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In accordance with NRS Chapter 719,
this filing has been electronically signed and filed
by: /s Tashia Garry

By electronically filing the document(s),
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This filing has been electronically filed and deemed to be signed by an authorized agent or
representative of the signer(s) and
Southwest Gas Corporation

SOUTHWEST GAS CORPORATION

June 16, 2022

Ms. Trisha Osborne
Assistant Commission Secretary
Public Utilities Commission of Nevada
1150 East William Street
Carson City, NV 89701-3109

Re: Southwest Gas Corporation
2022 Nevada Annual Resource Planning Informational Report

Dear Ms. Osborne:

Pursuant to Nevada Revised Statute 704.991 and Nevada Administrative Code 704.961 through 704.968, Southwest Gas Corporation herby submits its 2022 Nevada Annual Resource Planning Informational Report.

Should you have any questions, please do not hesitate to contact me. You may reach me directly at (702) 876-7133 with any questions you may have.

Respectfully submitted,

Christopher M. Brown
Director/Regulation

Enclosures

8360 South Durango Drive / Las Vegas, Nevada 89113-0100
P.O. Box 98510 / Las Vegas, Nevada 89193-8510 / (702) 876-7011
www.swgas.com

Southwest Gas Corporation

Nevada
Annual Resource Planning Informational Report

June 16, 2022

SOUTHWEST GAS CORPORATION

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A. NAC 704.9615 - COMPREHENSIVE SUMMARY OF INFORMATIONAL REPORT

1. Introduction

TO THE MEMBERS OF THE GENERAL PUBLIC:

Southwest Gas Corporation (Southwest Gas or Company) is a natural gas distribution company principally engaged in the business of purchasing, distributing, and transporting natural gas to residential, commercial, and industrial customers in Nevada, Arizona, and California. In Nevada, the Company operates two distinct systems: southern Nevada and northern Nevada. The southern Nevada system serves Las Vegas and surrounding communities including Mesquite. The northern Nevada system serves various communities including Carson City, Elko, Spring Creek, and Winnemucca, as well as communities on the Nevada side of Lake Tahoe. Reno is served by a different utility.

The northern Nevada system receives service from Great Basin Gas Transmission Company (Great Basin) which is a wholly-owned subsidiary of Southwest Gas regulated by the Federal Energy Regulatory Commission (FERC). Upstream of Great Basin, the Company has contracted capacity on Northwest Pipeline (NWPL), Tuscarora Gas Transmission Company (Tuscarora), and Ruby Pipeline (Ruby). The Ruby capacity is not long-term, but shaped short-term firm capacity. For Ruby short-term capacity, Southwest Gas typically contracts separately for winter and summer capacity for each portfolio year. For the Tuscarora capacity, the Company purchases gas supplies at Malin or may move Rocky Mountain supplies to Tuscarora on the short-term Ruby capacity. To fill NWPL capacity, the Company purchases supplies at Sumas and at various locations in the Rocky Mountain production area and San Juan Basin. For Ruby, supplies may be purchased on a delivered basis directly into Great Basin's mainline system or Adobe Lateral, or supplies can be purchased in the Rocky Mountains and transported on the short-term Ruby capacity. Southwest Gas also contracts with Great Basin for liquefied natural gas (LNG) storage service from Great Basin's facility near Lovelock, Nevada.

The southern Nevada system receives firm interstate transportation service from Kern River Gas Transmission Company (Kern), Transwestern Pipeline (Transwestern or TWPL), and Southwest Gas Transmission Company (SGTC) for delivery into the Southwest Gas transmission and distribution systems. Southwest Gas also has firm delivered bundled supplies (the supply price includes all charges to deliver gas to the delivery point) on Kern and Transwestern. SGTC transports Transwestern supplies to the Company's southern transmission system. Transwestern supplies can originate from the San Juan or Permian Basins. The Company purchases Rocky Mountain supplies for transportation on Kern. Beginning April 2022, Southwest Gas will take service from Spire Storage West LLC (Spire Storage), a natural gas storage facility owned by Spire Inc., for storage service from Spire Storage's facilities located in Uinta County, Wyoming.

Pursuant to Nevada Revised Statute (NRS) 704.991 and Nevada Administrative Code (NAC) 704.961 through 704.968, Southwest Gas hereby submits its annual informational filing to the Public Utilities Commission of Nevada (PUCN). The filing, referred to as the 2022 Nevada Annual Resource Planning Informational Report (Report), includes information on customer demand, the estimated costs and sources of gas, and operational capital requirements.

2. Forecast of Base Growth
    a. Northern Nevada
    During the 2022-2025 forecast period, the number of customers is forecasted to increase at an annual average rate of 1.3 percent.
    b. Southern Nevada
    During the 2022-2025 forecast period, the number of customers is forecasted to increase at an annual average rate of 1.9 percent.

3. Forecasts of Sales Volumes and Design Day Demands

    a. Normal Weather Sales Demand

Northern Nevada Forecasted Sales

Table A.3.a.1
Northern Nevada Normal Weather Sales Demand (Dth)

	2022/2023	2023/2024	2024/2025
November	1,163,830	1,180,218	1,196,168
December	1,675,000	1,697,670	1,719,652
January	1,659,246	1,681,175	1,703,167
February	1,333,726	1,362,441	1,368,628
March	1,120,221	1,134,746	1,149,001
April	797,478	807,795	817,781
May	550,313	557,566	564,082
June	360,415	365,171	369,540
July	292,167	296,112	299,677
August	298,863	302,976	306,624
September	372,243	377,314	381,697
October	683,461	692,900	701,082

Southern Nevada Forecasted Sales

Table A.3.a.2 Southern Nevada Normal Weather Sales Demand [1] (Dth)			
	2022/2023	2023/2024	2024/2025
November	4,300,976	4,397,724	4,479,812
December	7,789,636	7,963,670	8,112,471
January	7,811,732	7,986,916	8,135,816
February	5,679,636	5,895,539	5,916,006
March	3,861,139	3,949,009	4,022,417
April	2,827,617	2,892,461	2,946,169
May	2,691,916	2,750,481	2,801,601
June	2,033,262	2,077,512	2,116,092
July	1,874,807	1,915,634	1,951,222
August	1,873,300	1,914,158	1,949,684
September	1,971,228	2,014,458	2,051,838
October	2,790,079	2,854,343	2,907,155

[1] Normal Sales includes P1, P2, and P2A customers. (P2A customers have the ability to shift to alternative fuel sources during peak periods).

b. Design Day Sales Demand

Northern Nevada Design Day Demand

Table A.3.b.1 Northern Nevada Sales Design Day Demand (Dth/Day)			
	2022/2023	2023/2024	2024/2025
P1, P2 & P3	118,959	120,528	122,101

Southern Nevada Design Day Demand

Table A.3.b.2 Southern Nevada Sales Design Day Demand (Dth/Day)			
	2022/2023	2023/2024	2024/2025
P1 & P2[1]	567,947	580,581	591,420

[1] P2A customers are not included in the design day demand forecast, as they have the ability to switch to alternate fuel sources during peak periods.

4. Projections of Price Trends for Natural Gas

Table A.4.1 shows projected gas prices at locations where Southwest Gas purchases natural gas:

Table A.4.1

Projected Gas Prices at Source Locations

($/Dth)

	El Paso			Kern	Northwest			GTN	Cal-EP
	Permian	San Juan	Waha	Opal	RockyMtn	Sumas	**So of GR**	Malin	Border
Nov-22	5.7960	7.2510	5.7330	5.7330	7.8120	8.2490	**7.3790**	7.5170	7.9150
Dec-22	6.7960	8.2070	6.7390	6.7390	8.5450	9.2540	**8.1120**	8.2500	9.3950
Jan-23	6.9990	8.4990	6.9310	6.9310	8.9200	9.3040	**8.4870**	8.4770	9.3300
Feb-23	6.7010	8.1510	6.6510	6.6510	8.5770	8.8290	**8.1440**	8.1470	8.6200
Mar-23	4.7110	6.2420	4.6210	4.6210	6.3140	6.2770	**5.8810**	6.1800	6.4370
Apr-23	2.7270	4.1170	2.6520	2.6520	4.2200	4.1270	**4.0184**	4.2450	4.3400
May-23	2.5970	3.9480	2.5020	2.5020	4.0180	3.7850	**3.8164**	4.0710	4.1810
Jun-23	2.7250	4.0100	2.5920	2.5920	4.1100	3.8730	**3.9084**	4.1420	4.2470
Jul-23	2.9530	4.2180	2.8280	2.8280	4.4000	4.3610	**4.1984**	4.4700	5.1970
Aug-23	2.9860	4.2190	2.8410	2.8410	4.4460	4.4470	**4.2444**	4.4810	5.2130
Sep-23	2.6340	4.1270	2.5070	2.5070	4.3490	4.3650	**4.1474**	4.4620	5.0760
Oct-23	2.6690	4.0590	2.5770	2.5770	4.2540	4.3430	**4.0524**	4.3470	4.4260
Nov-23	3.5030	4.5330	3.4230	3.4230	5.0580	5.4140	**4.6250**	4.8940	5.4450
Dec-23	4.6060	5.3190	4.4890	4.4890	5.7640	6.4220	**5.3310**	5.3620	6.0810
Jan-24	4.9610	5.3810	4.8860	4.8860	5.8390	6.3370	**5.4060**	5.5270	6.2110
Feb-24	4.7770	5.1640	4.6920	4.6920	5.5820	5.8480	**5.1490**	5.3020	5.9140
Mar-24	3.8270	4.6870	3.7390	3.7390	4.8220	4.6550	**4.3890**	4.4940	4.8410
Apr-24	2.6420	3.4140	2.5970	2.5970	3.4920	3.3330	**3.2904**	3.5190	3.6840
May-24	2.6290	3.3240	2.5740	2.5740	3.4090	3.2200	**3.2074**	3.4220	3.5960
Jun-24	3.0120	3.3970	2.9720	2.9720	3.4690	3.2810	**3.2674**	3.5020	3.6680
Jul-24	3.3830	3.6180	3.3090	3.3090	3.7610	3.7000	**3.5594**	3.7990	4.4500
Aug-24	3.4310	3.6410	3.3670	3.3670	3.7860	3.7430	**3.5844**	3.8320	4.4850
Sep-24	3.2420	3.5570	3.1850	3.1850	3.7620	3.7440	**3.5604**	3.7950	4.3810
Oct-24	3.3330	3.4950	3.2680	3.2680	3.6730	3.7100	**3.4714**	3.7130	3.7870
Nov-24	3.6590	4.1290	3.6190	3.6190	4.5360	4.8990	**4.1030**	4.2970	4.6900
Dec-24	4.2780	4.7250	4.2030	4.2030	5.0250	5.5280	**4.5920**	4.7810	5.2640
Jan-25	4.5100	4.8930	4.4860	4.4860	5.2130	5.5450	**4.7800**	4.9040	5.4290
Feb-25	4.3050	4.7150	4.2810	4.2810	5.0550	5.2630	**4.6220**	4.7790	5.2590
Mar-25	3.7080	4.3580	3.6510	3.6510	4.3180	4.4480	**3.8850**	4.4320	4.7970
Apr-25	2.8460	3.3460	2.8110	2.8110	3.2760	3.1530	**3.0744**	3.3990	3.5270
May-25	2.9070	3.2870	2.8630	2.8630	3.2300	3.0790	**3.0284**	3.2880	3.4810
Jun-25	2.9410	3.3630	2.9120	2.9120	3.2890	3.1250	**3.0874**	3.4170	3.5270
Jul-25	3.0510	3.4850	3.0110	3.0110	3.5630	3.4370	**3.3614**	3.5370	4.2940
Aug-25	3.0930	3.5250	3.0610	3.0610	3.5930	3.4870	**3.3914**	3.5740	4.3360
Sep-25	3.0620	3.5020	3.0350	3.0350	3.5650	3.4810	**3.3634**	3.5710	4.2280
Oct-25	3.1300	3.5220	3.0930	3.0930	3.5050	3.4820	**3.3034**	3.5960	3.6660

Notes: Based on Natural Gas Intelligence Forward Look at May 2, 2022. Values in bold type have been estimated or extrapolated by Southwest Gas as described in Section C.

5. a. Major Facility Additions

i. Northern Nevada

Upstream Resources: For northern Nevada, natural gas supplies can be purchased from the following areas and transported to Great Basin: 1) Rocky Mountain and San Juan production areas via NWPL; 2) Rocky Mountain production areas via Ruby; 3) Western Canada Sedimentary Basin (WCSB) production areas in British Columbia into NWPL at Sumas, Washington; and 4) the WCSB in Alberta, Canada at the Gas Transmission Northwest (GTN) interconnect at Kingsgate, Idaho, which in turn is delivered by GTN to its interconnect with Tuscarora at Malin, Oregon or its interconnect with NWPL at Stanfield, Oregon. Supplies flowing on NWPL, Tuscarora, or Ruby are delivered to Great Basin, which then redelivers those supplies to the Company's distribution system at various locations.

Based on the current forecast, the capacity will be sufficient to serve the South of Elko Lateral service areas' upstream interstate resource needs through 2033/2034.

Southwest Gas has sufficient firm transportation capacity upstream of Great Basin and LNG services to meet the current projected design day demand forecast through the 2024/2025 forecast period. However, Southwest Gas' demand growth along Great Basin's North Lake Tahoe Lateral, Great Basin's South Lake Tahoe Lateral, and Great Basin's Carson Lateral has exceeded the northern Nevada contracted firm capacity rights with Great Basin along these Laterals.

Southwest Gas needs incremental resources in northern Nevada for the delivery points located along Great Basin's Carson Lateral and North Lake Tahoe Lateral starting in the 2022/2023 portfolio year, and along the South Lake Tahoe Lateral starting in the 2023/2024 portfolio year. Therefore, incremental capacity must be acquired either directly from Great Basin or Southwest Gas will transfer available northern California contracted Great Basin capacity to its northern Nevada service area to meet these shortfalls. To resolve the incremental resource needs starting in the 2024/2025 portfolio year, Southwest Gas requested that Great Basin provide a cost estimate, a description of the required improvements, and an estimated monthly reservation rate for 5,582 Dth/day of gross incremental delivery point rights along Great Basin's Carson Lateral, which includes 815 Dth/day of gross incremental rights along Great Basin's North Lake Tahoe Lateral and 136 Dth/day gross incremental capacity rights along Great Basin's South Lake Tahoe Lateral. As a result, Great Basin initiated non-binding and binding open seasons on February 3, 2022 and April 12, 2022, respectively, to determine if additional shippers have an interest in participating in the 2024 Expansion Project. The April 12, 2022 binding open season requested a 25-year minimum contract term. Subsequently, on April 29, 2022, Great Basin conducted a second binding open season with a 20-year minimum contract term. The 2024 Expansion Project consists of Great Basin expanding its existing transmission system downstream of the Wadsworth, Nevada Receipt Point.

In order to meet northern Nevada's shortfall along the Carson Lateral for the 2022/2023 portfolio year, Southwest Gas plans to utilize available northern California capacity to help reduce the shortfall. Prior to completion of Great Basin's 2024 Expansion Project, Southwest Gas will have insufficient firm transportation capacity to meet projected design day demands along the Carson Lateral in the 2023/2024 portfolio year and thereafter.

Also, prior to Great Basin's 2024 Expansion Project being placed into service, Southwest Gas has insufficient firm transportation capacity to meet projected design day demands along the North Lake Tahoe Lateral for the 2022/2023 and 2023/2024 portfolio years. Southwest Gas plans to utilize available northern California capacity to help reduce the shortfalls.

Southwest Gas has sufficient firm transportation capacity to serve projected design day demands along the South Lake Tahoe Lateral for the 2022/2023 portfolio year. In order to meet the shortfall in the 2023/2024 portfolio year, Southwest Gas plans to utilize available northern California capacity to make up the shortfall. The 2024/2025 portfolio year will not have a shortfall after the Great Basin expansion has been placed into service.

For a description of how Southwest Gas conducts its assessments to determine the need for additional upstream resources, and how Southwest Gas acquires those resources, please refer to Appendix B.

Southwest Gas-Owned Facilities: Southwest Gas continues to install natural gas facilities to serve Spring Creek, Nevada and the surrounding area. Updates on the Spring Creek Expansion Project are provided annually in a separate docket.

ii. Southern Nevada

Upstream Resources: For southern Nevada, Southwest Gas can purchase supplies into Kern, EPNG, or Transwestern and transport those supplies on firm Transportation Service Agreements. The Company also purchases delivered supplies that bundle interstate transportation service with the gas supply. Supplies delivered from Kern are mostly purchased in the Rocky Mountain production area, and supplies delivered from Transwestern or El Paso may be sourced from the San Juan or Permian Basins. Supplies transported on El Paso and Transwestern flow into Southwest Gas' southern transmission system via SGTC.

The Company has secured sufficient resources to cover the January design day demands through January 2026. For a description of how Southwest Gas conducts its assessments to determine the need for upstream resources, and how Southwest Gas acquires those resources, please refer to Appendix B.

In early 2020, Southwest Gas updated its southern Nevada extreme peak day forecast. In this update, the October peak day requirement increased by more than 96,000 Dth/day. In August 2020, Southwest Gas solicited for bundled delivered supplies to meet the extreme October peak day requirement from

2020 through 2025. Southwest Gas secured sufficient resources to cover the October peak day demands for 2020 and 2021. The Company has a plan to achieve full coverage of the southern Nevada October 2022 through October 2025 extreme peak day requirements. First, if an updated southern Nevada extreme weather peak day design forecast is available, the quantity between existing contracted interstate resources and the updated extreme weather peak day design forecast will be assessed. Next, Southwest Gas will issue a solicitation seeking sufficient delivered October peaking supplies so that the October 2022 extreme peak day through October 2025 extreme peak day requirements are covered. Upon receipt of responses to that solicitation, Southwest Gas will review the responses and execute any reasonable and prudent contracts. This process will be completed prior to October 2022.

In October 2021, Spire Storage announced a binding open season for firm storage service. Spire Storage offered up to 5 Bcf of firm working gas storage capacity beginning April 1, 2022. The storage facility is located in Uinta County, Wyoming, approximately 60 miles southwest of the Opal Hub, which is a Rocky Mountain production area market supply point. The storage facility will allow supplies to be injected directly into Kern's system for delivery to Southwest Gas' southern Nevada distribution system. During the binding open season, Southwest Gas assessed the value of securing firm storage service to reduce the procurement amount of daily and intraday supplies. The assessment led to the Company contracting 1 Bcf of storage capacity rights along with 8,200 Dth/day of daily injection rights and 14,000 Dth/day of daily withdrawal rights for April 1, 2022 through March 31, 2025. The monthly storage capacity reservation charge is $0.09/Dth and the annual reservation cost for the storage service is $1,080,000.

b. Conservation and Load Management Programs

The Company's portfolio of conservation programs is currently designed to provide energy education and savings benefits to northern and southern Nevada customers with a budget of approximately $1.35 million for 2022.

