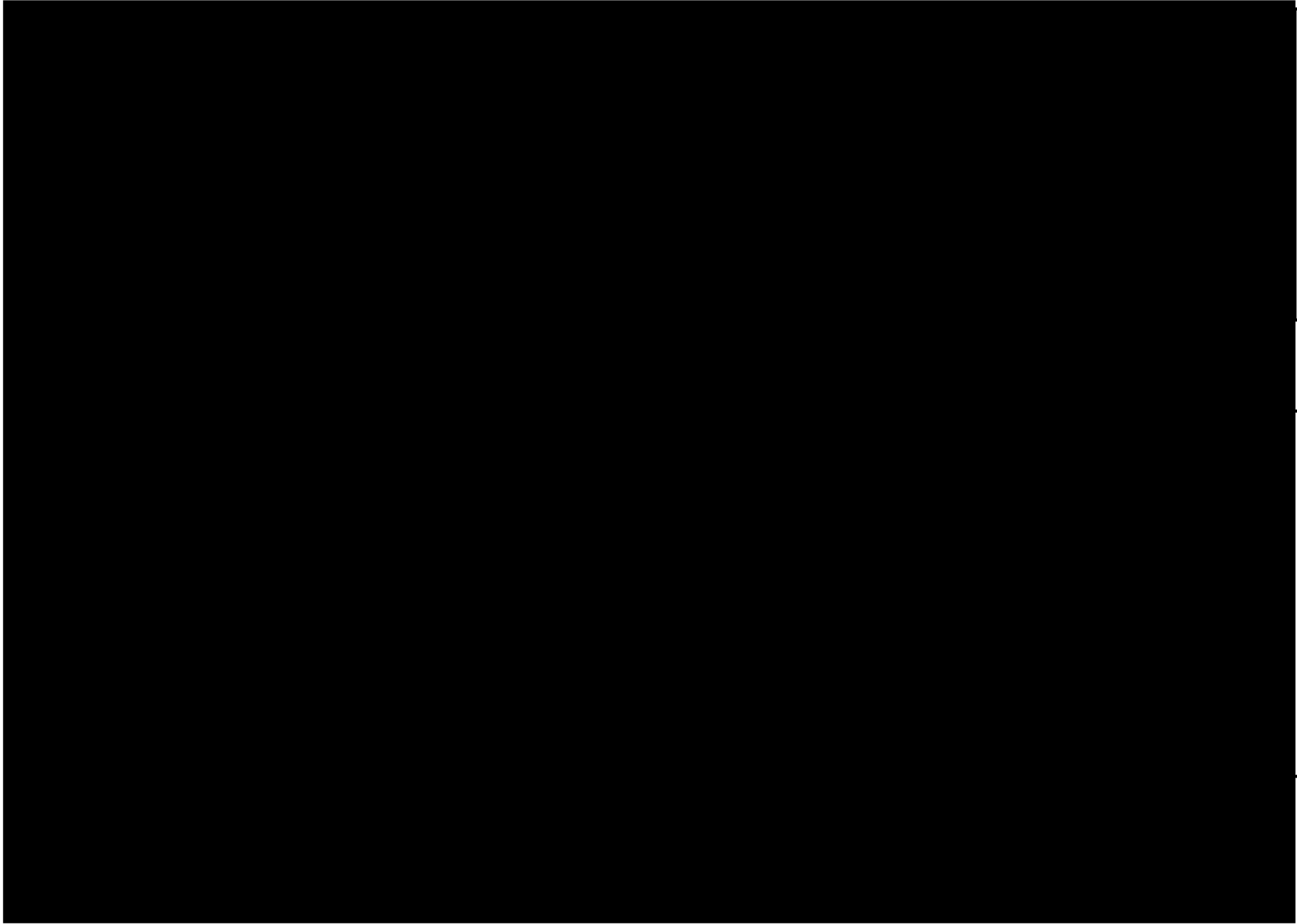
0, 14,500, 29,000, 58,000, 87,000, 116,000 Feet



Scale: 1 = 786,700



# Model Name: Coastal System\_SL 44-1008 Only



Legend  
Facilities Color By

Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
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PM

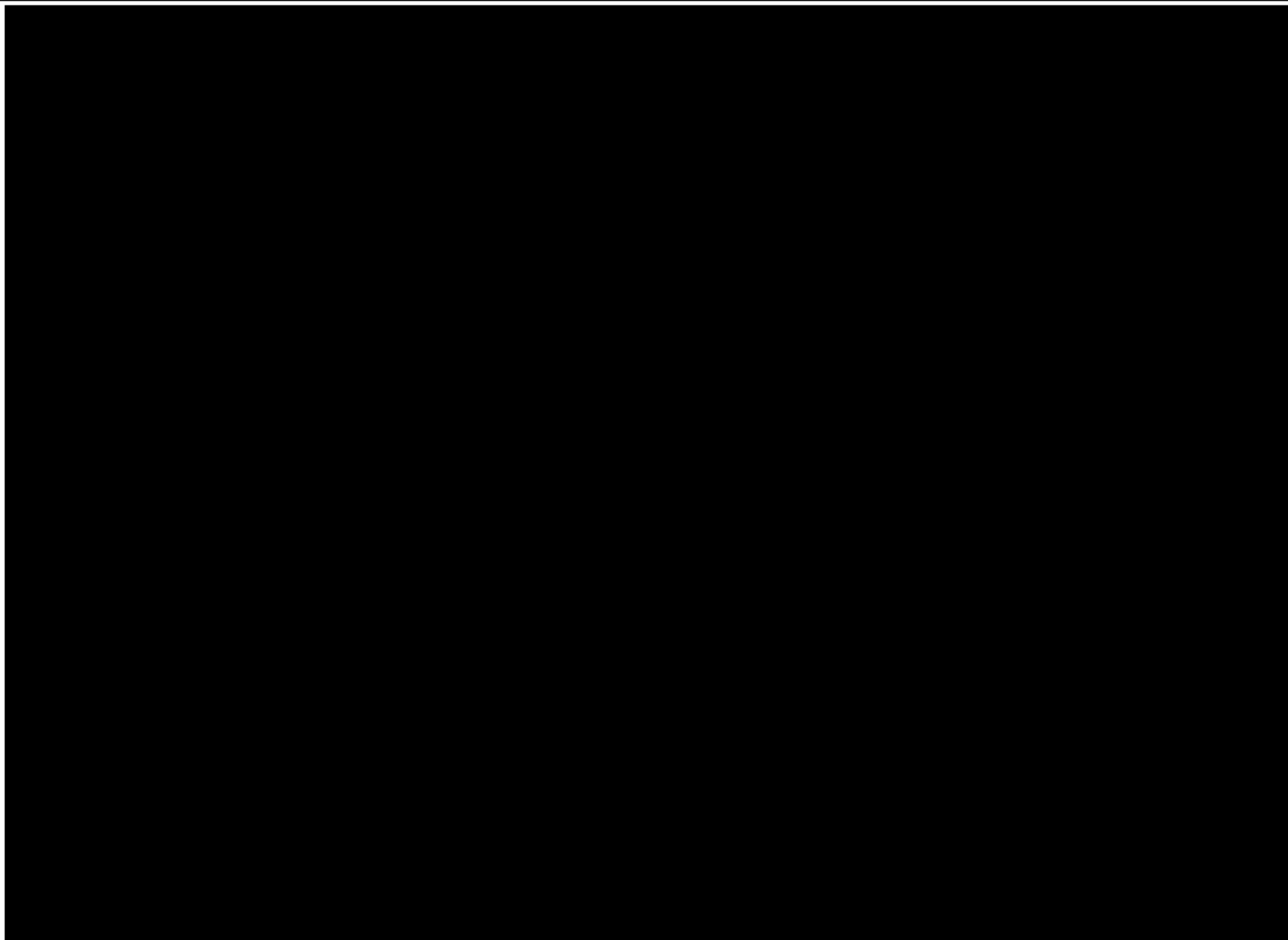
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

02,350,000 Feet



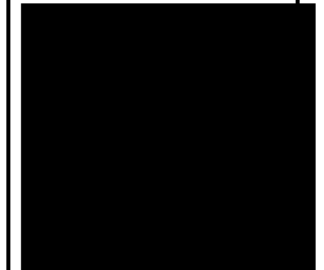
Scale: 1 = 813,100

# Model Name: Coastal System\_Line 306 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Solved Feasible

Model Created On:

7/24/2008

Model Printed On:

8/28/2015 11:38:30 AM

Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

02,39,000,000 Feet



Scale: 1 = 796,800

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Solved Feasible

Model Created On:

7/24/2008

Model Printed On:

8/21/2015 11:14:06 AM

Prepared by:



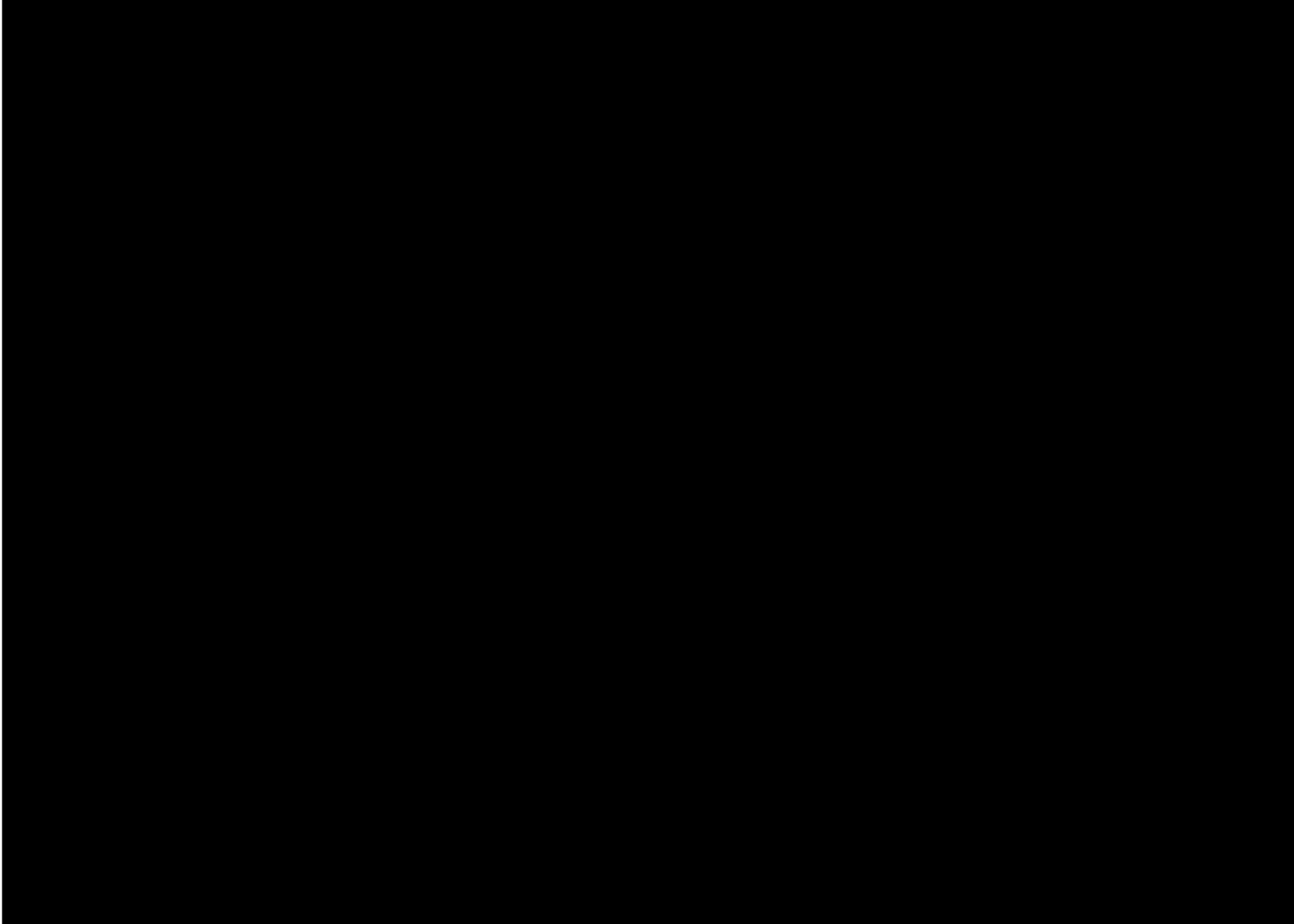
Northwest Region - Chatsworth Base

0 14,500 29,000 58,000 87,000 116,000 Feet



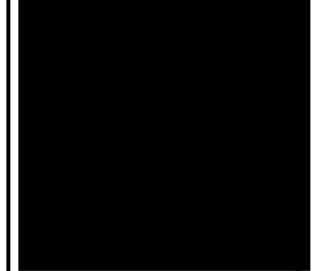
Scale: 1 = 786,700

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Unsolved Infeasible

Model Created On:

7/24/2008

Model Printed On:

9/11/2015 3:05:03  
PM

Prepared by:



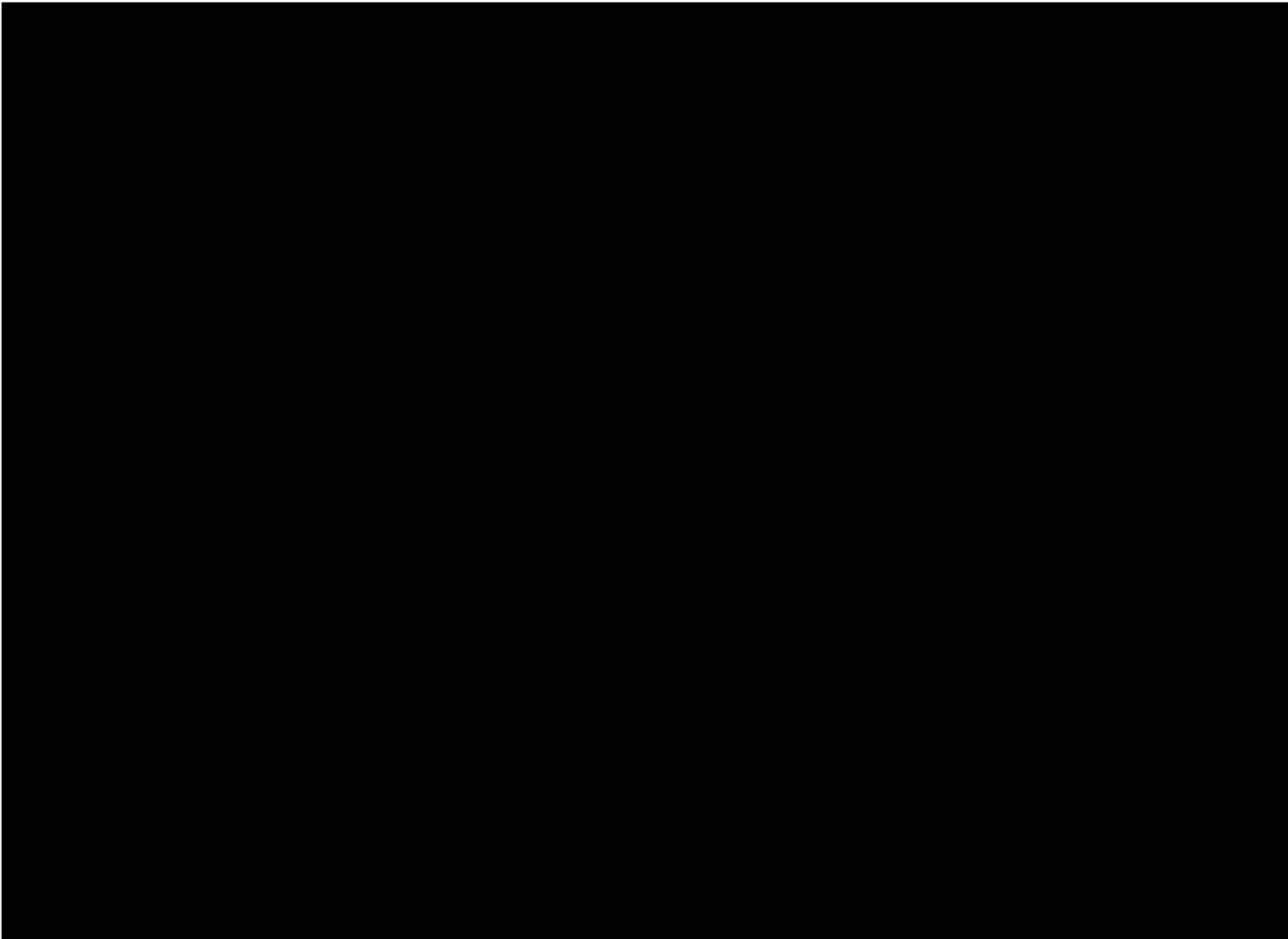
Northwest Region - Chatsworth Base

02,350,000 Feet



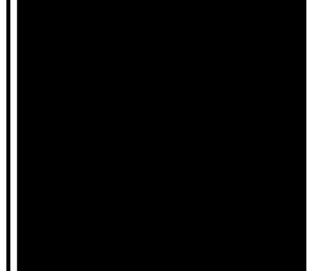
Scale: 1 = 813,100

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Unsolved Infeasible

Model Created On:

7/24/2008

Model Printed On:

8/27/2015 2:30:14  
PM

Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

02,350,000 Feet



Scale: 1 = 813,100

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
8/21/2015 11:17:18  
AM

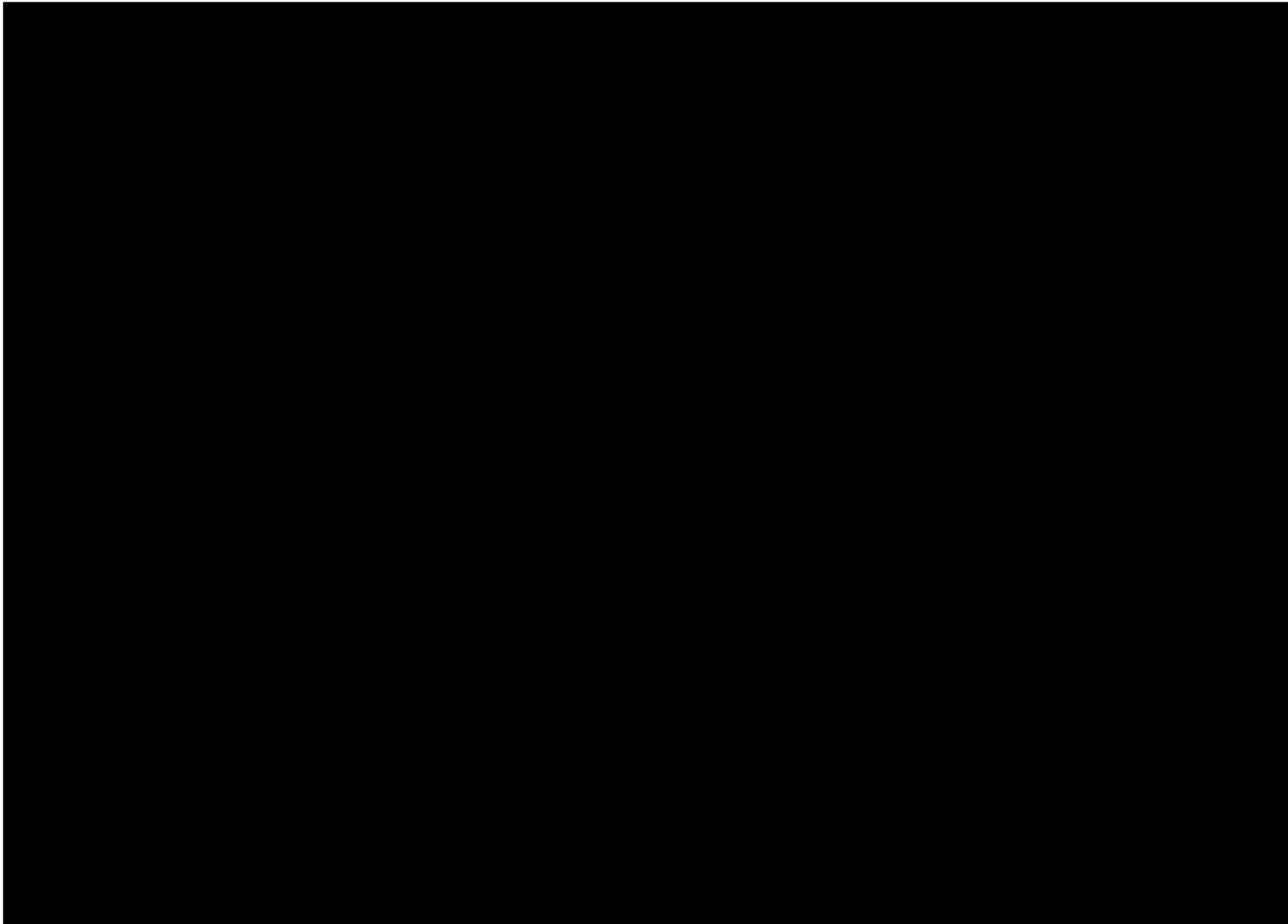
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0, 14,500, 29,000, 58,000, 87,000, 116,000 Feet



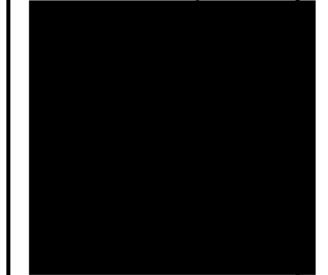
Scale: 1 = 786,700

# Model Name: Coastal System\_SL 44-1008 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Solved Feasible

Model Created On:

7/24/2008

Model Printed On:

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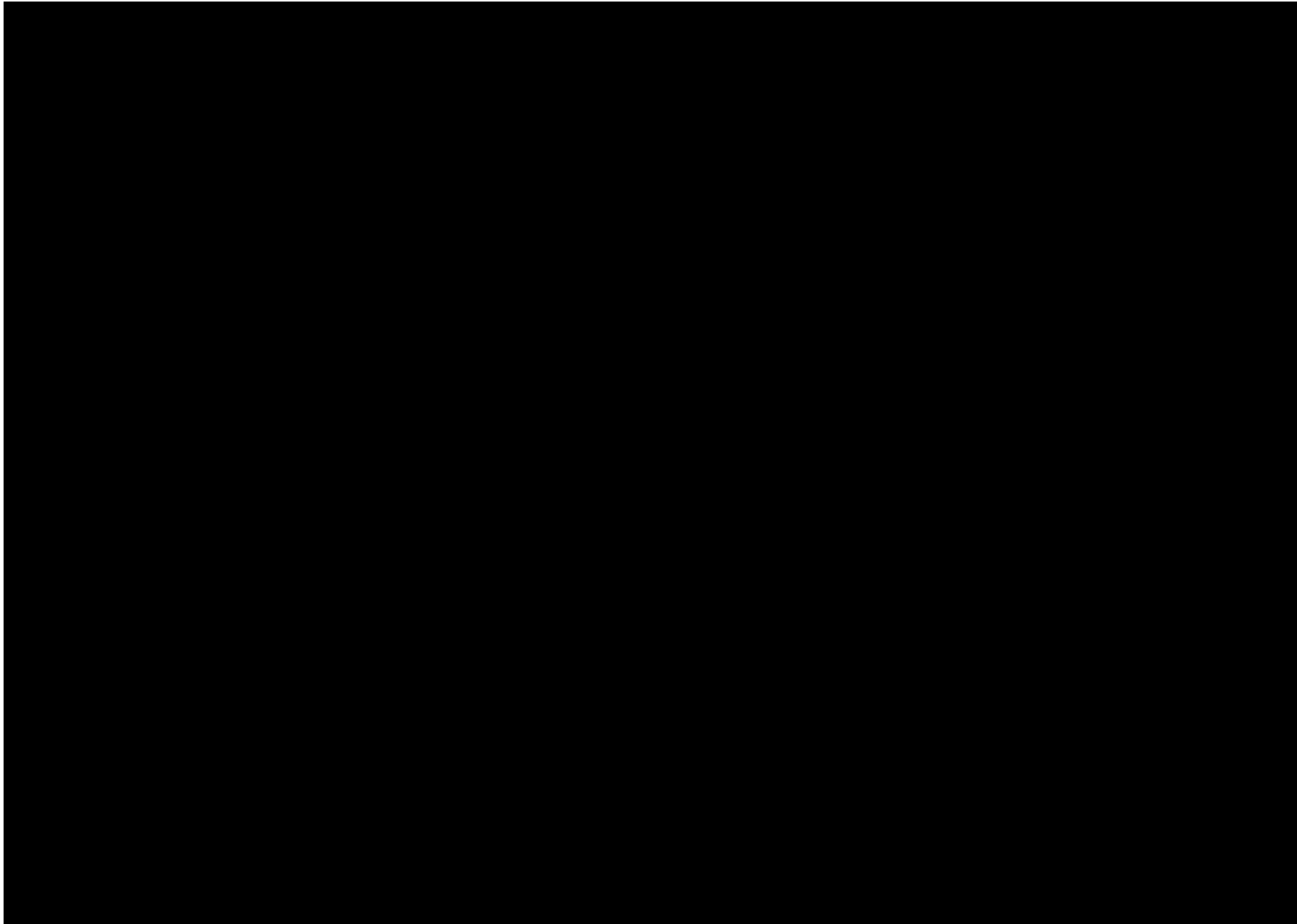
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 14,500 29,000 58,000 87,000 116,000 Feet



Scale: 1 = 786,700

# Model Name: Coastal System\_SL 44-1008 Only



Legend

Facilities Color By

Nodes Color By

Simulation Data:

State:


Solved Feasible

Model Created On:

7/24/2008

Model Printed On:

8/25/2015 4:39:29  
PM

Prepared by:   
Northwest Region - Chatsworth Base

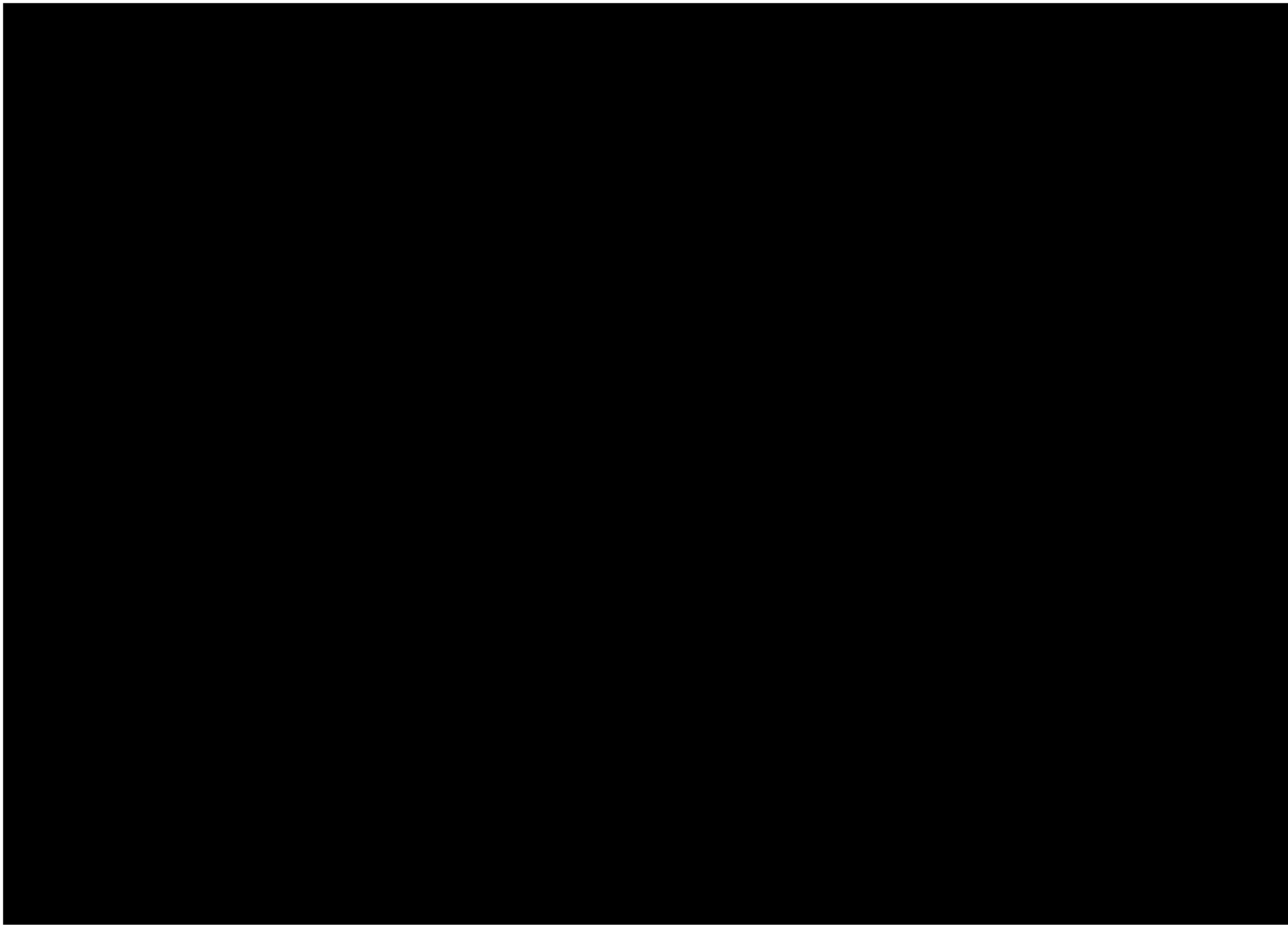
02,350,000 Feet



Scale: 1 = 813,100

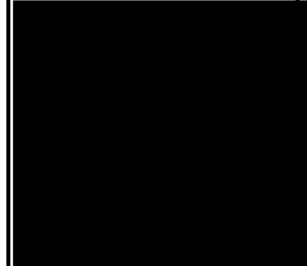


# Model Name: Coastal System\_Line 306 Only



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Solved Feasible

Model Created On:

7/24/2008

Model Printed On:

8/28/2015 11:15:31 AM

Prepared by:



Northwest Region - Chatsworth Base

02,35,000 50,000 75,000 100,000 Feet



Scale:

1 = 796,800

REQUEST FOR ENGINEERING REVIEW (RER)

FOR INTERNAL USE ONLY

ML SC9337 (Chatsworth); ML SC9521 (Compton)  
ML SC8321 (Anaheim); ML SC8031 (Redlands)

RER Valid for 6 Months From Approved Date



RER # R4-16-0006

Project Name:	<u>SL 44-1008</u>	Requested By:	<u>[REDACTED]</u>
Date Submitted:	<u>12/18/2015</u>	Phone Number:	<u>[REDACTED]</u>
Project Start Date:	<u>TBD</u>	Requesting Department:	<u>PSEP</u>
RER Needed By:	<u>1/2016</u>	WO#:	<u>82106</u>
Address/Intersection:	<u></u>	WR/NOT/SAP #:	<u></u>
City:	<u>Atascadero to Avenal</u>	Planned By:	<u>PSEP</u>
District/Cost Center:	<u>SLO/Templeton - 2200-0501</u>	Supervisor:	<u>[REDACTED]</u>
Leak Survey Area ID:	<u>Various</u>	Project Type:	<u>PSEP</u>
Pressure Dist./Iso. Area:	<u></u>	> Dreams Project #:	<u></u>
SL/TL/Gas Pressure Zone:	<u>SL 44-1008</u>	> If Other:	<u></u>
Set Pressure:	<u>Floats</u>		
MAOP:	<u>[REDACTED]</u>		

**Reason for Request:**

Revise RER R4-15-0667, can this line be de-rated under 20 % SMYS? Start by replacing approximately 160 ft. segment to set possible set pressure on the SL 44-1008 to [REDACTED] and see the replacement segments along SL 36-9-21 and SL 36-9-21-E. Do not include Line 306.

- Replace the SL 36-9-21-E the [REDACTED]
- Replace the amount of pipe necessary to maintain adequate pressures on SL 36-9-21 and SL 36-9-21-E [REDACTED]
- What is impact with current and reduced pressure in Line 85?
- What volumes of gas are needed from PG&E to make analysis work?
- Is PG&E supply considered a best efforts supply or a guaranteed supply?

Steel Seasoning (if applicable)			
Diameter (IN.)	Length (FT.)	Min Flow (MSCFH)	Set Pressure (PSIG)

The following response is based on a Synergi analysis conducted by Region Engineering. When deciding what course of action to take, Region Leadership approval is required.

**Response to Request:**

After analyzing the Synergi model for the Coastal System, Northwest Region Engineering has determined that SL 44-1008 **cannot** be de-rated below 20% SMYS while still providing sufficient supply for the existing system. This infeasibility is due to the terminal zone in the northern coastal system which is located at SL 36-9-21-E. This supply line is mainly composed of [REDACTED] which is restricting the flow of gas from reaching the most terminal point.

Without the supplemental feed from PG&E during extreme peak winter conditions, SL 36-9-21-E becomes a terminal zone which risks the potential of losing supply to Core customers in this area for existing conditions, which include the cities of Paso Robles and San Miguel. As a result, it is currently infeasible to de-rate SL 44-1008 below 20% under existing system conditions.

Analysis By: [REDACTED]  
 Reviewed By: [REDACTED]  
 Region Office: Northwest Chatsworth

Approved By: [REDACTED]  
 Approved Date: 03/04/16

REQUEST FOR ENGINEERING REVIEW (RER)

RER # R4-16-0006

FOR INTERNAL USE ONLY  
 ML SC9337 (Chatsworth); ML SC9521 (Compton)  
 ML SC8321 (Anaheim); ML SC8031 (Redlands)  
 RER Valid for 6 Months From Approved Date



By replacing SL 36-9-21-E with [redacted] pipe, it becomes feasible to operate SL 44-1008 at 305 psig [redacted] but impractical. Assuming SL 36-9-21-E is upsized to [redacted] pipe, it is still limited by the reduced operating pressure received from SL 44-1008, which is its nearest source of supply. Additionally, when pipeline sections of SL 36-9-21, which are not currently [redacted] are upsized to [redacted] pipe, the pressures present in SL 36-9-21-E are still relatively low.

Table 1: Pressures at Terminus of SL 36-9-21-E for Different SL 44-1008 Settings (No PG&E)

44-1008 Set Pressure (psig)	No System Betterment (psig)		System Betterment (psig)	
	NW	Peak Winter	NW	Peak Winter
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

As a result, although these system betterments make it feasible to operate SL 44-1008 below 20% SMYS, it prevents, if not eliminates, the potential for system growth in the areas surrounding SL 36-9-21-E and the northern most portions of SL 36-9-21 without a PG&E source. This would lead to a system dependence on PG&E for future growth. Furthermore, L85 is the primary source of supply to SL 44-1008. A reduction in MAOP on L85 below 20% SMYS would eliminate this as a viable source and jeopardize system integrity in the northern coastal system, as well as the Bakersfield and Visalia operating districts.

There are two PG&E inter-ties in the Coastal System: Morro Bay (ID 431B) and Edelman Ranch (ID 424N). The purpose of the Morro Bay inter-tie is to serve as a supplemental source to the Coastal System in the event of an emergency as a contingency source or under extreme peak load conditions. The inlet source to the Morro Bay limiting station is a manual valve which must be opened by a PG&E representative through company liaison coordination. The purpose of the Edelman Ranch inter-tie is to serve as under pressure protection. This limiting station has automatic controllers which activate and supply gas when the pressure in the system drops below a specified set pressure. Neither of these two inter-ties is intended for continuous supply into the northern coastal system; as a result, the supply from these two sources is not guaranteed under current agreements with PG&E.

The following tables represent the minimum pressure and flow required from PG&E to support SL 36-9-21 and 36-9-21-E when SL 44-1008 is operating under 20% SMYS, with the replacement section identified on SL 44-1008 in R4-15-0667:

Table 2: PG&E Source Requirements with Morro Bay Off

PG&E Tap	ID No.	Set Pressure (psig)	No System Betterment (mscfh)		System Betterment (mscfh)	
			NW	Peak Winter	NW	Peak Winter
Edelman Ranch	424N	[redacted]	507.97	682.25	507.99	682.19
Morro Bay	431B	[redacted]	0	0	0	0

Table 3: PG&E Source Requirements with All PG&E Inter-ties Online

PG&E Tap	ID No.	Set Pressure (psig)	No System Betterment (mscfh)		System Betterment (mscfh)	
			NW	Peak Winter	NW	Peak Winter
Edelman Ranch	424N	[redacted]	487.86	616.02	487.86	616.02
Morro Bay	431B	[redacted]	177.59	484.03	177.59	484.07

Analysis By: [redacted]  
 Reviewed By: [redacted]  
 Region Office: Northwest Chatsworth

Approved By: [redacted]  
 Approved Date: 03/04/16

REQUEST FOR ENGINEERING REVIEW (RER)

FOR INTERNAL USE ONLY

ML SC9337 (Chatsworth); ML SC9521 (Compton)

ML SC8321 (Anaheim); ML SC8031 (Redlands)

RER Valid for 6 Months From Approved Date



RER # R4-16-0006

Table 4: PG&E Source Requirements with All PG&E Inter-ties Online and Divide Station Offline\*

PG&E Tap	ID No.	Set Pressure (psig)	No System Betterment (mscfh)		System Betterment (mscfh)	
			NW	Peak Winter	NW	Peak Winter
Edelman Ranch	424N	[REDACTED]	797.29	968.24	797.26	968.24
Morro Bay	431B	[REDACTED]	2419.72	2829.29	2419.72	2829.29

\*Note: Although it is feasible to support the system with PG&E supplying the above flow and Divide Station offline, Interruptible customers may need to be curtailed during these conditions to ensure acceptable supply to all Core customers.

Important Notes & Reminders:

Analysis was conducted for Normal Winter and Peak Winter conditions.

Analysis assumes that Transmission L1010 ([REDACTED] Winter MinOp) will be able to provide a minimum pressure of [REDACTED] at the inlet to Divide Station (ID 393T).

Project Location (Map):

(See Attached)

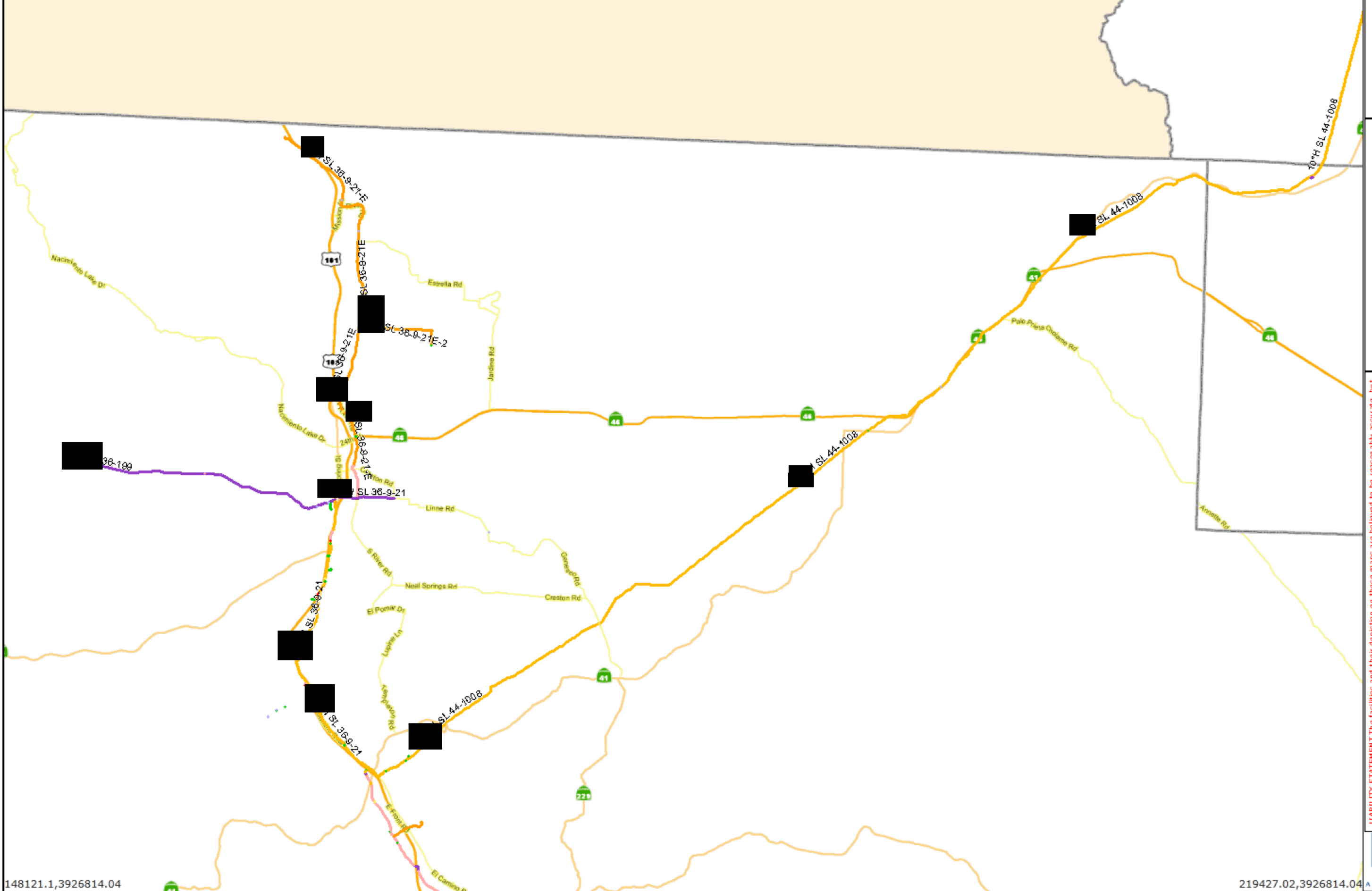
Analysis By: [REDACTED]  
 Reviewed By: [REDACTED]  
 Region Office: Northwest Chatsworth

Approved By: [REDACTED]  
 Approved Date: 03/04/16

148121.1,3974384.36

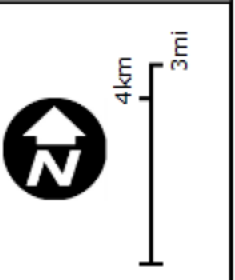
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148121.1,3926814.04

219427.02,3926814.04

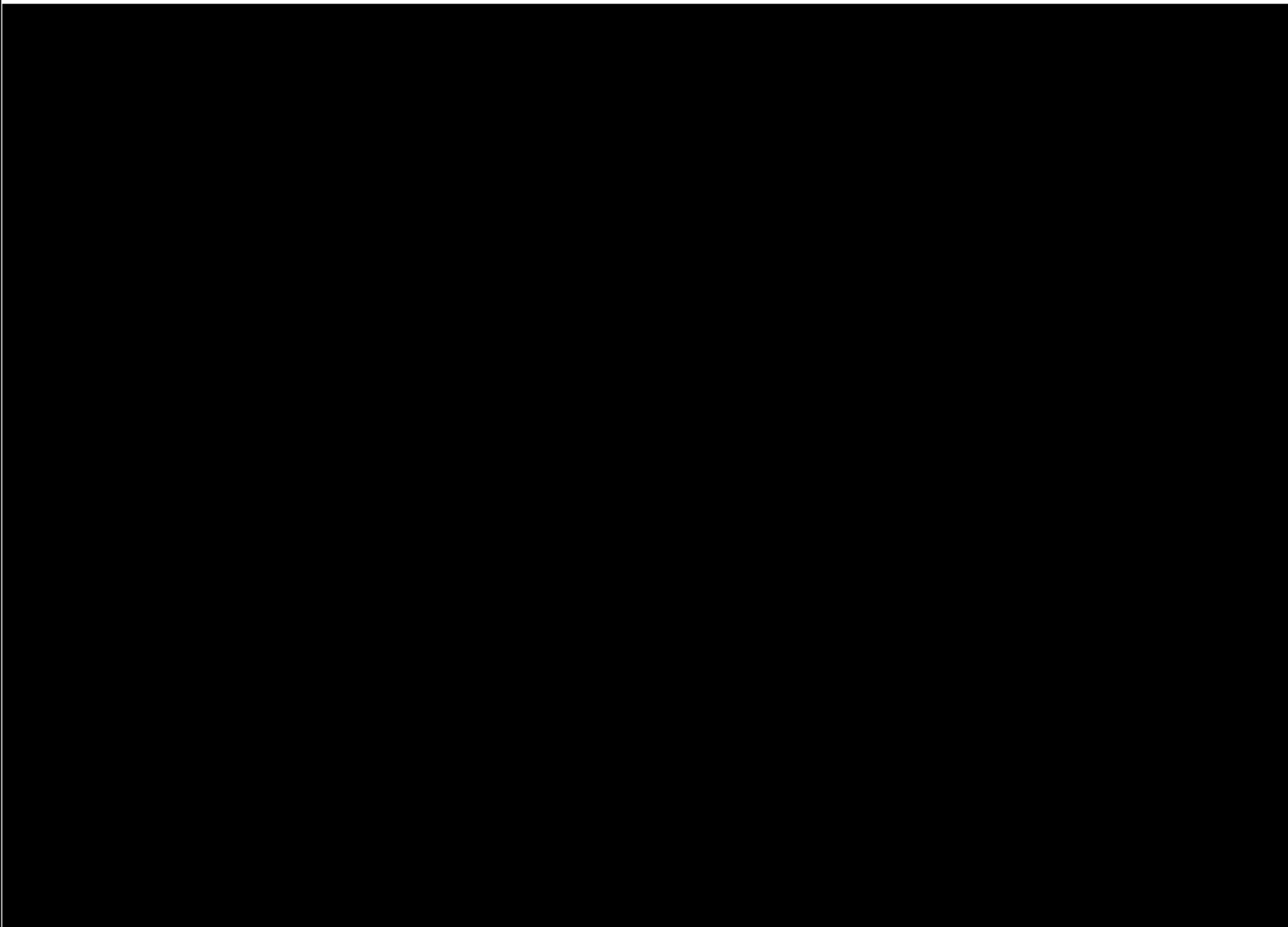


Map Title: 44-1008 & 36-9-21  
 Printed By: [Redacted]  
 Printed Date: 3/3/2016

**LIABILITY STATEMENT** The facilities and their depiction on these maps are believed to be reasonably accurate, but the maps are not to be used in lieu of field verification or calling USA at 800-422-4133. NO WARRANTY expressed or implied (including of merchantability or of fitness for a particular purpose) is made as to any matter, including but not limited to, the design, size, type or location of the facilities, their presence or absence, the accuracy of the maps, the means used to transmit the data, absence of viruses (if transmitted electronically, by disk or cassette), data translation or transmission errors or omissions, compatibility with the user's system or its ability to interpret the data correctly or at all, or any other matter. The Gas Company has no liability for damages (direct, indirect, consequential, incidental or punitive) arising from the transmission, receipt or use by others of the maps or information contained in the maps. \*Certain technology used under license from AT&T Intellectual Property I, L.P. Copyright © 1998 - 2007 AT&T Intellectual Property I, L.P. All rights Reserved. \*



# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016




Legend  
Facilities Color By

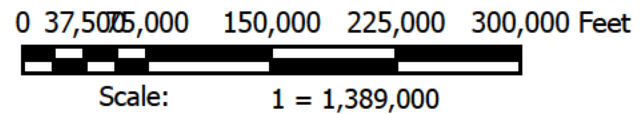
Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:25:00 PM

Prepared by:   
Northwest Region - Chatsworth Base



# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016

## Legend

Facilities Color By  
Pipe Internal Diameter (in)

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:28:17 PM

Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



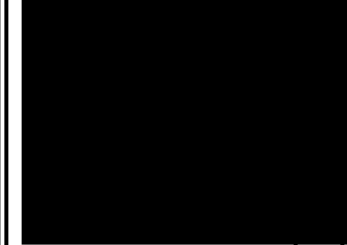
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# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:39:55 PM

Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



Scale: 1 = 1,389,000

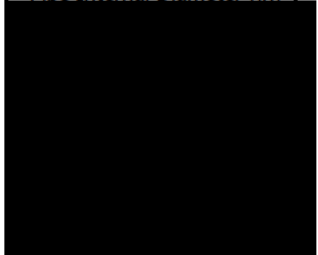


# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
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Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet

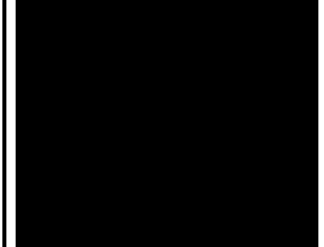


Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016

## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:48:11 PM

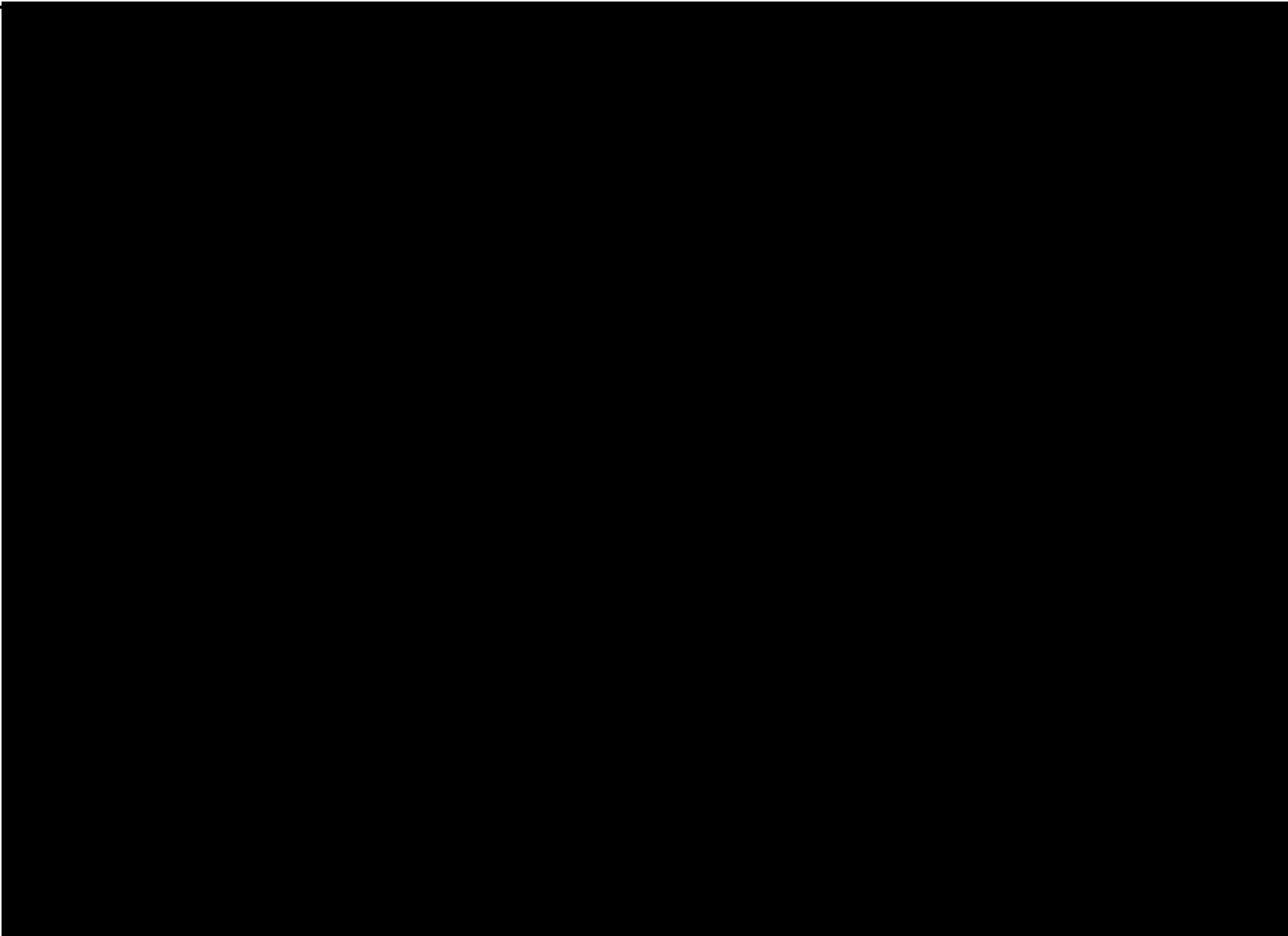
Prepared by:   
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



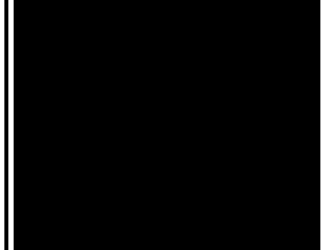
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:52:18 PM

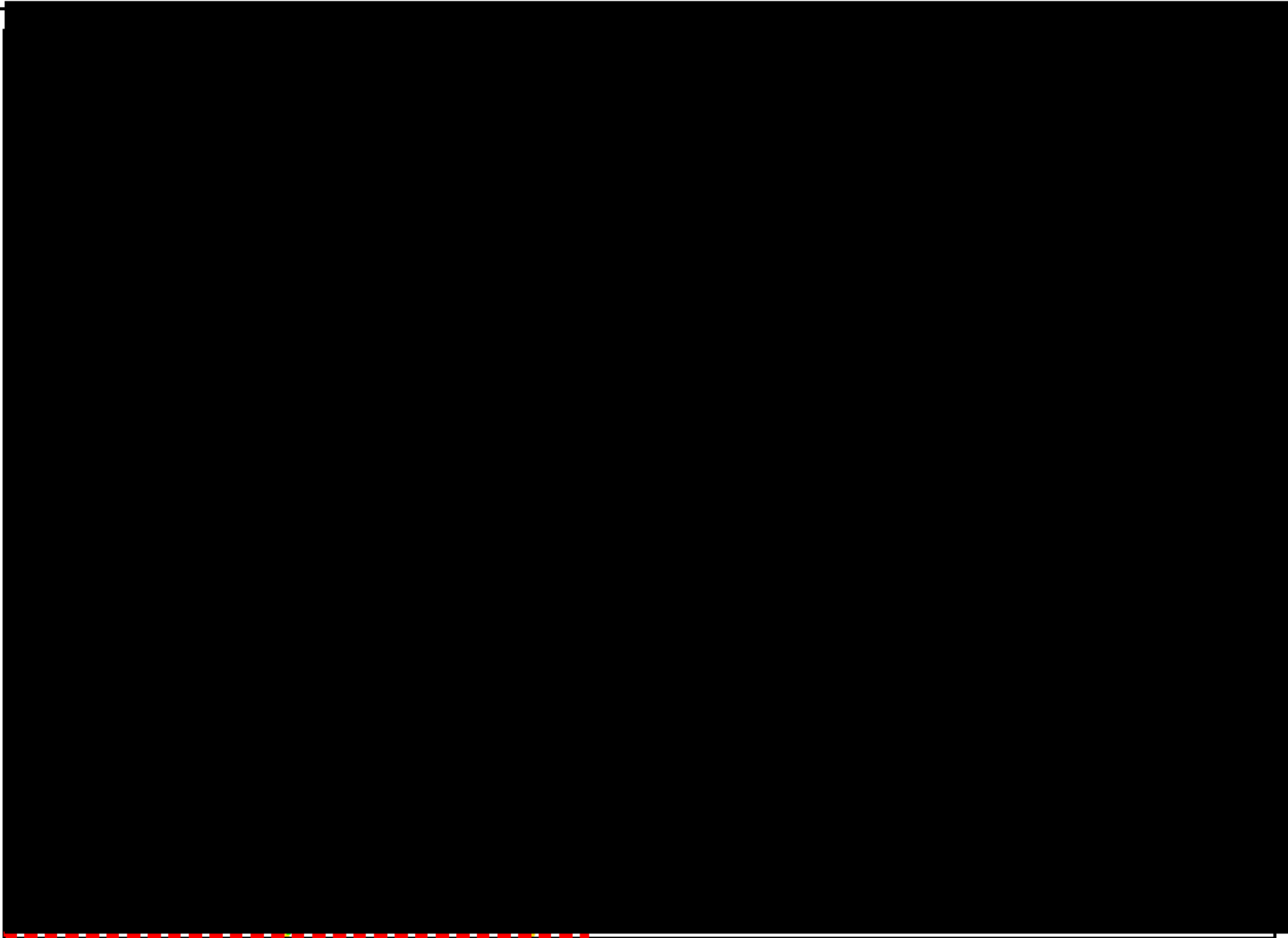
Prepared by:   
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 9:01:17 PM

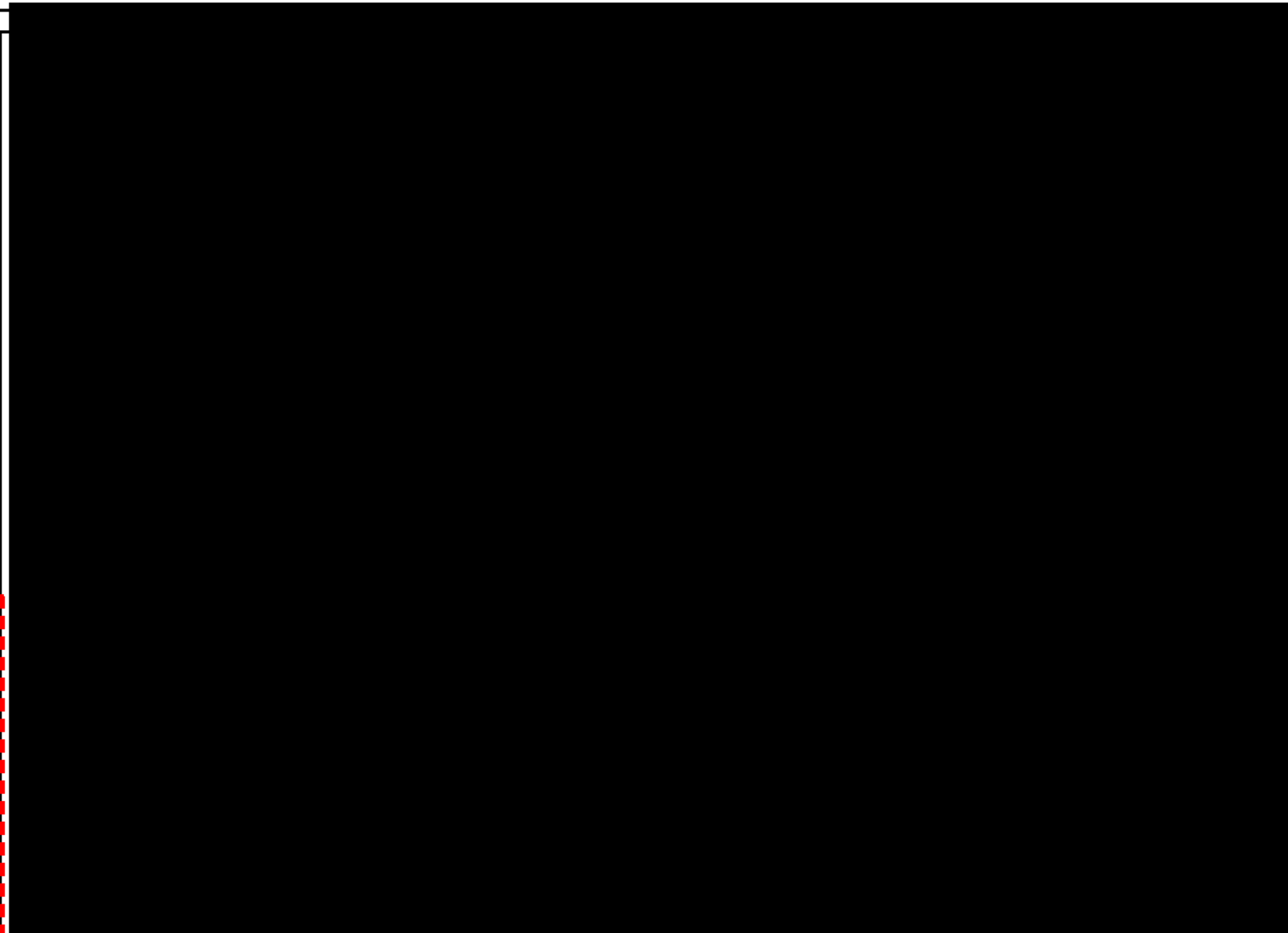
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



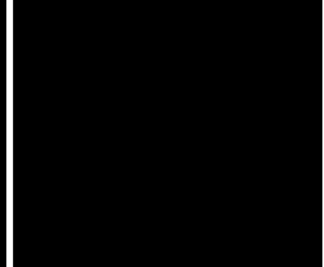
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:59:16 PM

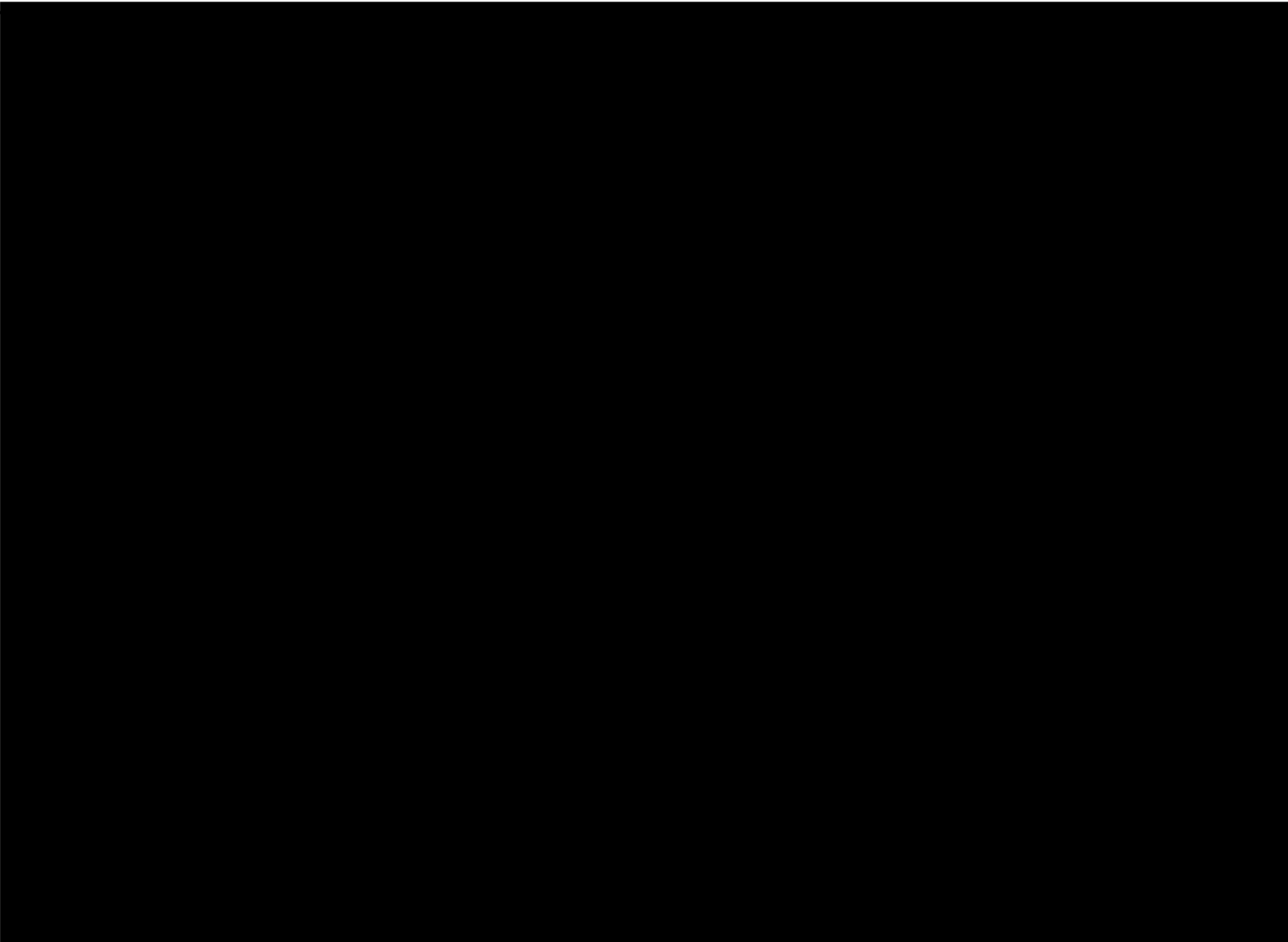
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



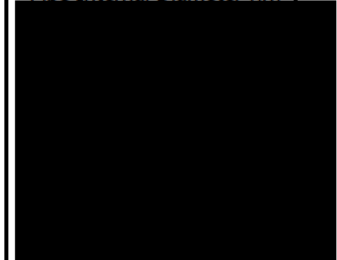
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 8:55:30 PM

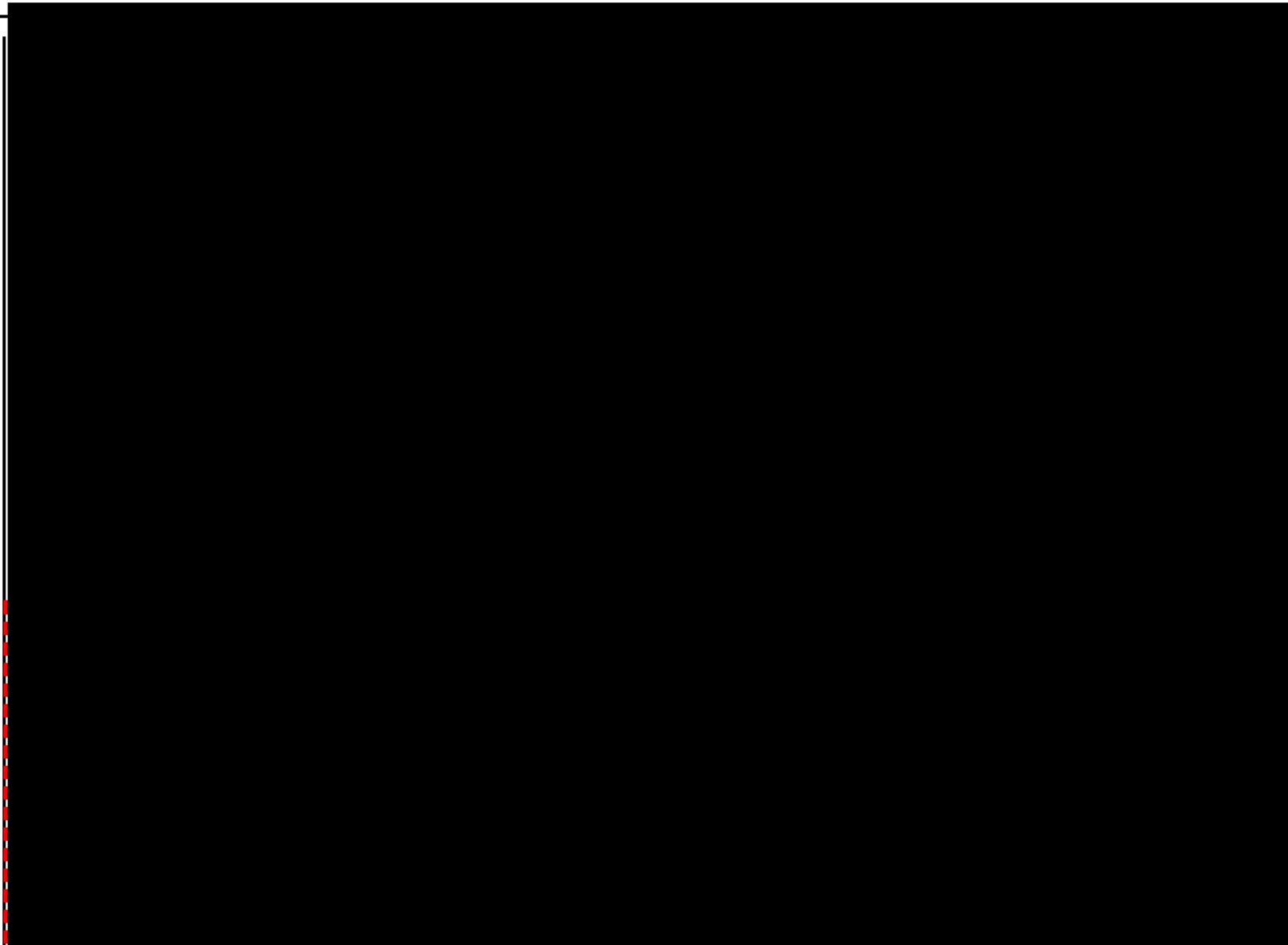
Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

0 38,000 76,000 152,000 228,000 304,000 Feet



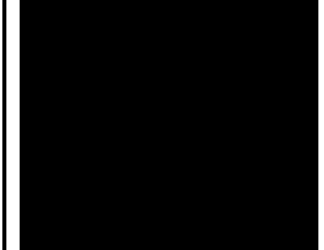
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# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
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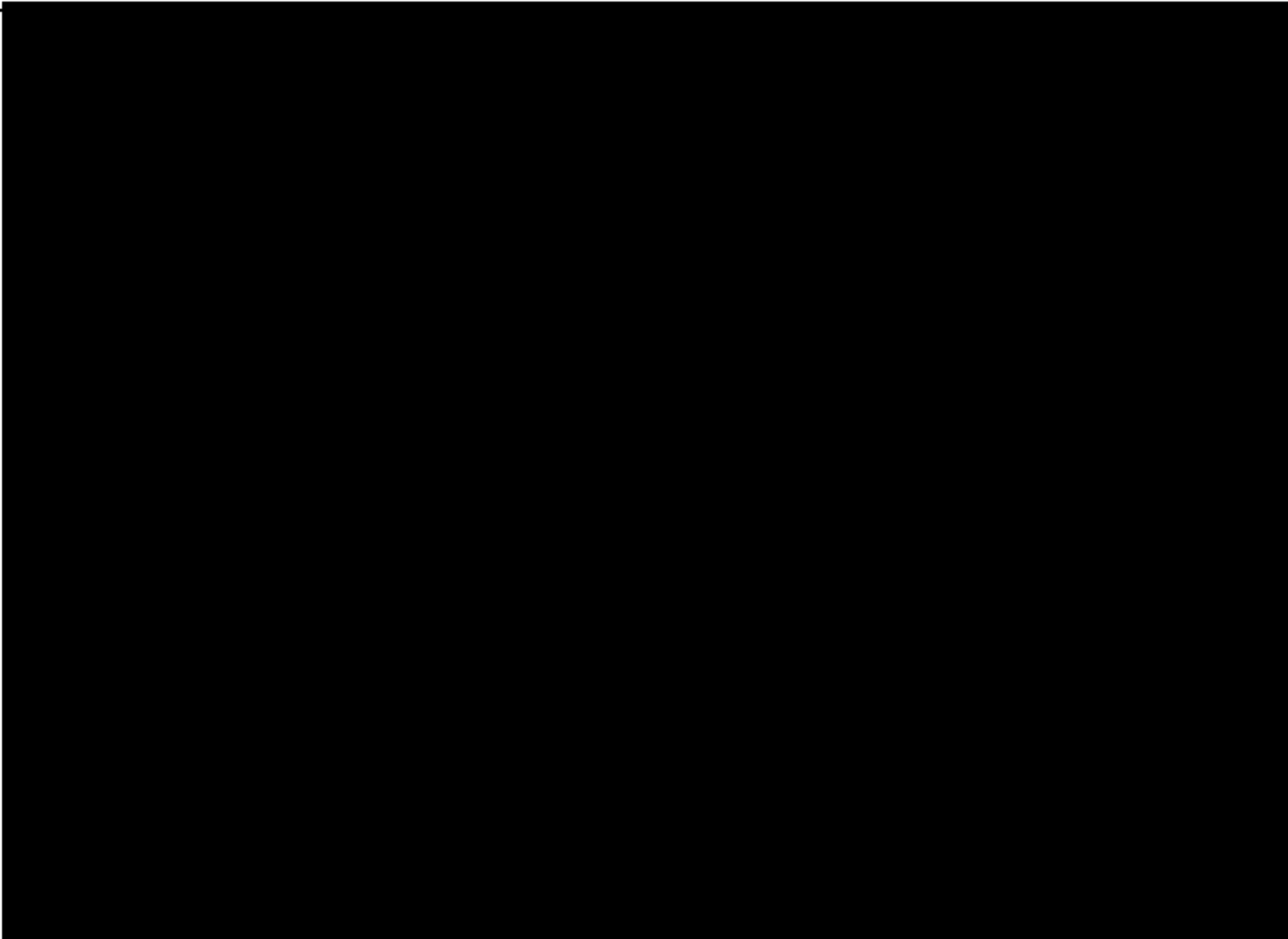
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



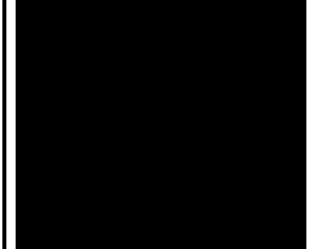
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

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7/24/2008

Model Printed On:  
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Prepared by:   
Northwest Region - Chatsworth Base

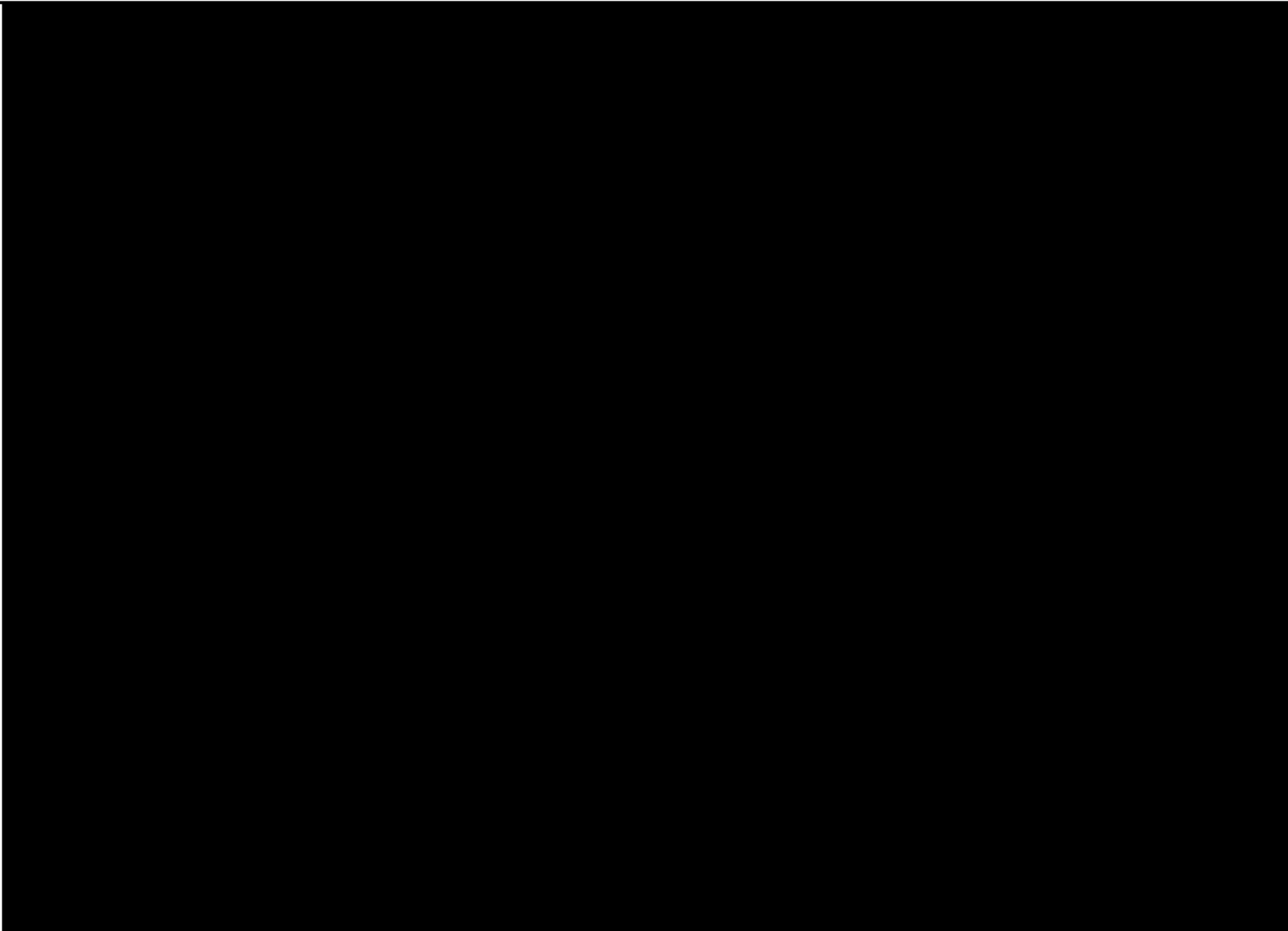
0 37,500 75,000 150,000 225,000 300,000 Feet



Scale: 1 = 1,389,000

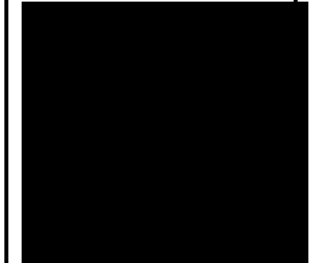


# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By



Nodes Color By

## Simulation Data:

State:

Solved Feasible

Model Created On:

7/24/2008

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PM

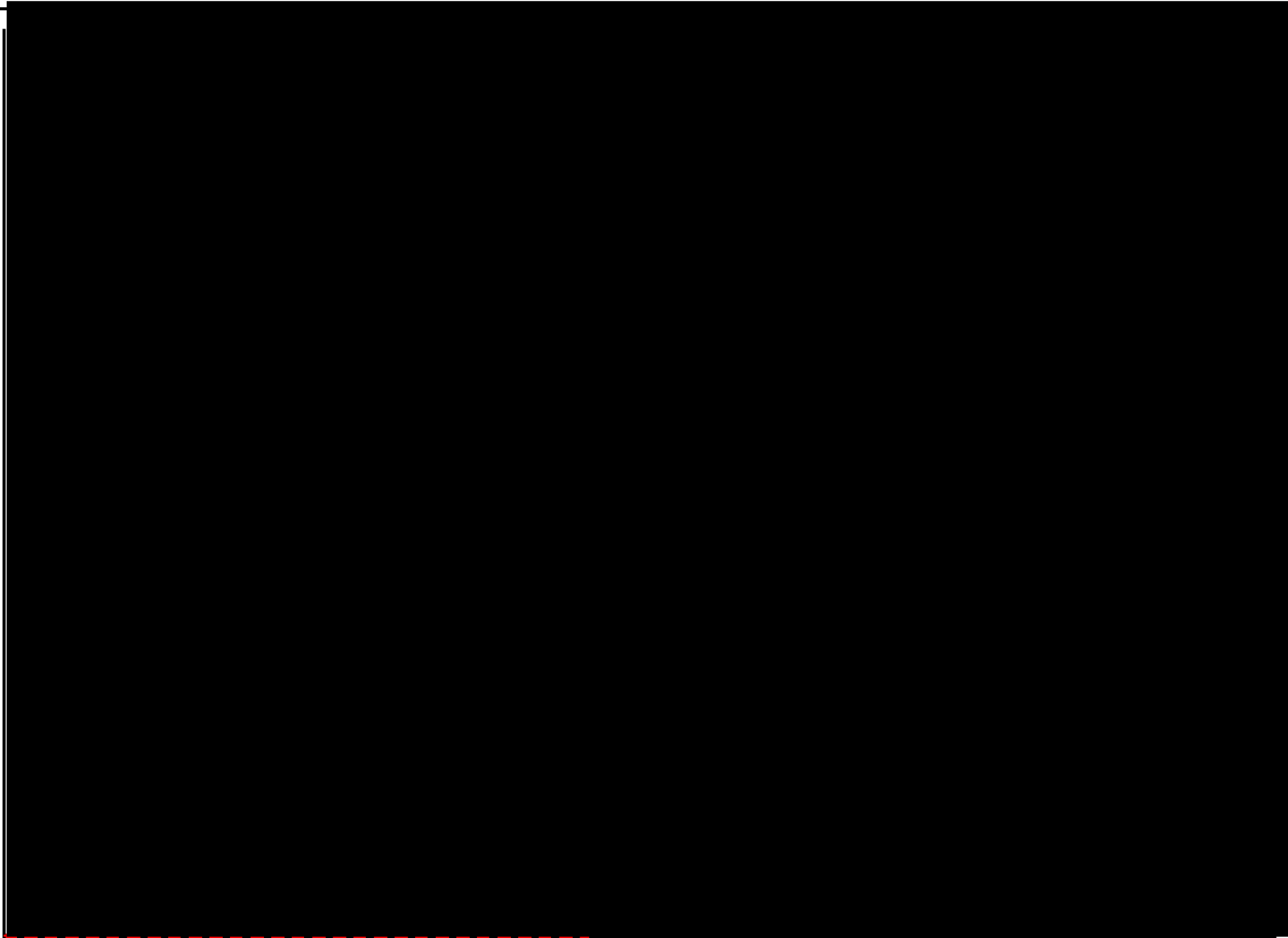
Prepared by:   
Northwest Region - Chatsworth Base

0 38,000 76,000 152,000 228,000 304,000 Feet



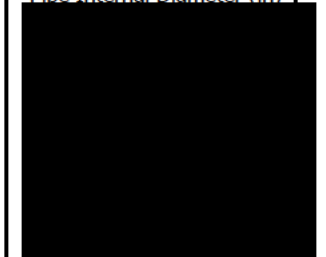
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

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Model Printed On:  
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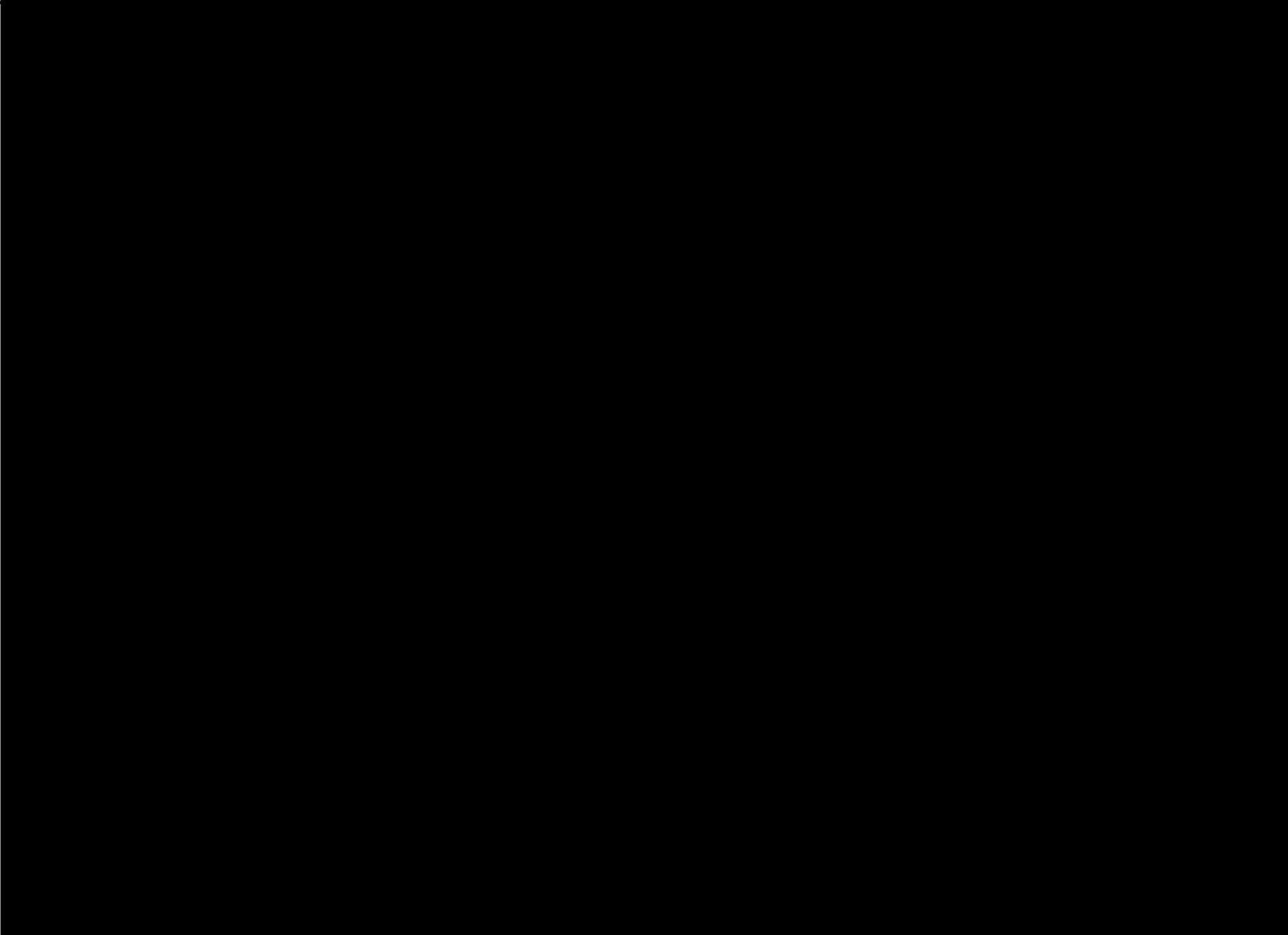
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



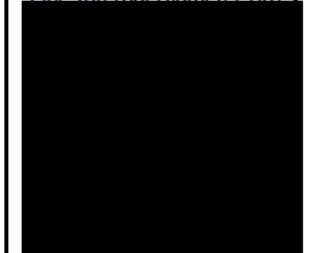
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 3:23:19 PM