Southwest Gas' thirteenth year of Conservation and Energy Efficiency (CEE) programs began January 1, 2022. The Company's CEE programs for years one through twelve have resulted in a total savings of approximately 6.4 million therms, or 34,816 metric tons of CO_2 emissions, which equates to 7,296 passenger vehicles off the road for one year. The 2022 programs approved by the PUCN in Docket No. 21-05001 under the Company's CEE Plan include the *Smarter Greener Better*® (SGB) Residential Incentives Program, SGB Commercial Incentives Program, and SGB Energy Education Program. The SGB Residential and Commercial Incentives programs are offered to both new and existing sales customers. Incentives are offered to participating customers for qualified program measures upon proof-of-purchase and installation or at point-of-sale (POS). Both programs' overall objective is to increase the use of energy-efficient practices and technologies to achieve cost-effective savings in homes and businesses. The SGB Energy Education Program is a program designed to educate and assist sales customers, teachers, students, contractors, builders, facility managers, realtors, and energy professionals regarding the efficient use of energy in both their homes and businesses. The components included in the

SGB Energy Education Program include: Residential Energy Education; Primary and Secondary School Energy Education; and Commercial Energy Education.

The Company's 2022 Solar Thermal Systems Demonstration Program Plan, offered as the SGB Solar Water Heating Program, was approved in Docket No. 21-07023 with a budget of $100,000 for 2022.

The SGB Solar Water Heating Program is a legislatively-mandated program which offers rebates to Nevada customers for the purchase and installation of solar thermal systems for domestic water heating, space heating, and air conditioning, or a combination of domestic water heating and space conditioning. The primary purpose of this program is to increase the number of solar systems in Nevada. A Rebate Reservation Application must be submitted and approved by Southwest Gas prior to the purchase and installation of a qualified system by a qualified and approved contractor. Rebates are available for systems installed in private residential, small business, school, public, and other properties. The 2022 budget includes a goal of installing 25 systems with estimated annual energy savings resulting from the SGB Solar Water Heating Program of 9,286 therms, or 49.1 metric tons of CO_2 emissions, which equates to 11 passenger vehicles off the road for one year.

Southwest Gas-Owned Facilities: Southwest Gas continues to install natural gas facilities to serve Mesquite, Nevada. Updates on the Mesquite Expansion Project are provided annually in a separate docket. Moreover, the Company filed a notice of an application to a federal agency with the PUCN under Docket No. 19-05017 and is awaiting approval of its Bureau of Land Management permit.

6. Supply Strategies and Criteria

Southwest Gas endeavors to acquire the best-cost portfolio considering price, reliability, flexibility, and protection from short-term market volatility, while still providing security of supply to meet sales customer demands. Balancing these factors against the costs of competing resource alternatives determines the ever-changing "mix" (flexible and non-flexible, index and fixed-price, with and without interstate capacity, short-term, mid-term, and long-term) of the supply portfolio. The Company's portfolio includes spot market purchases (interruptible, one month or less), term (firm, generally one year or less), and possibly firm volatility mitigation purchases. While most of the term contracts are annual or seasonal, Southwest Gas also considers longer-term alternatives. The portfolio of supplies includes acquisitions that are identified and selected under four programs:

"Volatility Mitigation Program" (VMP): Firm contracts providing fixed-price supplies that Southwest Gas acquires periodically one to two years in advance of flow to mitigate short-term market price volatility. In late 2013, Southwest Gas suspended its Nevada VMP purchases. On a quarterly basis, at a minimum, Southwest Gas evaluates its hedging strategy and informs PUCN Staff and the Bureau of Consumer Protection (BCP) of its hedging strategy decision, pursuant to the Stipulation and Agreement in Docket No. 13-06006 and the Order in Docket 19-06003.

"Baseload Supply Program" (BSP): Firm baseload contracts priced at a First of the Month (FOM) index price. Southwest Gas makes BSP purchases periodically up to one year in advance of flow.

"Term Purchases": Traditional firm contract supplies selected during an annual solicitation. Southwest Gas evaluates proposals for Term Purchases using a cost optimization model. This portion of the portfolio provides the flexible firm supplies that Southwest Gas must have available for reliable service to its sales customers. Term Purchases generally have prices based on a market index.

"Spot Purchases": Short-term (one month or less) supplies, selected monthly and intra-monthly, that are integral to the "least cost dispatch" efforts. The Company makes Spot Purchases to fill daily requirements or in lieu of higher cost alternative supplies, or both. Spot Purchases have either fixed or index-based pricing.

7. Additional Information

   a. Supply Reliability

      Southwest Gas reviewed publicly available material on natural gas production and reserve information to assess the reliability of Southwest Gas' supply sources. Based on this review, Southwest Gas opines that supply regions delivering supplies into the interstate pipelines serving Nevada are reliable through the forecast period.

   b. Alternate Strategies

      i. Northern Nevada

         Southwest Gas has several alternative sources of supply. Southwest Gas purchases Canadian natural gas supplies from the British Columbia production area delivered at Sumas, Washington and transported on NWPL. Natural gas can be purchased at Stanfield, Oregon, the interconnection point between GTN and NWPL, and transported on the same NWPL capacity. Supplies from Alberta, Canada production areas are transported on GTN, entering the pipeline at Kingsgate, Idaho. Capacity is available on GTN.

         Delivered supplies have been available at the NWPL and Great Basin interconnect at the Owyhee receipt point. The ability to take supplies at Owyhee on a firm basis is limited by Southwest Gas' 56,535 Dth/day-gross of receipt point rights at this interconnect.

         Southwest Gas also purchases natural gas supplies at Malin, which are transported on Tuscarora and delivered to its interconnection with Great Basin at Wadsworth. The market at Malin has been liquid in the daily and month-ahead markets, since this is also a hub for purchases by Pacific Gas and Electric Company (PG&E) for its northern California system. Should delivered gas arrangements at Malin become illiquid, Southwest Gas could acquire upstream capacity on GTN or Ruby and then purchase natural gas supplies at Kingsgate or in the Rocky Mountains, respectively for delivery into Tuscarora. Additionally, if available, Southwest Gas could obtain capacity on TC Energy's pipeline systems to bring natural gas from the AECO hub to Kingsgate. The AECO hub is the major supply hub for gas from the Alberta Basin.

         Ruby transports natural gas supplies from the Rocky Mountain production area to its interconnect with Tuscarora at Malin. Ruby also interconnects with Great

Basin's mainline system at Opal Valley and Great Basin's Adobe Lateral at Jade Flats. Consequently, Southwest Gas could either contract for Ruby capacity and move Rocky Mountain supplies to those points or purchase additional bundled delivered supplies at those points.

ii. Southern Nevada

Beginning April 2022, Southwest Gas began taking service from Spire's storage facilities located in Uinta County, Wyoming, which is approximately 60 miles southwest of the Opal Hub. The storage facilities' location near the Rocky Mountain production area allows for Rocky Mountain production supplies to be injected into the storage facility and withdrawn directly into Kern's system for delivery to Southwest Gas' southern Nevada system. In addition, there are other storage possibilities for southern Nevada. First, a potential storage project located near Eloy, Arizona, referred to as the Arizona Energy Storage (previously known as Arizona Gas Storage), may be able to deliver storage gas into southern Nevada through delivery points off EPNG, if it is developed. A second possibility entails acquiring storage services from a provider located on PG&E's system for delivery to southern Nevada through backhaul arrangements on Mojave Pipeline to EPNG or directly to southern Nevada on Kern. Another possibility is to acquire storage services from the Costal Azul LNG facility located in Mexico. Supply scheduled from this facility could be transported through Southern California Gas Company (SoCalGas)/San Diego Gas and Electric Company (SDG&E) intrastate transmission, and then backhauled on EPNG, Transwestern, or Kern for delivery to southern Nevada. However, acquiring storage services from the Costal Azul LNG facility may be difficult in the future as this storage progresses towards being an export facility.

In considering alternative sources of supply, bundled delivered supplies have been a practical alternative for Southwest Gas' incremental needs for more than a decade. Marketers holding capacity on Kern, EPNG, or TWPL, and selling into the California market, can also sell to Southwest Gas in southern Nevada.

If supply production in the San Juan or Permian Basins, or both, declines to a point that these basins are no longer reliable sources of supply for southern Nevada, then additional pipeline capacity may be constructed so that EPNG and Transwestern have additional access to the Rocky Mountain production area. Participation in such a project would depend on the relative cost compared to additional capacity on Kern. On the other hand, if production in the Rocky Mountain area declines to a point that supply in this area is no longer deemed reliable, but the Permian and San Juan Basin supplies are deemed reliable, then additional pipeline capacity may be constructed so that EPNG and Transwestern have additional access to the Permian and San Juan Basins.

c. Renewable Natural Gas

Senate Bill 154 relates to certain renewable natural gas (RNG) activities and was signed into law by the governor on May 14, 2019. Senate Bill 154 was codified into Nevada Revised Statutes (NRS) 704.9991 through 704.9997. These statutes permit the Company to engage in renewable energy activities, subject to Commission approval, while attempting to meet certain goals for incorporating renewable natural gas into its gas

supply portfolio. The Commission adopted the required regulations April 29, 2020. The Commission approved an agreement between Southwest Gas and the Regional Transportation Commission (RTC) in Docket No. 20-09004 through which Southwest Gas is authorized to purchase RNG to meet the RTC's requirements. Southwest Gas issued an RFP for that RNG in early 2021 and RNG began flowing to RTC in September 2021.

On January 5, 2021, Southwest Gas filed an application with the PUCN requesting approval to purchase RNG to be included in its supply portfolio (Docket No. 21-01015). On May 7, 2021, Southwest Gas filed an amended application in Docket No. 21-01015. On October 26, 2021, the Commission granted in part Southwest Gas' amended application. Southwest Gas is working on securing RNG contracts and expects to begin incorporating RNG into the Company's gas supply portfolio, within the limits stated in the Commission's October 26, 2021 Order, sometime in late-2022 or early-2023

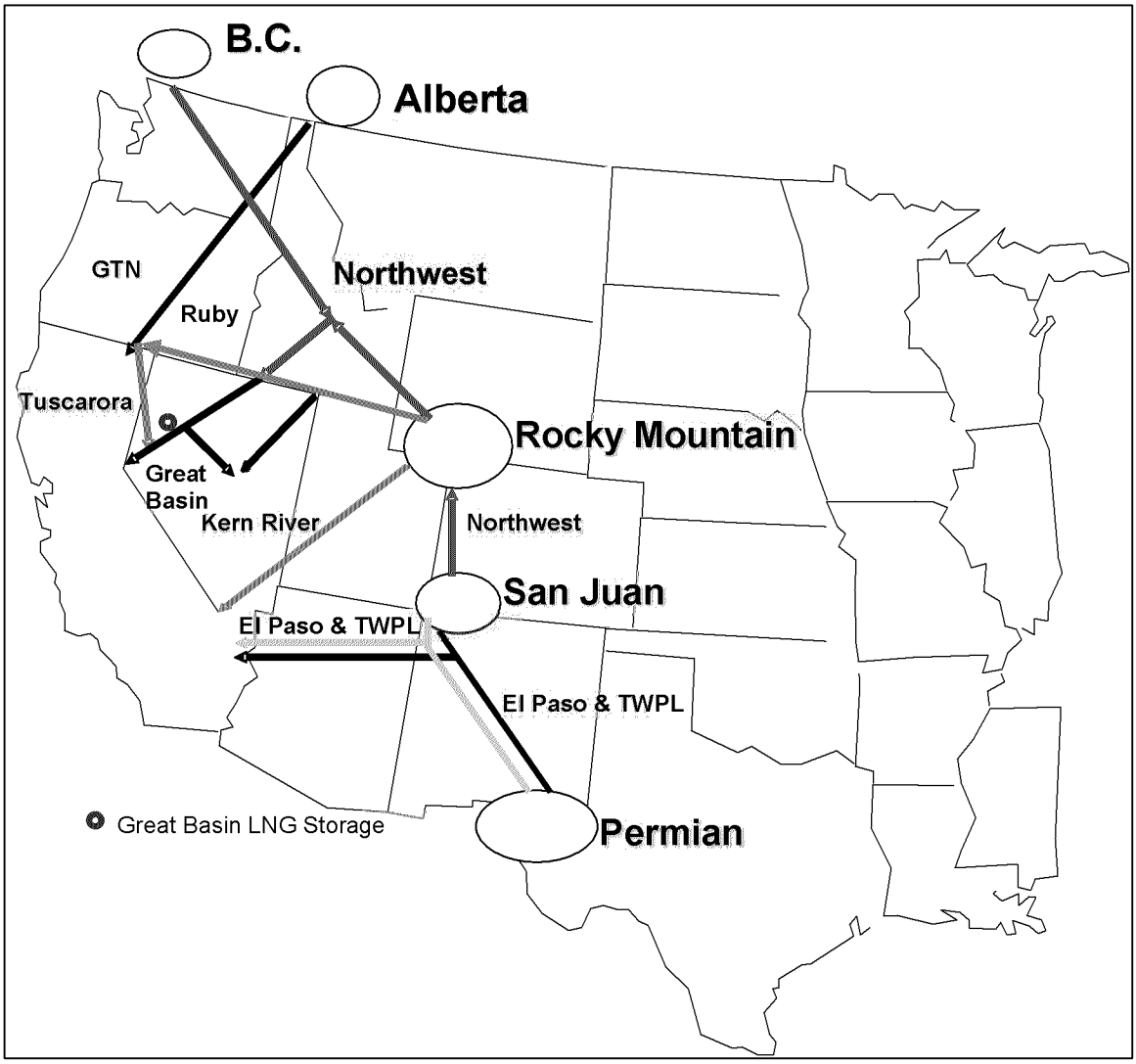
In addition, Southwest Gas is currently evaluating other opportunities for potential RNG production facilities that would be subject to additional filings pursuant to NRS 704.9991 through 704.9997 and the related Commission regulations. However, those evaluations are not yet to the point where any specific RNG activity can be identified at this time.

d. Curtailment Plan

Southwest Gas maintains a curtailment plan in the event of a supply shortage or other event that could jeopardize service to its customers. The plan is used to curtail lower priority customers to maintain service to higher priority customers. The curtailment plan is located within the Appendix A of this Report.

B. NAC 704.963 – MAPS OF MAJOR FACILITIES FOR SUPPLY OF GAS AND SOURCES OF NATURAL GAS

Figure B.1.a.1
Pipeline and Storage Facilities



Overview

Figure B.1.a.1 shows pipeline and storage facilities currently within Southwest Gas' Nevada service territory. Southwest Gas holds pipeline capacity for northern Nevada on NWPL, Tuscarora, Great Basin, and Ruby (short-term). Also, Southwest Gas purchases delivered gas supplies off Ruby into Great Basin and at Malin for delivery into Tuscarora. Southwest Gas also has contracted storage services from Great Basin's LNG facility near Lovelock, Nevada. In southern Nevada, Southwest Gas holds pipeline capacity on Kern and Transwestern and purchases delivered gas supplies from suppliers on both pipelines.

For northern Nevada, natural gas supplies can be purchased from: 1) the Rocky Mountain production area and San Juan Basin via NWPL; 2) the Rocky Mountain production area via Ruby; 3) the WCSB production area in British Columbia into NWPL at Sumas, Washington; and 4) the WCSB production area in Alberta, Canada at the GTN interconnect at Kingsgate, Idaho. GTN delivers these natural gas supplies to its interconnect with Tuscarora at Malin, Oregon. Gas delivered by Tuscarora, NWPL and Ruby is delivered into Great Basin, which redelivers the supplies to Southwest Gas' distribution system.

For southern Nevada, natural gas supplies can be purchased and transported from: 1) the Rocky Mountain production area via Kern and 2) the San Juan and Permian Basins via EPNG and Transwestern. Supplies delivered from EPNG and Transwestern reach Southwest Gas' southern transmission system via SGTC, and supplies delivered from Kern are delivered directly into Southwest Gas' distribution system.

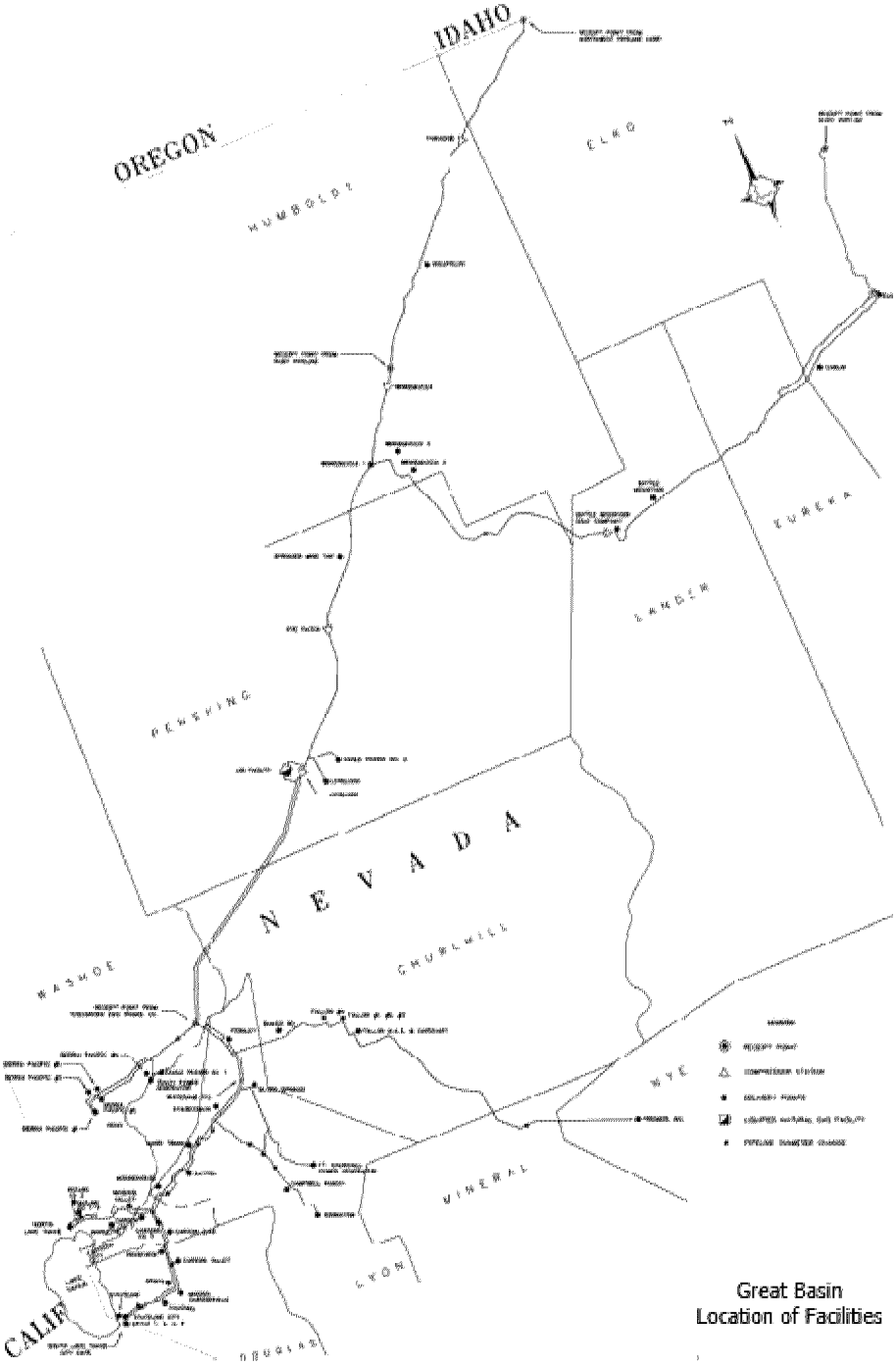
1. Northern Nevada

    a. Upstream Interstate Pipelines

        Great Basin: Great Basin is an interstate pipeline that transports natural gas supply into Nevada from NWPL at the Idaho-Nevada border. Great Basin also connects with Tuscarora at Wadsworth, with Ruby at Opal Valley near Winnemucca, and at Jade Flats near Ruby's Weiland Flat Compressor Station. Great Basin receives supply at the Idaho-Nevada border or at Opal Valley and transports it down its mainline to Wadsworth and several other delivery points along the mainline, including the Elko Lateral. Great Basin also receives supply at Jade Flats and transports those supplies down its Adobe Lateral to the existing Elko City Gate and into Great Basin's existing Elko Lateral. Great Basin transports gas supply from the LNG facility near Lovelock, Nevada to Wadsworth, where Great Basin's mainline divides into two mainline extensions, the Reno Lateral and the Carson Lateral.

        Most of the market requirements served by Great Basin are located downstream of Wadsworth. Great Basin transports natural gas through the Reno Lateral primarily to NV Energy (Sierra Pacific Power Company) delivery points. Great Basin's Carson Lateral extends from Wadsworth to the Carson City area, where the lateral further divides into Great Basin's North Lake Tahoe and South Lake Tahoe Laterals. Along the Carson Lateral, Great Basin delivers gas at various delivery points and into several other lateral pipelines including the Yerington Lateral and Gabbs Lateral. Figure B.1.a.2 shows a diagram of Great Basin's system available on Great Basin's website.

Figure B.1.a.2
Great Basin Pipeline System



Tuscarora: Tuscarora is a 305-mile, interstate pipeline system with a design capacity of approximately 230 MMcf/day. Tuscarora originates at an interconnection point with GTN near Malin, Oregon, and with Ruby near Sapphire Mountain. Tuscarora runs southeast through northeastern California and northwestern Nevada and terminates near Wadsworth, Nevada. Tuscarora receives gas at Malin and then redelivers gas to Great Basin's Tuscarora interconnect at Wadsworth.

NWPL: NWPL is a 3,900-mile bi-directional transmission system crossing Washington, Oregon, Idaho, Wyoming, Utah, and Colorado. NWPL's system provides access to British Columbia, Alberta, Rocky Mountain, and San Juan Basin natural gas supplies. NWPL has a system design capacity of 3.8 Bcf/day.

NWPL's system allows for natural gas to flow south and east from Sumas and northwest from the Rocky Mountain production area and the San Juan Basin. Natural gas supplies transported on NWPL are delivered into Great Basin at the NWPL-Great Basin interconnect (Owyhee receipt point), which is located at the Nevada-Idaho border. Great Basin then delivers these supplies into Southwest Gas' distribution system.

NWPL has a storage facility at Jackson Prairie and an LNG storage facility located in Plymouth, Washington. Clay Basin storage, owned by MountainWest Pipeline, also connects to NWPL's pipeline. None of these storage facilities provide incremental design day capacity, as they require NWPL and Great Basin capacity to deliver to Southwest Gas.

Ruby: Ruby is a 680-mile, 42-inch pipeline that is designed to transport 1.5 Bcf/day of natural gas from Opal to Malin. Southwest Gas receives supplies from Ruby through the Great Basin interconnect near Winnemucca (Opal Valley receipt point), the interconnect into Great Basin's Adobe Lateral (Jade Flats receipt point), or delivered into Tuscarora at Malin.

b. Southwest Gas-Owned Facilities

The Company provides natural gas service to the counties of Carson City, Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Nye, Pershing, Storey, and Washoe in northern Nevada. Southwest Gas' northern Nevada service territory is served by a tap-type system, which is fed by numerous transmission delivery points with no transmission piping and significantly less high-pressure distribution piping compared to the system in Southwest Gas' southern Nevada service territory. The system includes 53 major contractual delivery points on Great Basin, approximately 76 miles of high-pressure distribution pipe ranging in diameter from 3/4-inch to 12-inch, numerous pressure regulator stations, and all necessary and related equipment, facilities, and improvements required for the control, maintenance, and operation of the system. A list of delivery points is shown in Table F.1.a.7. Maps showing the facilities are shown in Exhibit No. F.1.a.1, pages 1 through 5.

2. Southern Nevada

a. Upstream Interstate Pipelines

Kern: Kern, a subsidiary of Berkshire Hathaway Energy Company, transports natural gas from the producing fields in southwest Wyoming through Utah and Nevada, then

continues to the San Joaquin Valley near Bakersfield, California. After several significant expansions, Kern has the capacity to transport 2.17 Bcf/day to the Utah, southern Nevada, and California markets.

El Paso: El Paso, owned by Kinder Morgan, operates 10,200 miles of pipeline that transports natural gas from the San Juan, Anadarko, and Permian Basins to markets in California, Arizona, Nevada, New Mexico, Oklahoma, Texas, and northern Mexico. Through interconnections at the Blanco Hub in northwest New Mexico, El Paso provides access to Rocky Mountain production via interconnections with TransColorado Gas Transmission Company (TransColorado) and NWPL. Currently, approximately 4.865 Bcf/day of winter peak day capacity exists on El Paso's north and south mainline systems.

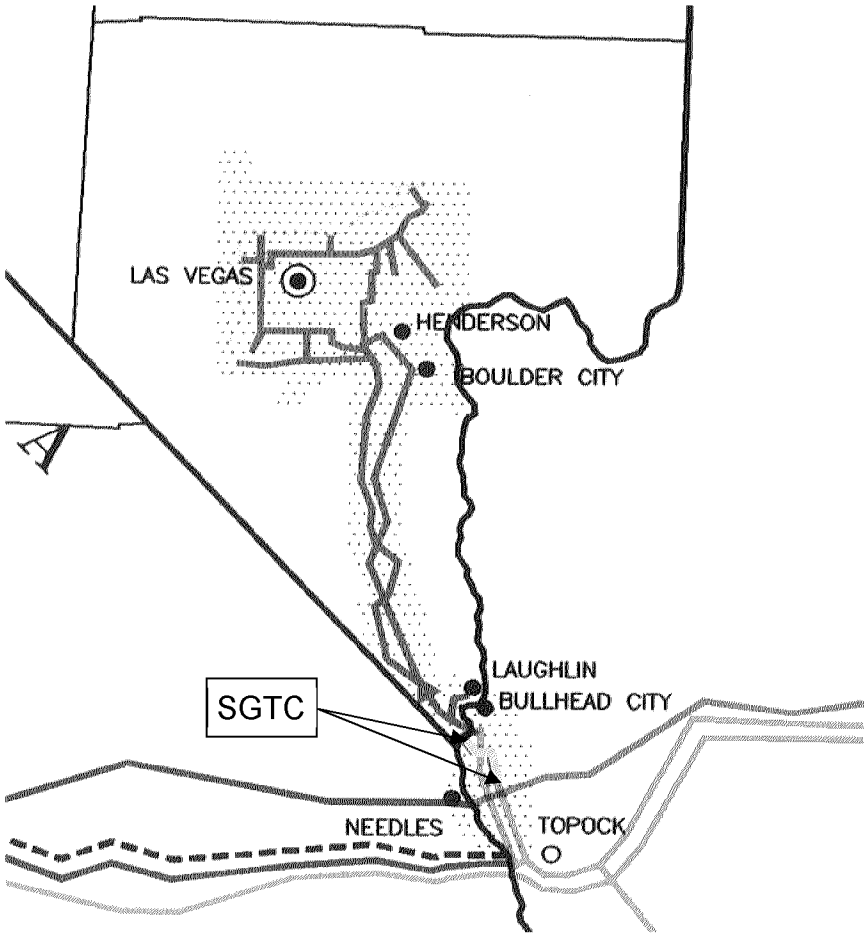
Transwestern: Transwestern, owned by Energy Transfer Partners, operates 2,600 miles of pipeline that transports natural gas from the San Juan, Anadarko, and Permian Basins to markets in California, Arizona, New Mexico, Texas, Nevada, and the Midwest. Through interconnections at the Blanco Hub, in northwest New Mexico, Transwestern provides access to Rocky Mountain production via interconnections with TransColorado and NWPL. Transwestern has approximately 1.24 Bcf/day of capacity to the California border and 1.610 Bcf/day of capacity from the San Juan production area to the mainline.

SGTC: Southwest Gas receives natural gas for its southern Nevada distribution system through SGTC, a small interstate pipeline that transports deliveries from EPNG and Transwestern to Southwest Gas. SGTC is a limited partnership in which Southwest Gas is the general partner. SGTC's system comprises approximately nine miles of 20-inch diameter pipeline. SGTC has no compression and virtually no line pack. Southwest Gas contracts for all of SGTC's firm capacity. Southwest Gas has no plans to request that SGTC expand its system.

Figure B.2.a.1 provides a view of SGTC's route.

Figure B.2.a.1

Southwest Gas Transmission Company Route



b. Southwest Gas-owned Facilities

The facilities shown in Exhibit No. F.1.b.1 comprise a physically integrated system of operating facilities for the furnishing of natural gas to the customers in the Company's southern Nevada service territory. The facilities include 286 miles of transmission pipeline, 265 miles of high-pressure distribution pipeline, one compressor station, numerous pressure regulator stations, service lines, meters for individual customers, and all necessary and related equipment, facilities, and improvements required to control, maintain, and operate the system. High-pressure distribution, including mains, services, regulator stations, and meters, are facilities that operate at a pressure greater than 60 psig.

C. NAC 704.964 – PROJECTION OF FUTURE PRICES

The following table shows projected gas prices at locations where Southwest Gas purchases natural gas supplies.

Table A.4.1
Projected Gas Prices at Source Locations
($/Dth)

	El Paso			Kern	Northwest			GTN	Cal-EP
	Permian	San Juan	Waha	Opal	RockyMtn	Sumas	**So of GR**	Malin	Border
Nov-22	5.7960	7.2510	5.7330	5.7330	7.8120	8.2490	**7.3790**	7.5170	7.9150
Dec-22	6.7960	8.2070	6.7390	6.7390	8.5450	9.2540	**8.1120**	8.2500	9.3950
Jan-23	6.9990	8.4990	6.9310	6.9310	8.9200	9.3040	**8.4870**	8.4770	9.3300
Feb-23	6.7010	8.1510	6.6510	6.6510	8.5770	8.8290	**8.1440**	8.1470	8.6200
Mar-23	4.7110	6.2420	4.6210	4.6210	6.3140	6.2770	**5.8810**	6.1800	6.4370
Apr-23	2.7270	4.1170	2.6520	2.6520	4.2200	4.1270	**4.0184**	4.2450	4.3400
May-23	2.5970	3.9480	2.5020	2.5020	4.0180	3.7850	**3.8164**	4.0710	4.1810
Jun-23	2.7250	4.0100	2.5920	2.5920	4.1100	3.8730	**3.9084**	4.1420	4.2470
Jul-23	2.9530	4.2180	2.8280	2.8280	4.4000	4.3610	**4.1984**	4.4700	5.1970
Aug-23	2.9860	4.2190	2.8410	2.8410	4.4460	4.4470	**4.2444**	4.4810	5.2130
Sep-23	2.6340	4.1270	2.5070	2.5070	4.3490	4.3650	**4.1474**	4.4620	5.0760
Oct-23	2.6690	4.0590	2.5770	2.5770	4.2540	4.3430	**4.0524**	4.3470	4.4260
Nov-23	3.5030	4.5330	3.4230	3.4230	5.0580	5.4140	**4.6250**	4.8940	5.4450
Dec-23	4.6060	5.3190	4.4890	4.4890	5.7640	6.4220	**5.3310**	5.3620	6.0810
Jan-24	4.9610	5.3810	4.8860	4.8860	5.8390	6.3370	**5.4060**	5.5270	6.2110
Feb-24	4.7770	5.1640	4.6920	4.6920	5.5820	5.8480	**5.1490**	5.3020	5.9140
Mar-24	3.8270	4.6870	3.7390	3.7390	4.8220	4.6550	**4.3890**	4.4940	4.8410
Apr-24	2.6420	3.4140	2.5970	2.5970	3.4920	3.3330	**3.2904**	3.5190	3.6840
May-24	2.6290	3.3240	2.5740	2.5740	3.4090	3.2200	**3.2074**	3.4220	3.5960
Jun-24	3.0120	3.3970	2.9720	2.9720	3.4690	3.2810	**3.2674**	3.5020	3.6680
Jul-24	3.3830	3.6180	3.3090	3.3090	3.7610	3.7000	**3.5594**	3.7990	4.4500
Aug-24	3.4310	3.6410	3.3670	3.3670	3.7860	3.7430	**3.5844**	3.8320	4.4850
Sep-24	3.2420	3.5570	3.1850	3.1850	3.7620	3.7440	**3.5604**	3.7950	4.3810
Oct-24	3.3330	3.4950	3.2680	3.2680	3.6730	3.7100	**3.4714**	3.7130	3.7870
Nov-24	3.6590	4.1290	3.6190	3.6190	4.5360	4.8990	**4.1030**	4.2970	4.6900
Dec-24	4.2780	4.7250	4.2030	4.2030	5.0250	5.5280	**4.5920**	4.7810	5.2640
Jan-25	4.5100	4.8930	4.4860	4.4860	5.2130	5.5450	**4.7800**	4.9040	5.4290
Feb-25	4.3050	4.7150	4.2810	4.2810	5.0550	5.2630	**4.6220**	4.7790	5.2590
Mar-25	3.7080	4.3580	3.6510	3.6510	4.3180	4.4480	**3.8850**	4.4320	4.7970
Apr-25	2.8460	3.3460	2.8110	2.8110	3.2760	3.1530	**3.0744**	3.3990	3.5270
May-25	2.9070	3.2870	2.8630	2.8630	3.2300	3.0790	**3.0284**	3.2880	3.4810
Jun-25	2.9410	3.3630	2.9120	2.9120	3.2890	3.1250	**3.0874**	3.4170	3.5270
Jul-25	3.0510	3.4850	3.0110	3.0110	3.5630	3.4370	**3.3614**	3.5370	4.2940
Aug-25	3.0930	3.5250	3.0610	3.0610	3.5930	3.4870	**3.3914**	3.5740	4.3360
Sep-25	3.0620	3.5020	3.0350	3.0350	3.5650	3.4810	**3.3634**	3.5710	4.2280
Oct-25	3.1300	3.5220	3.0930	3.0930	3.5050	3.4820	**3.3034**	3.5960	3.6660

Notes: Based on Natural Gas Intelligence Forward Look at May 2, 2022. Values in bold type have been estimated or extrapolated by Southwest Gas as described in Section C.

The Company subscribes to Natural Gas Intelligence (NGI) Forward Look for projection of natural gas prices. Historically, the market for natural gas has been volatile and price expectations change constantly. The projections are a snapshot of the market at a point in time. NGI publishes forward prices for numerous supply points throughout the U.S. at the beginning of each day's trading based on NGI's previous day market reconnaissance.

NGI Forward Look does not report forward prices for the NWPL South of Green delivery point into NWPL. To estimate the basis values for NWPL South of Green, Southwest Gas uses the most recent full winter and summer month seasonal average basis differentials between the IFERC NWPL Rockies and the NGI Bidweek Survey NWPL South of Green. The seasonal basis is added to the NGI Forward Look respective winter and summer monthly market forward prices for Northwest Rockies to develop estimated monthly market forward prices for NWPL South of Green.

D. NAC 704.9645 – FORECASTS OF SALES VOLUMES AND ANNUAL PEAK DEMAND

1. a. Normal Weather Forecasts

The following tables show Southwest Gas' normal demand forecast for northern and southern Nevada.

i. Northern Nevada

Table D.1.a.1
Northern Nevada Normal Weather Sales Demand (Dth)

	2022/2023	2023/2024	2024/2025
November	1,163,830	1,180,218	1,196,168
December	1,675,000	1,697,670	1,719,652
January	1,659,246	1,681,175	1,703,167
February	1,333,726	1,362,441	1,368,628
March	1,120,221	1,134,746	1,149,001
April	797,478	807,795	817,781
May	550,313	557,566	564,082
June	360,415	365,171	369,540
July	292,167	296,112	299,677
August	298,863	302,976	306,624
September	372,243	377,314	381,697
October	683,461	692,900	701,082

ii. Southern Nevada

Table D.1.a.2
Southern Nevada Normal Weather Sales Demand [1] (Dth)

	2022/2023	2023/2024	2024/2025
November	4,300,976	4,397,724	4,479,812
December	7,789,636	7,963,670	8,112,471
January	7,811,732	7,986,916	8,135,816
February	5,679,636	5,895,539	5,916,006
March	3,861,139	3,949,009	4,022,417
April	2,827,617	2,892,461	2,946,169
May	2,691,916	2,750,481	2,801,601
June	2,033,262	2,077,512	2,116,092
July	1,874,807	1,915,634	1,951,222
August	1,873,300	1,914,158	1,949,684
September	1,971,228	2,014,458	2,051,838
October	2,790,079	2,854,343	2,907,155

[1] Normal Sales includes P1, P2, and P2A customers. (P2A customers have the ability to shift to alternative fuel sources during peak periods).

b. Annual Design Day Demand under Weather at Maximum Design Conditions

The following tables show Southwest Gas' design day demand forecast for northern and southern Nevada.

i. Northern Nevada

Table D.1. b.1 Northern Nevada Sales Design Day Demand (Dth/Day)			
	2022/2023	2023/2024	2024/2025
P1, P2 & P3	118,959	120,528	122,101

ii. Southern Nevada

Table D.1.b.2 Southern Nevada Sales Design Day Demand (Dth/Day)			
	2022/2023	2023/2024	2024/2025
P1 & P2[1]	567,947	580,581	591,420

[1] P2A customers are not included in the design day demand forecast, as they have the ability to switch to alternate fuel sources during peak periods.