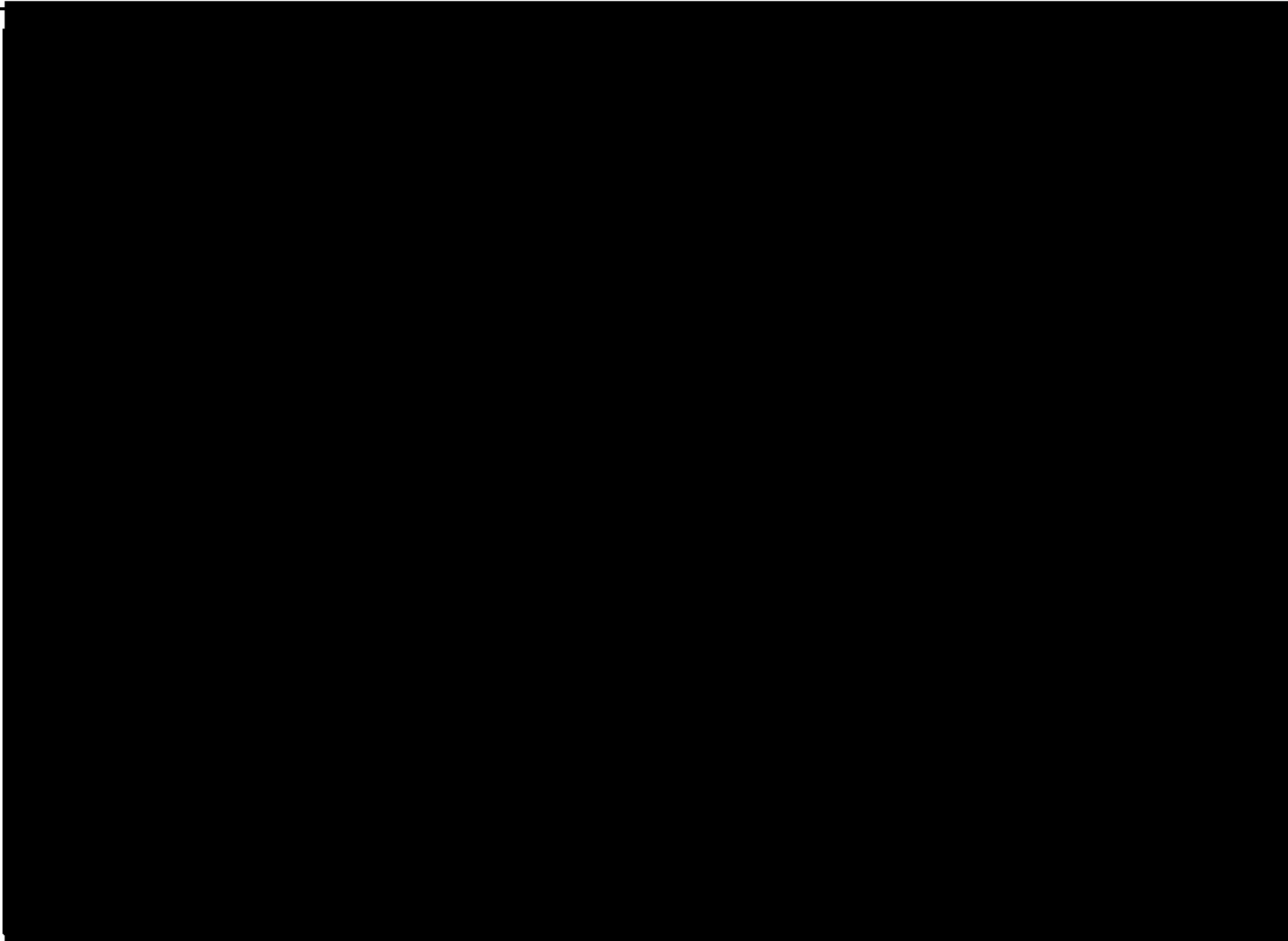
Prepared [Redacted]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



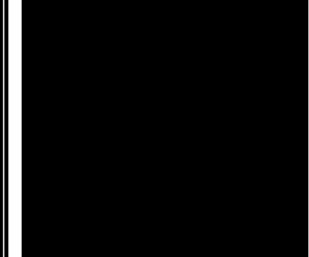
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
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Model Printed On:  
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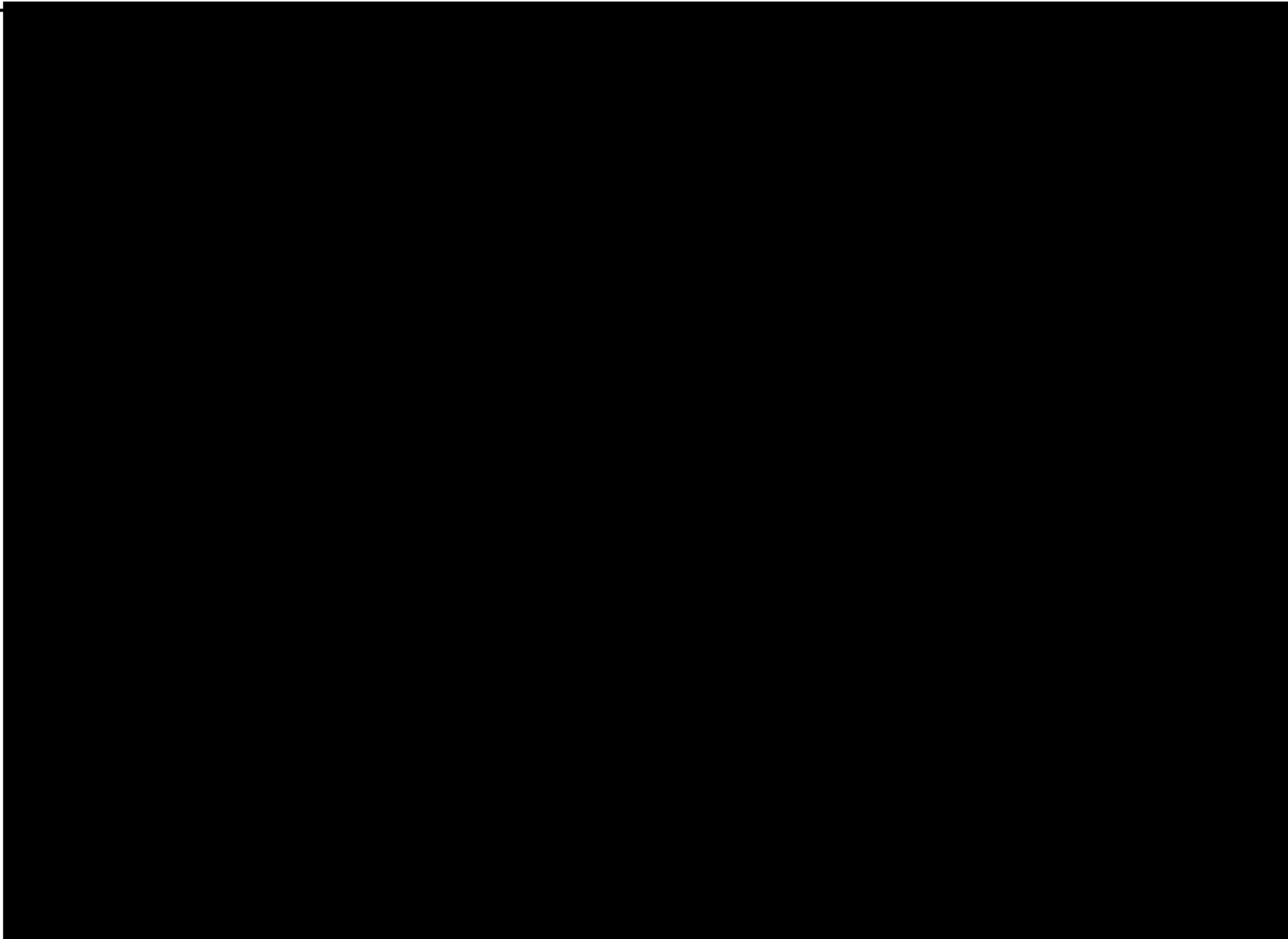
Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



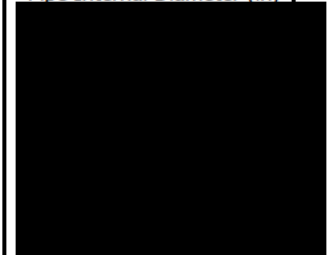
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
3/3/2016 3:28:11 PM

Prepared by:   
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:

**Unsolved Infeasible**

Model Created On:  
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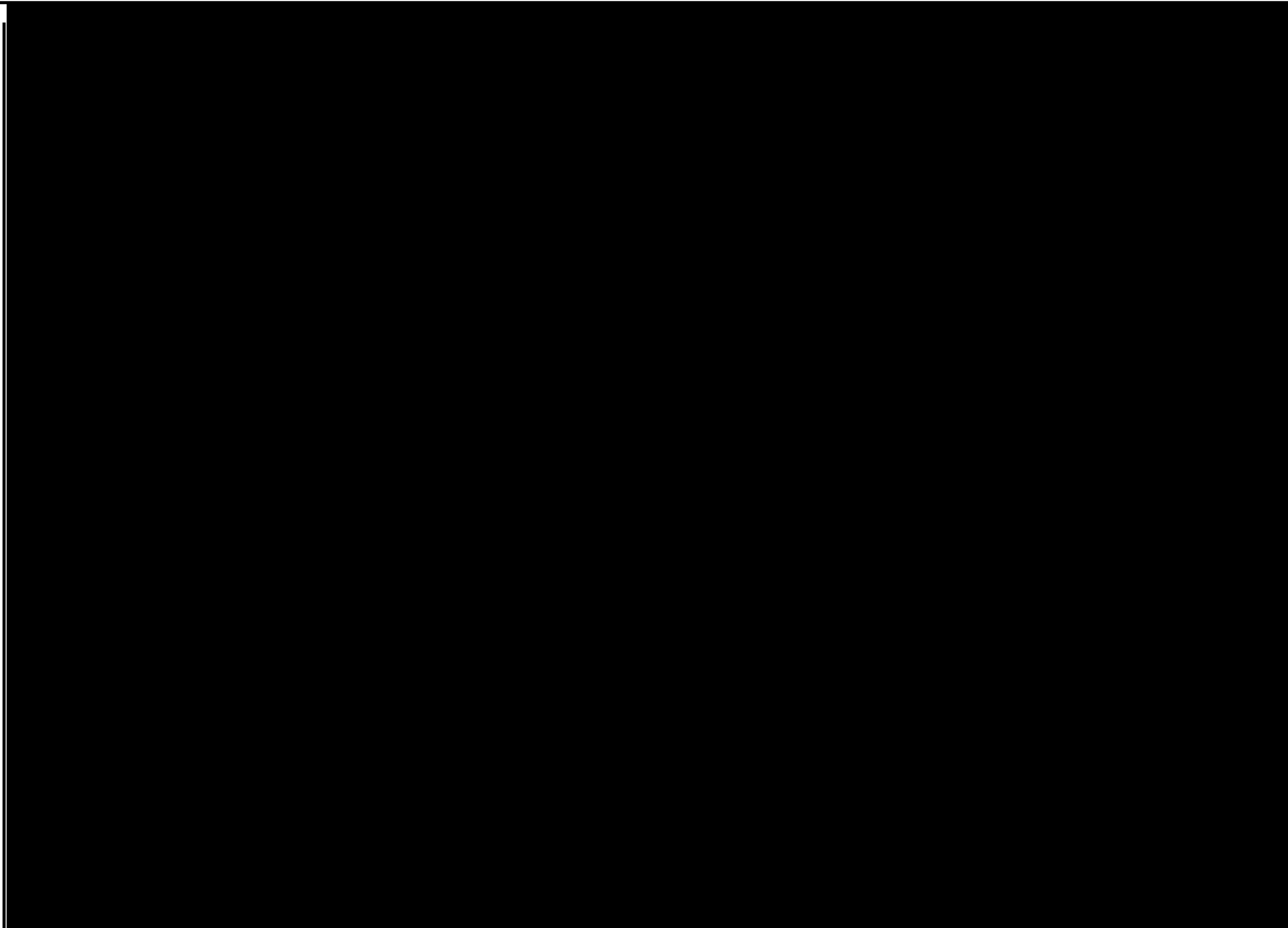
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 38,000 76,000 152,000 228,000 304,000 Feet



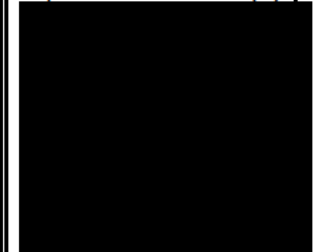
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
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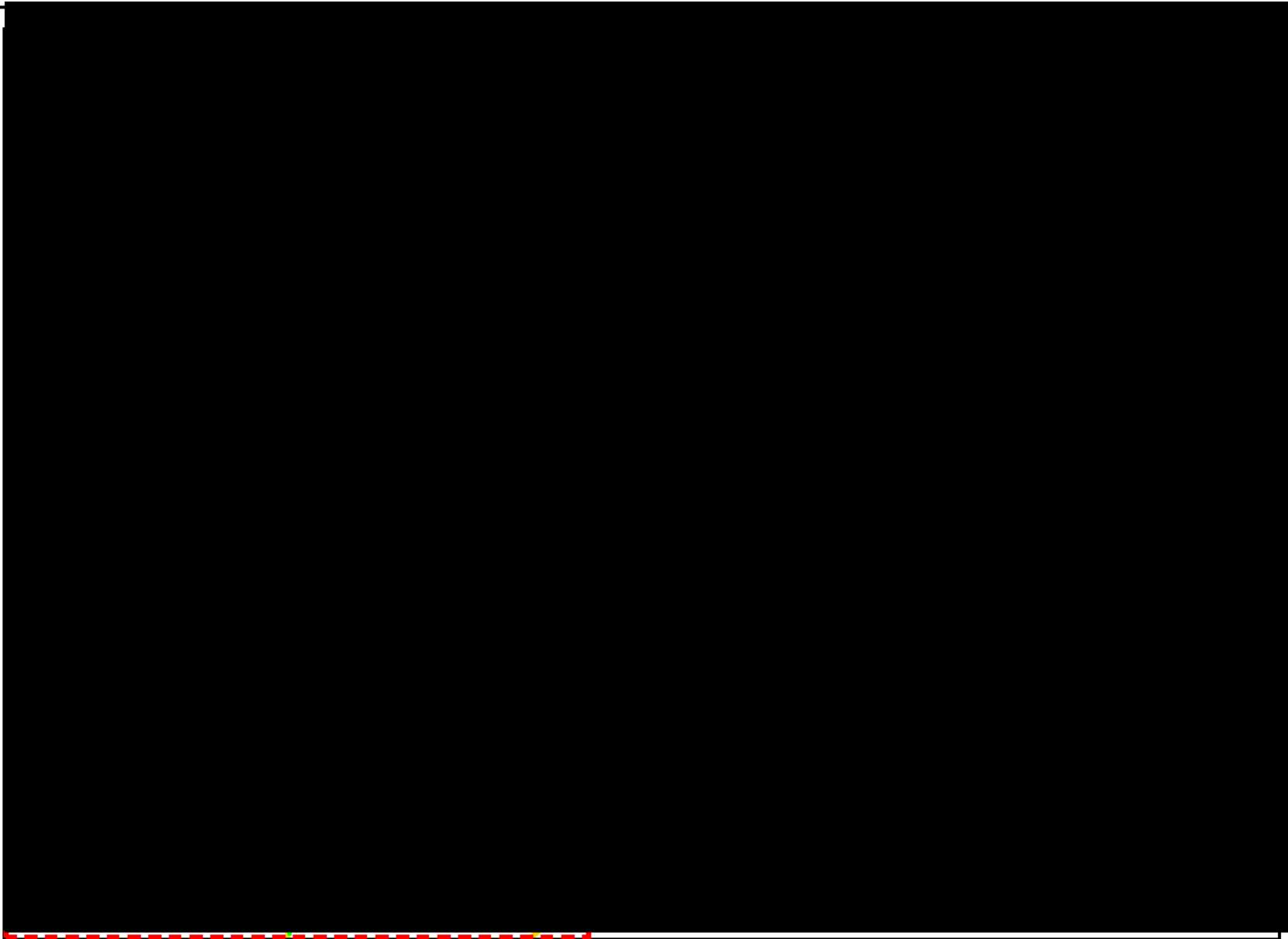
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 38,000 76,000 152,000 228,000 304,000 Feet



Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

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Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

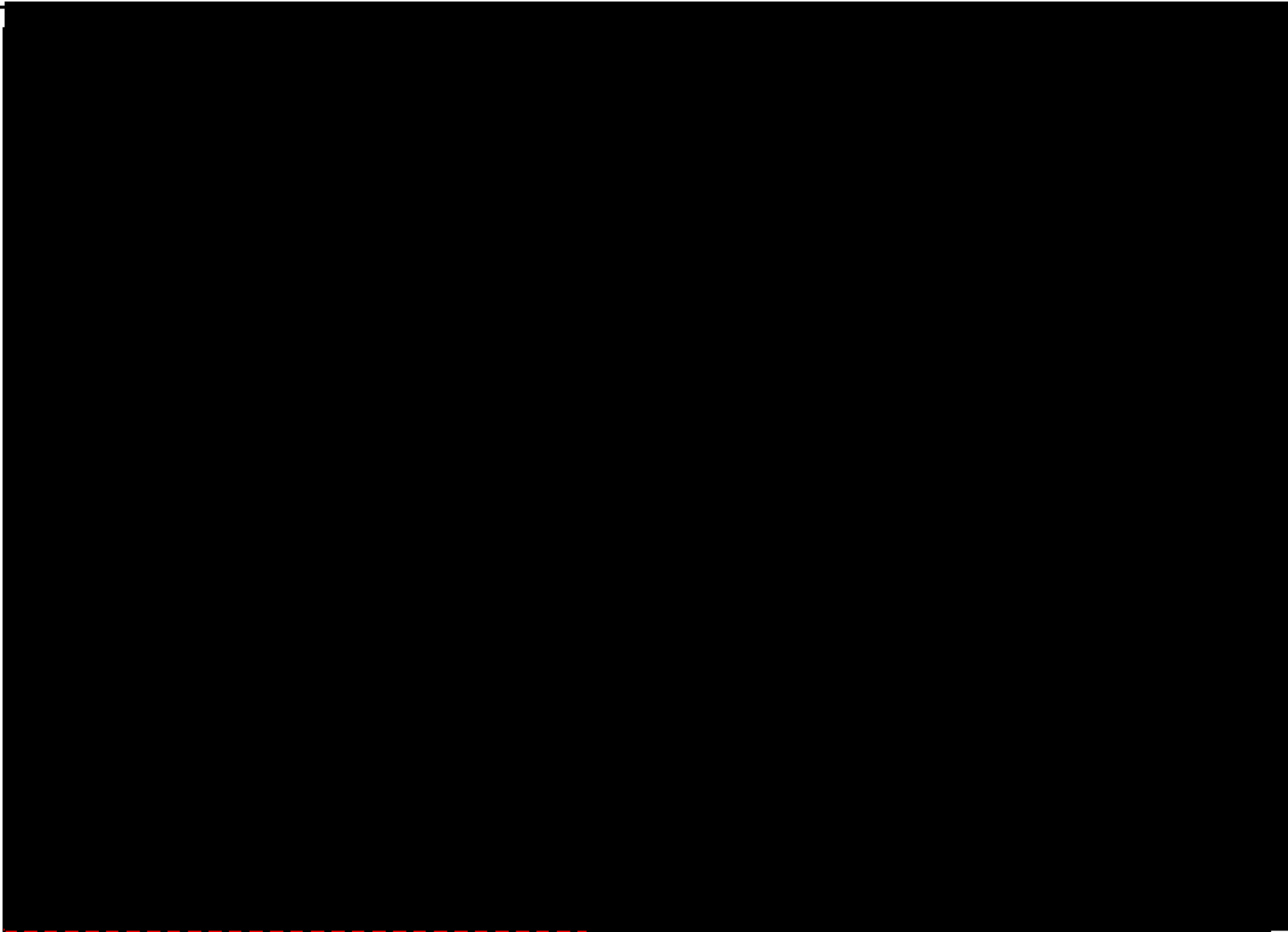
0 37,500 75,000 150,000 225,000 300,000 Feet



Scale: 1 = 1,389,000

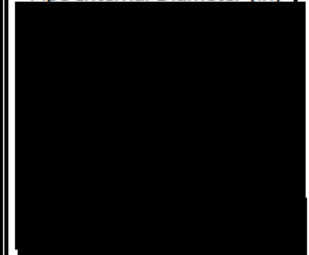


# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

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3/3/2016 3:51:10 PM

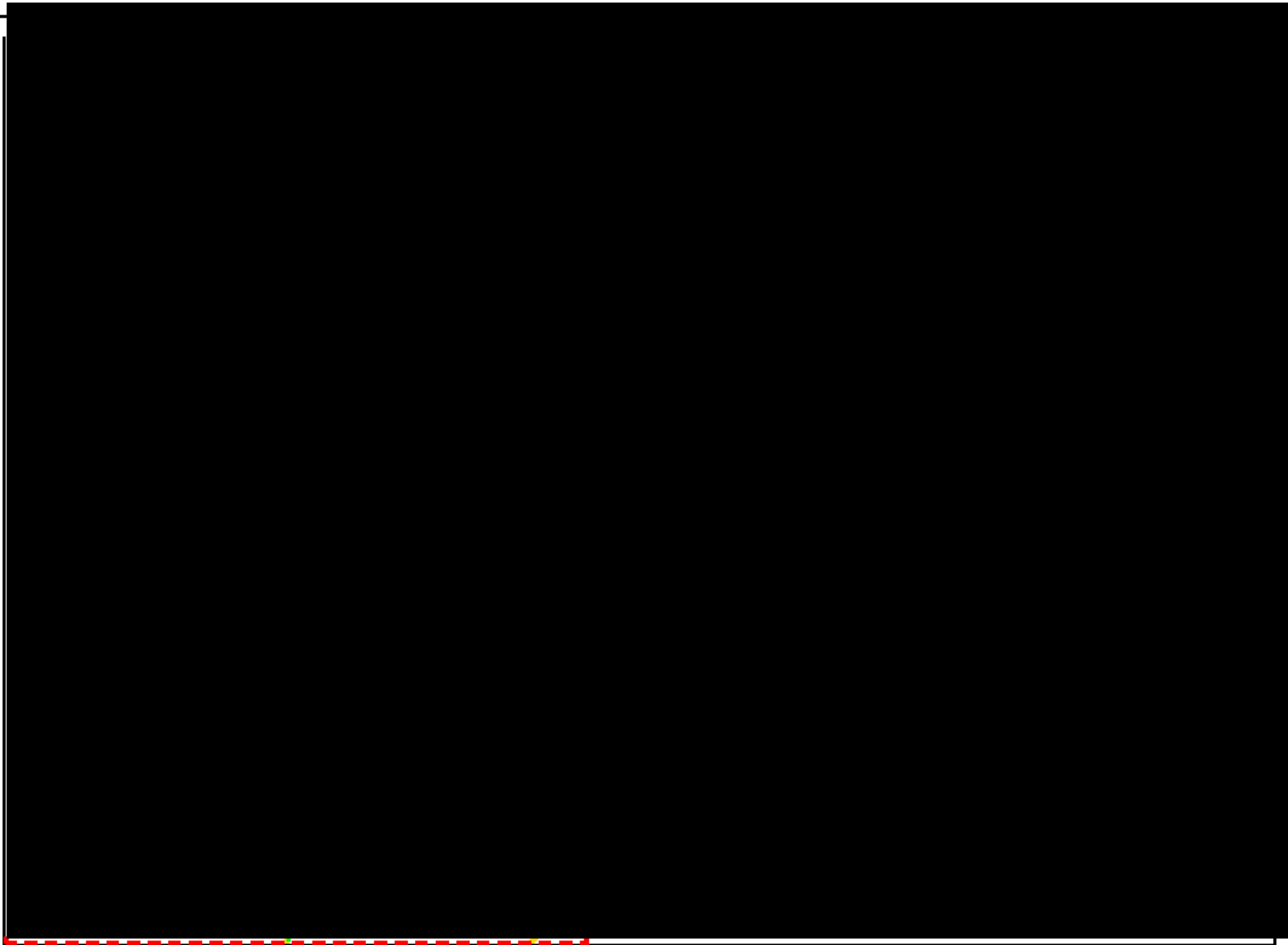
Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet

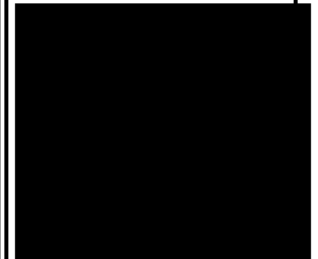


Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



Legend  
Facilities Color By



Nodes Color By

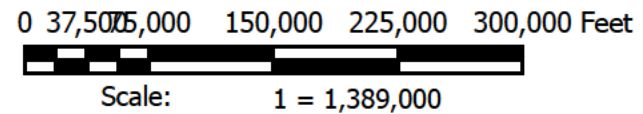
Simulation Data:

State:  
Solved Feasible

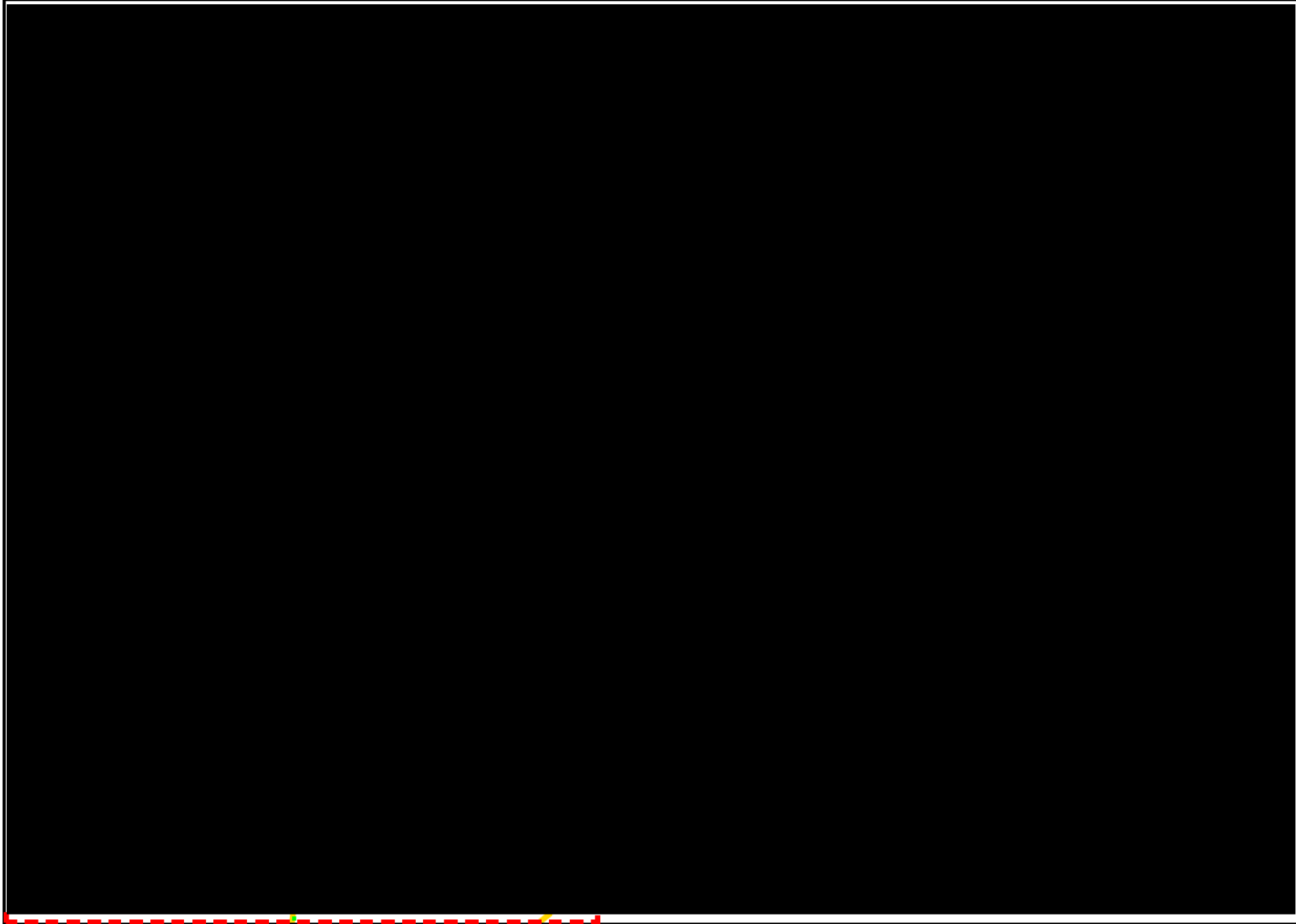
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Model Printed On:  
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Prepared by: [Redacted]  
Northwest Region - Chatsworth Base

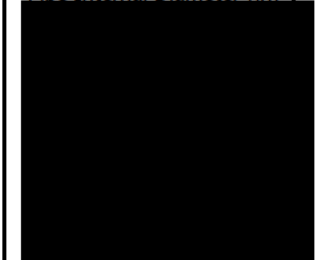


# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

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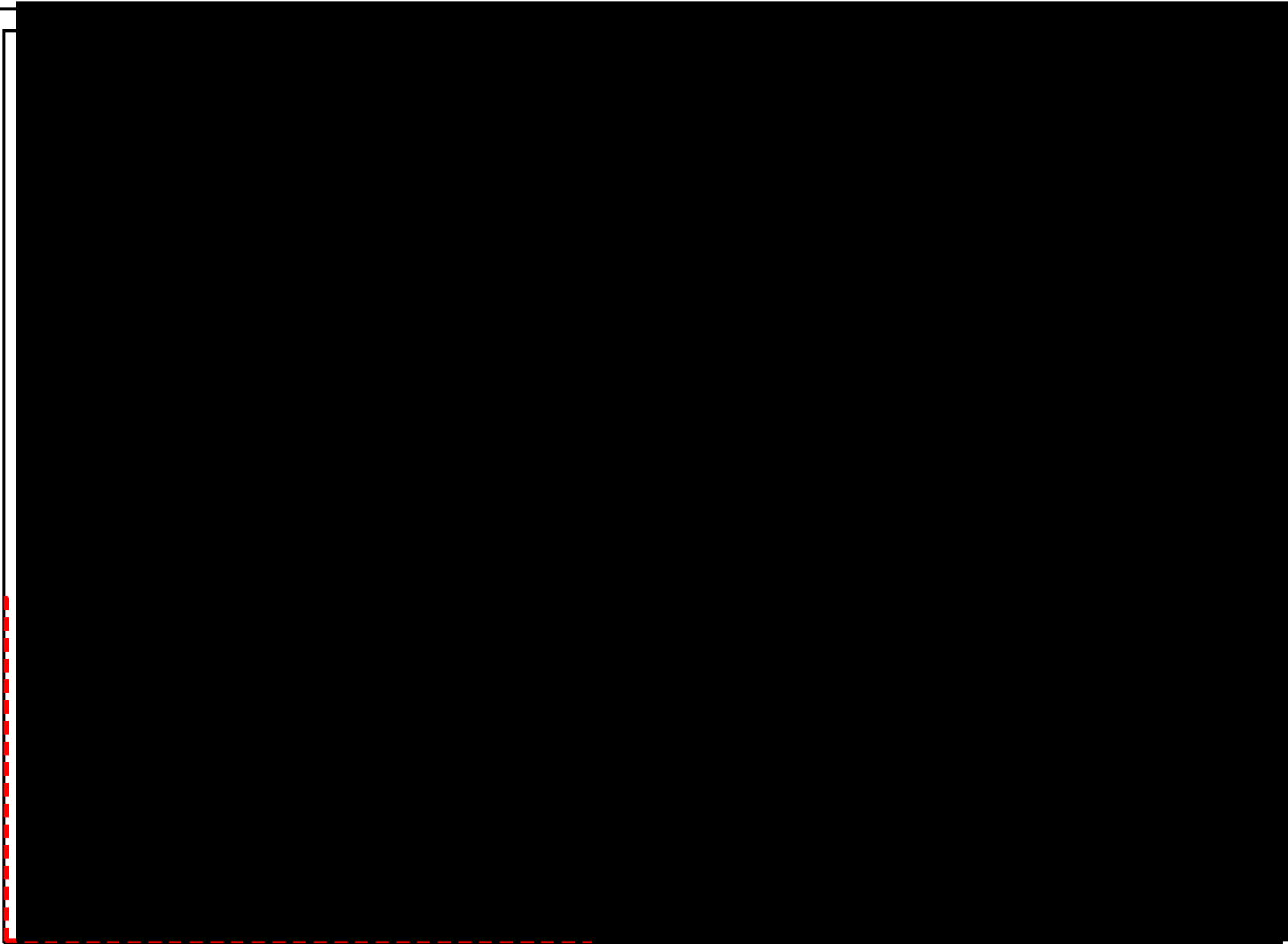
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



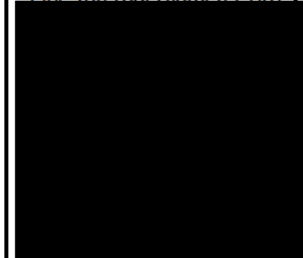
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

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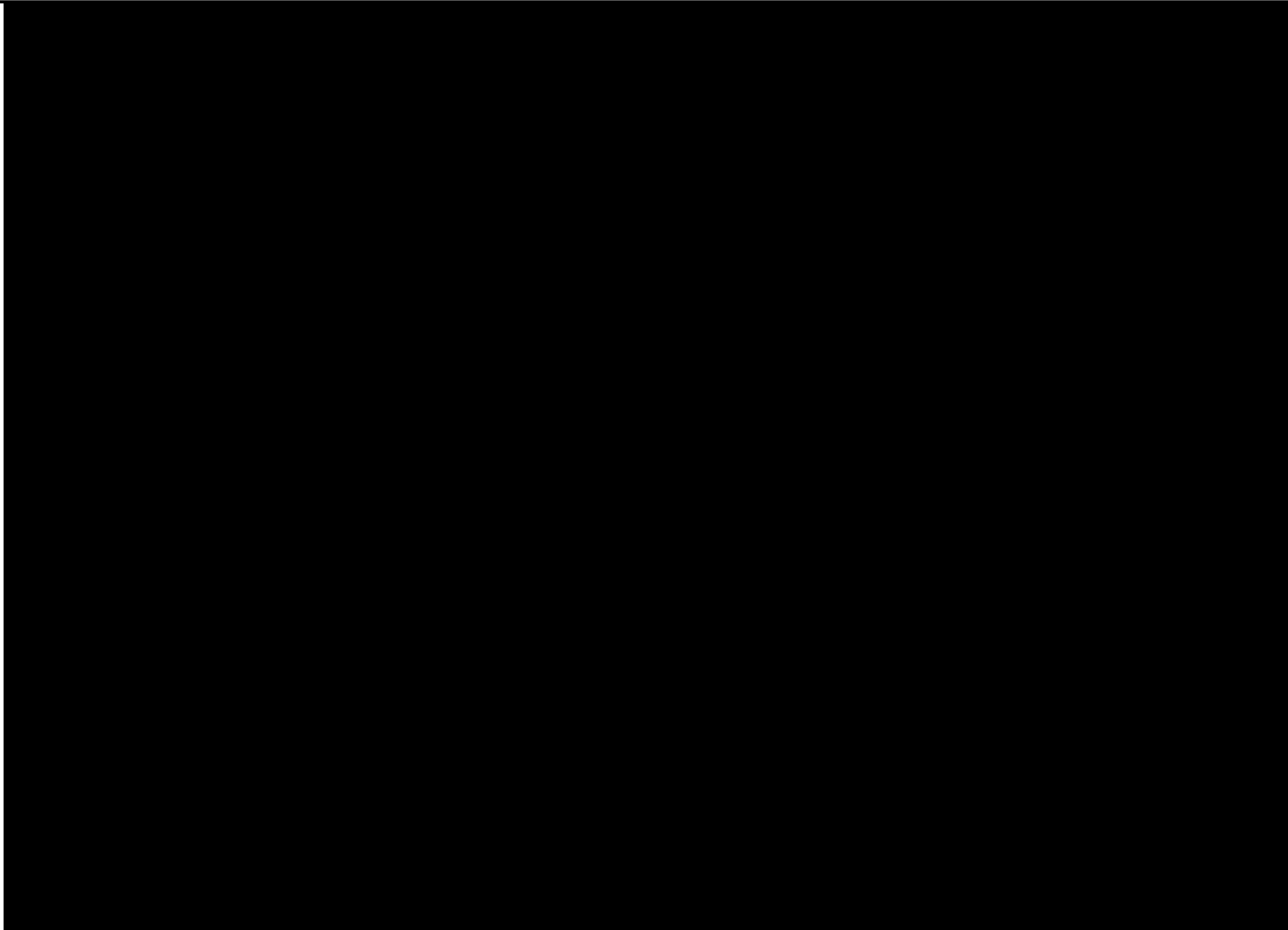
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



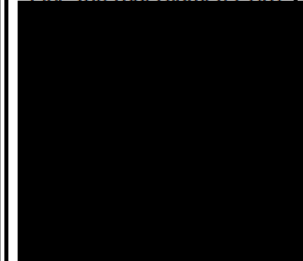
Scale: 1 = 1,389,000

# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



Nodes Color By

## Simulation Data:

State:  
Solved Feasible

Model Created On:  
7/24/2008

Model Printed On:  
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Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet

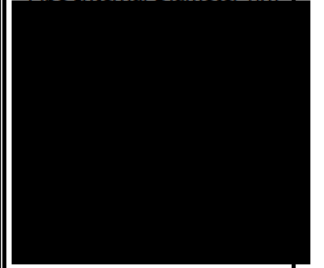


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# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016

## Legend

Facilities Color By  
Pipe Internal Diameter (in)



## Simulation Data:

State:  
Solved Feasible

Model Created On:  
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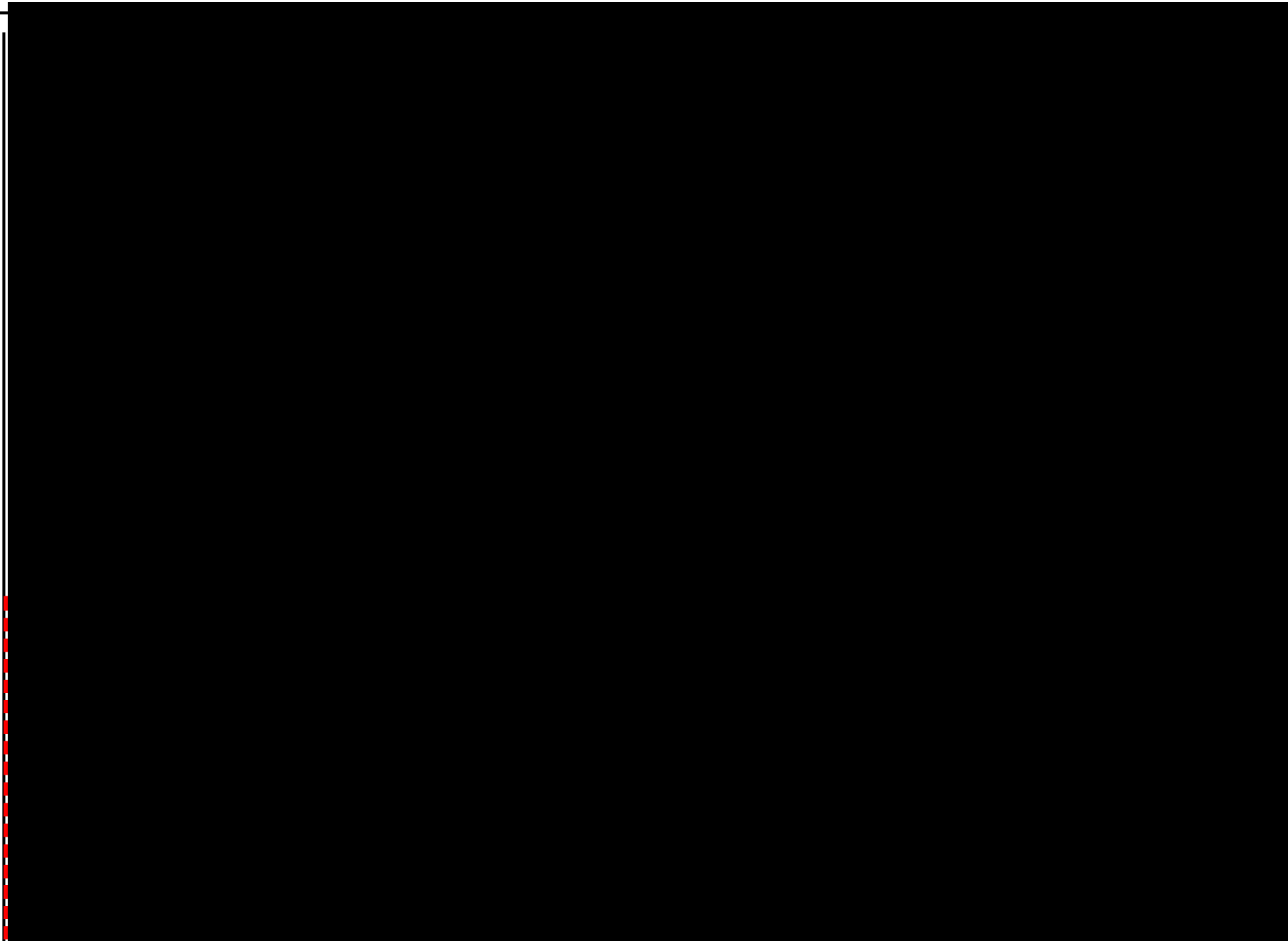
Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



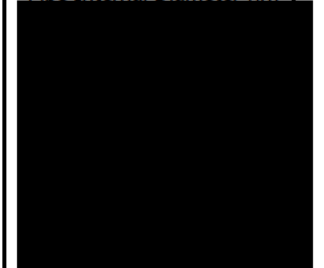
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# Model Name: Coastal System\_Synergi 4.8.0\_Rev 03-2016



## Legend

Facilities Color By  
Pipe Internal Diameter (in)



## Simulation Data:

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Solved Feasible

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Model Printed On:  
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Prepared by: [REDACTED]  
Northwest Region - Chatsworth Base

0 37,500 75,000 150,000 225,000 300,000 Feet



Scale: 1 = 1,389,000

REQUEST FOR ENGINEERING REVIEW (RER)



RER # 19-0052

FOR INTERNAL USE ONLY

ML SC9337 (Chatsworth); ML SC9521 (Compton)
ML SC8321 (Anaheim); ML SC8031 (Redlands)

RER Valid for 6 Months From Approved Date

Project Name: SL 44-1008 Evaluation
Date Submitted: 1/10/2019
Project Start Date:
RER Needed By: ASAP
Address/Intersection: Atascadero to Avenal
City: Various
District/Cost Center: Visalia / 2200-0492
Leak Survey Area ID: Various
Pressure Dist./Iso. Area:
SL/TL/Gas Pressure Zone: SL 44-1008
MOP:
MAOP:
Requested By: [Redacted]
Phone Number: [Redacted]
Requesting Department: Region Engineering
WO#:
WR/NOT/SAP #:
Planned By:
Supervisor:
Project Type: PSEP
Dreams Project #:
If Other:

Reason for Request:

PSEP SL 44-1008 is pre-1946 non-piggable replacement project that crosses the cities of Atascadero, Shandon and Avenal.

To perform the required work on 44-1008 and the acquisition of PG&E L306, detailed engineering analysis is required to answer the following questions:

- Scenario 1: Is abandoning SL 44-1008 from L85 [Redacted] to the City of Shandon [Redacted] and derating the rest of the line until Atascadero [Redacted] below 20% SMYS feasible? If not, what is the minimum pressure that the de-rated segment can operate at?
Scenario 2: Instead of individually connecting customers to PG&E L306, would providing service from PG&E L306 through a regulator station be feasible? If yes, what is the minimum pipe diameter required for the pipe extending from PG&E L306 regulator station?
Tie in: What are the system impacts if L306 ties into L85 at Kettleman Station? What are the system impacts if L306 ties downstream of Kettleman station at line 7043? What are the regions recommendations?
Isolation: Does PG&E L306 tie into ID 431N? If so, please provide the flow rates and capacity. Can L306 be isolated from ID 431N to the crossing of 36-1087 (as seen in the attached)?
Customer Impacts: Please provide a list of core, noncore, and major customers impacted by the shut-in that need alternate source. Please list if these customers are residential or commercial. What are the tap load requirements? For each tap please include reg. station ID, customer class, average daily load, required pressure, minimum flow rate & maximum flow rate.
Taps: Please identify all taps along SL 44-1008. Can any of these taps be abandoned?
Shut in: Can SL 44-1008 be shut-in without negatively impacting the system or customers? At what time and season can it be shut-in? If not, please detail the reasons why.
Naming Convention: PG&E L306 will fall under distribution once acquired. PSEP is requesting a new line name for the L306 acquisition.

Steel Seasoning (if applicable)

Table with 4 columns: Diameter (IN.), Length (FT.), Min Flow (MSCFH), Set Pressure (PSIG)

Analysis By: [Redacted]
Reviewed By: [Redacted]
Region Office: Northwest Chatsworth

Approved By: [Redacted]
Approved Date: 3/1/2019



REQUEST FOR ENGINEERING REVIEW (RER)

RER # 19-0052

FOR INTERNAL USE ONLY  
ML SC9337 (Chatsworth); ML SC9521 (Compton)  
ML SC8321 (Anaheim); ML SC8031 (Redlands)  
RER Valid for 6 Months From Approved Date



**Response to Request:**

**Scenario 1:** Per Synergi analysis, SL 44-1008 may be de-rated between the connection with SL 36-9-21 and the City of Shandon and abandoned between the City of Shandon and connection with Line 85 provided the following conditions are met,

- 1) Confirm that L306 can supply gas at all times in excess of [REDACTED] such that ID's 424 (Edelman) and 431B (Morro Bay) can be set at 385 psig in all seasons.
- 2) ID's 424 and 431B are currently designed as standby stations and do not conform to existing reg station standards. If these stations are to be utilized year-round both will need to be reviewed by MRC.
- 3) A new limiting station will need to be installed at or near the connection of SL 44-1008 and SL 36-9-21 in order to de-rate the segment extending east to the city of Shandon. The new station will need to be set at 300 psig in order to reduce pressure on the line below 20% SMYS (Pipeline Integrity to confirm).
- 4) Records indicate that there are no customer taps between the city of Shandon and Line 85, however this must be field verified for the segment to be abandoned.

Please note that such a derate/abandonment as described above will eliminate the system's ability to transport gas from Line 85 North into PZ 7271 and **must be approved by gas control.**

**Scenario 2:** SL 44-1008 and L-306 near the town of Shandon parallel each other with an offset of ~4 miles, however the only feasible rout to connect the two lines is along State Route 46 which would require installation of ~6.5 miles of new pipe. Assuming the new segment of pipe is supplied by a new limiting station set at [REDACTED] near the connection with L306, the minimum diameter pipe required would be [REDACTED] pipe was analyzed and rejected as it lacks sufficient capacity to replace that provided by the Line 85 tap.

**Tie in:** Transmission Technical Services to analyze impact of supplying gas to Line 85 or Line 7043.

**Isolation:** L306 is the source of supply feeding ID 431B (Morro Bay). The station can be shut-in in any season except the Winter (December-February). Under 1:35 Winter conditions, the stations supplies up to 1,812.9 mcfh to the system. Also note there are an increasing number of projects occurring in the SoCalGas Coastal System requiring constant feed from Morro in all seasons.

**Customer Impact:** Provided the shut in is performed in spring, summer or fall, there will be no customer impact

**Taps:** See "Important Notes and Reminders" below

**Shut In:** SL 44-1008 can be shut-in in any season except winter (December-February). Please note that this shut in can only be performed if ID 424 (Edelman) is available as a backup source.

**Naming Convention:** Assuming CPUC approval of the acquisition, L306 shall take on the name SL 44-306

Analysis By: [REDACTED]  
Reviewed By: [REDACTED]  
Region Office: Northwest Chatsworth

Approved By: [REDACTED]  
Approved Date: 3/1/2019

REQUEST FOR ENGINEERING REVIEW (RER)

RER # 19-0052

FOR INTERNAL USE ONLY  
 ML SC9337 (Chatsworth); ML SC9521 (Compton)  
 ML SC8321 (Anaheim); ML SC8031 (Redlands)  
 RER Valid for 6 Months From Approved Date



**Important Notes & Reminders:**

- 1) RER expires on 9/1/2019
- 2) Analysis and recommendations assume that L306 will continue to receive gas from PG&E at pressures sufficient to maintain a [REDACTED] min op.
- 3) SL 44-1008 taps

Gas Pressure System Number	Service ID	GNN	Rate Description	Meter ID	Meter Size	Capacity	Customer Name	Customer Address	Customer City	Customer Zip code
7271	1801765	1251164200	CORE	10937237	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1881978400	CORE	11871025	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	873283400	UNKNOWN		UNK	UNK	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1797164200	UNKNOWN		UNK	UNK	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1671164200	UNKNOWN		UNK	UNK	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1839164200	UNKNOWN		UNK	UNK	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1230164200	CORE	10971520	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1650164200	UNKNOWN	12400439	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	1801765	1545164200	UNKNOWN		UNK	UNK	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	21266370	579999100	CORE	10926480	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	517834	780153700	CORE	8464749	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	517834	801153700	CORE	4554519	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	517834	759153700	UNKNOWN	166553	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	517834	738153700	CORE	1754236	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	700638	634160000	CORE	11607572	3	351-530 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	700638	718160000	CORE	5306810	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	700639	655160000	CORE	5309879	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	700641	823160000	CORE	11546640	1	0-230 CFH	[REDACTED]	[REDACTED]	TEMPLETON	93465
7271	700641	1224636800	CORE	13430783	1	0-230 CFH	[REDACTED]	[REDACTED]	TEMPLETON	93465
7271	700642	844160000	CORE	3496738	1	0-230 CFH	[REDACTED]	[REDACTED]	TEMPLETON	93465
7271	897276	697160000	CORE	10458633	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422
7271	897276	676160000	CORE	10604500	1	0-230 CFH	[REDACTED]	[REDACTED]	ATASCADERO	93422

**Project Location (Map):**

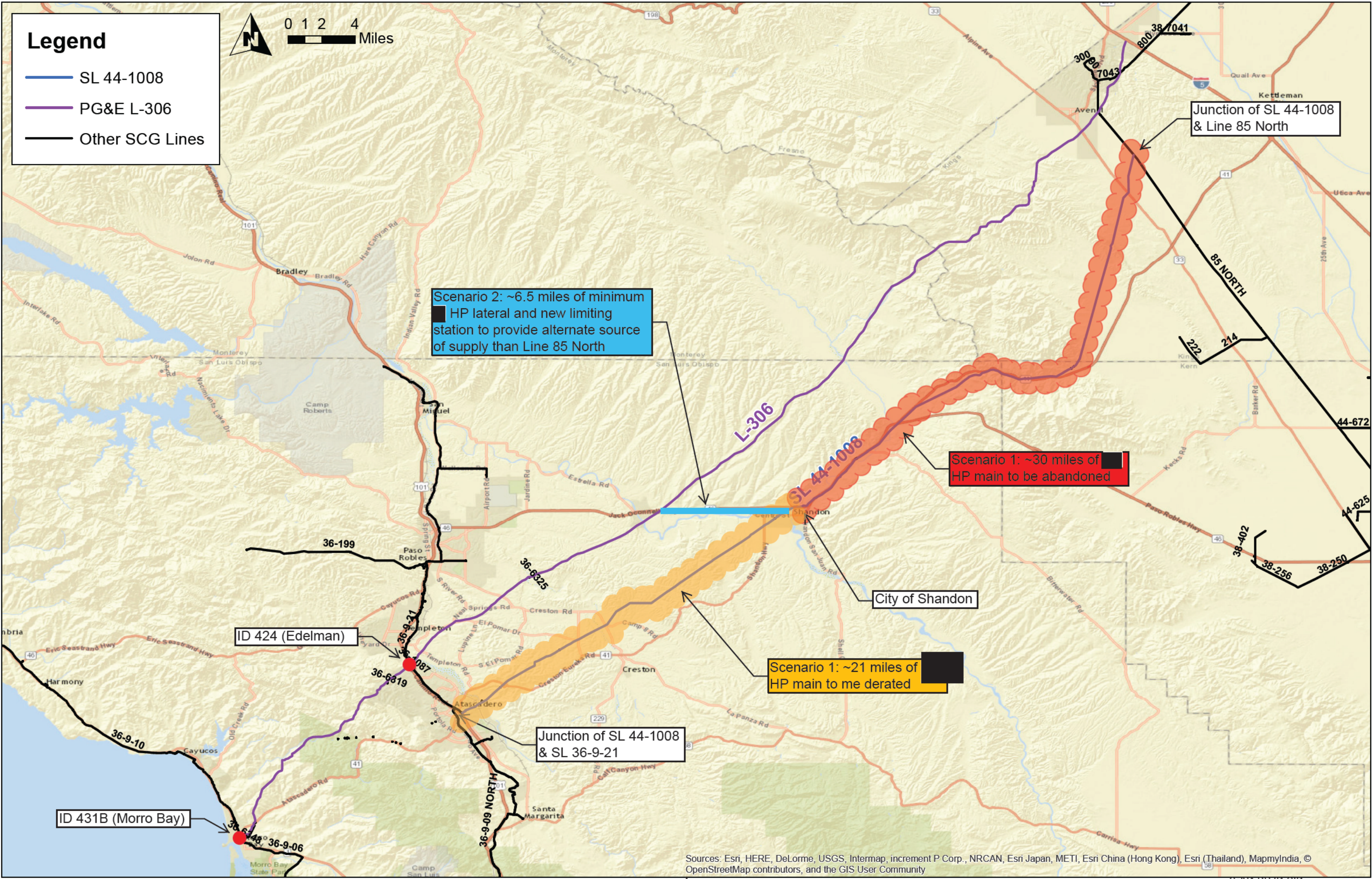
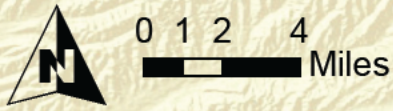
(See attached)

Analysis By: [REDACTED]  
 Reviewed By: [REDACTED]  
 Region Office: Northwest Chatsworth

Approved By: [REDACTED]  
 Approved Date: 3/1/2019

# Legend

- SL 44-1008
- PG&E L-306
- Other SCG Lines



Scenario 2: ~6.5 miles of minimum HP lateral and new limiting station to provide alternate source of supply than Line 85 North

Scenario 1: ~30 miles of HP main to be abandoned

Scenario 1: ~21 miles of HP main to be derated

Junction of SL 44-1008 & Line 85 North

City of Shandon

Junction of SL 44-1008 & SL 36-9-21

ID 424 (Edelman)

ID 431B (Morro Bay)

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Line 306 Estimate Template Rev B 6-02-17

PGE Line 306	Direct Contractor	Material Spread	Other Spread	Total
Piggability	\$ 221,318	\$ 56,724	\$ 246,750	\$ 524,792
PGE customer	\$ 12,749,354	\$ 3,267,677	\$ 14,214,395	\$ 30,231,426
Maintenance	\$ 1,908,059	\$ 489,038	\$ 2,127,316	\$ 4,524,414
Totals	\$ 14,878,731	\$ 3,813,439	\$ 16,588,462	\$ 35,280,632

<b>Category</b>	<b>Subcategory</b>	<b>Detailed Site</b>	<b>Location</b>	<b>Cost</b>
<b>Pigability</b>				
	<b>Launchers/Receivers</b>			
		Launcher at Kettleman CS		
		Receiver/launcher at Estrella PLS		
		Receiver at Morro Bay		
	<b>Replace valves</b>			
		New valve at Kettleman CS		
		Plug valve replacement (V13.32)		
		New valve upstream of fault crossing		
		Plug valve replacement (V26.68)		
		Ball valve upsize at Estrella PLS (V40.3)		
		Valve cluster/blowoff at Estrella PLS		
		Valve automation (MLV 51.50)		
		New valve for class location		
		New valve for class location		
	<b>Replace back to back 90s</b>			
	<b>Unknown fitting replacement</b>			
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
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		Fitting 2 (assumed location)		
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
		Fitting 1 (assumed location)		
		Fitting 2 (assumed location)		
	<b>Unbarred tees at Estrella PLS</b>	Part of valve replacement above		
<b>Not Tested</b>				
		Section 1 (assumed 140' and location)		
		Section 2 (assumed 260' and location)		
<b>Metering at Taps</b>				
	<b>New connection to PG&amp;E</b>	Kettleman Compressor Station		
	<b>New connection to Line 85</b>	Line 85 crossing		
	<b>Tap 1</b>	Avenal (City)		
	<b>Tap 2</b>	Avenal Prison		
	<b>Tap 3</b>	(2) Wineries & 20 Residents		
	<b>Tap 4</b>	Residents (Paso Robles)		
	<b>Tap 5</b>	Creston Tap #1		
	<b>Tap 6</b>	Creston Tap #2		
	<b>Tap 7</b>	Shandon		
<b>Install deep well groundbeds</b>				
		Rectifier 1		
		Rectifier 2		
		Rectifier 3		
		Rectifier 4		
		Rectifier 5		
		Rectifier 6		
		Rectifier 7		
<b>Reduced Cover</b>				
	<b>Span 770</b>	Recoat after vegetation control		
	<b>Span 1</b>	Recoat after vegetation control		
	<b>Span 2</b>	Recoat after vegetation control		
	<b>Morro Creek Crossing</b>	Potential replacment		
<b>Other reduced cover</b>				
<b>Material Costs</b>				20%
<b>Total Field Contractor &amp; Material Costs</b>				
<b>Engineering &amp; Design</b>				7%
<b>PM Services</b>				10%
<b>CM/ Inspection</b>				10%
<b>Environmental</b>				8%
<b>ROW</b>				3%
<b>Risk %</b>				25%
<b>Owner's Cost</b>				0%
<b>TIC TOTAL</b>				

**Loader Calcs for Contractor Direct Subtotals**

Material			<u>20%</u>
	<b><i>Subtotal</i></b>		<b><u>20%</u></b>
Engineering & Design	7%	1.2	8%
PM Services	10%	1.2	12%
CM/Inspection	10%	1.2	12%
Environmental	8%	1.2	10%
ROW	3%	1.2	4%
Risk	25%	1.2	<u>30%</u>
	<b><i>Subtotal</i></b>		<b><u>76%</u></b>
<b>Total Loaders</b>			<b><u>96%</u></b>

## **EXECUTIVE SUMMARY**

The first data review of PG&E Pipeline 306 has been completed. However, one possible show stopper was identified. The bulk of PG&E Line 306 operates at [REDACTED] with some sections slightly higher. PG&E provided statements that the line has been pressure tested, however pressure test records were provided for only part of the line. Additional research is needed for all tap connections, laterals, blow-off assemblies, service taps, and district regulator stations.

I requested copies of the PSEP analysis, and scope of work required to bring the pipeline up to current standards. The requested information should be provided in 10 working days or less. The document will provide information on PG&E's plan to replace, test, or abandon pipeline 306.

Additional data has been requested in additional various areas (PSEP analysis, right of ways, spans, leakage, etc.).

The first data review at PG&E was conducted by:

1. PSEP – [REDACTED]
2. Transmission – [REDACTED]
3. NW Distribution - [REDACTED]
4. NW Region Gas Operations [REDACTED]
5. NW Field Operations – [REDACTED]

## **PIPELINE AND COATING**

Documentation contained conflicting comments stating the coating condition was from good to poor. Actual ECDA documentation with pictures shows coating to be very poor condition with significant disbonding. CP current calculations do not support PG&E statements of good coating.

Inspections of the pipeline under the removed coating at External Corrosion Direct Assessment (ECDA) locations showed good pipe with very little surface corrosion. All surface corrosion areas measured less than 10% of wall thickness.

Additional data and pipeline inspection reports are needed to finalize analysis of pipeline depths, coating conditions, pipe corrosion, etc.

## **CATHODIC PROTECTION**

CP system needs major upgrades approaching the level of a complete replacement. Even with a rebuilt CP system, poor coating conditions will make maintaining effective cathodic protection difficult. System does not have required coverage of electrolysis test station (ETS) terminal locations (CPUC audit finding). PG&E is in process of planning the installation of 20 additional ETS stations along the 70 mile pipeline. CP system does not have enough rectifiers for needed coverage. Anode beds are small, shallow, old, and often consist of a single graphite rod. Most of the rectifiers are operating at or near maximum output. Even at maximum output, considerable sections of the pipeline do not meet the -850 mV criteria, and some sections close to the rectifiers have readings indicating excessive voltage on the line. Large sections of the pipeline have documentation showing little or no impressed current

coverage. Some sections of pipeline have documentation noting rectifiers off or not working for periods of 7 months or longer. Several years of historical CP reads are missing. However, as stated above, the ECDA visual inspection of exposed pipe indicates that the pipe is in very good condition. The CP system would require additional rectifiers, several new deep well anode beds, additional ETS stations, and the installation of electric meters for the rectifiers. No documentation of induced voltage problems, interference, or bonding was noted.

### **LEAKAGE HISTORY**

Documentation was supplied on 2 leaks. The materials reviewed reference 12 leaks. Additional documentation was requested.

### **DRIPS**

The pipeline has 2 known drips, both at the end of the system near Morro Bay Power Plant. Drips are checked weekly with 50 – 60 gallons of liquid collected annually. Records state the liquid is oil with no water. Liquids are checked for polychlorinated biphenyl compounds (PCB) and microbially induced corrosion (MIC). No PCB analysis information was provided. Low levels of MIC were reported. Additional information was requested on PCB analysis, and why liquid is checked for MIC.

### **VALVES**

Valve maintenance records show regular maintenance, and no major issues. Pipeline has four operating [REDACTED] All of the MLVs are buried and manually operated, three are plug valves, and one is a ball valve. Information on the date of the ball valve installation was not provided. Additional documentation references an additional plug MLV that is abandoned and buried in the open position. All plug valves would have to be replaced in the future to allow internal pig inspections.

### **LONG SEAM AND ELBOWS**

Most of the pipe is Double Submerged Arc Welded pipe (DSAW) with a short section of 1967 electric resistance welded (ERW) pipe. Documentation exists that provides information on pipeline long seam, wall thickness, grade of pipe, MAOP changes, and taps. Documentation states no wrinkle bends. Information on radius of elbows, miter cuts, and field bends was requested.

### **RIGHT OF WAYS**

Limited right of way documentation was supplied. Comments concerning right-of-ways issues include “Increasing problems with land owners.” Other comments include, an increase in problems with locked gates, hostile property owners, major overgrowth issues, maintenance issues. No information was supplied to determine if the rights of ways are shared with high voltage transmission lines. A complete detailed review of the right of way documents is needed and has been requested.

### **ENVIRONMENTAL**

Only one high risk environmental issue was noted. A 1 ½ mile abandoned fuel pipeline near the Morrow Bay Power Plant is 10 feet away from Line 306. Documentation states that the ownership of the abandoned fuel line is not known. Other environmental information provided notes a portion of the pipeline runs through Los Padres National Forest. Additional data and research is needed to identify the



sections of pipeline in the Los Padres National Forest, other environmentally sensitive areas, and the associated access permitting requirements.

### **DEPTH OF PIPELINE**

Only two short areas were identified as shallow. Depth information appeared to be from an electronic source and was not confirmed. Information provided indicates that the pipeline depth is not a problem, but needs to be confirmed.

### **OVERPRESSURE ISSUES**

Two incidents of overpressure alarms were documented. Both incidents were associated with maintenance work taking place on the overpressure alarm system.

### **CPUC FINDINGS**

A finding of insufficient ETS stations were identified in a 2015 audit. 20 additional ETS stations are in the process of being planned for installation before the end of 2020.

### **DATA QUALITY**

Overall, the data provided by PG&E indicated mostly complete maintenance and inspections records. Some general data gaps exist, significant data gaps exist in the CP data. Some conflicting information and comments exist, mostly in the area of pipeline coating conditions. Additional documentation was requested for areas where data gaps were identified.

### **NEXT STEPS**

Requests were made in several areas. The following priority of the requests were supplied to PG&E.

1. Answer to request for establishment of a delivery point and transportation agreement for SoCalGas system from pipeline 306
2. PSEP analysis and scope of planned work identified to bring Line 306 up to current standards/requirements
3. Right of way documents and property documentation for pipeline, supporting pipeline equipment, and connected taps/pipelines
4. Additional more descriptive documentation on spans, river crossings, fault lines, and any areas where pipe is exposed or above ground
5. Class Location Surveys
6. Pipeline Inspection Reports or equivalent

Review of the above six information requests will determine if additional levels of data reviews are needed. A field inspection is needed to confirm, and provide a quality check of the written documentation provided.

### **OUTSIDE SUPPORT**

If a decision is made to move forward with a lease or purchase of line 306, the support of a pipeline asset evaluator is recommended. A review of companies providing this service is in progress.

# PG&E Line 306 Potential Acquisition Documentation

10/31/18

## Engineering Research/Due Diligence

- Conducted in February-March 2017 onsite with PG&E Subject Matter Experts present
- Due diligence complete and no significant issues found
- 71 miles [REDACTED] line is not piggable
- Contains ~400 feet of untested pipeline
- Some crossings in need of O&M work
- Possible may have to replace crossing of Morro Creek
- Total estimated cost (25% contingency) to make piggable and necessary repairs/upgrades: **\$39.5 million**
- Appraisal conducted by third party appraiser: **\$33.3 million** appraised value (page 93 of pdf)
- PG&E remaining book cost remaining **\$2.8 million**

## Land Valuation/Due Diligence

- Easements/land use appraised for **\$7.3 million**
- Due diligence complete and no missing rights found
- Forest Service will require new assignment for existing pipeline
- PG&E will have to issue easement to SoCalGas for ~5 mile portion in PG&E power line easement

## Environmental Due Diligence

- Conducted per ASTM E 1527-13 Phase I
- Due diligence complete and no significant issues noted
- Received Environmental approval

## Final Purchase Agreement

- Reviewed and updated by Legal [REDACTED] awaiting final legal clause
- All exhibits and schedules reviewed
- Routing for IRC approval, Board approval obtained in August for **\$25 million** purchase price
- Requires PG&E to obtain regulatory approval

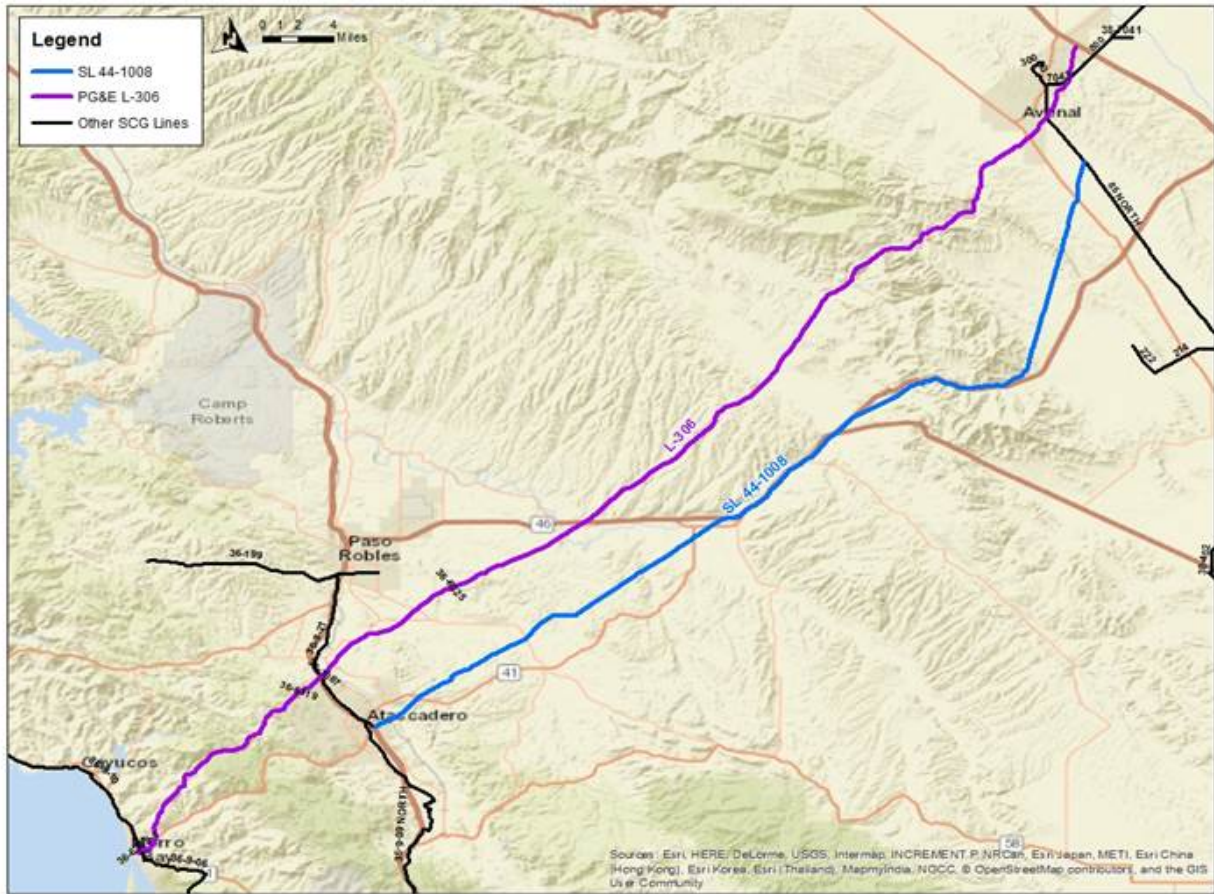
## PG&E Recent Contact Update

- PG&E indicated legal clause not approved [REDACTED] to work on or escalate to General Counsel)
- Indicated they have a compliance item to complete by the end of 2019
- Stated they are near to filing 851 application after we execute agreement

# PG&E Line 306 – Alternatives to Replacing Line 44-1008

## Executive Summary

PG&E Line 306 is a 70 mile long, [REDACTED] pipeline, installed in 1962, that approximately follows SoCalGas' Supply Line (SL) 44-1008 alignment. SL 44-1008 is approximately 50 miles long (difference is distance to Morro Bay) [REDACTED] pipeline (installed in 1937) and is a PSEP Phase 1B replacement. The scoping estimate (Class 4 parametric) for full replacement of SL 44-1008 is \$246 million. PG&E Line 306 is being offered for purchase consideration by PG&E due to the closure of the Morro Bay Power Plant.



A team of nine members (listed in Appendix A) conducted a second data room visit at PG&E in February/March of 2017 to perform a longitudinal review to evaluate the line's current condition. The visit also identified potential updates needed and to establish a go/no go decision for potential purchase. The line was evaluated using the criteria shown in Appendix B. The team was broken into three sub-teams to review the pipeline records:

- Cathodic protection history and status
- GIS/Engineering/Pigability
- Maintenance records

The overall team concluded that PG&E Line 306 was in good condition for a pipeline of that vintage and can be considered for purchase.

Summary statements for each data stream are shown below with further details in the body of this report.

- Cathodic protection is applied via impressed current and has been maintained. The entire line is one CP area and meets the 850 mV criteria. Several new test points were recently installed and additional test points are scheduled to be installed (CPUC finding on test point spacing). History indicates PG&E has upgraded some rectifiers, associated anode beds and is working on an induced AC interference study for a section of pipeline influenced by the parallel overhead PG&E high voltage transmission line. This AC study would need to be completed and appropriate mitigation measures taken and monitored on a regular basis going forward. The line is in good condition and properly maintained from a cathodic protection perspective. No immediate items were identified by the CP team.
- GIS/Engineering/Pigability was reviewed from PG&E's detailed listing of all components in the pipeline, MAOP validation and supporting documentation. Some plug valves would require replacement for pigging and some unknown fittings will be estimated for replacement. Approximately 400 feet of the pipeline lacks sufficient pressure test records and would be considered Category Four. The pipeline is currently not piggable and will be made piggable if acquired. Only one HCA exists near the end of the pipeline. Good material, installation and pressure test records exist for the pipeline except for the 400 feet identified as Category Four. No immediate items were identified by the GIS/Engineering/Pigability team.
- Maintenance records for the past several years were reviewed. Leakage records show only small, above ground leaks on regulation facilities. Patrolling records indicate four segments of line are exposed with only one identified as a span. The Morro Creek crossing may require replacement to ensure adequate depth due to erosion from extensive flooding since installation. Segments with less than 36" of cover were identified and noted. Generally, the line has more than 36" of cover and in many areas is much deeper. The M&R records were reviewed and maintenance is both current and complete. The team asked about any known environmental issues and PG&E stated there are none known at this time. No immediate items were identified by the Maintenance team.

## **Background**

PSEP has a project to replace Line 44-1008 (approximately 50 miles) for Phase 1B. This pipeline is one of the critical feeds into the northern coastal system and connects supply from Line 85 to the coastal system. It is a [REDACTED] pipeline operating at [REDACTED]. The line is not piggable and pre-1946 (1937 install year) meeting the criteria for replacement under PSEP. A scoping estimate (Class 4 parametric) was done to evaluate the potential replacement cost of 44-1008 to compare to potential alternative options. The estimate indicated the replacement cost as approximately \$246 million. The PSEP team completed the options analysis below and presented it to stakeholder groups for review.

Options included:

1. Full replacement – This option is being evaluated. The Request for Engineering Review (RER) recommends the pipeline be replaced with [REDACTED] for system considerations.
2. Installation of 25 miles of [REDACTED] pipeline to reinforce the central coastal system near Atascadero and abandonment of 44-1008 – This option reduces system supply diversity to the coastal system and with the abandonment of 44-1008, eliminates the connection to Central Valley supply. There are currently several taps to SoCalGas and PG&E customers from 44-1008. These customers would have to be served from alternate sources. Also, there was not significant excess supply in this area of the system and this reinforcement would not keep ends of system supplied during peak events.
3. Add compression to system – Due to the small diameter pipe in the system in this area and lower system pressures, compression was not a viable alternative.
4. Take service from PG&E – SoCalGas approached PG&E and PG&E stated their preference if for SoCalGas to consider acquiring the line rather than to provide taps/interconnects into the SoCalGas system. They recommended SoCalGas consider purchasing PG&E Line 306.
5. Purchase PG&E Line 306 – being evaluated

The purpose of this white paper is to review option 5 fully.

## **Analysis**

Throughout the options analysis above, preparations for a visit to PG&E to evaluate the overall condition of Line 306 were ongoing. The PSEP team prepared an outline of a “Longitudinal Review” of the pipeline records and overall condition. A longitudinal review attempts to review three basic streams of data and align them along the transmission pipeline to determine if any segments require retrofitting, upgrades, replacement, testing, etc.

PG&E gathered the records and agreed to have all available Subject Matter Experts (SMEs) nearby or available by phone. A PG&E transmission engineer was the host to our team for the entire week and assisted with additional records requests, clarifications and reaching out to the various SMEs. Due to this additional layer of assistance requested and provided by PG&E, the visit was successful in completing the longitudinal review.

The visit to PG&E occurred from February 27, 2017-March 2, 2017. Nine members of the team (listed in Appendix A) were onsite during the week to assist with the longitudinal review. They were broken into three teams to assess the three data streams as shown in Appendix B. Daily reports were returned from the visit and can be viewed in Appendix C.

Each team was asked to summarize their work for the week on the last day. These summaries are noted below:

1. CP Team
  - a. No corrosion leaks noted
  - b. AC mitigation plan will be ongoing process
  - c. Current requirements for pipeline less than 1 A/mile, indicating good protection and coating
  - d. May need some deep wells installed to meet SoCalGas standards
  - e. Coating noted as disbonded on DA report (for 1,200' HCA at end of pipeline)
  - f. All pipeline meets 850 mV criteria
  - g. No immediate items noted
2. GIS/Piggability/Engineering Team
  - a. Good Acceptable material and test records for line overall (140-400 ft. with no test records, to be addressed by PSEP)
  - b. Some fittings show "Unknown" and will be earmarked for replacement unless further details are uncovered in data requests
  - c. SoCalGas prefers to keep the connection to PG&E system for 306 at Kettleman Compressor Station to allow for operational flexibility (the intent is for a connection to Line 85 to be the primary feed)
  - d. Class location process was reviewed
  - e. No immediate items noted
3. Remediation/Maintenance/Compliance Team
  - a. 74 segments noted as less than 36" of cover, need to review
  - b. Morro Creek might need replacement
  - c. Maintenance records indicate pipe and coating in fair to good condition
  - d. Other two exposed segments would need wrap and evaluation
  - e. No immediate items noted

Following the week's visit, each team prepared a description of their research and notes for the week.

1. CP Team

The Cathodic Protection components analyzed consisted of rectifiers, anode beds, casings, ECDA surveys, and AC interference. There are a total of eight rectifier/current sources on L-306. All cathodic protection stations will require upgrading to include installation of electric meters (due to transfer to SoCalGas), with the exception of the single solar unit at [REDACTED]. A new CPS installation will likely be required to replace the location of the unit to be

abandoned at [REDACTED]. In addition, several shallow well installations will require replacements with deep well anodes. Twenty-nine Coupon Test Stations (CTS) were installed within 2015 – 2016. There will be eight additional CTS's to be installed in 2017 to equal one station per mile. This was to satisfy CPUC audit findings on inadequate test stations. AC interference has been identified on L-306 between [REDACTED] and [REDACTED] testing and mitigation are ongoing. There will be additional reports to follow in the future. There were seven casings identified. One casing at a railroad crossing is likely shorted and will need to be evaluated to determine condition and potential repair measures. All coating found to be hot applied asphalt (HAA) with no indications of asbestos in laboratory testing. ECDA and SCCDA inspections were completed in 2007, 2011, 2012 and 2014. Inspections at all direct examination sites showed HAA coating to be in fair to poor condition with significant disbonding or missing coating. Corrosion less than 20% wall loss found at all dig sites.

*Cased Pipe*



Rectifiers

End Stationing or Milepost	Type of CP Applied	CP Criteria	Readings Range - Volts	Readings Range - Amps	Read Date
[REDACTED]	Rectifier	0.85	8.00 V	11.40 A	1/13/2017
[REDACTED]	Rectifier	0.85	9.00 V	7.60 A	1/13/2017
[REDACTED]	Rectifier	0.85	12.00 V	13.90 A	1/27/2017
[REDACTED]	Rectifier	0.85	4.00 V	9.80 A	1/13/2017
[REDACTED]	Rectifier	0.85	6.00V	6.00 A	1/19/2017
[REDACTED]	Rectifier	0.85	6.00 V	2.90 A	1/19/2017
[REDACTED]	Rectifier	0.85	3.00 V	1.50 A	1/19/2017
[REDACTED]	Rectifier	0.85	37.00 V	6.10 A	1/20/2017

2. GIS/Piggability/Engineering Team

Ells & Bends

All [REDACTED] are piggable. However, of the 103 “unknown” Elbows, only 28 were installed at a different time than the [REDACTED] (1962). And of those 28 unknown elbows, only 14 have an angle greater than [REDACTED] Engineering recommends replacing these 14 elbows.

**183 - [REDACTED]**

- 167 - 8/28/1962 Install
- 11 - 8/21/1967 Install
- 5 - 12/14/1969

**103 - Unknown**

- 75 - 8/28/1962 Install (assumption is these are the same as the 167 above)
- 28 - 6/7/1973 Install
  - 14 - Angle 0 – 30 (Assume these are piggable, even if less than [REDACTED])
  - 14 - Angle 30 – 45

Additionally, all elbows that are back-to-back (less than 4 feet of pipe between) will need to be replaced as well. There are a total of 8 elbows that meet are close together that will need to be replaced.

Back to Back Elbows (less than [REDACTED])

Elbow 1&2 (PFL – 31 & 33)

- [REDACTED]
- [REDACTED]

Elbow 3&4 (PFL – 4150 & 4152)



Elbow 5&6 (PFL – 4278 & 4280)



Elbow 7&8 (PFL – 4284 & 4286)



Field Bends

No field bends greater than 6.6 degrees.



Tee's, Taps & Probes

During our follow up with SoCalGas' Pipeline Integrity after the data room visit, tees, taps and probes were inquired about. Based on the documentation that was reviewed at PG&E, the majority of the existing taps are [REDACTED] and smaller. A Data Request (DR) for the Pipeline Feature List (PFL) was made and will be used to research tees that may require to be barred [REDACTED] and type and size of all taps.

Drips & Drains

A DR for the PFL was made and will be used to research if there are any drips/drains existing on the pipeline. If there are, most likely they will need to be replaced or removed depending on where they are located. One drip was identified at the end of the pipeline downstream of our future interconnection point, which will be abandoned by PG&E prior to potential acquisition.

Launchers & Receivers

L306 is not currently piggable, and new launchers and receivers will need to be installed. After reviewing with Pipeline Integrity, a reasonable assumption would be to install a launcher at [REDACTED] on the east end of the pipeline, a receiver and launcher at the Estrella PLS at [REDACTED] and a receiver at the existing interconnect on the west end. Pipeline pressures and flowrates will dictate what the requirements will be for the distance recommendations between launchers & receivers. A hydraulic analysis will need to be performed to validate these assumptions.

Valve Information

There are a total of 8 valves on this line. Five (5) of them are contained within Kettleman Compressor Station and Estrella Pressure Limiting Station. There are three (3) main line valves, two (2) of which will need to be replaced with full-port ball valves since they are plug valves and therefore, not piggable. Engineering suggests moving the two replaced valves closer to the fault crossings, if feasible.

PFL	Valve Type	Valve Name	Size	Class	Approx. MP	Location
28	[REDACTED]					
312	[REDACTED]					
472	[REDACTED]					
3835	[REDACTED]					
3841	[REDACTED]					
3847	[REDACTED]					
3857	[REDACTED]					
4007	[REDACTED]					

After following up with the PSEP Valve Team, automation is required for all [redacted] and greater, 20% SMYS and greater valves. All 3 mainline valves (MLV) meet this requirement and will require automation. An additional new MLV may be required and should be considered in the retrofit estimate within 1-mile upstream of the fault line. For DOT Transmission pipelines the MLV spacing is every 20 miles for Class 1, every 15 miles in Class 2 and every 8 miles in Class 3 locations. A detailed Pipeline Feature List with stationing to depict where the class location changes are will be used to determine MLV spacing compliance.

In addition, since this pipeline meets PSEP’s requirement for automation, each tap [redacted] and larger will require installation of a check valve to prevent backflow. Bridled MLV’s will also need to be equipped with check valves or remotely controlled valves to prevent backflow around the MLV’s.

Regulator/Compressor Stations

L306 is a [redacted] natural gas pipeline that starts out at Kettleman Compressor Station [redacted] line) and currently extends approximately 70 miles to Morro Bay Compressor Station ([redacted] line). At [redacted] PG&E installed Estrella Pressure Limiting Station ([redacted] line) to reduce the pressure of the downstream pipeline from [redacted] to be in compliance with a Class Location Changes (2 to 3). In 2017, it was decided that PG&E would abandon the line that feeds the Morro Bay Compressor Station (and Morro Bay Power Plant, which has been decommissioned). The pipeline will continue just past the SoCalGas inter-tie at MP 69.8 and be cut and capped.

Regulator/Compressor Stations		
Station Name	Approx. MP	Pipe Size (in)
Kettleman Compressor Station	[redacted]	
Estrella Pressure Limiting Station		
Morro Bay Compressor Station*		
*Note: Morro Bay Compressor Station is being abandoned.		

Pipe Diameter Changes

There are multiple pipeline diameter changes; however, many of these will be abandoned when the Morro Bay Power Plant section is abandoned (prior to proposed SoCalGas acquisition). The first pipe diameter change comes out of the Kettleman Compressor Station – [redacted]. The second diameter change comes at the inlet and outlet of the Estrella PLS – [redacted]. The third diameter change comes at the SoCalGas Inter-tie – [redacted]. The fourth diameter change comes at the drip leg – [redacted]. And the final pipeline diameter change comes at the Morro Bay Compressor Station [redacted]. Please note that anything downstream of the SoCalGas tap at Morro Bay will be abandoned per a PG&E request (reviewed and approved by SoCalGas).

There are no issues with the pipe diameters in regards to pigability once the proposed valves are replaced.

Pipe Diameter Change					
PFL	Approx. MP	OD 1	OD 2	Reason Change	Comments
4413	[REDACTED]			SoCal Gas Inter-tie	
4418				External Drip	To be abandoned
4421				External Drip	To be abandoned
4424				External Drip	To be abandoned
4427				External Drip	To be abandoned
4430				External Drip	To be abandoned
3835				Estrella PLS	
4434				Morro Bay CS	To be abandoned

Taps to Other Entities

Taps to PG&E will be added to the current Exchange Agreement.

L-306 at milepost ([REDACTED] City of Avenal (~2,460 customers), maximum hourly volume was approximately 55 MCFH and daily volume is 750 MCFD based on Cold Winter Day (CWD) modeling and 2015-2016 historical SM data.

L-306 at [REDACTED] Avenal Prison, based on CWD modeling and year 2016 AMR Data, maximum hourly volume was approximately 90 MCFH and daily volume 1600 MCFD.

L-306 at [REDACTED] 4 Taps (2 Vineyards (Cass and Gallo\*) and 20 residential customers), based on CWD modeling and year 2016 historical SM Data, maximum hourly volume was approximately 50 MCFH and daily volume is 450 MCFD.

*\*Note much of the load from the vineyards/wineries occurs during the spring/summer months*

L-306 at [REDACTED] Paso Robles residents, maximum hourly volume was approximately 1 MCFH and daily volume 7 MCFD based on CWD modeling and historical SM Data for 2016.

L-306 at [REDACTED] multiple Taps to SoCal Gas. Please note that PG&E does not have usage data for these taps.

L-306 Taps					
MP	Customer	Max. Hourly Load (mscfh)	Max. Daily Load (mscfd)	Data (yr)	Source
[REDACTED]	Avenal (City)	55	750	2015-2016	Smart Meter
	Avenal Prison	90	1600	2016	Smart Meter
	(2) Wineries & 20 Residents	50	450	2016	Smart Meter
	Residents (Paso Robles)	1	7	2016	Smart Meter
	No usage data for taps	N/A	N/A	N/A	N/A

Class Location Changes

A data review of PG&E Line 306 was completed in January 13<sup>th</sup> and 14<sup>th</sup>, 2016. Although data for CP, coating, valves, right of ways, leak history, pipeline depth and environmental was reviewed during this visit, there was an additional request for more data. Part of this additional request was for PG&E to provide copies of their Class Location Surveys for Line 306. Unfortunately, no further data was sent to SoCalGas for this request. However, on the subsequent visit with PG&E during the week of February 27, 2016, the SoCalGas GIS/Engineering sub-team met with PG&E's [REDACTED] (an engineer from the MAOP Engineering Dept) to go over the Class Location data.

PG&E used their [REDACTED] to display the different class locations Line 306 is operating within. The SoCalGas sub-team was able to verify through PG&E's [REDACTED] that Line 306 is operating in three different class locations (i.e. Class 1, 2 and 3). The first 41.6 miles ([REDACTED]) is operating in a class 1 location. At [REDACTED] the class location changes from a Class 1 to a Class 3 location. At this location, PG&E installed a pressure limiting station (PLS) that reduced the Design MAOP from [REDACTED]. The Class 3 segments extend from [REDACTED] and are all operating at or below [REDACTED]. Due to this info, the installation of the PLS was most likely completed due to the class location change but it could not be verified with the PG&E team that was available. The remaining segments of Line 306 from [REDACTED] to the end of the line at [REDACTED] are operating in the three different class locations and at a Design MAOP of [REDACTED].

PG&E's pipelines are all digitized and in their [REDACTED]. They are transitioning to a new system called [REDACTED] that is in production but is not a final product as of this meeting. PG&E completes aerial patrol for all their transmission pipelines and the frequency of those patrols is per code. They look for any construction activity and if anything is spotted during an aerial patrol a subsequent ground patrol will be completed to

verify what was captured during the aerial patrol. In addition, aerial imagery is captured via a 3<sup>rd</sup> party and any changes in building count, dwelling units, or any structure used for human occupancy is sent to PG&E and is captured in their [REDACTED]

#### Strength Test Records

While a thorough review won't be conducted until we receive PG&E's Pipeline Feature List (PFL), a high level overview of the Strength Test Records indicate that adequate records exist for a majority of the pipeline. It is assumed by Engineering that after looking at these records, there is approximately 140-400 feet of pipeline/features that do not have records.