2. Forecast Methodology and Unaccounted for Gas

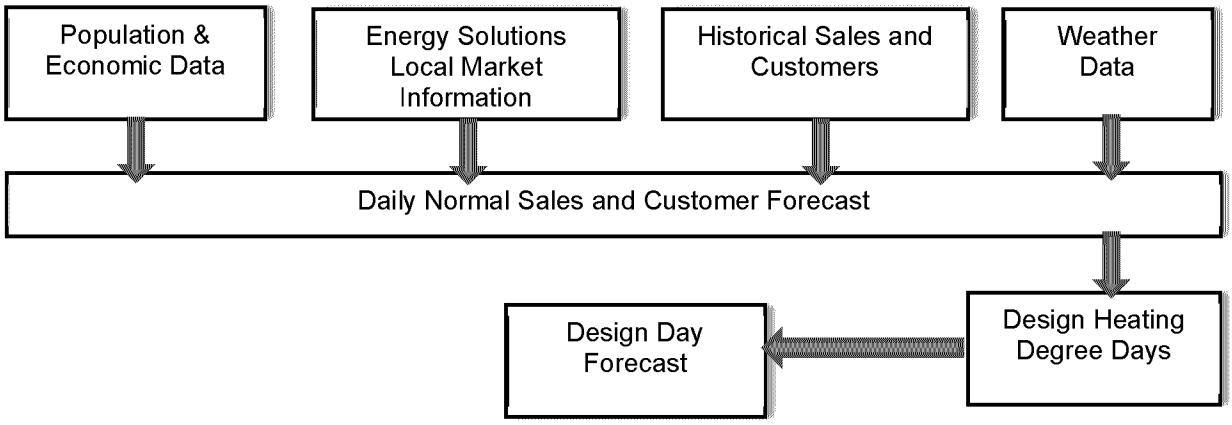
Southwest Gas utilizes generally accepted forecasting techniques to perform load forecasting. A regression-based methodology is employed to forecast both monthly sales volumes under normal weather conditions and design day deliveries. Regression equations relating historical daily city gate sales deliveries per customer to HDDs (HDD) were estimated for each operating district in northern and southern Nevada. The data sample ranges and estimated regression coefficients capture recent factors such as improved appliance and dwelling efficiencies, price elasticity, and other energy conservation related influences, including local building codes and federal appliance standards. The estimated regression equations are used in conjunction with customer forecasts and HDDHDD assumptions to produce both the monthly normal sales forecasts and design day forecasts. The unaccounted for natural gas is implicit to the forecasts since the regression equations are estimated utilizing historical daily city gate deliveries, which include on-system, unaccounted for natural gas. For budgeting purposes, Southwest Gas assumes that the unaccounted for natural gas is 1 percent of the total. Southwest Gas utilizes a 10-year average HDD assumption to develop the monthly normal sales forecast.

The Company utilizes the coldest weather occurrence on record since 1988 for the design HDD assumption, rather than the coldest day on record for the previous 30 years.[1] Southwest Gas adopted this HDD criteria for developing extreme weather daily demand forecast based on visual analytics and internal probabilistic assessments that indicated, if lower HDD criteria were adopted, there would be greater risks that the lower adopted HDD criteria could be exceeded by subsequent extreme weather events. Southwest Gas thus determined to adopt the coldest HDD event since 1988 so it would not be placed at higher risks of having insufficient resources to serve its customers'

[1] NAC 704.9605 "Weather at maximum design conditions" defined. (NRS 703.025, 704.210, 704.991) "Weather at maximum design conditions" means the coldest day on record for the previous 30 years or another period, if justified.

extreme weather demands. The following are the design (extreme) HDDs utilized in each operating district: Southern Nevada & Mesquite Districts (43.0 HDD, Harry Reid International Airport, probability of occurrence 0.026), Tahoe District (73.0 HDD, South Lake Tahoe, Calif. Airport, probability of occurrence 0.010), Carson District (72.5 HDD, Carson City Fire Department, probability of occurrence 0.017), Elko and Spring Creek Districts (83.0 HDD, Elko Regional Airport, probability of occurrence 0.016), Winnemucca District (83.0 HDD Winnemucca Airport, probability of occurrence 0.009), and Fernley District (73.5 HDD Fallon Experimental Station, probability of occurrence 0.015). Furthermore, the customer growth forecasts are developed based on recent customer growth trends and information provided by Southwest Gas personnel. The reasonableness of the customer growth forecasts is verified by reviewing economic and demographic information and forecasts produced by the Nevada State Demographer, the Western Blue Chip Economic Indicators, the Center for Business and Economic Research at the University of Nevada, Las Vegas, and various local, state, and federal agencies. For the reasons discussed above, the Company believes that the utilization of the coldest weather occurrence on record since 1988 for the design HDD assumption is justified to ensure safe and reliable service to its customers. Southwest Gas' load forecasting process is shown in Figure D.2.1

Figure D.2.1
Southwest Gas' Load Forecast Process



E. NAC 704.9655 – FORECAST FOR BASE GROWTH; ASSESSMENTS OF BASE CONSERVATION; LEVELS OF ENERGY SAVINGS OR REDUCTION IN DEMAND

1. Base Growth Forecast

   a. Northern Nevada
   During the 2022-2025 forecast period, the number of customers is forecasted to increase at an annual average rate of 1.3 percent.

   b. Southern Nevada
   During the 2022-2025 forecast period, the number of customers is forecasted to increase at an annual average rate of 1.9 percent.

2. Conservation and Load Management

   Detailed information for Southwest Gas' Nevada conservation programs is set forth in Section 5.b above. For years one through twelve, the programs have resulted in total savings of approximately 34,816 metric tons of CO_2 emissions.

   In October 2021, the PUCN approved Southwest Gas' Conservation and Energy Efficiency (CEE) Plan for 2022-2024 with an annual budget totaling approximately $1.35 million. The programs approved under the Company's CEE Plan include the SGB Residential Incentives Program, SGB Commercial Incentives Rebates Program, and SGB Energy Education Program, which are estimated to result in 403,952 annual therm savings, or 2,137 metric tons of CO_2 emissions, which equates to 465 passenger vehicles off the road for one year.

   In October 2021, the PUCN approved Southwest Gas' 2022 SGB Solar Water Heating Program with a budget totaling $100,000. The SGB Solar Water Heating Program is designed to provide Nevada customers with rebates to purchase and install solar thermal systems for domestic water heating, space heating and air conditioning or a combination of domestic water heating and space conditioning to help reduce their energy consumption, estimated at 9,286 therms annually, or 49.1 metric tons of CO_2 emissions, which equates to 11 passenger vehicles off the road for one year.

   Pursuant to the PUCN's September 12, 2014 Order in Docket No. 12-11009, Southwest Gas began recovering its northern and southern Nevada CEE program costs through an equal cent per therm rate. The CEE program rate includes both a prospective base program cost rate and a deferred program cost rate. Southwest Gas will seek approval of its proposed adjustments to the CEE program cost rates for its northern Nevada and southern Nevada rate jurisdictions as part of its 2022 Annual Rate Adjustment (ARA) Application.

F. NAC 704.966 – INFORMATION REGARDING MAJOR FACILITIES; CONSIDERATION OF OPTIONS FOR MAJOR FACILITIES

1. Existing Major Facilities

   a. Northern Nevada

      i. Upstream Resources

Overview: Southwest Gas serves P1, P2 and P3 sales customers' demands by use of contracted resources with NWPL, Great Basin, and Tuscarora. Contracted interstate pipeline and storage resources include 56,535 Dth/day of net capacity on NWPL (delivered into Great Basin at Owyhee); 56,535 Dth/day of gross capacity (including in-kind fuel) on Great Basin from the Nevada-Idaho border; 21,275 Dth/day of gross capacity on Great Basin (delivered into Great Basin at Jade Flats) to Elko; and 30,188 Dth/day on Tuscarora (delivered into Great Basin at Wadsworth). Southwest Gas also holds 36,432 Dth/day of seasonal net interstate capacity on Great Basin to transport LNG from storage.

Great Basin Transportation and LNG Services:
Based on the current forecast, Southwest Gas will have sufficient firm transportation capacity to serve the South of Elko Lateral service areas' projected design day demands through 2024/2025 portfolio year.

Southwest Gas requires incremental resources in northern Nevada for the delivery points located along Great Basin's Carson Lateral and North Lake Tahoe Lateral starting in the 2022/2023 portfolio year, and along the South Lake Tahoe Lateral starting in the 2023/2024 portfolio year. Therefore, incremental capacity must be acquired directly from Great Basin to meet these shortfalls. To resolve the incremental resource needs starting in the 2024/2025 portfolio year, Southwest Gas requested that Great Basin provide a cost estimate, a description of the required improvements, and an estimated monthly reservation rate for 5,582 Dth/day of gross incremental delivery point rights along Great Basin's Carson Lateral, which includes 815 Dth/day of gross incremental rights along Great Basin's North Lake Tahoe Lateral and 136 Dth/day of gross incremental capacity rights along Great Basin's South Lake Tahoe Lateral. As a result, Great Basin initiated non-binding and binding open seasons on February 3, 2022 and April 12, 2022, respectively, to determine if additional shippers have an interest in participating in the 2024 Expansion Project. The April 12, 2022 binding open season requested a 25-year minimum contract term. Subsequently, on April 29, 2022, Great Basin conducted a second binding open season with a 20-year minimum contract term. The 2024 Expansion Project consists of Great Basin expanding its existing transmission system downstream of the Wadsworth, Nevada Receipt Point.

For a description of how Southwest Gas conducts its assessments to determine the need for upstream resources, and how Southwest Gas acquires those resources, please refer to Appendix B.

Table F.1.a.1 compares the northern Nevada forecasted design day demands for service areas south of the Elko Lateral to Great Basin and Tuscarora resources through 2024/2025.

Table F.1.a.1
Northern Nevada
South of Elko Lateral Design Day Demand Resources
(Dth-Net)

Design Day Demand Forecast[1] **(P1, P2 & P3 Sales)**	**2022/2023** 99,311	**2023/2024** 100,515	**2024/2025** 101,740
Existing Supply Resources			
Great Basin Transportation from Owyhee[2]	44,983	44,983	44,983
Great Basin Transportation from LNG[2]	36,432	36,432	36,432
Great Basin Transportation from Wadsworth[2,3]	29,282	29,282	29,282
Surplus / (Shortfall)	11,386	10,182	8,957

Footnotes:
1. Updated 2020 Carson, Fallon, and Tahoe long range forecasts (March 2022 update).
2. Net transportation is calculated to be 3 percent less than the gross to adjust for Great Basin fuel.
3. The quantities shown equal Tuscarora contracted capacity rights to Wadsworth.

Table F.1.a.2 compares the northern Nevada forecasted design day demands for service areas upstream of the city of Elko along the Elko Lateral to Southwest Gas' contracted Great Basin mainline capacity under TSA F49 along the Elko Lateral through 2024/2025. As shown, Southwest Gas has sufficient resources to serve its extreme design day demands for the service areas upstream of the city of Elko along Great Basin's Elko Lateral through the forecast period.

Table F.1.a.2
Northern Nevada
Elko Lateral Design Day Demand Resources Upstream of the City of Elko
(Dth-Net)

Design Day Demand Forecast[1] **(P1, P2 & P3 Sales)**	**2022/2023** 8,204	**2023/2024** 8,248	**2024/2025** 8,292
Existing Supply Resources			
Great Basin Transportation from Owyhee[2]	9,856	9,856	9,856
Surplus / (Shortfall)	1,652	1,608	1,564

Footnotes:
1. Updated 2020 Elko and Winnemucca long range forecasts (March 2022 update).
2. Net transportation is calculated to be 3 percent less than the gross to adjust for Great Basin fuel.

Table F.1.a.3 compares the Adobe Lateral resources to the City of Elko forecast design day demands through 2024/2025. As shown, no additional resources are needed to meet forecasted customer demands in the city of Elko through the forecast period.

Table F.1.a.3 Northern Nevada City of Elko Design Day Demand Resources (Dth-Net)			
Design Day Demand Forecast[1] (P1, P2 & P3 Sales)	**2022/2023**	**2023/2024**	**2024/2025**
	11,444	11,765	12,069
Existing Supply Resources Adobe Lateral from Jade Flats [2]	20,637	20,637	20,637
Surplus / (Shortfall)	9,193	8,872	8,568

Footnotes:
1. Updated 2020 Elko long range forecast (March 2022 update).
2. Net transportation is calculated to be 3 percent less than the gross to adjust for Great Basin fuel.

TSA F49 states the Carson Lateral Capacity Limitation (LCL) as 86,778 Dth/day-net. The LCL represents the maximum aggregate daily demand Great Basin can serve at the various northern Nevada delivery points located along this lateral.

Southwest Gas also has contracted 5,868 Dth/day-gross under TSA F-30, 608 Dth/day-gross under TSA F-46 and 4,604 Dth/day-gross under TSA F-56. The net transportation service Southwest Gas can rely upon under these TSAs is 10,748 Dth/day-net, based on Great Basin's maximum tariff fuel rate of 3 percent. Thus, the total net transportation service Southwest Gas can rely on along the Carson Lateral is 97,526 Dth/day-net under TSAs F-30, F-46, F-49 and F-56.

Table F.1.a.4 Northern Nevada Carson Lateral Design Day Demand Resources (Dth-Net)			
Carson Lateral Design Day Demand Forecast[1] (P1, P2 & P3 Sales)	**2022/2023**	**2023/2024**	**2024/2025**
	98,195	99,399	100,624
Existing Carson Lateral Delivery Rights[2]	97,526	97,526	97,526
Great Basin 2024 Expansion Project			5,221
Surplus / (Shortfall)	(669)	(1,873)	2,122
Available Northern California Capacity	669	667	
Surplus / (Shortfall)	0	(1,206)	2,122

Footnotes:
1. Updated 2020 Carson, Fallon, and Tahoe long range forecasts less forecast demands for Lovelock, NV (March 2022 update).
2. Net transportation is calculated to be 3 percent less than the gross to adjust for Great Basin fuel.

Table F.1.a.4 shows that Southwest Gas does not have enough firm transportation capacity rights along Great Basin's Carson Lateral to serve the projected design day demands through beginning in the 2022/2023 winter. The 2022/2023 shortfall will be met by transferring surplus northern California contracted capacity to northern Nevada. For the 2023/2024 portfolio year, Southwest Gas has insufficient

firm transportation capacity to meet northern Nevada's projected design day demands. Southwest Gas will transfer surplus northern California contracted capacity to reduce this shortfall.

Table F.1.a.5 compares northern Nevada resources on the North Lake Tahoe Lateral to projected demands. The table shows that Southwest Gas does not have sufficient firm transportation capacity to meet the projected extreme weather design day demands through the 2024/2025 portfolio year. Southwest Gas intends to transfer surplus contracted capacity from its northern California service territory to its northern Nevada service territory to reduce and/or alleviate the identified shortfalls through the 2024/2025 portfolio year.

Table F.1.a.5 Northern Nevada North Lake Tahoe Lateral Design Day Demand Resources (Dth-Net)			
North Lake Tahoe Lateral Design Day Demand Forecast[1] (P1, P2 & P3 Sales)	**2022/2023**	**2023/2024**	**2024/2025**
	20,748	20,804	20,899
Existing North Lake Tahoe Lateral Delivery Rights[2]	19,926	19,926	19,926
Great Basin 2024 Expansion			791
Surplus / (Shortfall)	(822)	(878)	(183)
Available Northern California Capacity	528	303	183
Surplus / (Shortfall)	(294)	(575)	0

Footnotes:
1. Updated 2020 Tahoe long range forecast (March 2022 update).
2. Net transportation is calculated to be 3 percent less than the gross to adjust for Great Basin fuel.

Table F.1.a.6 indicates that Southwest Gas has sufficient resources to meet its extreme peak day demands on the South Lake Tahoe Lateral through the 2022/2023 forecast period. In order to serve the incremental resource need in the 2023/2024 winter, Southwest Gas intends to transfer from its northern California service territory to its northern Nevada service territory the amount of available contracted capacity needed to alleviate the identified shortfall.

Table F.1.a.6 Northern Nevada South Lake Tahoe Lateral Design Day Demand Resources (Dth-Net)			
South Lake Tahoe Lateral Design Day Demand Forecast[1] (P1, P2 & P3 Sales)	**2022/2023**	**2023/2024**	**2024/2025**
	5,133	5,158	5,183
Existing South Lake Tahoe Lateral Delivery Rights[2]	5,149	5,149	5,149
Great Basin 2024 Expansion			132
Surplus/(Shortfall)	16	(9)	98
Available Northern California Capacity		9	
Surplus / (Shortfall)	16	0	98

Footnotes:
1. Updated 2020 Tahoe long range forecast (March 2022 update).
2. Net transportation is calculated to be 3 percent less than the gross to adjust for Great Basin fuel.

Tuscarora Transportation Service: Southwest Gas' northern Nevada system currently holds 30,188 Dth/day of capacity on Tuscarora. Tuscarora receives gas supplies at Malin, Oregon and then delivers the supply to Great Basin's Tuscarora interconnect at Wadsworth.

NWPL Transportation Service: Southwest Gas holds 60,826 Dth/day of capacity on NWPL. Of this, 26,579 Dth/day has a receipt point at Sumas, Washington on

the Canadian border. The remaining rights are at various points in the Rocky Mountain production area and in the San Juan Basin. Southwest Gas entered a short-term capacity release of 41,535 Dth/day of NWPL capacity from November 1, 2021 through October 31, 2022 at a daily demand reservation rate of $0.200/Dth. This release was in conjunction with the acquisition of short-term firm Ruby capacity discussed below.

NWPL operates a bi-directional pipeline system that receives natural gas at both its northwestern and southeastern ends. This configuration requires flows from both ends to meet its contractual obligations. Thus, Southwest Gas' contracts with NWPL require Southwest Gas to meet certain scheduling requirements during certain flow conditions. When NWPL experiences these conditions, they issue a "realignment" order to shippers to bring the pipeline within operational parameters so that NWPL can meet its contractual obligations.

On occasion, Southwest Gas experiences realignments or must-flow orders on NWPL. Realignments and must-flow orders can occur when natural gas supplies from the Rocky Mountains (the eastern end of the pipeline) are less expensive than natural gas supplies from Sumas (the northwestern end of the pipeline), or vice versa. Shippers' attempts to maximize low cost supply purchases and minimize high cost purchases cause a reduction in the volume available for displacement deliveries on NWPL's system and threaten NWPL's ability to meet its contractual obligations. While recent price differentials between Sumas and the Rocky Mountains have decreased, realignment and must-flow orders remain probable.

In a typical realignment or must-flow order, NWPL can require shippers to schedule natural gas from either Sumas or the Rockies on a given contract up to the contract's maximum receipt point rights. For example, assume a shipper holds 100 Dth/day of capacity on NWPL, and the contract specifies 40 Dth/day of rights at Sumas and 60 Dth/day of rights in the Rockies. If NWPL issues a realignment or must-flow order, it could require the shipper to schedule up to 40 Dth/day from Sumas, regardless of that shipper's need for any supply from Sumas or the Rockies. Realignments and must-flow orders are particularly troublesome for Southwest Gas during low-load conditions. Under such conditions, Southwest Gas is supplying most, or all, of its load through firm baseload contracts. To avoid potential issues with realignments and must-flow orders, Southwest Gas structures these baseload purchases on northern Nevada's NWPL TSA 100057, which only has Rockies and San Juan receipt point rights and has a low probability of being subject to realignment or must-flow orders. Should baseload requirements exceed that contract's capacity rights, Southwest Gas can utilize its Tuscarora capacity for those baseload quantities. However, should a realignment or must-flow order occur during a low-load condition, Southwest Gas may need to nominate gas supplies that it does not need to meet its customers' demands, which can cause imbalance issues on Great Basin's system. To minimize these risks, Southwest Gas has utilized either an Asset Management Arrangement or capacity release to shift the risk of realignments and must-flow orders to the replacement shipper.

Ruby Transportation Service: Southwest Gas does not contract for any long-term firm capacity on Ruby; however, Southwest Gas does receive delivered supplies through the Great Basin/Ruby interconnects at Opal Valley and Jade Flats. Additionally, for each portfolio year, Southwest Gas attempts to contract separately for shaped short-term firm Ruby capacity in the winter and summer. The two winter contracts Southwest Gas executed with Ruby for the 2021/22 portfolio year have a monthly reservation rate of $2.8896/Dth. Southwest Gas did not secure monthly summer contracts with Ruby, but secured bundled delivered supply deals for the months of April through June. Southwest Gas plans to solicit Ruby capacity and/or bundled delivered supply deals for the remainder of the portfolio year prior to or during its annual term supply portfolio process.

ii. Southwest Gas – Owned Facilities

The Company provides natural gas service to the counties of Carson City, Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Nye, Pershing, Storey, and Washoe in northern Nevada. Southwest Gas' northern Nevada service territory is served by a tap-type system, which is fed by numerous transmission delivery points with no transmission piping and significantly less high-pressure distribution piping compared to the system in Southwest Gas' southern Nevada service territory. The system includes 52 major contractual delivery points on Great Basin, approximately 76 miles of high-pressure distribution pipe ranging in diameter from 3/4-inch to 12-inch, numerous pressure regulator stations, and all necessary and related equipment, facilities, and improvements required for the control, maintenance, and operation of the system. A list of delivery points is shown in Table F.1.a.7. Maps showing the facilities are shown in Exhibit No. F.1.a.1, pages 1-5.

Table F.1.a.7
Northern Nevada Delivery Points
(Great Basin to Southwest Gas)

Tahoe (District 23)	**Elko (District 25)**	**Fallon (District 27)**
Incline City Gate #1	Carlin	Fernley City Gate
Incline City Gate #2	Elko	Fallon City Gate #1
Incline City Gate #3	Newmont Tap	Fallon City Gate #2
Incline City Gate #4		Fallon City Gate #3
Marlette Lake	**Winnemucca (District 26)**	Fallon City Gate #4
North Lake Tahoe	Springer Mine	Premier Inc.
(Crystal Bay)	Winnemucca #1 (Cyanco)	Lovelock
Stateline City Gate #1	Winnemucca #2	Lovelock Prison
Stateline City Gate #2	Winnemucca #3	Eagle Picher #2
Stateline City Gate #3	Battle Mountain	Silver Springs
Stateline City Gate #4	Gold Fields (Newmont)	Campbell Ranch
	Battle Mountain Gold (Newmont)	Yerington City Gate
Carson (District 24)		O'Sullivan
Carson City Gate #1		FNAS City Gate # 1
Carson City Gate #2		(Capehart)
Carson City Gate #3		FNAS Back Gate
Carson City Gate #4		Bango Tap
Carson City Gate #5		
Carson City Gate #6		
Ridgeview		
Carson Valley		
Genoa		
Minden/Gardnerville		
Foothill (Wally's Hot Springs)		
Washoe Valley (East Washoe)		
Moundhouse		
Dayton		
Mark Twain		
Stagecoach		

Beginning at Southwest Gas' most northern service territory, District 25 contains facilities used for the transportation of natural gas to the areas of Elko and Carlin. This includes two contractual delivery points (Carlin and Newmont Tap) from Great Basin's Elko Lateral. In addition, District 25 has one contractual delivery point (Elko) that receives service from Great Basin's Elko and Adobe Laterals through Great Basin's existing Elko City Gate. The Elko City Gate delivers supply into one high-pressure (>60 psig) distribution lateral totaling approximately 6 miles of piping in District 25, which ranges in diameter from 2-inch to 10-inch. This distribution lateral also supplies District 28 as described in the next paragraph. Furthermore, this lateral has a maximum allowable operating pressure (MAOP) / maximum operating pressure (MOP) of 400 psig.

District 23 contains facilities used for the bulk transport of natural gas to the areas of Incline Village, Crystal Bay and Stateline, including 10 contractual delivery points which connect directly to the distribution system operating at less than or equal to 60 psig. This district does not contain any high-pressure distribution pipeline.

District 24 contains facilities used for the bulk transport of natural gas to the areas of Carson, Genoa, Minden, Gardnerville, Washoe Valley, and Dayton, including 16

contractual delivery points and 10 high-pressure distribution laterals totaling approximately 32 miles of piping ranging in diameter from 3/4-inch through 8-inch with varying MAOP/MOPs.

District 26 contains facilities used for the bulk transport of natural gas to the areas of Winnemucca and Battle Mountain, including seven contractual delivery points and five high-pressure distribution laterals totaling approximately 17 miles of 3/4-inch to 6-inch diameter piping with varying MAOP/MOPs.

District 27 contains facilities used for the bulk transport of natural gas to the areas of Fernley, Fallon, Lovelock, Silver Springs, and Yerington, including 16 contractual delivery points and five high-pressure distribution laterals totaling approximately 22 miles of piping ranging in diameter of 3/4-inch through 12-inch with varying MAOP/MOPs.

District 28 contains facilities used for the distribution of natural gas to the areas of Elko Summit Estates and Spring Creek. There are no contractual delivery points that specifically serve only District 28. These facilities include a high-pressure distribution extension from District 25 with approximately 12 miles of pipe ranging in diameter of 4-inch through 8-inch with a maximum allowable operating pressure (MAOP) / maximum operating pressure (MOP) of 400 psig.

Each source of supply throughout Southwest Gas' northern Nevada system flows natural gas through Great Basin's metering, and in most cases, Great Basin-operated pressure-control facilities. However, in some instances, Southwest Gas may own and operate certain components, including pressure-controlling facilities, at the source of supply. Downstream of each supply source, Southwest Gas serves its high-pressure and low-pressure distribution facilities, as referenced above. Details of the specific length, pipeline diameter, MAOP, and MOP of each lateral are shown in Table F.1.a.8.

Table F.1.a.8
Northern Nevada
Pipeline Operating Pressure > 60 psig

District	Area	Lateral Name	Pipe Size (in)	Footage (feet)	Footage (miles)	MAOP (psig)	MOP (psig)
23	**Tahoe**	None					
24	**Minden-Gardnerville**	Minden-Gardnerville	6	54,146	10.25	400	300
			4	9,778	1.85		
			2	92	0.02		
		Minden-Gardnerville Branch	6	8,577	1.62	400	300
			4	29	0.01		
	Genoa	Genoa	6	11,434	2.17	200	200
			4	68	0.01		
			2	4,089	0.77		
			0.75	94	0.02		
	Carson City	5th St/Fairview	8	4,113	0.78	293	275
			6	8,305	1.57		
			4	335	0.06		
		Saliman	6	3,557	0.67	275	275
			4	61	0.01		
		Arrowhead	4	116	0.02	413	275
			6	11,876	2.25		
	Washoe Valley	Washoe	4	32,147	6.09	400	165
			1	21	0.00		
			0.75	78	0.02		
		West Washoe	4	4,603	0.87	400	165
			2	25	0.00		
	Dayton	Dayton Valley	4	13,689	2.59	720	355
			2	77	0.01		
			Total	**167,310**	**31.69**		
25/28	**Elko**	Spring Creek	10	18,587	3.52	400	400
			8	65,102	12.33		
			6	13,139	2.49		
			2	10	0.00		
		Spring Creek	8	718	0.14	400	400
			Total	**97,556**	**18.48**		

TABLE F.1.a.8
(Continued)
Northern Nevada
Pipeline Operating Pressure > 60 psig

District	Area	Lateral Name	Pipe Size (in)	Footage (feet)	Footage (miles)	MAOP (psig)	MOP (psig)
26	**Winnemucca**	Jungo Road	8	20,482	3.88	720	550
			4	128	0.02		
			0.75	0	0		
			6	84	0.02	433	425
		Cyanco	4	12,502	2.37		
			2	0	0.00		
		Grass Valley	4	19,663	3.72	340	275
			2	124	0.02		
26	**Battle**	Battle	6	33,868	6.41	720	400
			4	119	0.02		
	Mountain	Mountain					
			Total	**86,970**	**16.47**		
27	**Fernley**	Fernley	12	19,050	3.61	720	400
			8	23,318	4.42		
			6	147	0.03		
			4	260	0.05		
		Fernley Branch	12	24,180	4.58	720	400
			4	87	0.02		
		Fernley	4	37	0.01	275	250
		Wadsworth	6	1,906	0.36	275	267
			4	13,062	2.47		
			2	8	0.00		
	Fallon	Capehart	4	7,712	1.46	164	164
			2	122	0.02		
			1	29	0.01		
			0.75	108	0.02		
		Fallon	6	6,682	1.27	720	400
			4	194	0.04		
	Lovelock	Coal Canyon	4	16,288	3.08	275	230
			Total	**113,190**	**21.44**		
			Grand Total	**465026**	**88.07**		

Facilities within northern Nevada do not include any compression, natural gas storage, or production properties. However, Southwest Gas does contract for storage service from Great Basin's LNG facility located in Lovelock, Nevada, as referenced earlier.

Planned Major Facilities: Southwest Gas' northern Nevada service territory is expanding to serve Spring Creek and the surrounding area, located southeast of Elko. The expansion project was approved by the PUCN in Docket No. 19-06017.

Construction is underway on the Spring Creek Expansion Project, with high-pressure distribution installation complete and the installation of main and service facilities continuing through approximately 2026.

Reliability of Existing and Planned Major Facilities: Facilities are sized and constructed to the level required to provide adequate, safe, and reliable natural gas service to customers.

Operations and Maintenance (O&M) Costs of Existing Major Facilities: The O&M cost estimates for Major Facilities in northern Nevada are provided in Table F.1.a.9.

Table F.1.a.9				
O&M Costs (2019 Dollars)	**BUDGET YEAR**			
	2022	**2023**	**2024**	**2025**
High-Pressure Distribution	$433,052	$439,116	$445,266	$451,945

b. Southern Nevada

i. Upstream Resources

Overview: Southwest Gas plans for services to southern Nevada high-priority P1 and P2 sales demands by use of contracted pipeline resources with Kern and Transwestern, as well as bundled delivered supplies off these pipelines through the forecast period. Southwest Gas has minimized the full year-round cost of contracting for firm upstream interstate pipeline capacity to serve its design day demand since 1992. The Company mitigates interstate capacity costs through seasonal and monthly shaped capacity purchases on Kern, El Paso, and Transwestern as well as by the acquisition of bundled delivered supplies.

Table F.1.b.1 summarizes southern Nevada's long-term firm capacity commitments and requirements as of May 2022.

Table F.1.b.1 **Southwest Gas Corporation** **Southern Nevada Design Day Interstate Capacity Resources** **(Dth-Net)**			
Design Day Demand Forecast [1] **P1, P2 Sales**	**2022/2023** 567,947	**2023/2024** 580,581	**2024/2025** 591,420
Existing Contracted Interstate Resources Kern Transportation	274,870	281,970	286,970
Transwestern Transportation	85,500	90,600	98,100
Kern Delivered	185,000	185,000	185,000
Transwestern Delivered	30,000	30,000	30,000
Surplus / (Shortfall)	7,423	6,989	8,650
Footnotes: 1. 2022 Southern Nevada long range forecast plus on-system fuel requirements.			

In early 2020, Southwest Gas updated its southern Nevada extreme weather peak day design forecast. In this update, the October peak day requirement increased by more than 96,000 Dth/day. In August 2020, Southwest Gas solicited for bundled delivered supplies to meet the extreme October peak day requirement from 2020 through 2025. Southwest Gas secured sufficient resources to cover the October peak day demands for 2020 and 2021. The Company has a plan to achieve full coverage of the southern Nevada October 2022 through October 2025 extreme peak day requirements. First, if an updated southern Nevada extreme weather peak day design forecast is available, the quantity between contracted interstate resources and the updated extreme weather peak day design forecast will be assessed. Next, Southwest Gas will issue a solicitation seeking sufficient delivered October peaking supplies so that the October 2022 through October 2025 extreme peak day requirements can be covered. Upon receipt of responses to that solicitation, Southwest Gas will review the responses and execute any reasonable and prudent contracts. This process will be completed prior to October 2022.

For a description of how Southwest Gas conducts its assessments to determine the need for upstream resources, and how Southwest Gas acquires those resources, please refer to Appendix B. In October 2021, Spire Storage announced a binding open season for firm storage service. Spire Storage offered up to 5 Bcf of firm working gas storage capacity beginning April 1, 2022. The storage facility is located in Uinta County, Wyoming, approximately 60 miles southwest of the Opal Hub, which is a Rocky Mountain production area market supply point. The storage facility will allow supplies to be injected directly into Kern's system for delivery to Southwest Gas' southern Nevada system. During the binding open season, Southwest Gas assessed the value of securing firm storage service to reduce the procurement amount of daily and intraday supplies. The assessment led to the Company contracting 1 Bcf of storage capacity rights along with 8,200 Dth/day of daily injection rights and 14,000 Dth/day of daily withdrawal rights for April 1, 2022 through March 31, 2025. The monthly storage capacity reservation charge is $0.09/Dth and the annual reservation cost for the storage service is $1,080,000.

Transportation Service Agreements: Table F.1.b.2 summarizes Southwest Gas' TSAs with Kern and Transwestern. As the table shows, Southwest Gas has been successful at shaping its pipeline capacity to match its requirements throughout the year.

Table F.1.b.2
Southwest Gas Corporation
Transportation Service Agreements
(Dth/Day)

TSP	TSA #	Effective Date	CD Nov	CD Dec	CD Jan	CD Feb	CD Mar	CD Apr	CD May	CD June-Sep	CD Oct
Kern	1812 [2]	Nov-10	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Kern	20003 [1]	Dec-16	0	25,875	25,875	25,875	0	0	0	0	0
Kern	20004 [1]	Dec-16	0	58,995	65,205	60,030	0	0	0	0	0
Kern	20016 [1]	Oct-16	14,490	14,490	14,490	14,490	14,490	14,490	14,490	14,490	14,490
Kern	20018 [1]	Oct-16	12,625	12,625	12,625	12,625	12,625	12,625	12,625	12,625	12,625
Kern	20020 [1]	Nov-16	87,975	87,975	87,975	87,975	87,975	0	0	0	0
Kern	26035	Nov-22	41,100	26,400	18,700	12,600	0	21,400	0	0	0
		Nov-23	47,200	36,100	25,800	21,100	0	23,400	0	0	0
		Nov-24	53,500	45,500	30,800	29,800	4,600	25,500	0	0	0
Transwestern	105239	Nov-22	42,900	78,000	85,500	70,700	22,400	11,900	12,200	0	18,500
		Nov-23	44,400	80,300	90,600	72,800	28,500	12,200	14,100	0	20,500
		Nov-24	46,000	82,600	98,100	75,000	30,200	12,400	16,000	0	22,500

Footnotes:
1. Kern TSAs at Period Two Rate.
2. Kern TSAs eligible for Period Two Rates in November 2025.

Long-Term Bundled Delivered Supply Contracts: Table F.1.b.3 lists the long-term bundled delivered supply contracts Southwest Gas has secured with various suppliers through the forecast period.

Table F.1.b.3
Southwest Gas Corporation
Long-Term Bundled Delivered Supply Contracts
(Dth/Day)

Supplier	Delivery Point	Contract #	CD Nov	CD Dec	CD Jan	CD Feb	CD Mar	CD Apr	CD May	CD June-Sep	CD Oct
BP	Kern Citygate	GPAF04022	0	0	31,075	0	0	0	0	0	0
BP	Kern Citygate	GPAF04022	50,000	50,000	50,000	50,000	50,000	50,000	9,700	0	16,700
Chevron	Kern Citygate	GPAF04013	10,000	10,000	10,000	10,000	10,000	10,000	8,900	0	10,000
Chevron	Kern Citygate	GPAF04013	10,000	10,000	10,000	10,000	10,000	10,000	0	0	6,700
Citadel	Kern Citygate	GPAF16003	14,000	83,925	83,925	67,500	0	13,000	0	0	21,000
ConocoPhillips	TWPL - SGTC	GPAF94012	30,000	30,000	30,000	30,000	30,000	22,800	0	0	0

ii. Southwest Gas - Owned Facilities

The facilities shown in Exhibit No. F.1.b.1 comprise a physically integrated system

of operating facilities for the furnishing of natural gas to the customers in the Company's southern Nevada service territory. The facilities include about 286 miles of transmission pipeline, 265 miles of high-pressure distribution pipeline, one compressor station, many pressure regulator stations, service lines, meters for individual customers, and all necessary and related equipment, facilities, and improvements required to control, maintain, and operate the system. High-pressure distribution, including mains, services, regulator stations, and meters, are facilities that operate at a pressure greater than 60 psig.

Natural gas may be transported to Southwest Gas' southern Nevada southern transmission system (STS) facilities from EPNG and SGTC. EPNG transports supply to the Company's facilities at the Arizona/Nevada border in the middle of the Colorado River near Bullhead City, Arizona. From this location, the Company's facilities proceed westerly for approximately 2,000 feet in Clark County to a crossover station known as the "Intersection Point" located south of Laughlin, Nevada. SGTC transports supplies received from its interconnection with EPNG and Transwestern to its downstream interconnection with Southwest Gas at the Arizona-Nevada boundary located in the middle of the Colorado River near the southern limits of Bullhead City, Arizona. This location is about 9 miles north of the SGTC metering station. The Company's 720 psig MAOP system proceeds northwesterly for about 4 miles to the Intersection Point. At the Intersection Point, natural gas supplies received from the two incoming pipelines branch into three Company-owned pipelines, one having an MAOP of 720 psig and the other two having MAOPs of 500 psig. One 500 psig MAOP pipeline from the Interconnection Point transports supply north to a distribution system serving Laughlin, Nevada. The other 500 psig MAOP and 720 psig MAOP pipelines proceed north to the Las Vegas Valley. The 500 psig MAOP pipeline from the Intersection Point again splits into two 500 psig MAOP mains at a point north of the Intersection Point and south of the Davis Dam Compressor Station.

The Davis Dam Compressor Station consists of two compressor units, associated monitoring and control facilities, and station piping from each of the Company's three high-pressure mains at that location. The Davis Dam Compressor Station piping divides into two different high-pressure systems, each of which connects to one of two separate compressor units. Each compressor unit consists of a centrifugal gas compressor driven by a natural gas-fired combustion turbine unit. A 1,100 h.p. Saturn turbine drives one compressor and a 3,730 h.p. Centaur turbine drives the other compressor. The compressors operate independently, with the Centaur unit operating on the 720 psig MAOP piping and the Saturn unit designed to operate on either the 720 psig MAOP system or the 500 psig MAOP system.

North of the compressor station, the two 500 psig MAOP transmission mains merge again to a single main at the Davis Dam Crossover. North of that point, the 500 psig MAOP transmission main and the 720 psig MAOP transmission main intersect at several crossover points. Valves at such crossover points provide for alternative paths of natural gas flow in the event of an outage of any one section of the transmission system.