#### Pig Launchers/Receivers

Currently, there are no pig launchers/receivers on this line. A total of four (4) launchers/receivers will need to be installed: One (1) at Kettleman Compressor Station, two (2) on either side of the Estrella Pressure Limiting Station, and one (1) at the end of the line near the SoCalGas Inter-tie to 36-9-10.

### 3. Remediation/Maintenance/Compliance Team

#### Leak Survey

Leak survey is performed by aerial and if any indications, we noted they follow-up with foot survey to verify if leakage exists. If so, an Aform (PG&E's maintenance record) was generated.

#### Leaks

The team reviewed a workbook (L-306Leaks.xls) and noted 14 leaks were detected. One is on pipe [REDACTED] indicated [REDACTED] in a vault not yet repaired). The remaining 13 above ground leaks were all Code 3's.

No orders were found indicating corrosion as a leakage cause. Leakage records show only small, above ground leaks on regulation facilities. No leaks were identified that related to seams, corrosion or other threats on the main pipeline. Overall, there are no indications of leakage concerns based on the information reviewed.

#### Excavation Damage

During the leak review, some evidence of previous excavation damage was noted. The previous DRs indicated no excavation damage had occurred. The following locations were noted:

- [REDACTED] in 2003 – Repaired with [REDACTED] long sleeve.
- [REDACTED] in 2003 – Repaired with sleeve.
- [REDACTED] in 1982 – Repaired with weld sleeves

PG&E indicated they would revise the previous data request and provide all these documents and search for any other damages.

#### Reduced Cover

The team reviewed a workbook showing segments with less than 36" of cover (Reduced\_Cover\_306.xls). Seventy-five locations were found with reduced cover from 0" to 34" in depth. The measurements were taken electronically with a Pipeline Current Mapper (or equivalent). Four locations at 0" of cover (see spans below).

#### Valve Maintenance

There are three mainline valves (1 ball valve and 2 plug valves). All passed inspection with no indications of operating concerns (i.e. hard to turn). The plug valves will need to be replaced for pigability.

#### Spans

There are four locations that are exposed:

- [REDACTED] (Span 770) – This span will require recoating approximately 30 feet of pipe.
- [REDACTED] – This span will require recoating approximately 25 feet.
- [REDACTED] – This span will require recoating of unknown length.
- [REDACTED] – Morro Creek crossing is exposed and may require replacement by HDD under river. This is an environmentally sensitive area. It was unable to determine pipe condition at Morro Creek from records or a field visit due to overgrowth.

#### Maintenance Records (Aforms)

Nineteen maintenance records (Aforms) were provided and reviewed. The one concern identified from this review was the condition of the span at [REDACTED]. The span was 85 feet at Morro Creek. It will be further evaluated through a field visit. All other Aforms were due to PG&E maintenance and did not indicate any areas of concern from the records provided.

#### Pipeline Patrols

The team requested any patrol and inspection records. None were provided during the visit, but requested in the follow up data requests.

#### Customer Taps

There are seven customer taps plus the two interties to the SoCalGas system (Morro Bay and Edelman). Details were review in the Gas System Planning folder on PG&E's computers. Tap locations are recorded in the Longitudinal Workbook on the Maintenance tab.

#### Measurement & Regulation (M&R)

The M&R records were reviewed and maintenance is both current and complete. No immediate items were identified by the Maintenance team. Construction of the Estrella PLS is to Company standards based on drawing review and maintenance records review. A field visit to this site was also requested.

*Environmental Concerns*

PG&E responded there are currently no environmental concerns. The pipeline coating does not contain asbestos. Several sample reports were reviewed and all showed no asbestos contained in the HAA coating.

*Cultural Concerns*

The team requested information on any cultural concerns. None were known at the time of our visit.

## **Appendix A – PG&E Line 306 Longitudinal Review Team**

Overall coordination:

- [REDACTED] (PSEP) – Program Director [REDACTED]

CP Team:

- [REDACTED] (PSEP) – Engineer II
- [REDACTED] (PI) – Technical Advisor II

GIS/Engineering/Pigability Team:

- [REDACTED] (Gas Transmission Ops) – Technical Services Manager
- [REDACTED] (Region) – Region Engineering Supervisor
- [REDACTED] (PSEP) – PSEP Project Manager
- [REDACTED] (PSEP) – Land Services Manager

Maintenance Team:

- [REDACTED] (Region) – Measurement Supervisor
- [REDACTED] (Region) – Area Manager/Gas Ops

Thank you to this team for traveling for a week and working extended days in PG&E's office to complete this longitudinal review.



## **Appendix B – Longitudinal Review - Three Data Streams**

1. Cathodic Protection Records indicating miles/stationing for:
  - a. How many miles are on:
  - b. 100 mV protection?
  - c. Rectifiers? Location(s) of each and output plus categorize P/S readings along this segment as:
    - i. Less than 0.9 V
    - ii. Between 0.9 and 1.0 V
    - iii. Between 1.01 and 2.0 V
    - iv. Greater than 2.0 V
  - d. Anodes? Location(s) of each and output plus categorize P/S readings along this segment as:
    - i. Less than 0.9 V
    - ii. Between 0.9 and 1.0 V
    - iii. Between 1.01 and 2.0 V
    - iv. Greater than 2.0 V
  - e. Any records of MIC – Location, investigation and remediation records
2. GIS System to determine Piggability by total number and location of:
  - a. Ells
  - b. Bends
  - c. Other fittings in line
  - d. Valves (by type)
    - i. Ball
    - ii. Plug
    - iii. Gate
    - iv. Other
  - e. Pig launchers or receivers
  - f. Pipe diameter changes/specs
  - g. Regulator stations or Pressure Limiting Stations
  - h. Taps to other entities
3. Maintenance records for past five years:
  - a. Leaks (grade, location and disposition)
    - i. Cause of leak
    - ii. Repair methodology
    - iii. Leak repair order
  - b. Other pipeline digs
  - c. Any transmission integrity information:
    - i. ECDA
    - ii. ICDA
    - iii. SCCDA

4. Any integrity reports or plans for Line 306
5. Any known areas of asbestos or other environmental hazards
6. Description for tap along the line:
  - a. Milepost
  - b. Contract delivery pressure and volume
  - c. Facilities description
7. Any information on potential compliance items such as:
  - a. Shallow line
  - b. Down CP systems
  - c. Current leaks
  - d. Other action plans

## **Appendix C – Daily Reports on Longintudinal Review**



Line 306 Data Room  
- Day 4 - Final Report

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**PG&E Line 306**

Valuation Report

September 1, 2017



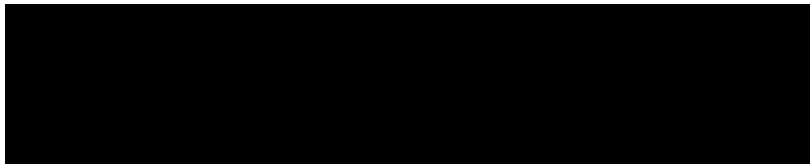
# PG&E LINE 306

## GAS TRANSMISSION PIPELINE

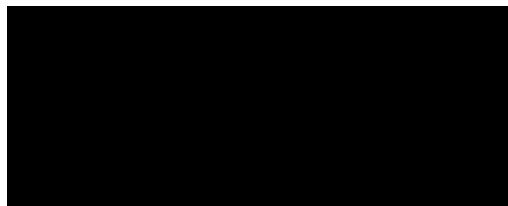
VALUATION REPORT

September 1, 2017

REPORT PREPARED FOR:



REPORT PREPARED BY:



APPRAISAL PERFORMED BY:



# Contents

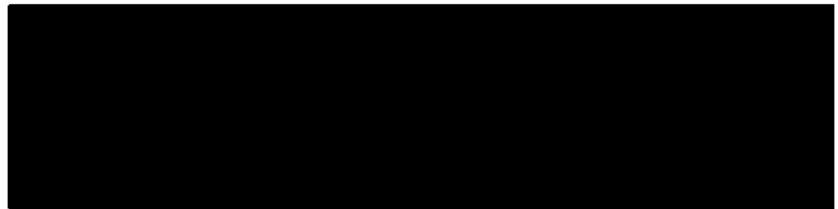
## Appraisal Certificate

1. Introduction
2. A Brief History of Steel Pipelines
3. Appraisal Factors
4. Description of Property
5. Method and Approach to Valuation
6. Valuation of Pipelines
7. Conclusions
8. Exhibits
9. Appraiser's Background

# APPRAISAL CERTIFICATE

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The report analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, unbiased professional analyses, opinions and conclusions.
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.
- My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.
- My analyses, opinion and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
- No one provided significant professional assistance to the person signing this report.



9-1-2017

Date

# 1. Introduction

## DESCRIPTION OF THE ASSIGNMENT

In early spring of 2017, ██████████ was approached by email and telephone by ██████████ ██████████ regarding the possible valuation of a natural gas pipeline in central California. After additional conversation and negotiation, the parties of ██████████ ██████████ ██████████ ██████████ ██████████ came to agreement regarding terms and compensation and a purchase order was executed as of May 11, 2017 for completion of project by August 15, 2017.

Data was transmitted and shipped to Howell and work proceeded. ██████████ visually inspected the above-ground appurtenances, terrain, and other installations relevant to the pipeline's operation. This inspection occurred from July 25–27.

██████████ ██████████ supplied ██████████ pertinent information regarding the pipeline and its specifications, easements, and other data to aid in the valuation process. Periodic conference calls between ██████████ and others took place in the process.

Southern California Gas, Inc. (SoCalGas) is the potential buyer for the pipeline currently owned by Pacific Gas & Electric (PG&E). SoCalGas has a 50-mile ██████████ line that is in the vicinity of the PG&E Line 306. Line 306 also provides some gas to SoCalGas at the Morro Bay Interconnect. Line 306 is operating at less than 20% capacity according to ██████████ and PG&E operations personnel.

██████████ has determined a value of Line 306 based on the information provided, knowledge gained, and use of standard pipeline valuation approach. More than one approach is considered and included but not necessarily documented formally.

## STANDARD DEFINITION OF VALUE

The approximate standard of value for the pipeline is the “Fair Market Value” which is defined by the price of the various subject pipelines, gathering systems and easements if they were to change hands between a willing buyer and a willing seller, neither being under compulsion to buy or sell, and both having reasonable knowledge of relevant facts.



## 2. A Brief History of Steel Pipelines

Steel pipes are long hollow tubes that are used for transportation of gas, oil, and refined products in the petroleum industry. The pipes are made in either a seamless or welded manner. The first methods were introduced in the early 1800's and have evolved into the modern processes we use today. The versatility makes steel pipe the most often used product produced by the steel industry.

Modern day welded steel pipe can be traced back to 1815, when a William Murdock in London joined together the barrels of discarded muskets to form a continuous pipeline to transport coal gas from his "well" to a light house and streetlights of London. The demand for coal gas to furnish lighting produced a series of innovations that have evolved into the modern pipe manufacturing industry. Over time, the pipe has become stronger and often more light weight as the need for various sizes in diameter and product requirements have come about.

In America, the pipeline industry and the oil drilling industry are closely intertwined. A series of welded or coupled joints of pipe extended into an oil or gas reservoir below the ground is essentially a vertical pipeline. Teamsters and their subsequent unions ultimately caused their own downfall by charging too much for transporting barrels of oil and thus creating the modern day oil (or other products) pipeline industry. Railroads were threatened as well, and conflicts arose when early on the railroad companies would not allow pipelines to cross their tracks. Since then, both types of transportation entities have learned to prosper and coexist.

Crude oil pipelines gather oil from wells and move it to refineries. From the refinery where the crude is made into various products, the finished product is then shipped from the refinery to an end user or to other refineries for additional processing. In many cases, these refined products are trucked and in many cases they are shipped out via additional pipelines.

### PIPELINE ALIGNMENT SHEETS

The best assets a pipeline owner can have are the original alignment sheets or the "as built" document. This is basically a blueprint showing the exact route of the pipeline and virtually all the knowledge that existed (if done right) for that pipeline when built.

Almost always along the top of the sheet is a landowner's name and a space designating his ownership. On some documents it might indicate whether the land is forest or in cultivation. Other typographical features might be listed as well such as type of soil, hilly, rolling hills, wetlands, etc.

Generally along the middle section is a line or centerline of the actual pipeline on a scale of whatever is indicated. There are stations along the way indicated distance from the starting point to that "station". These are important reference points as there also will be various crossings marked off designating oil and gas pipelines of varying sizes, water lines, sewer lines, underground cables, etc.

Sometimes there might be a more detailed explanation toward the last quarter of the sheet. The more detailed section might show if there are additional lines in the easement or corridor.

On the right hand side toward the bottom is sometimes a box that shows maintenance records showing the nature of repair replacement work and the date it was done.

More toward the bottom left there is usually a box that shows the description of the actual pipe laid. The description will include outside diameter of the pipe, grade, weight per foot and wall thickness as well as type of connection used to join the individual lengths or joints of pipe.

Usually the description section will include an area showing the type of coating on the pipe. This could be a tar and felt wrap with various designations such as TGF-3 or a Fusion Bond Epoxy type coating.

Alignment sheets tell the story of the pipeline and they are an invaluable set of documents for maintenance, recovery, or potential buyers.

### 3. Appraisal Factors

Many right-of-way appraisers rely on the “across-the-fence” (ATF) method to assign value to a particular right-of-way. The ATF method suggests that the right-of-way is worth whatever the surrounding land is worth. This method is popular, but only accounts for the value of the land itself. It does not take into account the value of the entity that uses the right-of-way, especially when it comes to right-of-way segments that contain pipelines. Typically, an easement or right-of-way contributes 5% to 7% of the cost of a building a pipeline and is not a large factor in the value.

Pipeline Equities saw the need to find methods of appraisal that are suited specifically to the pipeline industry. The need for pipeline appraisals came about initially when a discovery was made of the overvaluation of pipelines by local taxing authorities as well as overvaluation (and undervaluation) of pipelines involved in mergers, acquisitions, or estate settlements.

A valuation report concerning active or inactive oil, gas, or product pipeline may be needed for the following reasons:

- Preparing for a sale or divestiture
- Readjusting state, local, ad-valorem taxes/tax assessments
- Estate settlement
- Partnership termination
- Preparing for a purchase or acquisition
- Determining salvage value
- Preparing for pipeline use conversion
- Establishing value for accurate accounting

#### METHODS OF APPRAISAL

Pipeline Equities uses a combination of various methods to determine the value of a pipeline.

##### **Market Analysis**

Market analysis utilizes comparable sales histories. This works well for valuing land and housing, but each pipeline is so different that a method of comparable sales is not so useful. Because land and houses are plentiful, making commodities of land or houses is much easier than making commodities of pipelines. However, this method is still useful to get an overview by looking at sales histories of comparable pipelines in varying circumstances and locales in order to get some ideas in broader areas of comparison such as urban versus rural, California versus Mississippi, gas versus crude, and regulated versus non regulated pipelines. This factor is also called comparable analysis and is the primary tool for determining pipeline right-of-way values as opposed to the Across the Fence or ATF method used by real estate appraisers for valuing road and power line easements.

##### **Highest and Best Use**

Highest and Best Use is not best applied to pipeline evaluation; however, on occasion when pipelines are being valued for usage change, this method can be useful to establish the value of the existing pipeline and the cost of converting it for another use. Pipelines can be converted

from crude product pipeline to fiber optic conduits or conduits for electric power line cables from wind farms electric grid centers. For the most part, pipelines are best used for the intent constructed. In the approach using highest and best use, it is better to combine the valuation with some of the forty factors such as size of line, geography, terrain or right-of-way values. An example might be that the highest and best use for a six-inch gas line might be to change it out for a ten-inch crude line using the same right-of-way if the contract permits the replacement.

#### **Seller Determined Need**

This method is used if the seller wants to record financial gain or loss from a sale use book value. It is not of much use to a purchaser since it has no relevance to current worth. Basically, the book value might be generated by the accounting of the seller or owner of the property, in whatever means the company accounting might use to determine the book value. It might be based on one or the other methods of determining value such as construction cost new and discounted, for example, but generally this book value designation by the seller has no relevance to the value as far as the purchaser is concerned.

#### **Income Base or Cash Flow**

This method is a popular means of establishing value for pipelines if they are generating or will generate a predicted cash flow. This method takes into account forecasted income based on throughput volumes and rates of the commodity transported. Expenses based on a historical or projected income stream are discounted. Another variation of this method uses multiples of current cash flow where the average annual cash flow is multiplied by a factor of five to twelve. This can be done on annual or monthly basis much like values of oil and gas royalties are determined. Many like to compare pipeline values to oil and gas mineral interests regarding value. Both can have an indefinite life and both can be reborn as new drilling or new discoveries are made in and area. These additional income streams can be discounted to find a present day value or Net Present Value (NPV) in some cases when using future multiples or income. For example, the future income after operating expenses of a gas pipeline might be \$200,000 per year. A reasonable value might be five times that amount or \$1,000,000. A buyer might determine that the net present value in dollars paid today might be 20% less than the \$1,000,000 or \$800,000 Net Present Value in today's dollars.

#### **Reconstruction Cost New**

Reconstruction cost new (RCN) or replacement cost is the cost of rebuilding the same pipeline in the same size, same manner, and same (or comparable) easement. This is an important factor in placing value on a pipeline to be considered by a purchaser. This approach also can be discounted. An example would be in determining the value of a pipeline that has been operating for ten years after it was initially installed. The line might have an expected life of 40 years. It could be discounted 2.5% per year of life or a total of 25% off the cost of new construction in today's market.

## Customer Value

In the area of local distribution, a per customer value is sometimes used to realize value for a system. This per customer value is assessed on an individual basis and vary depending on whether the system is in an urban or rural area, high or static growth and other demographic factors. Greater multiples are used for commercial and industrial customers than residential. Residential customers might be valued individually from as little as \$400 in a low use slow growth area to as much as \$2000 in a high use high growth area.

Each of the above methods can be employed to determine value for a property if the occasion calls or a combination of all can be used. We have found that value occurs with the interaction of demand for the property, utility of the property, scarcity or supply of the property, and ready transferability of ownership rights.

## FACTORS FOR DETERMINING VALUES

In addition to these methods, several factors must be considered when assigning value to a pipeline. Pipeline Equities uses as many as 40 different factors to make our value determinations regarding pipelines. These factors cover the more technical aspects of business, physical, property, and commodity value. Some of these regarding pipelines might include:

They include:

- **Throughput value (transportation)** This method can be used to value based on revenue and can be incorporate into a multiple approach, net revenue approach, or forms of discounted cash flow (income).
- **Depth of coverage of pipe** Depth of pipe or coverage is often associated with age. Often age and condition can be somewhat ascertained when depth is known and date of installation is not
- **Right-of-way agreements** Right-of-way agreements tell much about value. It is basically the legal instrument that determines the conditions by which a pipeline can be laid, width of right-of-way, maintenance conditions, repair conditions, term of contract, disposition of assets on termination of usage or term in contract, etc, etc.
- **Replacement Value (asset)** The replacement or cost basis is determined by the cost of replacing this same pipeline either on today's cost basis or on a depreciated basis.
- **Salvage Value** Salvage is determined by what material can be sold as in another venue; taken out of the ground and sold for the steel tubes or scrap value. In this way the pipe is treated as a commodity or secondary tubular steel.
- **Supply (other pipelines in area/scarcity)** Supply is where the product comes from to feed the pipeline. Are there other pipelines to take the product? Are there other sources of supply? What is the life expectancy of the source for the supplier.
- **Demand (potential buyers?)** Is there sufficient demand to maintain or lay a pipeline? Is the demand stable and reliable? Is there room for future expansion with the demand group of buyers or transporters?

- **Customer value** In the area of local distributors, a per customer value is sometimes applied. This value can vary from one local to another depending on demographics and economics of the area: whether it is urban or rural, high or static growth, etc. A major factor can be number of industrial or commercial customers such as restaurants, schools, plants that consume gas in manufacturing, etc.
- **Surface Inventory (including appurtenances)** Generally pipelines are bought and sold including appurtenances which are all valves, risers, meters, and anything else connected to the pipeline that is part of it and contributes to its operation. This can include tanks storage facilities and terminals.
- **Sales contracts** If the pipeline depends on a certain customer, or group, then it is important to know the term of the sales contract.
- **Potential for replacement volume (new wells, tie ins)** The potential for new customers is worth noting. If there is room for growth and the potential or possibility of new growth then it could affect the premium or discount values
- **Type of system** The type of system is significant for various reasons whether it be gathering, trunk, transmission, liquid, product, gas, etc.
- **Size of pipe** Size of pipe helps determine salvage as well as whether or not the pipe must be removed on termination of usage, etc. Mainly, size determines volume that can be transported and thus revenue potential.
- **Specification of pipe** Specifications are important when determining value regarding salvage as well as dictates type of product and pressures that can be operating while the line is in service
- **Management (front and field office)** Management can make or break any business, pipelines included.
- **Date of Installation** Dates are key as they determine and reveal vintage of the pipe, coating, type of construction, and environmental considerations as of date of installation.
- **Maintenance of property** Care and maintenance reveal the type and attitudes of management and the company as well as general conditions. Most pipelines are buried and the appurtenances above ground reveal much of the overall care to a property.
- **Interconnects** The interconnects are different as they are considered a separate asset and not an attachment or appurtenance to the pipeline even though it is or has become part of the system. We consider it separately and value accordingly varying from one to another.
- **Cathodic protection** This corrosion protection of last resort is significant and the degree to which it is maintained is important. Conditions change and can affect the efficiency of any system especially in rapid growing and transitional areas.

- **Pipe coatings (vintage)** Pipe coatings reveal age and sometimes the type of construction and vintage of pipe. Knowledge of pipe coatings is important because this is the first line of defense against corrosion. Often older pipelines present environmental concerns as they have asbestos fiber embedded.
- **Environmental concerns** This becomes a maintenance issue as much as anything as concerns center mostly around releases (spill, leaks) and what the oil, or any other kind of product might be transported
- **Demographics - urban or rural?** Pipelines in and out of cities and in the path of rapidly expanding areas of the country pose different sets of problems and generally require more maintenance than pure rural and thus can add significantly to overhead and upkeep as well as create higher tax rates by some appraisers.
- **Appurtenances other than surface inventory** Often there is forgotten the fee land that is acquired with a pipeline. In many situations real estate of value is part of a system but not recognized for its value as an entity by itself. Others might include loading docks at terminal especially docks on important water transportation corridor (Intracoastal Canal, Mississippi River).
- **Appearance** Curb appeal is importance in buying or selling a pipeline as it is in buying and selling any kind of property. The appeal of any property is always enhanced by well maintained and clean, well kept appearances.
- **Reservoir studies** Reservoir studies are important when any system is dependent of a particular field or reservoir that feeds the pipeline system. It is important to know the life of the pool that is being depleted.
- **Market price of commodity** The price of the commodity determines the activity. Current high prices encourage much activity. When prices were lower, pipelines did not change hand very often for lack of motivated buyers.
- **Type of system: trunk, gathering, distribution, etc.** The type of pipeline system is significant because each has its own set of peculiarities. Gas distribution companies deal with retail customers; Oil pipelines generally require more operations personnel than gas transmission, etc.
- **Chemical content of transported product (H<sub>2</sub>S, CO<sub>2</sub>)** Aside from the obvious such as H<sub>2</sub>S and CO<sub>2</sub> there are the myriad other chemicals, residues, and contaminants that are part of the process of eliminating cleaning and disposing of to some degree or another for safety as well as environmental reasons.
- **Market diversity** Does the transporter have any diversity or opportunity to sell to more than one designated buyer?
- **Proximity to markets** How far is the distance from the source to the market? Is there room for competition? Could another line be built economically to compete?

- **Geography** Geographical considerations can determine construction costs and when factoring in terrain, drainage, rivers, streams, and elevations.
- **River crossings** One or more river crossings on right-of-way can add asset base and value to a pipeline
- **Diversity of suppliers** Is there another supplier on the horizon in case the current source changes in any way. What is the stability of the current supply?
- **Regulatory oversight or governmental factors** What kind of oversight. Is this a state regulated pipeline, FERC. To what agency does management report?
- **Social factors** These can relate broadly to demographic characteristics of the area of the pipelines: age and gender composition, population, and social attitudes
- **Economic factors** This can relate to employment cost of money, inflation, rent levels, possible new development, and construction costs in an area.
- **Transportation** Is area accessible for new construction, maintenance, and repair?

Other factors depend on whether product is purchased at the wellhead and resold, whether and to what extent the product is compressed, enhanced, treated, cleaned, or processed and by what procedures.

## RECENT APPRAISALS

██████████ has had several recent opportunities to appraise pipelines for a variety of purposes.

### APPRAISAL FOR PIPELINE REHABILITATION

██████████ recently appraised a vintage crude pipeline in a mature field on the West Coast. The line had been active in the past and later idled. The operator had intentions of rehabilitation and reactivation of the line and needed a fresh appraisal to help determine transport fees or tariffs as a common carrier. It was necessary to estimate the new construction price as well as depreciation and account for rehabilitation costs. We found the appreciation of the right-of-way costs in the heavily congested area more than made up for any deficiency in depreciated new construction costs.

### APPRAISAL FOR CONSTRUCTION FINANCING

A bank contacted ██████████ to obtain an appraised value for a pipeline to be built that would transport jet fuel to an airport. The bank wanted to know the value of the proposed pipeline before financing the construction cost. In place were the contract (long term), a firm bid for construction (construction cost new), and competent experienced management.

### APPRAISAL FOR PIPELINE DIVESTITURE

A hedge fund made a decision to exit the pipeline business and sought ██████████ for an appraisal of hundreds of miles of their active and inactive gathering and transmission pipelines. They needed to determine the value of the pipeline network in order to divide interests among investors. ██████████ was able to use multiple methods including salvage to come to an



equitable value to which all parties agreed. Many of the gathering lines had no discernable easement by which a right-of-way only method like the ATF method could be used.

#### **APPRAISAL FOR TAX AUTHORITIES**

We have had many instances where a pipeline or gathering system was built for a new field with flush production and the field now is nearing depletion. The operators still must pay regular taxes where applicable according to earlier throughput or initial values, which were generally not depreciated. Local and state taxing authorities want up-to-date appraisals if they are to lower rates. Many local tax appraisers use only construction cost new methods with no regard for throughput generally via abbreviated Marshal and Swift formulas (Marshall and Swift is a commercial database of information, which is like a supermarket for almost any kind of asset valuation. The data is offered on a subscription basis.)

#### **CONCLUSIONS ON APPRAISALS FACTORS**

The appraisal of pipelines is a specialized and niche industry. The methods for determining value are different from any other type of appraisal practice due to the uniqueness of the product being appraised. No two pipelines are the same. Our methods are based on the way a pipeline owner looks at a pipeline and the right-of-way in which it rests.

Ultimately, the appraiser can only offer an opinion based on data available and market conditions. When it is all completed, the value is based on what the seller will take and what the buyer will give for a property.

## 4. Description of Property

The following section provides some description, location, and, if available, some physical properties of the PG&E Line 306.

### LOCATIONS AND TERRAIN

The general location of the PG&E Line 306 is in the Central Valley area of California. The pipeline starts north of Kettleman City near the city of Avenal. The line takes in gas from other PG&E pipelines that interconnect at this location and is compressed at the Kettleman Compressor Station near Avenal. Line 306 [REDACTED]

[REDACTED] that was originally built to serve the area.

Approximately 60% of the terrain is moderate to heavy hills. The grassy Kettleman Hills near the beginning of the line seem to be of shallow top soil with the various outcroppings and minor faults indicating a rocky subsurface. Other pipelines in the area are laid on the surface. There is an indication that some blasting was needed to lay the original line.

An additional 20% of the right-of-way crosses central valley crops of avocado, vineyard, and other areas of a dense and permanent nature. Other areas of the line cross through urban areas and developed suburban environments. There are taps along the way supplying gas to the city of Avenal, a prison at Avenal, and some farm taps and vineyards near Mile 44.

SoCalGas, the prospective buyer of the PG&E Line 306, has a vintage (1937) [REDACTED] line that is [REDACTED] of Line 306. In addition, SoCalGas has an interconnect and takes gas from Line 306 at the Morro Bay Terminal. SoCalGas has systems running north and south from the Morro Bay interconnect location.

### MAPS

Maps and recreated overlays of the route of the pipeline are included in the explanation and description in Section 6 of this report. The author was provided with KMZ or Google maps with overlays to determine the route of the line from Kettleman Station to Morro Bay.

### SPECIFICATIONS

The pipeline is [REDACTED] nominal in [REDACTED] construction. The pipe was coated with a coal tar enamel type coating and was installed in 1962. An assumption was made that the lengths of the pipe are double random or [REDACTED]

## AGE AND INSTALLATION OF PIPE

The line was laid in 1962 and was entirely buried at depths of three foot of cover or more. The appraiser assumes some blasting was necessary to lay the pipe, especially in the Kettleman Hills area in the first ten to twenty miles of the line from the origin point near Avenal, California.

## RIGHT-OF-WAY AND EASEMENT STATUS

An extensive study of the easements and status of the rights-of-way and easements along the route were made by the firm of [REDACTED] and is included **Section 8. Exhibits.**

## GENERAL CONDITION OF PROPERTIES

On an inspection tour of facilities made on July 26–27, 2017 with representatives of SoCalGas and PG&E, the major appurtenances appear to be well maintained with only slight encroachments with occasional fences. Signage at crossings are intact in 95% percent of sites observed. The overall observed condition of easements, rights-of-way, and surface facilities is very good.

## PHOTO ASSESSMENT

On the morning of July 26, 2017, [REDACTED] of Southern California Gas, Inc., and [REDACTED] of Pacific Gas & Electric met at the Kettleman Compressor Station office of PG&E. [REDACTED] were part of the inspection tour of the right-of-way and above ground facilities of Line 306. The photo assessment of that inspection tour follows.



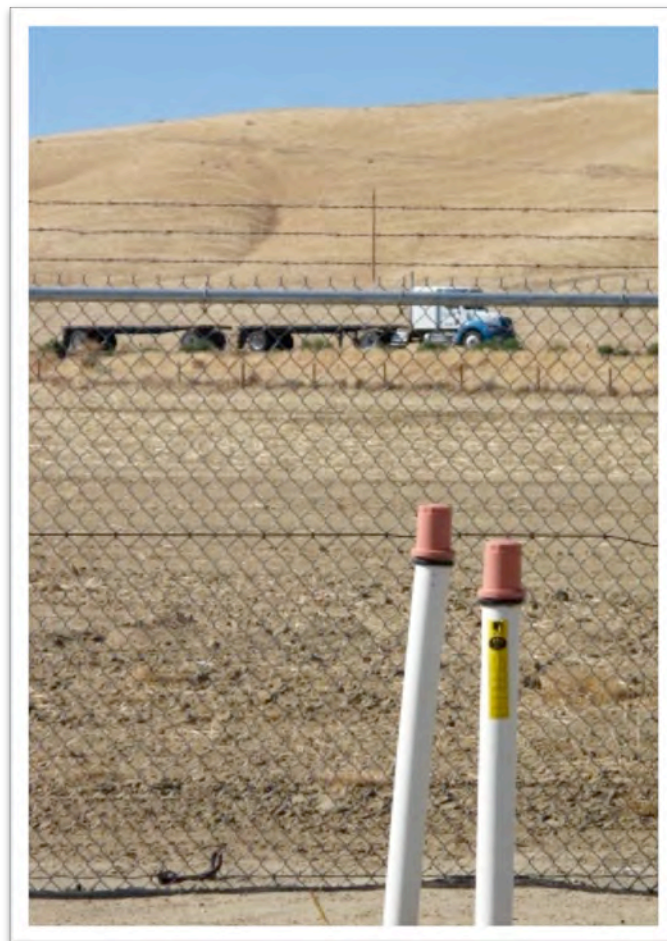
Figure 1. Entrance to Kettleman Compressor Station at beginning of 70-mile line near town of Avenal, California.



Figure 2. Compressor station facilities at Kettleman City Station (Avenal).



**Figure 3. Feed off PGE A & B main line that feeds Line 306 from compressor back to this installation.**



**Figure 4. Line markers showing Line 306 leaving Kettleman Station to cross I-5 at beginning of line.**



Figure 5. Right of Way looking west at intersection of Hydril and Avenue 36 near Avenal, CA



Figure 6. PG&E tap to City of Avenal near intersection of Hydril and Avenue 36.

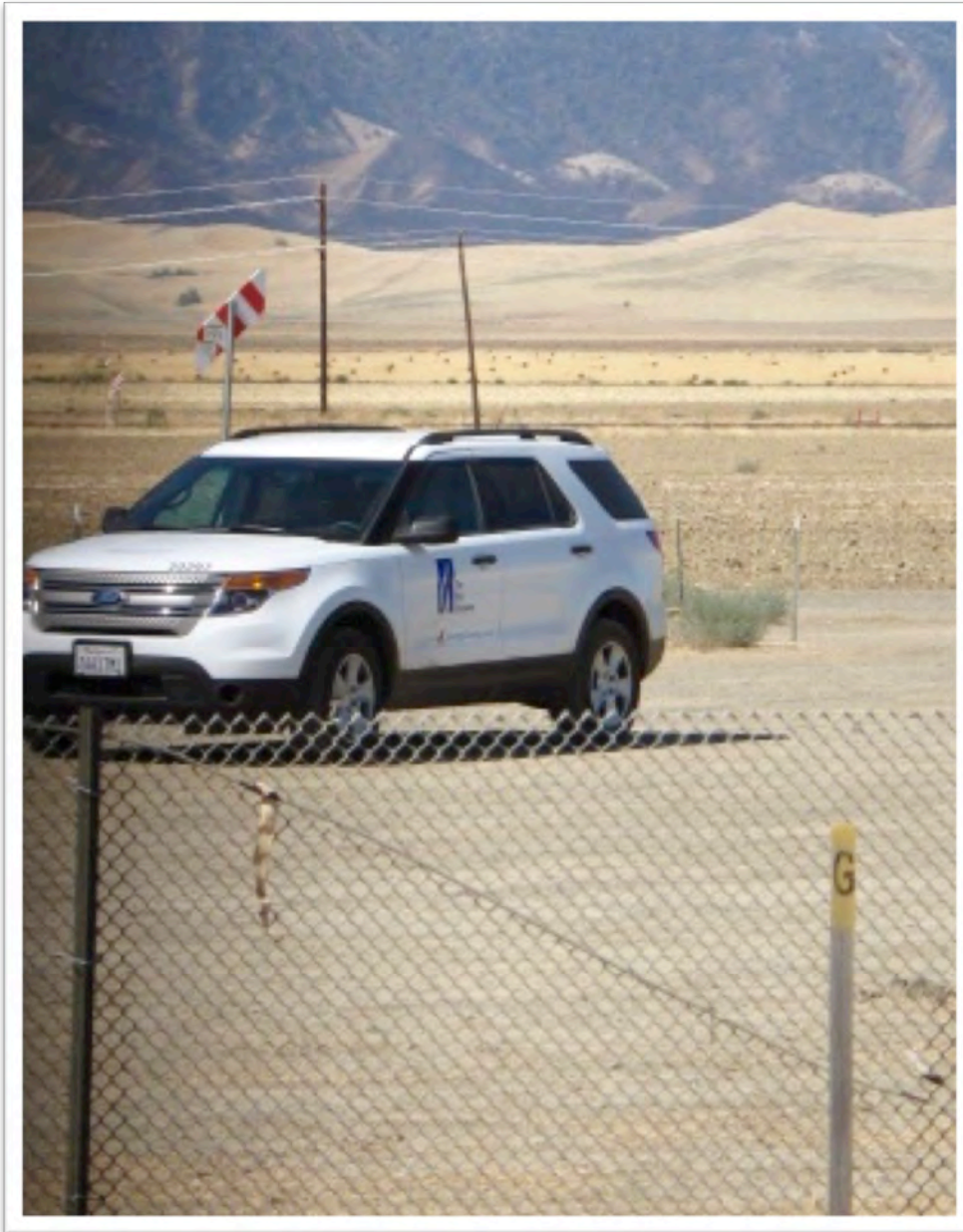


Figure 7. Right-of-way of Line 306 looking South at Highway 33 at site of drag racing track.



Figure 8. Tap from Line 306 to Avenal State Prison on Highway 33 in Avenal, CA..



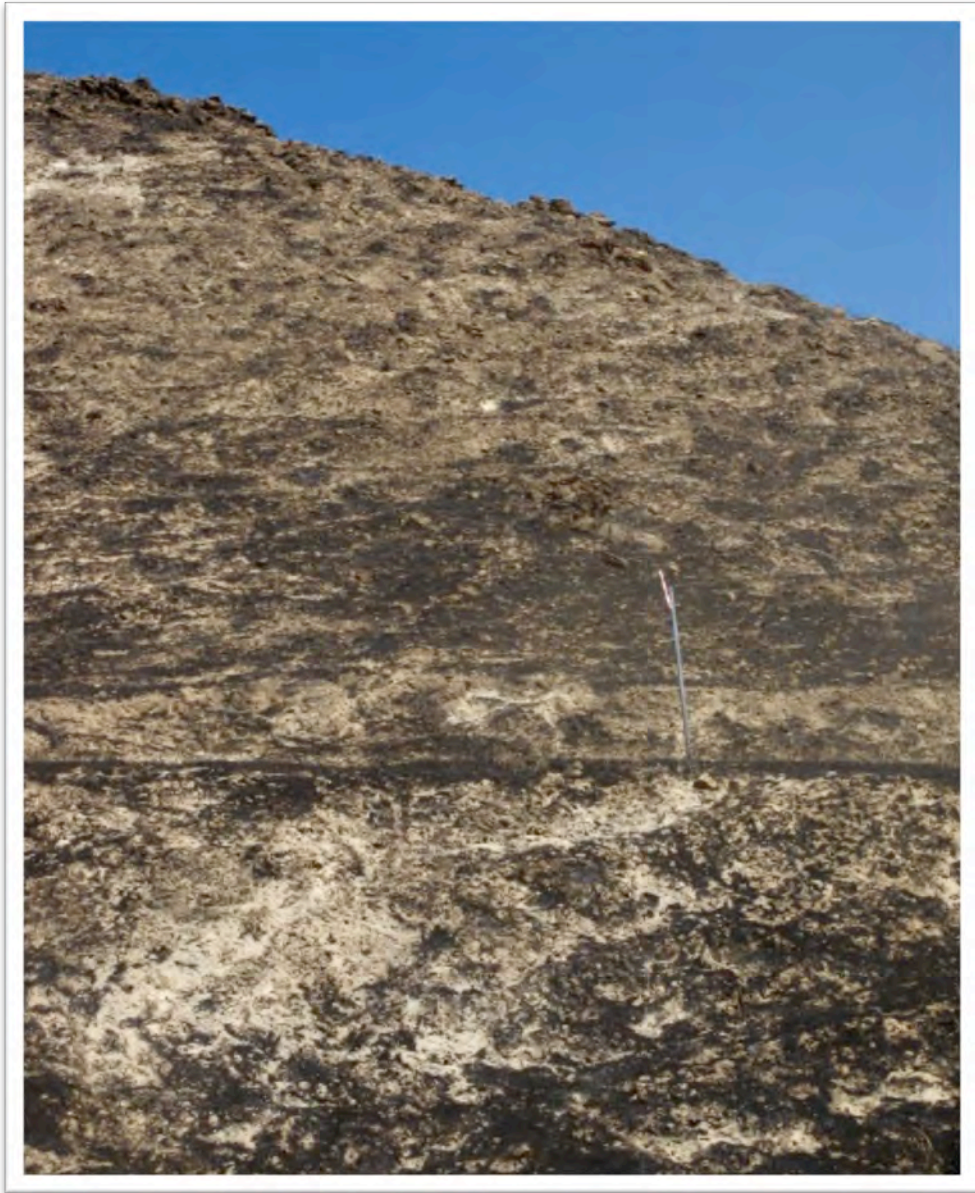


Figure 9. Right-of-way marker at Kettleman Hills shows recent fire damage to grass on [REDACTED] property.



Figure 10. ROW marker (lower right) showing recent fire damage to grass on [REDACTED] property.



Figure 11. Right-of-way looking East at [REDACTED]



Figure 12. Mainline valve station for Line 306 at [REDACTED]



Figure 13. Right-of-way looking west from valve station at [REDACTED]



Figure 14. General view of terrain at [REDACTED] with road going through Kettleman Hills area of recent brush fire.



Figure 15. Solar powered rectifier station for Line 306 at [REDACTED]



Figure 16. Line 306 right of -way looking west from [REDACTED]

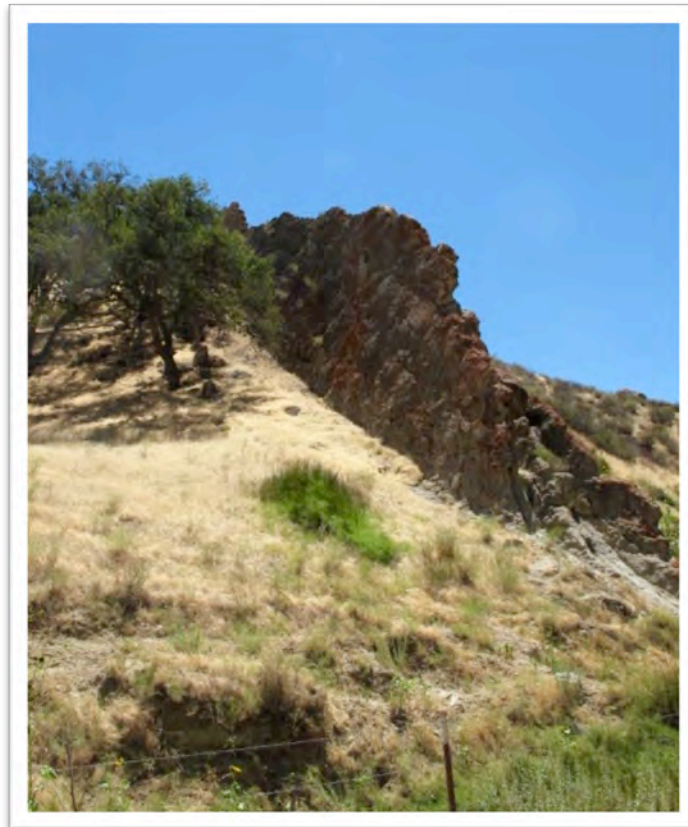


Figure 17. One of the fault lines crossed by Line 306. This outcrop is at [REDACTED] of the right-of-way.



Figure 18. Hartfield Valve Station, the nearest facility to the San Andreas Fault line at milepost 26. This station is located on a plain between two hill ranges. This view of the station is looking eastward.

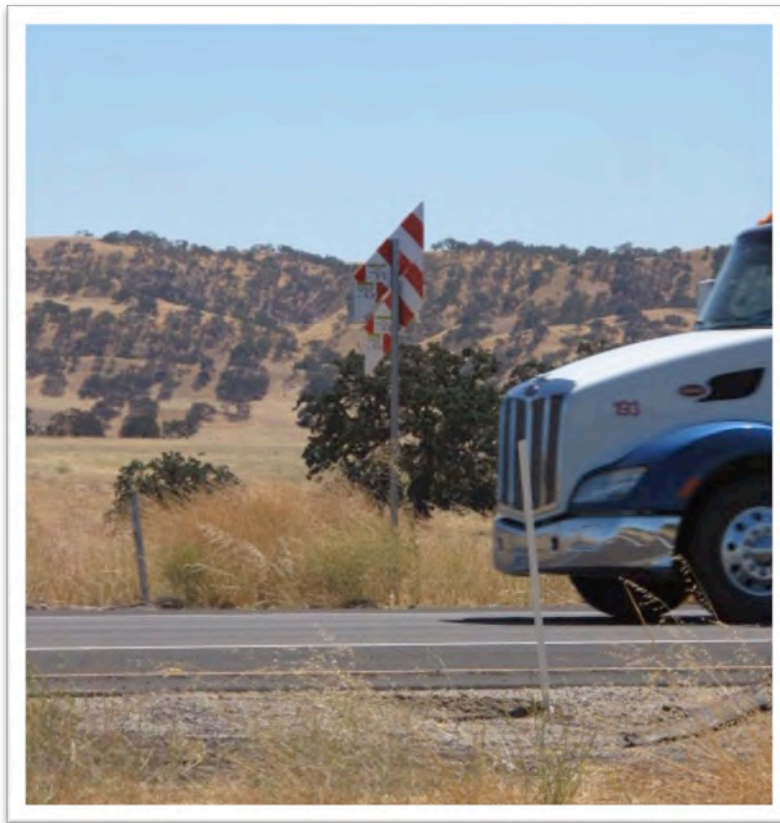


Figure 19. Crossing of Highway 46 looking south toward hills.



Figure 20. Right-of-way marker at Highway 46 looking north through vineyards.





Figure 21. Hilly section of right-of-way at [REDACTED]



Figure 22. Estrella Station for Line 306 located at [REDACTED]



Figure 23. Another view of installation at Estrella Station at Mile Marker 40.30.



Figure 24. Extensive vineyard over easement at [REDACTED] east of Paso Robles.



Figure 25. Taps for vineyards south of [REDACTED]



Figure 26. Meters for vineyards at [REDACTED]



Figure 27. Overview of meter station and vineyard taps near [REDACTED]



Figure 28. Dry Creek crossing south of Paso Robles on right-of-way looking north.



Figure 29. Dry Creek crossing south of Paso Robles on right-of-way looking south. Easement is in right-of-way for power line. Note suburban horse corrals on right-of-way



Figure 30. Line 306 crossing at Highway 101 looking south near Paso Robles.



Figure 31. Train crossing at marker in same area near suburban Paso Robles.



Figure 32. Marker for Line 306 near [REDACTED]



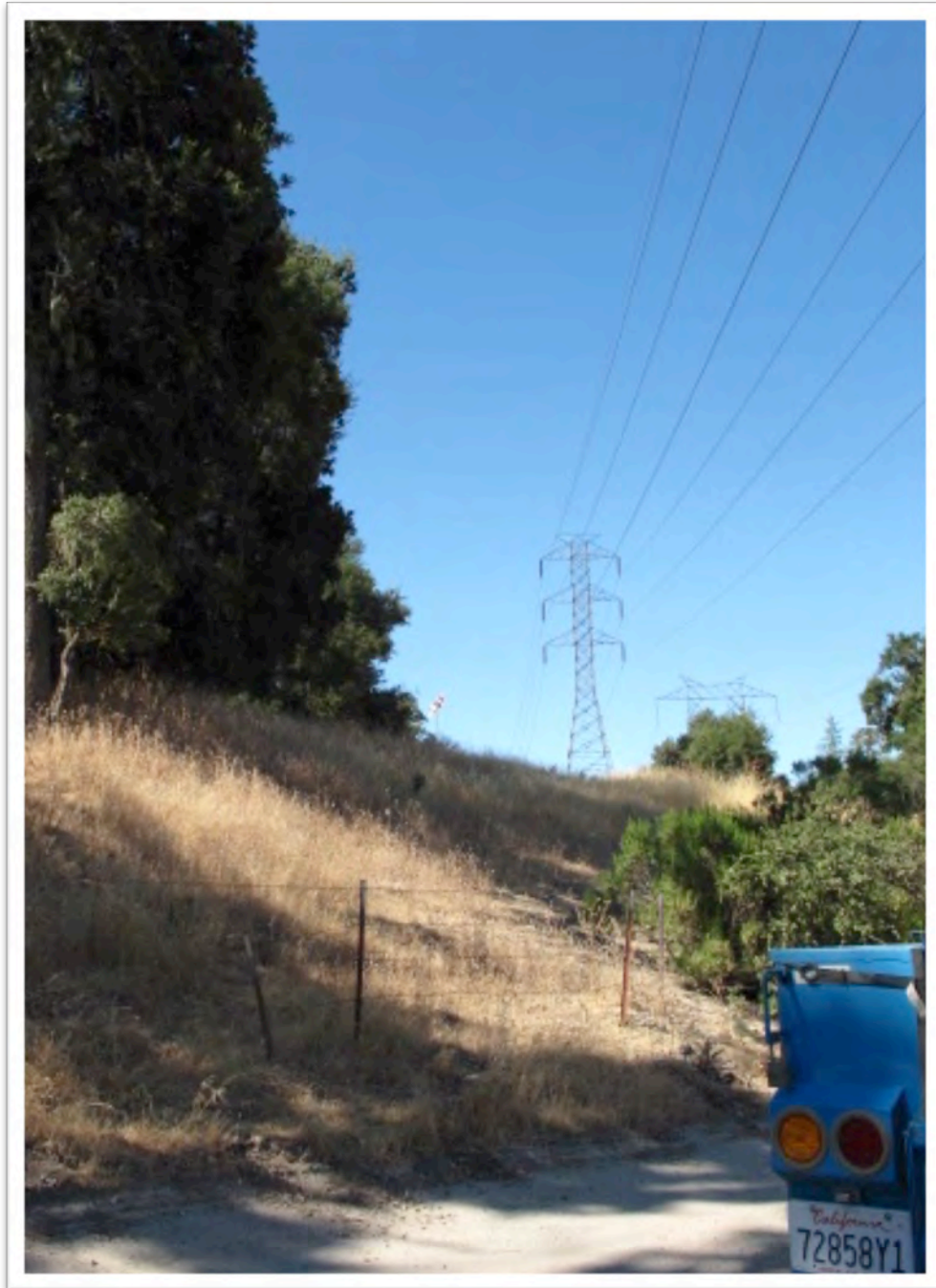


Figure 33. Line 306 road crossing in Toro Creek area looking southwest.

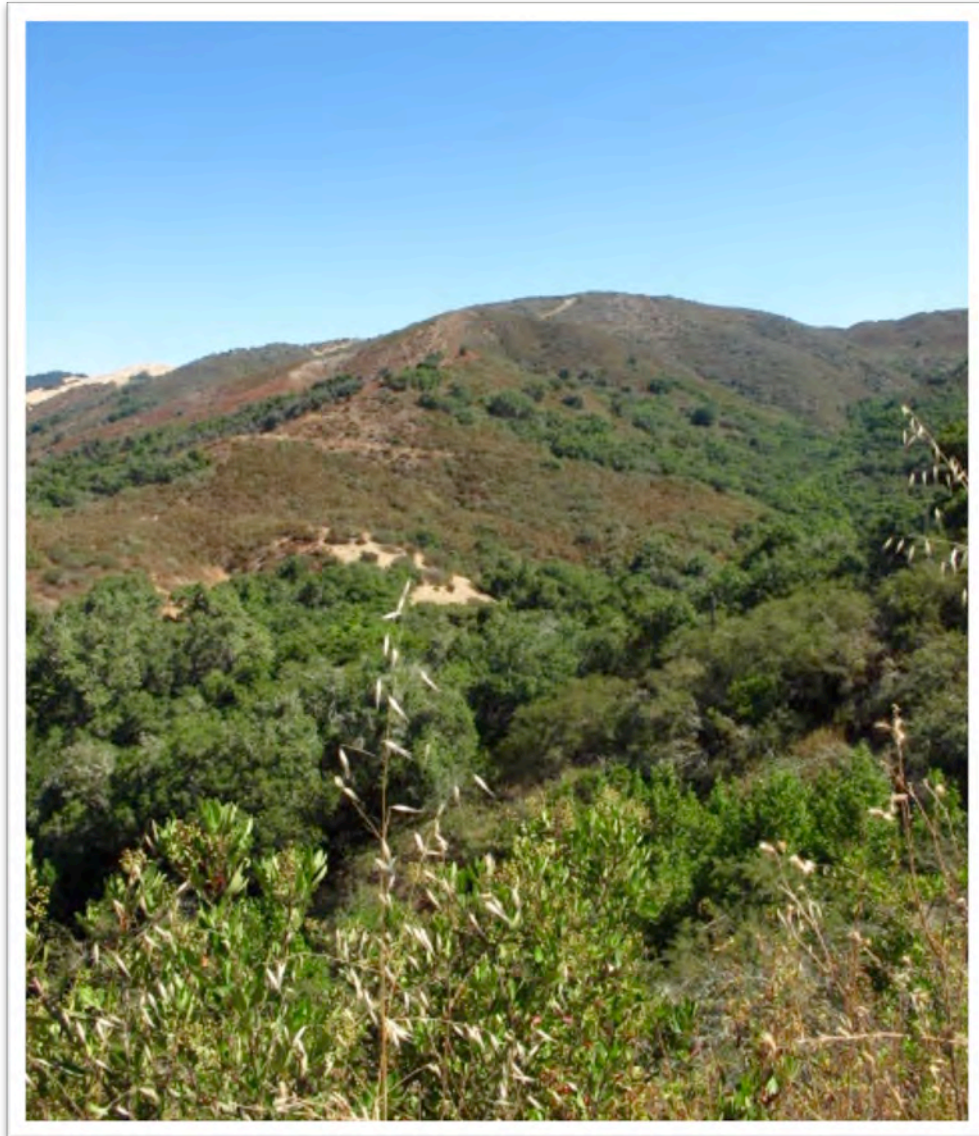


Figure 34. Right-of-way looking northeast over hill at [REDACTED]



Figure 35. Terrain of right-of-way area near [REDACTED]



Figure 36. Right of way of Line 306 looking northeast at [REDACTED] in Toro Creek.



Figure 37. Toro Creek area right-of-way looking southwest.



**Figure 38. Right-of-way coming into Morro Bay Station.**

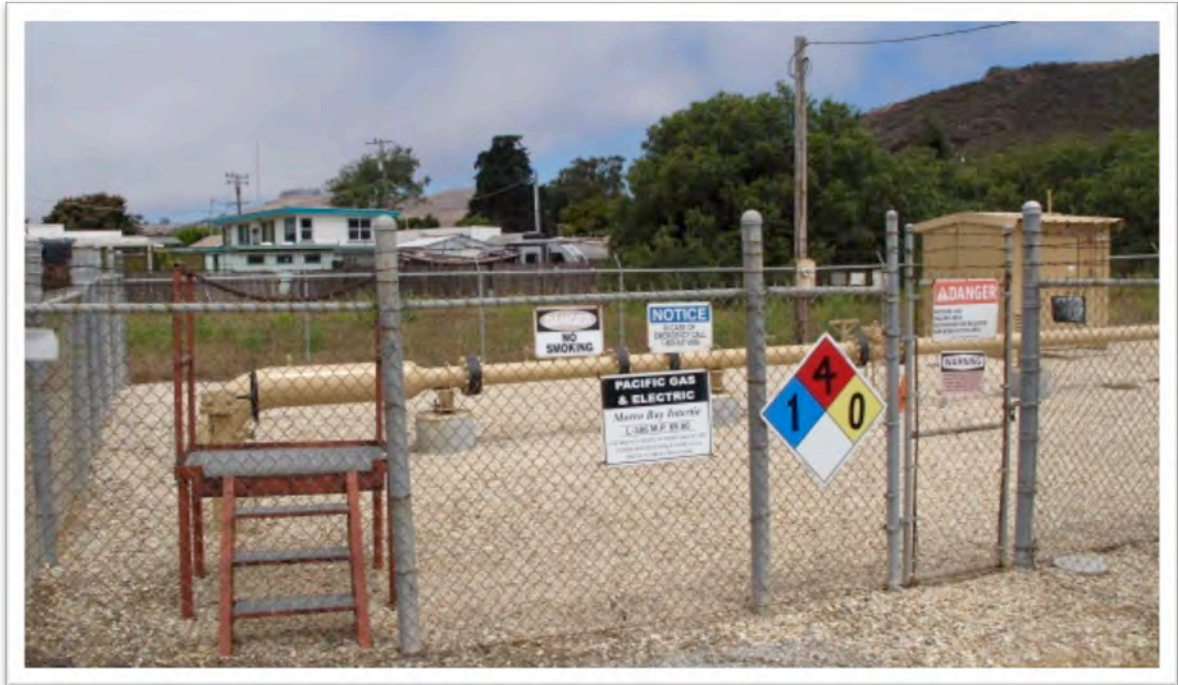


Figure 39. PG&E Morro Bay Station terminal to Morro Bay and interconnect to SoCalGas.



Figure 40. PGE Morro Bay Terminal with SoCalGas interconnect at [REDACTED]



**Figure 41. View of Morro Bay terminal and SoCalGas interconnect with inactive generation plant in background.**

## 5. Method and Approach to Valuation

The subject pipeline system was originally built to provide gas from the Kettleman Compressor Station at Avenal to the generation plant at Morro Bay. After a period of years, the plant at Morro Bay was decommissioned then restarted again by a series of owners. Over time other customers purchased quantities of gas along the 70-mile line. Among these customers are the prison at Avenal, the City of Avenal, surrounding vineyards and farms, and smaller cities along the line.

### VALUATION APPROACH

This appraisal value is based on the Reconstruction Cost New (RCN) approach that calculate the cost of constructing the pipeline at today's prices. This method includes construction, engineering, procurement of material, and right-of-way acquisition costs. This valuation approach is detailed in Section 6: Valuation of Pipeline.

The following valuation approaches were not used for various reasons.

#### **Income Approach**

The author has no documented and substantiated information regarding the past or present throughput of these pipelines; therefore, an income capitalization approach could not be used. No other type of income or income multiple approach based on throughput or economic value could be used to ascertain value without knowledge of amount of product and price of product being transported or sold.

#### **Book Value**

The client, being the potential buyer, had no purpose in establishing or determining the book value of Line 306. The book value of a pipeline would normally be an accounting procedure used by the current owner. This method was not considered.

#### **Comparative sales approach**

The author found no similar pipelines that had changed hands between buyer and seller anywhere in the United States. A comparative analysis base or sales type approach could not be established to assign value Line 306.

#### **Salvage**

A formal attempt to determine salvage value of the property was not attempted; however, an informal estimate is included.



## SITE VISIT

A site visit was made July 26-27, 2017, to survey the pipeline and observe of surface conditions. See **Section 4: Description of Property** for a photo assessment of the pipeline. The author, [REDACTED] was accompanied by [REDACTED] Project Engineer with SoCalGas; [REDACTED] Area Manager with SoCalGas; and [REDACTED] Operator with Pacific Gas & Electric. Present at the kick-off meeting on July 26 at the PG&E office at Kettleman Station was [REDACTED] T&D Supervisor with PG&E. [REDACTED] did not participate in the site visit. The author, [REDACTED] divided his time with [REDACTED] as they drove the right-of-way over two days to the terminal station at Morro Bay.

## 6. Valuation of Pipelines

This section is the effort of the appraiser to ascertain the cost of rebuilding the PG&E Line 306 in today's market. The total cost with no adjustments are on page 10 of the report of this section. Adjustments are found in Section 7: Conclusions.

MORRO BAY TO AVENAL  
[REDACTED] GAS PIPELINE

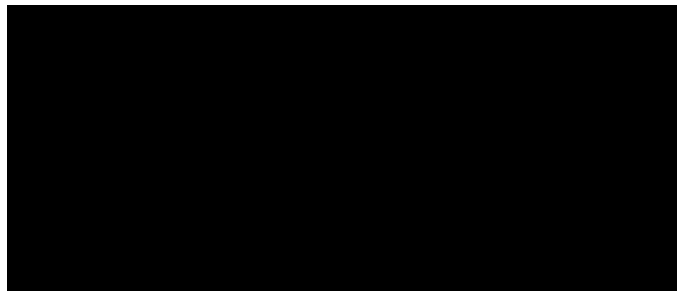
**RECONSTRUCTION COST NEW**

Prepared for



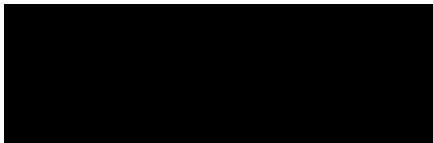
Revision 0 August 14, 2017

**Prepared By**



**Record of Revisions**

<b>Rev.</b>	<b>Date</b>	<b>Description</b>	<b>Prepared By</b>	<b>Approved By</b>
0	August 14, 2017	Final	[REDACTED]	[REDACTED]



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## 1. EXECUTIVE SUMMARY

( ) has been requested by ( ) to prepare a “Reconstruction Cost New” (RCN) estimate for the Morro Bay to Avenal ( ) Gas Pipeline known as PGT L306. The pipeline consists of the 70.2 Miles of ( ) pipeline including launchers/receivers, meter stations, sales taps and main line valves. See Table 2 for an estimated quantity of each component. This RCN should be considered a Class 4 parametric estimate.

Reconstruction Cost New is defined as “*The cost to reconstruct an existing facility utilizing today’s costs, design, materials, equipment and technology while maintaining equal Quality and Utility.*”

The RCN reflects a reasonable expectation of the cost to replace the Morro Bay ( ) Pipeline and includes all land and right-of-way (ROW) acquisition, permanent materials such as line pipe fittings, miscellaneous materials construction costs, project management, engineering, surveying, permitting, inspection, owner’s costs and contingency. The RCN also complies with current safety and environmental practices. It is anticipated that permitting and ROW acquisition will be very expensive and time consuming in California.

The ROW consists of a small amount of congested commercial and residential areas and a considerable amount of the ROW crosses agricultural land. However, some of the terrain will require heavy grading and blasting in right of way and ditch preparation. Examples of major construction challenges encountered include the road crossing at Highway 1 and the crossing of the St. Andreas fault near Cholame, California.

While the existing line does not have piggability this RCN provides for piggability. There are three spans in the existing system which this RCN has eliminated.

Contingent on final soils and hydrological studies there are probably two streams and a highway that will require installation by Horizontal Directional Drilling (HDD) which are provided for in this RCN.

Pricing for this RCN is based on:

- Utilizing current engineering, environmental, safety and construction practices, as well as modern technology, materials and equipment and is calculated in 2017 dollars.
- Documents, photos and maps furnished by ( ) maps obtained from Google Earth and estimators knowledge of the area.
- Current labor and equipment rates.

The RCN was prepared by ( ) has over 45 years’ experience in the pipeline construction and consulting industry both international and domestic.

██████████ has over 15 years' experience in the pipeline design, engineering and consulting industry. Their resumes are attached as an attachment this report.

The estimated RCN for this project is \$94,145,000.

**2. INTRODUCTION**

The existing Morro Bay to Avenal gas pipeline consists of approximately 70.2 miles of primarily ██████████ which was constructed in 1962. The majority of the pipe is installed in a "Primary Class 1 Location" operating area with a small amount in class 2 and 3 locations<sup>1</sup>. There probably has been a small increase in the amount of class 2 and 3 since original construction but we do not believe it would significantly impact the overall project costs.

2.1. Morro Bay ██████ Gas Pipeline System – Overall

<b>RCN - ESTIMATED SYSTEM COSTS - MATERIAL SUMMARY</b> <b>PG&amp;E LINE 306</b> <b>█████ Natural Gas Pipeline</b> <b>Morro Bay (San Luis Obispo County) to Avenal (Kings County) California</b>				
	PIPELINE (miles)	MAINLINE VALVES (#)	LAUNCHER / RECEIVER (sets)	METER RUNS (#)
<b>TOTAL SYSTEM</b>	<b>70.2</b>	<b>11</b>	<b>2</b>	<b>3</b>

Table 1 – Morro Bay ██████ Gas Pipeline System - Overall

<sup>1</sup> (1) A "class location unit" is an onshore area that extends 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) of pipeline. –  
 (2) Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.  
 A Class 1 location is: • (i) An offshore area; or • (ii) Any class location unit that has 10 or fewer buildings intended for human occupancy. –  
 (2) A Class 2 location is any class location unit that has more than 10 but fewer than 46 buildings intended for human occupancy.  
 (3) A Class 3 location is: • (i) Any class location unit that has 46 or more buildings intended for human occupancy; or • (ii) An area where the pipeline lies within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. (The days and weeks need not be consecutive.)  
 (4) A Class 4 location is any class location unit where buildings with four or more stories above ground are prevalent.



### **3. MAIN OBJECTIVE**

Provide a detailed, clear and informative RCN estimate of the Morro Bay to Avenal [REDACTED] Gas Pipeline located in West Central California. The RCN for the total Pipeline System is set forth in this document and attached data sheets.

### **4. SCOPE**

- 4.1. Estimate RCN costs for the Morro Bay to Avenal Gas Pipeline,
- 4.2. Estimate RCN is based on documents provided by [REDACTED] Google Earth Maps and [REDACTED] experience with similar projects.

### **5. TECHNICAL PARAMETERS**

- 5.1. The RCN is prepared in accordance with current regulatory, health, safety, and environmental requirements. And is prepared in accordance with current industry codes, standards and specifications.
- 5.2. There has been a significant increase in cost of pipeline construction over the last few years because of new, environmental, regulatory, and safety regulations.
- 5.3. [REDACTED] cannot determine, from the information available, specifically what special construction techniques, if any, were required at the Saint Andreas fault crossing during original construction. However, we have included an amount in the RCN based on our knowledge of other pipeline crossings of faults.
- 5.4. There are 3 spanned crossings on the existing pipeline. This RCN provides for installing these crossings underground.

### **6. DIRECT AND INDIRECT COSTS**

- 6.1. Development
  - 6.1.1. Quantities and specifications are based on assumptions developed from Google Earth, documents provided by [REDACTED] and [REDACTED], experience with similar projects.
- 6.2. ROW and Facility Sites
  - 6.2.1. ROW and facility site costs have developed documents provided by [REDACTED] and [REDACTED], experience with similar projects.
  - 6.2.2. The acquisition costs for pipeline ROW and facility sites are included in Owners' costs.
- 6.3. Material
  - 6.3.1. Fusion bonded epoxy (FBE) coating is added for below ground construction, and FBE with abrasion resistant overcoating (ARO) is added for road, rail and stream crossings. Heavy wall pipe is added, as required by code for Class 2 & 3 locations and HDD crossings.
  - 6.3.2. Meter stations, launchers/receivers and valve assembly complexity, material specifications, and quantities are based on assumptions developed from Google Earth maps, documents provided by [REDACTED] and estimators experience.
- 6.4. State of the Pipeline Construction Industry

- 6.4.1. In preparing a RCN of this type the availability of required resources and the current state and capacity of the pipeline construction industry must be considered. The RCN takes into consideration the current state of the Pipeline construction industry and the availability of qualified contractors. [REDACTED] believes that adequate financially strong and experienced contractors are available to perform this work at competitive prices.
- 6.4.2. The RCN also takes into consideration the current state of the Pipeline construction industry and the availability of skilled and trained workers. [REDACTED] does not believe that there would be a shortage of a qualified workforce. Current labor rates are utilized in preparation of this RCN.
- 6.5. Construction
  - 6.5.1. The RCN is based on using new or late model state of the art construction equipment, which meets current engine emission requirements. [REDACTED] believes that adequate construction equipment is available to perform this work.
  - 6.5.2. Progress rates are based on production rates obtained on similar projects and estimators' experience.
  - 6.5.3. The RCN considers delays currently anticipated for this area due to ROW availability, environmental issues, or regulatory permits.
  - 6.5.4. The RCN is based on 36" cover with exception of rock and road bores.
  - 6.5.5. The RCN assumes that all streams, except those installed by HDD, are installed by open cut method.
- 6.6. Owner's Costs
  - 6.6.1. All items associated with pipeline ROW and facility land acquisition are considered as Owner's Costs but are shown separately within the RCN. The RCN assumes that adequate ROW will be available.
  - 6.6.2. Other Owner's Costs include project management, engineering, drafting, procurement, construction inspection, nondestructive testing (NDT) inspection and survey.
- 6.7. Contingency
  - 6.7.1. Contingency is added to the RCN to account for unanticipated costs that historically occur with all pipelines including, but limited to the following:
    - 6.7.1.1. Costs associated with late issue of regulatory permits, late access to ROW, including additional legal costs, design changes if any, standby of owner's staff, standby of contractor's staff and equipment,
    - 6.7.1.2. Late delivery or out of specification of owner furnished material,
    - 6.7.1.3. Abnormal weather, i.e. a 100-year flood,
    - 6.7.1.4. Unusual delays caused by regulatory agencies,
    - 6.7.1.5. Unknown Archeological Sites,
    - 6.7.1.6. Out of specification owner furnished materials,
    - 6.7.1.7. Work stoppages by property owners,
    - 6.7.1.8. Unanticipated delays associated with environmental conditions, endangered plants or animal species including "The Migratory Bird Treaty Act of 1918.

- 6.7.1.9. Loss of revenue or legal costs associated with delayed in-service dates and
- 6.7.1.10. Cost of money because of extended construction period.
- 6.7.2. Contingency typically ranges between 10% and 30% and on occasion contingency can be as high as 40%. Because of the political and environmental climate of this area we have chosen to use a 30% for this RCN.

**7. RCN ESTIMATE**

**7.1. Morro Bay [REDACTED] Gas Pipeline System - RCN Summary**

RCN - ESTIMATED SYSTEM COSTS  
 PG&E LINE 306  
 [REDACTED] Natural Gas Pipeline  
 Morro Bay (San Luis Obispo County) to Avenal (Kings County) California

Description	Quantity	Unit Cost	Amount
-------------	----------	-----------	--------

--	--	--	--

	Subtotal		\$72,419,300
	Contingency @	30%	\$21,725,800
	<b>Total Estimated Cost:</b>		<b>\$94,145,100</b>

Notes: 36" cover except 30" in rock  
 Taxes not included - include if applicable

**Table 2 – RCN Summary**

## 8. APPENDICES

### 8.1. Overall

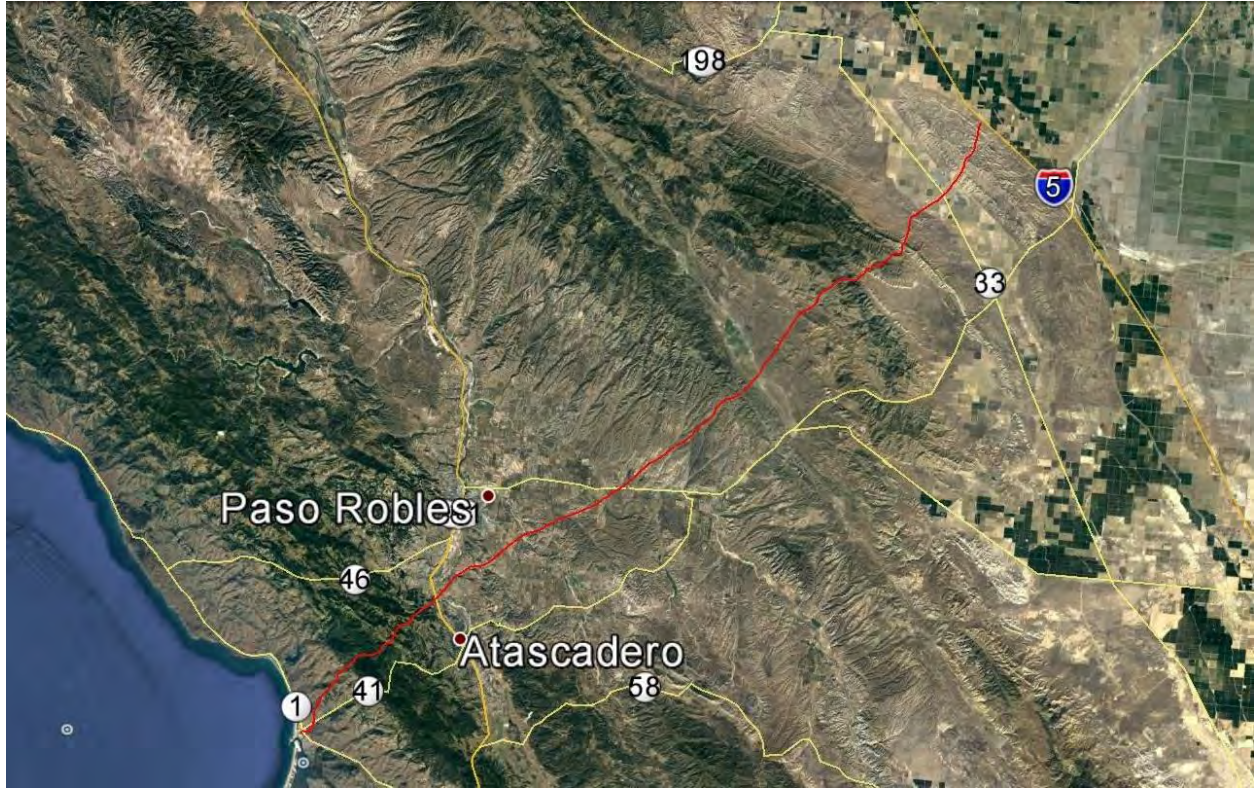


Figure 1 – Morro Bay Gas Pipeline System – Overall Map

8.2. Section HWY 1 to HWY 101



Figure 2 – Morro Bay ■ Gas Pipeline System – Hwy 1 to Hwy 101



Figure 3 – Morro Bay      Gas Pipeline System – Hwy 1 Crossing



Figure 4 – Morro Bay [REDACTED] Gas Pipeline System – East of Hwy 1 Crossing



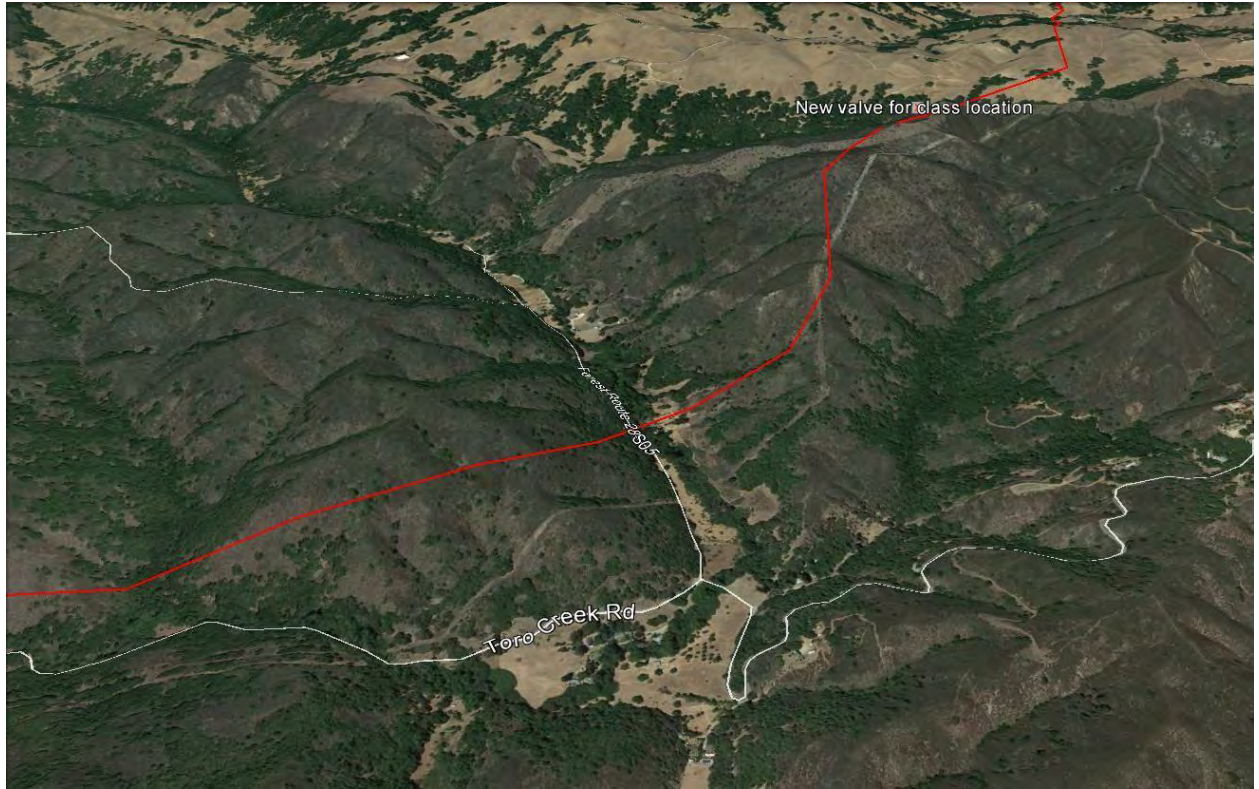


Figure 5 – Morro Bay  Gas Pipeline System – Crossing Forest Route 28S05



Figure 6 – Morro Bay ■ Gas Pipeline System – Crossing SR 41



Figure 7 – Morro Bay [REDACTED] Gas Pipeline System – Crossing San Gregorio Rd

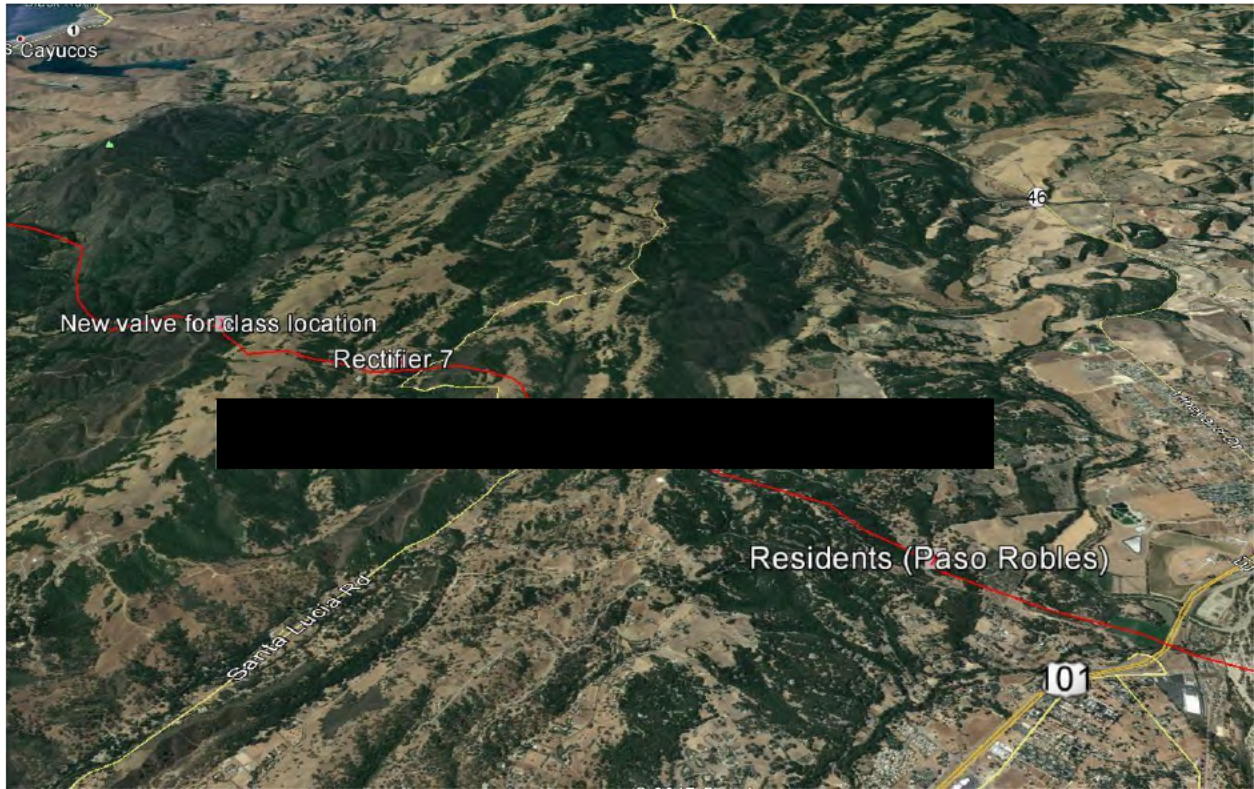


Figure 8 – Morro Bay [REDACTED] Gas Pipeline System – West of HWY 101



Figure 9 – Morro Bay [REDACTED] Gas Pipeline System – Crossing HWY 101



Figure 10 – Morro Bay [REDACTED] Gas Pipeline System – Crossing Hwy 101

8.3. Section HWY 101 to SR 46

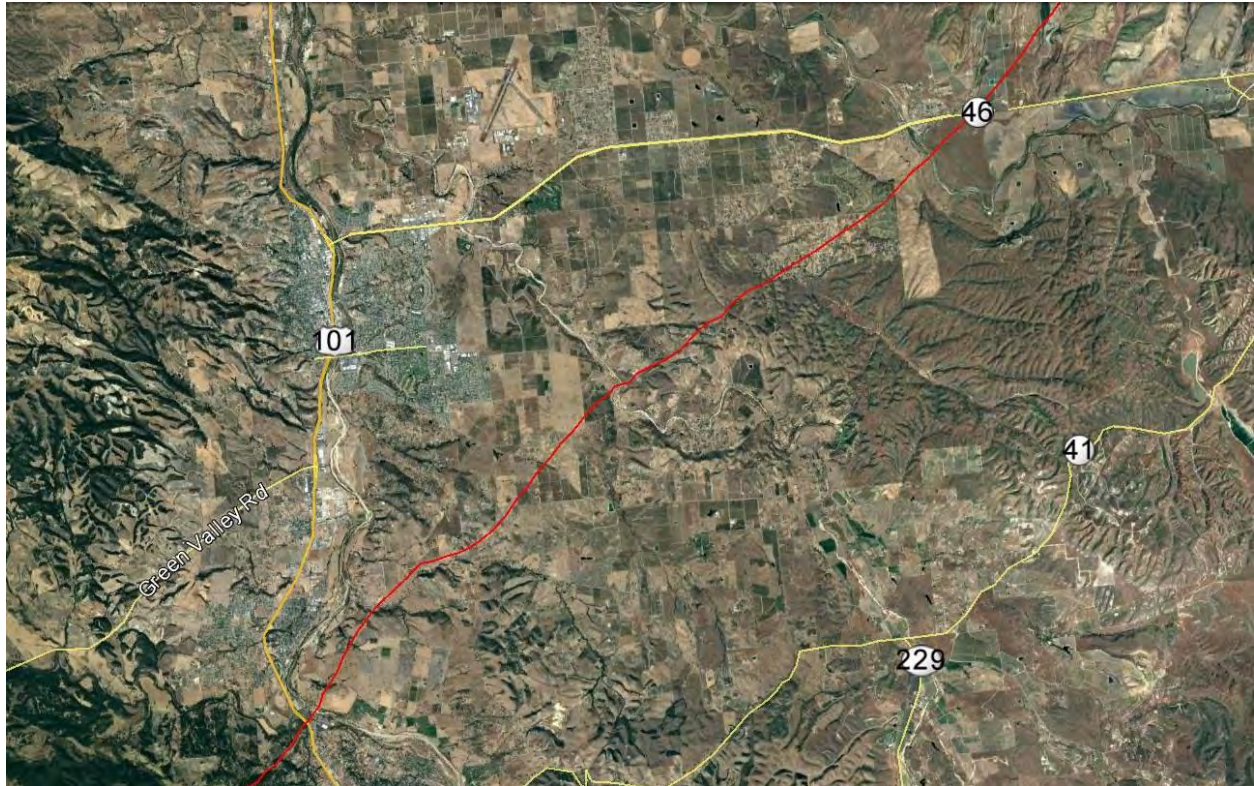


Figure 11 – Morro Bay Gas Pipeline System – Hwy 101 to SR 46



Figure 12 – Morro Bay Gas Pipeline System – Crossing Watershed East of HWY 101





Figure 13 – Morro Bay ■ Gas Pipeline System – Crossing Templeton Rd



Figure 14 – Morro Bay [REDACTED] Gas Pipeline System – Crossing Moss Ln



Figure 15 – Morro Bay Gas Pipeline System – Chaparral Rd



Figure 16 – Morro Bay ■ Gas Pipeline System – Crossing Chaparral Rd



Figure 17 – Morro Bay Gas Pipeline System – Aerial View of Paso Robles



Figure 18 – Morro Bay ■ Gas Pipeline System – Crossing SR 46

#### 8.4. Section SR 46 Across Fault/Range



Figure 19 – Morro Bay Gas Pipeline System – Fault Crossing near SR 46



Figure 20 – Morro Bay Gas Pipeline System – Crossing Irrigated and Non-Irrigated Agricultural Land North of SR 46