North of the Davis Dam Crossover, the 500 psig MAOP and 720 psig MAOP mains proceed to the Searchlight Crossover #1, where the 720 psig MAOP transmission main terminates. From Searchlight, the two mains proceed north as one 500 psig MAOP transmission main and one 650 psig MAOP transmission main, to the

Powerline Crossover. The same two mains then proceed north toward Las Vegas. Farther north at Substation Crossover, an additional 720 psig MAOP main joins the two lines into the Las Vegas area. The southern supply system connects to customers in the Las Vegas Valley through a network of transmission and high-pressure distribution pipelines, having MAOPs of 120 psig to 720 psig. Natural gas enters this network from the southern transmission pipeline facilities at four separate gate stations. Two of these stations are located at the Wigwam Pressure Limiting Station (PLS) located in the southeast part of the Las Vegas Valley. Both stations connect to the 720 psig MAOP main extending from the Blue Diamond Tap (discussed below). The third gate station is the Horizon Ridge PLS located at the far southeast end of the Las Vegas Valley, which is connected to the 720 psig MAOP main extending from Blue Diamond Tap, as well as the 500 psig MAOP and 650 psig MAOP southern transmission mains. The fourth gate station is the Clark PLS, which is located in the southeast part of the Las Vegas Valley and connected to the 650 psig MAOP southern transmission main.

Kern also transports supplies into Southwest Gas' system at seven delivery point locations - the Mesquite, Apex, Pecos, Centennial, Lone Mountain, Blue Diamond, and Primm taps. At each tap, transmission or high-pressure distribution mains with MAOPs up to 1,350 psig allow natural gas to flow from Kern to the Company's southern Nevada service territory. Kern's system has a MAOP of 1,333 psig. Kern is contractually obligated to deliver natural gas at no less than 700 psig from November through March and 650 psig from April through October. The contractual pressure for Mesquite is no less than 650 psig year-round.

The Mesquite Tap is located approximately 9.5 miles northwest of Mesquite, Nevada. The Mesquite Tap supplies gas to Mesquite, Nevada via an 8-inch pipeline with a MAOP of 720 psig.

The Apex Tap is located north of Las Vegas and west of Interstate 15. The Apex Tap supplies an eight-inch pipeline with a MAOP of 720 psig that currently serves two large transportation customers as well as the Las Vegas Valley high-pressure loop system.

The Pecos Tap is in the north central area of North Las Vegas. The Pecos Tap feeds an eight-inch pipeline with a MAOP of 720 psig that serves one large transportation customer with a small feed into the Las Vegas Valley high-pressure loop system. This pipeline is also part of the Northwest high-pressure system with a MAOP of 720 psig.

The Centennial Tap is in the north central area of North Las Vegas and supplies natural gas to a 16-inch pipeline, which reduces to a 12-inch pipeline. This pipeline is a part of the Northwest high-pressure system with a MAOP of 720 psig. It serves one large transportation customer and provides a feed into the Las Vegas Valley high-pressure loop system.

The Lone Mountain Tap is located at the northwest edge of Las Vegas and ties directly into the 720 psig MAOP Northwest high-pressure system.

The Blue Diamond Tap is located on the southwest side of Las Vegas. This tap supplies a 24-inch 720 psig MAOP pipeline that serves NV Energy's Clark and Sunrise Power Plants, Desert Star, and Saguaro power plants, as well as the Las Vegas Valley high-pressure loop system through the four gate stations mentioned above, plus two additional gate stations. The fifth gate station is the Durango PLS, located in the southwest part of the Las Vegas Valley, and is connected to the 720 psig MAOP transmission main. The sixth gate station is the Robindale PLS, located at the south-central part of the Las Vegas Valley.

The Primm Tap is located west of Primm, Nevada; it supplies an isolated distribution system that serves the hotels and casinos in Primm, Nevada.

At each load center, there is a regulating station connected to the distribution mains through which the Company distributes natural gas in the southern Nevada service territory.

Planned Major Facilities: No anticipated major planned facilities will be constructed in southern Nevada during the forecast period.

Reliability of Existing and Planned Major Facilities: To the extent reasonable, the major facilities are not sized larger and were not constructed sooner or using a costlier design than is required to provide adequate, safe, and reliable natural gas service to customers.

Operations and Maintenance (O&M) Costs of Existing Major Facilities: The O&M cost estimates for major facilities in southern Nevada are provided in Table F.1.b.4.

Table F.1.b.4

O&M Costs (2021 Dollars)	BUDGET YEAR			
	2022	2023	2024	2025
High-Pressure Distribution	$1,885,735	$1,914,021	$1,942,731	$1,971,872
Transmission	$3,771,470	$3,828,042	$3,885,462	$3,943,744
Total Budget	$5,657,205	$5,742,063	$5,828,193	$5,915,616

2. Options for Major Facilities

Southwest Gas monitors the activities of existing and proposed pipelines that could provide services to Nevada. Before specific capacity alternatives are solicited, Southwest Gas first assesses its upcoming needs based on load growth. With sufficient lead time to assure viability, Southwest Gas contacts existing pipelines to inquire as to the availability of existing pipeline capacity or the cost and availability of an expansion of the pipeline. To the extent that potential pipelines have been announced, Southwest Gas will also consider those, as well as contracting with existing pipelines to expand, if feasible. The Company may also consider storage alternatives to the extent possible.

Once the viable alternatives are known, Southwest Gas analyzes the alternatives based on cost, reliability, risk, and on-system improvement cost associated with each alternative. After the completion of analyses, the Company contracts for the preferred alternative.

Southwest Gas believes that its practice of ongoing market monitoring and periodic specific proposal analysis is adequate to address capacity acquisition issues. No modification of Southwest Gas' practices is currently warranted.

G. NAC 704.9665 – CRITERIA FOR RETIREMENT OF MAJOR FACILITIES

Southwest Gas does not have specific dates for the retirement of its major facilities. The following are reasons the Company may schedule a major facility for retirement:

(i) The facility is no longer required due to a change in customer demand.

(ii) An increase in customer demand may result in replacement of a major facility.

(iii) The implementation of franchise agreement provisions or the loss of an easement. Southwest Gas' facilities installed within a public franchise area, such as a public street, do not have exclusive rights to the rights-of-way. If required by the public landowner agency, Southwest Gas may need to retire its facilities prior to the end of their useful life.

(iv) The integrity of the major facility has been diminished to where it may become a public safety concern, or it is no longer economically feasible to operate the major facility. The criteria for diminished integrity are:

- Cathodic protection cannot be maintained or is no longer cost-effective to be maintained on a steel pipeline; or,
- Maintenance and inspection results indicate one or more components of the major facility have reached the end of their useful life.

H. NAC 704.9675 – DISCUSSION OF ALTERNATIVE STRATEGIES

1. Northern Nevada

Southwest Gas has several alternative sources of supply. Southwest Gas purchases Canadian natural gas supplies from the British Columbia production area delivered at Sumas, Washington and transported on NWPL. Natural gas can be purchased at Stanfield, Oregon, the interconnection point between GTN and NWPL, and transported on the same NWPL capacity. Supplies from Alberta, Canada production areas are transported on GTN, entering the pipeline at Kingsgate, Idaho. Capacity is available on GTN.

Delivered supplies have also been available at the interconnect between NWPL and Great Basin. Southwest Gas' receipt point rights on Great Basin limit the ability to take supplies at this point on a firm basis.

Southwest Gas also purchases natural gas at Malin, which is transported on Tuscarora. The market at Malin has been liquid for daily and month-ahead markets, since this is also a hub for purchases by PG&E for its northern California system. Should purchases become constrained at Malin, Southwest Gas could acquire upstream capacity on GTN and then purchase natural gas supplies at Kingsgate. Additionally, if available, Southwest Gas could obtain capacity on TC Energy's pipeline systems to bring natural gas from the AECO hub to Kingsgate. The AECO hub is the major supply hub for gas from Alberta basins.

Ruby, which went into service in 2011, transports supplies from the Rocky Mountains to Malin, interconnects with Tuscarora, and provides another alternative for purchasing supplies at Malin. Thus, supply availability has increased at Malin. Moreover, Ruby also interconnects with Great Basin's mainline system at Opal Valley and Great Basin's Adobe Lateral at Jade Flats. Consequently, Southwest Gas could either contract for Ruby capacity and move Rocky Mountain supplies to those points or purchase additional bundled delivered supplies at those points.

2. Southern Nevada

Beginning April 2022, Southwest Gas began taking service from Spire Storage for storage service from facilities located in Uinta County, Wyoming, which is approximately 60 miles southwest of the Opal Hub. The storage facilities' location near the Rocky Mountain production area allows for supplies injections directly into Kern's system. These supplies are available to Southwest Gas' southern Nevada system. This three-year contract expires on March 31, 2025.

In addition, an underground natural gas storage project located near Eloy, Arizona, between Phoenix and Tucson, called the Arizona Energy Storage Project (previously proposed by EPNG and referred to as Arizona Gas Storage), may be a viable option for providing incremental, schedulable, as well as no notice service to southern Nevada, if developed. No notice service allows shippers to deliver gas without making prior nominations to serve demands in excess of forecasted demands that may occur during any given day.

The California Public Utilities Commission (CPUC) has authorized SoCalGas and SDG&E to transport supplies off their systems to all pipelines interconnected to their systems. At one time, this may have provided Southwest Gas the opportunity to acquire interruptible

storage services from SoCalGas. However, the limited availability of SoCalGas' Aliso Canyon Storage Facility (Aliso Canyon) has diminished significantly since the major gas leak incident there in late 2015. Thus, acquiring storage services from SoCalGas does not appear to be a viable option, unless the availability of Aliso Canyon is restored at or near its original levels. It is possible that Southwest Gas could receive storage service from the Costa Azul LNG facility because of the CPUC decision. To deliver the LNG supply to southern Nevada, one option would be to transport natural gas through the SoCalGas intrastate transmission system and then backhaul on EPNG, Transwestern, or Kern for delivery to southern Nevada. However, acquiring storage services from the Costal Azul LNG facility may be difficult in the future as this storage progresses towards being an export facility.

Other options entail acquiring storage services from a provider located on PG&E's system for delivery to southern Nevada through backhaul arrangements on Mojave Pipeline to El Paso or backhaul on Kern. One option is the Gill Ranch Storage Facility (GRS), which is an existing 20 Bcf depleted reservoir located approximately 25 miles west of Fresno, California and interconnected to PG&E's system. With improvements, GRS has the potential to serve southern Nevada via backhaul on Southwest Gas' Kern contracted capacity with Wheeler Ridge or Daggett delivery point rights.

In considering alternative sources of supply, delivered supplies from Kern have been a viable alternative for Southwest Gas' incremental needs for more than a decade. Marketers holding capacity on Kern and selling into the California market can also sell to Southwest Gas in southern Nevada.

If production in the Permian and San Juan Basins decline to a point that the supply at either or both basins is deemed no longer reliable, then additional pipeline capacity may be constructed so that EPNG and Transwestern have additional access to the Rocky Mountain production area. Participation in such a project would depend on the relative cost compared to additional capacity on Kern. On the other hand, if production in the Rocky Mountain area declines to a point that supply in this area is deemed no longer reliable and the Permian and/or San Juan Basin supplies are deemed reliable, then additional pipeline capacity may be constructed so that EPNG and Transwestern have additional access to the Permian and San Juan Basins.

I. NAC 704.968 – PLAN FOR SUPPLY OF GAS; LONG-TERM ARRANGEMENTS FOR SUPPLY, STORAGE AND TRANSPORTATION OF GAS

1. Plan for Gas Supply

   a. Supply Planning Criteria

      Southwest Gas endeavors to acquire the best-cost portfolio considering price, reliability, flexibility, and protection from short-term market volatility, while also providing security of supply to meet sales customer demands. Balancing these factors against the costs of competing resource alternatives determines the ever-changing "mix" (flexible and non-flexible, index and fixed-price, with and without interstate capacity, short-term, mid-term, and long-term) of the supply portfolio. The Company's portfolio has evolved with the industry to include spot market purchases (interruptible, one month or less), term (firm, usually one year or less), firm volatility mitigation purchases, or firm base loaded purchases. While most of the term contracts are annual or seasonal, Southwest Gas also considers long-term alternatives.

   b. Source and Supply Reliability

      Southwest Gas has a diversified, broad base for its sources of supply of natural gas for its operations. Geographically, the sources are in both the Lower 48 States (in the western portions of the U.S.) and in Canada. In the Lower 48 States, Southwest Gas' sources originate in the Rocky Mountain production area, the San Juan Basin, and the Permian Basin. In Canada, the source is the Western Canadian Sedimentary Basin (WCSB).

      Southwest Gas reviewed publicly available material about natural gas production and reserve information to assess the reliability of Southwest Gas' supply sources. Based upon the review of available public information regarding Southwest Gas' supply sources, Southwest Gas opines that supply regions associated with its supply sources are reliable through the forecast period.

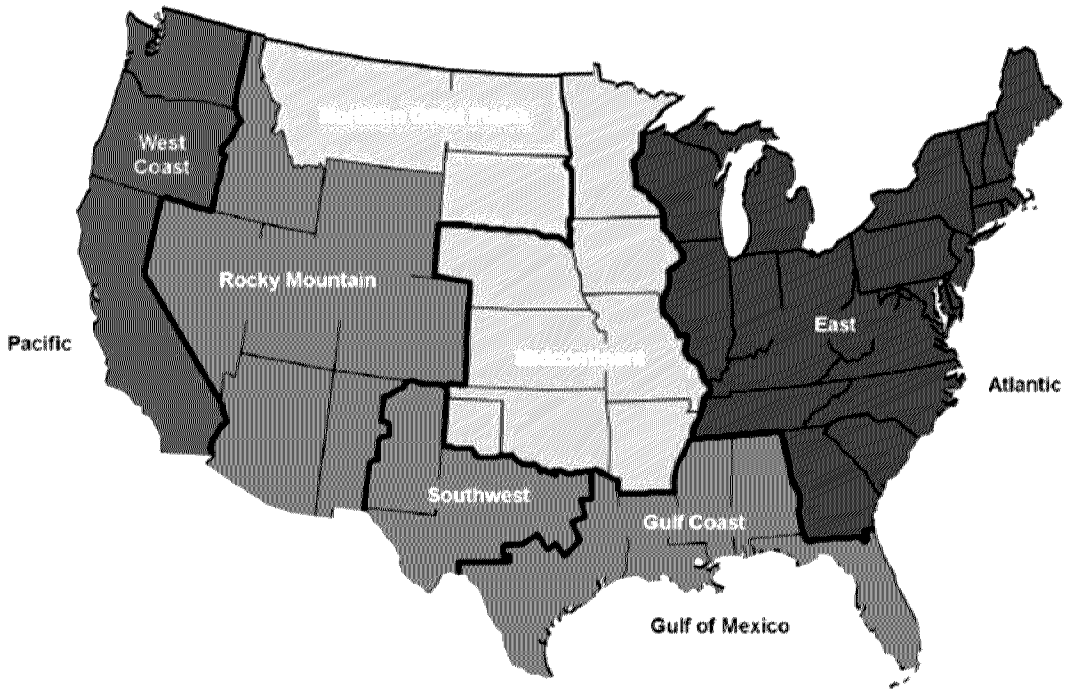
      The following contains a narrative of the production and reserve information Southwest Gas gathered and reviewed to develop an opinion on the reliability of its sources of supply.

      Production

      Domestic

      The U.S. Energy Information Administration (EIA) periodically publishes regional natural gas production estimates. There are seven regions: 1) East, 2) Gulf Coast, 3) Midcontinent, 4) Southwest, 5) Rocky Mountains, 6) Northern Great Plains and 7) West Coast. Figure I.1.b.1 shows EIA's regions along with state boundaries:

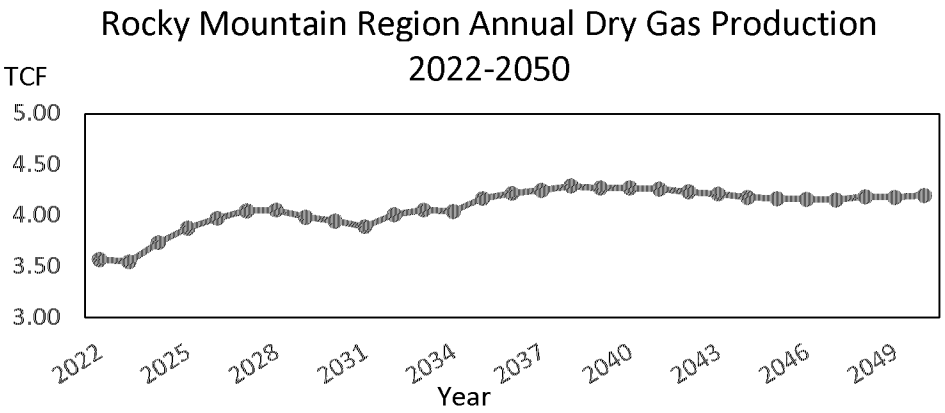
Figure I.1.b.1



The Dakotas/Rocky Mountain production area includes Wyoming, Utah, Colorado, and northwest New Mexico. The San Juan Basin is located on the New Mexico and Colorado border, and the Permian Basin is in West Texas and Southeast New Mexico. Southwest Gas utilized EIA's Dakotas/Rocky Mountains and Southwest regional dry natural gas production estimates to assess production trends for Southwest Gas' primary supply areas in the Lower 48 States. EIA defines dry natural gas production as marketed production less extraction losses.

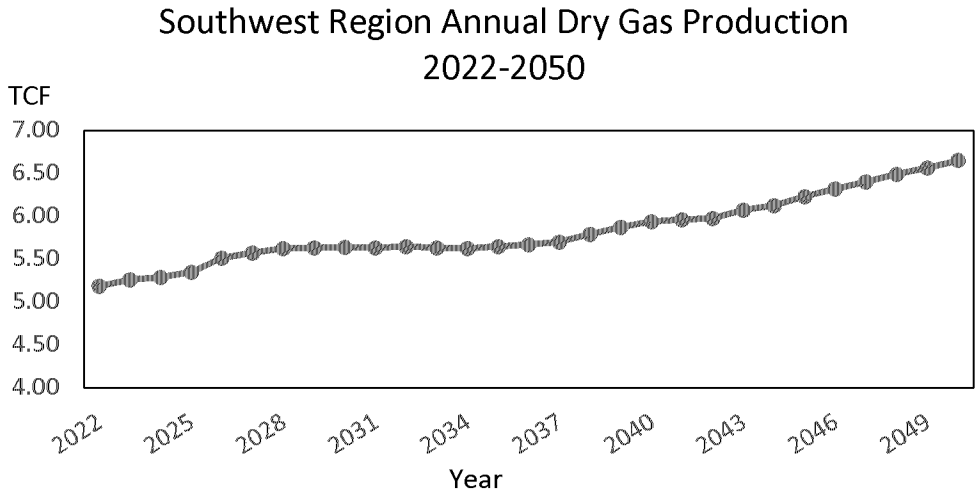
In January 2022, EIA published its Annual Energy Outlook 2022 report. EIA provides regional natural gas production estimates through 2050. Per EIA's referenced case, it estimates the 2022 total dry natural gas production for the Rocky Mountain production area will be 3.56 Tcf and will increase to 4.19 Tcf by 2050. The Rocky Mountain production area will have a forecasted peak annual production of 4.29 Tcf for the year 2038. Figure I.1.b.2 depicts EIA's total annual dry natural gas production projection for the Rocky Mountain region through 2050.

Figure I.1.b.2



Regarding the Southwest production region, which encompasses the Permian Basin, EIA estimates the total dry natural gas production for the Southwest region will be 5.18 Tcf in 2022 and increase to 6.65 Tcf by 2050. The Southwest production area will have a forecasted peak annual production of 6.65 Tcf for the year 2050. Figure I.1.b.3 depicts EIA's total annual dry natural gas production estimate for the Southwest region through 2050.