Figure 21 – Morro Bay Gas Pipeline System – Fault Broad View



Figure 22 – Morro Bay █ Gas Pipeline System – Fault Closeup View

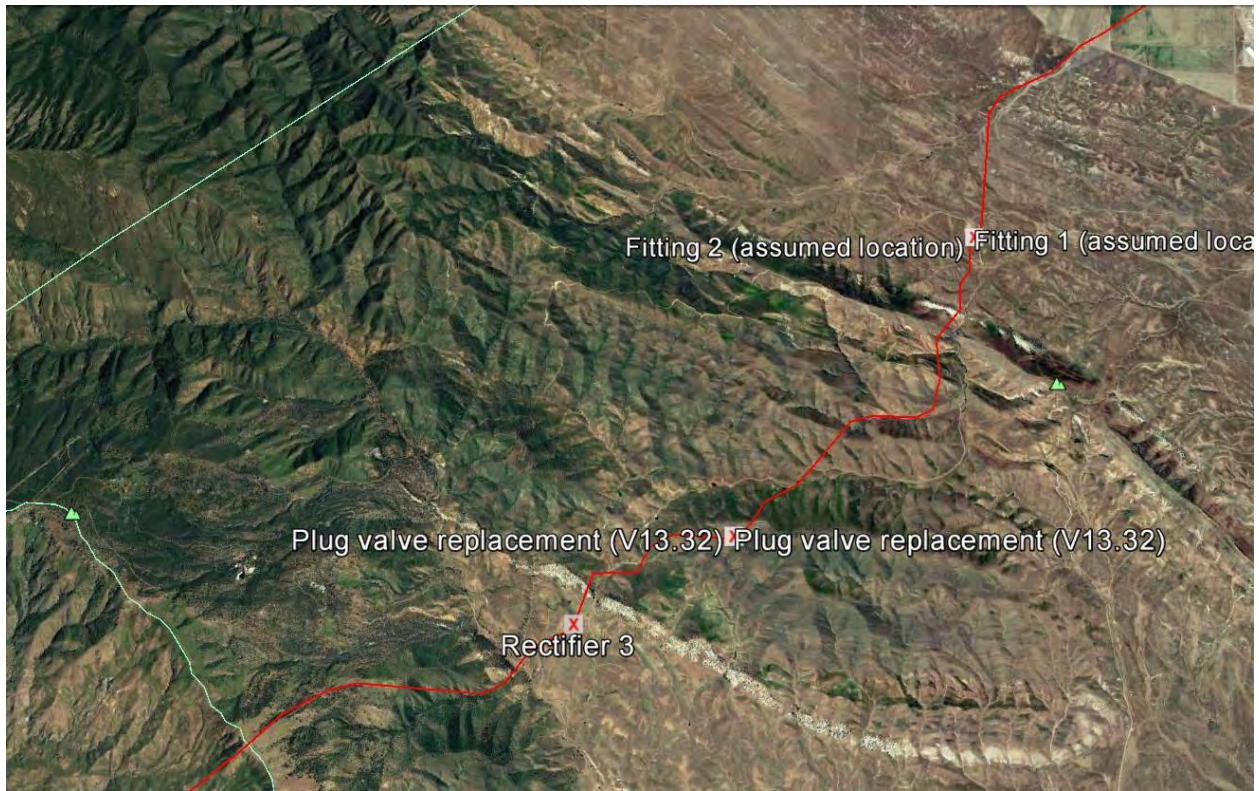


Figure 23 – Morro Bay Gas Pipeline System – Range East of Fault

8.5. Section Fault/Range to Compressor Station



Figure 24 – Morro Bay Gas Pipeline System – East of Fault/Range to I-5



Figure 25 – Morro Bay [REDACTED] Gas Pipeline System – Avenal Prison and SR 33

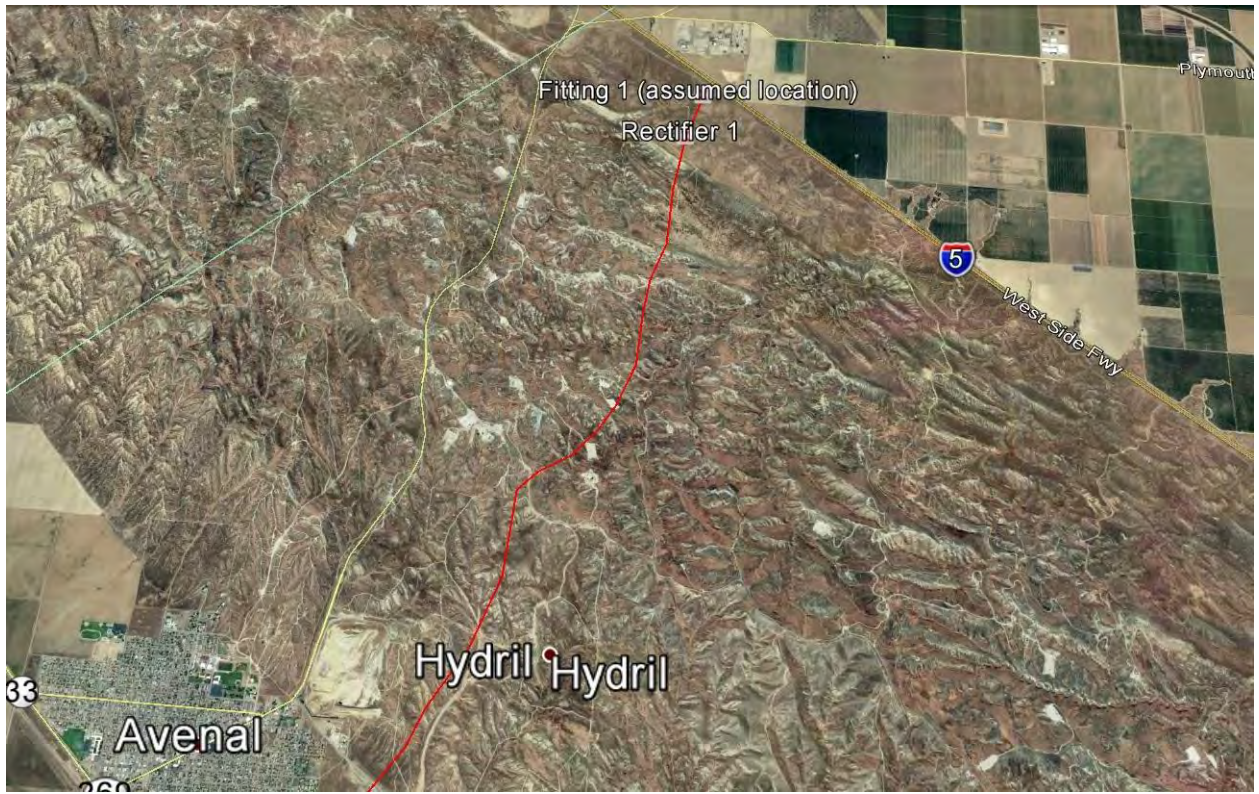
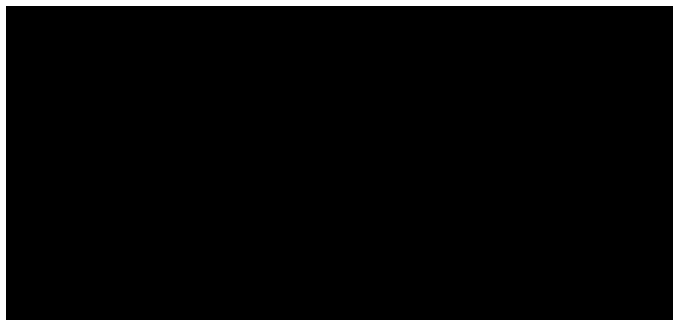
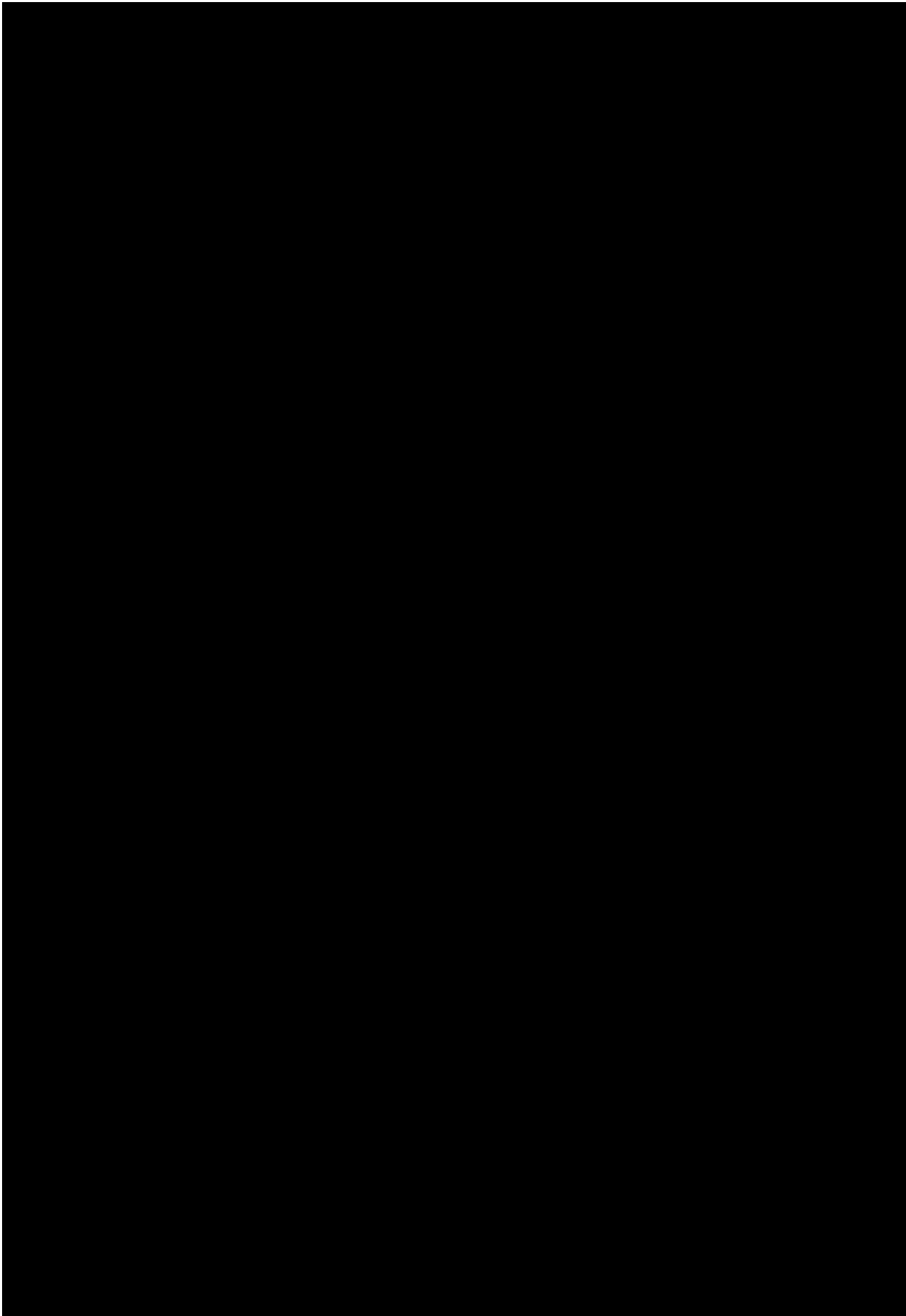


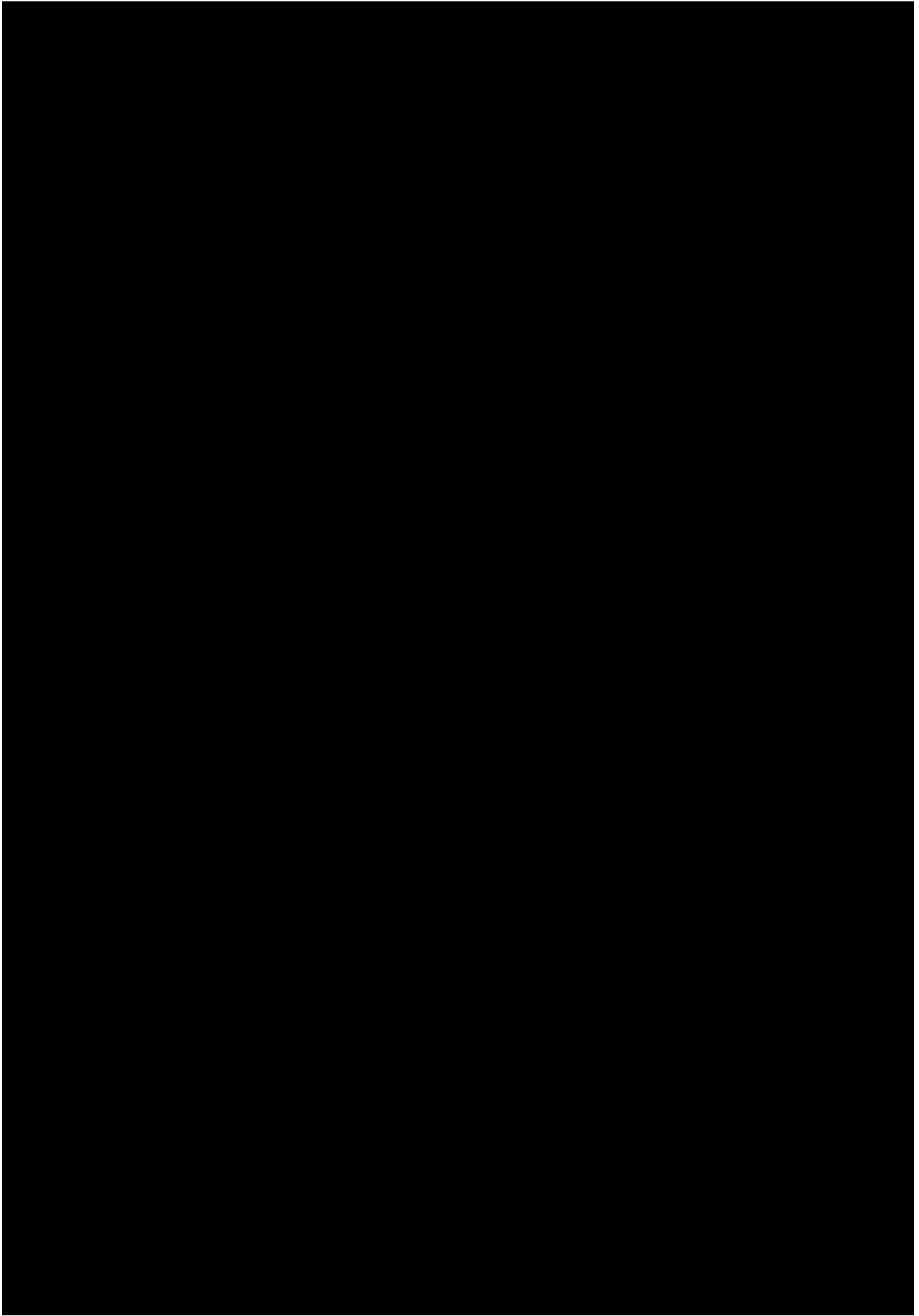
Figure 26 – Morro Bay Gas Pipeline System – Avenal to I-5

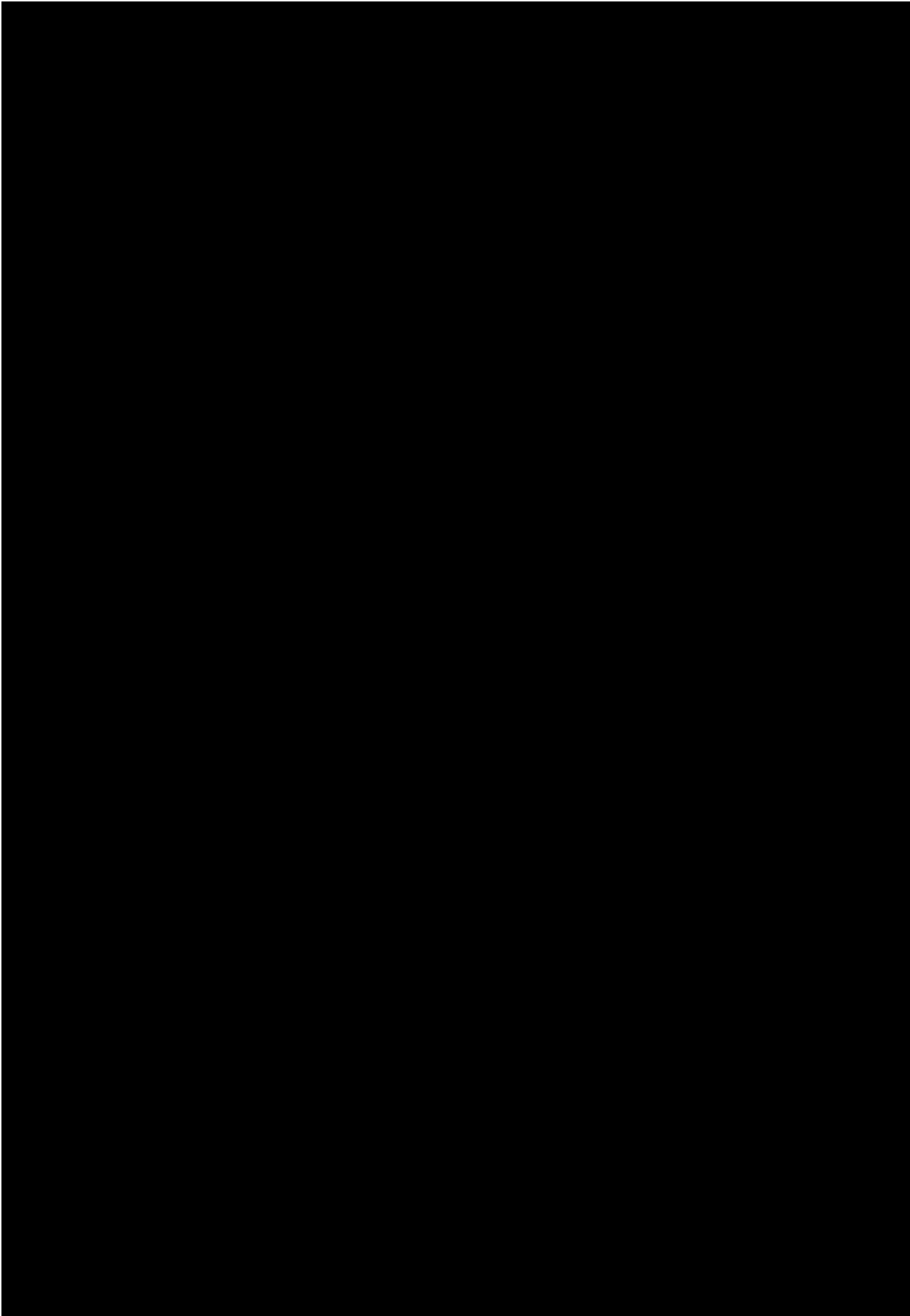
# RESUMES

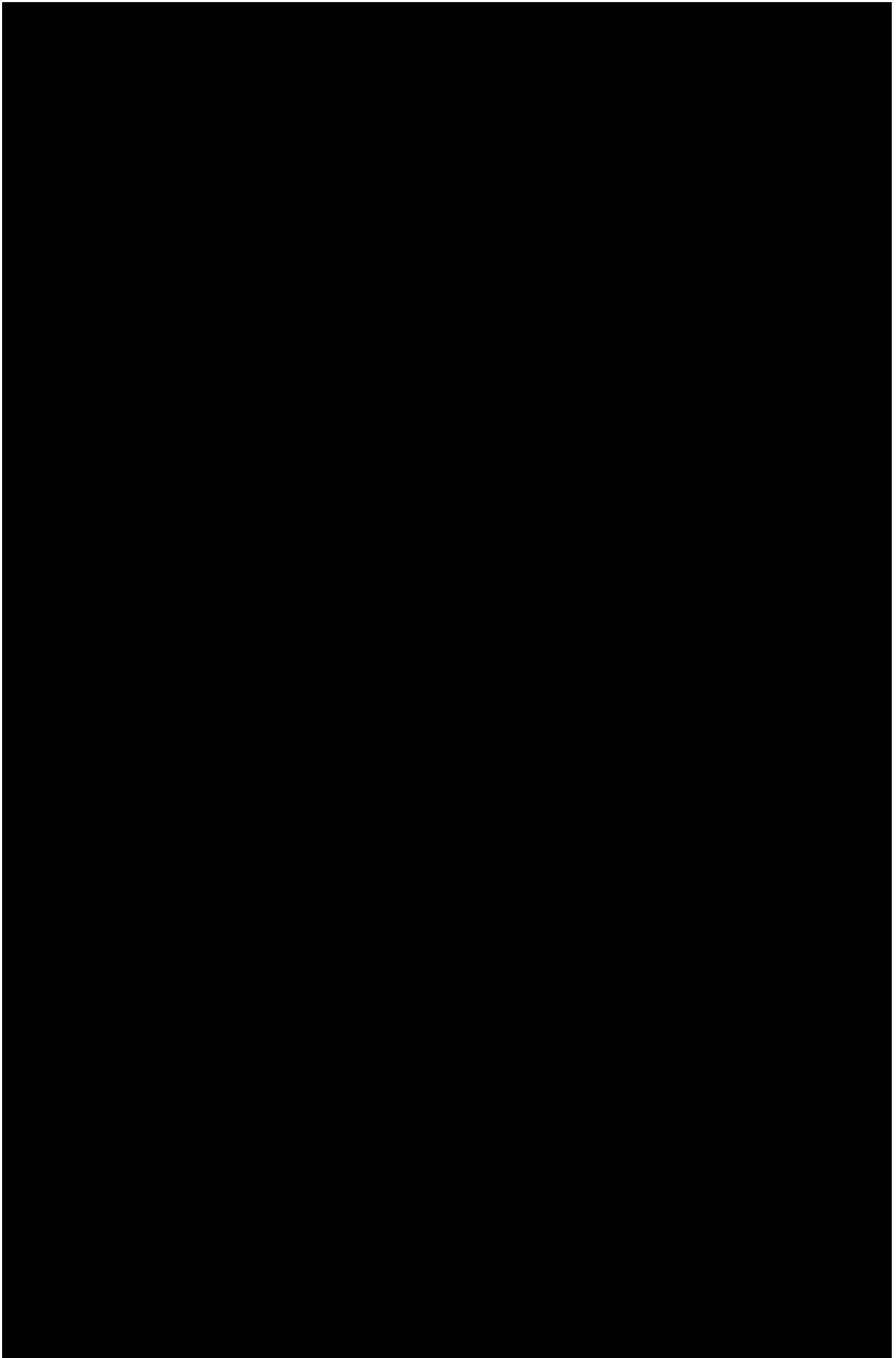


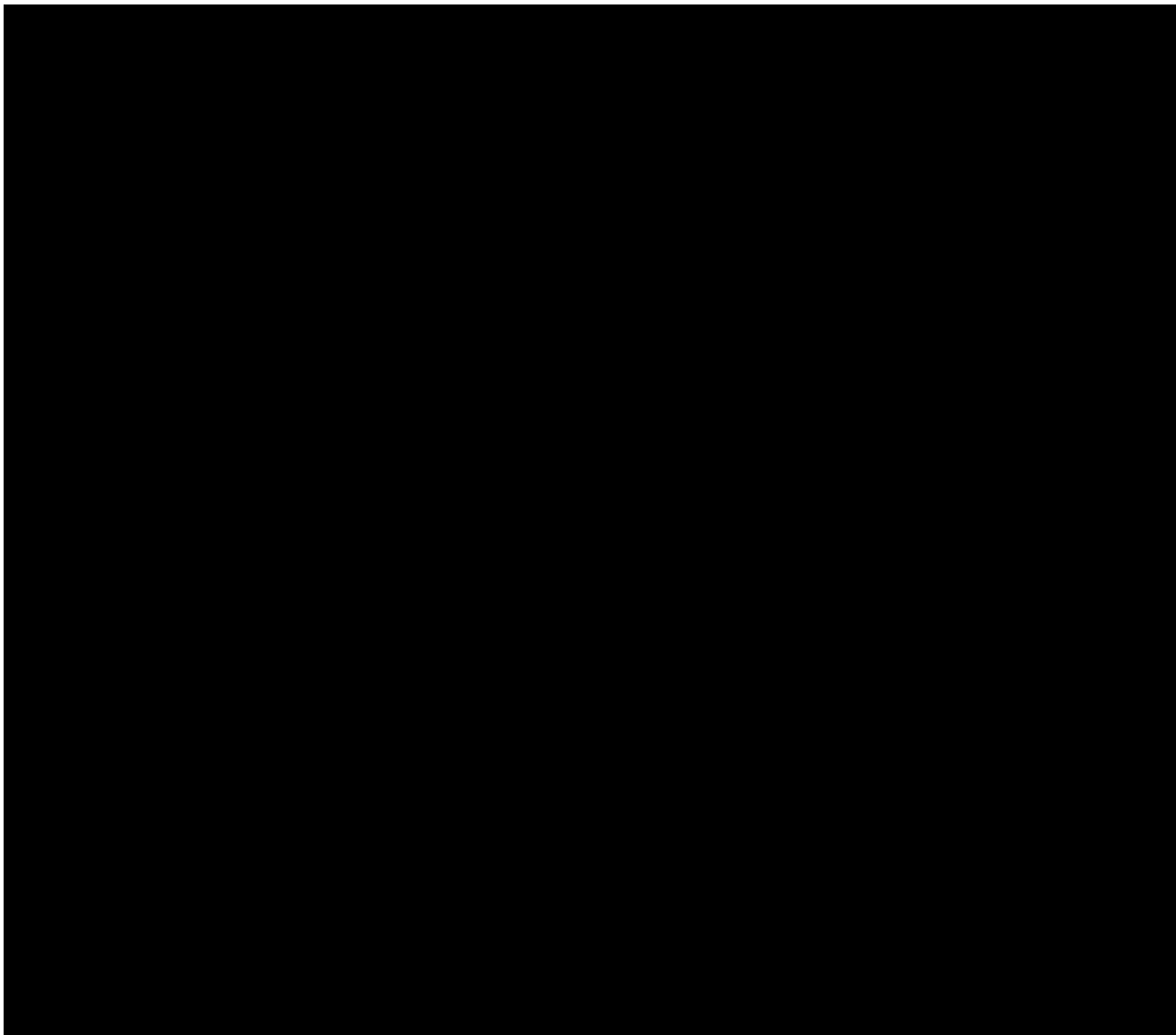


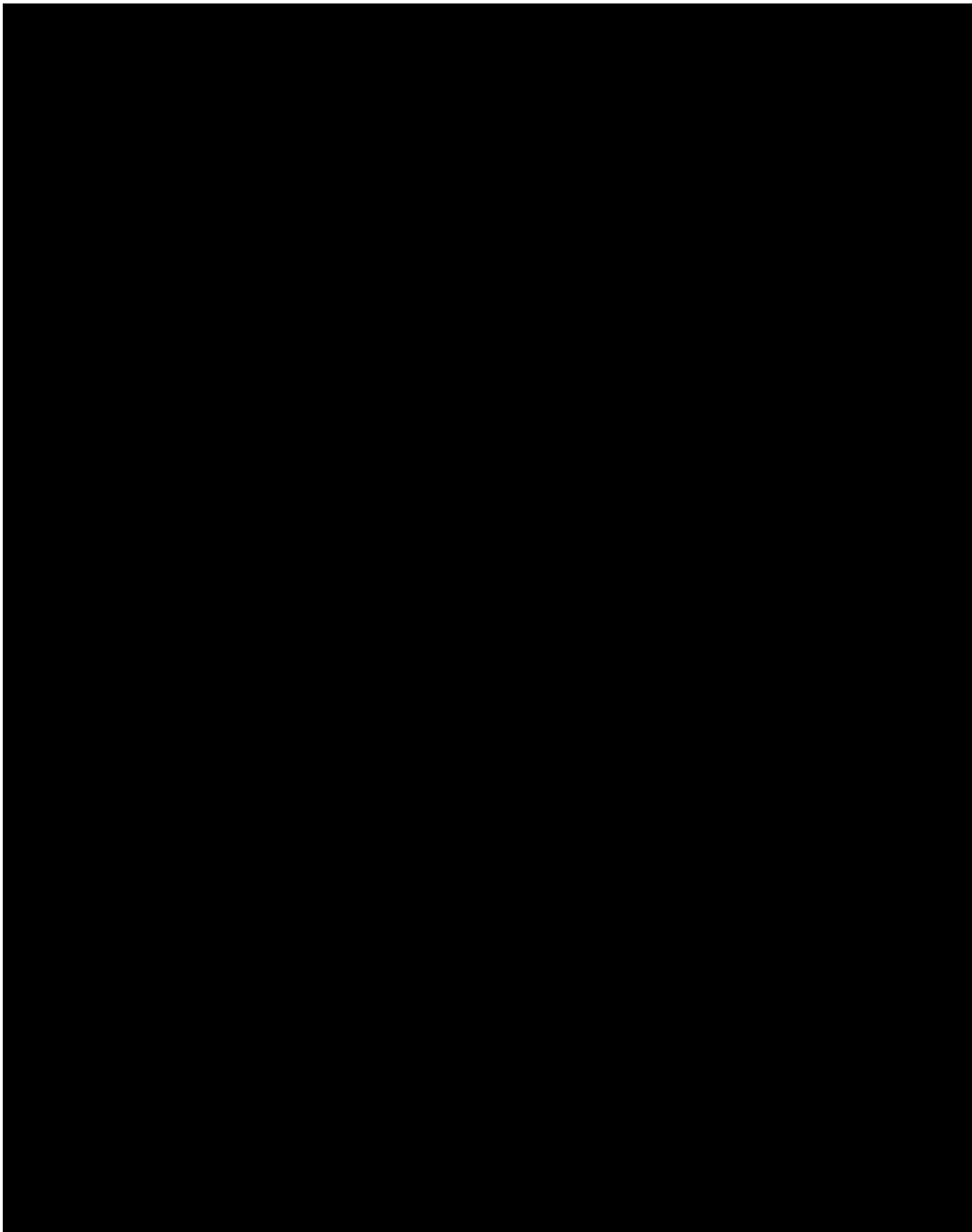


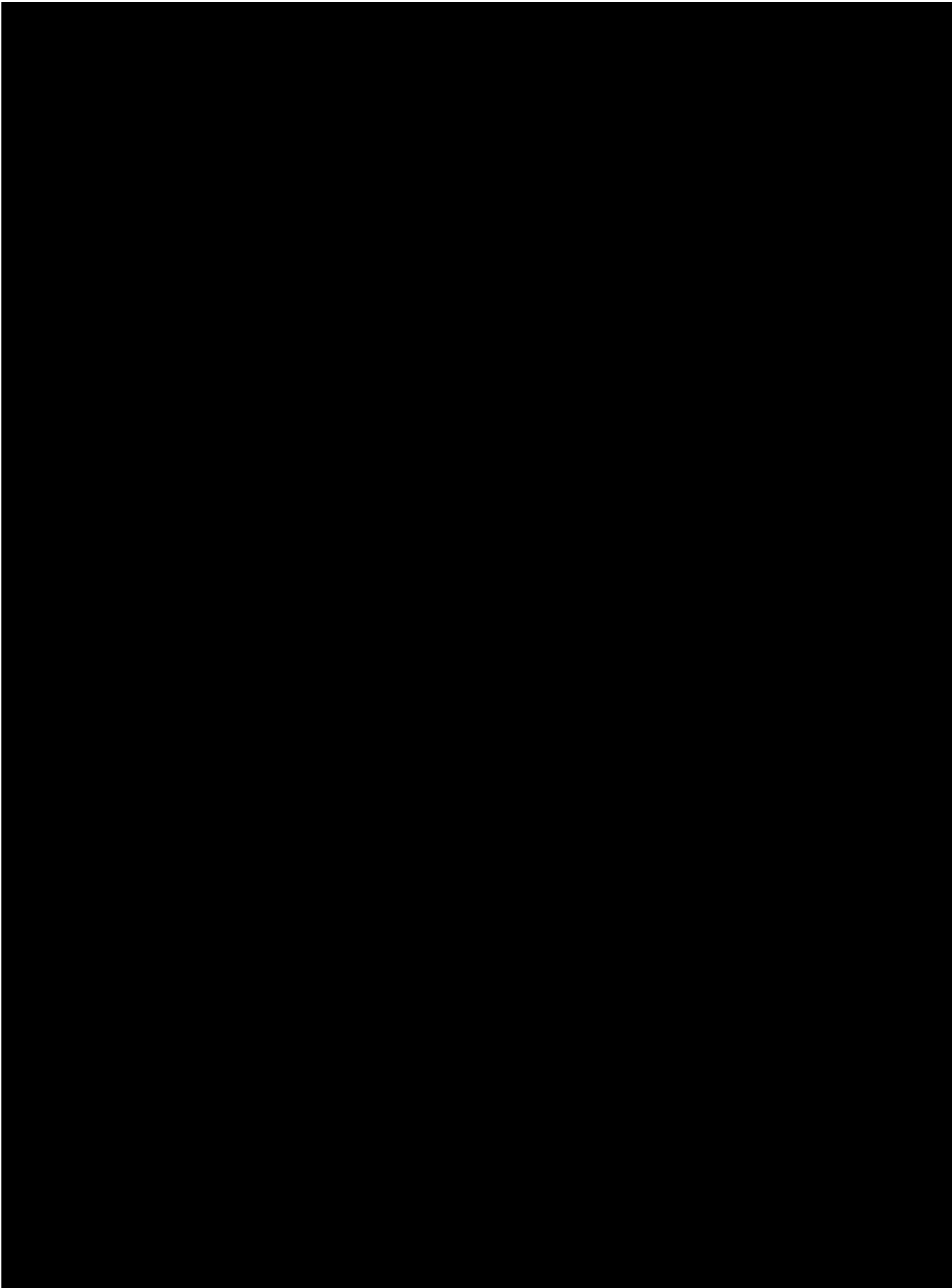


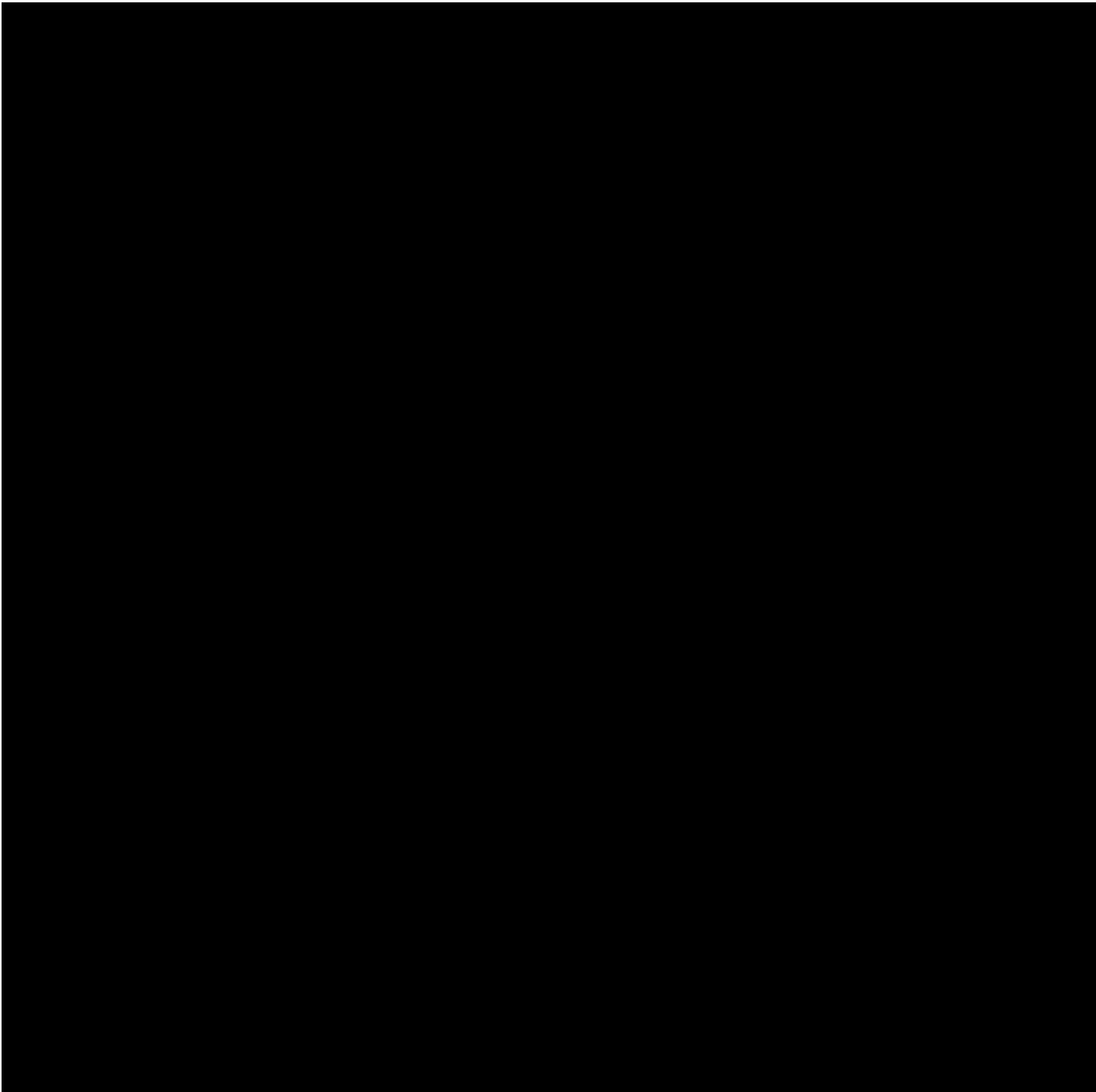












## 7. Conclusions

The final valuation of the Pacific Gas & Electric Line 306 Gas Transmission Pipeline is based entirely on the cost of reconstruction of the system as documented in the report in Section 6: Valuation of Pipelines. The Reconstruction Cost New (RCN) approach to valuation was determined to be the only means of accurately defining the approximate value of this system. In the process, we looked at every piece and function of the pipeline from as many aspects as were available to determine what it would cost to build this system in today's political, geographical, and environmental economy.

One means of determining value of a property is to define the life expectancy of that property and depreciate over that term based on the cost of new construction. In the case of Line 306, we determined this line to have a life of 85 years<sup>1</sup>. Using this means of calculation, we would say that 55 years of that life have been used and 30 years remain. Based on the age of the pipeline, an estimate of value would be \$61,655,000 ( $\$95,000,000 \times 1.18\% \times 55$  years) leaving a current depreciated value of \$33,345,000 ( $\$95,000,000 - \$61,655,000$ ).

While we do not have knowledge of the market other than the interest the client, Southern California Gas, Inc., we must assume the state of California will continue to see growth in the use of clean natural gas. Seventy miles of 20" pipeline traversing the center of the state has significant transportation asset value. The assumptions and projections indicated here are but estimates and opinions. Ultimately the market determines market value, but this document and the opinion of this appraiser with this set of calculations should determine the worth of this property.

**The value of the PG&E Line 306 Gas Transmission Pipeline based on new construction is \$33,000,000.**

---

<sup>1</sup> It should be noted here that 85 years is an arbitrary number this appraiser uses generally and for the sake of having a benchmark for determining the age of a pipeline. We have taken up pipelines of 80+ years of age and have found them to be in absolute usable condition. In fact, a crude line of 85 years of age was taken out of service and reclaimed by my crews to be replaced by a larger line.



## 8. Exhibits

The following documents support this valuation report:

Exhibit A: Index of ROW Agreements (USB Drive)

Exhibit B: Representatives samples of easements

Exhibit C: Third Party ROW Valuation

Exhibit D: Line 306 Alternatives to Replacing Line 44-1088

# **EXHIBIT A**

## **INDEX OF ROW AGREEMENTS**

Located on USB Drive

**EXHIBIT B**

**REPRESENTATIVE SAMPLES**

**OF EASEMENTS**

1060-151A

12273

BOOK 838 PAGE 461

1060-151A  
B. 838, #

AFTER RECORDING, RETURN TO:

FOR RECORDER'S USE ONLY

17-0228



387  
5

KINGS COUNTY, STATE OF CALIFORNIA  
SEATTLE PLANNING, Auditor and Recorder  
*Shirley Ben*  
DEPUTY

RIGHT OF WAY FOR PIPE LINE

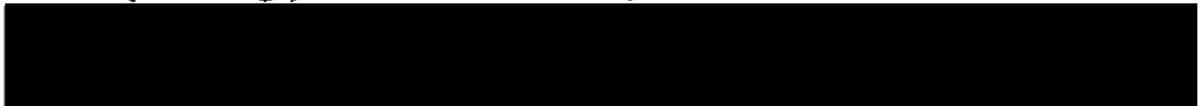
FOR OTHER RIGHTS ON THIS  
PROPERTY, SEE DOCUMENT 1060-71

✓  
COPY SENT  
TO DIVISION  
209C

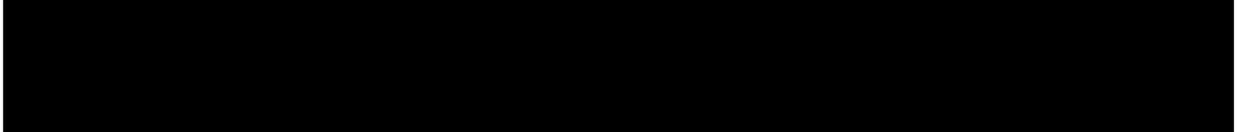
THIS AGREEMENT, dated this 11<sup>th</sup> day of July, 1963  
by and between a corporation, hereinafter called  
 and PACIFIC GAS AND ELECTRIC COMPANY, a corporation, hereinafter called  
"Pacific",

WITNESSETH, that:

In consideration of value paid it herefor, the adequacy and receipt whereof  
are hereby acknowledged and in further consideration of the prompt and full per-  
formance of the things to be performed by Pacific as hereinafter set out and  
contained, hereby grants to Pacific, subject to the exceptions, reservations,  
conditions and provisions hereinafter set out, the non-exclusive right and priv-  
ilege to lay, install, construct, maintain, operate, repair, renew and remove one  
(1) pipe line, not to exceed twenty-four , and appurtenances, for  
the transportation of gas, together with a right of way therealong within the  
strips of land hereinafter described which cross those certain lands, situate in  
the County of Kings, State of California, which are described as follows:



Said pipe line shall be installed within strips of land, each ten (10) feet  
in width, the center lines of which are described as follows:



[REDACTED]

[REDACTED] expressly reserves the right from time to time to cultivate and farm said land and to construct, maintain, use and remove, upon, across, in, over, and under said strips of land or any portions thereof, roads, walkways, levees, ditches, conduits, waterways, pipe lines, fences, telephone, telegraph and electric power lines provided, however, that after the date hereof [REDACTED] shall not erect or construct or permit to be erected or constructed any building, plant, tank, or similar structure or drill or operate any water or oil well within twenty-five (25) feet on either side of the center lines of the routes hereinabove described except by directional drilling or other subsurface operations conducted from surface locations at least twenty-five (25) feet on either side of the center lines of said described routes.

Pacific, for the purpose of installing, constructing, maintaining, operating or removing said pipe line, shall have the temporary right to use and occupy strips of land not to exceed a total combined width of fifty (50) feet adjoining and parallel to the center lines of the ten (10) foot right of way strips hereinabove described. Pacific shall have the right of ingress to and egress from said right of way along such practicable route or routes as [REDACTED] may from time to time designate or approve. Pacific shall repair any damage which may be caused by its exercise by such right of ingress and egress.

Pacific shall lay, install, construct, maintain, operate, repair, renew and remove said pipe line in such manner as will not unreasonably interfere with or

obstruct other uses of said premises by [REDACTED] Pacific shall not construct a fence upon, along or across all or any portion of the right of way herein granted.

In the event that [REDACTED] shall dedicate for public roads any portion of the land within which said pipe line is constructed, Pacific agrees that it will not hinder or obstruct such dedication and it will hold [REDACTED] free and harmless from any cost to raise, lower, relocate or reconstruct said pipe line or to make any other change in said pipe line necessary or required to be made to conform to the grade of such public roads or to the requirements of any public body having jurisdiction of such roads.

Pacific shall not interfere with or obstruct the use of said premises by Union or its lessees provided such use is not inconsistent with the rights hereby conveyed to Pacific.

Pacific shall bury said pipe line so that it will pass beneath previously laid pipe lines which it may cross and so that the top of the pipe line at all times shall be at least thirty-six (36) inches below the natural surface of the ground and shall promptly and properly backfill all excavations made by or for Pacific on the premises.

The rights and privileges hereby conveyed are personal to Pacific and shall not be assigned by Pacific, in whole or in part, without the written consent of [REDACTED] first being had. No written consent by Union hereunder shall be deemed a waiver by [REDACTED] of any of the provisions hereof, except to the extent of such consent.

Pacific, in the exercise of the rights granted to it hereunder, shall not do or permit to be done any welding or operations involving sparks or flame within a distance of three hundred (300) feet from any oil or gas well, or oil, gas or gasoline container, or place of discharge to atmosphere of oil, gas or gasoline, whether located on the premises or on adjacent lands, without prior consent of [REDACTED] and then only subject to and in accordance

with the provisions hereof and such other conditions as may be expressed in said consent.

It is further understood and agreed that this agreement, and the rights and privileges herein given Pacific shall terminate in the event that Pacific shall fail for a period of one (1) year to maintain and operate the facility constructed hereunder.

In the event of the termination of this agreement Pacific shall thereupon, at its own expense and risk, remove all property placed by or for Pacific upon said land, and restore said premises as nearly as possible to the same state and condition as that in which they were prior to any construction hereunder, and if it should fail so to do within sixty (60) days after such termination, Union may so do, at the risk of Pacific, and all cost and expense of such removal and the restoration of said premises as aforesaid, together with interest thereon at the rate of ten (10) per cent per annum shall be paid by Pacific upon demand; and in case of a suit to enforce or collect the same, Pacific agrees to pay [REDACTED] in addition a reasonable attorney's fee to be fixed and allowed by the court.

Upon the termination of the rights hereby granted, Pacific shall execute and deliver to [REDACTED] within thirty (30) days after service of a written demand therefor, a good and sufficient quitclaim deed to the rights hereby granted. Should Pacific fail or refuse to deliver to [REDACTED] a quitclaim deed, as aforesaid, a written notice by Union reciting the failure or refusal by Pacific to execute and deliver said quitclaim deed, as herein provided, and terminating said grant, shall, after ten (10) days from the date of recordation of said notice, be conclusive evidence against Pacific and all persons claiming under Pacific of the termination of said grant.

Pacific shall and will pay, before the same become delinquent, all charges, taxes, rents and assessments upon or against pipe line on said premises, but Union may, at all times after any delinquency, pay and discharge all of such

delinquent charges, taxes, rents and assessments, after reasonable verification thereof, and all such payments so made by Union with interest thereon at the rate of ten (10) per cent per annum from date of payment will be paid by Pacific upon demand. The amount of such payments and interest shall be a charge and a lien against all property placed by or for Pacific on said premises, and in case of suit, after such demand, to enforce or collect the same, Pacific agrees to pay Union in addition thereto a reasonable attorney's fee to be fixed and allowed by the court.

Pacific hereby releases and discharges [REDACTED] from all claims and demands by Pacific for loss of or damage to Pacific's property, and agrees to indemnify [REDACTED] against and save Union harmless from all costs and expenses, including attorneys' fees, and all liability, and claims and demands of others, for loss of or damage to property, or injury to or death of persons, which may result directly or indirectly from the granting, use or termination of, or operations under, this agreement. Pacific agrees to pay Union in full and promptly upon demand for any and all loss of or damage to Union's property caused by Pacific by, or growing out of any operations of Pacific hereunder or in connection herewith.

Any notice provided herein to be given by either party hereto to the other may be served by depositing in the United States Post Office, postage prepaid, a sealed envelope containing a copy of such notice and addressed to said other party at its principal place of business, and the same shall be sufficient service of such notice.

Pacific hereby recognizes Union's title and interest in and to the land over which the aforesaid right of way is granted and agrees never to assail or resist Union's title or interest therein.

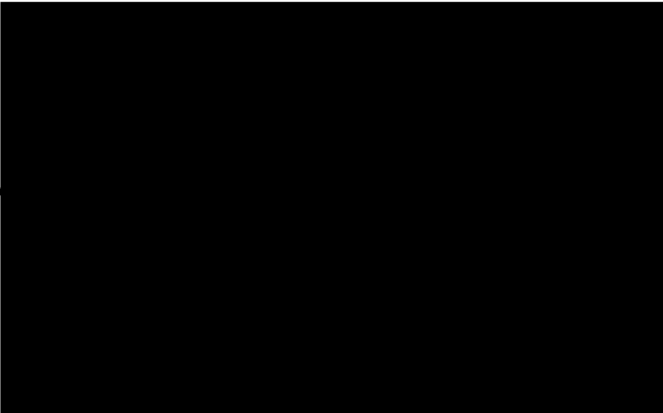
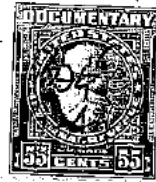
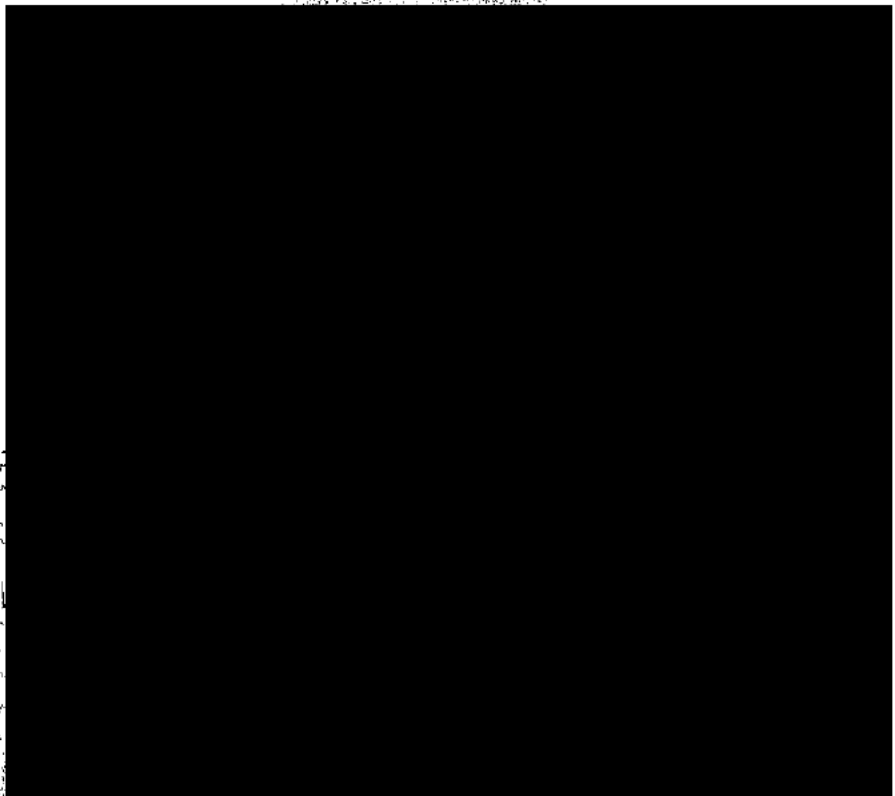
Except as otherwise provided herein, the terms and conditions of this agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto.

It is understood and agreed that the privileges herein given are subordinate



to and subject to all valid and existing licenses, leases, grants, exceptions and reservations affecting said premises.

IN WITNESS WHEREOF, the said parties hereto have caused this agreement to be executed in duplicate by their proper officers who are thereunto duly authorized as of the day and year first hereinabove written.



*WLB*

Correct as to Description *WLB*

cons \$465.00

01845% 8F R00005.00 RECR  
2229-10-0241

3008-1478 Kettleman-Morro Bay G/L  
6 75 1

01845% 8F R00000.55 TAX  
01845% 8F R00005.55CA

AFTER RECORDING, RETURN TO:  
**PACIFIC GAS AND ELECTRIC COMPANY**

FOR RECORDER'S USE ONLY

77 Beale Street  
San Francisco, California 94106  
Attn: Title Administration Unit, Land Dept.

DOC. NO. **29524**  
OFFICIAL RECORDS  
SAN LUIS OBISPO CO., CAL.

Location: City/Uninc

COMPARED SEP 8 1975

Recording Fee \$5.00

WILLIAM E. ZIMARIK  
COUNTY RECORDER  
TIME 4:30 P.M.

Documentary Transfer Tax \$ 0.55

- Computed on Full Value of Property Conveyed, or
- Computed on Full Value Less Liens & Encumbrances

[Redacted Signature]

Signature of declarant or agent determining tax

RIGHT OF WAY AGREEMENT

THIS AGREEMENT, dated the 2 day of July, 19 75,  
by and between [Redacted] hereinafter termed "Grantor",  
and PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter  
termed "Grantee",

W I T N E S S E T H:

GRANTOR, for and in consideration of the full and prompt performance of the things to be performed by Grantee as hereinafter set out and contained herein and in EXHIBIT C of that certain unrecorded agreement between Grantor and Grantee dated March 31, 1964, hereby grants to Grantee, subject to and under the terms, conditions and provisions hereinafter contained and in said EXHIBIT C, a right of way and easement for the purpose of excavating for, installing, replacing (of the initial or any other size), maintaining and using such pipe line or lines as Grantee shall from time to time elect for conveying gas, with necessary and proper valves and other appliances and fittings, and devices for controlling electrolysis for use in connection with said pipe lines, together with adequate protection therefor, within the hereinafter described strip of those certain

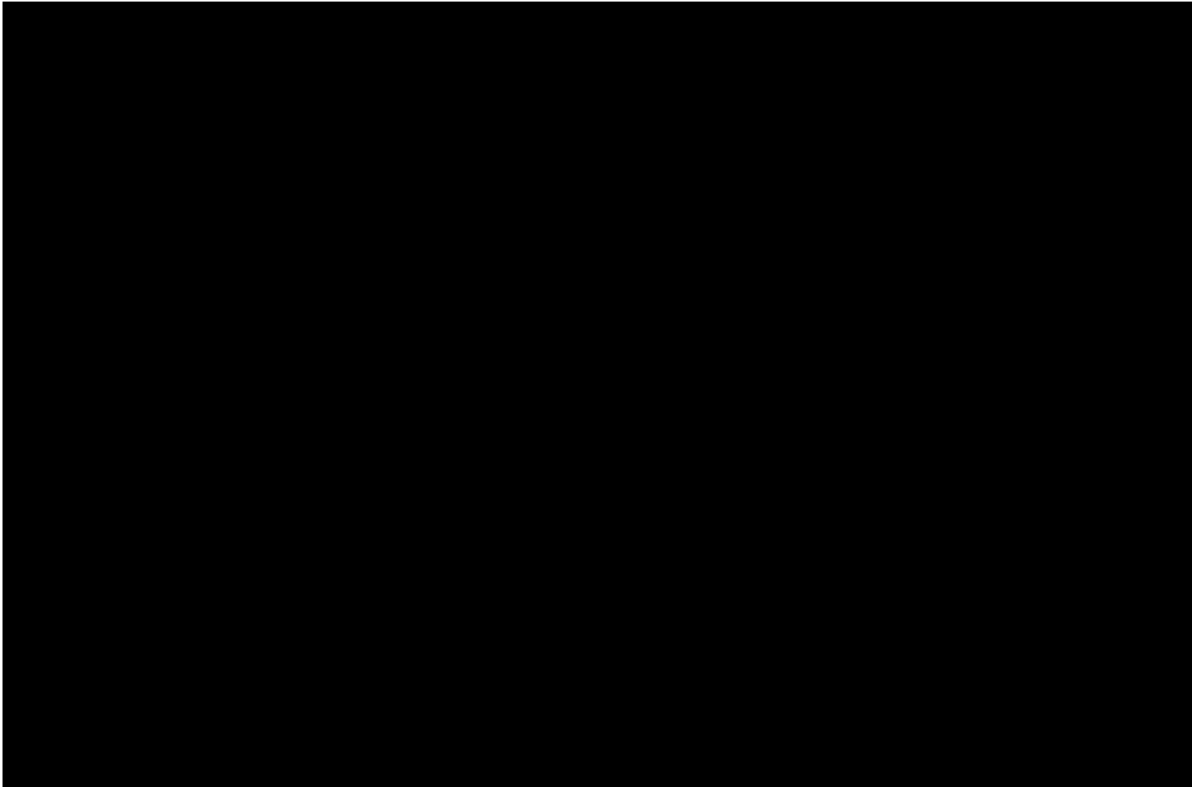
29524

lands which are situate in the County of San Luis Obispo, State of California,  
and are described as follows:

(APN 73-077-06)

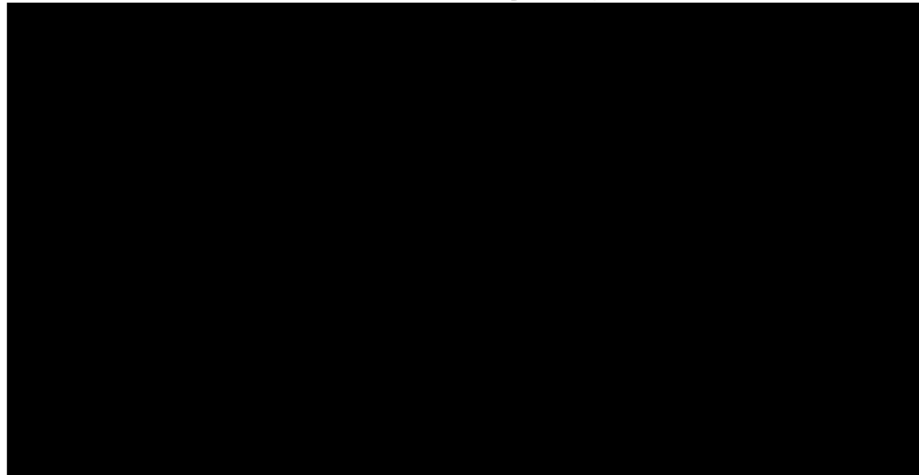


Said pipe lines shall be installed within the strip of land described as  
follows:



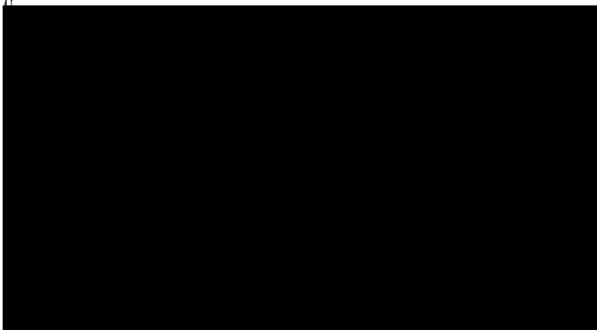
29524

IN WITNESS WHEREOF, Grantor and Grantee hereto have caused this agreement to  
be executed in duplicate by their officers who are thereunto duly authorized.



STATE OF CALIFORNIA,  
COUNTY OF LOS ANGELES

} ss.  
ON August 25, 19 75



[Redacted] State, personally appeared  
[Redacted], known to me to be the  
Vice President, and  
to be the Secretary of Texaco Inc

the Corporation that executed the within instrument, known to me to be the persons who executed the within instrument, on behalf of the Corporation herein named, and acknowledged to me that such Corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.  
WITNESS my hand and official seal.



ACKNOWLEDGMENT—Corp., Pres. & Sec., Wolcotts Form 223—Rev. 3-64

62-4203 2-73 (Corporation)

STATE OF CALIFORNIA

City and County of San Francisco } ss.

On this 3 day of July, in the year 19 75, before me, [Redacted],  
a Notary Public in and for the said City and County, duly commissioned and sworn, personally appeared

[Redacted] Director of Land Acquisition  
known to me to be the

of the corporation that executed the within instrument, and to be the person who executed the said instrument on behalf of said corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the  
City and San Francisco County of \_\_\_\_\_, the day and



29524

END OF DOCUMENT

VOL 1852 PAGE 507

*Attach to 2229-10-0241*

**PG and E**  
**FOR INTRA - COMPANY USES**

DIVISION OR DEPARTMENT   LAND  
FILE No                 651.2  
RE LETTER OF  
SUBJECT                 Kettleman-Morro Bay Gas Line

September 4, 1975

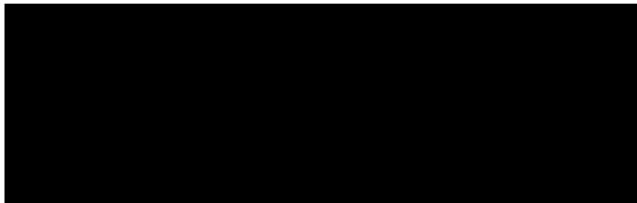
MEMORANDUM TO THE FILE:

In checking the D.I.C. Section it was determined that PGandE did not have any rights for our Kettleman-Morro Bay Gas Line across:



which belongs to [redacted] An update of the search indicated that [redacted] still owns the lands as of June 1, 1975.

A paper was requested, prepared, executed by us and mailed to [redacted] on July 7, 1975 and returned executed by [redacted] on August 27, 1975. The consideration paid for said easement is based on the average cost per acre of right of way paid to the adjacent owners. This consideration works out to be \$465 for 3.56 acres and will be charged to Plant Accounting Department Ledger No. 3401, Loc. Div. 11, Account 1120, Location and/or Item 306.



ELN:aj

PACIFIC GAS AND ELECTRIC COMPANY

77 Beale Street  
San Francisco, California 94106  
Attn: Title Administration Unit, Land Dept.  
Location: City/Uninc \_\_\_\_\_  
Recording Fee \$ 6.00  
Documentary Transfer Tax \$ .55  
 Computed on Full Value of Property Conveyed, or  
 Computed on Full Value Less Liens & Encumbrances

020973137 B00006.00 RECP  
020973137 B00006.00CA

2229-10-0233

DOC. NO. 18583

OFFICIAL RECORDS  
SAN LUIS OBISPO CO., CALIF.

JUN 13 1974

WILLIAM E. ZIMARIK  
COUNTY RECORDER  
TIME 3:20 P.M.  
COMPARED

020983137 B00000.55 TAX  
020983137 B00000.55CA

Consideration  
\$ 225.00

RECORDING REQUESTED BY GRANTEE  
WHEN RECORDED RETURN TO



B-4599  
Sh. 2.  
SM-148721

as of 12th day of October, 1961, by and

between STANDARD PIPE LINE COMPANY, a corporation, hereinafter termed Grantor, and

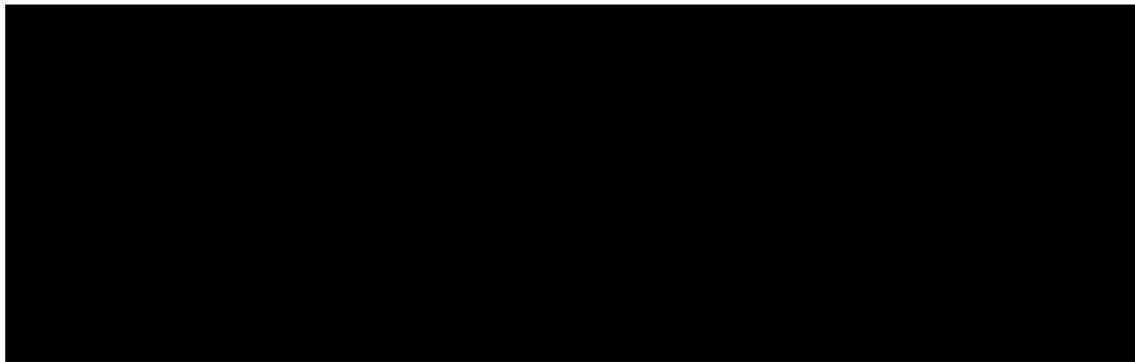
PACIFIC GAS AND ELECTRIC COMPANY

also a corporation, hereinafter termed Grantee,

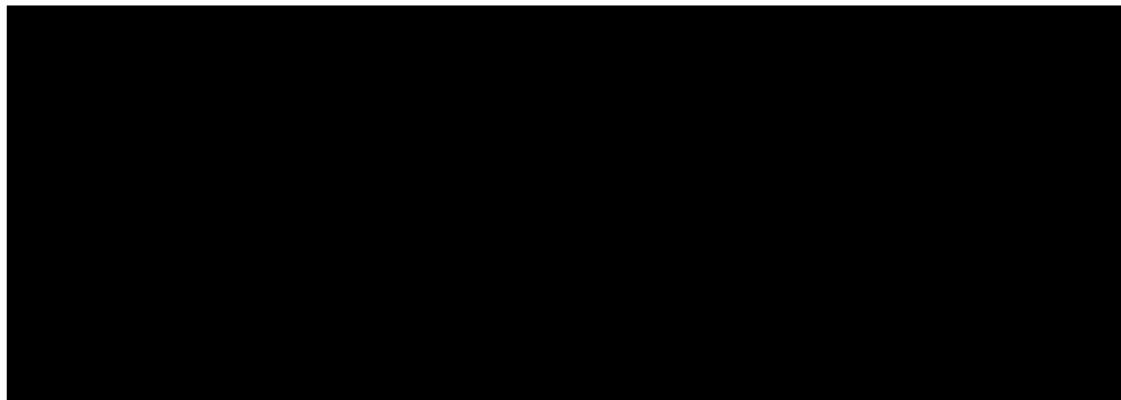
WITNESSETH:

1. Grantor, for and in consideration of the full and prompt performance of the things to be performed by Grantee as hereinafter set out and contained, hereby grants to Grantee, subject to termination as hereinafter provided and under the terms, conditions and provisions hereinafter contained, a right of way and easement to lay, construct, maintain, operate, repair, renew, from time to time change the size of, and remove a pipe line for the transportation of ~~oil, petroleum, gas, gasoline, water or other substances~~ in, under, along and across that certain real property (hereinafter called "said premises") situate in the County of San Luis Obispo, State of California, and described as follows:

Handwritten initials and notes



Said pipeline shall be laid within a strip of land 30 feet in width described as follows:



1a. Grantor reserves the right to use and enjoy said premises but shall not erect or construct any building or any structure within said thirty (30) foot wide pipeline strip that will unreasonably interfere with the rights herein granted to Grantee, and Grantor shall not drill or operate any sort of well upon the surface of said thirty (30) foot wide pipeline strip.

2. Grantee shall not interfere with or obstruct the use of said premises by Grantor or injure or interfere with any person or property on or about said premises.

3. Grantee, in the exercise of the rights granted to it hereunder, shall not do or permit to be done any welding or operations involving sparks or flame within a distance of three hundred (300) feet from any oil or gas

18583

well, or oil, gas or gasoline container, or place of discharge to atmosphere of oil, gas or gasoline, whether located on said premises or on adjacent lands, without prior consent of Grantor, and then only subject to and in accordance with the provisions hereof and such other conditions as may be expressed in said consent.

4. Grantee shall bury its pipe line so that it will pass beneath previously laid pipe lines which it may cross, and so that it will be at all points at least thirty six (36) inches below the surface of the ground, and shall promptly and properly back-fill all excavations made by or for Grantee on said premises. Grantee shall ascertain and plainly mark before any excavations are made and during all times that work is being performed the exact location of all pipe lines or other facilities which may be below the surface of the ground or otherwise not plainly visible. Grantee hereby accepts sole responsibility for so doing and shall be solely liable for all loss, damage, injury or death caused or contributed to by any lack of or improper marking.

5. Grantee at its sole risk and expense shall do all things necessary to assure that the facility which it constructs hereunder will not be damaged by, and hereby waives all claims for damage to said facility resulting from, electrolysis or similar action resulting from or connected with Grantor's operation of any existing or future cathodic protection system on or in the vicinity of said premises.

~~6. At such time or times as, in the opinion of Grantor, said pipe line interferes with Grantor's use of or operations upon said premises, Grantee, shall at its own risk and expense, within sixty (60) days after written request therefor by Grantor, lower or relocate and reconstruct said pipe line upon and across said premises to the depth or along the route specified by Grantor in such request, and shall restore said premises as nearly as possible to the same state and condition they were in prior to the construction and lowering or reconstruction of said pipe line; provided, however, if all or any part of said premises is acquired in any manner by the federal or state or any local government or political subdivision or other public body or agency, the obligations of Grantee under this paragraph shall be null and void with respect to the lands so acquired and shall not inure to the benefit of any such government, subdivision, body or agency.~~

7. Grantee and its employees and agents shall have free access to the said pipe line over such reasonable route as Grantor may designate or approve for the purpose of exercising the rights herein given.

8. This grant of right of way is personal to Grantee and shall not be assigned or transferred by Grantee voluntarily, by operation of law, by merger or other corporate proceedings, or otherwise, in whole or in part, without the written consent of Grantor first being had. No written consent by Grantor hereunder shall be deemed a waiver by Grantor of any of the provisions hereof, except to the extent of such consent.

9. Upon the violation by Grantee of any of the terms and conditions set forth herein and the failure to remedy the same within thirty (30) days after written notice from Grantor so to do, then at the option of Grantor this agreement and the rights herein given Grantee shall forthwith terminate.

10. This agreement and the rights herein given Grantee shall terminate in the event that Grantee shall fail for a continuous period of one year to maintain and operate said pipe line.

~~11. Grantor or Grantee shall have the right at any time to terminate any portion or all of the rights herein given by giving to the other party hereto not less than ninety (90) days' notice in writing of its intention so to do; provided, however, if all or any part of said premises is acquired in any manner by the federal or state or any local government or political subdivision or other public body or agency, the Grantor's rights of termination under this paragraph shall be null and void with respect to the lands so acquired and shall not inure to the benefit of any such government, subdivision, body or agency.~~

12. Upon the termination of the rights herein given, Grantee shall at its own risk and expense remove all pipe and any other property placed by or for Grantee upon said premises hereunder and restore said premises as nearly as possible to the same state and condition they were in prior to any construction of said pipe line, but if it should fail so to do within sixty (60) days after such termination, Grantor may so do at the risk of Grantee, and all cost and expense of such removal and the restoration of said premises as aforesaid, together with interest thereon at the rate of ten per cent per annum, shall be paid by Grantee upon demand; and in case of a suit to enforce or collect the same, Grantee agrees to pay Grantor in addition a reasonable attorney's fee to be fixed and allowed by the court.

13. Upon the termination of the rights herein given, Grantee shall execute and deliver to Grantor within thirty (30) days after service of a written demand therefor a good and sufficient quitclaim deed to the rights herein given. Should Grantee fail or refuse to deliver to Grantor a quitclaim deed as aforesaid, a written notice by Grantor reciting the failure or refusal of Grantee to execute and deliver said quitclaim deed as herein provided and terminating this agreement shall, after ten (10) days from the date of recordation of said notice, be conclusive evidence against Grantee and all persons claiming under Grantee of the termination of the rights herein given.

14. Grantee shall pay, before the same become delinquent, all charges, taxes, rates and assessments upon or against said pipe line and any other property or improvements placed by or for Grantee upon said premises hereunder, but Grantor may at all times after any delinquency pay and discharge all of such delinquent charges, taxes, rates and assessments after reasonable verification thereof, and all such payments so made by Grantor,

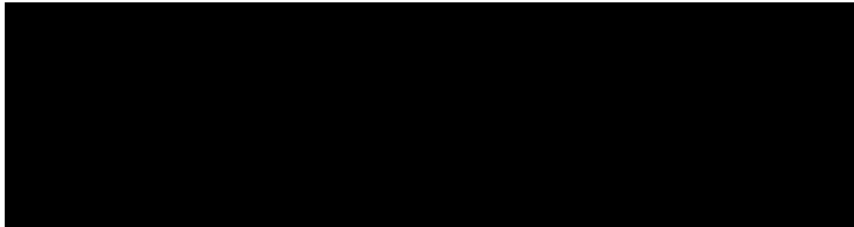
with interest thereon at the rate of ten per cent per annum from date of payment, shall be paid by Grantee upon demand. The amount of such payments and interest shall be a charge and lien against all pipe and other property placed by or for Grantee on said premises, and in case of a suit after such demand to enforce or collect the same, Grantee agrees to pay Grantor in addition thereto a reasonable attorney's fee to be fixed and allowed by the court.

15. Grantee agrees to indemnify and hold Grantor, its officers and employees, and each of them, harmless from and against all liability or claims thereof for loss of or damage to property (to whomever belonging) or injury to or death of person proximately caused in whole or in part by any negligence of Grantee or its contractors, or by any acts for which Grantee or its contractors are liable without fault, in the exercise of the rights herein granted; save and except in those instances where such loss or damage or injury or death is proximately caused in whole or in part by any negligence of Grantor or its contractors, or by any acts for which Grantor or its contractors are liable without fault.

16. Any notice provided herein to be given by either party hereto to the other may be served by depositing in the United States Post Office, postage prepaid, a sealed envelope containing a copy of such notice and addressed to said other party at its address set out below, and the same shall be sufficient service of such notice.

Grantor:

Grantee:



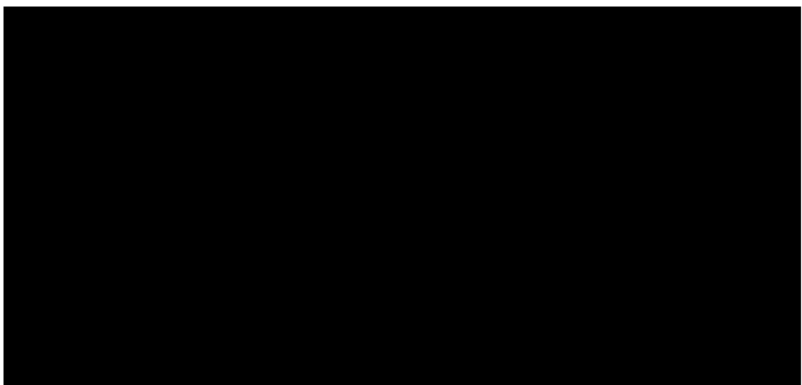
Either party may change its address where notices are to be sent pursuant to this paragraph by giving notice thereof to the other party in the manner set forth in this paragraph.

17. Grantee hereby recognizes Grantor's title and interest in and to said premises and agrees never to assail or resist Grantor's title or interest therein.

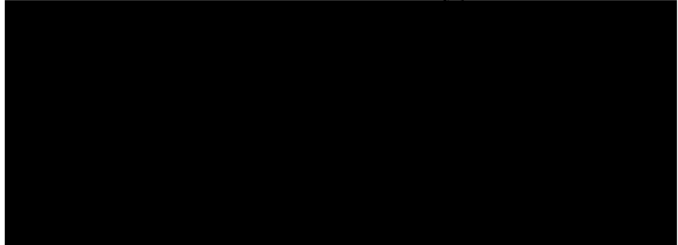
18. Except as otherwise provided herein, the terms and conditions of this agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto.

19. This grant is subject to all valid and existing licenses, leases, grants, exceptions, reservations and conditions affecting said premises.

IN WITNESS WHEREOF, the parties hereto have executed this agreement in duplicate.



PACIFIC GAS AND ELECTRIC COMPANY



18583

Correct as to  
Description **J.A.R.**  
MAY 28 1974

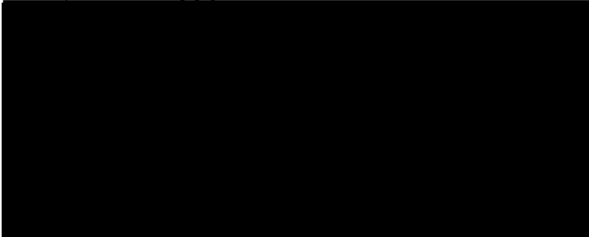


Coast Valleys  
G.M. 148721  
Dwg. B-4599 Sh. 2  
T.29S., R.11E M.D.B.& M.

State of California )  
City and County of San Francisco ) ss

On April 11<sup>th</sup> 1974, before me, Edmond Lee Kelly, A Notary Public in and for said City and County and State, residing therein, duly commissioned and sworn, personally appeared [redacted] known to me to be Vice President and General Secretary of Standard Pipe Line Company the Corporation described in and that executed the within instrument, and also known to me to be the person(s) who executed it on behalf of the said Corporation therein named, and acknowledged to me that such Corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, in the City and County and State aforesaid the day and year in this certificate



Notary Public in and for said City and County of San Francisco, State of California

62-4203 2-73 (Corporation)

STATE OF CALIFORNIA

City and County of San Francisco ) ss.

On this 20 day of May in the year 19 74, before me, [redacted] a Notary Public in and for the said City and County, duly commissioned and sworn, personally appeared

[redacted] known to me to be the Director of Land Acquisition

of the corporation that executed the within instrument, and to be the person... who executed the said instrument on behalf of said corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal in the City and San Francisco County of San Francisco, the day and year in this certificate first above written.

END OF DOCUMENT



VOL 1783 PAGE 431

1669-17 B

GAS LINE TRANSMISSION-B  
62-6199 REV. 1-59-2M

2228-11-0030

COPY SENT  
TO DISTRICT

135<sup>00</sup>

24945

KETTLEMAN - MORRO

[REDACTED] who acquired title to an interest in and to a portion of the hereinafter described lands under the name of [REDACTED] husband and wife,

hereinafter called first party, in consideration of value paid by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called second party, the adequacy and receipt whereof are hereby acknowledged, hereby grants to second party the right to excavate for, install, replace (of the initial or any other size), maintain and use such pipe lines as second party shall from time to time elect for conveying gas, with necessary and proper valves and other appliances and fittings, and devices for controlling electrolysis for use in connection with said pipe lines, together with adequate protection therefor, and also a right of way, within the hereinafter described strip of those certain lands which are situate in the.....County of.....San Luis Obispo....., State of California, and described as follows:

[REDACTED]

The aforesaid strip extends entirely across said lands and is particularly described as follows:

[REDACTED]

NOV 22 1961 24945

First party further grants to second party:

- (a) the right of grading said strip for the full width thereof and to extend the cuts and fills for such grading into and on said lands along and outside of said strip to such extent as second party may find reasonably necessary;
- (b) the right to support said pipe lines across ravines and water courses with such structures as second party shall from time to time elect;
- (c) the right of ingress to and egress from said strip over and across said lands by means of roads and lanes thereon, if such there be, otherwise by such route or routes as shall occasion the least practicable damage and inconvenience to first party; provided that such right of ingress and egress shall not extend to any portion of said lands which is isolated from said strip by any public road or highway now crossing or hereafter crossing said lands; provided, further, that if any portion of said lands is or shall be subdivided and dedicated roads or highway on such portion shall extend to said strip, said right of ingress and egress on said portion shall be confined to such dedicated roads and highways;
- (d) the right of grading for, constructing, maintaining and using such roads on and across said lands as second party may deem necessary in the exercise of said right of ingress and egress or to provide access to lands adjacent to said lands;
- (e) the right from time to time to trim and to cut down and clear away any and all trees and brush now or hereafter on said strip and to trim and to cut down and clear away any trees on either side of said strip which now or hereafter in the opinion of second party may be a hazard to said pipe lines, valves, appliances or fittings, by reason of the danger of falling thereon, or may interfere with the exercise of second party's rights hereunder; provided, however, that all trees which second party is hereby authorized to cut and remove, if valuable for timber or wood, shall continue to be the property of first party, but all tops, lops, brush and refuse wood shall be burned or removed by second party;
- (f) the right to install, maintain and use gates in all fences which now cross or shall hereafter cross said strip.
- (g) the right to mark the location of said strip by suitable markers set in the ground; provided that said markers shall be placed in fences or other locations which will not interfere with any reasonable use first party shall make of said strip;

Second party hereby covenants and agrees:

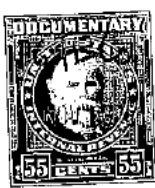
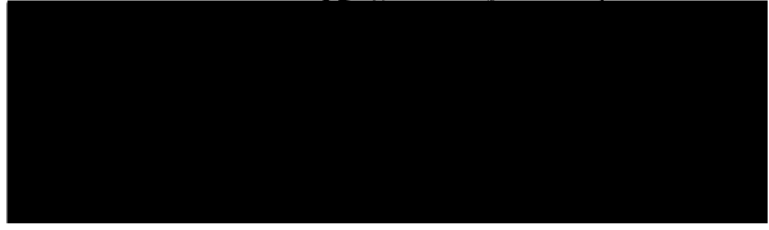
- (a) second party shall not fence said strip;
- (b) second party shall promptly backfill any trench made by it on said strip and repair any damage it shall do to first party's private roads or lanes on said lands;
- (c) second party shall indemnify first party against any loss and damage which shall be caused by the exercise of said ingress and egress or by any wrongful or negligent act or omission of second party or of its agents or employees in the course of their employment.

First party reserves the right to use said strip for purposes which will not interfere with second party's full enjoyment of the rights hereby granted; provided that first party shall not erect or construct any building or other structure, or drill or operate any well, or construct any reservoir or other obstruction on said strip, or diminish or substantially add to the ground cover over said pipe lines.

The provisions hereof shall inure to the benefit of and bind the successors and assigns of the respective parties hereto, and all covenants shall apply to and run with the land.

IN WITNESS WHEREOF first party has executed these presents this 6<sup>th</sup> day of October, 1961.

Executed in the presence of



62-4028 12-29 FOR NOTARIES USE ONLY  
State of California, ) ss. W  
CITY AND County of SAN FRANCISCO  
On this 16th day of October, 1961  
before me, [Redacted]  
a Notary Public in and for said CITY AND County, duly commissioned and sworn, personally appeared [Redacted]  
known to me to be the same person whose name is subscribed to the within instrument, as a witness thereto, who, being duly sworn, deposed and said, that he resides in the County of San Mateo State of California, that he was present and saw [Redacted]  
(personally known to him to be the person described in and who executed the said instrument, at part of [Redacted] hereto), sign and execute the same, and that, at their request, he, the said affiant, thereupon subscribed his name as a witness thereto.  
In Witness Whereof, I have hereunto set my hand and affixed my official seal, at my office, in the said CITY AND County of SAN FRANCISCO, on the 16th day and year in this certificate first above written [Redacted]  
Notary Public in and for the CITY AND County of SAN FRANCISCO, State of California  
My Commission Expires May 10, 1964

Coast Valleys  
GM 148721  
Dwg.  
Sec. 27  
T. 28S., R. 11E.,  
M.D.B. & M.  
100

Prepared [Redacted]  
Checked WHP  
JUN 16 1961

FOR RECORDER'S USE ONLY  
Document No. 21915  
RECORDED AT REQUEST OF  
PAC. GAS & ELECT. CO.  
AT 4.5 MIN. PAST 1 P. M.  
VOL. 1156 O/R. P. 498  
SAN LUIS OBISPO COUNTY, CAL.  
NOV 22 1961  
[Redacted]  
Fee \$2.50 Indexed  
COMPAREL

# 3-00

2228-11-0060

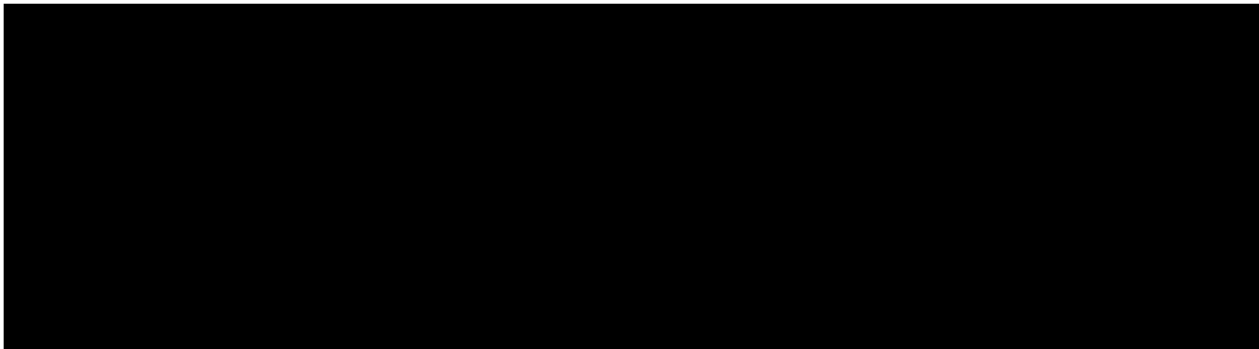


husband and wife,

hereinafter called first party, in consideration of value paid by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called second party, the adequacy and receipt whereof are hereby acknowledged, hereby grants to second party the right to excavate for, install, replace (of the initial or any other size), maintain and use such pipe lines as second party shall from time to time elect for conveying gas, with necessary and proper valves and other appliances and fittings, and devices for controlling electrolysis for use in connection with said pipe lines, together with adequate protection therefor, and also a right of way, within the hereinafter described strip of those certain lands which are situate in the.....County of.....San Luis Obispo....., State of California, and described as follows:



The aforesaid strip extends entirely across said lands and is particularly described as follows:



AUG 10 1991 16626

First party further grants to second party:

- (a) the right of grading said strip for the full width thereof and to extend the cuts and fills for such grading into and on said lands along and outside of said strip to such extent as second party may find reasonably necessary;
- (b) the right to support said pipe lines across ravines and water courses with such structures as second party shall from time to time elect;
- (c) the right of ingress to and egress from said strip over and across said lands by means of roads and lanes thereon, if such there be, otherwise by such route or routes as shall occasion the least practicable damage and inconvenience to first party; provided that such right of ingress and egress shall not extend to any portion of said lands which is isolated from said strip by any public road or highway now crossing or hereafter crossing said lands; provided, further, that if any portion of said lands is or shall be subdivided and dedicated roads or highway on such portion shall extend to said strip, said right of ingress and egress on said portion shall be confined to such dedicated roads and highways;
- (d) the right of grading for, constructing, maintaining and using such roads on and across said lands as second party may deem necessary in the exercise of said right of ingress and egress or to provide access to lands adjacent to said lands;
- (e) the right from time to time to trim and to cut down and clear away any and all trees and brush now or hereafter on said strip and to trim and to cut down and clear away any trees on either side of said strip which now or hereafter in the opinion of second party may be a hazard to said pipe lines, valves, appliances or fittings, by reason of the danger of falling thereon, or may interfere with the exercise of second party's rights hereunder; provided, however, that all trees which second party is hereby authorized to cut and remove, if valuable for timber or wood, shall continue to be the property of first party, but all tops, lops, brush and refuse wood shall be burned or removed by second party;
- (f) the right to install, maintain and use gates in all fences which now cross or shall hereafter cross said strip.
- (g) the right to mark the location of said strip by suitable markers set in the ground; provided that said markers shall be placed in fences or other locations which will not interfere with any reasonable use first party shall make of said strip;

Second party hereby covenants and agrees:

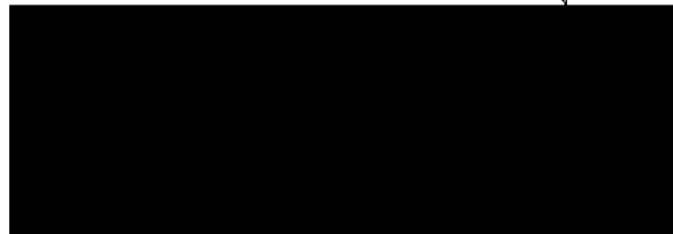
- (a) second party shall not fence said strip;
- (b) second party shall promptly backfill any trench made by it on said strip and repair any damage it shall do to first party's private roads or lanes on said lands;
- (c) second party shall indemnify first party against any loss and damage which shall be caused by the exercise of said ingress and egress or by any wrongful or negligent act or omission of second party or of its agents or employees in the course of their employment.

First party reserves the right to use said strip for purposes which will not interfere with second party's full enjoyment of the rights hereby granted; provided that first party shall not erect or construct any building or other structure, or drill or operate any well, or construct any reservoir or other obstruction on said strip, or diminish or substantially add to the ground cover over said pipe lines.

The provisions hereof shall inure to the benefit of and bind the successors and assigns of the respective parties hereto, and all covenants shall apply to and run with the land.

IN WITNESS WHEREOF first party has executed these presents this 13th day of July, 1961.

Executed in the presence of



State of California, City and County of San Francisco ss. July

On this 13th day of JULY, 1961

before me, Rita J. Green, a Notary Public in and for the City and County of San Francisco, duly commissioned and sworn, personally appeared FRANK A. GILMAN known to me to be the same person whose name is subscribed to the within instrument, as a witness thereto, who, being duly sworn, deposed and said that he resides in the County of San Luis Obispo, State of California, that he was present and saw [Redacted] (personally known to him to be the person so described in and who executed the said instrument, as part 108 thereto), sign and execute the same, and that, at their request, he, the said affiant, thereupon subscribed his name as a witness thereto.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, at my office, in the said City and County of San Francisco, above written.

Rita J. Green  
Notary Public in and for the City and County of San Francisco, State of California  
My Commission Expires: July 16, 1963

Coast Valleys  
GM 148721  
DWG.

Sec. 27  
T. 28S., R. 11E.,  
M.D.B. & M.  
100

Prepared [Signature]  
Checked WKP  
JUN 16 1961

FOR RECORDER'S USE ONLY

Doc. No. 16626

RECORDED AT REQUEST OF  
**PAC. GAS & ELECT. CO.**  
APR 4 1961  
VOL. 1128 OF P. 345  
SAN LUIS OBISPO COUNTY, CALIF.

AUG 10 1961

[Redacted]

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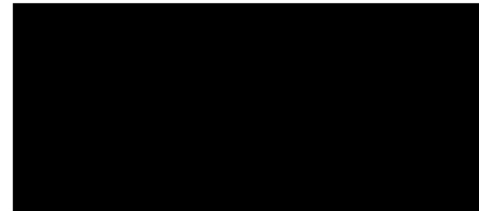
1433-47 B

2229-10-0081

CROSS-INDEXED 1307-44A

ENDORSED

FILED




For Consent See 1433-47

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*Kettleman - Morro Bay G/L  
5000.*

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA  
IN AND FOR THE COUNTY OF SAN LUIS OBISPO

PACIFIC GAS AND ELECTRIC COMPANY,  
Plaintiff,  
vs.  
 et al.,  
Defendants.

No. 26737  
FINAL ORDER  
OF  
CONDEMNATION

Judgment of condemnation having been duly entered in the above-entitled action in the office of the County Clerk and ex-officio Clerk of the above-entitled Court of the County of San Luis Obispo, State of California, on the 2nd day of ~~March~~ *May*, 1962, and it appearing to the satisfaction of the Court that the above-named plaintiff, pursuant to said judgment, has paid the sum awarded by said judgment into Court as just compensation for and on account of the property herein condemned to public use, and that said judgment has been satisfied of record:

NOW, THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

1.

MAY - 7 1962

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## I

1  
2 That an easement and right of way to construct,  
3 install, maintain, operate, inspect and replace a gas trans-  
4 mission pipeline in, along, and under that certain strip of  
5 land hereinafter in Exhibit "B" described and therein  
6 designated Parcel 1, are hereby condemned, to and taken for  
7 plaintiff, its successors and assigns, for the purpose of  
8 transmitting, distributing and supplying gas to the public  
9 generally within the territory served by plaintiff in the  
10 State of California for light, heat and power; provided  
11 that said pipeline shall not interfere with any and all  
12 pipelines now located within the hereinafter described  
13 parcels of land; that the plaintiff shall repair any damage  
14 it shall do to the defendants' said presently existing  
15 pipelines; together with the rights for said purposes:  
16 (1) to pass with necessary vehicles, equipment, materials and  
17 men over and along said Parcel 1 as occasion therefor may  
18 arise; (2) to cut and clear away or to remove any trees or  
19 brush that may now or hereafter grow upon or extend over  
20 said Parcel 1 and which might interfere with the construction,  
21 installation, maintenance, operation, inspection or replace-  
22 ment of said pipeline; and (3) to erect gates in any and all  
23 fences that may now or hereafter be constructed across said  
24 Parcel 1; that the boundaries of said Parcel 1 are shown by  
25 red lines on the blueprint map attached to the complaint  
26 herein, marked Exhibit "A"; and said Exhibit "A" and  
27 Exhibit "B" are hereby referred to and by such reference are  
28 made parts hereof.

29 That no building or other structure shall hereafter  
30 be erected or placed upon, and that no well shall be located,

1 drilled or operated within said Parcel 1 by defendants,  
2 their successors or assigns, and that said defendants, their  
3 successors or assigns, be prohibited from so doing, regard-  
4 less of whether or not it is feasible or practical to erect  
5 or place buildings or other structures upon or to locate,  
6 drill or operate wells within said Parcel 1; provided that  
7 the word "structure" shall not include blacktopping, paving,  
8 oiling, curbs, and gutters for parking, or streets or other  
9 roadway improvements, nor pipes, mains and conduits for gas,  
10 water, sewage and other purposes.

11 That said gas transmission pipeline to be installed  
12 by plaintiff in, along and under said Parcel 1 shall consist  
13 of a single line of pipe of such dimensions as plaintiff,  
14 its successors or assigns, may from time to time determine;  
15 that said line of pipe shall be buried at least fifty-four  
16 (54) inches below the present surface of the ground; pro-  
17 vided that where the same or any part thereof may traverse  
18 a ditch, watercourse or canal, said pipeline will be  
19 installed at the option of plaintiff, its successors or  
20 assigns, below or above the bottom of such ditch, water-  
21 course or canal, but not so as to obstruct the flow of water  
22 therein.

23 In order properly to construct and install said gas  
24 transmission pipeline in, along and under said Parcel 1 for  
25 said purposes, there are hereby condemned in favor of  
26 plaintiff easements and rights to use for temporary working  
27 areas and to pass with necessary vehicles, equipment,  
28 materials and men on, over and along those certain strips  
29 of land hereinafter in said Exhibit "B" described and therein  
30 designated Parcel 2 and Parcel 3; that the boundaries of



1 said Parcels 2 and 3 are shown by yellow lines on said  
2 Exhibit "A".

3 II

4 That said Parcels 1, 2, and 3 hereinabove referred  
5 to and hereby condemned for the uses aforesaid are portions  
6 of an entire tract of land situate in the County of San Luis  
7 Obispo, State of California, and hereinafter in said  
8 Exhibit "B" described and therein designated "ENTIRE TRACT".

9 III

10 That upon filing a copy of this final order of  
11 condemnation with the County Recorder of San Luis Obispo  
12 County, State of California, the aforesaid easements,  
13 rights of way and rights shall vest in plaintiff, its  
14 successors and assigns.

15 Dated: *May 2, 1962.*

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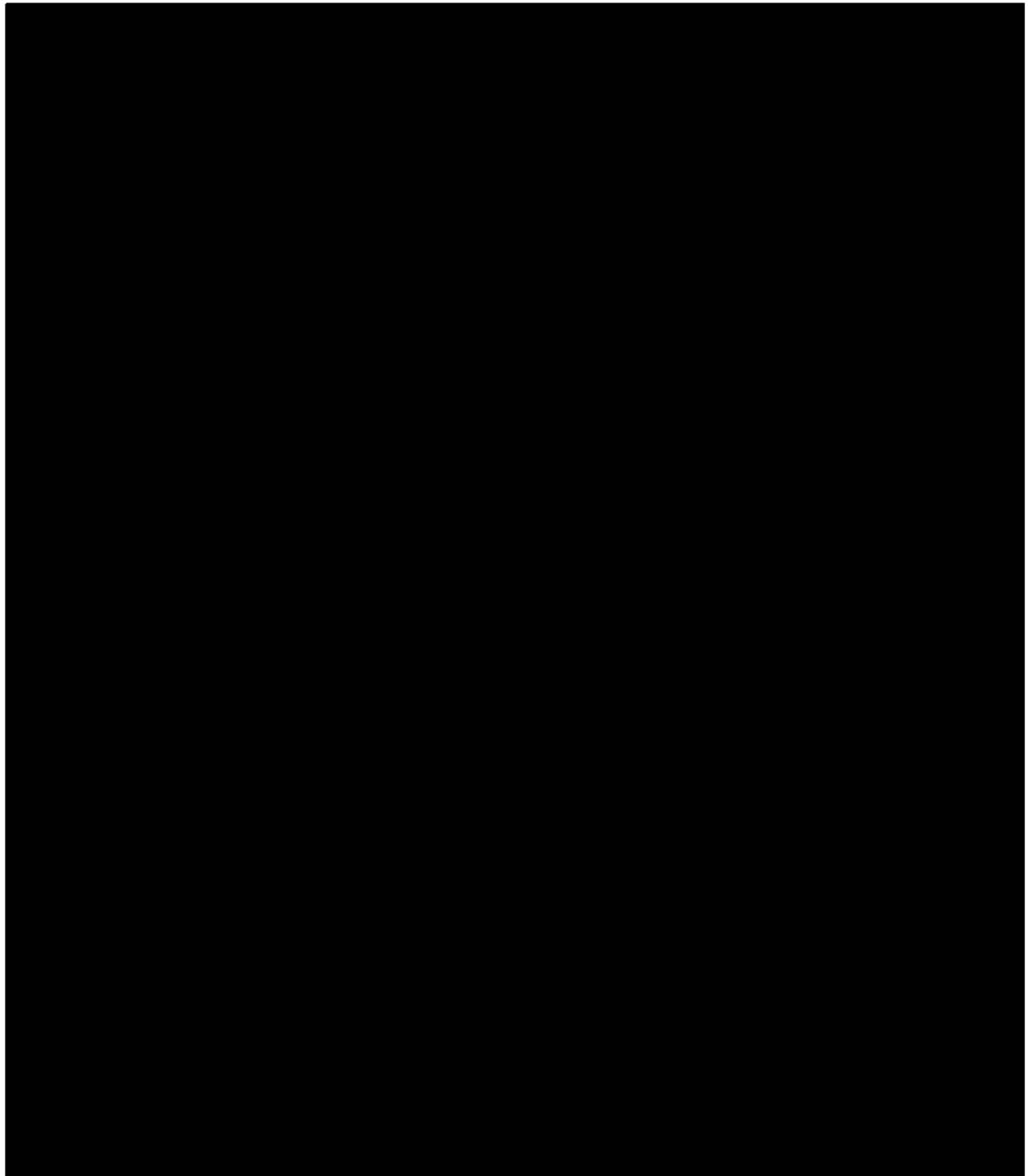
18 Judge of said Superior Court

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EXHIBIT "B"



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VOL 1182 O/R. P. 65  
SAN LUIS OBISPO COUNTY, CAL.

MAY 7 - 1962

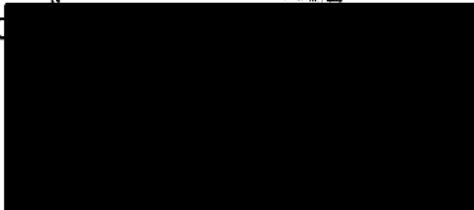


EXHIBIT "B"

STATE OF CALIFORNIA } ss  
 COUNTY OF SAN LUIS OBISPO }  
 I, A. E. Mallagh, County Clerk of the above entitled  
 County, and ex-officio Clerk of the Superior Court  
 thereof, do hereby certify that the foregoing is a full  
 true and correct copy of the original on file in my  
 office, and that I have carefully compared the same  
 with the original.

Witness, my hand and seal of Superior Court  
 this 2nd day of May 1962

A. E. MALLAGH  
 County Clerk

By

COMPARED

LEGEND	
AREA IN WHICH CO.'s INTERESTS ARE TO BE QUITCLAIMED	<input type="checkbox"/>
R/W TO BE QUITCLAIMED	<input type="checkbox"/>
R/W TO BE RETAINED	<input type="checkbox"/>
NEW R/W	<input type="checkbox"/>
R/W PREVIOUSLY QUITCLAIMED	<input type="checkbox"/>

TRANSFERS AND ABANDONMENTS

TRANSFERS AND ABANDONMENTS

DISPOSITION \_\_\_\_\_

AUTHORIZATION \_\_\_\_\_

QUANTITY \_\_\_\_\_

AMOUNT \_\_\_\_\_

SOURCE OF DATA \_\_\_\_\_

DATE \_\_\_\_\_

DISPOSITION Quitclaim - portion

AUTHORIZATION \_\_\_\_\_

QUANTITY Parcels 2 and 3

AMOUNT \_\_\_\_\_

SOURCE OF DATA Correspondence

DATE May 5, 1964

Reel No. 534

SAN LUIS OBISPO COUNTY

SEARCHES	SEC.	COMPS.	SEC.	FIELD BOOK	SEC.	NO.	DATE	DESCRIPTION	APPRD.
556		370		963		2	6-30-61	Kettleman-Morro Bay G.L. Added (44)	E.C.A.
479	24	297	33	871	5	1	12-19-57	Changed title of Map	GFH

TABLE OF CHANGES

BY GAS DEPT.  
W.O. 368

PORTION OF  
KETTLEMAN-MORRO BAY GAS LINE  
IN VICINITY OF MORRO BAY  
LINE 113

SCALES  
1"=300'

PACIFIC GAS AND ELECTRIC COMPANY  
SAN FRANCISCO, CALIFORNIA

SUPERSEDES SUPERSEDED BY	
SHEET NO. <del>4</del> 9 SHEETS	
DRAWING NUMBER	CHANGE
B-4599	2

# **EXHIBIT C**

## **THIRD PARTY ROW VALUATION**

**RIGHT OF WAY ESTIMATE OF PG&E  
LINE 306**

**FOR:**

**PSEP LAND SERVICES MANAGER  
SOUTHERN CALIFORNIA GAS COMPANY  
SAN DIEGO GAS AND ELECTRIC  
555 W. 5TH STREET, ML 22P2  
LOS ANGELES, CALIFORNIA 90013**

**AS OF:**

**DECEMBER 22, 2016**

**BRI 16-277**

December 22, 2016

[REDACTED]  
PSEP Land Services Manager  
Southern California Gas Company  
San Diego Gas and Electric  
555 W. 5th Street, ML 22P2  
Los Angeles, California 90013

Re: Right of Way Estimate of PG&E Line 306 – Morro Bay to Avenal

[REDACTED]

We have completed the right of way estimate for the PG&E Line 306 natural gas pipeline corridor. As you requested the estimate is broken up into west of Atascadero and east of Atascadero segments as further described below.

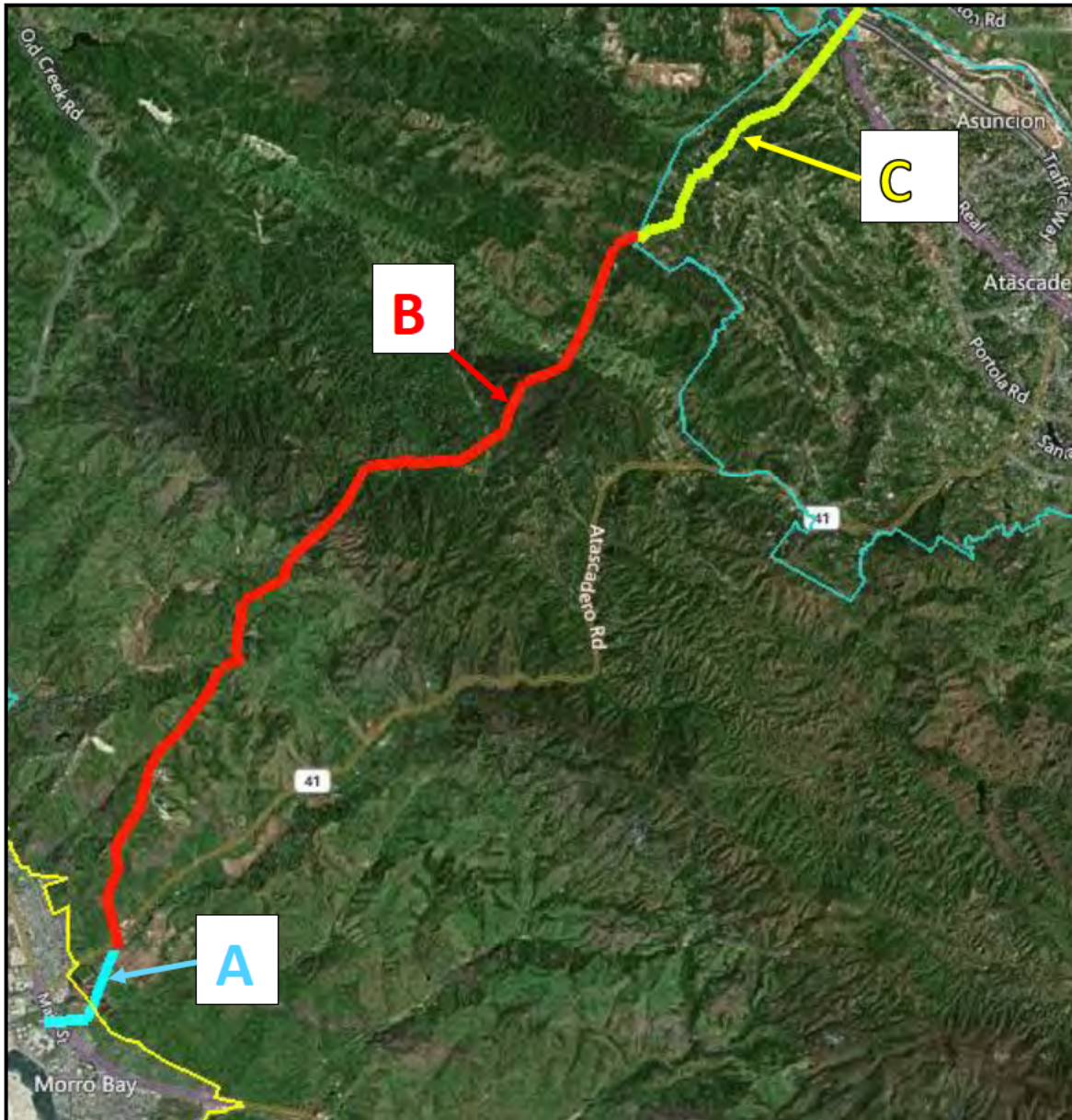
We are pleased to have this opportunity to provide you with right of way estimate services.

[REDACTED]

## PG&E LINE 306 RIGHT OF WAY ESTIMATE

The estimate is compiled below from the western end of the alignment to the eastern end of the alignment. Segments A and B are west/southwest of the western city limit boundaries of Atascadero. Segments C-N are east/northeast of the western city limit boundaries of Atascadero. The maps below show the general locations of the various segments.

### SEGMENTS A, B, AND C





Segment A is 1.22 miles long and is comprised of irrigated agricultural land. The median land size for this segment is 20.4 acres. Based on market data, the cost per acre for this segment has been determined to be \$33,500 and the total cost for the segment is \$247,697.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
A	Open Space - Rolling Hills	20.40	1.22	7.39	\$33,500	\$247,697

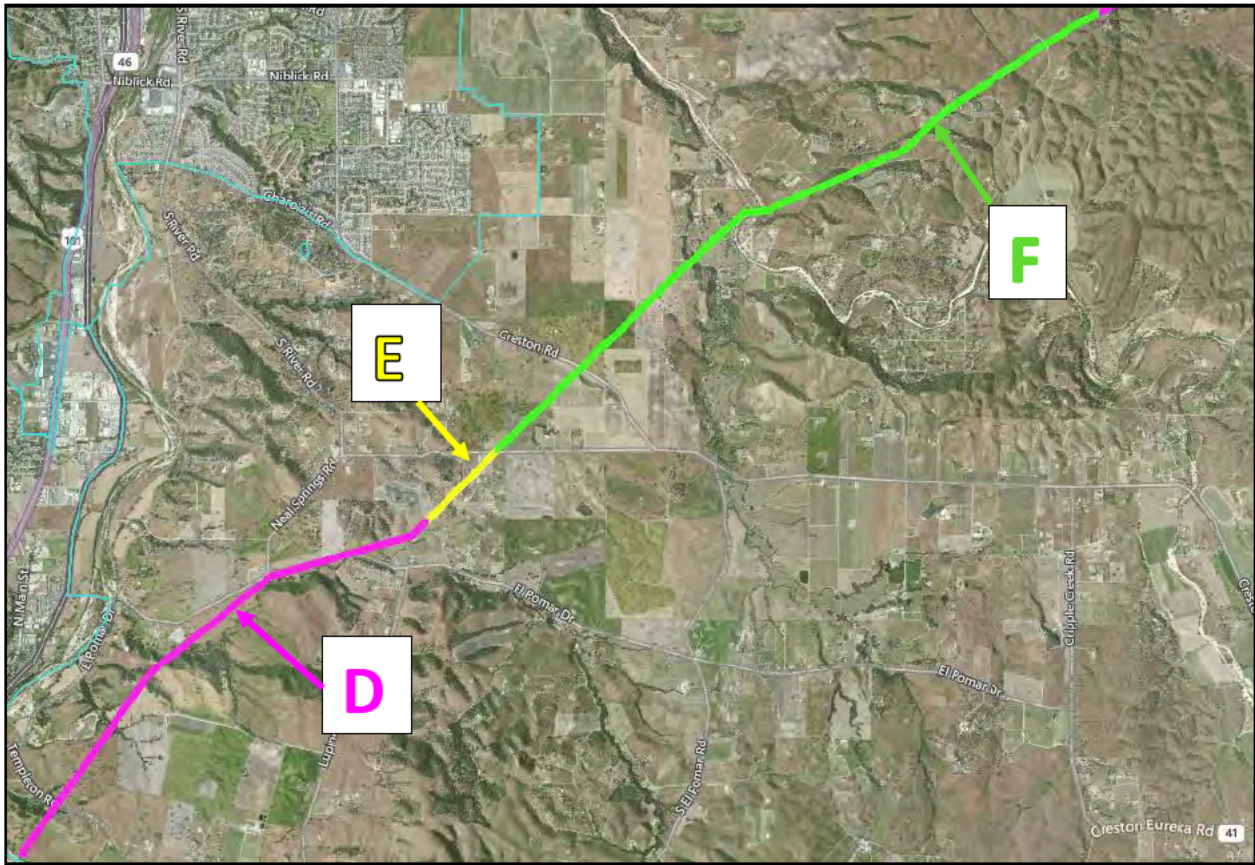
Segment B is 10.4 miles long and is comprised of open space land with rolling hills. The median land size for this segment is 203.08 acres. Based on market data, the cost per acre for this segment has been determined to be \$4,500 and the total cost for the segment is \$283,636.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
B	Open Space - Rolling Hills	203.08	10.40	63.03	\$4,500	\$283,636

Segment C is 3.55 miles long and is comprised of rural residential lots. The median land size for this segment is 3.75 acres. Based on market data, the cost per acre for this segment has been determined to be \$32,000 and the total cost for the segment is \$688,485.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
C	Rural Residential Lots	3.75	3.55	21.52	\$32,000	\$688,485

**SEGMENTS D, E, F**



Segment D is 3.55 miles long and is comprised of open space rolling hills. The median land size for this segment is 101.44 acres. Based on market data, the cost per acre for this segment has been determined to be \$6,200 and the total cost for the segment is \$154,812.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
D	Open Space rolling hills	101.44	4.12	24.97	\$6,200	\$154,812

Segment E is 6.03 miles long and is comprised of rural residential lots. The median land size for this segment is 6.03 acres. Based on market data, the cost per acre for this segment has been determined to be \$34,000 and the total cost for the segment is \$143,072.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
E	Rural Residential lots	6.03	0.69	4.21	\$34,000	\$143,072

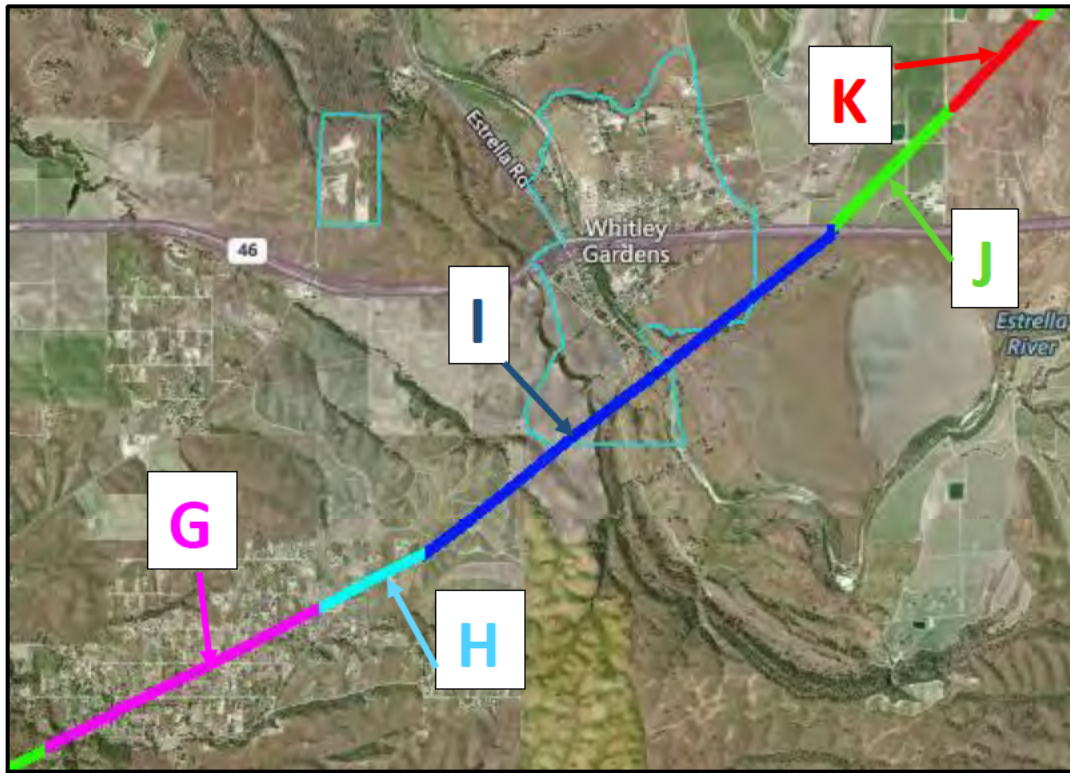
Segment F.1 is 90.49 miles long and is comprised of open space rolling hills. The median land size for this segment is 2.58 acres. Based on market data, the cost per acre for this segment has been determined to be \$5,000 and the total cost for the segment is \$78,182.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
F.1	AG/Open space	90.49	2.58	15.64	\$5,000	\$78,182

Segment F.2 is 20.18 miles long and is comprised of agricultural and open space. The median land size for this segment is 3.3 acres. Based on market data, the cost per acre for this segment has been determined to be \$12,000 and the total cost for the segment is \$240,000.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
F.2	Rural Residential lots	20.18	3.30	20.00	\$12,000	\$240,000

**SEGMENTS G, H, I, J, K**



Segment G is 1.48 miles long and is comprised of residential land. The median land size for this segment is 1.32 acres. Based on market data, the cost per acre for this segment has been determined to be \$38,000 and the total cost for the segment is \$341,573.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
G	Residential	1.32	1.48	8.99	\$38,000	\$341,573

Segment H is 0.57 miles long and is comprised of large residential lots. The median land size for this segment is 5.71 acres. Based on market data, the cost per acre for this segment has been determined to be \$37,000 and the total cost for the segment is \$126,986.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
H	Large Lot residential	5.71	0.57	3.43	\$37,000	\$126,986

Segment I is 2.55 miles long and is comprised of open space land. The median land size for this segment is 200 acres. Based on market data, the cost per acre for this segment has been determined to be \$9,000 and the total cost for the segment is \$139,091.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
I	Open Space	200.00	2.55	15.45	\$9,000	\$139,091

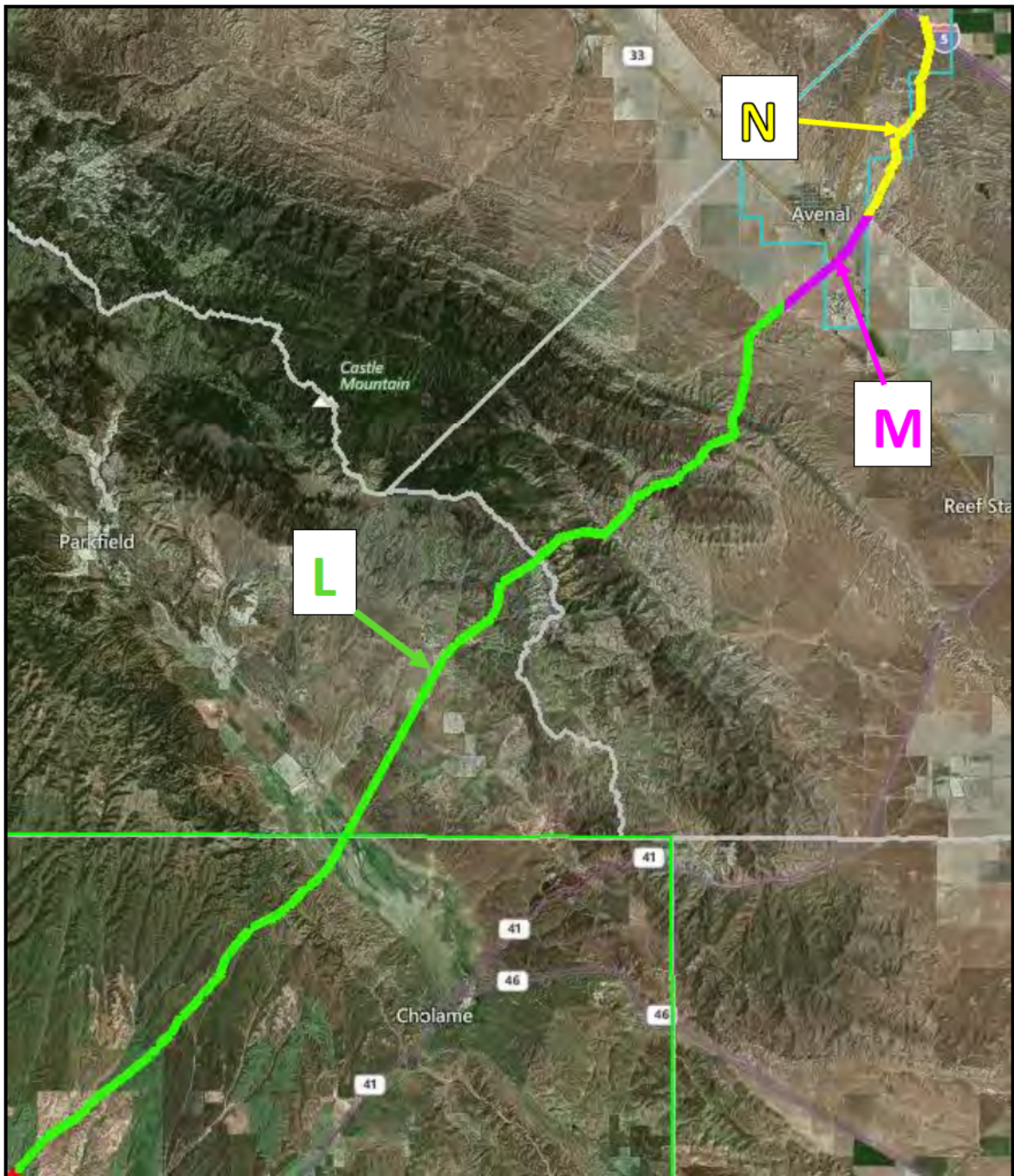
Segment J is 1,289 miles long and is comprised of irrigated agricultural land. The median land size for this segment is 0.77 acres. Based on market data, the cost per acre for this segment has been determined to be \$7,500 and the total cost for the segment is \$35,090.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
J	Irrigated AG	1,289.00	0.77	4.68	\$7,500	\$35,090

Segment K is 0.6 miles long and is comprised of rural residential and open space land. The median land size for this segment is 10 acres. Based on market data, the cost per acre for this segment has been determined to be \$19,500 and the total cost for the segment is \$71,088.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
K	Rural Res/Open Space	10.00	0.60	3.65	\$19,500	\$71,088

**SEGMENTS L, M, N**



Segment L is 29.11 miles long and is comprised of open space land with rolling hills. The median land size for this segment is 463.51 acres. Based on market data, the cost per acre for this segment has been determined to be \$8,000 and the total cost for the segment is \$1,411,394.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
L	Open Space rolling hills	463.51	29.11	176.42	\$8,000	\$1,411,394

Segment M is 2.94 miles long and is comprised of irrigated agricultural land. The median land size for this segment is 35.97 acres. Based on market data, the cost per acre for this segment has been determined to be \$10,000 and the total cost for the segment is \$178,182.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
M	Irrigated AG	35.97	2.94	17.82	\$10,000	\$178,182

Segment K is 5.18 miles long and is comprised of rural residential and open space land. The median land size for this segment is 80 acres. Based on market data, the cost per acre for this segment has been determined to be \$4,500 and the total cost for the segment is \$141,327.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
N	Open Space rolling hills	80.00	5.18	31.41	\$4,500	\$141,327

<b>WEST OF ATASCADERO</b>						
<b>Segment</b>	<b>Land Type</b>	<b>Median Parcel Size (AC)</b>	<b>Segment Length (MI)</b>	<b>Segment Area (AC)</b>	<b>Price Per AC</b>	<b>Total</b>
A	Irrigated AG/Orchard land	20.40	1.22	7.39	\$33,500	\$247,697
B	Open Space rolling hills	203.08	10.40	63.03	\$4,500	\$283,636
West of Atascadero Total before Corridor Factor			11.62	70.42		<b>\$531,333</b>
<b>EAST OF ATASCADERO</b>						
C	Rural Residential lots	3.75	3.55	21.52	\$32,000	\$688,485
D	Open Space rolling hills	101.44	4.12	24.97	\$6,200	\$154,812
E	Rural Residential lots	6.03	0.69	4.21	\$34,000	\$143,072
F.1	AG/Open space	90.49	2.58	15.64	\$5,000	\$78,182
F.2	Rural Residential lots	20.18	3.30	20.00	\$12,000	\$240,000
G	Residential	1.32	1.48	8.99	\$38,000	\$341,573
H	Large Lot residential	5.71	0.57	3.43	\$37,000	\$126,986
I	Open Space	200.00	2.55	15.45	\$9,000	\$139,091
J	Irrigated AG	1,289.00	0.77	4.68	\$7,500	\$35,090
K	Rural Res/Open Space	10.00	0.60	3.65	\$19,500	\$71,088
L	Open Space rolling hills	463.51	29.11	176.42	\$8,000	\$1,411,394
M	Irrigated AG	35.97	2.94	17.82	\$10,000	\$178,182
N	Open Space rolling hills	80.00	5.18	31.41	\$4,500	\$141,327
East of Atascadero Total before Corridor Factor		2,307.40	57.45	348.18		\$3,749,280
Segment			Segment Length (MI)	Segment Area (AC)		
West of Atascadero Total			11.62	70.42		
East of Atascadero Total			57.45	348.18		
Total all segments			69.07	418.60		



**Corridor Factor.** The corridor factor, is derived from market data and is typically greater than 1.0. This concept is unique to transportation or utility corridor analysis. The corridor factor reflects the inherent physical and economic characteristics that are unique to the corridor and the fact that synergies can be created when two or more parcels are assembled to provide greater utility. This factor reflects the alternative cost and time/risk of acquiring, clearing, and assembling individual parcels to create a corridor (i.e. purchase of the existing corridor might avoid costs necessary to create a new one, and would certainly avoid the time and unknowns with creation of a new corridor that may involve significant severance damages, eminent domain actions, above market prices required on “hold-out” property owners, in addition to the typical costs associated with acquisition of the real estate).

The primary argument in favor of applying this corridor factor is based around this concept of cost avoidance. The more urbanized areas involve higher densities of development and significantly higher assemblage costs, which would be reflected in a higher corridor factor for an existing corridor. The physical characteristics of the corridor, such as width, curvature, and grade/topography, impact the utility and demand of the corridor. These factors are all considered in determination of the appropriate corridor factor.

The following corridor sales were assembled in order to provide an indication of an appropriate corridor factor for the subject.

Identification/Location	Sale Date	Sale Price	ATF Value	Indicated Corridor Factor	Intended Use
Los Angeles, CA	2000	\$2,078,461	\$1,889,600	1.10	Longitudinal overhead easement in existing Corridor
RT South Area Light Rail Corridor, Sacramento CA	1999	\$8,400,000	\$6,500,000	1.29	A portion of an existing UP rail corridor to be used for a light rail project
Downey, CA	1996	\$8,874,073	\$7,716,585	1.15	Longitudinal overhead easement in existing Corridor
Contra Costa County, CA	1995	\$104,992	\$55,043	1.91	Longitudinal subsurface easement in existing Corridor
UP Main Line Corridor, Fruitridge Road, Sacramento CA	1995	\$500,000	\$306,373	1.63	Longitudinal subsurface easement in existing UP corridor
Alameda, CA	1994	\$193,000,000	\$165,000,000	1.17	Future use as a freight rail corridor
Santa Ana, Costa Mesa, CA	1990	\$3,983,000	\$3,463,000	1.15	Electric transit easement within an existing corridor
UP Main Line Corridor, Southern Sacramento County CA	1987	\$380,000	\$253,000	1.50	Noncontiguous easements for transmission lines in UP corridor
RT Butterfiled Line, Sacramento CA	1985	\$6,500,000	\$5,625,000	1.16	Existing UP rail corridor in a suburban area, to be used for a light rail project

The sales, summarized in the table above, indicate a range of corridor factors from 1.10 to 1.91. Given the relatively long length of the subject corridor at greater than 69 miles, the variety of land uses observed, and the number of properties (greater than 300 approximately) within the corridor, a corridor factor toward the upper end of the range or 1.7 is considered reasonable. This factor is applied to the cost estimate, as shown in the following table.

<b>Segment</b>	<b>Segment Length (MI)</b>	<b>Segment Area (AC)</b>		<b>Total</b>
West of Atascadero - before corridor factor	11.62	70.42		\$531,333
West of Atascadero - Cost including Corridor Factor			X 1.70	<b>\$903,266</b>
East of Atascadero - before corridor factor	57.45	348.18		\$3,749,280
East of Atascadero - Cost including corridor factor			X 1.70	<b>\$6,373,776</b>
<b>Total Cost including corridor factor - all segments</b>	69.07	418.60		<b>\$7,277,042</b>

This concludes the estimate.

**EXHIBIT D**

**LINE 306 ALTERNATIVES TO**

**REPLACING LINE 44-1088**

# PG&E Line 306 – Alternatives to Replacing Line 44-1008

## Executive Summary

PG&E Line 306 is a 70 mile long, ■■■ pipeline, installed in 1962, that approximately follows SoCalGas' Supply Line (SL) 44-1008 alignment. SL 44-1008 is approximately 50 miles long (difference is distance to Morro Bay) ■■■ pipeline (installed in 1937) and is a PSEP Phase 1B replacement. The scoping estimate (Class 4 parametric) for full replacement of SL 44-1008 is \$246 million. PG&E Line 306 is being offered for purchase consideration by PG&E due to the closure of the Morro Bay Power Plant.



A team of nine members (listed in Appendix A) conducted a second data room visit at PG&E in February/March of 2017 to perform a longitudinal review to evaluate the line's current condition. The visit also identified potential updates needed and to establish a go/no go decision for potential purchase. The line was evaluated using the criteria shown in Appendix B. The team was broken into three sub-teams to review the pipeline records:

- Cathodic protection history and status
- [REDACTED] Engineering/Pigability
- Maintenance records

The overall team concluded that PG&E Line 306 was in good condition for a pipeline of that vintage and can be considered for purchase.

Summary statements for each data stream are shown below with further details in the body of this report.

- Cathodic protection is applied via impressed current and has been maintained. The entire line is one CP area and meets the 850 mV criteria. Several new test points were recently installed and additional test points are scheduled to be installed (CPUC finding on test point spacing). History indicates PG&E has upgraded some rectifiers, associated anode beds and is working on an induced AC interference study for a section of pipeline influenced by the parallel overhead PG&E high voltage transmission line. This AC study would need to be completed and appropriate mitigation measures taken and monitored on a regular basis going forward. The line is in good condition and properly maintained from a cathodic protection perspective. No immediate items were identified by the CP team.
- [REDACTED] Engineering/Pigability was reviewed from PG&E's detailed listing of all components in the pipeline, MAOP validation and supporting documentation. Some plug valves would require replacement for pigging and some unknown fittings will be estimated for replacement. Approximately 400 feet of the pipeline lacks sufficient pressure test records and would be considered Category Four. The pipeline is currently not piggable and will be made piggable if acquired. Only one HCA exists near the end of the pipeline. Good material, installation and pressure test records exist for the pipeline except for the 400 feet identified as Category Four. No immediate items were identified by the [REDACTED]/Engineering/Pigability team.
- Maintenance records for the past several years were reviewed. Leakage records show only small, above ground leaks on regulation facilities. Patrolling records indicate four segments of line are exposed with only one identified as a span. The Morro Creek crossing may require replacement to ensure adequate depth due to erosion from extensive flooding since installation. Segments with less than 36" of cover were identified and noted. Generally, the line has more than 36" of cover and in many areas is much deeper. The M&R records were reviewed and maintenance is both current and complete. The team asked about any known environmental issues and PG&E stated there are none known at this time. No immediate items were identified by the Maintenance team.

## **Background**

PSEP has a project to replace Line 44-1008 (approximately 50 miles) for Phase 1B. This pipeline is one of the critical feeds into the northern coastal system and connects supply from Line 85 to the coastal system. It is a [REDACTED] pipeline operating at [REDACTED]. The line is not piggable and pre-1946 (1937 install year) meeting the criteria for replacement under PSEP. A scoping estimate (Class 4 parametric) was done to evaluate the potential replacement cost of 44-1008 to compare to potential alternative options. The estimate indicated the replacement cost as approximately \$246 million. The PSEP team completed the options analysis below and presented it to stakeholder groups for review.

Options included:

1. Full replacement – This option is being evaluated. The Request for Engineering Review (RER) recommends the pipeline be replaced with [REDACTED] for system considerations.
2. Installation of 25 miles of [REDACTED] pipeline to reinforce the central coastal system near Atascadero and abandonment of 44-1008 – This option reduces system supply diversity to the coastal system and with the abandonment of 44-1008, eliminates the connection to Central Valley supply. There are currently several taps to SoCalGas and PG&E customers from 44-1008. These customers would have to be served from alternate sources. Also, there was not significant excess supply in this area of the system and this reinforcement would not keep ends of system supplied during peak events.
3. Add compression to system – Due to the small diameter pipe in the system in this area and lower system pressures, compression was not a viable alternative.
4. Take service from PG&E – SoCalGas approached PG&E and PG&E stated their preference if for SoCalGas to consider acquiring the line rather than to provide taps/interconnects into the SoCalGas system. They recommended SoCalGas consider purchasing PG&E Line 306.
5. Purchase PG&E Line 306 – being evaluated

The purpose of this white paper is to review option 5 fully.

## **Analysis**

Throughout the options analysis above, preparations for a visit to PG&E to evaluate the overall condition of Line 306 were ongoing. The PSEP team prepared an outline of a “Longitudinal Review” of the pipeline records and overall condition. A longitudinal review attempts to review three basic streams of data and align them along the transmission pipeline to determine if any segments require retrofitting, upgrades, replacement, testing, etc.

PG&E gathered the records and agreed to have all available Subject Matter Experts (SMEs) nearby or available by phone. A PG&E transmission engineer was the host to our team for the entire week and assisted with additional records requests, clarifications and reaching out to the various SMEs. Due to this additional layer of assistance requested and provided by PG&E, the visit was successful in completing the longitudinal review.

The visit to PG&E occurred from February 27, 2017-March 2, 2017. Nine members of the team (listed in Appendix A) were onsite during the week to assist with the longitudinal review. They were broken into three teams to assess the three data streams as shown in Appendix B. Daily reports were returned from the visit and can be viewed in Appendix C.

Each team was asked to summarize their work for the week on the last day. These summaries are noted below:

1. CP Team
  - a. No corrosion leaks noted
  - b. AC mitigation plan will be ongoing process
  - c. Current requirements for pipeline less than 1 A/mile, indicating good protection and coating
  - d. May need some deep wells installed to meet SoCalGas standards
  - e. Coating noted as disbonded on DA report (for 1,200' HCA at end of pipeline)
  - f. All pipeline meets 850 mV criteria
  - g. No immediate items noted
2. GIS/Piggability/Engineering Team
  - a. Good Acceptable material and test records for line overall (140-400 ft. with no test records, to be addressed by PSEP)
  - b. Some fittings show "Unknown" and will be earmarked for replacement unless further details are uncovered in data requests
  - c. SoCalGas prefers to keep the connection to PG&E system for 306 at Kettleman Compressor Station to allow for operational flexibility (the intent is for a connection to Line 85 to be the primary feed)
  - d. Class location process was reviewed
  - e. No immediate items noted
3. Remediation/Maintenance/Compliance Team
  - a. 74 segments noted as less than 36" of cover, need to review
  - b. Morro Creek might need replacement
  - c. Maintenance records indicate pipe and coating in fair to good condition
  - d. Other two exposed segments would need wrap and evaluation
  - e. No immediate items noted

Following the week's visit, each team prepared a description of their research and notes for the week.

1. CP Team

The Cathodic Protection components analyzed consisted of rectifiers, anode beds, casings, ECDA surveys, and AC interference. There are a total of eight rectifier/current sources on L-306. All cathodic protection stations will require upgrading to include installation of electric meters (due to transfer to SoCalGas), with the exception of the single solar unit at [REDACTED]. A new CPS installation will likely be required to replace the location of the unit to be

abandoned at [REDACTED]. In addition, several shallow well installations will require replacements with deep well anodes. Twenty-nine Coupon Test Stations (CTS) were installed within 2015 – 2016. There will be eight additional CTS's to be installed in 2017 to equal one station per mile. This was to satisfy CPUC audit findings on inadequate test stations. AC interference has been identified on L-306 between [REDACTED] testing and mitigation are ongoing. There will be additional reports to follow in the future. There were seven casings identified. One casing at a railroad crossing is likely shorted and will need to be evaluated to determine condition and potential repair measures. All coating found to be hot applied asphalt (HAA) with no indications of asbestos in laboratory testing. ECDA and SCCDA inspections were completed in 2007, 2011, 2012 and 2014. Inspections at all direct examination sites showed HAA coating to be in fair to poor condition with significant disbonding or missing coating. Corrosion less than 20% wall loss found at all dig sites.

Cased Pipe

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Rectifiers

End Stationing or Milepost	Type of CP Applied	CP Criteria	Readings Range - Volts	Readings Range - Amps	Read Date
[REDACTED]	Rectifier	0.85	8.00 V	11.40 A	1/13/2017
[REDACTED]	Rectifier	0.85	9.00 V	7.60 A	1/13/2017
[REDACTED]	Rectifier	0.85	12.00 V	13.90 A	1/27/2017
[REDACTED]	Rectifier	0.85	4.00 V	9.80 A	1/13/2017
[REDACTED]	Rectifier	0.85	6.00V	6.00 A	1/19/2017
[REDACTED]	Rectifier	0.85	6.00 V	2.90 A	1/19/2017
[REDACTED]	Rectifier	0.85	3.00 V	1.50 A	1/19/2017
[REDACTED]	Rectifier	0.85	37.00 V	6.10 A	1/20/2017



2. GIS/Piggability/Engineering Team

Ells & Bends

All [REDACTED] are piggable. However, of the 103 “unknown” Elbows, only 28 were installed at a different time than the [REDACTED] (1962). And of those 28 unknown elbows, only 14 have an angle greater than [REDACTED] Engineering recommends replacing these 14 elbows.

**183 - [REDACTED]**

- 167 - 8/28/1962 Install
- 11 - 8/21/1967 Install
- 5 - 12/14/1969

**103 - Unknown**

- 75 - 8/28/1962 Install (assumption is these are the same as the 167 above)
- 28 - 6/7/1973 Install
  - 14 - Angle 0 – 30 (Assume these are piggable, even if less than [REDACTED])
  - 14 - Angle 30 – 45

Additionally, all elbows that are back-to-back (less than 4 feet of pipe between) will need to be replaced as well. There are a total of 8 elbows that meet are close together that will need to be replaced.

Back to Back Elbows (less than [REDACTED])

Elbow 1&2 (PFL – 31 & 33)



Elbow 3&4 (PFL – 4150 & 4152)



Elbow 5&6 (PFL – 4278 & 4280)



Elbow 7&8 (PFL – 4284 & 4286)



Field Bends

No field bends greater than 6.6 degrees.

Tee's, Taps & Probes

During our follow up with SoCalGas' Pipeline Integrity after the data room visit, tees, taps and probes were inquired about. Based on the documentation that was reviewed at PG&E, the majority of the existing taps are [REDACTED] and smaller. A Data Request (DR) for the Pipeline Feature List (PFL) was made and will be used to research tees that may require to be barred [REDACTED] and type and size of all taps.

Drips & Drains

A DR for the PFL was made and will be used to research if there are any drips/drains existing on the pipeline. If there are, most likely they will need to be replaced or removed depending on where they are located. One drip was identified at the end of the pipeline downstream of our future interconnection point, which will be abandoned by PG&E prior to potential acquisition.

Launchers & Receivers

L306 is not currently piggable, and new launchers and receivers will need to be installed. After reviewing with Pipeline Integrity, a reasonable assumption would be to install a launcher at MP 0.00 on the east end of the pipeline, a receiver and launcher at the Estrella PLS at MP 40.3, and a receiver at the existing interconnect on the west end. Pipeline pressures and flowrates will dictate what the requirements will be for the distance recommendations between launchers & receivers. A hydraulic analysis will need to be performed to validate these assumptions.

Valve Information

There are a total of 8 valves on this line. Five (5) of them are contained within Kettleman Compressor Station and Estrella Pressure Limiting Station. There are three (3) main line valves, two (2) of which will need to be replaced with full-port ball valves since they are plug valves and therefore, not piggable. Engineering suggests moving the two replaced valves closer to the fault crossings, if feasible.

<b>PFL</b>	<b>Valve Type</b>	<b>Valve Name</b>	<b>Size</b>	<b>Class</b>	<b>Approx. MP</b>	<b>Location</b>
28	Plug	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	KCS
312	Plug	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MLV
472	Plug	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MLV
3835	Ball	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PLS
3841	Ball	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PLS
3847	Plug	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PLS
3857	Ball	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PLS
4007	Ball	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MLV

After following up with the PSEP Valve Team, automation is required for all [redacted] and greater, 20% SMYS and greater valves. All 3 mainline valves (MLV) meet this requirement and will require automation. An additional new MLV may be required and should be considered in the retrofit estimate within 1-mile upstream of the fault line. For DOT Transmission pipelines the MLV spacing is every 20 miles for Class 1, every 15 miles in Class 2 and every 8 miles in Class 3 locations. A detailed Pipeline Feature List with stationing to depict where the class location changes are will be used to determine MLV spacing compliance.

In addition, since this pipeline meets PSEP’s requirement for automation, each tap [redacted] and larger will require installation of a check valve to prevent backflow. Bridled MLV’s will also need to be equipped with check valves or remotely controlled valves to prevent backflow around the MLV’s.

Regulator/Compressor Stations

L306 is a [redacted] natural gas pipeline that starts out at Kettleman Compressor Station [redacted] line) and currently extends approximately 70 miles to Morro Bay Compressor Station ([redacted] line). At [redacted] PG&E installed Estrella Pressure Limiting Station ([redacted] to reduce the pressure of the downstream pipeline from [redacted] to be in compliance with a Class Location Changes (2 to 3). In 2017, it was decided that PG&E would abandon the line that feeds the Morro Bay Compressor Station (and Morro Bay Power Plant, which has been decommissioned). The pipeline will continue just past the SoCalGas inter-tie at [redacted] and be cut and capped.

Regulator/Compressor Stations		
Station Name	Approx. MP	Pipe Size (in)
Kettleman Compressor Station	[redacted]	[redacted]
Estrella Pressure Limiting Station	[redacted]	[redacted]
Morro Bay Compressor Station*	[redacted]	[redacted]
*Note: Morro Bay Compressor Station is being abandoned.		

Pipe Diameter Changes

There are multiple pipeline diameter changes; however, many of these will be abandoned when the Morro Bay Power Plant section is abandoned (prior to proposed SoCalGas acquisition). The first pipe diameter change comes out of the Kettleman Compressor Station – MP 0 [redacted]. The second diameter change comes at the inlet and outlet of the Estrella PLS – MP 40.30 ([redacted]). The third diameter change comes at the SoCalGas Inter-tie – MP 69.8 ([redacted]). The fourth diameter change comes at the drip leg – MP 70 ([redacted]). And the final pipeline diameter change comes at the Morro Bay Compressor Station [redacted]. Please note that anything downstream of the SoCalGas tap at Morro Bay will be abandoned per a PG&E request (reviewed and approved by SoCalGas).

There are no issues with the pipe diameters in regards to pigability once the proposed valves are replaced.

Pipe Diameter Change					
PFL	Approx. MP	OD 1	OD 2	Reason Change	Comments
4413	[REDACTED]			SoCal Gas Inter-tie	
4418				External Drip	To be abandoned
4421				External Drip	To be abandoned
4424				External Drip	To be abandoned
4427				External Drip	To be abandoned
4430				External Drip	To be abandoned
3835				Estrella PLS	
4434				Morro Bay CS	To be abandoned

Taps to Other Entities

Taps to PG&E will be added to the current Exchange Agreement.

L-306 at milepost ([REDACTED] City of Avenal (~2,460 customers), maximum hourly volume was approximately 55 MCFH and daily volume is 750 MCFD based on Cold Winter Day (CWD) modeling and 2015-2016 historical SM data.

L-306 at [REDACTED] Avenal Prison, based on CWD modeling and year 2016 AMR Data, maximum hourly volume was approximately 90 MCFH and daily volume 1600 MCFD.  
 L-306 at MP 43.30 to 48.56: 4 Taps (2 Vineyards (Cass and Gallo\*) and 20 residential customers), based on CWD modeling and year 2016 historical SM Data, maximum hourly volume was approximately 50 MCFH and daily volume is 450 MCFD.

*\*Note much of the load from the vineyards/wineries occurs during the spring/summer months*

L-306 at [REDACTED] Paso Robles residents, maximum hourly volume was approximately 1 MCFH and daily volume 7 MCFD based on CWD modeling and historical SM Data for 2016.

L-306 at [REDACTED] to [REDACTED] multiple Taps to SoCal Gas. Please note that PG&E does not have usage data for these taps.

L-306 Taps					
MP	Customer	Max. Hourly Load (mscfh)	Max. Daily Load (mscfd)	Data (yr)	Source
[REDACTED]	Avenal (City)	55	750	2015-2016	Smart Meter
	Avenal Prison	90	1600	2016	Smart Meter
	(2) Wineries & 20 Residents	50	450	2016	Smart Meter
	Residents (Paso Robles)	1	7	2016	Smart Meter
	No usage data for taps	N/A	N/A	N/A	N/A

Class Location Changes

A data review of PG&E Line 306 was completed in January 13<sup>th</sup> and 14<sup>th</sup>, 2016. Although data for CP, coating, valves, right of ways, leak history, pipeline depth and environmental was reviewed during this visit, there was an additional request for more data. Part of this additional request was for PG&E to provide copies of their Class Location Surveys for Line 306. Unfortunately, no further data was sent to SoCalGas for this request. However, on the subsequent visit with PG&E during the week of February 27, 2016, the SoCalGas GIS/Engineering sub-team met with PG&E's [REDACTED] (an engineer from the MAOP Engineering Dept) to go over the Class Location data.

PG&E used their [REDACTED] to display the different class locations Line 306 is operating within. The SoCalGas sub-team was able to verify through PG&E's [REDACTED] that Line 306 is operating in three different class locations (i.e. Class 1, 2 and 3). The first 41.6 miles ([REDACTED]) is operating in a class 1 location. At [REDACTED] the class location changes from a Class 1 to a Class 3 location. At this location, PG&E installed a pressure limiting station (PLS) that reduced the Design MAOP from 936 [REDACTED]. The Class 3 segments extend from [REDACTED] and are all operating at or below [REDACTED]. Due to this info, the installation of the PLS was most likely completed due to the class location change but it could not be verified with the PG&E team that was available. The remaining segments of Line 306 from [REDACTED] to the end of the line at [REDACTED] are operating in the three different class locations and at a Design [REDACTED].

PG&E's pipelines are all digitized and in their [REDACTED]. They are transitioning to a new system called [REDACTED] that is in production but is not a final product as of this meeting. PG&E completes aerial patrol for all their transmission pipelines and the frequency of those patrols is per code. They look for any construction activity and if anything is spotted during an aerial patrol a subsequent ground patrol will be completed to

verify what was captured during the aerial patrol. In addition, aerial imagery is captured via a 3<sup>rd</sup> party and any changes in building count, dwelling units, or any structure used for human occupancy is sent to PG&E and is captured in their [REDACTED]

#### Strength Test Records

While a thorough review won't be conducted until we receive PG&E's Pipeline Feature List (PFL), a high level overview of the Strength Test Records indicate that adequate records exist for a majority of the pipeline. It is assumed by Engineering that after looking at these records, there is approximately 140-400 feet of pipeline/features that do not have records.

#### Pig Launchers/Receivers

Currently, there are no pig launchers/receivers on this line. A total of four (4) launchers/receivers will need to be installed: One (1) at Kettleman Compressor Station, two (2) on either side of the Estrella Pressure Limiting Station, and one (1) at the end of the line near the SoCalGas Inter-tie to 36-9-10.

### 3. Remediation/Maintenance/Compliance Team

#### Leak Survey

Leak survey is performed by aerial and if any indications, we noted they follow-up with foot survey to verify if leakage exists. If so, an Aform (PG&E's maintenance record) was generated.

#### Leaks

The team reviewed a workbook (L-306Leaks.xls) and noted 14 leaks were detected. One is on pipe [REDACTED] indicated [REDACTED] in a vault not yet repaired). The remaining 13 above ground leaks were all Code 3's.

No orders were found indicating corrosion as a leakage cause. Leakage records show only small, above ground leaks on regulation facilities. No leaks were identified that related to seams, corrosion or other threats on the main pipeline. Overall, there are no indications of leakage concerns based on the information reviewed.

#### Excavation Damage

During the leak review, some evidence of previous excavation damage was noted. The previous DRs indicated no excavation damage had occurred. The following locations were noted:

- MP 49.8 in 2003 – Repaired with [REDACTED] long sleeve.
- MP 48.75 in 2003 – Repaired with sleeve.
- MP 57.98 in 1982 – Repaired with weld sleeves

PG&E indicated they would revise the previous data request and provide all these documents and search for any other damages.

### Reduced Cover

The team reviewed a workbook showing segments with less than 36" of cover (Reduced\_Cover\_306.xls). Seventy-five locations were found with reduced cover from 0" to 34" in depth. The measurements were taken electronically with a Pipeline Current Mapper (or equivalent). Four locations at 0" of cover (see spans below).

### Valve Maintenance

There are three mainline valves (1 ball valve and 2 plug valves). All passed inspection with no indications of operating concerns (i.e. hard to turn). The plug valves will need to be replaced for pigability.

### Spans

There are four locations that are exposed:

- [REDACTED] (Span 770) – This span will require recoating approximately 30 feet of pipe.
- [REDACTED] – This span will require recoating approximately 25 feet.
- [REDACTED] – This span will require recoating of unknown length.
- [REDACTED] – Morro Creek crossing is exposed and may require replacement by HDD under river. This is an environmentally sensitive area. It was unable to determine pipe condition at Morro Creek from records or a field visit due to overgrowth.

### Maintenance Records (Aforms)

Nineteen maintenance records (Aforms) were provided and reviewed. The one concern identified from this review was the condition of the span at [REDACTED]. The span was 85 feet at Morro Creek. It will be further evaluated through a field visit. All other Aforms were due to PG&E maintenance and did not indicate any areas of concern from the records provided.

### Pipeline Patrols

The team requested any patrol and inspection records. None were provided during the visit, but requested in the follow up data requests.

### Customer Taps

There are seven customer taps plus the two interties to the SoCalGas system (Morro Bay and Edelman). Details were review in the Gas System Planning folder on PG&E's computers. Tap locations are recorded in the Longitudinal Workbook on the Maintenance tab.

### Measurement & Regulation (M&R)

The M&R records were reviewed and maintenance is both current and complete. No immediate items were identified by the Maintenance team. Construction of the Estrella PLS is to Company standards based on drawing review and maintenance records review. A field visit to this site was also requested.

*Environmental Concerns*

PG&E responded there are currently no environmental concerns. The pipeline coating does not contain asbestos. Several sample reports were reviewed and all showed no asbestos contained in the HAA coating.

*Cultural Concerns*

The team requested information on any cultural concerns. None were known at the time of our visit.



## **Appendix A – PG&E Line 306 Longitudinal Review Team**

Overall coordination:

- [REDACTED] (PSEP) – Program Director [REDACTED]

CP Team:

- [REDACTED] (PSEP) – Engineer II
- [REDACTED] (PI) – Technical Advisor II

GIS/Engineering/Pigability Team:

- [REDACTED] (Gas Transmission Ops) – Technical Services Manager
- [REDACTED] (Region) – Region Engineering Supervisor
- [REDACTED] (PSEP) – PSEP Project Manager
- [REDACTED] (PSEP) – Land Services Manager

Maintenance Team:

- [REDACTED] (Region) – Measurement Supervisor
- [REDACTED] (Region) – Area Manager/Gas Ops

Thank you to this team for traveling for a week and working extended days in PG&E’s office to complete this longitudinal review.

## **Appendix B – Longitudinal Review - Three Data Streams**

1. Cathodic Protection Records indicating miles/stationing for:
  - a. How many miles are on:
  - b. 100 mV protection?
  - c. Rectifiers? Location(s) of each and output plus categorize P/S readings along this segment as:
    - i. Less than 0.9 V
    - ii. Between 0.9 and 1.0 V
    - iii. Between 1.01 and 2.0 V
    - iv. Greater than 2.0 V
  - d. Anodes? Location(s) of each and output plus categorize P/S readings along this segment as:
    - i. Less than 0.9 V
    - ii. Between 0.9 and 1.0 V
    - iii. Between 1.01 and 2.0 V
    - iv. Greater than 2.0 V
  - e. Any records of MIC – Location, investigation and remediation records
2. GIS System to determine Piggability by total number and location of:
  - a. Ells
  - b. Bends
  - c. Other fittings in line
  - d. Valves (by type)
    - i. Ball
    - ii. Plug
    - iii. Gate
    - iv. Other
  - e. Pig launchers or receivers
  - f. Pipe diameter changes/specs
  - g. Regulator stations or Pressure Limiting Stations
  - h. Taps to other entities
3. Maintenance records for past five years:
  - a. Leaks (grade, location and disposition)
    - i. Cause of leak
    - ii. Repair methodology
    - iii. Leak repair order
  - b. Other pipeline digs
  - c. Any transmission integrity information:
    - i. ECDA
    - ii. ICDA
    - iii. SCCDA

4. Any integrity reports or plans for Line 306
5. Any known areas of asbestos or other environmental hazards
6. Description for tap along the line:
  - a. Milepost
  - b. Contract delivery pressure and volume
  - c. Facilities description
7. Any information on potential compliance items such as:
  - a. Shallow line
  - b. Down CP systems
  - c. Current leaks
  - d. Other action plans

## **Appendix C – Daily Reports on Longintudinal Review**



Line 306 Data Room  
- Day 4 - Final Report

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## 9. Appraiser's Background

██████████ serves as managing partner of ██████████. Serving in this capacity, he is responsible for the timely and professional performance of all tangible property valuations undertaken by Company personnel.

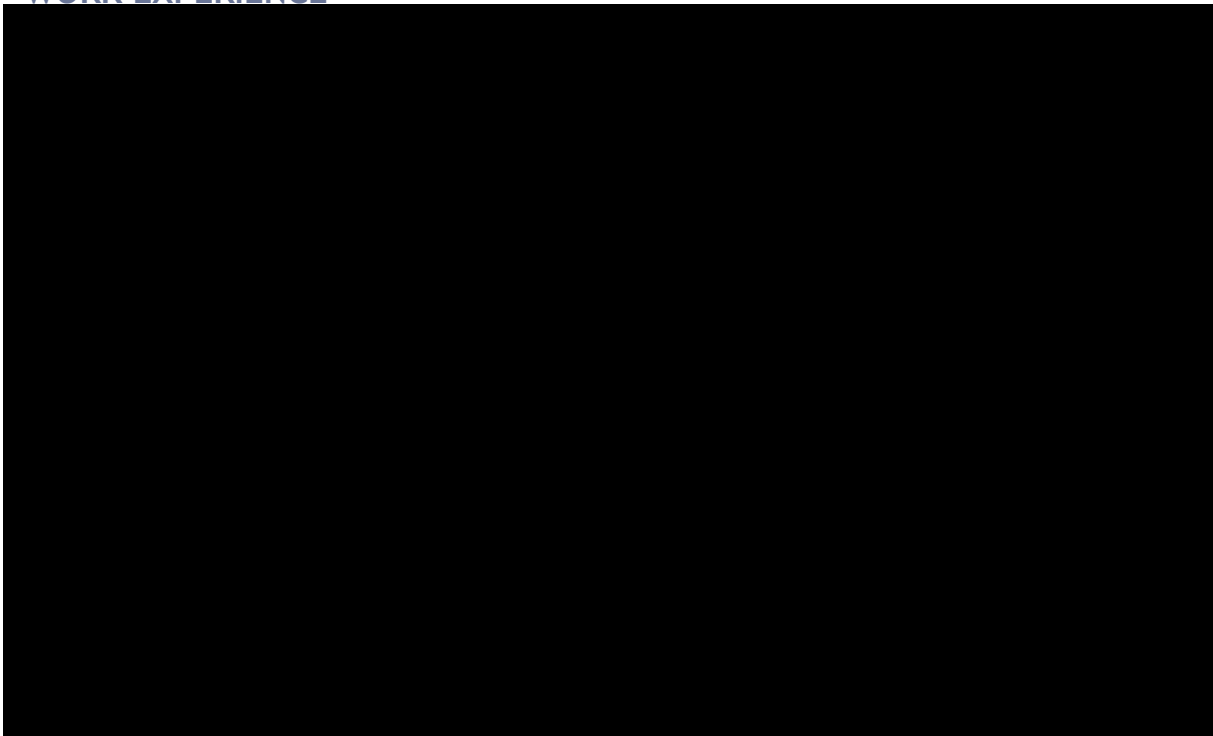
██████████ began his appraisal career in 1987 with ██████████. His job was and is to oversee the company accounts of buying and selling pipeline assets for mergers, removal, and remediation. In this capacity, he has personally been responsibility for transactions involving some 300 plus valuations and appraisals.

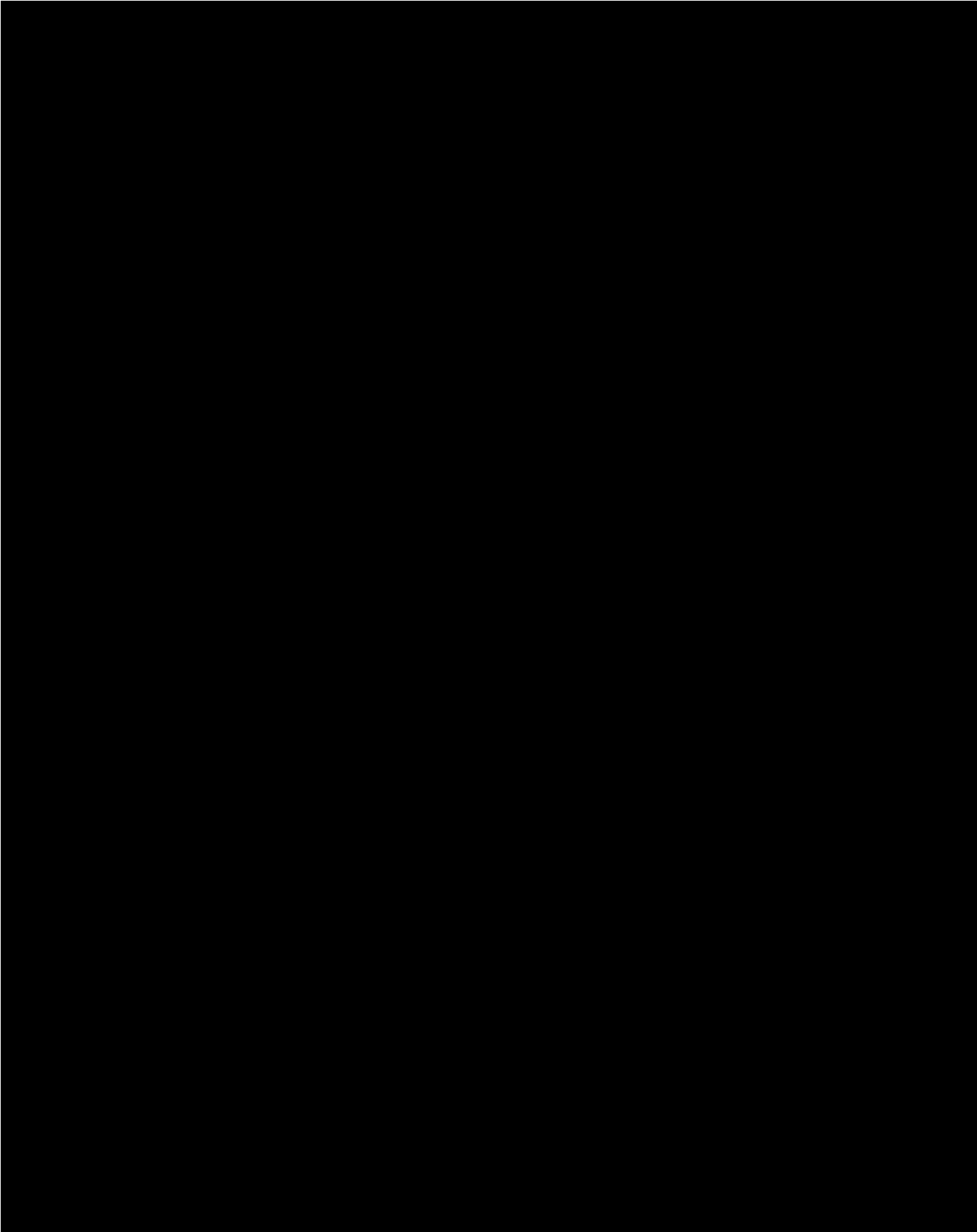
With over 25 years experience in the appraisal profession ██████████ has participated in valuation assignments on both domestic and foreign operations. Some of the specific products include drilling rigs and drilling equipment (mud pumps, draw works), well serving units, water welling drilling rigs, downhole casing and tubing, drill pipe, seismic tools, production equipment, compressor systems, oil storage terminals and related assessments of pipeline assets.

In addition to the determination of market value for ad valorem tax, allocation of purchase cost, acquisitions, divestitures, and financing transactions, ██████████ has been active in environmental assessments particularly in regard to gas plants and crude storage facilities. ██████████ has provided expert testimony in state and federal court jurisdictions.

██████████ holds a Bachelors degree in Political Science and Economics from Texas A&M (Kingsville) and is a member of the Pipeline Appraisal Institute, Pipelines Association of Houston, and the International Right-of-way Association.

### WORK EXPERIENCE





## BOOKS & ARTICLES

Pipeline Right of Way Handbook (2013)

Pipeline Appraisal Handbook (2011)

Pipeline Recovery Manual, Second Edition (2010)

"Methods for Determining the Values of Pipelines, Part 1" (September 2010, Pipeline and Gas Technology)

"Forty Factors for Pipeline Appraisal" (August 2010, Throughput Emag)

"Deconstruction of Pipelines" (July 2010, Throughput Emag)

"The Underground World of Pipeline Appraisal" (May/June 2010, Right of Way Magazine)

"Proper Pipeline Valuation Requires Specialized Appraisal" (May 24, 2010, Oil & Gas Journal)

"What is the Value of Your Pipeline?" (May 2010, Pipeline & Gas Journal)

"The Case for Pipeline Recycling" (April 2010, Throughput Emag)

"Pipeline Operators Underusing Potential Pipeline Rehabilitation" (January 2010, Oil & Gas Journal)

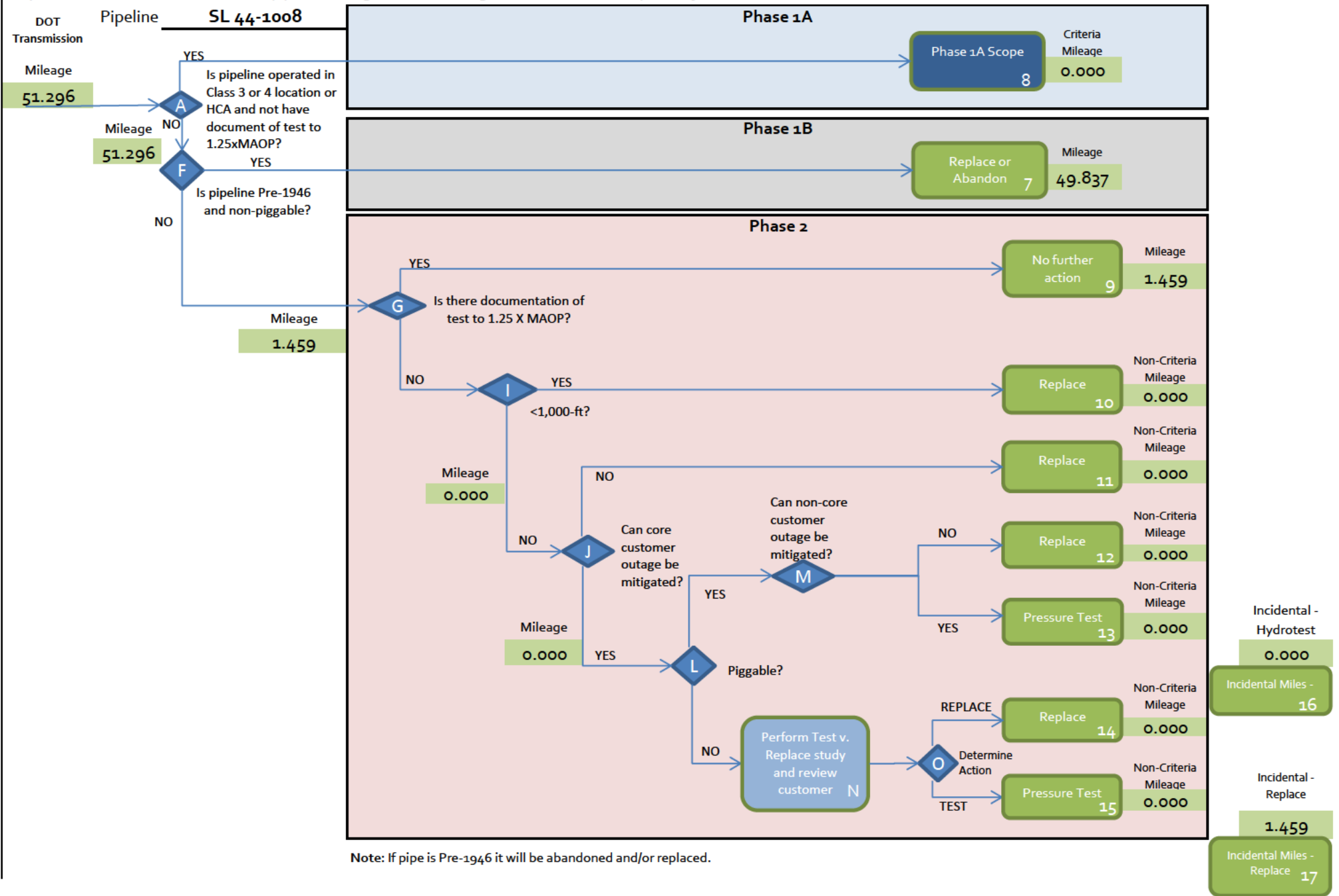
"Who Owns Abandoned Pipelines?" (October 2009, Pipeline & Gas Journal)

"The Art of Pipeline Recovery" (January/February 2009, Right of Way Magazine)

"The Search for Abandoned Pipelines" (September/October 2007, Right of Way Magazine)

PSEP - Pipeline Test/Replace Decision Tree - Phase 1B & 2

Purpose - This form is to document how pipeline mileage is routed through the decision tree and provide justification for each of the decision node outcomes.



Note: If pipe is Pre-1946 it will be abandoned and/or replaced.



Pipeline Segment Explanation

Purpose: The purpose of this template is to document each of the test or replacement sections that is in scope and the reason that they are being remediated

Pipeline information				Phase 1B		Accelerated Footage (Phase 2)		Incidental Footage			Further information	Action	
Line No: SL 44-1008				Pre-1946, Non piggable									
Test/Replace Section Name	Begin Station	End Station	Total Test Section Footage (ft)	Pipe Segment(s) Pre-1946, Non piggable with Test Records (ft)	Pipe Segment(s) Pre-1946, Non piggable Without Test Records (ft)	Additional Footage within test section that is in Class 1 or 2 - pipe without test records	Additional Footage within test section that is in Class 1 or 2 - pipe was tested to between 1.0 and 1.25	Additional Footage within test/replace section with test records	Additional Footage within test/replace section that is <20%	Pipe Segment Operating More than 1 Class Out (ft)		Please use the following options: Test, Replace, Abandon	
44-1008	[REDACTED]		133050	133050							This segment would be replaced with PG&E L306 to serve any customers in the area. As per RER 19-0052, SL 44-1008 can be abandoned between the City of Shandon and connection with Line 85 if specified conditions are met.	Abandon & Replace	
			66.00				66.00					Abandon & Replace	
			4830	4830									Abandon & Replace
			770						770				Abandon & Replace
			406							406			Abandon & Replace
			806						806				Abandon & Replace
			2709	2709									Abandon & Replace
			2267.00						2267.00				Abandon & Replace
			13353.00	13353.00									Abandon & Replace
			893						893				Abandon & Replace
			4725	4725								Abandon & Replace	
			403							403		Abandon & Replace	
			37573.00	37573.00								Abandon & Replace	
			295						295			Derate	
			22912	22912								Derate	
			41					41				Derate	
			11862	11862								Derate	
			5								5	Derate	
			164	164								Derate	
			66								66	Derate	
			891	891								Derate	
			8								8	Derate	
			26220.3	26220.30								Derate	
			820.80								820.80	Derate	
			116.90							116.9		Derate	
			4364	4364								Derate	
697								697	Derate				
233	233								Derate				
15								15	Derate				
250.7	250.7								Derate				
29.42								29.42	Derate				
	Total (ft)		270842.12	263137		41		5925.9	1738.22				
	Total (mi)		51.296	49.837		0.008		1.122	0.329				

Prepared by Project Engineer:	[REDACTED]
Verified by Portfolio Manager:	[REDACTED]

Company: Southern California Gas Company (U 904 G)  
Proceeding: 2019 General Rate Case  
Application: A.17-10-\_\_\_\_  
Exhibit: SCG-15

**SOCALGAS**

**DIRECT TESTIMONY OF RICK PHILLIPS  
(PIPELINE SAFETY AND ENHANCEMENT PLAN (PSEP))**

**October 6, 2017**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**



**Table RDP-50**  
**Southern California Gas Company**  
**Line 5000**  
*(Direct Costs – Thousands)*

Project	Location	Mileage	Capital
5000	Riverside County	0.015 miles (79 feet)	\$4,486

The Line 5000 project will replace approximately 90 feet of pipe at the Blythe Compressor Station. The project is located entirely within the Blythe Compressor Station and the pipe will be installed aboveground, except for a ten-foot section that will be installed using the open trench method.

**Table RDP-51**  
**Southern California Gas Company**  
**Line 44-1008**  
*(Direct Costs – Thousands)*

Project	Location	Mileage	Capital
44-1008 (50%)	Central California	54.9 <sup>70</sup> miles	\$76,582

The Line 44-1008 project will install approximately 54.9 miles of pipe in San Luis Obispo and Kings Counties between Paso Robles and Avenal to replace pipe installed in 1937.<sup>71</sup> Re-routes of the existing alignment are included in the scope to facilitate ongoing operations and maintenance on the line in the future and reduce the risk of third-party damage on farmland, thereby enhancing public safety. The re-routes will also minimize impacts to private property owners and existing farmland. Alternatives to replacement of this line are still under consideration.

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<sup>70</sup> Total project mileage.

<sup>71</sup> SoCalGas' showing includes 50% of the estimated project costs. If the Commission grants SoCalGas' request to add a fourth year to the GRC cycle, the entire estimated project costs for 44-1008 should be included, as the entire project is anticipated to be placed into service in 2022. For clarity of presentation, the supplemental workpaper describes the cost of the entire project.



## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

Project Costs <sup>1</sup>	Prior to 2019*	2019	2020	2021	2022	Total
DIRECT LABOR	\$6,037	\$0	\$0	\$2,353,411	\$2,359,448	\$4,718,896
DIRECT NON-LABOR	\$189,919	\$0	\$0	\$74,032,464	\$74,222,383	\$148,444,766
TOTAL DIRECT COSTS	\$195,956	\$0	\$0	\$76,385,875	\$76,581,831	\$153,163,662
<b>Total Capital</b>	<b>\$195,956</b>	<b>\$0</b>	<b>\$0</b>	<b>\$76,385,875</b>	<b>\$76,581,831</b>	<b>\$153,163,662</b>

\* Actual costs incurred associated with planning and engineering design work are included in the project cost estimates

#### Project Description

The Supply Line 44-1008 project will install 54.859 miles of [REDACTED] pipe. SL-44-1008 is a high pressure pipeline, this portion was installed in 1937. This portion of the pipeline has an MAOP of [REDACTED] psig.

The original pipe diameter is 10-inch and the replacement pipe diameter will be upsized to 12-inch in order to meet the increased system demand and to improve reliability. The total estimated direct cost of this project is \$87,828,484, \$11,246,653 of which is due to the upsizing of the pipeline to 12-inches. The region will fund the cost of the upsizing, PSEP will fund the remaining \$76,581,831. Any additional costs related to the upsizing of the pipeline will also be funded by the region. PSEP will fund any additional costs not related to the increase in the diameter of the pipeline.

The project is located in Kings County, CA, Kern County, CA and San Luis Obispo County, CA, beginning south of the City of Avenal, CA in Kings County continues southwest ending in the City of Atascadero, CA. It will generally follow a 25-foot offset from the existing pipeline. The replacement consists of 49.849 miles of Phase 1B pipe, 0.118 miles of accelerated Phase 2B pipe and 4.892 miles of incidental pipe. Of the incidental pipe 3.556 miles is due to re-routes to minimize impact to property owners and established farmland along the existing route. The remaining 1.336 miles are located within the project boundaries and are due to various relocations over the years. Including these sections of incidental mileage improves constructability by minimizing the excavations, and tie-in work.

The project is primarily in rural areas and the majority of the pipe will be installed via open trench. Approximately 2.5 miles will be installed via Horizontal Directional Drilling (HDD). The use of HDD over these 2.5 miles are for various crossings, there are a total of 27 separate instances where HDD will be utilized. Additionally, approximately 1,200 feet will be installed using a slick bore method. The slick bore method is being utilized to avoid open trenching in environmentally sensitive areas and in Caltrans' right of way. There are nine planned slick bores.

#### Alternatives Considered

SL-44-1008 is the primary feed for the area and is critical in supporting customers in the region. Abandoning this line would create a substantial loss in capacity to the Kings, Kern and San Luis Obispo Counties and would result in an inability to meet the needs of customers in the area. Because of this, abandonment is not a viable option.

<sup>1</sup>SoCalGas' showing includes 50% of the estimated project costs. If the Commission grants SoCalGas' request for a fourth year to the GRC cycle, the entire estimated project costs for 44-1008 would be included as the entire project is anticipated to be placed into service in 2022. This supplemental workpaper details the cost of the entire project.



## **Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15**

### **SUPPLY LINE 44-1008 REPLACEMENT PROJECT**

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Therefore, abandonment is not a viable option. Derating the pipeline to less than 20% SMYS would reduce the capacity of the system resulting in an inability to meet customer demand and also is not an option.

#### **Shut-In Analysis**

SL-44-1008 can be temporarily taken out of service during both winter and summer conditions with summer conditions being preferred. There is one regulator station that supplies approximately 12,000 customers and 14 customer taps within the segment. Prior to shutting in the line, these 14 customers and the regulator station will be connected and supplied with Compressed Natural Gas (CNG) during the tie-in, they will then be tied into the new line.

#### **Forecast Methodology**

SoCalGas developed a Total Installed Cost (TIC) estimate to implement the above scope of work. The TIC estimate includes direct costs associated with project management, engineering and design, environmental permitting, land acquisition, material and equipment procurement, and construction.

#### **Schedule**

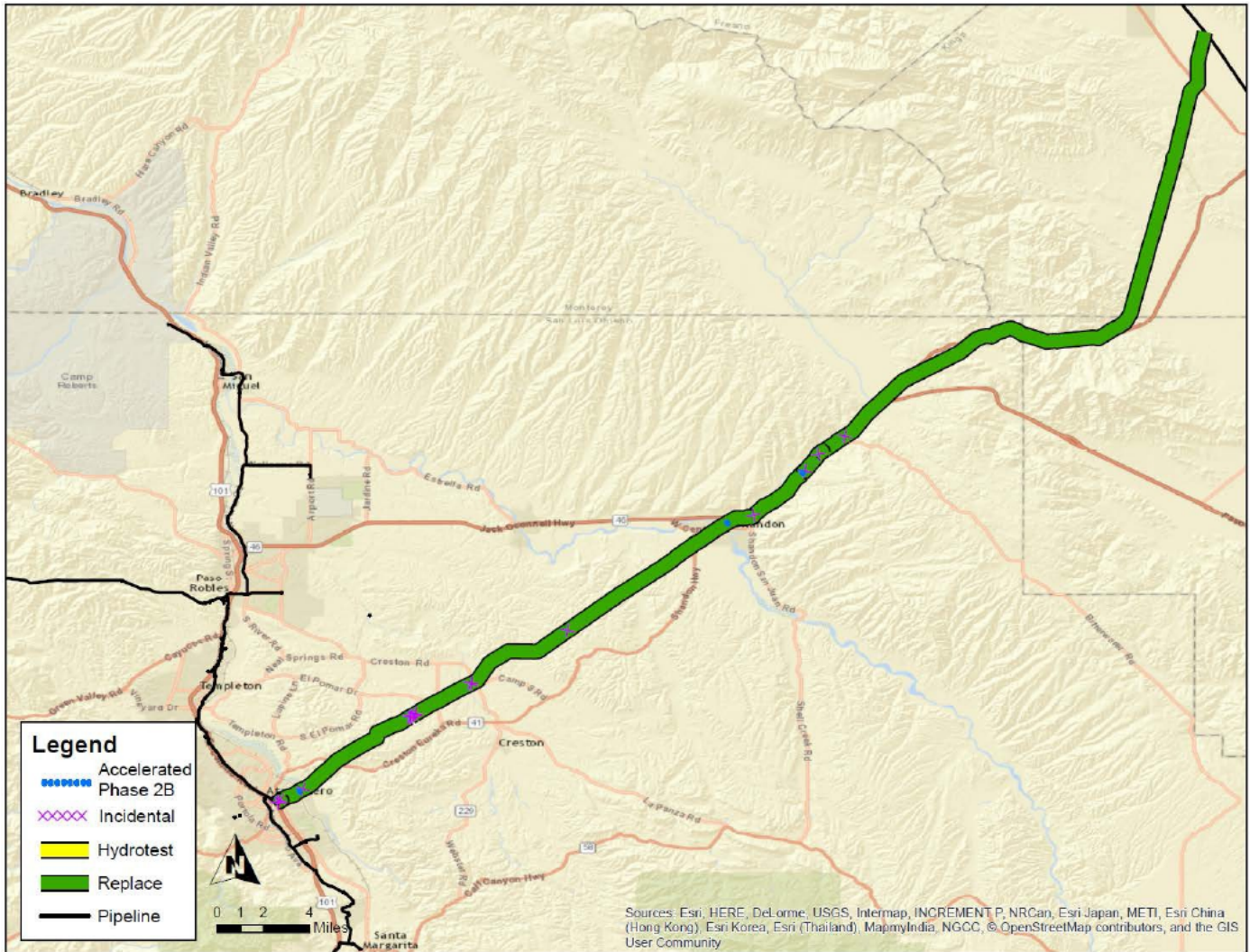
The schedule was developed based on the seven stage project life cycle described in testimony. As defined in testimony, key project deliverables were identified and incorporated into a work breakdown structure. This work breakdown structure was then sequenced, and predecessor and successor tasks were linked. Estimated durations were established for each task to derive a total project timeline.