Figure I.1.b.3



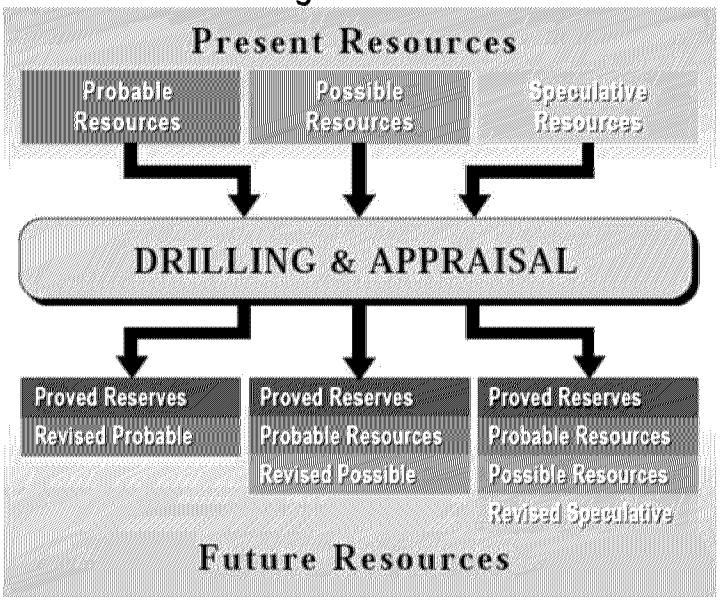
Domestic Reserves

The Potential Gas Committee's (PGC or Committee) singular objective is to provide a clear, industry-sponsored appraisal of the nation's long-range gas supply. The Committee was initiated in the early-1960s and was charged with preparing regular assessments of the technically recoverable natural gas and proven reserves. Since 1967, the Committee, although independent, has functioned with the guidance, training, technical assistance, and administrative support of the Potential Gas Agency, which is headquartered at the Colorado School of Mines. Southwest Gas has chosen to use the PGC's 2020 biennial report (2020 Report), published in August 2021 for the year ending 2020, to review the status of the domestic supply basins used to meet the Company's

supply requirements. The 2020 Report also provided Southwest Gas reserves data from the PGC's 2018, published in 2019 for the year ending 2018.

Assessments of traditional (conventional, tight, and shale reservoirs) natural gas resources are given in terms of "minimum," "most likely," and "maximum" for each of the three categories of resource – Probable, Possible, and Speculative. Similar ranges of assessments for coalbed gas are given by coal region or basin. The reserve assessments in the report are gas volumes that the PGC considers existing and technically recoverable. The PGC evaluates its assessments based on results of the latest exploration, drilling, well testing, and other field developments. Figure I.1.b.4 illustrates how the Committee continues to evaluate their assessments.

Figure I.1.b.4



Source: Potential Gas Committee, 2020, Potential Supply of Natural Gas in the United States—Report of the Potential Gas Committee (August 31, 2021): Colorado School of Mines, Potential Gas Agency

The 2020 Report cited for the Lower 48 Total Traditional Resources of 3,211,590 Bcf and 156,730 Bcf of Coalbed Gas Resources. This is a 0.2 percent decrease in the Total Traditional Resources compared to the 2018 Report. Coalbed Gas Resources had minimal change when compared to the previous report. The following table provides a history of Total Traditional Resources and Coalbed Gas Resources from 1988 through 2020.

Table I.1.b.1

Lower 48	Probable Resource (Bcf)	Possible Resource (Bcf)	Speculative Resource (Bcf)	Total Traditional Resources [1] (Bcf)	Change Traditional Resources (Bcf)	Change Traditional Resources %	Coalbed Gas Resources (Bcf)	Change in Coalbed Gas Resources (Bcf)	Change in Coalbed Gas Resources %
1988	177,771	253,983	216,897	648,301					
1990	169,562	262,651	228,766	661,095	12,794	2.00%	147,302		
1992	166,707	261,137	231,467	659,267	-1,828	-0.30%	147,311	9	0.01%
1994	160,655	259,193	267,182	687,006	27,739	4.20%	146,652	(659)	-0.45%
1996	179,363	258,697	287,346	725,277	38,271	5.60%	146,333	(319)	-0.22%
1998	179,173	251,158	270,615	701,721	-23,556	-3.20%	141,422	(4,911)	-3.36%
2000	170,182	290,342	281,706	740,584	38,863	5.50%	155,180	13,758	9.73%
2002	173,641	283,202	306,160	765,636	25,052	3.40%	168,860	13,680	8.82%
2004	166,930	304,848	280,285	756,494	-9,142	-1.20%	169,298	438	0.26%
2006	233,248	384,823	347,906	965,618	209,124	27.60%	166,141	(3,157)	-1.86%
2008	404,524	695,148	385,265	1,484,920	519,302	53.80%	162,976	(3,165)	-1.91%
2010	499,700	645,890	405,810	1,551,180	66,260	4.50%	158,600	(4,376)	-2.69%
2012	671,630	913,660	442,210	2,011,430	460,250	29.70%	158,240	(360)	-0.23%
2014	813,100	88,310	469,040	2,169,590	158,160	7.90%	158,090	(150)	-0.09%
2016	956,990	1,015,140	492,350	2,464,470	294,880	13.60%	158,670	580	0.37%
2018	1,083,380	1,333,900	606,440	3,023,729	559,259	22.70%	156,730	(1,940)	-1.22%
2020	1,088,750	1,309,650	619,380	3,017,780	-5,949	-0.20%	156,730	-	0.00%

1. Total Traditional Resources values are derived by separate statistical aggregation and not by arithmetic summation of Probable, Possible and Speculative Resource values.

Source: Potential Gas Committee, 2021, Potential Supply of Natural Gas in the United States—Report of the Potential Gas Committee (December 31, 2020): Colorado School of Mines, Potential Gas Agency

Rocky Mountain Area

The 2020 Report's assessment of the Rocky Mountain area's remaining resources for Traditional Sources is summarized in Table I.1.b.2.

Table I.1.b.2

Traditional Sources	PROBABLE M. Likely	POSSIBLE M. Likely	SPECULATIVE M. Likely	TOTAL M. Likely
AREA GRAND TOTAL (Bcf) (M. Likely)	168,931	138,965	101,500	409,396

This is a decrease of 1,197 Bcf (0.3 percent) lower than reported in the 2018 Report assessment.

The 2020 Report's assessment of the Rocky Mountain area's coalbed gas resources is summarized in Table I.1.b.3.

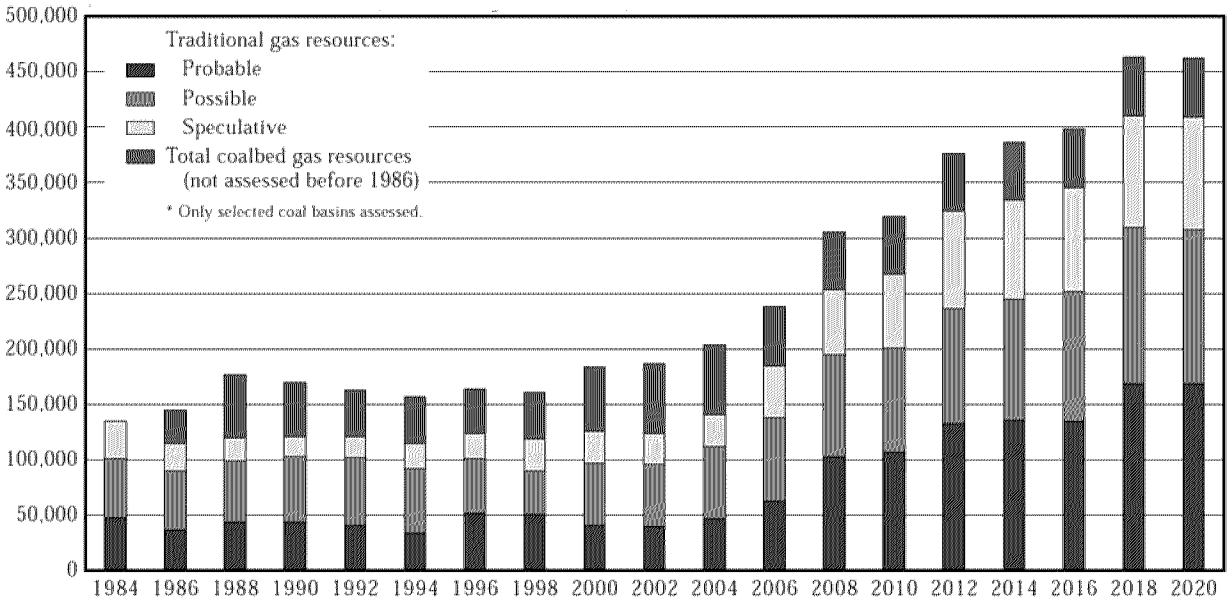
Table I.1.b.3

Coalbed Gas Resources	PROBABLE M. Likely	POSSIBLE M. Likely	SPECULATIVE M. Likely	TOTAL M. Likely
AREA GRAND TOTAL (Bcf) (M. Likely)	12,150	22,762	17,670	52,582

This assessment is unchanged from the 2011 Report's assessment.

Figure I.1.b.5 illustrates the growth in the three categories previously mentioned: Probable, Possible, and Speculative, along with Total coalbed gas resources.

Figure I.1.b.5



Source: Potential Gas Committee, 2020, Potential Supply of Natural Gas in the United States—Report of the Potential Gas Committee (December 31, 2020): Colorado School of Mines, Potential Gas Agency

The 2016 Report states that the Rocky Mountain area's total shale gas assessment increased 132 percent, or 85,412 Bcf, from 2008 to 2016. There was not a significant increase in the total shale gas assessment between the 2016 Report to the 2020 Report.

Table I.1.b.4 summarizes the recoverable shale gas resources as of yearend 2020.

Table I.1.b.4

Shale Gas Resources	PROBABLE M. Likely	POSSIBLE M. Likely	SPECULATIVE M. Likely	TOTAL M. Likely
AREA GRAND TOTAL (Bcf) (M. Likely)	56,615	46,100	46,940	149,655

Mid-Continent Area – Permian Basin

The 2020 Report's assessment of the Permian Basin's remaining resources for Traditional Sources is summarized in the following table. The Permian Basin resources consist of shallow conventional/tight and shale resources and lower deep conventional/tight resources. The Permian Basin does not have any coalbed methane resources.

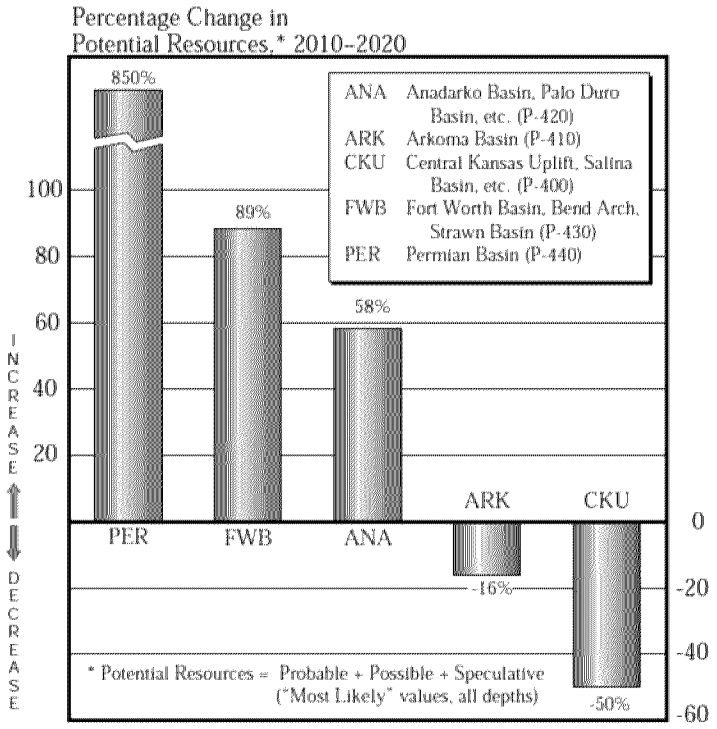
Table I.1.b.5

Traditional Sources	PROBABLE M. Likely	POSSIBLE M. Likely	SPECULATIVE M. Likely	TOTAL M. Likely
AREA GRAND TOTAL (Bcf) (M. Likely)	98,080	183,990	39,780	321,850

This is a 2.6 percent decrease of 8,700 Bcf compared to the 2018 Report's assessment.

Figure I.1.b.6 shows the 2010 – 2020 percentage changes in resources of the Mid-Continent Area.

Figure I.1.b.6



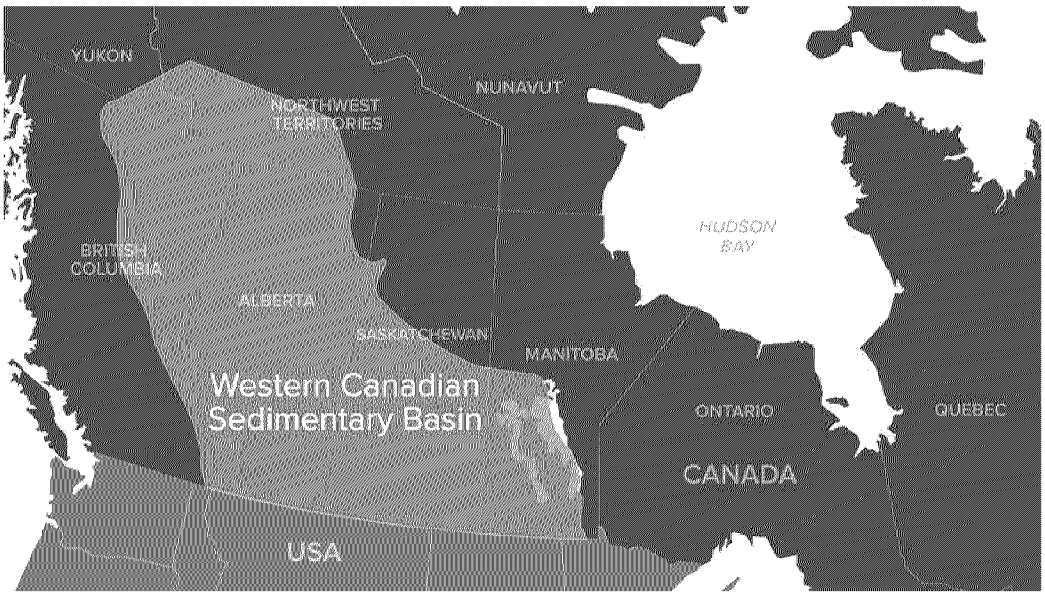
Source: Potential Gas Committee, 2021, Potential Supply of Natural Gas in the United States—Report of the Potential Gas Committee (December 31, 2020): Colorado School of Mines, Potential Gas Agency

Figure I.1.b.6 shows that while the Permian Basin experienced significant resource growth when compared to the Anadarko, Arkoma, and the Fort Worth Basins. The amount of gas resources available in the Permian Basin increased by 850 percent during the last ten years.

Western Canadian Sedimentary Basin (WCSB)

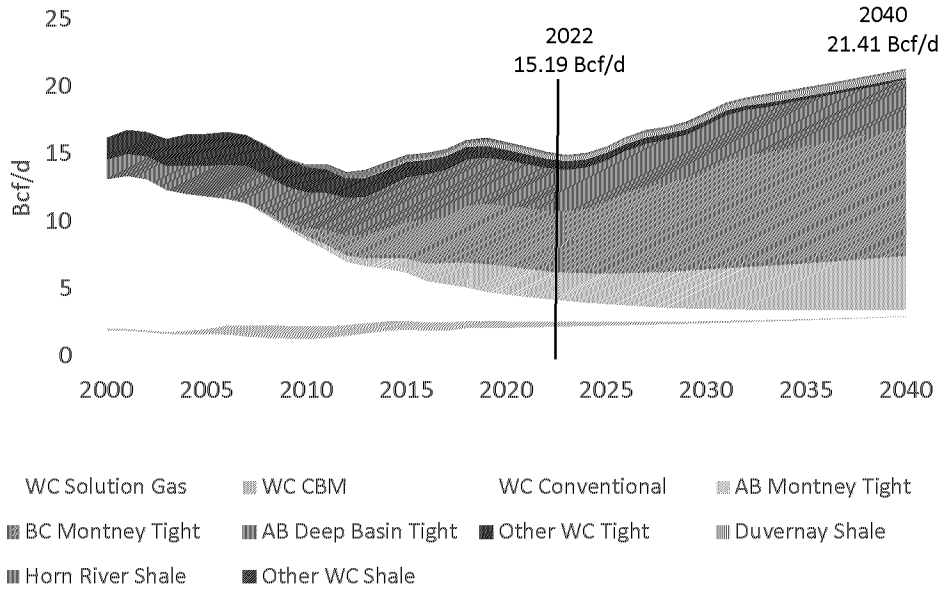
Canada has traditionally produced natural gas by conventional drilling and completions. However, production has been increasing from gas reserves in the WCSB. These resources require horizontal drilling and fracturing to produce. Reserves in WCSB is as of 2018, estimated to be 1,382.65 Tcf, when added to the reserves in the rest of Canada, Canada has total estimated gas reserves of 1,614.25 Tcf. These reserves are sufficient to meet Canada's domestic demand for 300 years.

Figure I.1.b.7



The Supplement to Canada's Energy Future 2019: Supply and Demand Projections to 2040 forecasts that production from the WCSB will grow from 15.19 Bcf/d to approximately 21.41 Bcf/d in 2040. However, because of the shale boom in U.S. production, Canadian exports to the U.S. have continued to shrink. In 2020, Canadian exports to the U.S. was approximately 2.5 Tcf (6.8 Bcf/d), the lowest annual amount since 1993.

Figure I.1.b.8



Overall, Canada has a very large remaining natural gas resource base in the WCSB to serve its markets well into the future.

Transportation

Kern, EPNG, and Transwestern serve Southwest Gas' southern Nevada service territory. Kern transports Rocky Mountain production into Southwest Gas' southern system where it delivers gas at several interconnects. El Paso and Transwestern can move gas from both the San Juan Basin and the Permian Basin into Southwest Gas' southern Nevada system. Southwest Gas has bundled delivered supply arrangements with suppliers that will deliver supply into Southwest Gas' system from Transwestern and Kern, and it has contracted firm transportation capacity with both Transwestern and Kern.

Natural gas supplies are delivered to Southwest Gas' northern system by Great Basin. Great Basin receives gas supplies from NWPL, Tuscarora, and Ruby. NWPL, a bi-directional system, can move gas from the San Juan Basin and the Rocky Mountain area as well as from the WCSB. NWPL delivers gas to Great Basin via an interconnect located at the Idaho/Nevada border. Tuscarora moves WCSB gas into Great Basin from the Malin, Oregon access point to an interconnect located near Wadsworth, Nevada. In addition, Tuscarora transports Rocky Mountain gas from Ruby at an interconnect located in Sapphire Mountain near Malin. Ruby transports Rocky Mountain supply into Great Basin at the interconnects located in Opal Valley north of Winnemucca, Nevada, and at Jade Flats located at NWPL's Weiland Flat Compressor north of the City of Elko.

c. Strategies for Minimizing Costs, Reducing Retail Price Volatility, and Maximizing Deliverability

The acquisition of pipeline capacity and that capacity's primary receipt points determine the Company's gas purchase locations. The remaining issues are the desired amount of hedging instruments and the timing of purchases.