As described in greater detail below, the preliminary Construction Schedule is estimated to be 225 working days.



**Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15**  
**SUPPLY LINE 44-1008 REPLACEMENT PROJECT**

**Project Overview Map for SL-44-1008**



**PROJECT MILEAGE TABLE**

PHASE	MILEAGE
PHASE 1B	49.849
PHASE 2A	0
ACCELERATED - PHASE 2B	0.118
INCIDENTAL	1.336
INCIDENTAL – RE-ROUTE	3.556
<b>TOTAL MILEAGE</b>	<b>54.859</b>



**Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15**  
**SUPPLY LINE 44-1008 REPLACEMENT PROJECT**

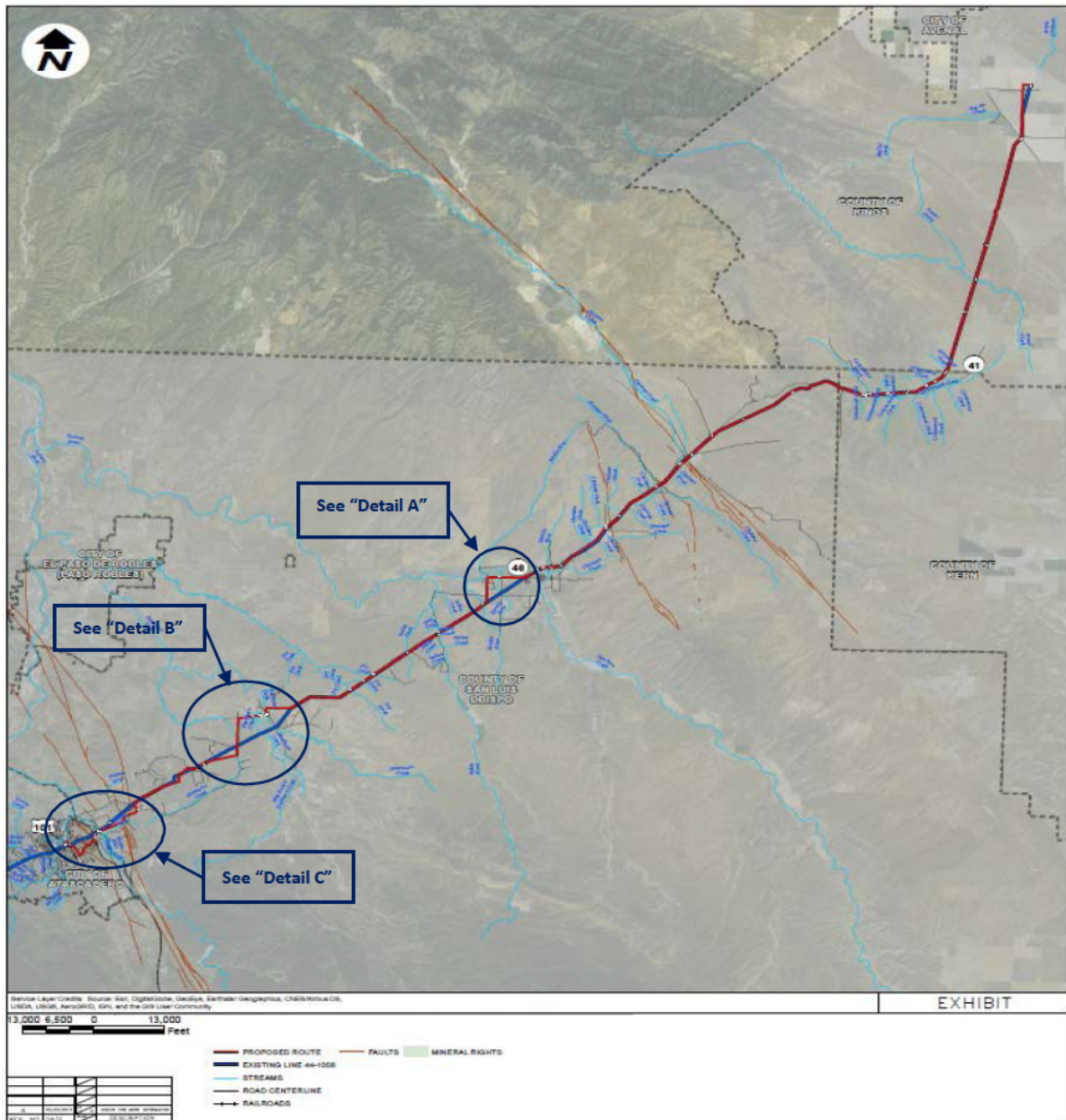
**Project Satellite Map for SL-44-1008**





### Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15 SUPPLY LINE 44-1008 REPLACEMENT PROJECT

#### Project Map for SL-44-1008

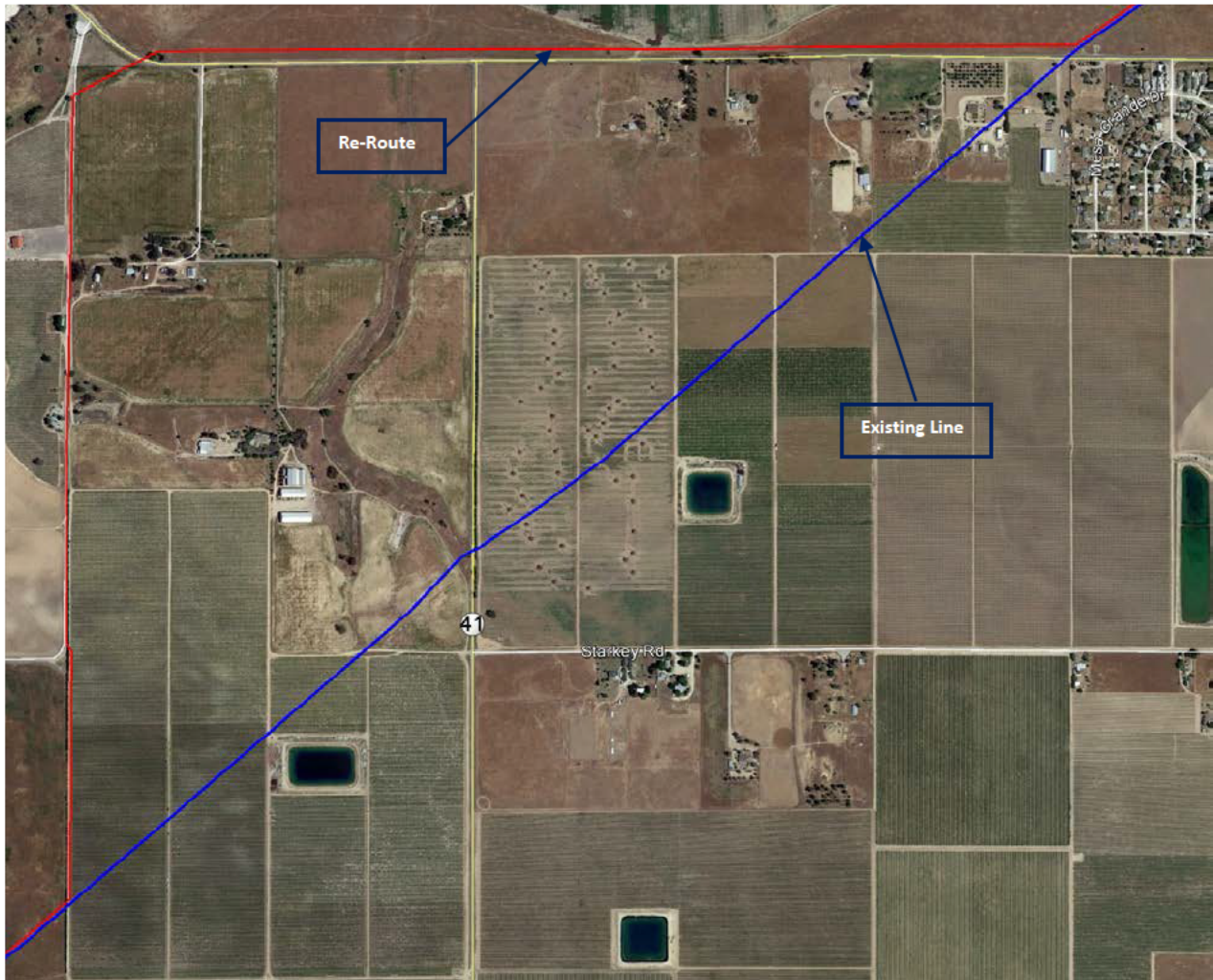




**Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15**  
**SUPPLY LINE 44-1008 REPLACEMENT PROJECT**

**Project Map for SL-44-1008**  
**Detail A**

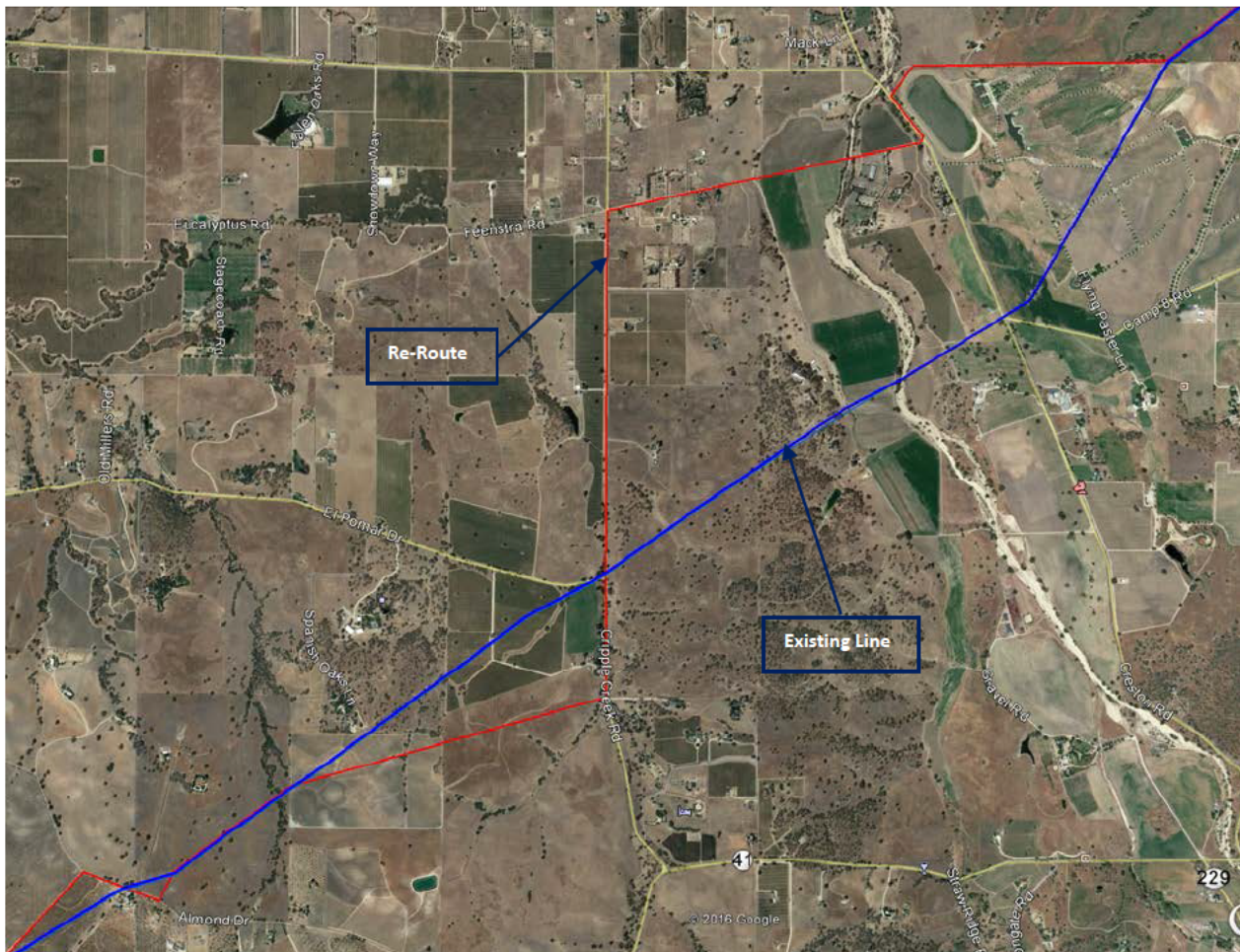
The pipeline was re-routed through roads in this location to avoid established farmland.



**Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15**  
**SUPPLY LINE 44-1008 REPLACEMENT PROJECT**

**Project Map for SL-44-1008**  
**Detail B**

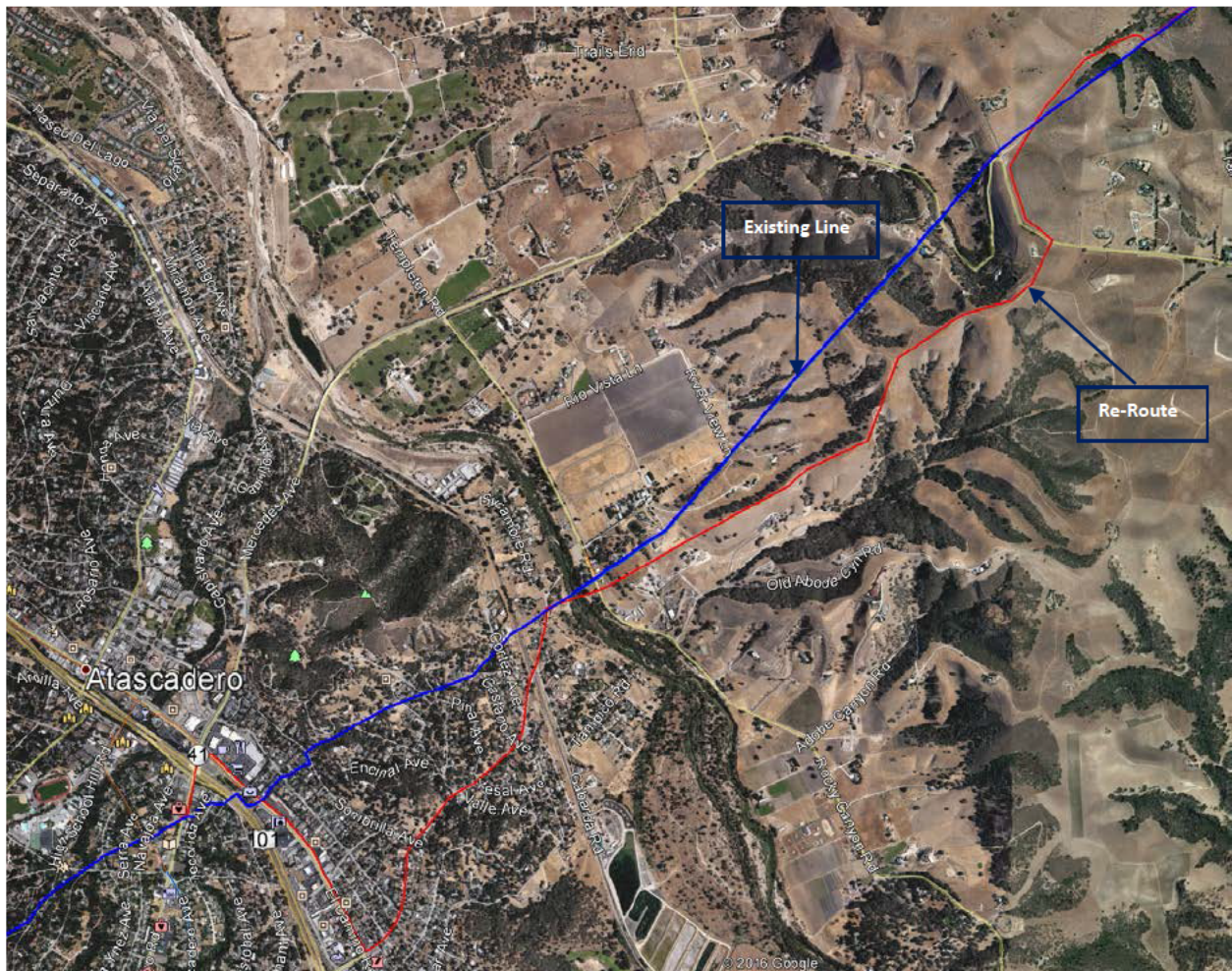
The pipeline was re-routed through roads in this location to avoid established farmland.



**Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15**  
**SUPPLY LINE 44-1008 REPLACEMENT PROJECT**

**Project Map for SL-44-1008**  
**Detail C**

The pipeline was re-routed through roads in this location to avoid established homes and neighborhoods.





## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

The direct costs for each area are summarized below.

Material						
Project Costs	Prior to 2019	2019	2020	2021	2022	Total
DIRECT LABOR	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT NON-LABOR	\$0	\$0	\$0	\$12,278,022	\$12,278,022	\$24,556,044
TOTAL DIRECT COSTS	\$0	\$0	\$0	\$12,278,022	\$12,278,022	\$24,556,044

#### Assumptions

Materials for this project will not be purchased until final authorization is obtained. This will allow for material to be procured, inspected and delivered to coincide with the anticipated construction start date.

Construction						
Project Costs	Prior to 2019	2019	2020	2021	2022	Total
DIRECT LABOR	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT NON-LABOR	\$0	\$0	\$0	\$43,002,211	\$43,002,211	\$86,004,422
TOTAL DIRECT COSTS	\$0	\$0	\$0	\$43,002,211	\$43,002,211	\$86,004,422

#### Assumptions

In the development of the construction estimate, the following assumptions and clarifications have been made:

- Pricing based on current construction costs in San Luis Obispo, Kings, and Kern Counties, CA
- Construction scheduled to include 225 working days (10 hours per days, five days per week)
- Receipt of materials to main laydown yard
- Pipe can be placed along Right of Way (ROW) without restriction
- There will be a total of 11 laydown yards
- Backfilling of excavations with zero-sack slurry to one foot above pipeline; remained of backfilling with native soil or as required by permit; excess spoils will be hauled off and disposed
- Isolation and final tie-ins are a continuous operation
- Installation of one lake tank
- Mechanical excavation up to approximately two feet of the existing pipeline; hand excavation within the two-foot zone
- Fabrication and pre-testing of a total of 10 test heads
- Environmental protection fencing in cross-country regions will only be required for certain locations
- A full-time utility locate crew will be utilized to account for unidentified utilities and existing pipeline crossings
- The new pipeline will be hydrotested in five sections with water pushed from one section to the next
- Utilization of slick bores for nine trenchless installations
- Estimate does not include holiday work, cultural resources, or ground water



## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

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#### Additional Construction Information

- **Site Mobilization / Site Facilities**
  - One mobilization and one demobilization
  - Placement of six office trailers at laydown yard
  - Site facility costs to cover an 11-month duration
  - Crushed rock for laydown yards
- **Site Preparation**
  - Temporary fencing has been included for the laydown yards
  - Track-out plates have been included at street access points
  - Installation of lake tank pad
- **Site Management / Best Management Practices (BMPs)**
  - BMP materials for spoil piles, laydown yards, and work sites
- **SoCalGas / Company Furnished Material Handling**
  - Unloading by contractor of 350 loads of SoCalGas furnished material at the main laydown yard
- **Traffic Control**
  - A full time three-man crew will be used for traffic control
- **Utility Locates**
  - A full time utility locate crew is included for improved and unimproved areas
- **Isolate Existing Pipeline**
  - Excavation of existing taps in preparation for tie-overs only
  - Pipeline will be isolated and blown down in conjunction with tie-in activities
  - Pipeline will not be separately isolated until new pipeline has been installed and tested
  - Customers will be supplied CNG during system downtime
- **Pressure Test Pipeline**
  - Set-up by contractor of two lake tanks
  - Pipeline will be hydrotested in five individual segments
  - Testing of the pipeline will occur during one day for each segment
- **Tie-In Pipeline**
  - Performance of two hot tie-ins
  - X-ray of all welds
- **Paving**
  - Paving restorations for affected areas included



## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

- **Retire / Abandon Existing Pipeline**
  - 32 pipe spans will be removed and sealed
  - All piping beneath highways, roads and waterways will be filled with slurry
- **Site Restoration**
  - Temporary fencing will be removed from the laydown yards
  - ROW will be graded and restored to original condition
  - Restoration of soil at yards
- **Site Demobilization**
  - Demobilization of site facilities, crew, and equipment
  - Excess piping will be hauled to SoCalGas designated yard
- **Field Overhead**
  - One Project Manager, two Project Engineers, two Superintendents, one General Foreman and three Safety Personnel have been included for the full project duration
  - One Part-Time Scheduler
  - Eight water trucks and drivers for full project duration for dust suppression
  - Four site security personnel for all non-working hours
  - Lodging and expenses for field personnel and project management team for the full project duration

Environmental Survey/Permitting/Monitoring						
Project Costs	Prior to 2019	2019	2020	2021	2022	Total
DIRECT LABOR	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT NON-LABOR	\$0	\$0	\$0	\$4,136,207	\$4,136,207	\$8,272,413
TOTAL DIRECT COSTS	\$0	\$0	\$0	\$4,136,207	\$4,136,207	\$8,272,413

#### Assumptions

In calculating the total estimated environmental cost, the following items were considered:

- Environmental Services (permitting support, surveys and monitoring)
- Abatement (asbestos and lead)
- Hazardous and non-hazardous waste containment/disposal (including hydrostatic test water hauling, treatment, and/or disposal)
- Permits fees
- Mitigation
- The high level assumptions and specific level of effort to provide environmental support for this project are described in more detail below

#### Environmental Labor

Environmental Contract Services Labor: 31,020 hours

SCG/PSEP/Exh No: SCG-15-WPS/Witness: R. Phillips

WP-III-A104



## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

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#### Document Preparation and Project Management

- SoCalGas Environmental Services support in addition to consultant support throughout duration of project (planning, permitting, construction, and closeout)-
  - Document Preparation
  - Applicant Prepared Environmental Assessment (e.g. Proponent's Environmental Assessment and various technical studies) in support of Environmental Impact Report (EIR)
  - Waters delineation
  - Geologic evaluation for Naturally Occurring Asbestos (NOA) and NOA Mitigation Plan
  - Habitat Mitigation and Monitoring Plan (HMMP)
  - Worker Environmental Awareness Program (WEAP) document
  - Cultural and Paleontological Resources Monitoring and Mitigation Plans
  - Storm Water Pollution and Prevention Plan (SWPPP), Notice of Intent (NOI) for both the Central Coast and Central Valley Regional Boards (RWQCB)
  - Hazardous Materials Business Plan (HMBP)
- **Pre-Construction Surveys**
    - Tree protection zone fencing (31,000 feet of fencing)
    - Biological surveys including nesting birds
    - Rare plant surveys
    - Cultural resource surveys
  - **Construction Monitoring**
    - Total of two full time monitors for the duration of construction
    - Additional monitors (Paleontological, archaeological, SWPPP, Native American, and hazardous materials) are anticipated to be needed at various times during construction
  - **Project Closeout Activities**
    - Site restoration, permit reporting, and closeout

#### Abatement

- 50 days of asbestos abatement activities

#### Water Treatment and Hazardous Materials

- Source Hydrotest water (estimated at 215,000 gallons total) to be obtained by the pipeline contractor
- Hydrotest Water Delivery - Trucking to site up to 600 miles round-trip for delivery
- Hydrotest Water Disposal – Offsite disposal without treatment
- Hydrotest standby support (total 10 days of support)
- Groundwater dewatering is anticipated
- Contaminated soil is anticipated; estimated 4,500 tons and transport up to 500 miles round trip for disposal
- Waste sampling and profiling anticipated to support disposal of wastes generated during construction
- Hazardous and non-hazardous waste transport and disposal anticipated for various wastes (e.g. lead paint, pigs



## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

used to dry the pipeline post hydrostatic testing, asbestos containing material, etc.)

#### Permit Fees

- The level of California Environmental Quality Act (CEQA) review is expected be EIR
- Exempt from National Environmental Quality Act (NEPA)
- The project will be eligible for coverage under two SoCalGas programmatic Habitat Conservation Plans (HCPs): The San Joaquin Valley Conservation Plan (SJVCP) and the Coastal Region Conservation Program (CRCP) (currently in development) and any required take authorization will be covered under these HCPs
- Assumes formal consultation with the U.S. Fish and Wildlife Service (USFWS) under Sections 7 or 10 of the Endangered Species Act (ESA) or California Endangered Species Act § 2081 will not be required
- California Department of Fish and Wildlife (CDFW) Section 1600 for span removal and notice only for horizontal directional drilling (fees are determined by the agency and are subject to change)
- Central Valley Regional Water Quality Control Board (RWQCB) Section 401 (fees are determined by the agency and are subject to change)
- SWPPP Fees (fees are determined by the agency and are subject to change)
- San Luis Obispo County NOA fee (fees are determined by the agency and are subject to change)
- U.S. Army Corps of Engineers (USACE) Section 404 Nationwide Permits (e.g., NWP 12 [Utility Line Activities] and/or NWP 3 [Maintenance], and/or NWP 33 [Temporary Construction, Access and Dewatering])

#### Mitigation Fees

- Estimated \$178,480 San Luis Obispo County Oak Tree Mitigation (184 trees)
- Estimated \$87,688 Kern County Oak Tree Mitigation (90 trees)
- Estimated \$26,044 San Joaquin Valley Air Pollution Control District (SJVAPCD) Indirect Source Review (ISR) for Oxides of nitrogen and Particulate Matter 10 emissions
- Estimated \$3,000 San Joaquin kit fox habitat offsite mitigation for 20 acres of habitat
- Estimated \$30,000 for 10 acres of permanent impacts to sensitive habitats
- Assumes compensatory mitigation for unavoidable impacts to jurisdictional waters will not be required

Land & Right-of-Way Acquisition						
PROJECT COST	Prior to 2019	2019	2020	2021	2022	Total
DIRECT LABOR	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT NON-LABOR	\$0	\$0	\$0	\$6,252,118	\$6,252,118	\$12,504,236
TOTAL DIRECT COSTS	\$0	\$0	\$0	\$6,252,118	\$6,252,118	\$12,504,236

#### Assumptions

In generating the cost estimate, the following items were considered:

- Legal Services
- Permitting Fees
- New Easement costs





## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

- Temporary Right of Entry (TRE) - Construction yards
- Temporary Right of Entry (TRE) - Workspace

#### Land Services Labor

- Land Contract Services Labor: 16,074 hours

Factors such as location, zoning, current market price and square footage are considered to determine a final estimated value specific to easements and temporary rights of entry permits. Previous project experience specific to Kings County, CA, Kern County, CA and San Luis Obispo County areas was also considered in generating the cost estimate.

Company Labor						
Project Costs	Prior to 2019	2019	2020	2021	2022	Total
DIRECT LABOR	\$6,037	\$0	\$0	\$2,353,411	\$2,359,448	\$4,718,896
DIRECT NON-LABOR	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL DIRECT COSTS	\$6,037	\$0	\$0	\$2,353,411	\$2,359,448	\$4,718,896

#### Assumptions

SoCalGas Non-Union Labor is estimated based upon activity level of effort and is divided into the following categories:

- SoCalGas Labor – Management, Engineering, and Non-Union Labor
  - Project Management (12,186 hours)
  - Project Field Management (3,308 hours)
  - Engineering Services (520 hours)
  - Inspectors / Construction Managers (4,500 hours)
  - Environmental (1,628 hours)
  - Other Departments (1,396 hours)

SoCalGas Union Labor costs were developed with the guidance of SoCalGas Construction Management and whose costs are duration dependent and activity specific.

- SoCalGas Field Labor – Distribution, Transmission, Pipeline Integrity, and Other Field Departments
  - SoCalGas Field Labor: 9,320 hours

Other Capital Costs						
Project Costs	Prior to 2019	2019	2020	2021	2022	Total
DIRECT LABOR	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT NON-LABOR	\$189,919	\$0	\$0	\$8,363,906	\$8,553,825	\$17,107,650
TOTAL DIRECT COSTS	\$189,919	\$0	\$0	\$8,363,906	\$8,553,825	\$17,107,650



## Pipeline Safety Enhancement Plan Workpaper Supporting SCG-15

### SUPPLY LINE 44-1008 REPLACEMENT PROJECT

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#### Assumptions

Other capital costs assume use of contracted Project Management, Engineering and Design service. The major components in this category include:

- Engineering / Design Services (21,987 hours)
- PM / Project Services (1,716 hours)
- Construction Management (33,850 hours)
- Surveying / As-builts (2,320 hours)

**RIGHT OF WAY ESTIMATE OF PG&E  
LINE 306**



**FOR:**



**PSEP LAND SERVICES MANAGER  
SOUTHERN CALIFORNIA GAS COMPANY  
SAN DIEGO GAS AND ELECTRIC  
555 W. 5TH STREET, ML 22P2  
LOS ANGELES, CALIFORNIA 90013**

**AS OF:**

**DECEMBER 22, 2016**

**BRI 16-277**

[REDACTED]

December 22, 2016

[REDACTED]  
PSEP Land Services Manager  
Southern California Gas Company  
San Diego Gas and Electric  
555 W. 5th Street, ML 22P2  
Los Angeles, California 90013

Re: Right of Way Estimate of PG&E Line 306 – Morro Bay to Avenal

[REDACTED]

We have completed the right of way estimate for the PG&E Line 306 natural gas pipeline corridor. As you requested the estimate is broken up into west of Atascadero and east of Atascadero segments as further described below.

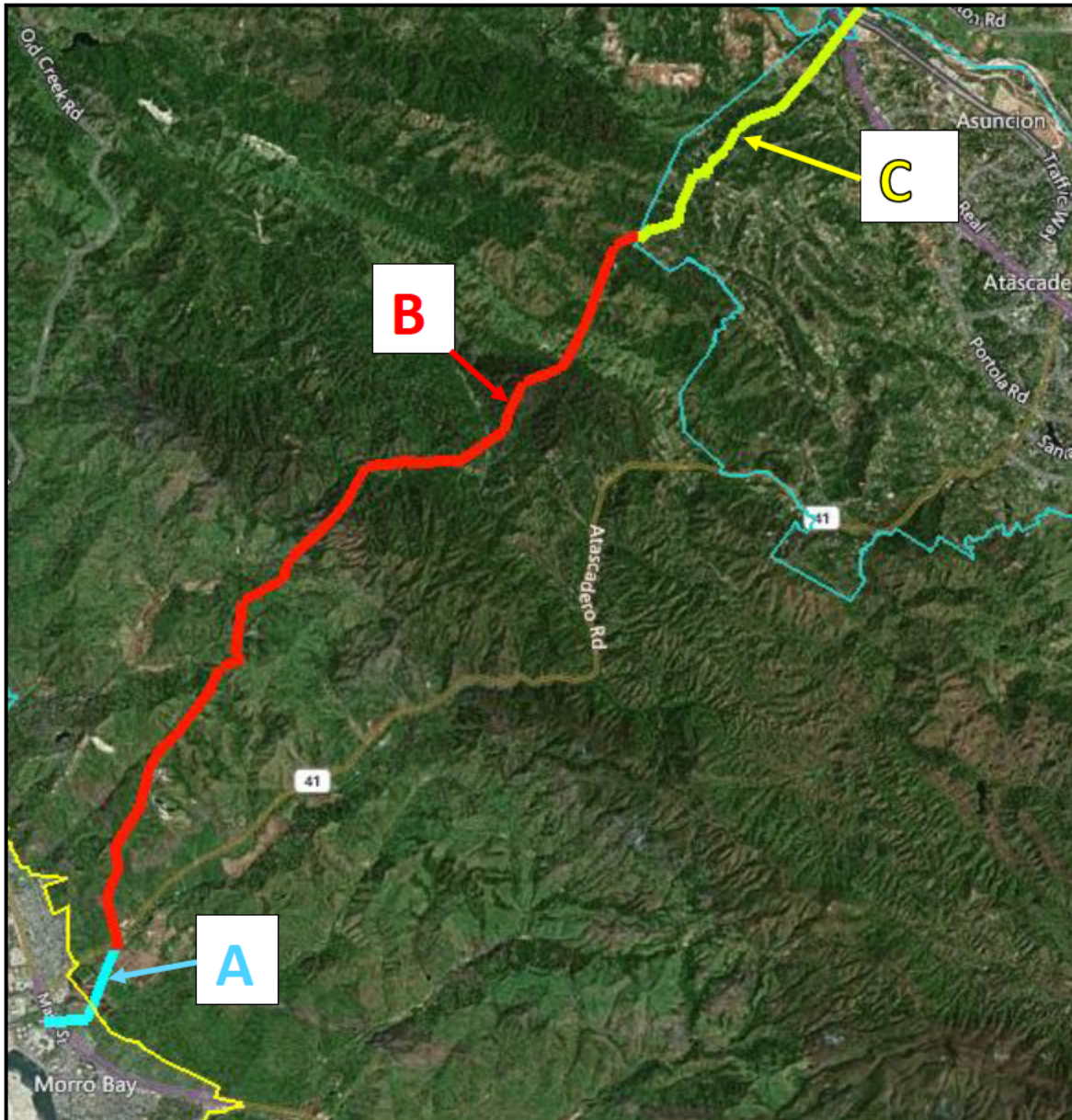
We are pleased to have this opportunity to provide you with right of way estimate services.

[REDACTED]

### PG&E LINE 306 RIGHT OF WAY ESTIMATE

The estimate is compiled below from the western end of the alignment to the eastern end of the alignment. Segments A and B are west/southwest of the western city limit boundaries of Atascadero. Segments C-N are east/northeast of the western city limit boundaries of Atascadero. The maps below show the general locations of the various segments.

#### SEGMENTS A, B, AND C



Segment A is 1.22 miles long and is comprised of irrigated agricultural land. The median land size for this segment is 20.4 acres. Based on market data, the cost per acre for this segment has been determined to be \$33,500 and the total cost for the segment is \$247,697.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
A	Open Space - Rolling Hills	20.40	1.22	7.39	\$33,500	\$247,697

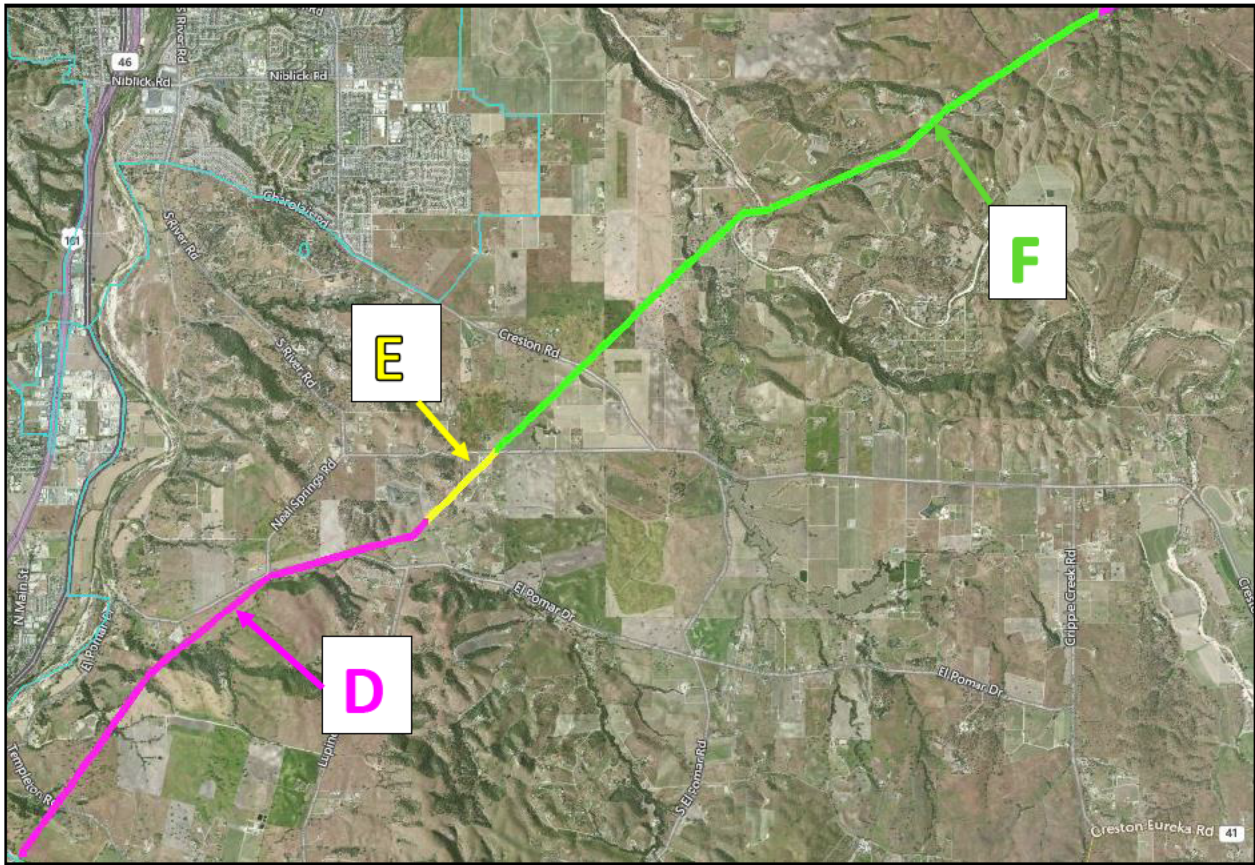
Segment B is 10.4 miles long and is comprised of open space land with rolling hills. The median land size for this segment is 203.08 acres. Based on market data, the cost per acre for this segment has been determined to be \$4,500 and the total cost for the segment is \$283,636.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
B	Open Space - Rolling Hills	203.08	10.40	63.03	\$4,500	\$283,636

Segment C is 3.55 miles long and is comprised of rural residential lots. The median land size for this segment is 3.75 acres. Based on market data, the cost per acre for this segment has been determined to be \$32,000 and the total cost for the segment is \$688,485.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
C	Rural Residential Lots	3.75	3.55	21.52	\$32,000	\$688,485

SEGMENTS D, E, F



Segment D is 3.55 miles long and is comprised of open space rolling hills. The median land size for this segment is 101.44 acres. Based on market data, the cost per acre for this segment has been determined to be \$6,200 and the total cost for the segment is \$154,812.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
D	Open Space rolling hills	101.44	4.12	24.97	\$6,200	\$154,812

Segment E is 6.03 miles long and is comprised of rural residential lots. The median land size for this segment is 6.03 acres. Based on market data, the cost per acre for this segment has been determined to be \$34,000 and the total cost for the segment is \$143,072.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
E	Rural Residential lots	6.03	0.69	4.21	\$34,000	\$143,072

Segment F.1 is 90.49 miles long and is comprised of open space rolling hills. The median land size for this segment is 2.58 acres. Based on market data, the cost per acre for this segment has been determined to be \$5,000 and the total cost for the segment is \$78,182.

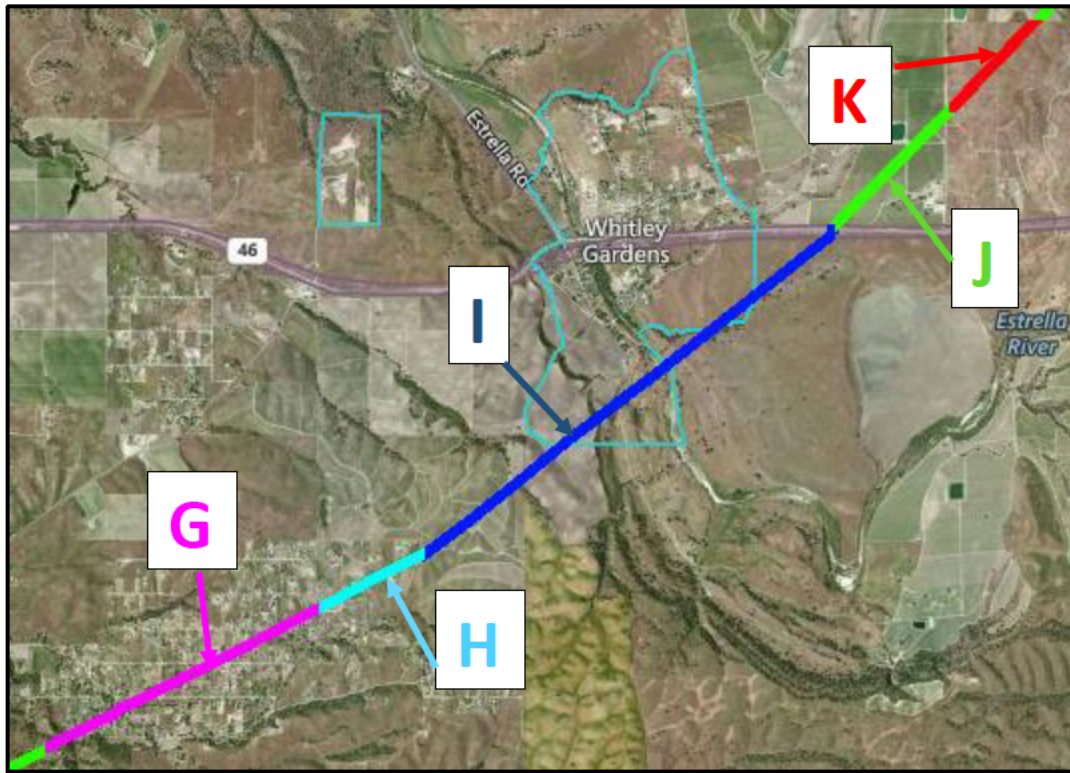
Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
F.1	AG/Open space	90.49	2.58	15.64	\$5,000	\$78,182

Segment F.2 is 20.18 miles long and is comprised of agricultural and open space. The median land size for this segment is 3.3 acres. Based on market data, the cost per acre for this segment has been determined to be \$12,000 and the total cost for the segment is \$240,000.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
F.2	Rural Residential lots	20.18	3.30	20.00	\$12,000	\$240,000



SEGMENTS G, H, I, J, K



Segment G is 1.48 miles long and is comprised of residential land. The median land size for this segment is 1.32 acres. Based on market data, the cost per acre for this segment has been determined to be \$38,000 and the total cost for the segment is \$341,573.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
G	Residential	1.32	1.48	8.99	\$38,000	\$341,573

Segment H is 0.57 miles long and is comprised of large residential lots. The median land size for this segment is 5.71 acres. Based on market data, the cost per acre for this segment has been determined to be \$37,000 and the total cost for the segment is \$126,986.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
H	Large Lot residential	5.71	0.57	3.43	\$37,000	\$126,986

Segment I is 2.55 miles long and is comprised of open space land. The median land size for this segment is 200 acres. Based on market data, the cost per acre for this segment has been determined to be \$9,000 and the total cost for the segment is \$139,091.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
I	Open Space	200.00	2.55	15.45	\$9,000	\$139,091

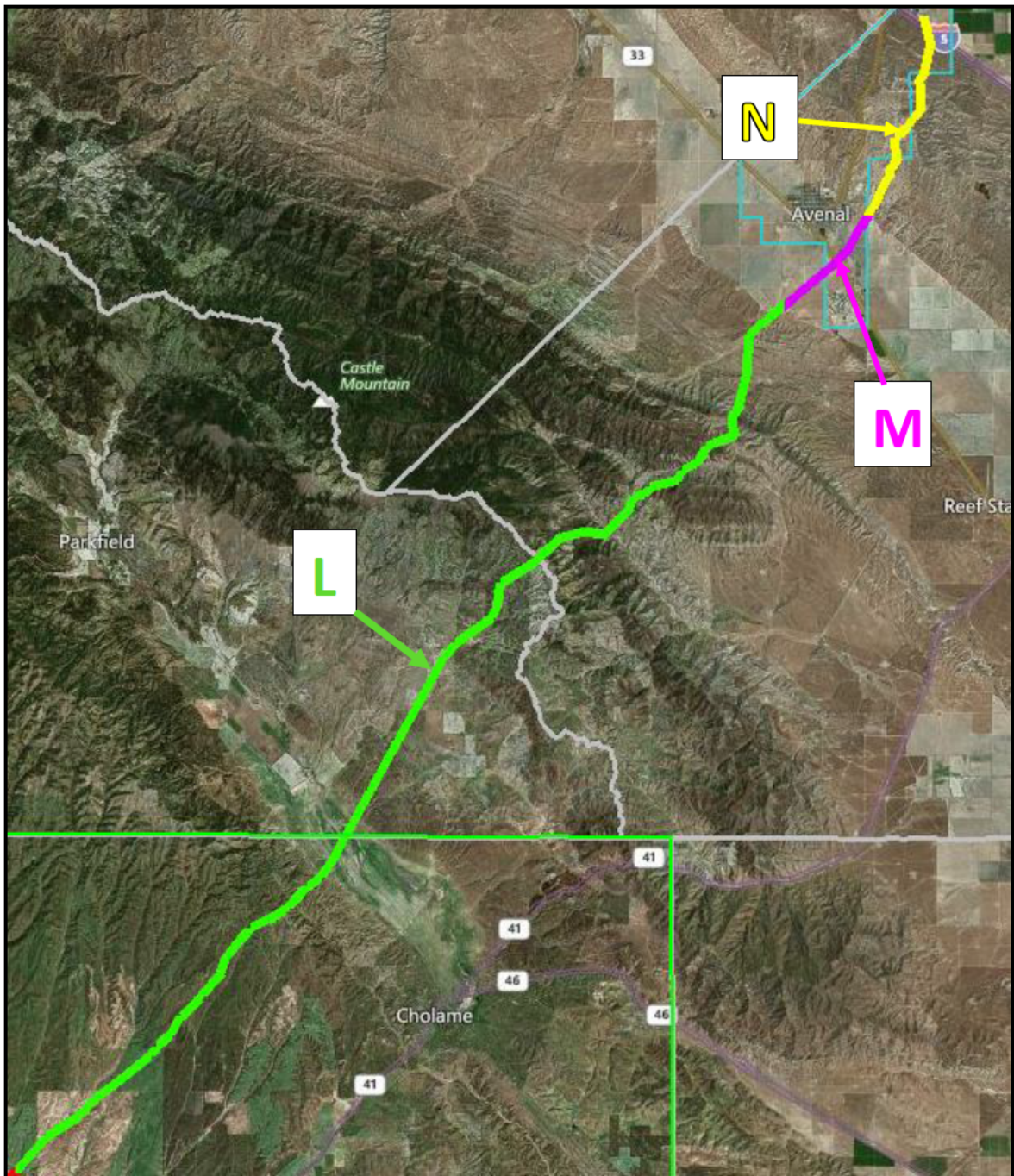
Segment J is 1,289 miles long and is comprised of irrigated agricultural land. The median land size for this segment is 0.77 acres. Based on market data, the cost per acre for this segment has been determined to be \$7,500 and the total cost for the segment is \$35,090.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
J	Irrigated AG	1,289.00	0.77	4.68	\$7,500	\$35,090

Segment K is 0.6 miles long and is comprised of rural residential and open space land. The median land size for this segment is 10 acres. Based on market data, the cost per acre for this segment has been determined to be \$19,500 and the total cost for the segment is \$71,088.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
K	Rural Res/Open Space	10.00	0.60	3.65	\$19,500	\$71,088

SEGMENTS L, M, N



Segment L is 29.11 miles long and is comprised of open space land with rolling hills. The median land size for this segment is 463.51 acres. Based on market data, the cost per acre for this segment has been determined to be \$8,000 and the total cost for the segment is \$1,411,394.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
L	Open Space rolling hills	463.51	29.11	176.42	\$8,000	\$1,411,394

Segment M is 2.94 miles long and is comprised of irrigated agricultural land. The median land size for this segment is 35.97 acres. Based on market data, the cost per acre for this segment has been determined to be \$10,000 and the total cost for the segment is \$178,182.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
M	Irrigated AG	35.97	2.94	17.82	\$10,000	\$178,182

Segment K is 5.18 miles long and is comprised of rural residential and open space land. The median land size for this segment is 80 acres. Based on market data, the cost per acre for this segment has been determined to be \$4,500 and the total cost for the segment is \$141,327.

Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
N	Open Space rolling hills	80.00	5.18	31.41	\$4,500	\$141,327

WEST OF ATASCADERO						
Segment	Land Type	Median Parcel Size (AC)	Segment Length (MI)	Segment Area (AC)	Price Per AC	Total
A	Irrigated AG/Orchard land	20.40	1.22	7.39	\$33,500	\$247,697
B	Open Space rolling hills	203.08	10.40	63.03	\$4,500	\$283,636
West of Atascadero Total before Corridor Factor			11.62	70.42		<b>\$531,333</b>
EAST OF ATASCADERO						
C	Rural Residential lots	3.75	3.55	21.52	\$32,000	\$688,485
D	Open Space rolling hills	101.44	4.12	24.97	\$6,200	\$154,812
E	Rural Residential lots	6.03	0.69	4.21	\$34,000	\$143,072
F.1	AG/Open space	90.49	2.58	15.64	\$5,000	\$78,182
F.2	Rural Residential lots	20.18	3.30	20.00	\$12,000	\$240,000
G	Residential	1.32	1.48	8.99	\$38,000	\$341,573
H	Large Lot residential	5.71	0.57	3.43	\$37,000	\$126,986
I	Open Space	200.00	2.55	15.45	\$9,000	\$139,091
J	Irrigated AG	1,289.00	0.77	4.68	\$7,500	\$35,090
K	Rural Res/Open Space	10.00	0.60	3.65	\$19,500	\$71,088
L	Open Space rolling hills	463.51	29.11	176.42	\$8,000	\$1,411,394
M	Irrigated AG	35.97	2.94	17.82	\$10,000	\$178,182
N	Open Space rolling hills	80.00	5.18	31.41	\$4,500	\$141,327
East of Atascadero Total before Corridor Factor		2,307.40	57.45	348.18		\$3,749,280
Segment			Segment Length (MI)	Segment Area (AC)		
West of Atascadero Total			11.62	70.42		
East of Atascadero Total			57.45	348.18		
Total all segments			69.07	418.60		

**Corridor Factor.** The corridor factor, is derived from market data and is typically greater than 1.0. This concept is unique to transportation or utility corridor analysis. The corridor factor reflects the inherent physical and economic characteristics that are unique to the corridor and the fact that synergies can be created when two or more parcels are assembled to provide greater utility. This factor reflects the alternative cost and time/risk of acquiring, clearing, and assembling individual parcels to create a corridor (i.e. purchase of the existing corridor might avoid costs necessary to create a new one, and would certainly avoid the time and unknowns with creation of a new corridor that may involve significant severance damages, eminent domain actions, above market prices required on “hold-out” property owners, in addition to the typical costs associated with acquisition of the real estate).

The primary argument in favor of applying this corridor factor is based around this concept of cost avoidance. The more urbanized areas involve higher densities of development and significantly higher assemblage costs, which would be reflected in a higher corridor factor for an existing corridor. The physical characteristics of the corridor, such as width, curvature, and grade/topography, impact the utility and demand of the corridor. These factors are all considered in determination of the appropriate corridor factor.

The following corridor sales were assembled in order to provide an indication of an appropriate corridor factor for the subject.

Identification/Location	Sale Date	Sale Price	ATF Value	Indicated Corridor Factor	Intended Use
Los Angeles, CA	2000	\$2,078,461	\$1,889,600	1.10	Longitudinal overhead easement in existing Corridor
RT South Area Light Rail Corridor, Sacramento CA	1999	\$8,400,000	\$6,500,000	1.29	A portion of an existing UP rail corridor to be used for a light rail project
Downey, CA	1996	\$8,874,073	\$7,716,585	1.15	Longitudinal overhead easement in existing Corridor
Contra Costa County, CA	1995	\$104,992	\$55,043	1.91	Longitudinal subsurface easement in existing Corridor
UP Main Line Corridor, Fruitridge Road, Sacramento CA	1995	\$500,000	\$306,373	1.63	Longitudinal subsurface easement in existing UP corridor
Alameda, CA	1994	\$193,000,000	\$165,000,000	1.17	Future use as a freight rail corridor
Santa Ana, Costa Mesa, CA	1990	\$3,983,000	\$3,463,000	1.15	Electric transit easement within an existing corridor
UP Main Line Corridor, Southern Sacramento County CA	1987	\$380,000	\$253,000	1.50	Noncontiguous easements for transmission lines in UP corridor
RT Butterfiled Line, Sacramento CA	1985	\$6,500,000	\$5,625,000	1.16	Existing UP rail corridor in a suburban area, to be used for a light rail project

The sales, summarized in the table above, indicate a range of corridor factors from 1.10 to 1.91. Given the relatively long length of the subject corridor at greater than 69 miles, the variety of land uses observed, and the number of properties (greater than 300 approximately) within the corridor, a corridor factor toward the upper end of the range or 1.7 is considered reasonable. This factor is applied to the cost estimate, as shown in the following table.

<b>Segment</b>	<b>Segment Length (MI)</b>	<b>Segment Area (AC)</b>		<b>Total</b>
West of Atascadero - before corridor factor	11.62	70.42		\$531,333
West of Atascadero - Cost including Corridor Factor			X 1.70	<b>\$903,266</b>
East of Atascadero - before corridor factor	57.45	348.18		\$3,749,280
East of Atascadero - Cost including corridor factor			X 1.70	<b>\$6,373,776</b>
Total Cost including corridor factor - all segments	69.07	418.60		<b>\$7,277,042</b>

This concludes the estimate.



**REPORT ON**  
**ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT**  
**PG&E LINE 306**  
**AVENAL TO MORRO BAY, CALIFORNIA**


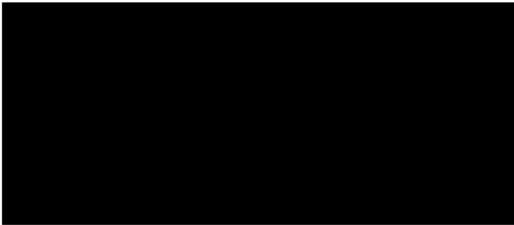
  
San Diego, California

for Southern California Gas Company  
Los Angeles, California

File No. 130685-002  
June 2018








18 June 2018  
File No. 130685-002

Southern California Gas Company  
555 W. Fifth Street  
Los Angeles, CA 90013

Attention: 

Subject: ASTM Phase I Environmental Site Assessment  
PG&E Line 306  
Avenal to Morro Bay, California

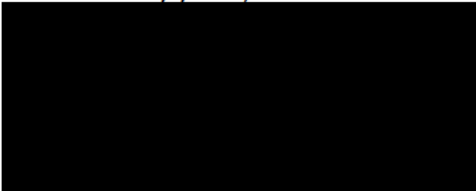
Ladies and Gentlemen:

The enclosed report presents the results of a Phase I Environmental Site Assessment (Phase I) conducted at the above-referenced property, the PG&E Line 306, a pipeline that traverses from Avenal to Morro Bay, California (herein referred to as the "subject pipeline"). This work was performed by , in accordance with our proposal to Southern California Gas Company dated 19 June 2017 ("Agreement") as authorized on 30 June 2017. This Phase I was conducted in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process as referenced in 40 Code of Federal Regulations (CFR) Part 312 (the All Appropriate Inquiries [AAI] Rule).

The objective of a Phase I is to assess whether known and suspect "recognized environmental conditions" (REC), historical RECs (HREC), or controlled RECs (CREC) are associated with the subject pipeline, as defined in the ASTM E 1527-13 Standard.

Thank you for the opportunity to perform these services for you. Please do not hesitate to contact us if you have any questions or comments.

Sincerely yours,




Senior Technical Specialist



Principal Consultant

Enclosures

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## Executive Summary

██████████ has performed a Phase I Environmental Site Assessment (Phase I) of the Pacific Gas & Electric (PG&E) Line 306, a pipeline that traverses from Avenal to Morro Bay, California (herein referred to as the “subject pipeline”). The scope of work is described and conditioned by our proposal dated 19 June 2017. This Phase I was performed for Southern California Gas Company who seeks to purchase the subject pipeline. This Phase I was performed in conformance with the scope and limitations of the ASTM E 1527-13 Standard and [All Appropriate Inquiries \(AAI\) Rule](#)<sup>1</sup>.

### SUBJECT PIPELINE DESCRIPTION

The subject pipeline is a 70-mile long, ██████████ diameter pipeline that begins at the Kettleman Station in Avenal, California and ends in Morro Bay, California. The subject pipeline was constructed in 1962 by Pacific Gas & Electric (PG&E) and has been used to transport natural gas. PG&E currently owns and operates the subject pipeline but reportedly does not own the right-of-way along the subject pipeline.

The subject pipeline includes the Estrella Station, which is a pressure regulator station. One shed-like structure is located at the Estrella Station which is a control room for the station and includes a closet of batteries used to provide back-up power to the control room.

There are approximately six cathodic protection rectifiers located on the subject pipeline, which are situated within metal cabinets mounted on poles. These rectifiers use electricity only and do not use hazardous materials or petroleum products. One of the rectifiers is powered by batteries located in a closet which are charged by solar energy.

Blow down stacks are located along the subject pipeline, which are used to release natural gas when performing maintenance on the pipeline.

There are no other buildings associated with the subject pipeline.

### OBJECTIVE

The objective of a Phase I is to assess whether “[recognized environmental conditions](#)” (REC), [historical RECs](#) (HREC), and controlled RECs (CREC) are associated with the subject pipeline. Our conclusions are intended to help the user evaluate the “[business environmental risk](#)” associated with the subject pipeline. Our opinion regarding an REC's potential impact on the subject pipeline is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, our experience evaluating similar sites, and on our understanding of the client's intention to purchase the subject pipeline.

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<sup>1</sup> American Society for Testing and Materials (ASTM) E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process as referenced in 40 Code of Federal Regulations (CFR) Part 312 (the All Appropriate Inquiries [AAI] Rule) (“ASTM E 1527-13 Standard”). Specified terms as are used in ASTM E 1527-13 are highlighted in blue in this report and defined in the Glossary at the end of the report text.

## RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-13 Standard defines an REC in part as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a [material threat](#) of a future release to the environment.”

The following RECs listed below were identified in connection with the subject pipeline.

### REC #1: Hazardous Waste/Materials Storage Area at the Kettleman Station

The subject pipeline traverses adjacent to the hazardous waste/materials storage area located within the PG&E Kettleman Station. The storage area is covered, and hazardous waste/materials are stored in drums within a concrete bermed area. Staining or leaking was not observed in the area. Interviewed personnel indicated that an oil/water separator was removed from beneath the concrete bermed area years ago. Interviewed personnel did not indicate spills or releases in this storage area. Kings County Health Department Division of Environmental Health Services indicated they do not regulate oil/water separators and they do not have files associated with the removal. The proximity of the subject pipeline to the hazardous waste storage area is considered an REC.

### REC #2: Presence of Oil Field and Oil Drilling Activities

The subject pipeline traverses through the Kettleman North Dome Field (an oil field) near Avenal, California, approximately between Mile Points 1 and 5. The oil field is operated by the California Resource Corporation. One oil well was observed adjacent to the subject pipeline. Aboveground gathering pipe was observed traversing over the subject pipeline. Gathering pipe is used to transport oil from wells to a storage facility, and historical leaks may have occurred from the gathering pipe. Releases associated with the oil field were not identified by the Environmental Data Resources (EDR) database report in the vicinity of the subject pipeline. However, abandoned oil wells and well pits from historical oil drilling activities may be present in the vicinity of or adjacent to the subject pipeline. Historical oil drilling operations typically used drilling fluids that contained high levels of heavy metals which were often stored in unlined pits in proximity to drilling operations. There is a potential for buried drilling muds to be present in proximity to the subject pipeline. Therefore, the proximity of oil drilling activities to the subject pipeline is considered an REC.

## CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-13 Standard defines a CREC as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

CRECs were not identified in connection with the subject pipeline.

## **HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS**

The ASTM E 1527-13 Standard defines an HREC as “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

HRECs were not identified in connection with the subject pipeline.

## **SUMMARY AND RECOMMENDATIONS**

In summary, [REDACTED] identified two RECs during this Phase I.

The remainder of this report contains additional information regarding the Phase I, the resulting findings summarized above, and limitations affecting this report.

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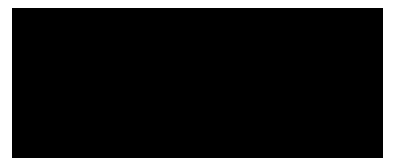
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1	Project Locus
2A-M	Subject Pipeline Maps



# 1. Introduction

This report presents the results of an ASTM Phase I (Phase I) conducted at the Pacific Gas & Electric (PG&E) Line 306 pipeline which traverses from Avenal to Morro Bay, California (herein referred to as the “subject pipeline”). The approximately 70-mile long pipeline is used to transport natural gas and is shown on the Project Locus, Figure 1. This Phase I was conducted in consideration of Southern California Gas Company’s (SoCalGas) intention to purchase the subject pipeline.

## 1.1 OBJECTIVE

The objective of a Phase I is to assess whether “[recognized environmental conditions](#)” (REC), [historical RECs \(HREC\)](#), and [controlled RECs \(CREC\)](#) are associated with the subject pipeline by evaluating site history, interviews, existing observable conditions, current site use, and current and former uses of adjoining properties as well as potential releases at surrounding properties that may impact the subject pipeline. Our conclusions are intended to help the user evaluate the “[business environmental risk](#)” associated with the subject pipeline.

RECs are defined in the ASTM E 1527-13 Standard as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or under conditions that pose a [material threat](#) of a future release to the environment.” The definitions of RECs, HRECs, and CRECs are included in the Glossary section of this report.

## 1.2 SCOPE OF SERVICES

This work was performed by [REDACTED] and this Phase I was performed in conformance with the scope and limitations of the ASTM E 1527-13 Standard and All [Appropriate Inquiries \(AAI\)](#) Rule<sup>2</sup> and in accordance with our proposal to Southern California Gas Company dated 19 June 2017 (“Agreement”) as authorized on 30 June 2017. The Phase I limitations are attached hereto as Appendix A.

As part of this Phase I, [REDACTED] conducted visual observations of site conditions and of abutting property use and interviewed a [key site manager](#) and applicable tenant representatives (site reconnaissance); reviewed federal, state, tribal, and local environmental database information, federal and state environmental files, previous reports (if identified and provided), and site historical use records; and formulated conclusions regarding the potential presence and impact of RECs.

## 1.3 NON-SCOPE CONSIDERATIONS

The ASTM E 1527-13 Standard includes the following list of “additional issues” that are non-scope considerations outside of the scope of the ASTM Phase I practice: asbestos-containing materials, biological agents, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered

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<sup>2</sup> American Society for Testing and Materials (ASTM) E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process as referenced in 40 Code of Federal Regulations (CFR) Part 312 (the All Appropriate Inquiries [AAI] Rule) (“ASTM E 1527-13 Standard”). Specified terms as are used in ASTM E 1527-13 are highlighted in blue in this report and defined in the Glossary at the end of the report text.



species, indoor air quality unrelated to releases of hazardous substances or petroleum products into the environment, and mold. These items were not included in this Phase I of the subject pipeline.

A limited assessment of the presence of polychlorinated biphenyls (PCBs) is included in the ASTM work scope. Accordingly, our assessment of the presence of PCBs is limited to those potential sources specified in the ASTM E 1527-13 Standard as “electrical or hydraulic equipment known or likely to contain PCBs...to the extent visually and or physically observed or identified from the interview or records review.”

#### **1.4 LIMITING CONDITIONS/DEVIATIONS**

██████████ completed this Phase I in substantial conformance with the ASTM E 1527-13 Standard. In our opinion, no additions were made to or deviations and deletions made from the ASTM work scope in completing this Phase I.

#### **1.5 USER RESPONSIBILITIES**

The completion of this Phase I is only one component of the process required to satisfy the AAI Rule. In addition, the user must adhere to a set of user responsibilities as defined by the ASTM E 1527-13 Standard and the AAI Rule. User responsibilities are discussed in section 6.6 of this report. A user seeking protection from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability as an innocent landowner, bona fide prospective purchaser, or contiguous property owner must complete all components of the AAI process in addition to meeting ongoing obligations. AAI components, CERCLA liability relief, and ongoing obligations are discussed in the AAI Rule and in Appendix XI of the ASTM E 1527-13 Standard.

## 2. Site Description

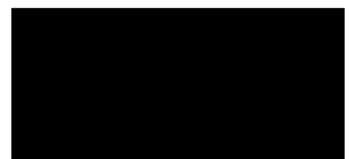
A description of the subject pipeline is detailed in the sections below. Refer to Figure 1 for a project locus and Figure 2 for a site plan showing relevant site features and adjacent properties.

### 2.1 SITE OWNERSHIP, LOCATION, AND VICINITY DESCRIPTION

Site Description		
Owner/Operator	Pacific Gas & Electric	
Current Site Use	Pipeline used for transmission of natural gas	
Length/Size	70 miles long, [REDACTED] in diameter	
Site County	Kings County, Monterey County, and San Luis Obispo County	
Utilities	Water:	Not applicable
	Sewerage:	Not applicable
	Electricity:	PG&E
	Gas/Oil/LPG:	PG&E
Site Vicinity Description		
General Area Description	The subject pipeline traverses through rural, agricultural properties.	
Adjoining Property Description	The subject pipeline is bordered on the eastern end by the PG&E Kettleman Compressor Station and on the western end by the PG&E Morro Bay Power Plant. Adjoining properties include various rural, residential, oil fields, and agricultural (vineyards, row crops, cattle grazing fields) properties. The subject pipeline traverses beneath the following highways: Interstate 5, CA-33, CA-46, CA-101, and CA-41.	

### 2.2 PHYSICAL SETTING

Subsurface explorations and/or hydrogeologic investigations were not performed for this Phase I. Subject pipeline geology and hydrology were evaluated on the basis of readily available public information or references, and/or based upon our experience and understanding of subsurface conditions in the vicinity of the subject pipeline. It is unknown to what extent localized variations in groundwater depth and flow occur on the subject pipeline.



Physical Setting		Source
Topography Summary	The subject pipeline topography varies from flat to rolling.	1
Site Elevation	Approximately El. 50 to 2,500 feet above mean sea level.)	2
Depth to Groundwater	Varies/unknown.	
Surface Water Flow Direction	Surface water flow appears to flow in varied direction based on observed surface topography.	1
Regional Groundwater Flow Direction	Varies based on surface topography and nearby surface water bodies.	1
Nearest Surface Water Body	The Pacific Ocean is located within 1 mile of the western end of the subject pipeline. Several streams traverse the subject pipeline including Morro Creek and the Estrella River.	1

Sources:

1. Site Reconnaissance, February 2018.
2. EDR Data Map, 7 July 2017.

Environmentally Sensitive Areas		Source
Floodplain	Yes, the subject pipeline traverses through the following floodplains: Avenal near Highway CA-33 (100-year) Little Avenal Creek Trail (100-year) Cholame near Cholame Velley Road (100-year) Paso Robles near River Grove Drive (100-year) Paso Robles near Geneseo Road (100-year) Templeton near Linne Road (100-year) Templeton near Camino Real (100-year) Morro Bay near Atascadero Road (100-year) Morro Bay near Highway 1 (100 year)	1
Mapped Wetlands	Yes, the subject pipeline traverses through the following mapped wetlands: Cholame near Cholame Velley Road Paso Robles near River Grove Drive Paso Robles near Shimmins Canyon Road Templeton near Camino Real Morro Bay near Atascadero Road and Highway CA-1	1
Aquifer Protection Area/District	Not identified by EDR.	1
Watershed Protection District	Not identified by EDR.	1
Natural Resources Protection District	Not identified by EDR.	1

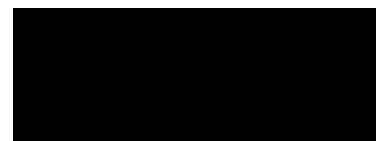
Sources:

1. EDR Data Map, 7 July 2017.



### **3. Previous Reports**

Previously prepared reports for the subject pipeline were not identified or provided as part of this assessment.



## 4. Site History

██████████ assessed past usage of the subject pipeline and adjoining properties through a review of:

- Topographic Maps dated 1897, 1900, 1912, 1914, 1915, 1917, 1919, 1930, 1934, 1937, 1942, 1943, 1948, 1950, 1951, 1953, 1954, 1961, 1963, 1965, 1971, 1976, 1978, 1979, 1993, 1994, 1995, 1998, 2009, 2012, and 2015;
- Aerial Photographs dated 1929, 1930, 1938, 1939, 1942, 1949, 1954, 1956, 1957, 1958, 1960, 1962, 1963, 1965, 1967, 1969, 1971, 1973, 1974, 1975, 1976, 1978, 1981, 1987, 1988, 1989, 1994, 2001, 2005, 2009, 2012, 2016; and
- Interviews with subject pipeline personnel.

Topographic maps and aerial photographs were reviewed for select portions of the subject pipeline based on the site visit conducted in February 2018. Copies of information obtained from historical references reviewed are included in Appendix B. Unless otherwise noted below, per the ASTM standard, sources were reviewed dating back to 1940 or first developed use, whichever is earlier, and at 5-year intervals if the use of the property has changed within the time period.

### 4.1 SUBJECT PIPELINE

The subject pipeline was constructed as a natural gas pipeline in 1962 by PG&E. The pipeline has historically been used to transport natural gas since it was constructed, and reportedly has not been used for to transport crude oil or other hazardous substances or petroleum products.

The pathway of the subject pipeline is evident in the aerial photographs from 1962 and 1963. The subject pipeline is also identified on topographic maps beginning in 1963. The Estrella Station appears to be constructed in the mid-1990s. Grading in the station area is evident in the 1994 aerial photograph, and the station is evident in the 2005 aerial photograph.

### 4.2 ADJOINING PROPERTIES

PG&E Kettleman Station is identified on the 1930 topographic map. The subject pipeline begins at the southern portion of this station. Buildings/structure associated with the Kettleman Station were not located adjacent to the subject pipeline, with the exception of a hazardous waste storage area which is first evident in the 1989 aerial photograph.

The subject pipeline traverse through oil fields between ██████████. One oil well was observed adjacent to the subject pipeline in the 1994 aerial photograph. Other oil wells are noted on topographic maps but were not adjacent to the subject pipeline.

1976 topographic map indicates a "Tar Seep" ██████████ from the subject pipeline in Tar Canyon Road. An abandoned oil well was identified ██████████ of the tar seep on the 1976 topographic map (██████████) from the subject pipeline. Prospects, gravel pit, drill holes, and wells (other than water) are identified on the topographic maps in the vicinity of (but not adjacent to) the subject pipeline in this area.

The aboveground storage tank farm on Atascadero Road (east of Morro Bay) was not evident in the 1975 aerial photograph, but it was evident in the 1981 aerial photograph. The subject pipeline is located on the western border of this former tank farm. The 1995 topographic map labels these tanks as "oil tanks". In the 2009 aerial photograph, the tanks had been removed and only their pads are evident.

The subject pipeline ends at the intertie located just east of the Morro Bay Power Plant. The Morro Bay Power Plant was evident in the 1954 aerial photograph. The intertie at end of the subject pipeline in Morro Bay is not evident in the 1981 aerial photograph but is evident in the 1988 aerial photograph.

## 5. Environmental Records Review

### 5.1 ENVIRONMENTAL DATABASE RECORDS SEARCH

██████████ used the electronic database service, Environmental Data Resources (EDR) to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced agency records, located within the ASTM-specified approximate minimum search distances as shown in the table below. A description of each database searched is in Section 11.2 of this report. The complete environmental database report is provided in Appendix C. Pertinent information obtained from the database is summarized in Section 5.3 below.

Database Searched	Approximate Minimum Search Distance	Subject Pipeline Listed?	Number of Sites within Search Distance <sup>1</sup>
1. NPL Sites	1 mile	No	0
2. Delisted NPL Sites	0.5 mile	No	0
3. CERCLIS <sup>2</sup> Sites	0.5 mile	No	0
4. CERCLIS-NFRAP <sup>2</sup> Sites	0.5 mile	No	1
5. Federal ERNS	Site Only	No	Not Applicable
6. RCRA non-CORRACTS TSD Facilities	0.5 mile	No	1
7. RCRA CORRACTS TSD Facilities	1 mile	No	1
8. RCRA Generators	Site & Adjoining	No	6
9. Federal Institutional/Engineering Controls	Site Only	No	Not Applicable
10. State/Tribal Equivalent NPL Sites	1 mile	No	0
11. State/Tribal Equivalent CERCLIS <sup>2</sup> Sites	0.5 mile	No	4
12. State/Tribal Registered Storage Tanks	Site & Adjoining	No	7
13. State/Tribal Landfills and Solid Waste Disposal Sites	0.5 mile	No	2
14. State/Tribal Leaking Storage Tanks	0.5 mile	No	14
15. State/Tribal Institutional Controls/Engineering Controls	Site Only	No	Not Applicable
16. State/Tribal Voluntary Cleanup Sites	0.5 mile	No	0
17. State/Tribal Brownfield Sites	0.5 mile	No	0
18. Orphan Site List <sup>3</sup>	Site & Adjoining	No	0

Notes:

1. Some sites may be included on multiple databases.
2. The US EPA retired the CERCLIS database in October 2013. In January 2016, the Superfund Enterprise Management System (SEMS), which replaces the CERCLIS database, became active. The CERCLIS database records search included as part of this assessment includes currently ascertainable data from the SEMS and SEMS-Archive databases as reported through the database vendor.
3. ██████████ also searched the [Orphan Site](#) List provided in the database report for the subject pipeline and sites adjoining the subject pipeline. Orphan sites are those that, due to incorrect or incomplete addresses, could not be mapped.

## 5.2 ADDITIONAL ENVIRONMENTAL RECORDS OR FILE REVIEW

To supplement the environmental record search, we contacted the following state and local government agencies and searched applicable online databases. Relevant information obtained is included in the appropriate sections of the report and/or discussed in Section 5.3 below. Adjacent properties were also included in requests for additional information if a significant incident or release was identified. Those adjacent properties reviewed for this assessment include:

- PG&E Kettleman Compressor Station, [REDACTED]
- PG&E Morro Bay Station, [REDACTED]
- [REDACTED]

Agency	Request Sent or Files Searched		Files Exist and are Available for Review	Files Reviewed
	Subject Pipeline	Adjoining Properties		
Central Coast RWQCB	Yes	Yes	Yes (offsite property). No for the subject pipeline.	Yes
Central Valley RWQCB	Yes	Yes	Yes (offsite property). No for the subject pipeline.	Yes
California Department of Toxic Substances Control	Yes	Yes	Yes (offsite property). No for the subject pipeline.	Yes
County of San Luis Obispo Environmental Health Services	Yes	Yes	No	No
County of Kings Public Health	Yes	No	No	No
County of Monterey	Yes	No	No	No
California Office of Emergency Services	Yes	No	No	No
California Office of State Fire Marshall	Yes	No	No	No
California Department of Fish and Game – Office of Spill Prevention and Response	Yes	No	Yes	No
US Department of Transportation	Yes	No	No	No

**Notes:**

1. The RWQCB maintains information regarding water resources and USTs.
2. The DTSC maintains information regarding hazardous waste.
3. The Counties of San Luis Obispo, Kings, and Monterey maintains information regarding public health and underground storage tanks.
4. The California Office of Emergency Services maintains information regarding pipelines.
5. The California Department of Fish and Game – Office of Spill Prevention and Response maintains information regarding pipelines.
6. The California Office of the State Fire Marshall maintains information regarding crude oil pipelines. Natural gas pipelines are not under their jurisdiction.
7. The US Department of Transportation maintains information regarding pipelines.





### 5.3 DETAILED DESCRIPTION OF RELEVANT INFORMATION

#### 5.3.1 Subject Pipeline

The subject pipeline was not identified on the databases searched in the EDR database report. Regulatory agencies did not identify files associated with subject pipeline; with the exception of the California Department of Fish and Game – Office of Spill Prevention and Response, who indicated that they would provide a response by 9 April 2018.

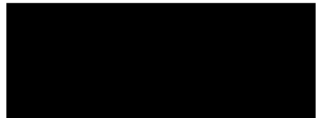
#### 5.3.2 Nearby Sites

Several sites were listed in the database report within the applicable search radii or identified in regulatory records reviews. Due to their location with respect to the subject pipeline (distance from the site, location of the site relative to inferred groundwater flow, subsurface utilities and building levels, etc.), or their status (closed out release, etc.), several of the sites are not likely to adversely affect the subject pipeline and are not discussed herein. Only those sites adjacent to the subject pipeline and sites with a potential to have impacted the subject pipeline are discussed below. The complete database report and relevant records review information is included in Appendix C.

Property Name and Location	Database/Record Identified	Description	Potential Impact to Subject Pipeline
[REDACTED]	SLIC, CUPA Listings, HIST UST, SWEEPS UST, AST, WMUDS/SWAST, RCRA NonGen, SWF/LF	This facility is a PG&E compressor station. The subject pipeline begins at the southern border of this compressor station. A release of metals was reported at this site and investigated under the oversight of the RWQCB; The case was closed by the RWQCB in 2001. Former USTs at this site contained sulfuric acid, cooling water, unleaded motor vehicle oil, unleaded diesel, waste oil, and motor oil. According to PG&E personnel, the former USTs located at this station were not located in the area of the subject pipeline (over hundreds of feet away).	Not an REC.
[REDACTED]	SWF/LF, CUPA Listings, CHMIRS, AST	Municipal solid waste landfill for the disposal of municipal solid waste. Located [REDACTED] of the pipeline.	Not an REC.
[REDACTED]	AST	This property formerly contained one aboveground storage tank. Releases were not identified.	Not an REC.

Property Name and Location	Database/ Record Identified	Description	Potential Impact to Subject Pipeline
	CUPA Listings, AST, HAZNET	This property is registered with storing hazardous materials/waste and an AST associated with agricultural activities. Releases were not identified.	Not an REC.
	CUPA Listings	This property is registered with storing hazardous materials associated with agricultural activities. Releases were not identified.	Not an REC.
	CUPA Listings, HAZNET, PEST LIC	This property is registered with storing hazardous materials/waste associated with agricultural activities and laboratory waste. Releases were not identified.	Not an REC.
	CUPA Listings	This property is registered with storing hazardous materials associated with agricultural activities. Releases were not identified.	Not an REC.
	CUPA Listings, WDS	This property is registered with storing hazardous materials associated with agricultural activities and produces a discharge that is regulated by Waste Discharge Requirements. Releases were not identified.	Not an REC.
	CUPA Listings	This property is registered with storing hazardous materials associated with agricultural activities. Releases were not identified.	Not an REC.
	CUPA Listings	This property is registered with storing hazardous materials. Releases were not identified.	Not an REC.
	US Mines	This property was identified as having mining activity. Releases were not identified.	Not an REC.
	CUPA Listings	This property is registered with storing hazardous materials associated with agricultural activities. Releases were not identified.	Not an REC.

Property Name and Location	Database/ Record Identified	Description	Potential Impact to Subject Pipeline
[REDACTED]	CUPA Listings	This property is registered with storing hazardous materials associated with agricultural activities. Releases were not identified.	Not an REC.
[REDACTED]	CUPA Listings	This property is registered with storing hazardous materials. Releases were not identified.	Not an REC.
[REDACTED]	CUPA Listings	This property is registered with storing hazardous materials/waste associated with agricultural activities. Releases were not identified.	Not an REC.
[REDACTED]	HIST UST	This property formerly contained one 480-gallon gasoline UST. Releases were not identified. Based on distance from the subject pipeline, potential releases from this UST are unlikely to impact the subject pipeline.	Not an REC.
[REDACTED]	CUPA Listings	This property is registered with storing hazardous waste. Releases were not identified.	Not an REC.
[REDACTED]	CUPA Listings	This property is registered with storing hazardous materials. Releases were not identified.	Not an REC.
[REDACTED]	CUPA Listings	This property is registered with storing hazardous materials. Releases were not identified.	Not an REC.
[REDACTED]	CUPA Listings	This property is registered with storing hazardous materials. Releases were not identified.	Not an REC.



Property Name and Location	Database/ Record Identified	Description	Potential Impact to Subject Pipeline
[REDACTED]	SLIC, Toxic Pits, SEMS Archive, RCRA-TSDF, ICIS, FINDS, US AIRS, 2020 Cor Action	This is an open case with the DTSC. There are documented releases to soil and groundwater. However, the subject pipeline ends on the east side of Highway 1 in Morro Bay, and does not enter the Morro Bay Station. Therefore, this site is not likely to impact the subject pipeline.	Not an REC.
	NPDES, WDS, SLIC, Hist UST, CUPA Listings, AST, ENF, EMI, Envirostor, ICE, HWP	This is an open case with the DTSC. There are documented releases to soil and groundwater. However, the subject pipeline ends on the east side of Highway 1 in Morro Bay, and does not enter the Morro Bay Station. Therefore, this site is not likely to impact the subject pipeline.	Not an REC.

In addition, one site was observed on the site walk that was not listed in the EDR database report. A former PG&E aboveground tank farm was observed adjacent to the subject pipeline near [REDACTED] as described in Section 6.5. Regulatory files for this site were obtained from the DTSC Envirostor website. ERM-West, Inc. (ERM) conducted a human health risk assessment (HHRA) for this site using the soil sample data collected from the site. ERM concluded in their HHRA that the site does not pose a risk to potential future residential or commercial receptors (ERM, 2013). The DTSC approved the HHRA in a letter dated 8 April 2014. Furthermore as part of the site investigation activities, soil samples were collected from 12 soil borings located adjacent to the subject pipeline. The soil samples were analyzed for total petroleum hydrocarbons (TPH), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals. TPH, PAHs, and PCBs were not detected at concentrations greater than laboratory detection limits in these soils samples, and metals concentrations were within naturally occurring background concentrations. Therefore, it does not appear that his site has adversely impacted the subject pipeline.

#### 5.4 VAPOR MIGRATION

The ASTM 1527-13 standard states that "for the purposes of this practice, "migrate" and "migration" refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface". Thus, this section specifies whether or not we perceive a risk of vapor migration to the subject pipeline.

To assess a vapor migration risk we conducted a detailed review and analysis of the site-specific environmental database report and/or other reasonably ascertainable records to assess whether:

1. Off-site properties have documented chlorinated volatile organic compound (VOC) contamination located within 100 feet of the subject property, or
2. Off-site properties have documented volatile petroleum hydrocarbon contamination within 30 feet of the subject property.

Based on our records review, it is presumed unlikely that a potential source of vapor migration currently exists beneath the site.



## 6. Site Reconnaissance and Key Personnel Interview(s)

A site visit to observe subject pipeline conditions was conducted by [REDACTED] on 7 through 9 February 2018. Access to the subject pipeline was provided by [REDACTED] of PG&E.

[REDACTED] observed the exterior portions of the subject pipeline, including the property boundaries, and observed adjoining property conditions from the subject pipeline boundaries and/or public thoroughfares. An access road does not exist along the subject pipeline. Therefore, the subject pipeline was observed from accessible public roadways and private roads that cross the subject pipeline. Structures/buildings were not observed associate with the subject pipeline, except for one shed located in the Estrella Station which was used to house control equipment. No weather-related conditions or other conditions that would limit our ability to observe the subject pipeline or adjoining properties occurred during our site visit.

An interview with [REDACTED] of PG&E, the [key site managers](#), was performed in conjunction with the site visit. Per the ASTM Standard, past owners, operators, and occupants of the subject pipeline who are likely to have material information regarding the potential for contamination at the subject property shall be contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. According to information obtained during this Phase I, PG&E has been the only owner of the subject pipeline.

The findings of the site visit and interviews are discussed below. Site photographs are included in Appendix D.

ASTM E 1527-13 Standard Section 10.8 requires that, prior to the site visit, the current subject pipeline owner or key site manager and user, if different from the current owner or key site manager, be asked if there are any helpful documents that can be made available for review. Documents were provided for the PG&E Morro Bay Station (a hazardous materials business plan and permits to operate equipment). However, the subject pipeline does not traverse into the PG&E Morro Bay Station.

### 6.1 CURRENT USE OF THE PROPERTY

The subject pipeline is a pipeline that is currently used for transmission of natural gas.

### 6.2 GENERAL DESCRIPTION OF STRUCTURES

The subject pipeline consists of the [REDACTED] diameter approximately 70-mile long pipeline. The subject pipeline includes the Estrella Station, which is a pressure regulator station. One shed-like structure is located at the Estrella Station which is a control room for the station and includes a closet of batteries used to provide back-up power to the control room.

There are approximately six cathodic protection rectifiers located on the subject pipeline, which are situated within metal cabinets mounted on poles. These rectifiers use electricity only and do not use hazardous materials or petroleum products. One of the rectifiers is powered by batteries located in a closet which are charged by solar energy.

Blow down stacks are located along the subject pipeline, which are used to release natural gas when performing maintenance on the pipeline.

There are no other structures associated with the subject pipeline.

### 6.3 USE, STORAGE, AND DISPOSAL OF PETROLEUM PRODUCTS AND HAZARDOUS MATERIALS

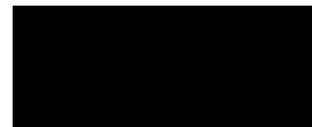
According to subject pipeline personnel interviewed, the only hazardous materials or petroleum products used on the subject pipeline would be small amounts of lubricating oils at valve and joint locations.

The storage and/or disposal of petroleum products or hazardous materials was not observed or reported at the subject pipeline.

### 6.4 OTHER SUBJECT PIPELINE OBSERVATIONS

The table below summarizes items that were observed and/or reported at the subject pipeline during the site visit other than those items related to use, storage, and disposal of petroleum or hazardous materials (described in Section 6.3 above). If items were observed or reported, they are further described either in the table or below.

Description	Observed or Reported at Time of Site Visit	Observations/ Comments
Potable Water Supply	No	
Nearest Drinking Water Source	No	
Sewage Disposal System	No	
Septic System	No	
Unidentified Storage Containers	No	
Wastewater Discharge	No	
Stormwater Discharge	No	
Odors	No	
PCBs Associated with Electrical or Hydraulic Equipment	No	
Elevators (Traction or Hydraulic)	No	
Vehicle Maintenance Lifts	No	
Emergency Generators	No	
Sprinkler System Pumps	No	
Heating System	No	
Cooling System	No	
Stains or Corrosion on Floors, Walls, or Ceilings	No	
Floor Drains	No	
Sumps	No	
Catch Basins	No	
Pits, Ponds, Lagoons, and Pools of Liquid	No	
Stained Soil or Pavement	No	
Stressed Vegetation	No	
Solid Waste and Evidence of Waste Filling	No	



Description	Observed or Reported at Time of Site Visit	Observations/ Comments
Dry Wells	No	
Monitoring Wells	No	
Water Supply Wells	No	
Irrigation Wells	No	
Injection Wells	No	
Abandoned Wells	No	

## 6.5 ADJOINING PROPERTY OBSERVATIONS

The subject pipeline traverses adjacent to the hazardous waste/materials storage area located within the PG&E Kettleman Station. The storage area is covered, and hazardous waste/materials are stored in drums within a concrete bermed area. Staining or leaking was not observed in the area. Interviewed personnel indicated that an oil/water separator was removed from beneath the concrete bermed area years ago. Interviewed personnel did not indicate spills or releases in this storage area. The proximity of the subject pipeline to the hazardous waste storage area is considered an REC.

The subject pipeline traverses through the Kettleman North Dome Field (an oil field) near Avenal, California, approximately between [REDACTED]. The oil field is operated by the California Resource Corporation. One oil well was observed adjacent to the subject pipeline. Aboveground gathering pipe was observed traversing over the subject pipeline. Gathering pipe is used to transport oil from wells to a storage facility, and historical leaks may have occurred from the gathering pipe. Releases associated with the oil field were not identified by the EDR database report in the vicinity of the subject pipeline. However, abandoned oil wells and well pits from historical oil drilling activities may be present in the vicinity or adjacent to the subject pipeline. Historical oil drilling operations typically used drilling fluids that contained high levels of heavy metals which were often stored in unlined pits in proximity to drilling operations. There is a potential for buried drilling muds to be present in proximity to the subject pipeline. Therefore, the proximity of oil drilling activities to the subject pipeline is considered an REC.

Near [REDACTED] on Tar Canyon Road, a seep of tar/oil was observed on the surface of the soil, [REDACTED] from the subject pipeline and downhill. According to [REDACTED] this tar was naturally occurring; he indicated that Tar Canyon Road was given its name from this naturally occurring tar site. Due to the distance and lower elevation from the subject pipeline, this tar seep is unlikely to impact the subject pipeline.

The subject pipeline traverses adjacent to a former aboveground tank farm near [REDACTED]. Evidence of concrete pads located over 50 feet from the subject pipeline were observed during the site visit, and the aboveground tanks have been removed. Releases or regulatory cases associated with this tank farm were not identified on the EDR database report. Review of regulatory files associated with this tank farm is summarized in Section 5.3.

The remainder of the subject pipeline traverses through vineyards, groves, farmland, ranch land, the Los Padres National Forest, vacant rural land, and residential properties. [REDACTED] was not aware of chemical use, storage, or disposal adjacent to the subject pipeline, with the possible exception of pesticide application on agricultural properties (however, he was not aware of any pesticide applications).



## 6.6 USER RESPONSIBILITIES

The AAI Rule requires that the User of the report consider the following:

- Whether the user has specialized knowledge about previous ownership or uses of the subject pipeline that may be material to identifying RECs;
- whether the user has determined that the subject pipeline's Title contains environmental liens or other information related to the environmental condition of the property, including engineering and institutional controls and Activity and Use Limitations (AULs), as defined by ASTM;
- whether the user is aware of commonly known or reasonably ascertainable information about the subject pipeline including whether or not the presence of contamination is likely on the subject pipeline and to what degree it can be detected; and
- whether the user has prior knowledge that the price of the subject pipeline has been reduced for environmentally related reasons.

While such information is not required to be provided by the environmental professional(s), the information can assist the environmental professional in identifying recognized environmental conditions. The "All Appropriate Inquiries" Final Rule (40 CFR Part 312) requires that these tasks be performed by or on behalf of a party seeking to qualify for an LLP to CERCLA liability. [REDACTED] of SoCalGas did not have knowledge of environmental issues or contamination associated with the subject pipeline.

EDR provided an environmental lien search for the assessor's parcel number that the subject pipeline traverses through. Environmental liens or AULs that would negatively impact the subject pipeline associated with hazardous substances or petroleum products were not identified in the EDR report. The environmental lien search is included in Appendix C.

[REDACTED] was not provided with a completed user responsibilities questionnaire; however, we do not anticipate this will affect the conclusions of this report.



## 7. Findings and Opinions

### 7.1 DATA GAPS

Our ability to identify and evaluate RECs at the subject pipeline is conditioned upon [data gaps](#) identified as part of this Phase I.

No significant data gaps were identified during the performance of this Phase I. Thus, it is our opinion that sufficient information was obtained to identify subject pipeline conditions indicative of releases or threatened releases of hazardous substances and petroleum hydrocarbons. Our opinion is limited by the conditions prevailing at the time our work is performed and the applicable regulatory requirements in effect.

### 7.2 RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-13 Standard defines an REC in part as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.”

Our opinion regarding a REC's potential impact on the subject pipeline is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, our experience evaluating similar sites, and on our understanding of the client's intended use for the subject pipeline.

The following RECs listed below were identified in connection with the subject pipeline.

#### REC #1: Hazardous Waste/Materials Storage Area at the Kettleman Station

The subject pipeline traverses adjacent to the hazardous waste/materials storage area located within the PG&E Kettleman Station. The storage area is covered, and hazardous waste/materials are stored in drums within a concrete bermed area. Staining or leaking was not observed in the area. Interviewed personnel indicated that an oil/water separator was removed from beneath the concrete bermed area years ago. Interviewed personnel did not indicate spills or releases in this storage area. Kings County Health Department Division of Environmental Health Services indicated they do not regulate oil/water separators and they do not have files associated with the removal. The proximity of the subject pipeline to the hazardous waste storage area is considered an REC.

#### REC #2: Presence of Oil Field and Oil Drilling Activities

The subject pipeline traverses through the Kettleman North Dome Field (an oil field) near Avenal, California, approximately between [REDACTED]. The oil field is operated by the California Resource Corporation. One oil well was observed adjacent to the subject pipeline. Aboveground gathering pipe was observed traversing over the subject pipeline. Gathering pipe is used to transport oil from wells to a storage facility, and historical leaks may have occurred from the gathering pipe. Releases associated with the oil field were not identified by the EDR database report in the vicinity of the subject pipeline. However, abandoned oil wells and well

pits from historical oil drilling activities may be present in the vicinity of or adjacent to the subject pipeline. Historical oil drilling operations typically used drilling fluids that contained high levels of heavy metals which were often stored in unlined pits in proximity to drilling operations. There is a potential for buried drilling muds to be present in proximity to the subject pipeline. Therefore, the proximity of oil drilling activities to the subject pipeline is considered an REC.

### 7.3 CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-13 Standard defines a CREC as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

CRECs were not identified in connection with the subject pipeline.

### 7.4 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-13 Standard defines an HREC as an environmental condition “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

HRECs were not identified in connection with the subject pipeline.

### 7.5 DE MINIMIS CONDITIONS

The ASTM E 1527-13 Standard defines *de minimis* conditions as those conditions which “do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.” The ASTM E 1527-13 Standard notes that “conditions determined to be *de minimis* are not recognized environmental conditions.”

*De minimis* conditions were not identified in connection with the subject pipeline.

## 8. Conclusions

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of the ASTM Practice E 1527 of PG&E Line 306, in Avenal to Morro Bay, California, the property. Any exceptions to or deletions from, this practice are described in Section 1.4 of this report.

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the subject pipeline except for the following:

- Hazardous Waste/Materials Storage Area at the Kettleman Station; and
- Presence of Oil Field and Oil Drilling Activities.

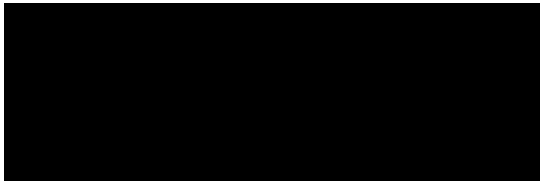
Refer to Section 7.2 above for our opinion regarding those RECs listed above.

## 9. Environmental Professional Certification

The undersigned declare the following:

We declare that, to the best of our professional knowledge and belief, we meet the definition of [Environmental Professional](#) as defined in §312.10 of 40 CFR Part 312.

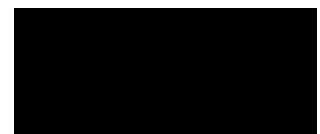
We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

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Senior Technical Specialist

A large black rectangular redaction box covering the signature of the Principal Consultant.

Principal Consultant



## 10. Credentials

This Phase I report was prepared by [REDACTED] under the direct supervision of [REDACTED] who served as the Environmental Professional for this project. Qualification information for the project personnel is provided below.

[REDACTED]  
**Senior Technical Specialist**

This report was prepared by [REDACTED], who served as the project scientist for this project. [REDACTED] has over 20 years of experience managing and conducting Phase I and Phase II environmental site assessments and investigations throughout Southern California and Arizona, including commercial and industrial facilities and linear projects such as electrical transmission lines and natural gas pipelines.

[REDACTED]  
**Principal Consultant**

[REDACTED] has over 35 years of experience in investigation, remediation, and closure of contaminated sites with particular focus on redevelopment of large contaminated industrial properties. [REDACTED] is currently the program manager for redevelopment of over 10 large industrial properties in Southern California involving soil excavation, facility decommissioning, demolition, and construction oversight. He specializes in remedial investigations/feasibility studies, evaluation of remedial alternatives, hydrogeologic investigations, health risk assessment, conceptual and detail design of soil and groundwater remediation systems, contaminant fate and transport assessment and modeling, regulatory compliance, and water resources studies, remediation of sites contaminated with chlorinated hydrocarbons and metals. [REDACTED] has also been retained as an expert in the area of degradation of chlorinated hydrocarbons and their fate and transport in the subsurface.

## 11. Glossary and Other Descriptions

### 11.1 GLOSSARY

**All Appropriate Inquiry (AAI)** — that inquiry constituting “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in CERCLA, 42 U.S.C §9601(35)(B), that will qualify a party to a commercial real estate transaction for one of threshold criteria for satisfying the LLPs to CERCLA liability (42 U.S.C §9601(35)(A) & (B), §9607(b)(3), §9607(q); and §9607(r)), assuming compliance with other elements of the defense.

**Business Environmental Risk** — a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations.

**Controlled Recognized Environmental Condition (CREC)** — a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

**Data Gap** — a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to site reconnaissance (for example, an inability to conduct the site visit), and interviews (for example, an inability to interview the key site manager, regulatory officials, etc.).

**De Minimis Conditions** — conditions which do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

**Environmental Professional** — a person meeting the education, training, and experience requirements as set forth in 40 CFR §312.10(b).

**Historical Recognized Environmental Condition (HREC)** — a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

**Key Site Manager** — the person identified by the owner or operator of a property as having good knowledge of the uses and physical characteristics of the property.

**Material Threat** —a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage. The damage would represent a material threat if it is deemed serious enough that it may cause or contribute to tank integrity failure with a release of contents to the environment.

**Orphan Site** — (not ASTM E 1527-13 definition) — sites that could not be mapped due to poor or inadequate address information.

**Recognized Environmental Condition (REC)** — the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

## 11.2 DESCRIPTIONS OF DATABASES SEARCHED

Numerous regulatory databases were searched during this Phase I. Each database reviewed is described in the database report presented in Appendix C. Those databases required by the ASTM E 1527-13 Standard are identified below.

1. **NPL Sites:** The National Priorities List (NPL) is a list of contaminated sites that are considered the highest priority for cleanup by the U.S. Environmental Protection Agency (USEPA).
2. **Delisted NPL Sites:** The Delisted National Priorities List (NPL) is a list of formal NPL sites formerly considered the highest priority for cleanup by the USEPA that met the criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) for deletion from the NPL because a no further response was appropriate.
3. **CERCLIS Sites:** The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) list identifies sites which are suspected to have contamination and require additional investigation to assess whether they should be considered for inclusion on the NPL.
4. **CERCLIS-NFRAP Sites:** CERCLIS-NFRAP status indicates that a site was once on the CERCLIS List but has No Further Response Actions Planned (NFRAP). Sites on the CERCLIS-NFRAP List were removed from the CERCLIS List in February 1995 because, after an initial investigation was performed, no contamination was found, contamination was removed quickly, or the contamination was not significant enough to warrant NPL status.
5. **Federal ERNS:** The Federal Emergency Response Notification System (ERNS) list tracks information on reported releases of oil and hazardous materials.

6. **RCRA non-CORRACTS TSD facilities:** The Resource Conservation and Recovery Act (RCRA) non-CORRACTS TSD Facilities List tracks facilities which treat, store, or dispose of hazardous waste and are not associated with corrective action activity.
7. **RCRA CORRACTS TSD facilities:** The RCRA CORRACTS TSD Facilities list catalogues facilities that treat, store, or dispose of hazardous waste and have been associated with corrective action activity.
8. **RCRA Generators:** The RCRA Generator list is maintained by the USEPA to track facilities that generate hazardous waste.
9. **Federal Institutional Controls/Engineering Controls:** The Federal Institutional Control list and Engineering Control list are maintained by the USEPA. Some Institutional Control and Engineering Control information may not be made publicly available and therefore will not be included on this registry.
10. **State and Tribal Equivalent NPL/CERCLIS Sites:** The (ASTM E 1527-13 Standard) requires searching "State and Tribal Equivalent NPL Sites." In California, the equivalent NPL is the Response, which is maintained by the Department of Toxic Substances Control
11. **State and Tribal Equivalent CERCLIS Sites:**

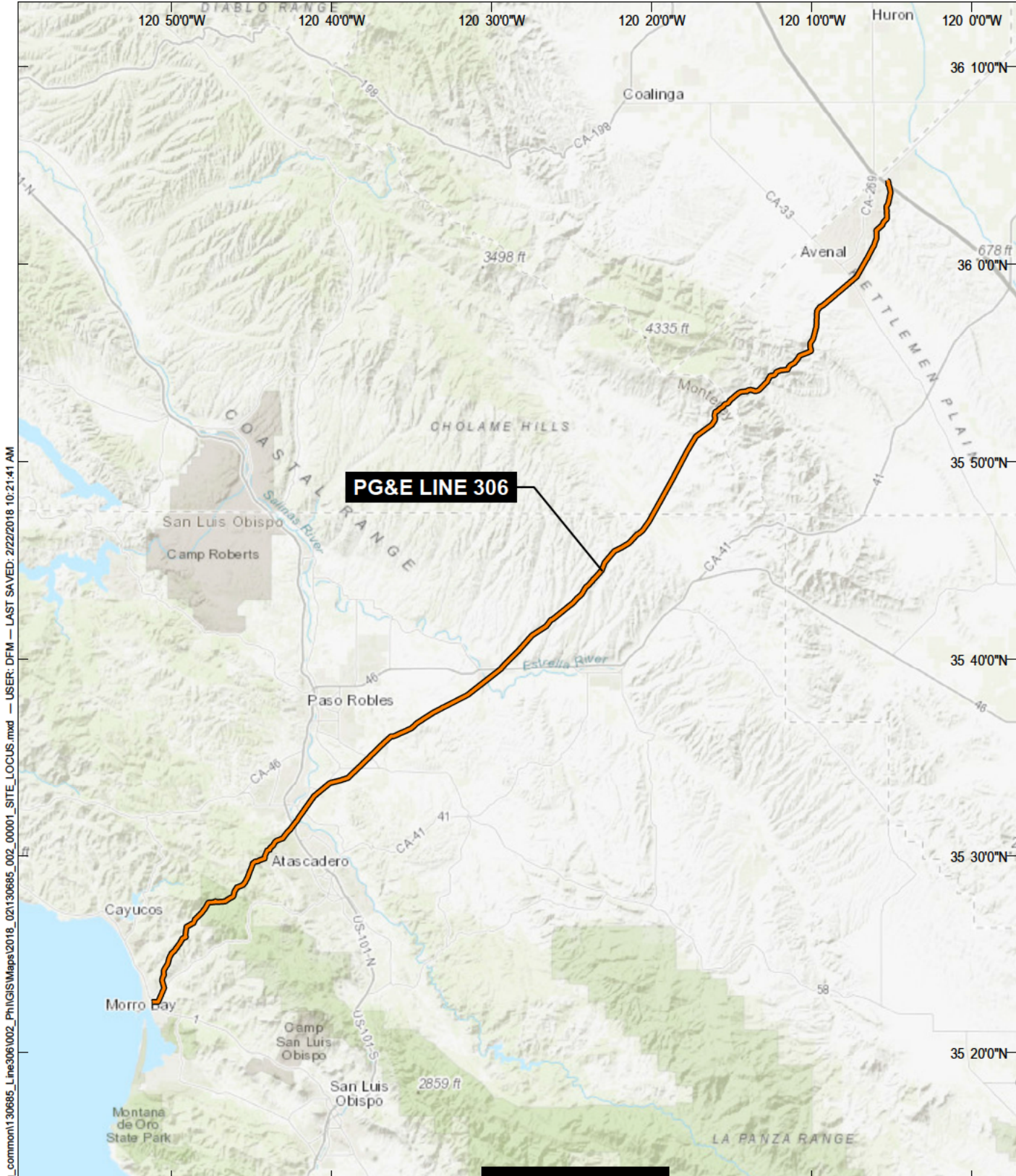
The (ASTM E 1527-13 Standard) requires searching "State and Tribal Equivalent CERCLIS Sites." In California, the equivalent CERCLIS is the ENVIROSTOR database, which is maintained by the Department of Toxic Substances Control.
12. **State and Tribal Registered Storage Tanks:** The SWRCB maintains a list of aboveground and underground storage tanks registered with the SWRCB.
13. **State and Tribal Landfills and Solid Waste Disposal Sites:** DTSC maintains a list of regulated waste disposal sites.
14. **State and Tribal Leaking Storage Tanks:** SWRCB maintains a list of Leaking Storage Tanks (LUST/LAST). The LUST/LAST lists are a listing of release sites that have an Underground or Aboveground Storage Tank listed as the source.
15. **State and Tribal Institutional Controls/Engineering Controls:** DTSC maintains a list of sites with Institutional controls or Engineering controls in place.
16. **State and Tribal Voluntary Cleanup Sites:** DTSC maintains a list of Voluntary Cleanup sites.
17. **State and Tribal Brownfield Sites:** DTSC maintains a list of Brownfield sites which includes properties where redevelopment or re-use may be compromised by the presence or presumed presence of hazardous materials or petroleum.



## 12. References

1. [REDACTED] site visit conducted by [REDACTED] on 7 through 9 February 2018.
2. [REDACTED] of PG&E, interview with [REDACTED], 23 January 2018.
3. [REDACTED] of PG&E, interview with [REDACTED], 7 through 9 February 2018.
4. DTSC, 2014. Review and Approval of Response to DTSC Comments and Final Tier 1 Human Health Risk Assessment and Screening Level Ecological Risk Assessment, Morro Bay Power Plant Upper Tank Farm, Morro Bay, California. 8 April.
5. Environmental Data Resources, Database Report, dated 7 July 2017.
6. ERM, 2014. Tier 1 Human Health Risk Assessment and Screening Level Ecological Risk Assessment, Pacific Gas & Electric Company Morro Bay Power Plant Upper Tank Farm, San Luis Obispo County, California. 11 November 2013, revised 4 April 2014.

## FIGURES



GIS FILE PATH: \\haleyaldrich.com\share\sdg\_common\130685\_Line306\002\_PhGIS\Maps\2018\_02\130685\_002\_00001\_SITE\_LOCUS.mxd — USER: DFM — LAST SAVED: 2/22/2018 10:21:41 AM



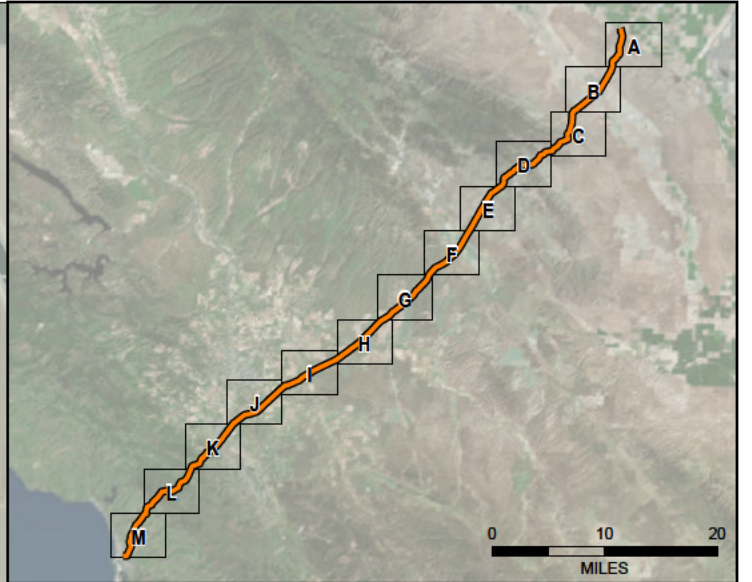
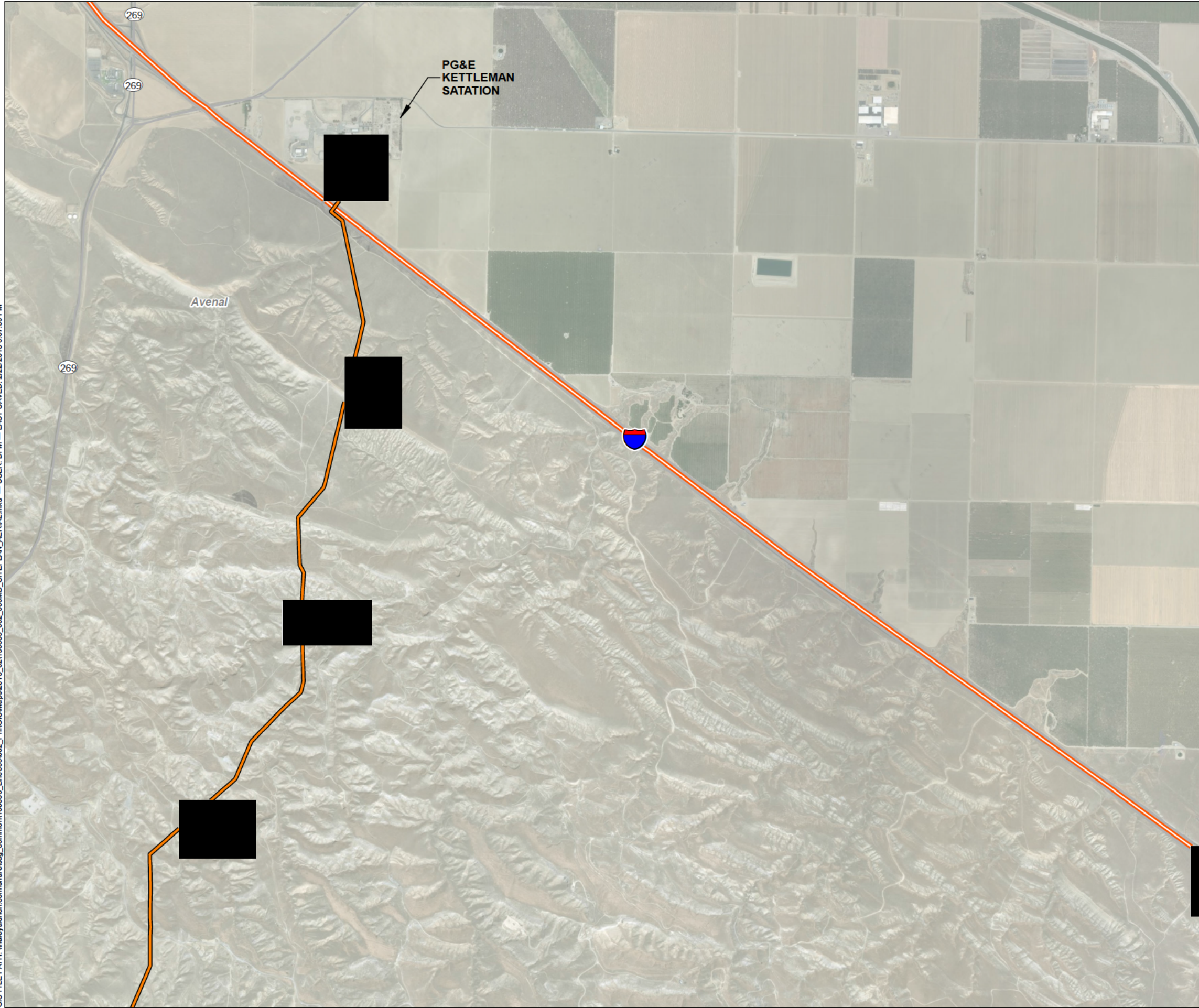
SOUTHERN CALIFORNIA GAS COMPANY  
 PHASE I ENVIRONMENTAL SITE ASSESSMENT  
 PG&E LINE 306  
 MORRO BAY TO MORRO BAY, CALIFORNIA

**PROJECT LOCUS**

APPROXIMATE SCALE: 1" = 10 MILES  
 JUNE 2018




**FIGURE 1**

GIS FILE PATH: \\haley\drich.com\share\sdg\_common\130685\_Line306\002\_PhGIS\Maps\2018\_02\130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



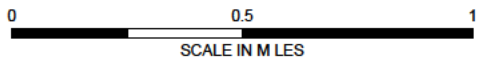
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROX MATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI



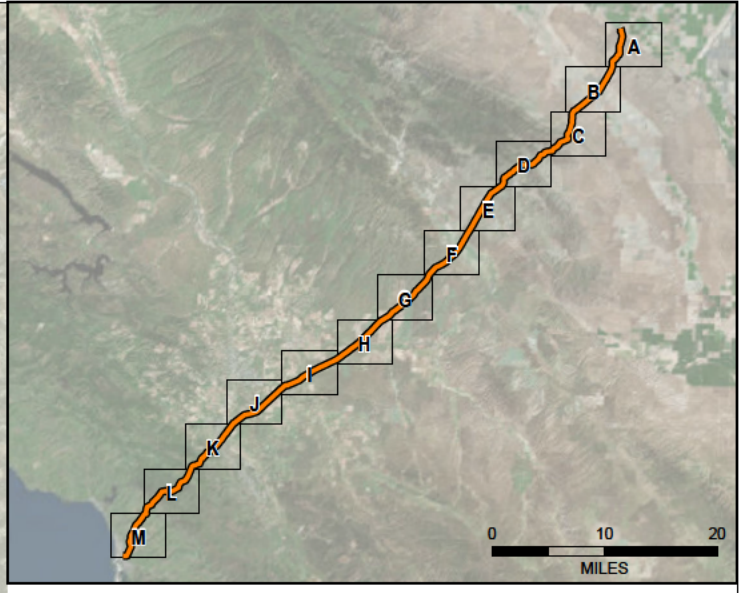
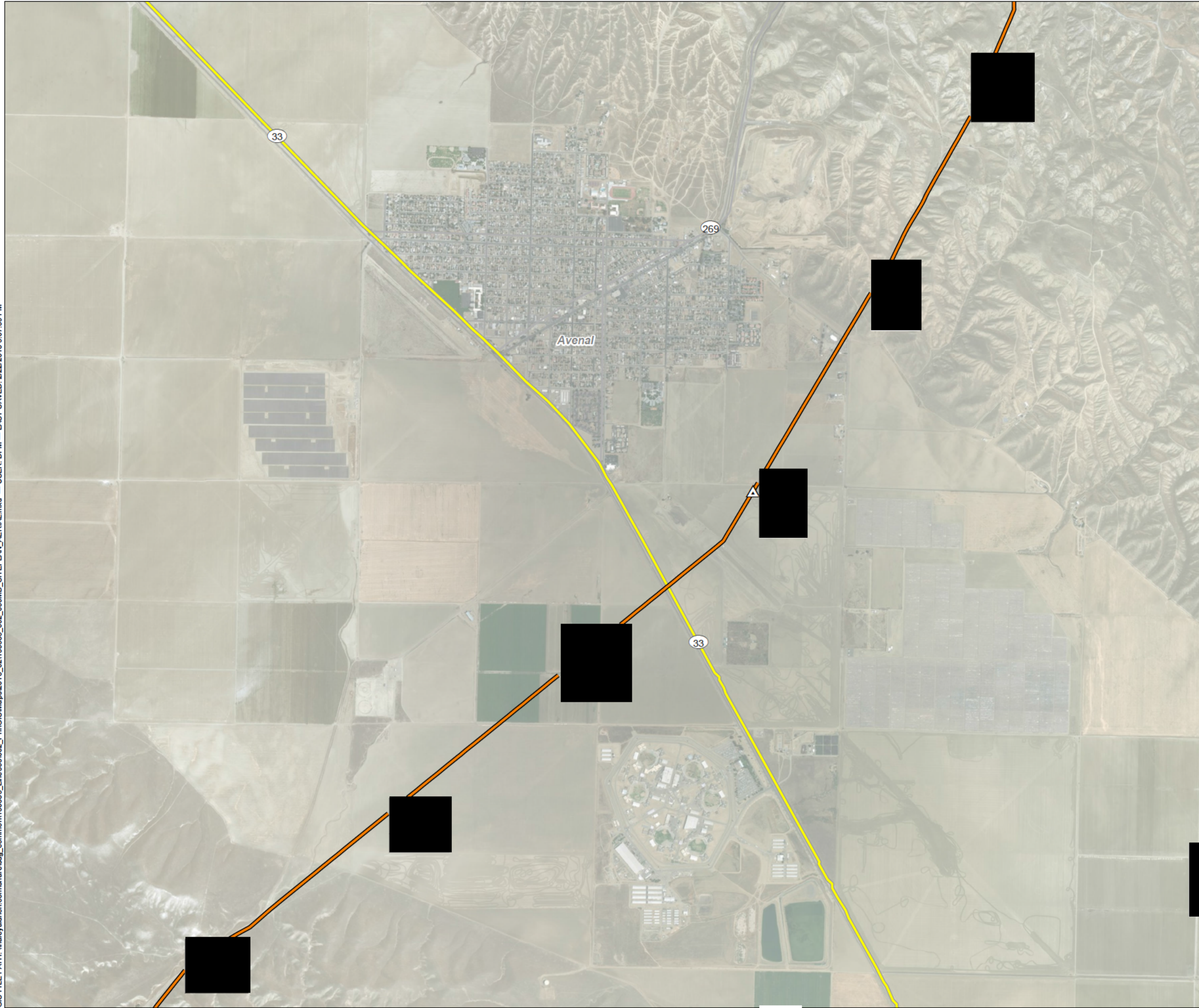
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ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
AVENAL TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018

FIGURE 2A

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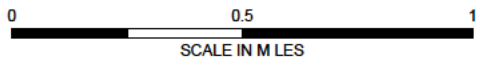
PAGE INDEX MAP

LEGEND

- MILE POINT (APPROX MATE)
- PG&E LINE 306
- PAGE INDEX AND NUMBER

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI



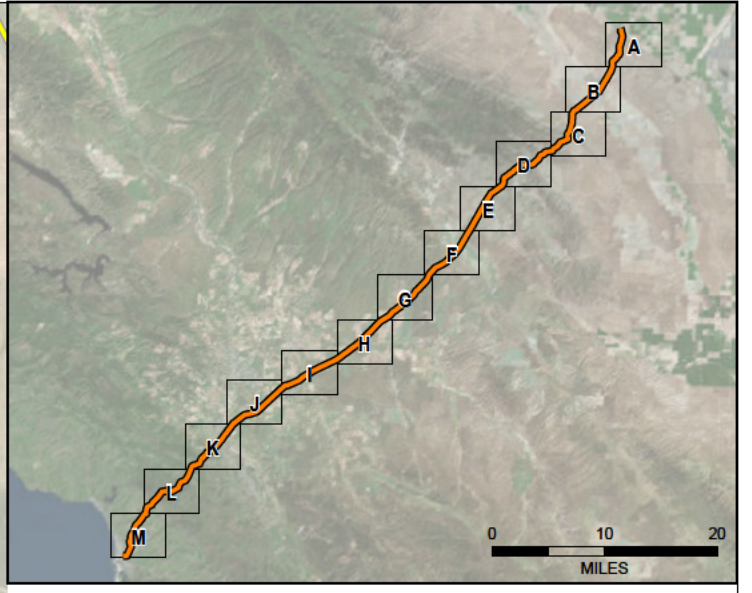
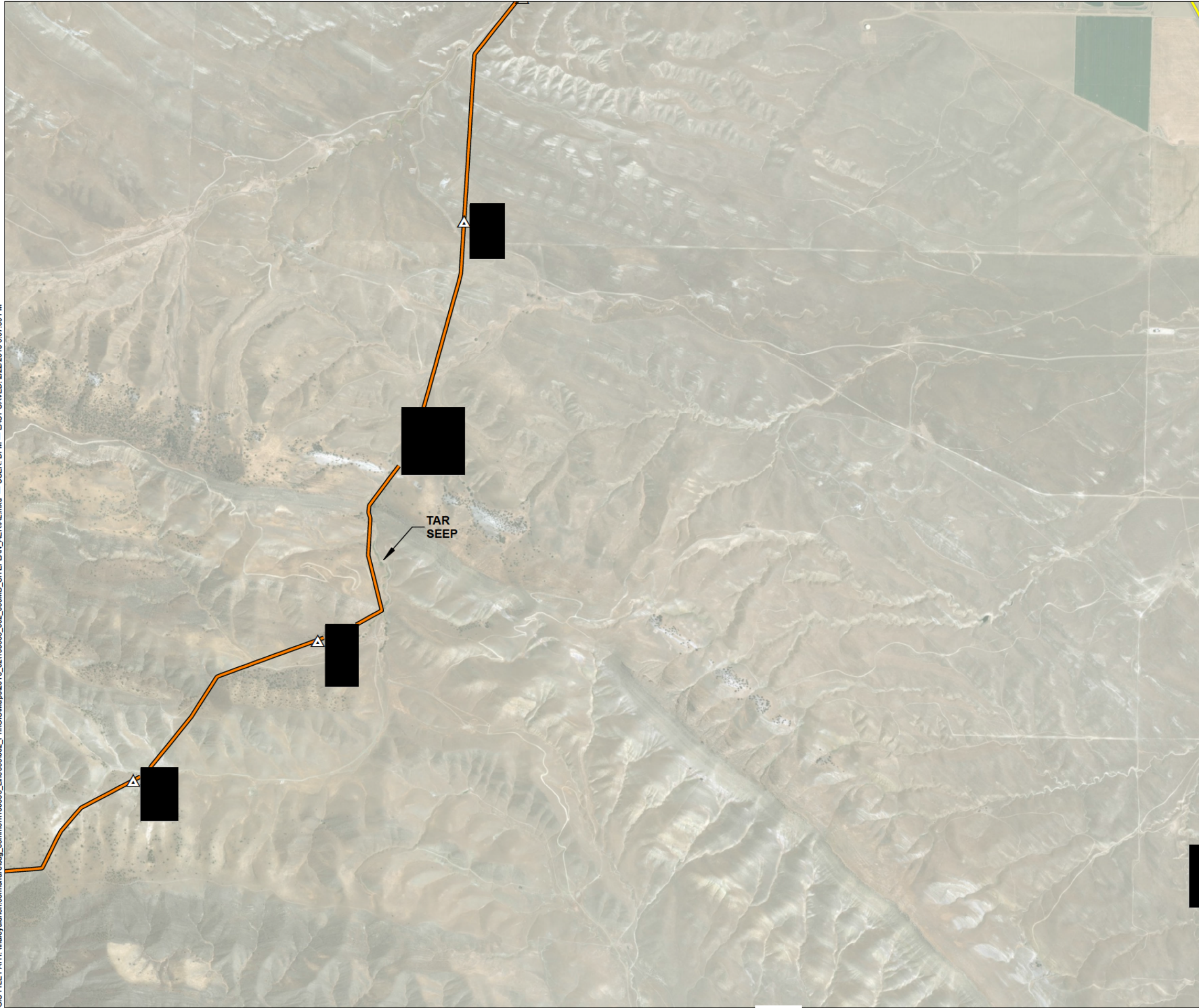
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ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
AVENAL TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2B

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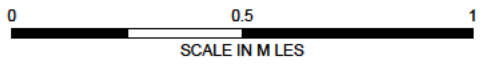
PAGE INDEX MAP

**LEGEND**

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

**NOTES**

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI



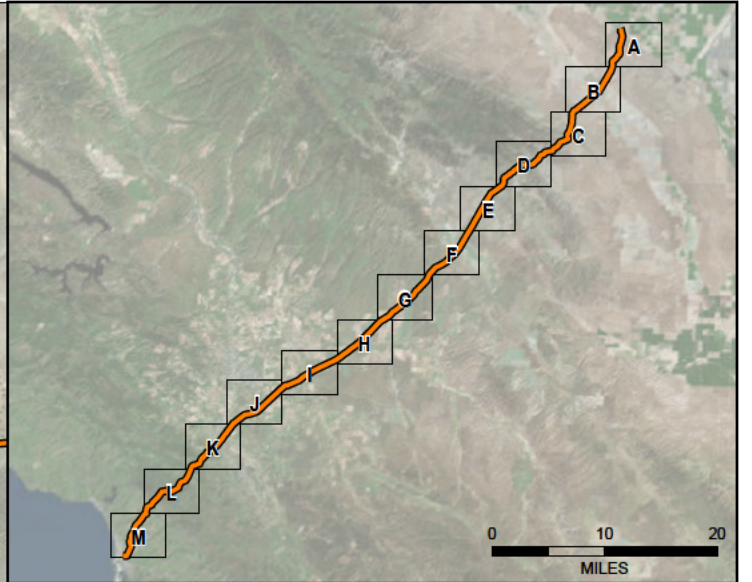
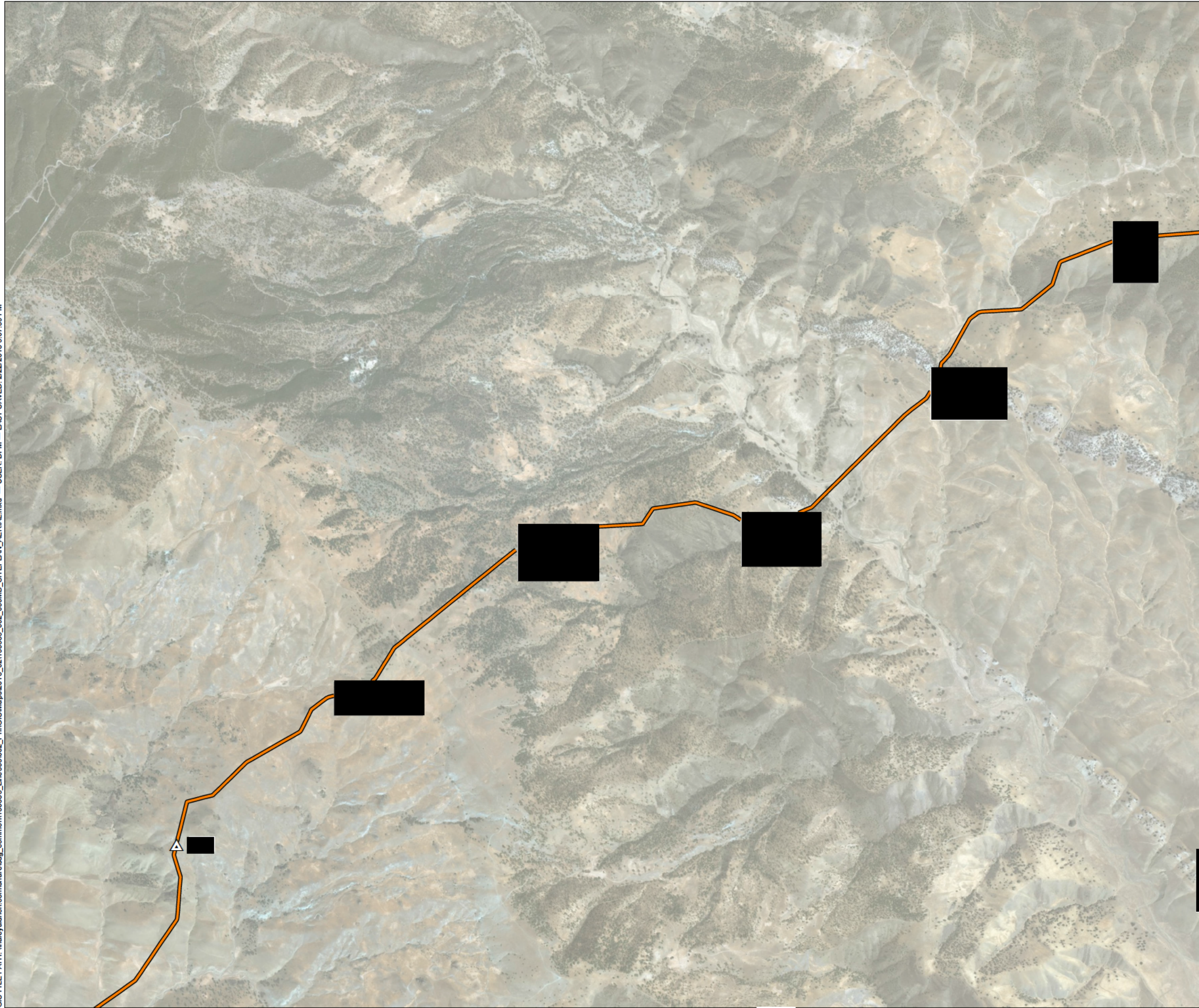
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STAGE 1 ENVIRONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
MORRO BAY TO MORRO BAY, CALIFORNIA

**SUBJECT PIPELINE MAP**

JUNE 2018




FIGURE 2C

GIS FILE PATH: \\haleydrich.com\share\sdg\_common\130685\_Line 306\002\_Ph1\GIS\Maps\2018\_02\130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



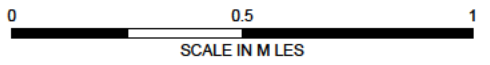
PAGE INDEX MAP

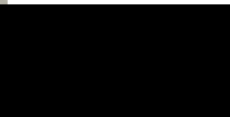
LEGEND

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

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2. AERIAL IMAGERY SOURCE: ESRI



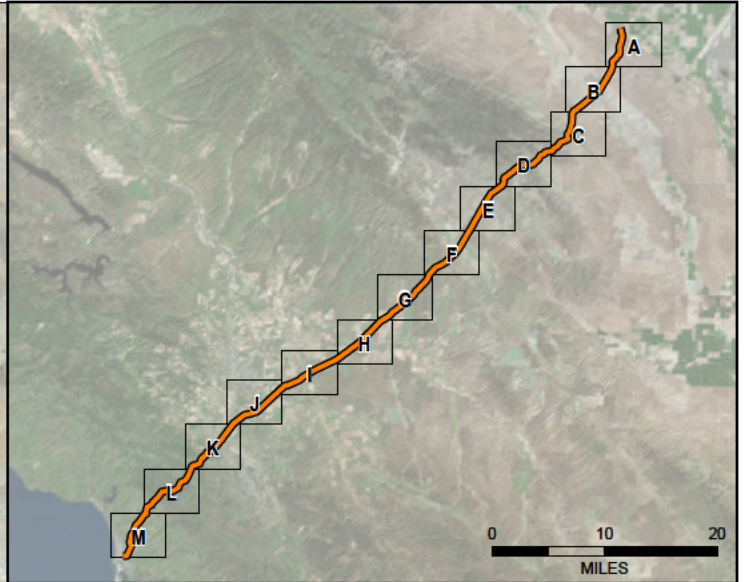
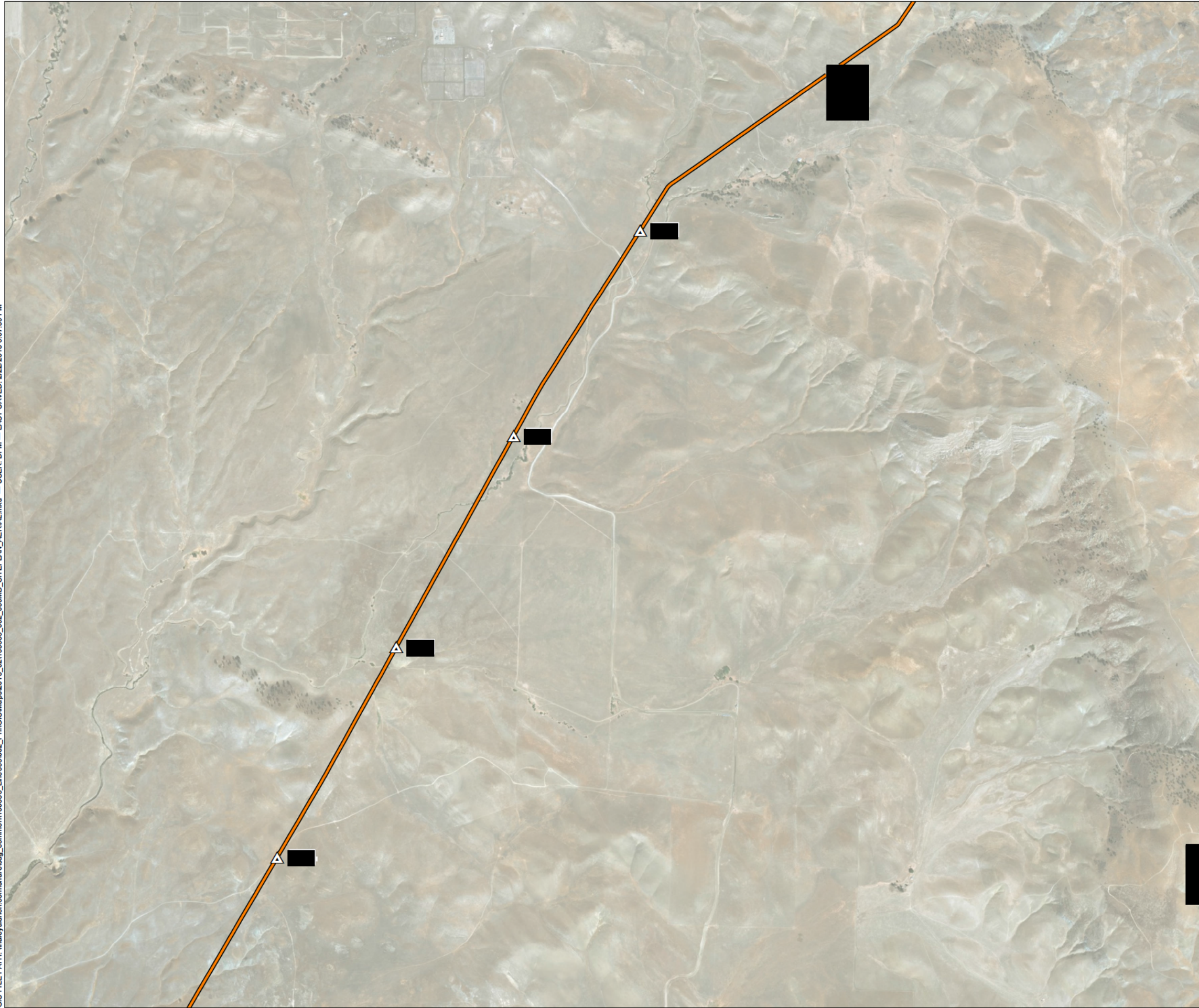
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 STATEMENT PHASE I ENVIRONMENTAL SITE ASSESSMENT  
 PG&E LINE 306  
 MORRO BAY TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2D

GIS FILE PATH: \\haleydrich.com\share\sdg\_common\130685\_Line 306\002\_Ph1GISMaps\2018\_02\130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



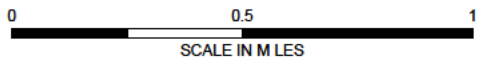
PAGE INDEX MAP

**LEGEND**

-  MILE POINT (APPROX MATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

**NOTES**

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI



SOUTHERN CAL FORNIA GAS COMPANY  
ASTM PHASE I ENV RONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
AVENAL TO MORRO BAY, CAL FORNIA

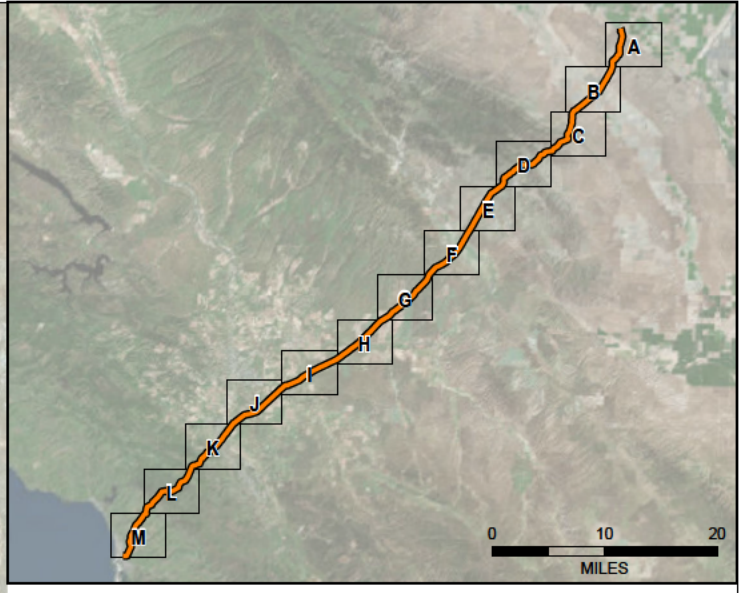
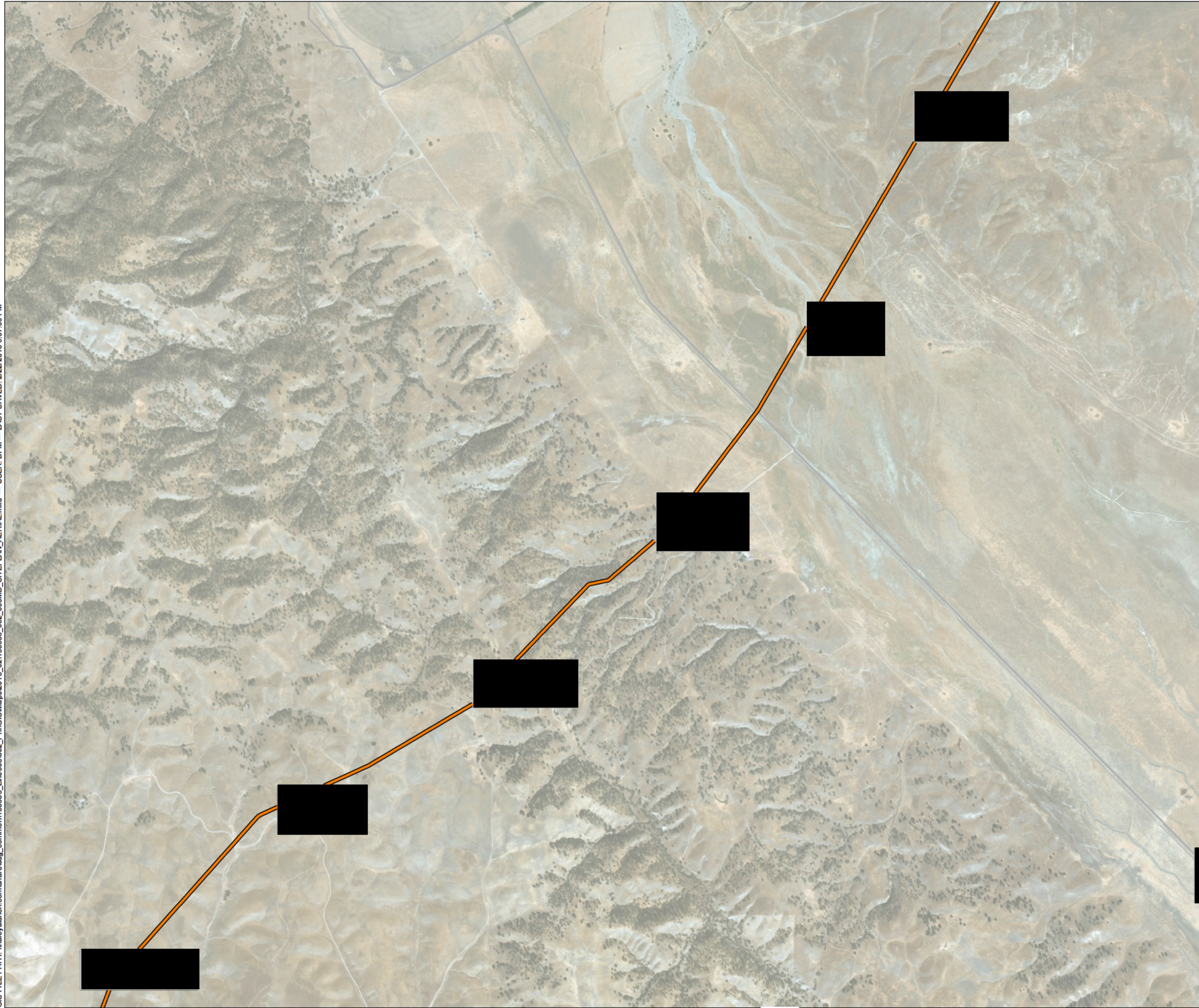
**SUBJECT PIPELINE MAP**

JUNE 2018

FIGURE 2E






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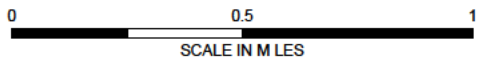
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

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2. AERIAL IMAGERY SOURCE: ESRI



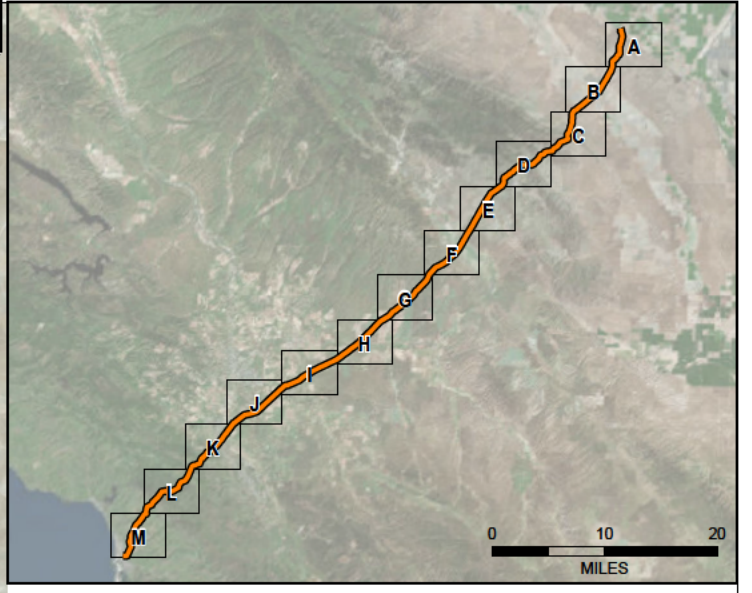
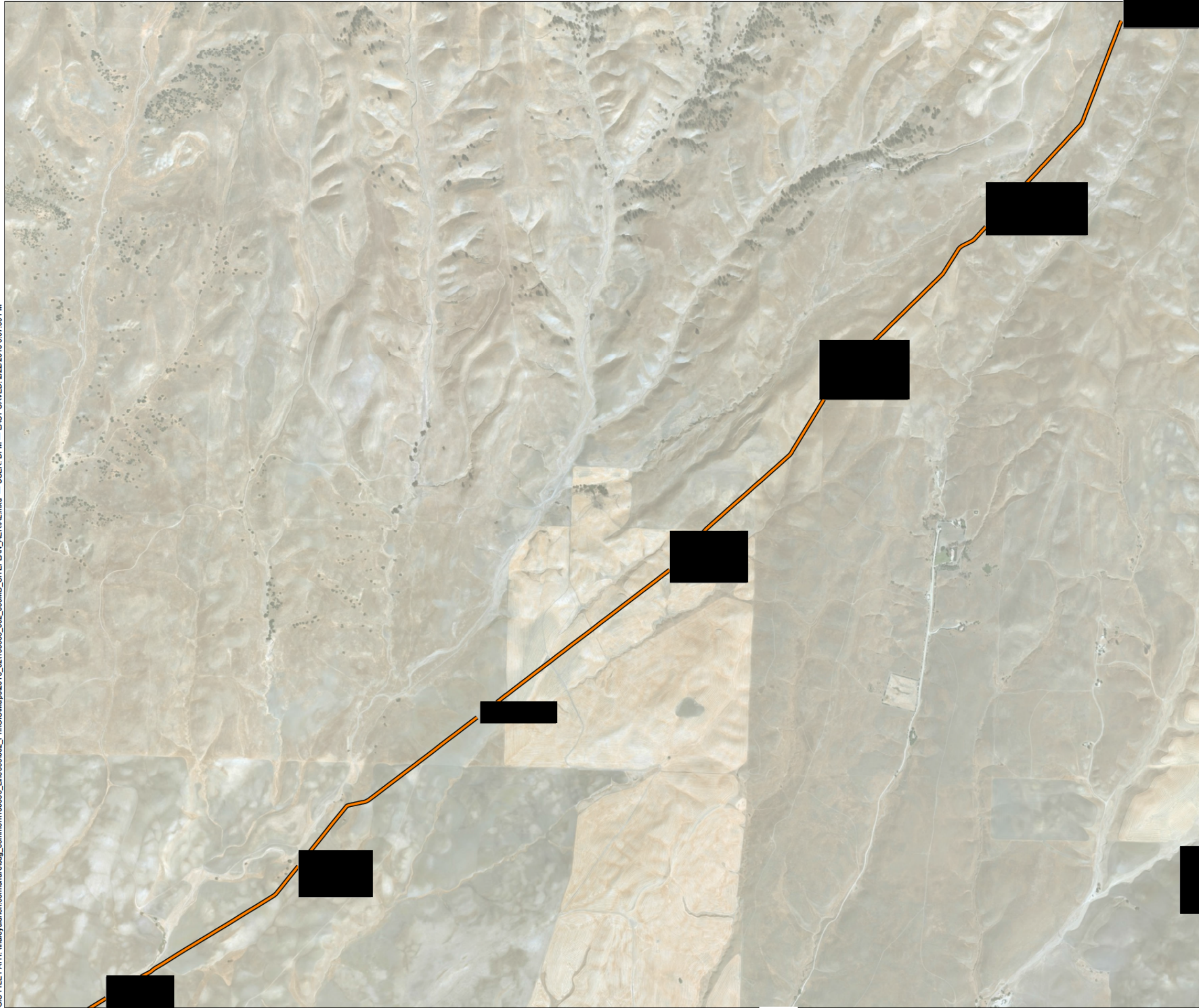
SOUTHERN CALIFORNIA GAS COMPANY  
STATIONARY SOURCE ENVIRONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2F

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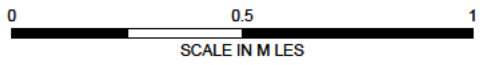
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

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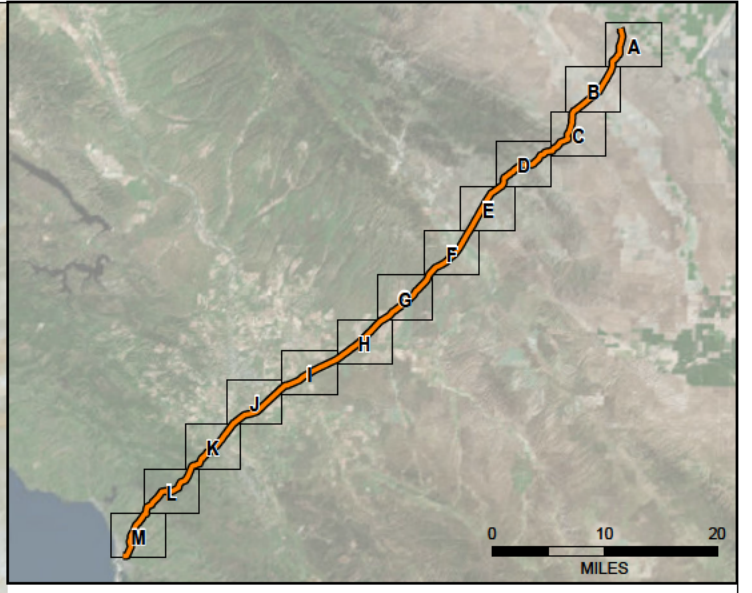
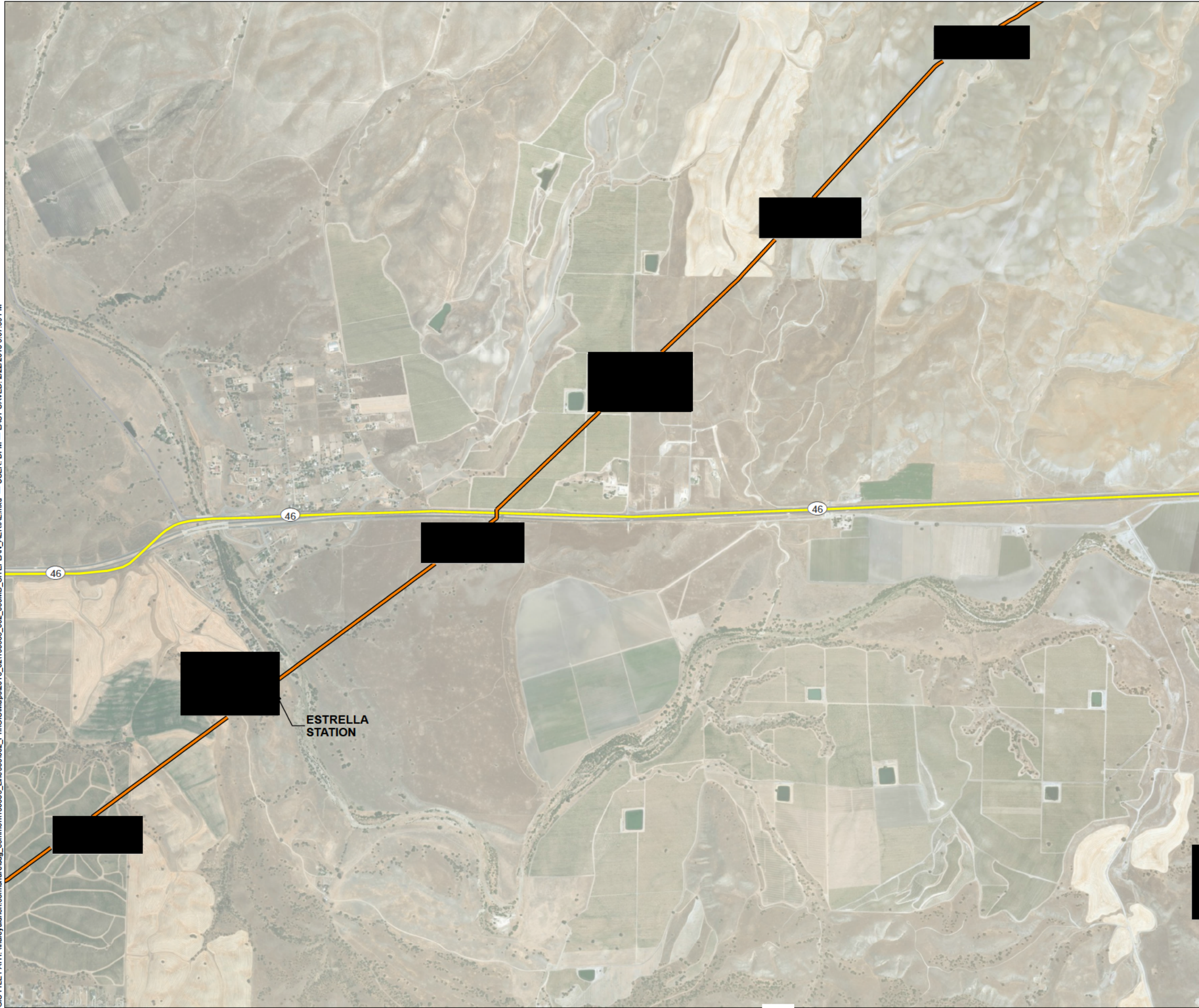
SOUTHERN CALIFORNIA GAS COMPANY  
PHASE I ENVIRONMENTAL SITE ASSESSMENT  
LINE 306  
NORTON TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2G

GIS FILE PATH: \\haley\drich.com\share\sdg\_common\130685\_Line 306\002\_Ph1\GIS\Maps\2018\_02\130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



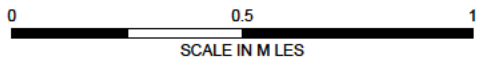
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

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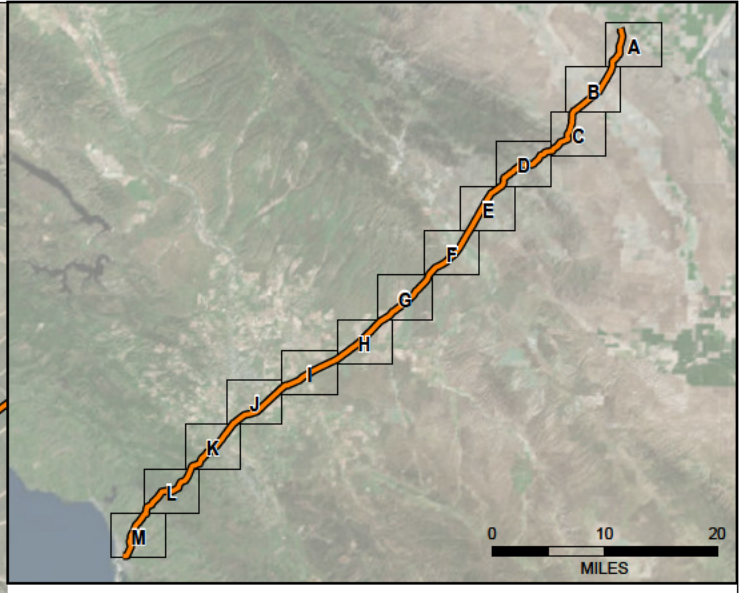
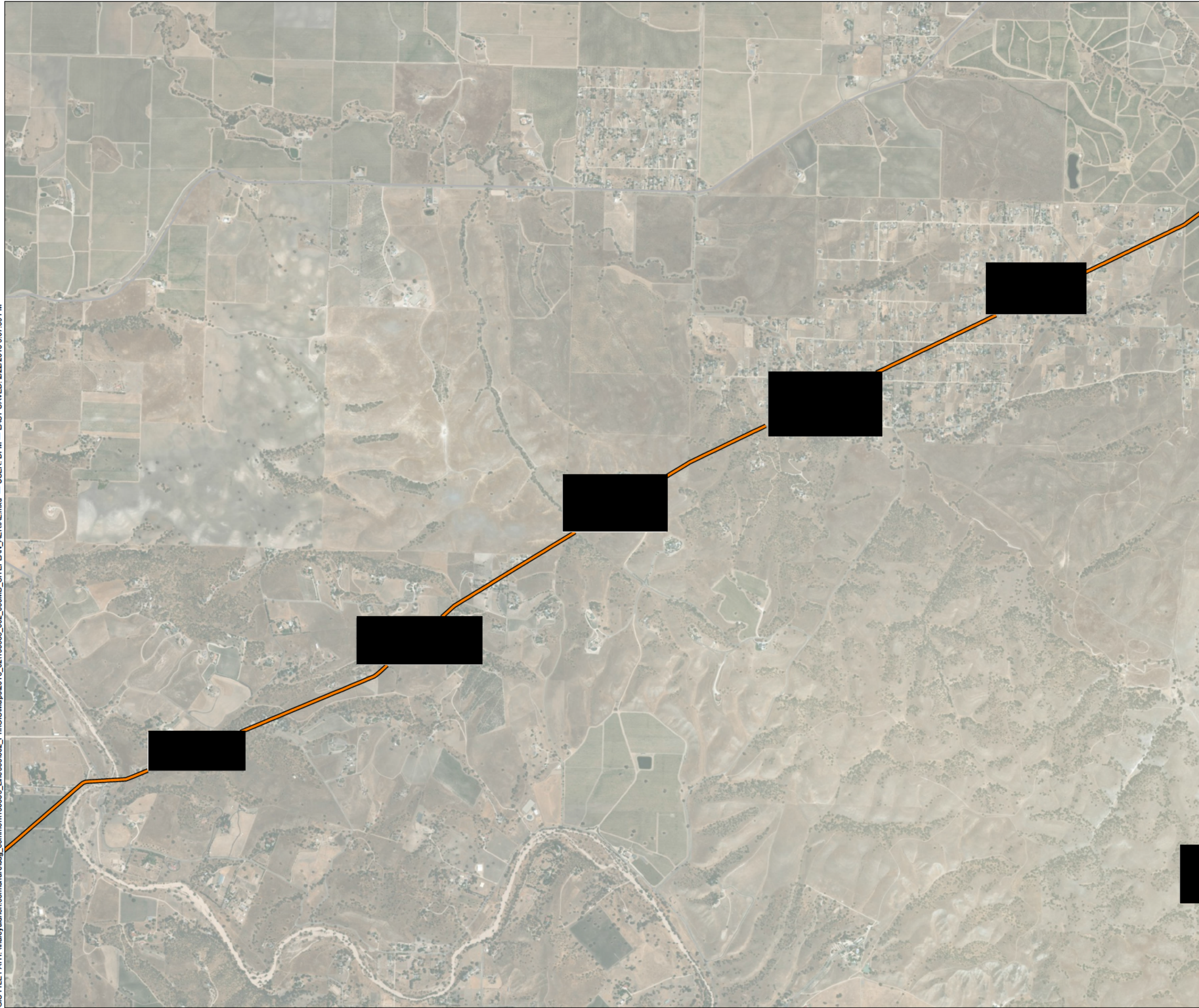
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STM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
G&E LINE 306  
VENAL TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2H

GIS FILE PATH: \\haleyakdrich.com\share\sdg\_common\130685\_Line306\002\_Ph1GISMaps\2018\_02\130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



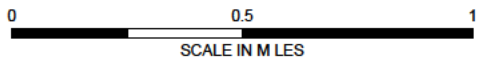
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

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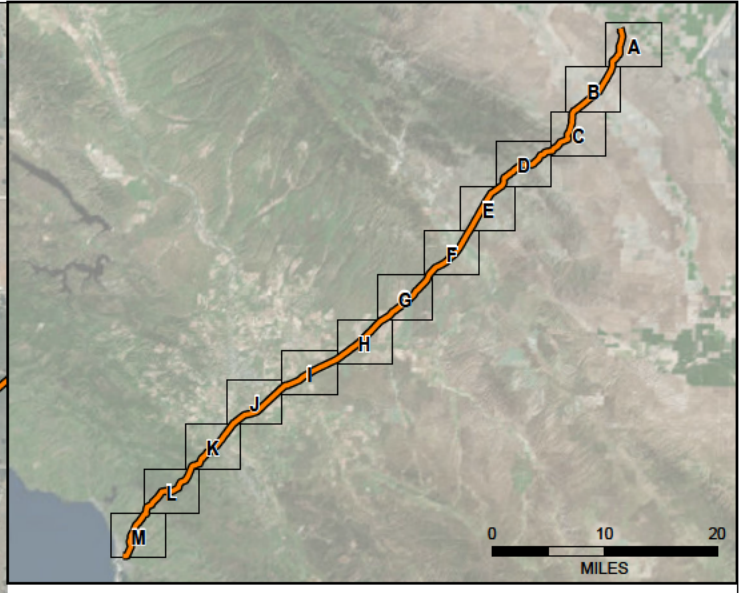
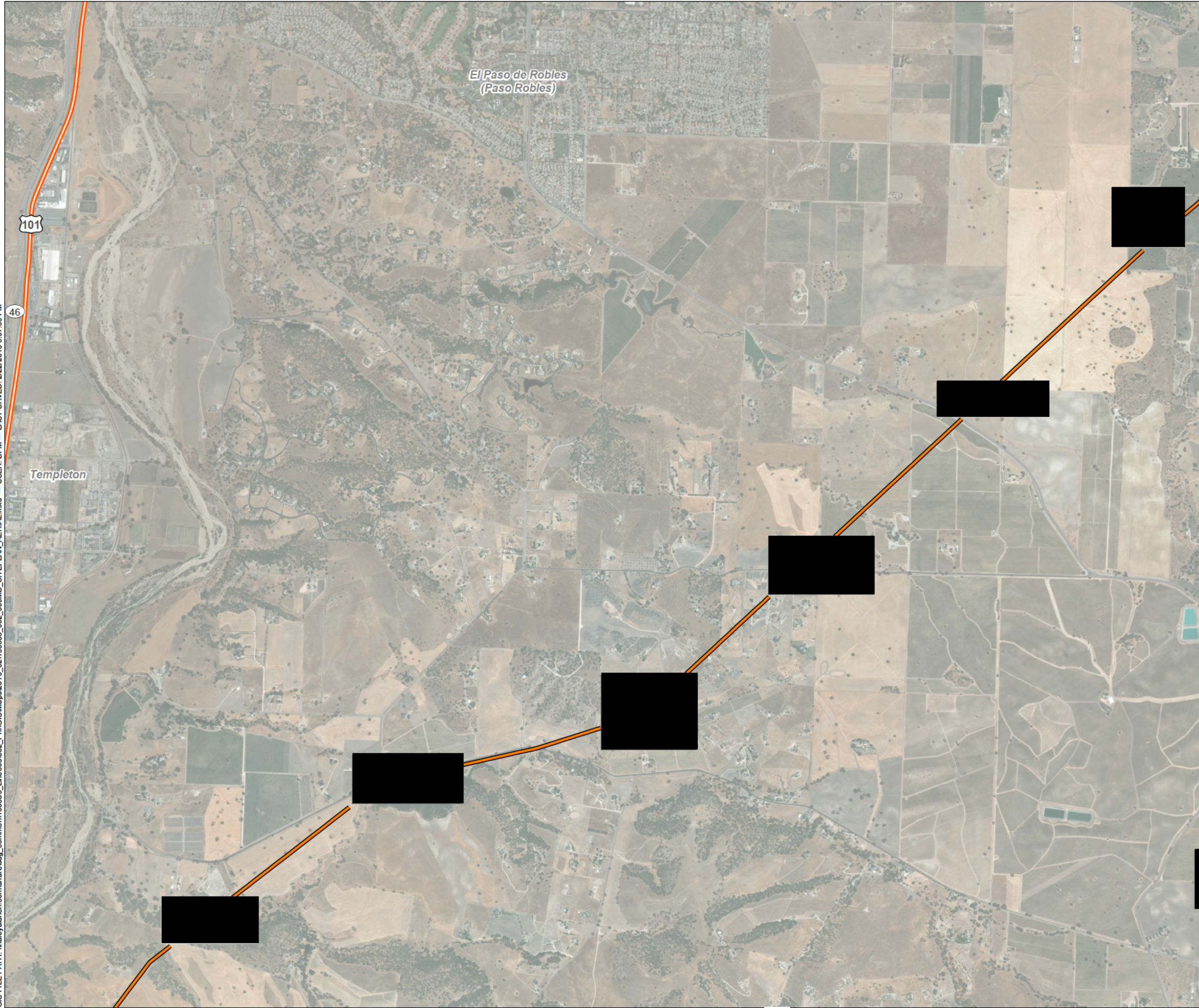
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ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
AVENAL TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




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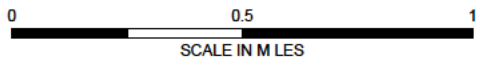
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROX MATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

NOTES

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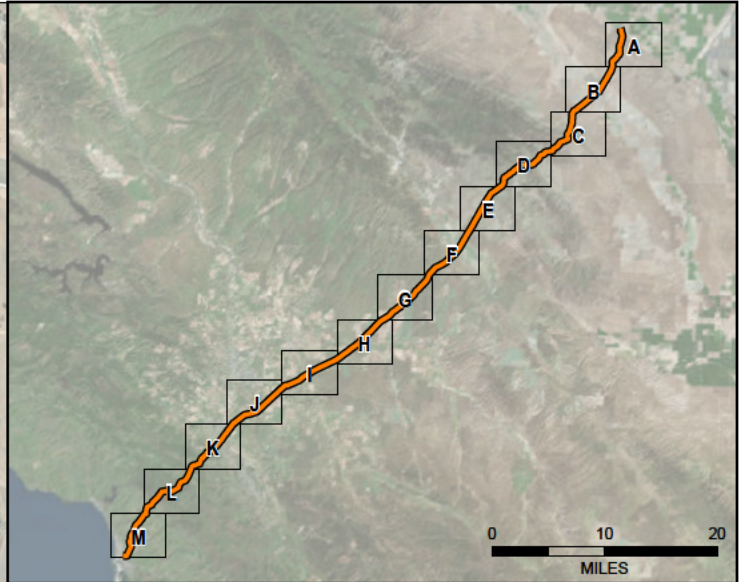
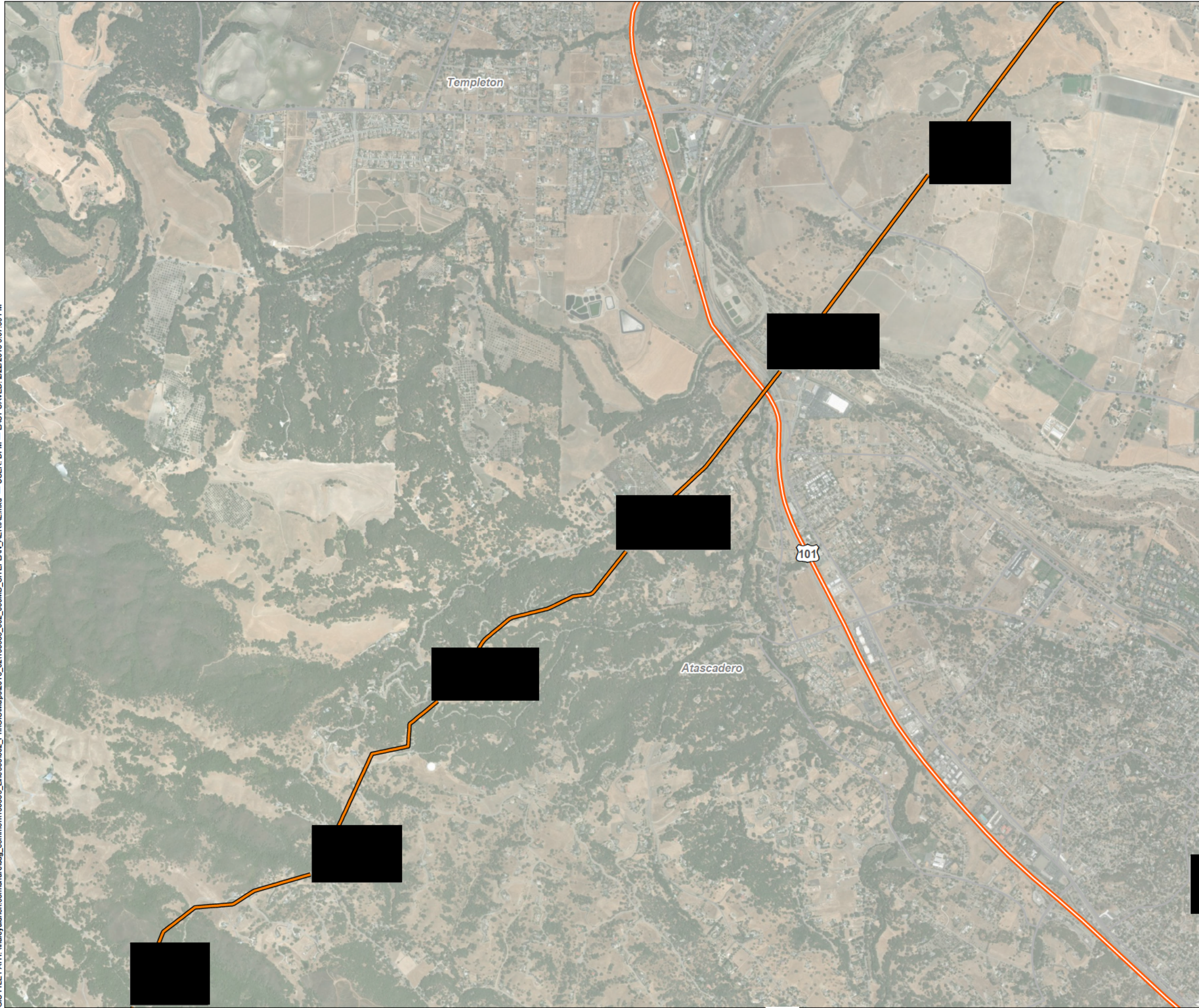
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PG&E LINE 306  
VENAL TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2J

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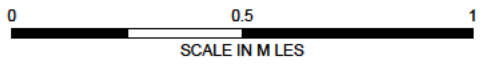
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

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2. AERIAL IMAGERY SOURCE: ESRI



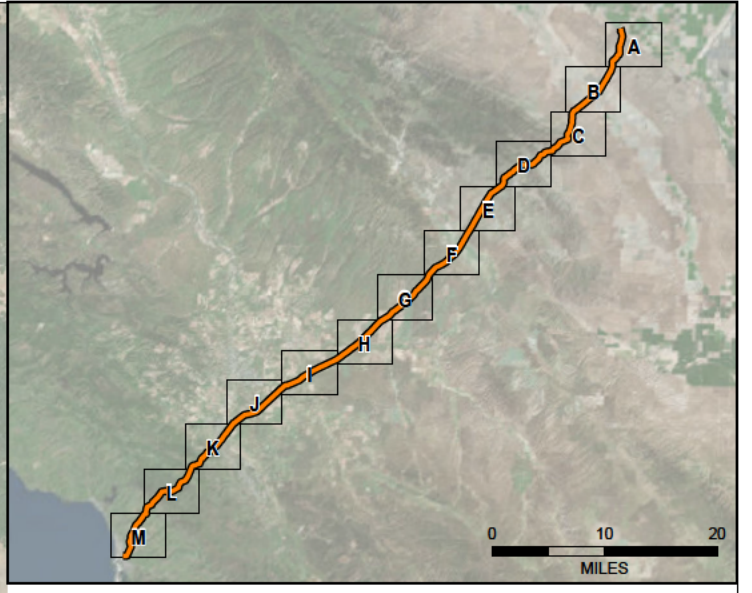
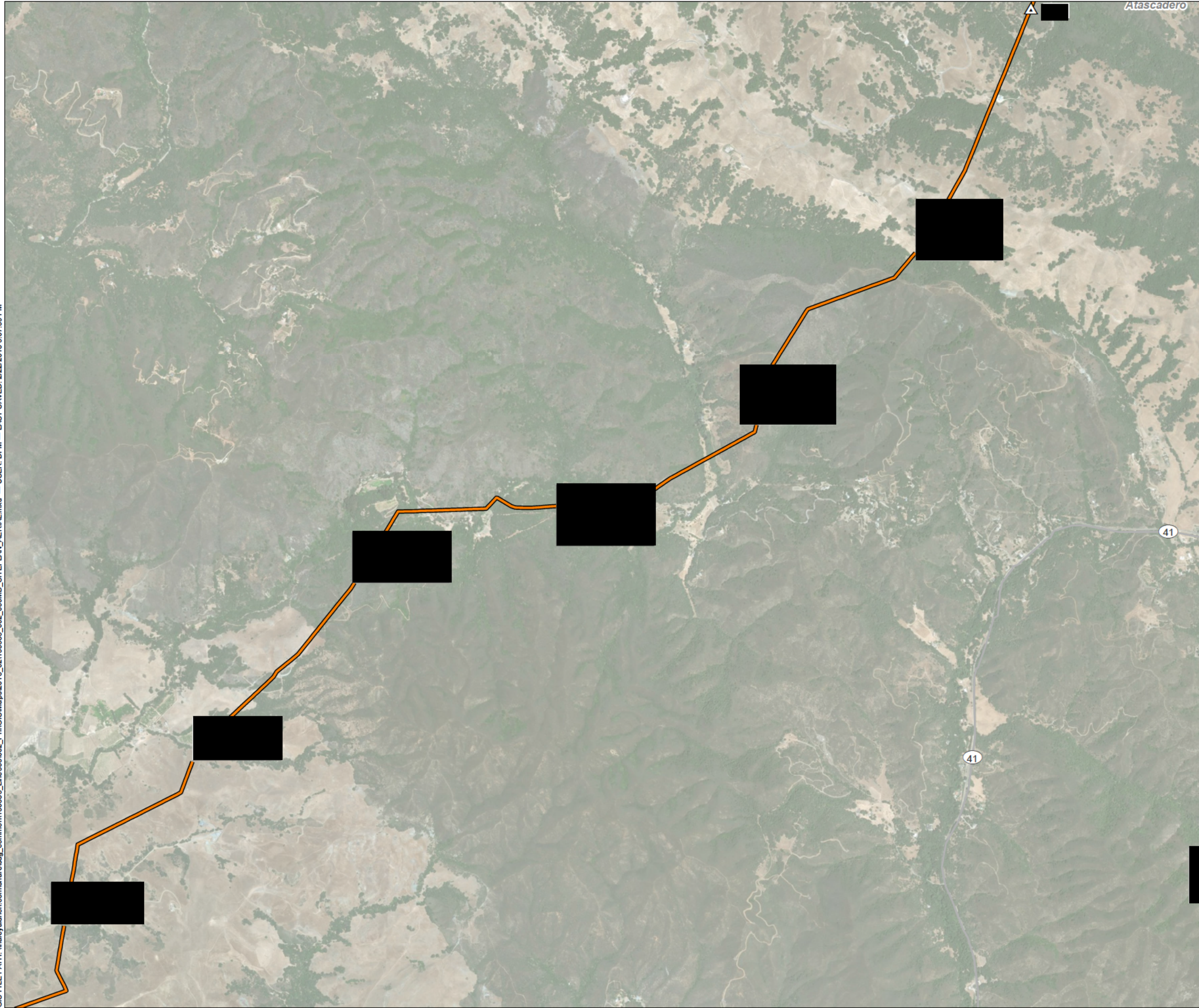
SOUTHERN CALIFORNIA GAS COMPANY  
STATIONARY SOURCE EMISSIONS INVENTORY  
PG&E LINE 306  
MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018




FIGURE 2K

GIS FILE PATH: \\haley\drich.com\share\sdg\_common\130685\_Line 306\002\_Ph1\GIS\Maps\2018\_02\130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



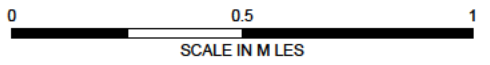
PAGE INDEX MAP

**LEGEND**

-  MILE POINT (APPROXIMATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

**NOTES**

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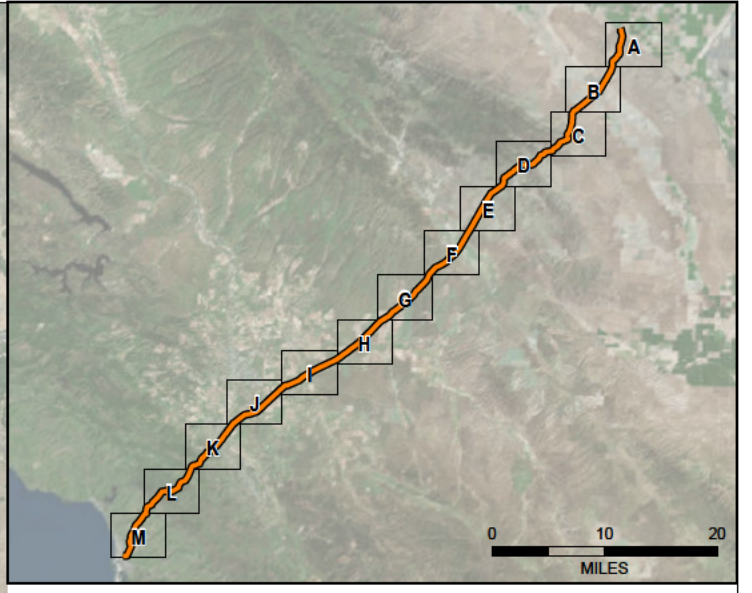
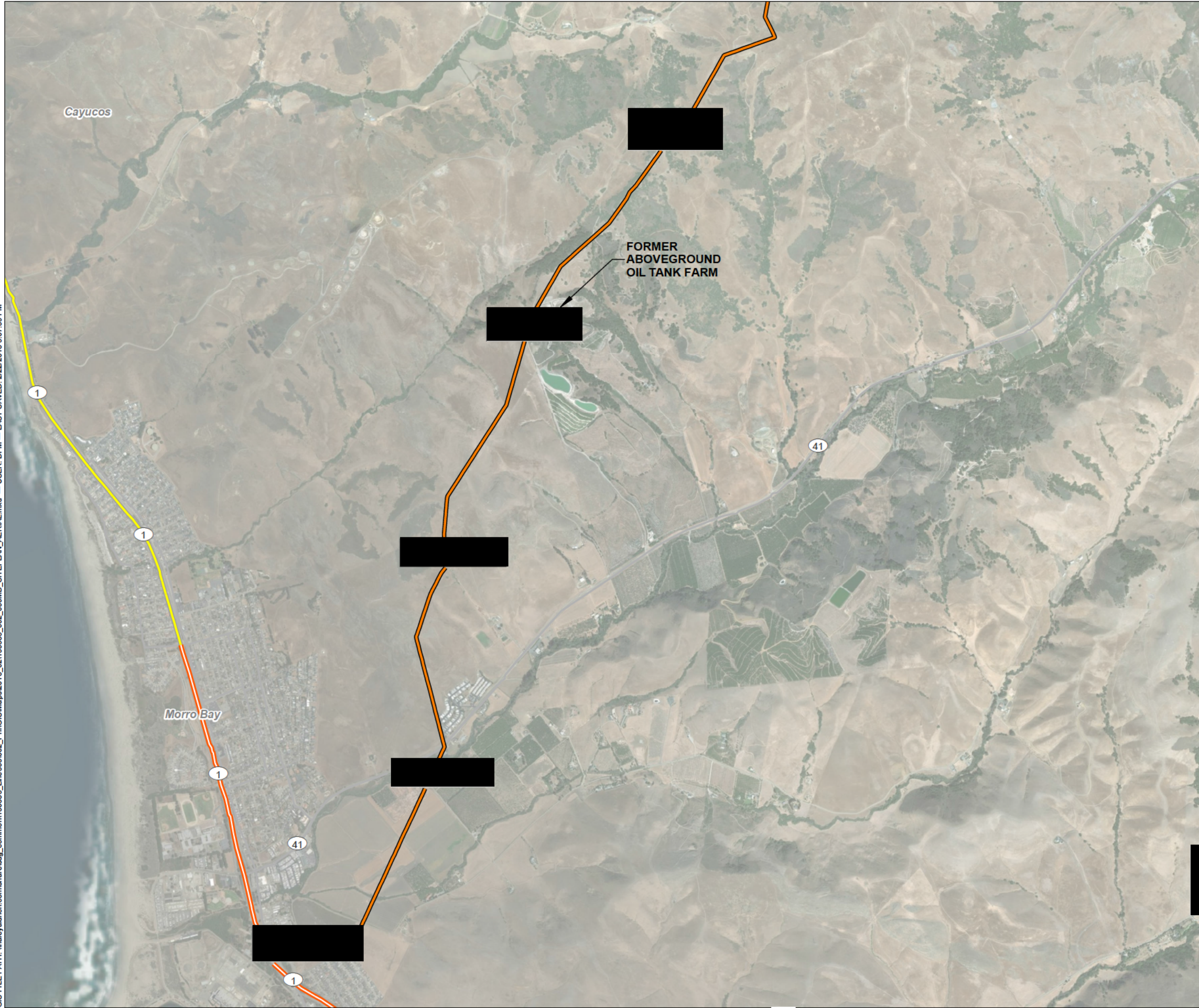
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 WESTM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
 PG&E LINE 306  
 MORRO BAY TO MORRO BAY, CALIFORNIA

**SUBJECT PIPELINE MAP**

JUNE 2018




FIGURE 2L

GIS FILE PATH: \\haley\drich.com\share\sdg\_common\130685\_Line306\002\_Ph1GISMaps2018\_02130685\_002\_000MB\_SITEPLAN\_AERIAL.mxd — USER: DFM — LAST SAVED: 2/22/2018 5:07:39 PM



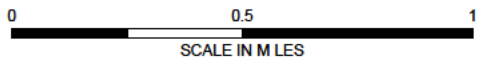
PAGE INDEX MAP

LEGEND

-  MILE POINT (APPROX MATE)
-  PG&E LINE 306
-  PAGE INDEX AND NUMBER

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI



[Redacted] SOUTHERN CALIFORNIA GAS COMPANY  
STAGE I ENVIRONMENTAL SITE ASSESSMENT  
PG&E LINE 306  
ROUTE TO MORRO BAY, CALIFORNIA

SUBJECT PIPELINE MAP

JUNE 2018

FIGURE 2M



**QUESTION 1:** When was the line built?

**RESPONSE 1:** PG&E's transmission Line 306 was installed in 1962, 1967, 1969, 1973, 1982, 1993, 1994, and 2014. PG&E notes that approximately 99% of the original pipe installed in 1962 is still in service.

**QUESTION 2:** What is the MAOP of the line?

**RESPONSE 2:** The maximum allowable operating pressure (MAOP) of Line 306 is [REDACTED] pounds per square inch gauge (psig) from milepoint 0 (near I-5 and S. Lassen Avenue in Avenal) until it reaches the Whitley Gardens area, at which point the MAOP is approximately [REDACTED] psig until it reaches Morro Bay.

**QUESTION 3:** What is the normal operating pressure for the line?

**RESPONSE 3:** The maximum operating pressure (MOP) of Line 306 is [REDACTED] psig from [REDACTED] until it reaches the Whitley Gardens area, at which point the MOP is approximately [REDACTED] psig until it reaches Morro Bay. The normal operating pressure of Line 306 ranges from [REDACTED] psig to [REDACTED] psig.

**QUESTION 4:** Has the pipeline ever been pressure tested? If so, when and how was it tested? Do you have the records for the test(s)?

**RESPONSE 4:** PG&E has valid pressure test records for all but approximately 400 feet of Line 306.

**QUESTION 5:** What is the protective coating for the pipeline and do you know what the condition of that coating is?

**RESPONSE 5:** Line 306 pipe coating is Hot Applied Asphalt (double wrapped) and is in good condition.

**QUESTION 6:** Does the line have a history of leaks?

**RESPONSE 6:** PG&E records indicate that there have been approximately 12 leak indications along Line 306 since 1965 (of which includes leaks on valves, fittings, etc.).

**QUESTION 7:** Has the line been inspected with in-line inspection (ILI) tools? If so, what was the date of the last ILI and do you have the records for that test? If not, is the line currently capable of running ILI tools? If not, have any analyses been prepared to determine the scope of work required to make ILI runs feasible for this facility?

**RESPONSE 7:** Line 306 has not been inspected by in-line inspection tools. To make Line 306 piggable, a launcher/receiver would need to be installed and several Main Line Valve assemblies would need to be replaced.

**QUESTION 8:** How many customers does PG&E serve off this line currently? Could you provide the classification of these customers, e.g., residential, small industrial and commercial, farm taps, etc.?

**RESPONSE 8:** A general customer count from PG&E's SynerGEE model indicates the following:

- The City of Avenal (2,325 residential and 104 commercial)
- Prison (1)
- Farm (1)
- Paso Robles to Templeton (20 residential and 6 vineyards)
- Approximately 13 SoCal Taps (~30 residential)

**QUESTION 9:** What is the typical demand for these customers in the summer and in the winter? What has been the peak load for these customers?

**RESPONSE 9:** The data below are based on PG&E's summer and typical winter model.

- Summer (peak=65 MCFH, daily total = 1,500 MCFD)
- Typical Winter (peak= 100 MCFH, daily total = 2,000 MCFD)

**PG&E Responses to SoCalGas Company Information Requests**

**PG&E Line 306**

**September 10, 2015**

**1) C.P. Records**

Please see attachments “L-306 ETS Reads.pdf” and “L-306 Rectifier Reads.pdf” for the most recent cathodic protection records for L-306. These attachments are located in folder “Index 6576 Attachments\_Confidential.zip” and are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company.

**2) Inspection Timeline Records**

PG&E has performed the following inspections for the high consequence areas (HCAs) along L-306:

- PG&E performed an External Corrosion Direct Assessment (ECDA) in August 2007 for L-306 at mile points [REDACTED] and [REDACTED]
- PG&E performed an ECDA in April 2012 for L-306 at [REDACTED]
- PG&E performed an ECDA in July 2014 for L-306 at [REDACTED]
- PG&E performed a Stress Corrosion Cracking Direct Assessment (SCCDA) in November 2011 for L-306 at [REDACTED] (~101 feet).

Please note that PG&E is still preparing copies of the ECDA and SCCDA inspection records.

In addition, PG&E is providing an illustrative map showing PG&E’s Pipeline Safety Enhancement Plan (PSEP) 2011-2014 projects and PG&E’s Gas Transmission Engineering and Design (GTE&D) 2015-2017 projects for L-306 (which includes some projects upstream from L-306). Please refer to attachment “L-306 Projects\_Illustrative Map.pdf.” This attachment is located in folder “Index 6576 Attachments\_Confidential.zip” and is being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company.

The table below provides additional information for the L-306 specific projects displayed on the map.

PROGRAM	PMO_ID	PROJECT_NAME	WORKSTREAM	WORKTYPE	OP_YEAR
GTED	C-265	C-265 L-306 [REDACTED] Install CTS	Corrosion	Coupon Test Stations	2015
GTED	C-643	C-643 L-306 [REDACTED] Anode Replacement	Corrosion	Cathodic Protection	2015
GTED	R-497	R-497 L-306 [REDACTED] San Andreas Fault Crossing Evaluation	Replacement	Replacement	2017
GTED	S-373	S-373 Morro Bay MM - Disconnect Supply to PP	Station	Station	2015
PSEP	R-145	R-145 L-306 0.01MI [REDACTED] REPL PH1	Replacement	Replacement	2014

**3) Maintenance Records (valves, survey's, repairs, etc.)**

Please see attachment "L-306 Valve Maintenance Records.pdf" for the most recent valve maintenance records for L-306. This attachment is located in folder "Index 6576 Attachments\_Confidential.zip" and is being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company.

**4) Dig-In Records, if any?**

PG&E records indicate that there have not been any dig-ins on L-306.

**5) Pipeline Installation Records**

PG&E is still preparing copies of the L-306 installation records.

**6) Pressure Charts or printouts**

Answer pending clarification from SoCalGas.

**7) PUC Audit Findings**

- a. Auditor recommendations
- b. Follow up work performed to remediate

PG&E is still compiling this information.

**8) Leak History on L306**

- a. Complete leak survey records, entire line
- b. Pending leaks (code classification, severity, etc)
  - i. Work performed to correct
- c. Isolated services

Please refer to the following:

- a. PG&E is gathering the 2012-2015 leak survey sign-off sheets and all A-Forms for leaks discovered on L-306 during those leak surveys.
- b. PG&E will be providing copies of the A-Forms for each leak identified in the 2012-2015 leak surveys for L-306. The A-Forms will include the current leak grade and, where applicable, a description of what repair work has been performed.
- c. PG&E requests clarification on what records are being requested for "Isolated services."

**9) Strength Test Records**

- a. Including all services
- b. Documentation of installed material, qualifying test pressure, duration, completion/as-built sketches, work order information, package availability

PG&E is still preparing copies of the L-306 strength test records.

**10) History of MAOP changes**

- a. 5 year operating pressure history (for P/I)

PG&E records indicate that the maximum allowable operating pressure (MAOP) for L-306 is [REDACTED] psig from the beginning of the line at Kettleman Compressor Station ([REDACTED]) to Estrella Pressure Limiting Station ([REDACTED]) and [REDACTED] psig from Estrella Pressure Limiting Station ([REDACTED]) to the end of the line at Morro Bay Power Plant Reg Station ([REDACTED]).

PG&E records indicate that the current MAOP of L-306 upstream and downstream of Estrella Pressure Limiting Station has not changed from those listed in 1979. PG&E notes that PG&E records indicate that the maximum operating pressure (MOP) for L-306 matched the MAOP until 2000 when it was reduced to [REDACTED] psig upstream and [REDACTED] psig downstream of Estrella Pressure Limiting Station, to compensate for the hydraulic head due to elevation changes along L-306.

PG&E is still compiling this information.

**11) Customer taps- how many, locations, and customer's name and end usage.**

Please refer to the following for the requested L-306 customer information:

- L-306 at milepoint ([REDACTED]) City of Avenal (~2,400 customers), hourly volume is 55 MCFH and daily volume is 750 MCFD based on Cold Winter Day (CWD) modeling.
- L-306 at MP 6.60: Avenal Prison, based on CWD modeling hourly volume is 65 MCFH and daily volume is 1560 MCFD.
- L-306 at ([REDACTED]) 4 Taps (2 Vineyards (Cass and Gallo) and 20 residential customers), based on CWD modeling hourly volume is 1.6 MCFH and daily volume is 25 MCFD.
- L-306 at ([REDACTED]) 10 Taps to SoCal Gas.

**12) Future potential customers that may already have a commitment by PG&E to serve off Line 306. Also, who and designed load.**

PG&E is unaware of any future potential customers for L-306 as of August 31, 2015.

**\* Please distribute only Question(s) and Response(s). The form area above is for Internal Use only.**

**QUESTION 7641.01:** Right of way agreements (Single line requirements, abandonment, fees, etc.)

**RESPONSE 7641.01:** PG&E is still compiling this information.

**QUESTION 7641.02:** Depth of coverage on pipe (Known shallow points, etc.)

**RESPONSE 7641.02:** The following files will be provided at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016 for review and are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company:

- “*Index 7641.02\_CoverDepthProfile\_Confidential.xlsx*” is an Excel file of the L-306 cover depths tabulated.
- “*Index 7641.02\_CoverDepthProfile\_Illustrative\_Confidential.pdf*” is an illustrative depth of cover profile for the entirety of L-306.

Please note, pipeline depths are subject to change over time as land grading, landscaping, and road paving/development can affect the amount of cover. Without exposing a pipeline it is not possible to determine the exact depth.

**QUESTION 7641.03:** Are there any sections of the pipeline with unknown characteristics (Wall thickness, grade, long seam, coating, etc.)

**RESPONSE 7641.03:** The MAOP reports for L-306 and branching lines will be available at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016; these documents are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company. The characteristics that are unknown are indicated as such in the reports.

**QUESTION 7641.04:** Inventory of surface equipment (Valves, meters, drip tanks, regulation, etc.)

**RESPONSE 7641.04:** PG&E is still compiling this information.

**QUESTION 7641.05:** Environmental concerns or issues (Special permits needed to perform inspections or maintenance, past spills, asbestos, PCBs, etc.)

**RESPONSE 7641.05:** PG&E is still compiling this information.

**QUESTION 7641.06:** Real estate associated with pipeline (Fee land, regulator stations, interconnects, etc.)

**RESPONSE 7641.06:** PG&E is still compiling this information.

**QUESTION 7641.07:** River crossings and fault line information (Directional drill, bridge, spans, etc.)

**RESPONSE 7641.07:** Maps depicting areas where L-306 intersects active faults and water crossings will be provided at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016; these documents are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company.

Faults are considered active where they exhibit evidence of surface offset displacements during Holocene time (approximately within the last 10,000 years).

Water crossings are defined as small streams and creeks. There are no major water crossings intersecting this pipeline. PG&E defines major water crossings as commercially navigable waterways as defined by PHMSA in its National Pipeline Mapping System (NPMS).

**QUESTION 7641.08:** Regulatory and governmental issues (Any issues with cities, counties, other agencies concerning ongoing pipeline operations)

**RESPONSE 7641.08:** PG&E is still compiling this information.

**QUESTION 7641.09:** Social issues (Requests from schools, hospitals, neighborhoods for removal/abandonment of pipeline or similar issues)

**RESPONSE 7641.09:** PG&E is still compiling this information.

**QUESTION 7641.10:** Estimate of annual maintenance cost (Labor, inspections, electricity for CP, fees, etc.)

**RESPONSE 7641.10:** PG&E is still compiling this information.

**QUESTION 7641.11:** Planned major improvements or maintenance (Replacement of anodes, CP improvements, etc.)

**RESPONSE 7641.11:** PG&E is still compiling this information.

**QUESTION 7641.12:** a Line 306 pipeline feature study showing a breakdown of the pipeline features by stationing points **[Added by email on 01/06/16]**

**RESPONSE 7641.12:** Please see Response 7641.03.

**\* Please distribute only Question(s) and Response(s). The form area above is for Internal Use only.**

**QUESTION 7641.01:** Right of way agreements (Single line requirements, abandonment, fees, etc.)

**RESPONSE 7641.01:** PG&E is still compiling this information.

**RESPONSE 7641.01 Supp01:** Please see attachment "[Index 7641-01\\_Line 306\\_Due Diligence Review\\_Confidential.xlsx](#)" for the available details of identified PG&E easements and other agreements. This file is being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company.

**QUESTION 7641.02:** Depth of coverage on pipe (Known shallow points, etc.)

**RESPONSE 7641.02:** The following files will be provided at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016 for review and are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company:

- "[Index 7641.02\\_CoverDepthProfile\\_Confidential.xlsx](#)" is an Excel file of the L-306 cover depths tabulated.
- "[Index 7641.02\\_CoverDepthProfile\\_Illustrative\\_Confidential.pdf](#)" is an illustrative depth of cover profile for the entirety of L-306.

Please note, pipeline depths are subject to change over time as land grading, landscaping, and road paving/development can affect the amount of cover. Without exposing a pipeline it is not possible to determine the exact depth.

**QUESTION 7641.03:** Are there any sections of the pipeline with unknown characteristics (Wall thickness, grade, long seam, coating, etc.)

**RESPONSE 7641.03:** The MAOP reports for L-306 and branching lines will be available at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016; these documents are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company. The characteristics that are unknown are indicated as such in the reports.

**QUESTION 7641.04:** Inventory of surface equipment (Valves, meters, drip tanks, regulation, etc.)

**RESPONSE 7641.04:** PG&E is still compiling this information.

**RESPONSE 7641.04 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.05:** Environmental concerns or issues (Special permits needed to perform inspections or maintenance, past spills, asbestos, PCBs, etc.)

**RESPONSE 7641.05:** PG&E is still compiling this information.



**RESPONSE 7641.05 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.06:** Real estate associated with pipeline (Fee land, regulator stations, interconnects, etc.)

**RESPONSE 7641.06:** PG&E is still compiling this information.

**RESPONSE 7641.06 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.07:** River crossings and fault line information (Directional drill, bridge, spans, etc.)

**RESPONSE 7641.07:** Maps depicting areas where L-306 intersects active faults and water crossings will be provided at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016; these documents are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company.

Faults are considered active where they exhibit evidence of surface offset displacements during Holocene time (approximately within the last 10,000 years).

Water crossings are defined as small streams and creeks. There are no major water crossings intersecting this pipeline. PG&E defines major water crossings as commercially navigable waterways as defined by PHMSA in its National Pipeline Mapping System (NPMS).

**QUESTION 7641.08:** Regulatory and governmental issues (Any issues with cities, counties, other agencies concerning ongoing pipeline operations)

**RESPONSE 7641.08:** PG&E is still compiling this information.

**RESPONSE 7641.08 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.09:** Social issues (Requests from schools, hospitals, neighborhoods for removal/abandonment of pipeline or similar issues)

**RESPONSE 7641.09:** PG&E is still compiling this information.

**RESPONSE 7641.09 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.10:** Estimate of annual maintenance cost (Labor, inspections, electricity for CP, fees, etc.)

**RESPONSE 7641.10:** PG&E is still compiling this information.

**RESPONSE 7641.10 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.11:** Planned major improvements or maintenance (Replacement of anodes, CP improvements, etc.)



**RESPONSE 7641.11:** PG&E is still compiling this information.

**RESPONSE 7641.11 Supp01:** PG&E is still compiling this information.

**QUESTION 7641.12:** a Line 306 pipeline feature study showing a breakdown of the pipeline features by stationing points **[Added by email on 01/06/16]**

**RESPONSE 7641.12:** Please see Response 7641.03.

**QUESTION 7925.01:** Copies requested by [REDACTED] following the January 13-14, 2016 meeting with SoCal Gas. (See attachment "*Line 306 Due Diligence Records Review Meeting\_Doc Request Forms.pdf*". Refer to attachment "*Index No. 7925\_Document Request List.docx*" for a typed version of the request form.)

**RESPONSE 7925.01:** Please refer to the table below for the documents requested by [REDACTED] following the January 13-14, 2016 Meeting between SoCalGas and PG&E regarding the potential sale of PG&E gas transmission pipeline L-306.

Please note that the requested documents are being provided pursuant to the Non-Disclosure Agreement (NDA) executed between Pacific Gas and Electric Company and SoCalGas on June 25, 2015 (see attachment "*PGE NDA\_SoCalGas\_6-25-2015.pdf*") and are intended for use only by authorized persons. Unless specifically authorized to do so, do not make copies of these files, or distribute it to anyone other than persons authorized to use these files. Also, please note that this is not a substitute for compliance with California Government Code §4216-4216.9. For the exact location of PG&E's pipelines, please call Underground Service Alert (USA) at 811 at least two working days before digging to request that PG&E locate and mark its facilities.

Line # & Segment or Document #	File Name or Document Title	Attachment
306 0.00-0.17	Appendix F: ECDA Survey 2012 1/31/2011	<a href="#">Index 7925-01_ECDA 2012_Appendix F_Confidential.pdf</a>
2014 ECDA 4.4	CP Map Referenced in ECDA 2014 Survey	<a href="#">Index 7925-01_ECDA 2014_Control Map_Confidential.pdf</a>
2014 ECDA Cathodic Prot. Data Review	ECDA 2014 CPA-L -306 ETS Pgs. 1 - 15 Run 01/29/2014	<a href="#">Index 7925-01_ECDA 2014_CPA-L-306 ETS_01-29-2014_Confidential.pdf</a>
2014 ECDA Cover Page	L-306 CP Maintenance Summary 2011-2014	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2006/2007	CP Data Entire Section	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2014	Form A's Inspection Reports NSEG 306 - 2014 OPS Leak Active Pipe	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2012	CP Data NSEG 306 – 2012 CP Map with A-Forms	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2012	Form H: Direct Examination Data Sheet Internal Corrosion Pit Depth	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2006/2007	Executive Summary for NSEG 306 – 2006 Survey All Pages	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2006/2007	Form A: Data Element Check Sheet Pgs. 1 - 12	PG&E is still compiling this material and will provide it when available.

ECDA Survey 2006/2007	CP Records – Current Range 0.5A – 19.9A Inspection Records 2 Pages	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2006/2007	NSEG 306 CP & A-Form Map	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2006/2007	Appendix 4 Rectifier Data Sheets	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2012	Appendix 2 Rectifier Data Sheets	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2014	Cathodic Protection Maintenance Records- All Pages	PG&E is still compiling this material and will provide it when available.
ECDA Survey 2014	Appendix F: Pre-Assessment Meeting Questionnaire	<a href="#"><i>Index 7925-01_ECDA 2014_Appendix F_Confidential.pdf</i></a>
ECDA Survey 2014	Contact List NSEG – 2014 Contact Info	<a href="#"><i>Index 7925-01_ECDA 2014_NSEG 306 Contact Info_Confidential.pdf</i></a>
ECDA Survey 2014	Rectifier Data Sheets Appendix 2 1 page	<a href="#"><i>Index 7925-01_ECDA 2014_Appendix 2 Rectifier Data Sheets_Confidential.pdf</i></a>
ECDA Survey 2014	Rectifier Data Sheets (2 <sup>nd</sup> ) Appendix 2 4 pages	<a href="#"><i>Index 7925-01_ECDA 2014_Second Appendix 2 Rectifier Data Sheets_Confidential.pdf</i></a>
ECDA Survey 2014	Form H #1 Pgs. 1 - 10	<a href="#"><i>Index 7925-01_ECDA 2014_Form H MP 68.63_Confidential.pdf</i></a>
ECDA Survey 2014	Form H #2 Pgs. 1 – 10 [REDACTED]	<a href="#"><i>Index 7925-01_ECDA 2014_Form H MP 68.41_Confidential.pdf</i></a>

**QUESTION 7925.02:** Copies requested by [REDACTED] (no phone number provided) following the January 13-14, 2016 meeting with SoCal Gas. (See attachment “*Line 306 Due Diligence Records Review Meeting\_Doc Request Forms.pdf*”. Refer to attachment “*Index No. 7925\_Document Request List.docx*” for a typed version of the request form.)

**RESPONSE 7925.02:** Please refer to the table below for the documents requested by [REDACTED] following the January 13-14, 2016 Meeting between SoCalGas and PG&E regarding the potential sale of PG&E gas transmission pipeline L-306.

Please note that the requested documents are being provided pursuant to the Non-Disclosure Agreement (NDA) executed between Pacific Gas and Electric Company and SoCalGas on June 25, 2015 (see attachment “*PGE NDA\_SoCalGas\_6-25-2015.pdf*”) and are intended for use only by authorized persons. Unless specifically authorized to do so, do not make copies of these files, or distribute it to anyone other than persons authorized to use these files. Also, please note that this is not a substitute for compliance with California Government Code §4216-4216.9. For the exact location of PG&E’s pipelines, please call Underground Service Alert (USA) at 811 at least two working days before digging to request that PG&E locate and mark its facilities.

Line # & Segment or Document #	File Name or Document Title	Attachment
306 - 7641 Response	Index No. 7641 Response	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	Master list of spans & bridge crossings that detail length, location, unsupported distance, etc.	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	History of span & bridge crossings inspections, including field reports	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	Master list of patrols, segments, cycles	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	History of patrols including field inspection reports	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	Copies of all documents in Index 7641 Including - Q7 – Fault & water crossings	<i>Index 7925-02_Fault and Water Crossings_Confidential.pdf</i>

Line 306 and All Associated Pipe	Q3 – MAOP reports	<i>Index 7925-02_MAOP_306_MP0.0000_38.0000_01112016_Confidential.pdf, Index 7925-02_MAOP_306_MP38.000070.0200_01112016_Confidential.pdf, Index 7925-02_MAOP_306_Branch Lines_Confidential.pdf</i>
Line 306 and All Associated Pipe	Pressure charts for the original 1962 installation GM#148721	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	Q2 – Index 7641.02 Cover & depth profiles Word & PDF files	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	Pipeline inspection reports that identify condition of pipe, coating condition, depth	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	All pending and completed leak orders	PG&E is still compiling this material and will provide it when available.
Line 306 and All Associated Pipe	Information on row clearing condition, access, is it walkable	PG&E is still compiling this material and will provide it when available.

**QUESTION 7925.03:** Copies requested by [REDACTED] following the January 13-14, 2016 meeting with SoCal Gas. (See attachment “*Line 306 Due Diligence Records Review Meeting\_Doc Request Forms.pdf*”. Refer to attachment “*Index No. 7925\_Document Request List.docx*” for a typed version of the request form.)

**RESPONSE 7925.03:** Please refer to the table below for the documents requested by [REDACTED] following the January 13-14, 2016 Meeting between SoCalGas and PG&E regarding the potential sale of PG&E gas transmission pipeline L-306.

Please note that the requested documents are being provided pursuant to the Non-Disclosure Agreement (NDA) executed between Pacific Gas and Electric Company and SoCalGas on June 25, 2015 (see attachment “*PGE NDA\_SoCalGas\_6-25-2015.pdf*”) and are intended for use only by authorized persons. Unless specifically authorized to do so, do not make copies of these files, or distribute it to anyone other than persons authorized to use these files. Also, please note that this is not a substitute for compliance with California Government Code §4216-4216.9. For the exact location of PG&E’s pipelines, please call Underground Service Alert (USA) at 811 at least two working days before digging to request that PG&E locate and mark its facilities.

Line # & Segment or Document #	File Name or Document Title	Attachment
■ L-306 Installation As-Built	(Reloc. – 1.306' under creek) As Built & Pressure Test info for GM 173232	PG&E is still compiling this material and will provide it when available.

**QUESTION 7925.04:** Copies requested by ■ following the January 13-14, 2016 meeting with SoCal Gas. (See attachment “*Line 306 Due Diligence Records Review Meeting\_Doc Request Forms.pdf*”. Refer to attachment “*Index No. 7925\_Document Request List.docx*” for a typed version of the request form.)

**RESPONSE 7925.04:** Please refer to the table below for the documents requested by ■ following the January 13-14, 2016 Meeting between SoCalGas and PG&E regarding the potential sale of PG&E gas transmission pipeline L-306.

Please note that the requested documents are being provided pursuant to the Non-Disclosure Agreement (NDA) executed between Pacific Gas and Electric Company and SoCalGas on June 25, 2015 (see attachment “*PGE NDA\_SoCalGas\_6-25-2015.pdf*”) and are intended for use only by authorized persons. Unless specifically authorized to do so, do not make copies of these files, or distribute it to anyone other than persons authorized to use these files. Also, please note that this is not a substitute for compliance with California Government Code §4216-4216.9. For the exact location of PG&E’s pipelines, please call Underground Service Alert (USA) at 811 at least two working days before digging to request that PG&E locate and mark its facilities.

Line # & Segment or Document #	File Name or Document Title	Attachment
L-306	Annual class location surveys for entire line	PG&E is still compiling this material and will provide it when available.



**QUESTION 7925.05:** Copies requested by [REDACTED] (no phone number provided) following the January 13-14, 2016 meeting with SoCal Gas. (See attachment “*Line 306 Due Diligence Records Review Meeting\_Doc Request Forms.pdf*”. Refer to attachment “*Index No. 7925\_Document Request List.docx*” for a typed version of the request form.)

**RESPONSE 7925.05:** Please refer to the table below for the documents requested by [REDACTED] following the January 13-14, 2016 Meeting between SoCalGas and PG&E regarding the potential sale of PG&E gas transmission pipeline L-306.

Please note that the requested documents are being provided pursuant to the Non-Disclosure Agreement (NDA) executed between Pacific Gas and Electric Company and SoCalGas on June 25, 2015 (see attachment “*PGE NDA\_SoCalGas\_6-25-2015.pdf*”) and are intended for use only by authorized persons. Unless specifically authorized to do so, do not make copies of these files, or distribute it to anyone other than persons authorized to use these files. Also, please note that this is not a substitute for compliance with California Government Code §4216-4216.9. For the exact location of PG&E’s pipelines, please call Underground Service Alert (USA) at 811 at least two working days before digging to request that PG&E locate and mark its facilities.

Line # & Segment or Document #	File Name or Document Title	Attachment
	Right of way documents for pipelines	PG&E is still compiling this material and will provide it when available.
Document # 7641 response		PG&E is still compiling this material and will provide it when available.
Index 6576	Q5 S1 Folder Sub folder 306 File Name B-168534STPR0002 Indicates 500 feet of ERW pipe in 1967 Other documents	PG&E is still compiling this material and will provide it when available.
Line 306	MAOP Validation Report Index 7641 – Question 3 – 306 Copies of both attachments	<a href="#">Index 7925-02_MAOP_306_MP0.0000_38.0000_01112016_Confidential.pdf</a> , <a href="#">Index 7925-02_MAOP_306_MP38.000070.0200_01112016_Confidential.pdf</a>

Line 306	2006 ECDA Program NSEG 306 - 2006 Tab 2 in Binder 1 of 2 Need all forms, records, and maps.	PG&E is still compiling this material and will provide it when available.
Line 306	SCCDA Survey 2006 – 2007 Same binder as above Tab – direct examination data (SCCDA) Mears Group report “2007 Direct Examination” Report PG&E NSEG 306 Kettleman Station 12-14-07	<a href="#"><i>Index 7925-05_SCCDA 2006_Mears Group Report_2007 Direct Examination_Confidential.pdf</i></a>
Line 306	PG&E PSEP plan and scope of work for 306	PG&E is still compiling this material and will provide it when available.

# PACIFIC GAS AND ELECTRIC COMPANY

## Gas Operations Data Response

PG&E Data Request Index No.:	10640 Supp01		
Request Date:	03-06-2017	Date Sent:	04-14-2017
Requesting Party:	GOST-CUSTOMER		
External Requester:	SoCal Gas	PG&E Contact:	[REDACTED]

**QUESTION 10640.01:** PGE Line 306 Data Analysis Corrosion Draft 2-15-2017.docx

**RESPONSE 10640.01:** Please see Response 10640.13.

**QUESTION 10640.02:** PGE Line 306 Data Analysis Corrosion Draft 2-7-2017.docx

**RESPONSE 10640.02:** Please see Response 10640.13.

**QUESTION 10640.03:** KMZ file with CP features

**RESPONSE 10640.03:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.03 Supp01:** PG&E is still compiling this information and will provide it when available.

**QUESTION 10640.04:** Rectifier As-Builts (8) [REDACTED]

**RESPONSE 10640.04:** Please see Response 10640.13.

**QUESTION 10640.05:** Line 306 Rectifiers.csv

**RESPONSE 10640.05:** Please see Response 10640.13.

**QUESTION 10640.06:** Specifics on casings including size, length, as-builts, coordinates, etc.

**RESPONSE 10640.06:** Please see Response 10640.13.

**QUESTION 10640.07:** AC Interference Data Summary Report including related information

**RESPONSE 10640.07:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.07 Supp01:** PG&E is still compiling this information and will provide it when available.

**QUESTION 10640.08:** Additional work planned for AC mitigation

**RESPONSE 10640.08:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.08 Supp01:** At this time PG&E does not have plans to perform any additional AC interference work on Line 306.

**QUESTION 10640.09:** C-643 [REDACTED] Anode replacement 2015

**RESPONSE 10640.09:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.09 Supp01:** PG&E is still compiling this information and will provide it when available.

**QUESTION 10640.10:** Copy of procedure TD 41815

**RESPONSE 10640.10:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.10 Supp01:** PG&E is still compiling this information and will provide it when available.

**QUESTION 10640.11:** Index 6576-L306 Alarm History

**RESPONSE 10640.11:** Please see Response 6576.06 Supp01, delivered previously on January 8, 2016.

**QUESTION 10640.12:** All easement and ROW documents

**RESPONSE 10640.12:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.12 Supp01:** Please see attachment "*Index 10640-12 Supp01\_Data Room Files\_Confidential.zip*" and "*Index 10640-12 Supp01\_Index\_Confidential.xlsx*" for a list of the files being provided. Please note, these attachments are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company ("*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

**QUESTION 10640.13:** All files in the Data Room folder viewed by SoCalGas at Bishop Ranch February 28 - March 2, 2017

**RESPONSE 10640.13:** Please see attachment "*Index 10640-01\_Index\_Confidential.xlsx*" for a list of files compiled in attachment "*Index 10640-01\_Data Room Files\_Confidential.zip*". Please note, these attachments are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company ("*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

**RESPONSE 10640.13 Supp01:** Through further research, PG&E has identified additional Line 306 records. Please see attachment "*Index 10640-13 Supp01\_Data Room Files\_Confidential.zip*" for the additional files and attachment "*Index 10640-13 Supp01\_Index\_Confidential.xlsx*" for a list of the additional files being provided. Please note, these attachments are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company ("*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

# PACIFIC GAS AND ELECTRIC COMPANY

## Gas Operations Data Response

PG&E Data Request Index No.:	10640 Supp02		
Request Date:	03-06-2017	Date Sent:	05-23-2017
Requesting Party:	GOST-CUSTOMER		
External Requester:	SoCal Gas	PG&E Contact:	[REDACTED]

**QUESTION 10640.03:** KMZ file with CP features

**RESPONSE 10640.03:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.03 Supp01:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.03 Supp02:** Please see attachment "[Index 10640-03\\_CP Features\\_Confidential.kmz](#)" for the requested KMZ file. Please note, this attachment is being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (see attachment "[PGE NDA\\_SoCalGas\\_6-25-2015.pdf](#)").

**QUESTION 10640.07:** AC Interference Data Summary Report including related information

**RESPONSE 10640.07:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.07 Supp01:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.07 Supp02:** PG&E is still compiling this information and will provide it when available.

**QUESTION 10640.09:** C-643 M 62.35 Anode replacement 2015

**RESPONSE 10640.09:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.09 Supp01:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.09 Supp02:** PG&E is still compiling this information and will provide it when available.

**QUESTION 10640.10:** Copy of procedure TD 41815

**RESPONSE 10640.10:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.10 Supp01:** PG&E is still compiling this information and will provide it when available.

**RESPONSE 10640.10 Supp02:** Please see attachment "[Index 10640-10 Supp02\\_Data Room Files\\_Confidential.zip](#)" and "[Index 10640-10 Supp02\\_Index\\_Confidential.xlsx](#)" for a list of the TD-4181 Standard and Procedures being provided. Please note, these attachments are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (see attachment "[PGE NDA\\_SoCalGas\\_6-25-2015.pdf](#)").

**PACIFIC GAS AND ELECTRIC COMPANY**

**Gas Operations Data Response**

PG&E Data Request Index No.:	10640 Supp03		
Request Date:	03-06-2017	Date Sent:	06-05-2017
Requesting Party:	GOST-CUSTOMER		
External Requester:	SoCal Gas	PG&E Contact:	██████████

**QUESTION 10640.07:** AC Interference Data Summary Report including related information

**RESPONSE 10640.07 Supp03:** PG&E is in the process of finalizing this report and expects to provide it by June 30, 2017. In the meantime, the materials to be summarized in the report are available in the cathodic protection documents compiled in attachment "*Index 10640-01\_Data Room Files\_Confidential.zip*" provided to SoCal Gas in March 2017.

**QUESTION 10640.09:** C-643 M 62.35 Anode replacement 2015

**RESPONSE 10640.09 Supp03:** The rectifier along Line 306 at ██████████ was removed on August 13, 2016.



**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	10997		
Request Date:	06-23-2017	Date Sent:	08-29-2017
Requesting Party:	Customer		
External Requester:	██████████ SoCal Gas	PG&E Contact:	██████████

**QUESTION 10997.01:** Please provide contact information for the key site manager or managers for Line 306 to arrange interviews or provide a list of employees who have historical knowledge of the pipeline that can be available for interviews in July/ Please see Attachment 1 for sample interview questions. We currently understand that our initial contact is ██████████

Note: Interviews can be done in person or over the phone.

**RESPONSE 10997.01:** PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.02:** Please arrange to have copies of the following environmental documents available, if applicable, available prior to our site visit planned for July:

- (a) Environmental site assessment reports, spills, cleanups
- (b) Environmental compliance audit reports
- (c) Environmental Permits for the pipeline and/or associated facilities
  - i. Be sure to include any long-term restoration, monitoring, or maintenance agreements existing agencies and/or property owners.
- (d) Registrations for Underground Storage Tanks or Aboveground Storage Tanks
- (e) Registrations for Injection Systems
- (f) Material Safety Data Sheets
- (g) Community Right to Know Plans
- (h) Safety Plans
- (i) Spill Prevention Plans

- (j) Emergency Preparedness Plans
- (k) Hydrogeologic Reports for the property
- (l) Hazardous Materials/Waste records and reports for the property
- (m) Geotechnical Studies
- (n) Risk Assessments
- (o) Recorded Activity and Use Limitations
- (p) Environmental Land Use Restrictions
- (q) Government notices concerning the property
- (r) Environmental Liens

**RESPONSE 10997.02:** Please see below for details of the requested documents. Please note, these attachments contain confidential information and are therefore being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (see attachment "*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

- (a) PG&E records do not indicate that environmental site assessment reports, spills, or cleanups have been associated with stations on Line 306. Please see attachment "*Index 10997-02a\_Station Geotracker Reports\_Confidential.pdf*" for the results of the Geotracker database searches for Estrella River, Morro Bay Intertie, Morro Bay Master Meter, and Morro Bay Primary Regulator Stations.
- (b) PG&E records do not indicate that this facility has been audited for environmental compliance.
- (c) PG&E records do not indicate that any active environmental permits exist for Line 306, Estrella River Station, or Morro Bay Intertie Station. Morro Bay Master Meter and Morro Bay Primary Regulator Stations both operate under permits from the San Luis Obispo County Air Pollution Control Board (APCD) and the Certified Unified Program Agency (CUPA); please see attachment "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" for copies of these permits.
  - i. Please refer to Response 10997.02(c).
- (d) Please see attachments "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the details and permits for the Aboveground Storage Tanks (ASTs) at Morro Bay Master Meter and Morro Bay Primary Regulator Stations. Please note, these tanks are tentatively scheduled for removal in September 2017.
- (e) This document is not applicable to this facility.

- (f) This document is not applicable to this facility.
- (g) This document is not applicable to this facility.
- (h) This document is not applicable to this facility.
- (i) This facility is exempt from Spill Prevention, Control, and Countermeasure (SPCC) rules and does not have a spill prevention plan.
- (j) Please see attachment "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the emergency preparedness plans for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (k) PG&E is still compiling this information and will provide it as soon as possible.
- (l) Please see attachments "*Index 10997-02l\_Pipeline Liquids Analysis\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the hazardous materials records for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (m) PG&E is still compiling this information and will provide it as soon as possible.
- (n) PG&E is still compiling this information and will provide it as soon as possible.
- (o) This document is not applicable to this facility.
- (p) PG&E is still compiling this information and will provide it as soon as possible.
- (q) PG&E is still compiling this information and will provide it as soon as possible.
- (r) PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.03:** Are the files in Question #2 are available electronically?

**RESPONSE 10997.03:** Yes, all documents provided in Response 10977.02 will be provided electronically.

**QUESTION 10997.04:** Please provide a primary contact that can be available to address questions about the documents provided in Questions #2?

**RESPONSE 10997.04:** Please direct questions about the documents provided in Response 10997.02 to [REDACTED] PG&E Supervisor of Gas Transmission Facilities, at ([REDACTED])

**QUESTION 10997.05:** Have any Conditional Use Permits been obtained for any pipeline facilities, and if so, from which Agency(ies) were they obtained?

**RESPONSE 10997.05:** PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.06:** It is our understanding that Line 306 is a natural gas pipeline that was built by PG&E in 1962. Please confirm that this statement is accurate. If this is not accurate, please provide the correct information.

**RESPONSE 10997.06:** PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.07:** What historical names/identifications have been used to identify the pipeline?

**RESPONSE 10997.07:** PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.08:** It is our understanding that there is one pressure limiting station facility containing three vales and four mainline valves along the alignment for Line 306 and there are no and have not been any pumping stations. Please confirm that this statement is accurate. If this is not accurate, please provide the correct information.

**RESPONSE 10997.08:** PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.09:** Please advise all known past and present owners, operators, and occupants of our site visit so that we may interview a number of them as required by ASTM E 1527-13.

**RESPONSE 10997.09:** PG&E is still compiling this information and will provide it as soon as possible.

**QUESTION 10997.10:** Please provide a contact who can secure access to the pipeline and associated facilities, and escort the team for a field review of the entire alignment.

**RESPONSE 10997.10:** PG&E T&D Pipeline Operations & Maintenance Supervisor [REDACTED] [REDACTED] secured site access and escort for SoCalGas representative [REDACTED] for the 2-day site visit completed in July 2017.

**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	10997		
Request Date:	06-23-2017	Date Sent:	05-24-2018
Requesting Party:	Customer		
External Requester:	██████████ SoCalGas	PG&E Contact:	██████████

**QUESTION 10997.02:** Please arrange to have copies of the following environmental documents available, if applicable, available prior to our site visit planned for July:

- (a) Environmental site assessment reports, spills, cleanups
- (b) Environmental compliance audit reports
- (c) Environmental Permits for the pipeline and/or associated facilities
  - i. Be sure to include any long-term restoration, monitoring, or maintenance agreements existing agencies and/or property owners.
- (d) Registrations for Underground Storage Tanks or Aboveground Storage Tanks
- (e) Registrations for Injection Systems
- (f) Material Safety Data Sheets
- (g) Community Right to Know Plans
- (h) Safety Plans
- (i) Spill Prevention Plans
- (j) Emergency Preparedness Plans
- (k) Hydrogeologic Reports for the property
- (l) Hazardous Materials/Waste records and reports for the property
- (m) Geotechnical Studies
- (n) Risk Assessments
- (o) Recorded Activity and Use Limitations
- (p) Environmental Land Use Restrictions
- (q) Government notices concerning the property
- (r) Environmental Liens

**RESPONSE 10997.02:** Please see below for details of the requested documents. Please note, these attachments contain confidential information and are therefore being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (see attachment "*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

- (a) PG&E records do not indicate that environmental site assessment reports, spills, or cleanups have been associated with stations on Line 306. Please see attachment "*Index 10997-02a\_Station Geotracker Reports\_Confidential.pdf*" for the results of the Geotracker database searches for Estrella River, Morro Bay Intertie, Morro Bay Master Meter, and Morro Bay Primary Regulator Stations.
- (b) PG&E records do not indicate that this facility has been audited for environmental compliance.
- (c) PG&E records do not indicate that any active environmental permits exist for Line 306, Estrella River Station, or Morro Bay Intertie Station. Morro Bay Master Meter and Morro Bay Primary Regulator Stations both operate under permits from the San Luis Obispo

County Air Pollution Control Board (APCD) and the Certified Unified Program Agency (CUPA); please see attachment "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" for copies of these permits.

- i. Please refer to Response 10997.02(c).
- (d) Please see attachments "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the details and permits for the Aboveground Storage Tanks (ASTs) at Morro Bay Master Meter and Morro Bay Primary Regulator Stations. Please note, these tanks are tentatively scheduled for removal in September 2017.
- (e) This document is not applicable to this facility.
- (f) This document is not applicable to this facility.
- (g) This document is not applicable to this facility.
- (h) This document is not applicable to this facility.
- (i) This facility is exempt from Spill Prevention, Control, and Countermeasure (SPCC) rules and does not have a spill prevention plan.
- (j) Please see attachment "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the emergency preparedness plans for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (k) PG&E is still compiling this information and will provide it as soon as possible.
- (l) Please see attachments "*Index 10997-02l\_Pipeline Liquids Analysis\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the hazardous materials records for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (m) PG&E is still compiling this information and will provide it as soon as possible.
- (n) PG&E is still compiling this information and will provide it as soon as possible.
- (o) This document is not applicable to this facility.
- (p) PG&E is still compiling this information and will provide it as soon as possible.
- (q) PG&E is still compiling this information and will provide it as soon as possible.
- (r) PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.02 Rev01:** PG&E has identified corrections required for two responses submitted previously; please see the revised responses below.

- (o) PG&E is still compiling this information and will provide it as soon as possible.
- (r) This document is not applicable to this facility.

**RESPONSE 10997.02 Supp01:**

- (k) PG&E is still compiling this information and will provide it as soon as possible.
- (m) PG&E is still compiling this information and will provide it as soon as possible.
- (n) PG&E is still compiling this information and will provide it as soon as possible.
- (p) PG&E is still compiling this information and will provide it as soon as possible.
- (q) PG&E is still compiling this information and will provide it as soon as possible.
- (r) PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.02 Supp02:**

- (k) PG&E records do not indicate that any hydrogeologic reports exist for this facility.
- (m) PG&E records do not indicate that any geological studies exist for this facility.

(n) Please see the following prior responses from PG&E:

- Response 10640.13 – completed on March 27, 2017
- Response 10640.13 Supp01 – completed on April 14, 2017
- Response 11533.01 (compiled records for Response 7925.01, Response 7925.02, Response 7925.03, and Response 7925.05) – completed on December 22, 2017
- Response 7925.04 Supp01 – completed on March 2, 2018

Please note, at this time PG&E plans to perform a strength test at Milepoints 68.346 – 69.732 within the next five years; please contact [REDACTED], Gas FIMP Engineer, at [REDACTED] with any questions about this planned project (Project T-1425).

- (p) PG&E records do not indicate that any environmental land use restrictions exist for this facility.
- (q) PG&E records do not indicate that any government notices concerning the property exist for this facility.
- (r) PG&E records do not indicate that any environmental liens exist for this facility.

**QUESTION 10997.04:** Please provide a primary contact that can be available to address questions about the documents provided in Questions #2?

**RESPONSE 10997.04:** Please direct questions about the documents provided in Response 10997.02 to [REDACTED] PG&E Supervisor of Gas Transmission Facilities, at [REDACTED]

**RESPONSE 10997.04 Supp01:** Please direct questions about the documents cited in Response 10997.02 Supp02 (n) to [REDACTED] Gas FIMP Engineer, at [REDACTED]

**QUESTION 10997.05:** Have any Conditional Use Permits been obtained for any pipeline facilities, and if so, from which Agency(ies) were they obtained?

**RESPONSE 10997.05:** PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.05 Supp01:** PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.05 Supp02:** PG&E records do not indicate that any conditional use permits have been obtained for this facility.



**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	10997.02 Rev01		
Request Date:	06-23-2017	Date Sent:	08-29-2017
Requesting Party:	Customer		
External Requester:	██████████ SoCal Gas	PG&E Contact:	██████████

**QUESTION 10997.02:** Please arrange to have copies of the following environmental documents available, if applicable, available prior to our site visit planned for July:

- (a) Environmental site assessment reports, spills, cleanups
- (b) Environmental compliance audit reports
- (c) Environmental Permits for the pipeline and/or associated facilities
  - i. Be sure to include any long-term restoration, monitoring, or maintenance agreements existing agencies and/or property owners.
- (d) Registrations for Underground Storage Tanks or Aboveground Storage Tanks
- (e) Registrations for Injection Systems
- (f) Material Safety Data Sheets
- (g) Community Right to Know Plans
- (h) Safety Plans
- (i) Spill Prevention Plans
- (j) Emergency Preparedness Plans
- (k) Hydrogeologic Reports for the property
- (l) Hazardous Materials/Waste records and reports for the property
- (m) Geotechnical Studies
- (n) Risk Assessments
- (o) Recorded Activity and Use Limitations
- (p) Environmental Land Use Restrictions
- (q) Government notices concerning the property
- (r) Environmental Liens

**RESPONSE 10997.02:** Please see below for details of the requested documents. Please note, these attachments contain confidential information and are therefore being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (see attachment "*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

- (a) PG&E records do not indicate that environmental site assessment reports, spills, or cleanups have been associated with stations on Line 306. Please see attachment "*Index 10997-02a\_Station Geotracker Reports\_Confidential.pdf*" for the results of the Geotracker database searches for Estrella River, Morro Bay Intertie, Morro Bay Master Meter, and Morro Bay Primary Regulator Stations.
- (b) PG&E records do not indicate that this facility has been audited for environmental compliance.
- (c) PG&E records do not indicate that any active environmental permits exist for Line 306, Estrella River Station, or Morro Bay Intertie Station. Morro Bay Master Meter and Morro Bay Primary Regulator Stations both operate under permits from the San Luis Obispo County Air Pollution Control Board (APCD) and the Certified Unified Program Agency (CUPA); please see attachment "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" for copies of these permits.
  - i. Please refer to Response 10997.02(c).
- (d) Please see attachments "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the details and permits for the Aboveground Storage Tanks (ASTs) at Morro Bay Master Meter and Morro Bay Primary Regulator Stations. Please note, these tanks are tentatively scheduled for removal in September 2017.
- (e) This document is not applicable to this facility.
- (f) This document is not applicable to this facility.
- (g) This document is not applicable to this facility.
- (h) This document is not applicable to this facility.
- (i) This facility is exempt from Spill Prevention, Control, and Countermeasure (SPCC) rules and does not have a spill prevention plan.
- (j) Please see attachment "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the emergency preparedness plans for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (k) PG&E is still compiling this information and will provide it as soon as possible.
- (l) Please see attachments "*Index 10997-02l\_Pipeline Liquids Analysis\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the hazardous materials records for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (m) PG&E is still compiling this information and will provide it as soon as possible.

(n) PG&E is still compiling this information and will provide it as soon as possible.

(o) This document is not applicable to this facility.

(p) PG&E is still compiling this information and will provide it as soon as possible.

(q) PG&E is still compiling this information and will provide it as soon as possible.

(r) PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.02 Rev01:** PG&E has identified corrections required for two responses submitted previously; please see the revised responses below.

(o) PG&E is still compiling this information and will provide it as soon as possible.

(r) This document is not applicable to this facility.

**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	10997		
Request Date:	06-23-2017	Date Sent:	05-24-2018
Requesting Party:	Customer		
External Requester:	██████████ SoCalGas	PG&E Contact:	██████████

**QUESTION 10997.02:** Please arrange to have copies of the following environmental documents available, if applicable, available prior to our site visit planned for July:

- (a) Environmental site assessment reports, spills, cleanups
- (b) Environmental compliance audit reports
- (c) Environmental Permits for the pipeline and/or associated facilities
  - i. Be sure to include any long-term restoration, monitoring, or maintenance agreements existing agencies and/or property owners.
- (d) Registrations for Underground Storage Tanks or Aboveground Storage Tanks
- (e) Registrations for Injection Systems
- (f) Material Safety Data Sheets
- (g) Community Right to Know Plans
- (h) Safety Plans
- (i) Spill Prevention Plans
- (j) Emergency Preparedness Plans
- (k) Hydrogeologic Reports for the property
- (l) Hazardous Materials/Waste records and reports for the property
- (m) Geotechnical Studies
- (n) Risk Assessments
- (o) Recorded Activity and Use Limitations
- (p) Environmental Land Use Restrictions
- (q) Government notices concerning the property
- (r) Environmental Liens

**RESPONSE 10997.02:** Please see below for details of the requested documents. Please note, these attachments contain confidential information and are therefore being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (see attachment "*PGE NDA\_SoCalGas\_6-25-2015.pdf*").

- (a) PG&E records do not indicate that environmental site assessment reports, spills, or cleanups have been associated with stations on Line 306. Please see attachment "*Index 10997-02a\_Station Geotracker Reports\_Confidential.pdf*" for the results of the Geotracker database searches for Estrella River, Morro Bay Intertie, Morro Bay Master Meter, and Morro Bay Primary Regulator Stations.
- (b) PG&E records do not indicate that this facility has been audited for environmental compliance.
- (c) PG&E records do not indicate that any active environmental permits exist for Line 306, Estrella River Station, or Morro Bay Intertie Station. Morro Bay Master Meter and Morro Bay Primary Regulator Stations both operate under permits from the San Luis Obispo

County Air Pollution Control Board (APCD) and the Certified Unified Program Agency (CUPA); please see attachment "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" for copies of these permits.

- i. Please refer to Response 10997.02(c).
- (d) Please see attachments "*Index 10997-02cd\_Environmental Permits\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the details and permits for the Aboveground Storage Tanks (ASTs) at Morro Bay Master Meter and Morro Bay Primary Regulator Stations. Please note, these tanks are tentatively scheduled for removal in September 2017.
- (e) This document is not applicable to this facility.
- (f) This document is not applicable to this facility.
- (g) This document is not applicable to this facility.
- (h) This document is not applicable to this facility.
- (i) This facility is exempt from Spill Prevention, Control, and Countermeasure (SPCC) rules and does not have a spill prevention plan.
- (j) Please see attachment "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the emergency preparedness plans for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (k) PG&E is still compiling this information and will provide it as soon as possible.
- (l) Please see attachments "*Index 10997-02l\_Pipeline Liquids Analysis\_Confidential.pdf*" and "*Index 10997-02djl\_Hazardous Materials Business Plan\_Confidential.pdf*" for the hazardous materials records for Morro Bay Master Meter and Morro Bay Primary Regulator Stations.
- (m) PG&E is still compiling this information and will provide it as soon as possible.
- (n) PG&E is still compiling this information and will provide it as soon as possible.
- (o) This document is not applicable to this facility.
- (p) PG&E is still compiling this information and will provide it as soon as possible.
- (q) PG&E is still compiling this information and will provide it as soon as possible.
- (r) PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.02 Rev01:** PG&E has identified corrections required for two responses submitted previously; please see the revised responses below.

- (o) PG&E is still compiling this information and will provide it as soon as possible.
- (r) This document is not applicable to this facility.

**RESPONSE 10997.02 Supp01:**

- (k) PG&E is still compiling this information and will provide it as soon as possible.
- (m) PG&E is still compiling this information and will provide it as soon as possible.
- (n) PG&E is still compiling this information and will provide it as soon as possible.
- (p) PG&E is still compiling this information and will provide it as soon as possible.
- (q) PG&E is still compiling this information and will provide it as soon as possible.
- (r) PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.02 Supp02:**

- (k) PG&E records do not indicate that any hydrogeologic reports exist for this facility.
- (m) PG&E records do not indicate that any geological studies exist for this facility.

(n) Please see the following prior responses from PG&E:

- Response 10640.13 – completed on March 27, 2017
- Response 10640.13 Supp01 – completed on April 14, 2017
- Response 11533.01 (compiled records for Response 7925.01, Response 7925.02, Response 7925.03, and Response 7925.05) – completed on December 22, 2017
- Response 7925.04 Supp01 – completed on March 2, 2018

Please note, at this time PG&E plans to perform a strength test at Milepoints 68.346 – 69.732 within the next five years; please contact [REDACTED] Gas FIMP Engineer, at [REDACTED] with any questions about this planned project (Project T-1425).

- (p) PG&E records do not indicate that any environmental land use restrictions exist for this facility.
- (q) PG&E records do not indicate that any government notices concerning the property exist for this facility.
- (r) PG&E records do not indicate that any environmental liens exist for this facility.

**QUESTION 10997.04:** Please provide a primary contact that can be available to address questions about the documents provided in Questions #2?

**RESPONSE 10997.04:** Please direct questions about the documents provided in Response 10997.02 to [REDACTED], PG&E Supervisor of Gas Transmission Facilities, at [REDACTED]

**RESPONSE 10997.04 Supp01:** Please direct questions about the documents cited in Response 10997.02 Supp02 (n) to [REDACTED], Gas FIMP Engineer, at [REDACTED]

**QUESTION 10997.05:** Have any Conditional Use Permits been obtained for any pipeline facilities, and if so, from which Agency(ies) were they obtained?

**RESPONSE 10997.05:** PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.05 Supp01:** PG&E is still compiling this information and will provide it as soon as possible.

**RESPONSE 10997.05 Supp02:** PG&E records do not indicate that any conditional use permits have been obtained for this facility.

**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	11533		
Request Date:	11-06-2017	Date Sent:	12-22-2017
Requesting Party:	Customer		
External Requester:	██████████ SoCalGas	PG&E Contact:	██████████

**QUESTION 11533.01:** Please provide an update to each item listed in “L 306 - Data Response Status Matrix 10-24-17.xlsx”.

**RESPONSE 11533.01:** Please refer to column “PG&E Response (as of 12/22/17)” of attachment “L 306 - Data Response Status Matrix 10-24-17\_PGE Response 12-22-17.xlsx” for the status of each item as of December 22, 2017; all attachments cited in PG&E’s response are compiled on CD “Index 11533\_Line 306 Outstanding Items”, which will be delivered by mail to Richard Ishikawa of SoCalGas.

Please note, these attachments are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company (“PGE NDA\_SoCalGas\_6-25-2015.pdf”).

**PACIFIC GAS AND ELECTRIC COMPANY**  
**Gas Operations Data Response**

PG&E Data Request Index No.:	11911		
Request Date:	03-28-2018	Date Sent:	05-15-2018
Requesting Party:	Customer		
External Requester:	██████████	PG&E Contact:	██████████

**QUESTION 11911.01:** Please provide all commission, or code-related actions needed on Line 306 in the next five years.

**RESPONSE 11911.01:** PG&E records indicate that the only compliance-related project work planned for Line 306 within the next five years is Project T-1425, a strength test at ██████████  
██████████ Please contact ██████████ Gas FIMP Engineer, at ██████████ with any questions about this project.



**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	12106		
Request Date:	05-18-2018	Date Sent:	05-31-2018
Requesting Party:	Customer		
External Requester:	SoCalGas	PG&E Contact:	██████████

**QUESTION 12106.01:** Please provide the updated easement and right of way line review maps for Line 306.

**RESPONSE 12106.01:** Please see attachment "[Index 12106-01\\_List of Files.xlsx](#)" for a list of the requested line review maps for Line 306. Due to size, the attachments are being provided via a CD labelled "[Index 12106-01\\_Line Review Maps](#)".

Please note, these attachments are being provided pursuant to the Non-Disclosure Agreement executed on June 25, 2015, between PG&E and Southern California Gas Company ("[PGE NDA\\_SoCalGas\\_6-25-2015.pdf](#)").

**PACIFIC GAS AND ELECTRIC COMPANY  
Gas Operations Data Response**

PG&E Data Request Index No.:	12284		
Request Date:	07-10-2018	Date Sent:	07-24-2018
Requesting Party:	Customer		
External Requester:	██████████	PG&E Contact:	██████████

**QUESTION 12284.01:** Will PG&E complete this hydrotest prior to the proposed sale?

**RESPONSE 12284.01:** PG&E plans to complete the hydrotest for Line 306 in the third quarter of 2019. Because the proposed sale is subject to review and authorization by the California Public Utilities Commission (CPUC) and other administrative agencies, PG&E is unable to confirm at this time when the proposed sale may be completed and therefore is also unable to confirm whether the hydrotest will be completed beforehand.

**QUESTION 12284.02:** Why was this hydrotest required (i.e. class location, HCA, no records, etc.)?

**RESPONSE 12284.02:** The purpose of this hydrotest on Line 306 is to assess external and internal corrosion threats within a high consequence area (HCA) pursuant to 49 CFR 192.939(a). The previous assessment was completed in 2014 via external corrosion direct assessment (ECDA), and the line is now due for reassessment by December 31, 2019. PG&E has identified hydrotesting as the only reassessment method that addresses the combination of both external and internal corrosion threats.

**QUESTION 12284.03:** Does this segment identified contain all segments without previous test records?

**RESPONSE 12284.03:** PG&E records indicate the portion of Line 306 included in this hydrotest was tested upon installation in 1962 and also received an ECDA in 2014.

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
6217	1	When was the line built?	2/26/2015	3/12/2015	Complete	PG&E stated: PG&E's transmission Line 306 was installed in 1962, 1967, 1969, 1973, 1999, 1994, and 2014. PG&E notes that approximately 99% of the original pipe installed in 1962 is still in service.		
6217	2	What is the MAOP of the line?	2/26/2015	3/12/2015	Complete			
6217	3	What is the normal operating pressure for the line?	2/26/2015	3/13/2015	Complete			
6217	4	Has the pipeline ever been pressure tested? If so, when and how was it tested? Do you have the records for the test(s)?	2/26/2015	3/12/2015	Complete	PG&E stated: PG&E has valid pressure test records for all but approximately 400 feet of Line 306.		
6217	5	What is the protective coating for the pipeline and do you know what the condition of that coating is?	2/26/2015	3/12/2015	Complete	PG&E stated: Line 306 pipe coating is Hot Applied Asphalt (double wrapped) and is in good condition.		
6217	6	Does the line have a history of leaks?	2/26/2015	3/12/2015	Complete	PG&E stated: PG&E records indicate that there have been approximately 22 leak indications along Line 306 since 1965 (of which includes leaks on valves, fittings, etc.)		
6217	7	Has the line been inspected with in-line inspection (ILI) tools? If so, what was the date of the last ILI and do you have records for that test? If not, is the line currently capable of running ILI tools? If not, have any analyses been prepared to determine the scope of work required to make ILI runs feasible for this facility?	2/26/2015	3/12/2015	Complete	PG&E stated: Line 306 has not been inspected by in-line inspection tools. To make Line 306 piggable, a launcher/receiver would need to be installed and several mainline valve assemblies would need to be replaced.		
6217	8	How many customers does PG&E serve off of this line currently? Could you provide the classification of these customers, e.g. residential, small industrial and commercial, farm taps, etc.?	2/26/2015	3/12/2015	Complete	PG&E stated: A general customer count from PG&E's SynerGEE model indicates the following: <ul style="list-style-type: none"> <li>-The City of Avenal (2,325 residential and 504 commercial)</li> <li>-Prison (1)</li> <li>-Farm (1)</li> <li>-Paso Robles to Templeton (20 residential and 6 vineyards)</li> <li>-Approximately 15 S&amp;C Tap (150 residential)</li> </ul>	L-306 Data Request Info_Tap Loads.docx_Confidential.pdf 306 Tap Loads_Confidential.xlsx	These documents contain customer information, milepost location and tap loads.
6217	9	What is the typical demand for these customers in the summer and in the winter? What has been the peak load for these customers?	2/26/2015	3/12/2015	Complete	PG&E stated: The data below are based on PG&E's summer and typical winter model: <ul style="list-style-type: none"> <li>-Summer (peak = 65 MCFM, daily total = 1,500 MCFD)</li> <li>-Typical Winter (peak = 100 MCFM, daily total = 2,000 MCFD)</li> </ul>		

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
6576	1	C.P. Records	8/31/2015	9/10/2015	Complete		L-306 ETIS Reads.pdf L-306 Rectifier Reads.pdf	These documents contain measurements of Cathodic Protection: rectifier records, ETIS reads.
6576	2	Inspection Timeline Records	8/31/2015	9/10/2015	Complete		L-306 Projects_Illustrative Map.pdf	
6576	3	Maintenance Records (valves, survey's, repairs, etc.)	8/31/2015	9/10/2015	Complete		L-306 Valve Maintenance Records.pdf	These documents contain valve maintenance records.
6576	4	Dig-In Records, if any?	8/31/2015	9/10/2015	Complete	PG&E stated: PG&E records indicate that there have not been any dig-ins on L-306		
6576	5	Pipeline Installation Records	8/31/2015	9/10/2015	Complete	PG&E stated: PG&E is still preparing copies of the L-306 installation records	These records were provided in DR #20640	
6576	6	Pressure Charts or printouts	8/31/2015	9/10/2015	Complete	PG&E stated: Answer pending clarification from SoCalGas.	These records were provided in DR #20640	
6576	7	PUC Audit Findings a. Auditor recommendations b. Follow up work performed to remediate	8/31/2015	9/10/2015	Incomplete	PG&E stated: PG&E is still compiling this information.		
6576	8	Leak History on L306 a. Complete leak survey records, entire line b. Pending leaks (leak classification, severity, etc) c. Work performed to correct d. Isolated services	8/31/2015	9/10/2015	Complete	PG&E stated: Please refer to the following: a. PG&E is gathering the 2012-2015 leak survey sign-off sheets and all A Forms for leaks discovered on L-306 during those leak surveys. b. PG&E will be providing copies of the A Forms for each leak identified in the 2012-2015 leak surveys for L-306. The A-Forms will include the current leak grade and, where applicable, a description of what repair work has been performed. c. PG&E requests clarification on what records are being requested for "isolated services."	These records were provided in DR #7925	
6576	9	Strength Test Records	8/31/2015	9/10/2015	Complete	PG&E stated: PG&E is still preparing copies of the L-306 strength test records.	These records were provided in DR #20640	
6576	10	History of MAOP changes	8/31/2015	9/10/2015	Complete		These records were provided in DR #20640	
6576	11	Customer taps: How many, locations, and customer's name and end usage	8/31/2015	9/10/2015	Complete		L-306 Data Request Info_Tap Loads.docx_Confidential.pdf 306 Tap Loads_Confidential.xlsx	These documents contain customer information, wellpoint location and tap loads.
6576	12	Future potential customers that may already have a commitment by PG&E to serve off Line 306. Also, who and designed load	8/31/2015	9/10/2015	Complete	PG&E stated: PG&E is unaware of any future potential customers for L-306 as of August 31, 2015.		

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
7641	1	Right of way agreements (Single line requirements, abandonment, fees, etc.)	1/11/2016	8/13/2016	Complete		Index 7641-01_Line 306_Due Diligence Review_Confidential.xlsx	This spreadsheet contains a list of all easements and Right-of-Way documents. The individual easement documentation can be found in DR 10640 Q3.2.
7641	2	Depth of coverage on pipe	1/11/2016	12/22/2017	Complete		Index 7641-02_CoverDepthProfile_Confidential.xlsx Index 7641-02_CoverDepthProfile_Illustrative_Confidential.pdf	These documents contain location, elevation and depth of pipe of the entire line.
7641	3	Are there any sections of the pipeline with unknown characteristics (Wall thickness, grade, long seam, coating, etc.)?	1/11/2016	12/22/2017	Complete	PG&E stated: The MADP reports for L-306 and branching line will be available at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016; these documents are being provided pursuant to the Non-Disclosure Agreement executed on June 23, 2015, between PG&E and Southern California Gas Company. The characteristics that are unknown are indicated as such in the reports.		The MADP Validation Report is similar to the SoCalGas HPPD referencing several installation records, pressure test records and as-builts. All documents referenced in this 'Glossary' have been provided and can be found in DR 7641 Question 12. The documents to the left reference PG&E L306 mainline as well as all lateral lines (blowdowns, stubs etc.). All installation records, pressure test records and as-builts can be found in DR 7641 Question 12.
7641	4	Inventory of surface equipment (valves, meters, dip tanks, regulators, etc.)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		
7641	5	Environmental concerns or issues (Special permits needed to perform inspections of maintenance, past spills, asbestos, PCBs, etc.)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		
7641	6	Real estate associated with pipeline (fee land, regulator stations, interconnects, etc.)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		
7641	7	River crossings and fault line information (Directional drill, bridge, spans, etc.)	1/11/2016	12/22/2017	Complete	PG&E stated: Maps depicting areas where L-306 intersects active faults and water crossings will be provided at the document review meeting at Bishop Ranch in San Ramon scheduled for January 13-14, 2016; these documents are being provided pursuant to the Non-Disclosure Agreement executed on June 23, 2015, between PG&E and Southern California Gas Company. Faults are considered active where they exhibit evidence of surface offset displacements during Holocene time (approximately within the last 10,000 years). Water crossings are defined as small streams and creeks. There are no major water crossings intersecting this pipeline. PG&E defines major water crossings as commercially navigable waterways as defined by NIPMISA in its National Pipeline Mapping System (NPMIS).		These documents include maps of all fault and water crossings.
7641	8	Regulatory and governmental issues (Any issues with cities, counties, other agencies concerning ongoing pipeline operations)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		
7641	9	Social issues (Requests from schools, hospitals, neighborhoods or removal/abandonment of pipeline or similar issues)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		
7641	10	Estimate of annual maintenance cost (labor, inspections, electricity for CP, fees, etc.)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		
7641	11	Planned major improvements or maintenance (Replacement of anodes, CP improvements, etc.)	1/11/2016	12/22/2017		PG&E stated that they are compiling this information and a follow up response was never received.		

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
7641	12	A Line 30C pipeline feature study showing a breakdown of the pipeline features by stationing points	1/11/2016	12/22/2017	Complete	PG&E stated: Please see Response 7641.03		The MAOP Validation Report is similar to the SCA&Gas HPPD referencing several installation records, pressure test records and as-builts with unique naming convention. All documents referenced in this database have been provided and can be found to the left.

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from POB	Document Description

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
7925	1		5/18/2016	12/22/2017	Complete			These documents include: ECDA and SCCDA surveys, leak repairs, leak inspection reports, rectifier data, coupon testing locations.
7925	2		5/18/2016	12/22/2017	Complete			These documents include 2006, 2014 and 2016 ECDA Survey Binders, list of petrels and observations, open inspection reports, leak observation reports as well as the MAGP Validation report which references all installation records, pressure test records and as-builts.
7925	3		5/18/2016	12/22/2017	Complete		The following documents were provided in DR 10640: index 10640-13 Supp01_Data Room Files_Confidential.zip PG&E stated that the above materials are expected to fulfill the scope of Question 7925.03	The .zip file contains all the documentation that was viewed by SoCalGas during their visit to PG&E. Additional relevant documentation was also provided by PG&E in this .zip file. These documents have been distributed to their respected questions.
7925	4		5/18/2016	12/22/2017	PG&E stated that they are compiling this information and a follow up response was never received			



DR #	Question #	CR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
7925	5		5/18/2016	12/22/2017	Complete except for i-Pick&Place gear and scope of work for 306			<p>This document includes 2006, 2012 and 2014 ECTA and SCCDA Survey Reports.</p> <p>The .zip file contains all the documentation that was viewed by SoCalGas during their visit to PG&amp;E. Additional relevant documentation was also provided by PG&amp;E in this .zip file.</p> <p>These documents have been distributed to their respected questions.</p>

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
10640	1	PGE Line 306 Data Analysis Corrosion Draft 2-15-2017.docx	3/6/2017	4/14/2017	Complete		PGE Line 306 Data Analysis Corrosion draft 2-15-2017.docx_Confidential.pdf	This document is a corrosion data analysis dated 2/15/2017.
10640	2	PGE Line 306 Data Analysis Corrosion Draft 2-7-2017.docx	3/6/2017	4/14/2017	Complete		PGE Line 306 Data Analysis Corrosion draft 2-7-2017.docx_Confidential.pdf	This document is a corrosion data analysis dated 2/7/2017.
10640	3	KMZ file with CP Features	3/6/2017	5/23/2017	Complete		Index 10640-03_CP Features_Confidential.kmz	This document is a KMZ feature CP locations (rectifiers)
10640	4	[REDACTED]	3/6/2017	4/14/2017	Complete		[REDACTED]	These documents contain rectifier as-builts.
10640	5	Line 306 Rectifiers.csv	3/6/2017	4/14/2017	Complete		Line 306 Rectifiers.csv_Confidential.xlsx	This document contains rectifier locations and readings.
10640	6	Specifics on casings including size, length, as-builts, coordinates, etc.	3/6/2017	4/14/2017	Complete		306_Casings_Confidential.xlsx 306_Casings_Confidential.kmz	These documents contain information on casing location and type of material.
10640	7	AC Interference Data Summary Report	3/6/2017	6/5/2017	Complete		Index 10640-07_AC Interference Survey_Confidential.pdf	This document contains information on AC interference.
10640	8	Additional work planned for AC mitigation	3/6/2017	4/14/2017	Confirmed	PG&E stated: At this time PG&E does not have plans to perform any additional AC interference work on Line 306.		
10640	9	C-643 M 62.35 Anode replacement 2015	3/6/2017	6/5/2017	Confirmed	PG&E stated: Anode has been replaced in 2016. Confirmed from document received, "Line 306 Rectifiers.csv_Confidential.xlsx"		
10640	10	Copy of procedure TD 41815	3/6/2017	5/23/2017	Complete		TD-4181P-201_Ant_1_Cathodic Protection Installation Guidelines_Confidential.pdf TD-4181P-101_Cathodic Protection Area (CPA) Design Modification_Confidential.pdf TD-4181P-202_Cathodic Protection Monitoring and Restoration_Confidential.pdf TD-4181P-301_Rectifier Maintenance and Adjustment_Confidential.pdf TD-4181P-502_Thermite Welding_Confidential.pdf TD-4181P-503_Pipe Braising_Confidential.pdf TD-4181P-601_Testing Procedures for Pipe Casings_Confidential.pdf TD-4181P-602_Mitigating Casing Contacts_Confidential.pdf TD-4181P-603_Casing Cutting and Removal_Confidential.pdf TD-41815_External Corrosion Control of Gas Facilities_Confidential.pdf	These documents contain various procedures and regulations.
10640	11	Index 6576 L306 Alarm History	3/6/2017	4/14/2017	Data Request 6576 cannot be found	PG&E stated: Please see Response 6576.06 Suppl01, delivered previously on January 8th, 2016		
							2221170003_HF_Confidential.pdf 2221170118_HF_Confidential.pdf 2221170247_HF_Confidential.pdf 2221170250_HF_Confidential.pdf 2221170251_HF_Confidential.pdf 2221170252_HF_Confidential.pdf 2221170253_HF_Confidential.pdf 2221170255_HF_Confidential.pdf 2221170277_HF_Confidential.pdf 2221170318_HF_Confidential.pdf 2221170335_HF_Confidential.pdf 2221170340_HF_Confidential.pdf 2221170370_HF_Confidential.pdf 2221170377_HF_Confidential.pdf 2221170381_HF_Confidential.pdf 2221170385_HF_Confidential.pdf 2221170390_HF_Confidential.pdf 2221170393_HF_Confidential.pdf 2221170397_HF_Confidential.pdf 2221170248_HF_Confidential.pdf 2221170311_HF_Confidential.pdf 2221170232_HF_Confidential.pdf 2221170233_HF_Confidential.pdf 2221170234_HF_Confidential.pdf 2221170235_HF_Confidential.pdf 2221170237_HF_Confidential.pdf 2221170239_HF_Confidential.pdf 2221170241_HF_Confidential.pdf 2221170243_HF_Confidential.pdf 2221170244_HF_Confidential.pdf 2221170267(1)_HF_Confidential.pdf 2221170267(2)_HF_Confidential.pdf 2221170267(3)_HF_Confidential.pdf 2221170305_HF_Confidential.pdf 2221170308_HF_Confidential.pdf 2221170363_HF_Confidential.pdf 2221170364_HF_Confidential.pdf 2221160021_HF_Confidential.pdf 2221160022_HF_Confidential.pdf 2221160023_HF_Confidential.pdf 2221160024_HF_Confidential.pdf 2221160025_HF_Confidential.pdf 2221160026_HF_Confidential.pdf 2221160027_HF_Confidential.pdf 2221160028(1)_HF_Confidential.pdf 2221160028(2)_HF_Confidential.pdf 2221160030_HF_Confidential.pdf 2221160031_HF_Confidential.pdf 2221160038_HF_Confidential.pdf 2221170028_HF_Confidential.pdf 2221170029_HF_Confidential.pdf 2221160026_HF_Confidential.pdf 2221160028_HF_Confidential.pdf 2221160029_HF_Confidential.pdf 2221160031_HF_Confidential.pdf	



DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
							2229100081211f_Confidential.pdf 22291000821f_Confidential.pdf 22291001711f_Confidential.pdf 22291001811f_Confidential.pdf 22291002311f_Confidential.pdf 2229100241_Confidential.pdf.pdf	
10640	13	All files in the Data Room folder viewed by SoCalGas at Bishop Ranch February 28 - March 2, 2017	3/6/2017	4/14/2017	Complete		These documents were provided by PG&E in a .zip file: Index 10640-13 Supp01_Data Room Files_Confidential.zip	The .zip file contains all the documentation that was viewed by SoCalGas during their visit to PG&E. Additional relevant documentation was also provided by PG&E in this .zip file. These documents have been distributed to their respected questions.

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PG&E	Document Description
10997	1	Please provide contact information for the key site manager or manager for Line 306 to arrange interviews or provide a list of employees who have access to the site. Please provide any relevant environmental documents available if applicable, available prior to our site visit planned for July.	6/23/2017	11/15/2017	Complete			
10997	2	Please provide the following: (a) Environmental site assessment reports, spills, cleanups (b) Environmental compliance audit reports (c) Environmental permits for the pipeline and/or associated facilities (d) Be sure to include any long-term reclamation, monitoring, or maintenance agreements existing agencies and/or property owners. (e) Registrations for Underground Storage Tanks or Aboveground Storage Tanks (f) Material Safety Data Sheets (g) Community Right to Know Plans (h) Safety Plans (i) Spill Prevention Plans (j) Emergency Preparedness Plans (k) Hydrogeologic Reports for the property (l) Hazardous Materials/Waste records and reports for the property (m) Geotechnical Studies (n) Risk Assessments	6/23/2017	8/29/2017 1/24/2018 11/14/2017	Complete	PG&E has provided all documents except the following: (m) Geotechnical Studies (n) Risk Assessments (o) Environmental Land Use Restrictions (p) Government notices concerning the property (q) Environmental Users	Index 10997-07a_Station Geotracker Reports_Confidential.pdf Index 10997-02c_Environmental Permits_Confidential.pdf Index 10997-02l_Hazardous Materials Business Plan_Confidential.pdf Index 10997-02j_Pipeline Leachate Analysis_Confidential.pdf  PG&E has scanned the following:  (a) PG&E records do not indicate that environmental site assessment reports, spills, or cleanups have been associated with stations on Line 306. Please see attachment "Index 10997-07a_Station Geotracker Reports_Confidential.pdf" for the results of the Geotracker database searches for Estrella River, Morro Bay Intertie, Morro Bay Master Meter, and Morro Bay Primary Regulator Stations. (b) PG&E records do not indicate that this facility has been audited for environmental compliance. (c) PG&E records do not indicate that any active environmental permits exist for Line 306, Estrella River Station, or Morro Bay Intertie Station, Morro Bay Master Meter and Morro Bay Primary Regulator Stations both operate under permits from the San Luis Obispo County Air Pollution Control Board (APCB) and the Certified Unified Program Agency (CUPA); please see attachment "Index 10997-02c_Environmental Permits_Confidential.pdf" for copies of these permits (d) This document is not applicable to this facility. (e) This document is not applicable to this facility. (f) This document is not applicable to this facility. (g) This document is not applicable to this facility. (h) This document is not applicable to this facility. (i) This facility is exempt from Spill Prevention, Control, and Countermeasure (SPCC) rules and does not have a spill prevention plan. (j) PG&E records do not indicate that any hydrogeologic reports exist for this facility. (k) This document is not applicable to this facility.	These documents contain:  Environmental records and permits, Material Safety Compliance documentation, Safety Plans, Hazardous Waste Records, Storage tank registrations.
10997	3	Are the files in Question #2 available electronically?	6/23/2017	8/29/2017	Complete	All documents that were provided were provided electronically		
10997	4	Please provide a primary contact that can be available to address questions about the documents provided in Questions #2?	6/23/2017	5/24/2018	Complete			
10997	5	Have any Conditional Use Permits been obtained for any pipeline facilities, and if so, from which agency(ies) were they obtained?	6/23/2017	5/24/2018	Complete	PG&E stated: PG&E records do not indicate that any conditional use permits have been obtained for this facility		
10997	6	It is our understanding that Line 306 is a natural gas pipeline that was built by PG&E in 1962. Please confirm that this statement is accurate. If this is not accurate, please provide the correct information.	6/23/2017	8/29/2017	Complete	PG&E stated: This statement is accurate; Line 306 is a natural gas pipeline that was built by PG&E in 1962.		
10997	7	What historical names/identifications have been used to identify the pipeline?	6/23/2017	8/29/2017	Complete	PG&E stated: PG&E records do not indicate that Line 306 has been known by any other historical names/identifications.		
10997	8	It is our understanding that there is one pressure limiting station facility containing three valves and four mainline valves along the alignment for Line 306 and there are no and have not been any pumping stations. Please confirm that this statement is accurate. If this is not accurate, please provide the correct information.	6/23/2017	8/29/2017	Complete	PG&E stated: There is one pressure limiting station containing five valves, and there are four mainline valves along the alignment for Line 306. Line 306 does not have and PG&E records do not indicate that Line 306 has ever had any pumping stations.		
10997	9	Please advise all known past and present owners, operators, and occupants of our site visit so that we may interview a number of them as required by ASTM E 1527-13.	6/23/2017	8/29/2017	Complete			
10997	10	Please provide a contact who can secure access to the pipeline and associated facilities, and escort the team for a field review of the entire alignment.	6/23/2017	8/29/2017	Complete			

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received From Pktd	Document Description
11533	1	Please provide an update to each item listed in 3.306 - Data Response Status Matrix 10-24-17.xlsx	11/6/2017	12/22/2017	Complete	An excel sheet was provided including previous Data Request Questions that were unanswered and Pktd was requested to complete them. Any new documentation and/or information has been added to its respective Data Request question in this spreadsheet.		

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received From Pktd	Document Description
11911	1	Please provide all commission or code related actions needed on Line 305 in the next 5 years	3/29/2018	5/15/2018	Complete			

DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received from PSEA	Document Description
12106	1	Please provide the updated assessment and right of way line review maps for Line 306.	5/18/2018	5/31/2018	Complete		index 12106-01_2016_ARW5_Digital_Maps_Line_306_Confidential.pdf index 12106-01_2016_16q_306_8300n1_Confidential.pdf index 12106-01_2016_16q_306_8523n1_Confidential.pdf index 12106-01_2016_16q_306_8549n1_Confidential.pdf index 12106-01_2016_16q_306_8383n1_Confidential.pdf index 12106-01_2016_16q_306_8383n2_Confidential.pdf index 12106-01_2016_16q_306_8383n3_Confidential.pdf index 12106-01_2016_16q_306_8383n4_Confidential.pdf index 12106-01_2016_16q_306_8459n1_Confidential.pdf index 12106-01_2016_40q_306_8459n2_Confidential.pdf index 12106-01_2016_40q_306_8459n3_Confidential.pdf index 12106-01_2016_40q_306_8459n4_Confidential.pdf index 12106-01_2016_40q_306_8523n1_Confidential.pdf index 12106-01_2016_40q_306_8383n1_Confidential.pdf index 12106-01_2016_40q_306_8383n2_Confidential.pdf index 12106-01_2016_40q_306_8383n3_Confidential.pdf index 12106-01_2016_40q_306_8383n4_Confidential.pdf index 12106-01_2016_40q_306_8383n5_Confidential.pdf index 12106-01_2016_40q_306_8383n6_Confidential.pdf index 12106-01_2016_40q_306_8383n7_Confidential.pdf index 12106-01_2016_40q_306_8383n8_Confidential.pdf index 12106-01_2016_40q_306_8383n9_Confidential.pdf index 12106-01_2016_40q_306_8383n10_Confidential.pdf index 12106-01_2016_40q_306_8383n11_Confidential.pdf	These documents contain individual line maps.



DR #	Question #	DR Request	Request Date	Response Date	Status	Notes	Document Received From PG&E	Document Description
12284	1	Will PG&E complete this hydrotest prior to the proposed sale?	7/10/2018	7/24/2018	Complete	PG&E stated: PG&E plans to complete the hydrotest for Line 306 in the third quarter of 2019. Because the proposed sale is subject to review and authorization by the California Public Utilities Commission (CPUC) and other administrative agencies, PG&E is unable to confirm at this time when the proposed sale may be completed and therefore is also unable to confirm whether the hydrotest will be completed beforehand.		
12284	2	Why was this hydrotest required?	7/10/2018	7/24/2018	Complete	PG&E stated: The purpose of this hydrotest on Line 306 is to assess external and internal corrosion threats within a high consequence area (HCA) pursuant to 49 CFR 192.939(d). The previous assessment was completed in 2014 via external corrosion direct assessment (ECDA), and this line is now due for reassessment by December 31, 2019. PG&E has identified hydrotesting as the only reassessment method that addresses the combination of both external and internal corrosion threats.		
12284	3	Does this segment identify certain all segments without previous test records?	7/10/2018	7/24/2018	Complete	PG&E stated: PG&E records indicate the portion of Line 306 included in this hydrotest was tested upon installation in 1962 and also received an ECDA in 2014.		