During 2009 and 2010, discussions with PUCN Staff and the BCP prompted Southwest Gas to examine the impact of its hedging programs on customer rates, considering the effect of current gas cost recovery mechanisms. Based on those discussions, Southwest Gas modified the Nevada VMP goal, reducing it from 50 percent to 30 percent. In late 2013, in conjunction with settlement discussions between the Company, PUCN Staff, and the BCP in Docket No. 13-06006, Southwest Gas suspended further Nevada VMP purchases. The Commission approved the Stipulation and Agreement that requires Southwest Gas to: 1) continue to regularly monitor and evaluate its natural gas purchasing strategy in light of prevailing market fundamentals and conditions; 2) evaluate its gas hedging strategy quarterly at a minimum; and 3) meet with PUCN Staff and the BCP at least quarterly to discuss gas market fundamentals and inform them of Southwest Gas' gas purchasing strategies. In Docket No. 19-06003[2], the parties agreed to meet twice per year to discuss the Company's hedging strategy; however, the Company will continue to meet internally quarterly and provide information related to gas market fundamentals and the Company's hedging decisions to both the PUCN Staff and BCP within 10 business days of the meeting. As of the date of this Report,

[2] Southwest Gas' 2019 ARA Application filing.

Southwest Gas continues the suspension of Nevada VMP purchases and relies on the current gas cost rate recovery mechanisms to reduce retail price volatility. These gas cost rate recovery mechanisms are the currently effective Base Tariff Energy Rate (BTER) and the Deferred Energy Accounting Adjustment (DEAA). The quarterly adjustments in these rates help mitigate retail price volatility.

The remaining question is the timing of acquisitions. The timing of firm index price purchases is based on certainty of supply, liquidity, and certainty of demand. For firm FOM purchases, index premiums or discounts associated with those index price purchases can be volatile and move with changing market conditions. Therefore, the Company utilizes the BSP to spread those purchases over the year prior to the beginning of a portfolio period. This practice minimizes the risk that an index premium would "blow out." A "blow out" would occur when an index premium increases to a level well above its historical trading range, causing increases in the cost of those FOM purchases.

To ensure sufficient supplies are available to meet peak-day winter (November – March) customer demand, Southwest Gas selects the Term Portfolio in the early summer months prior to each portfolio period. The Term Portfolio consists primarily of flexible peaking contracts that are priced at published daily indexes but could also include baseload index price purchases. The timing of Term Portfolio solicitation coincides with the time when suppliers have an idea of the amount of supplies available for the upcoming winter and increases the likelihood that suppliers have not yet sold its supplies to others. In other words, liquidity is high.

At liquid major market centers, there is little problem obtaining multiple bids and sufficient volumes to satisfy Southwest Gas' flexible peaking contract requirements through the Term Portfolio selection process. Therefore, obtaining multiple-year bids or soliciting further in advance is not needed. Sumas, various points in the Rockies on NWPL and Kern, San Juan and Permian, and to a lesser extent Malin, all fit the description of liquid market centers. Should the liquidity of any of these points begin to dwindle, Southwest Gas can obtain long-term supplies to help ensure availability.

At less liquid points, there may be a need to obtain supplies further in advance or secure additional capacity to more liquid points. The connection between NWPL and Great Basin at Owyhee is an example of an illiquid point. At this point, natural gas from upstream may be bundled with capacity on the upstream pipeline. Such illiquid points may justify obtaining supplies further in advance or for multiple years. The other alternative is to obtain additional upstream capacity, if available.

For the Term Portfolio, Southwest Gas' processes and procedures help to ensure certainty of supply while taking advantage of market liquidity.

As of the date of this Report, Nevada VMP supplies are not included in the Company's Nevada supply portfolio.

Prior to the suspension of the VMP in late 2013, Southwest Gas completed VMP purchases at least two months prior to the beginning of a new portfolio year. Price volatility generally increases in the two months prior to the actual flow month. By completing purchases prior to this period, Southwest Gas avoided purchasing during the period of potentially high volatility.

Purchasing VMP supplies further in advance would have advantages and disadvantages. One advantage is that prices would be averaged over a longer period. Thus, year-over-year price volatility would be further reduced. However, splitting the

portfolio into more solicitations would require smaller package sizes. Smaller packages, particularly in northern Nevada, are less likely to appeal to suppliers who must carry the same administrative burden with smaller revenue. The result would likely be fewer bidders and an increased risk of higher prices.

Another disadvantage is the reduced market liquidity experienced when buying further in advance. Markets become less liquid as one gets further away from the delivery date. A liquid market is one in which sufficient trading activity exists to make the buying and selling relatively easy and transparent. Most activity in the forward natural gas market focuses on the upcoming two months. The upcoming year to two years is active. Beyond that, liquidity drops dramatically.

Should Southwest Gas return to making Nevada VMP purchases in the future, the Company will use the same, or a very similar, process described above to make those potential purchases.

d. Supply Purchase Programs

The portfolio of supplies can include acquisitions identified and selected under four programs:

i. Volatility Mitigation Program (VMP)

The last remaining Nevada VMP purchases concluded on March 31, 2015. On a quarterly basis, the Company evaluates its gas hedging strategy and informs PUCN Staff and BCP of Southwest Gas' hedging decision. Biannually, the Company meets with PUCN Staff and BCP to discuss gas market fundamentals.

Should Nevada VMP purchases be reinstituted, their purpose would be to mitigate short-term market price volatility and reduce customer rate volatility. If reinstituted, Southwest Gas will solicit VMP proposals for both northern and southern Nevada and typically schedule solicitations every three to six weeks throughout the year (excluding the months of September and October).

If reinstituted, Nevada VMP purchases may include financial fixed-for-floating swaps to hedge index price gas purchases. These financial transactions compete directly with, and are an alternative to, firm fixed-price physical transactions. The combination of a financial fixed-for-floating swap and a purchase of a firm index price gas supply achieves the same price volatility mitigation Southwest Gas previously achieved purchasing firm fixed-price physical gas supplies. Should the Company return to making Nevada VMP purchases in the future, fixed-for-floating swaps will still be available for incorporation into the portfolio.

During a VMP solicitation, Southwest Gas receives physical fixed-price offers, physical index price, and fixed-for-floating index swap offers via instant messaging (IM) and requests that suppliers hold their offer open for five minutes. This short period is required to allow the supplier the capability of offering the lowest possible price (i.e., minimize the premium for the risk taken on by the seller between the time the supplier makes the offer and an accepted offer is hedged) and provides Southwest Gas with sufficient time to determine the most attractive offer.

Once Southwest Gas receives all the offers for financial and physical supply alternatives, the five-minute window begins, and Company personnel identify the most attractive offer. In comparing financial and physical offers, the Company uses the best

premium or discount to the index identified by the physical index price offer to adjust the fixed-for-floating index swap offer, making a direct comparison with the physical fixed-price offer possible.

When Southwest Gas selects an offer, the gas buyer contacts the supplier via a recorded phone line and verbally confirms each purchase. Southwest Gas solicits offers from suppliers with sufficient time before the close of the futures trading to provide suppliers time to hedge their sales before the end of the trading period for that day.

This procedure permits the direct competition of firm fixed-price physical gas supply offers with fixed-for-floating index swap offers. This procedure ensures that Southwest Gas continues to procure the "best-cost" supply alternative currently available at the time of purchase to construct the supply "portfolio." As stated above, VMP purchases include the use of fixed-for-floating index swaps. Under a fixed-for-floating financial swap, if the index is above the agreed upon swap price, the seller pays the buyer (Southwest Gas) the difference between the actual value of the index and the agreed upon swap price. If the index is below the agreed upon swap price, the buyer (Southwest Gas) pays the seller the difference between the swap price and the actual value of the index.

When Southwest Gas combines a fixed-for-floating financial swap transaction with a firm physical index price transaction, the combination of the swap and the physical purchase are equivalent to a fixed-price physical contract. Thus, this financial instrument provides Southwest Gas with the same level of price volatility mitigation available using firm fixed-price physical natural gas supplies.

To manage the use of financial derivatives, Southwest Gas uses the software product “Entegrate,” which was developed by Sungard. This software allows the Company to manage and monitor financial and physical deals used to stabilize prices. The system is known at Southwest Gas as the Hedge Capture and Control System.

Southwest Gas has negotiated bilateral contracts conforming to International Swaps and Derivatives Association (ISDA) standards with multiple financial trading counter-parties. Currently, Southwest Gas maintains ISDA agreements with eight counter-parties and will enter into additional ISDA agreements as opportunities present themselves. Because the two types of hedges (fixed-for-floating index swaps and fixed-price physical gas) behave the same and are substitutes for each other, the impact of each on the price volatility mitigation portion of the portfolio is identical. However, by using swaps, additional counter-parties are added to Southwest Gas’ potential supplier mix. This reduces counter-party credit risk by spreading the agreements among more counter-parties and reduces the risk that counter-party credit concerns would limit the number of participating suppliers.

ii. Baseload Supply Program (BSP)

The purpose of the BSP is to secure FOM index price baseload contracts that increase supply reliability and supplier diversity while also reducing the risk of index premiums “blowing out” by making purchases periodically during the year preceding the start of a portfolio period. Southwest Gas solicits BSP proposals for both northern and southern Nevada. The Company typically schedules solicitations every three to six weeks throughout the year until meeting the projected baseload requirements.

During a BSP solicitation, Southwest Gas receives physical index price offers via IM and requests that suppliers hold their offer open for five minutes. Once Southwest Gas receives all the offers, the five-minute window begins, and the most attractive offer is identified. When Southwest Gas selects an offer, the gas buyer contacts the supplier via a recorded phone line and verbally confirms each purchase.

iii. Term Portfolio Purchases

Southwest Gas solicits Term Portfolio proposals from potential suppliers through an annual process held each spring. The solicitation outlines Southwest Gas' supply needs for a 12-month period beginning the following November 1st and ending the following October 31st. The Company may also consider long-term proposals, which may span multiple natural gas years, through the solicitation. Southwest Gas considers all bona fide proposals that it can practically implement and selects the most economically favorable proposals, which are combined with the existing supply portfolio to create the supply "mix" or "portfolio."

Before Southwest Gas evaluates firm index price supplies, the existing purchase obligations (primarily from the BSP or any prior multi-year Term Portfolio purchases) are confirmed. All responsive offers are included among the supply alternatives. Southwest Gas estimates the forward market conditions, including spot market reference prices, for use in evaluating the supply alternatives. This menu of supply alternatives, which includes spot purchases as well as the firm supply proposals, forms the basis from which Southwest Gas determines the best-cost mix of supplies.

In addition, transportation costs relevant to the various supply proposals are verified and modeled. Any changes in the logistics of transporting the supply alternatives to market must also be determined, considered, and modeled. Further, Southwest Gas examines the parameters for the distribution system operations to ensure the supply portfolio is consistent with system operational requirements.

Southwest Gas uses a computer model to optimize the supply alternatives. Fluctuating daily forecast demands, which are model inputs, define the flexibility required in the portfolio. Contract term, commodity price, demand charges, peaking and swing capabilities, charges for not taking natural gas (gas inventory charge, or GIC), and transportation costs are among the cost factors that are optimized by the model. Outside of the model and prior to selecting specific offers, the selection committee considers the following qualitative factors: reliability; geographic and supplier diversity; authorizations to negotiate or accept; revisions to offers; baseload supply requirements; and opportunities to monetize unused capacity. Model parameters are modified accordingly, given information available at the time, to best represent conditions expected during the upcoming portfolio period.

Supply sources selected as part of the optimized best-cost mix, but not already authorized or under contract, are identified. Additional model runs continue whenever contract terms are finalized or additional information becomes available, until the portfolio serves all forecasted demands. This iterative process is necessary for evaluating the impact of completed contracts and changing offers on the remaining supply alternatives.

iv. Spot Purchases

(a.) Monthly

Southwest's Gas Purchases & Transportation department (GP&T) determines monthly spot gas (baseload for no more than one month) purchase requirements for each service territory prior to the first of each month. A solicitation outlining monthly spot purchase requirements is then issued to suppliers, typically the week before the first of the month in which the supplies are being solicited. This solicitation identifies the market areas, receipt locations, and purchase periods, as well as setting forth the response date and time deadlines. Suppliers' offers are then sorted by jurisdiction and ranked by price. GP&T compares the best prices to those prices available on internet trading platform(s). GP&T contracts for the best price supply available to meet the projected purchase requirements.

(b.) Daily

GP&T determines, on a daily basis, the daily spot gas purchase requirements for each jurisdiction based on economic, contractual, and operational considerations. GP&T then gathers market intelligence through communications with prospective suppliers, monitoring internet trading platform(s), and reviewing other industry pricing information to determine daily marketplace price parameters. Most daily spot purchases are completed between 5 am and 7 am PST the day prior to gas flow. However, daily purchases may also be completed throughout the day of gas flow. Daily spot purchases are for one day or for multi-day periods.

e. Curtailment Plan

Southwest Gas maintains a curtailment plan. In the event of a supply shortage, the plan is used to curtail lower priority customers to maintain service to higher priority customers. The curtailment plan is contained in Appendix A of this Report. Customer-specific information and Southwest Gas employee contact information have been redacted from the plan. The redactions are indicated in the plan.

2. Long-Term Contracts for the Supply, Storage, and Transportation of Gas

The following tables contain a list of contracts that have terms of more than three years.

a. Northern Nevada

i. Supply – Southwest Gas did not secure any long-term supply contracts through the forecast period.

ii. Storage – Table I.2.a.1 lists the long-term storage contract Southwest Gas has with Great Basin through the forecast period.

Table I.2.a.1

Contract Number	Storage Provider	Effective Date	Primary Receipt Point	January CD (Dth/day)	Contracted Inventory (Dth)
S8	Great Basin	03/01/2020	LNG	37,559	495,782

iii. Transportation – Table I.2.a.2 lists the long-term transportation agreements Southwest Gas has under contract with Great Basin, NWPL and Tuscarora.

Table I.2.a.2

Contract Number	Transportation Service Provider	Firm/ Interruptible	Effective Date	Primary Receipt Point	January CD (Dth/day)
F30	Great Basin	Firm	11/01/2019	Wadsworth	5,868
F34	Great Basin	Firm	03/01/2020	LNG	37,559
F36	Great Basin	Firm	12/07/2005	Owyhee	1,000
F46	Great Basin	Firm	12/01/2019	Wadsworth	608
F49	Great Basin	Firm	11/01/2019	Owyhee	55,535
F49	Great Basin	Firm	09/01/2014	Wadsworth	21,841
F52	Great Basin	Firm	01/07/2016	Jade Flats	21,275
F56	Great Basin	Firm	11/01/2018	Wadsworth	4,604
I-10	Great Basin	Interruptible	N/A		
100049 [1]	NWPL	Firm	06/01/1991	Sumas	26,579
100049 [1]	NWPL	Firm	06/01/1991	Various Rocky Mtn and San Juan Points	19,247
100057	NWPL	Firm	07/22/1991	Various Rocky Mtn and San Juan Points	15,000
F027	Tuscarora	Firm	12/01/2002	Malin	16,500
357	Tuscarora	Firm	04/01/2019	Malin	1,488
385	Tuscarora	Firm	11/01/2021	Malin	12,200

1. Southwest Gas entered a short-term capacity release of 41,535 Dth/day.

b. Southern Nevada

i. Long-Term Supply Contracts – Table I.2.b.1 lists the long-term delivered supply contracts Southwest Gas has secured with various suppliers through the forecast period.

Table I.2.b.1

Contract	Supplier	Effective Date	Delivery Point	January CD (Dth/day)		
				2023	2024	2025
GPAF04022	BP	1/1/2019	Kern Citygate	31,075	31,075	31,075
		11/1/2021	Kern Citygate	50,000	50,000	50,000
GPAF04013	Chevron	11/1/2021	Kern Citygate	10,000	10,000	10,000
		11/1/2021	Kern Citygate	10,000	10,000	10,000
GPAF16003	Citadel	10/1/2018	Kern Citygate	83,925	83,925	83,925
GPAF94012	ConocoPhillips	11/1/2021	TWPL - SGTC	30,000	30,000	30,000

ii. Transportation – Table I.2.b.2 list the long-term transportation agreements Southwest Gas has secured with Kern and Transwestern through the forecast period.

Table I.2.b.2

Contract Number	Transportation Service Provider	Firm / Interruptible	Effective Date	Primary Receipt Point	January CD (Dth/day)		
					2023	2024	2025
1812	Kern	Firm	11/1/2010	VRM	50,000	50,000	50,000
20003	Kern	Firm	12/1/2016	VRM	25,875	25,875	25,875
20004	Kern	Firm	12/1/2016	VRM	65,205	65,205	65,205
20016	Kern	Firm	10/1/2016	VRM	14,490	14,490	14,490
20018	Kern	Firm	10/1/2016	VRM	12,625	12,625	12,625
20020	Kern	Firm	11/1/2016	VRM	87,975	87,975	87,975
26035	Kern	Firm	11/1/2021	VRM	18,700	25,800	30,800
3217	Kern	Interruptible					
105239	Transwestern	Firm	11/1/2021	San Juan Basin	85,500	90,600	98,100

iii. Storage – Table I.2.b.3 lists the long-term storage contract Southwest Gas has with Spire Storage through the forecast period.

Table I.2.b.3

Contract Number	Storage Provider	Effective Date	Primary Receipt Point	January CD (Dth/day)	Contracted Inventory (Dth)
SWG01904S	Spire Storage	04/01/2022	KRGT	14,000	1,000,000

J. GLOSSARY

Baseload – Supply arrangement that specifies that the Seller is to provide, and Buyer is to take, specific volumes of natural gas at specific prices. Typically, this means there is a cost associated with not taking the gas under firm contract. However, spot market purchases are sometimes also referred to as baseload, noting the intent of the parties.

Baseload Supply Program (BSP) – FOM indexed-price baseload contracts that increase supply reliability, supplier diversity, and reduces the risk of index premiums "blowing out" by making purchases periodically during the year preceding the start of a particular Portfolio Period.

Basis – The difference in price between two locations (at a specific point in time or for a specific period). Natural gas basis differentials are most often quoted as the difference in price between a specified location and the Henry Hub in Louisiana.

Design Day – The highest forecast demand day in an extreme weather demand forecast for a 12-month period.

Financial Derivative – A financial instrument whose payoffs depend on another financial instrument or instruments.

Firm Contract – A natural gas purchase agreement that states the agreed upon price and sets forth specified receipt and delivery obligations, typically including economic consequences (or damages) for failing to meet such obligations.

FOM – (First of Month) – an index-price that is published at the beginning of a month for a specific delivery point that could be used to price baseloaded gas purchases for that month at that specific delivery point.

Fixed-for-Floating Index Swap – A financial derivative where parties exchange a fixed-price for a future price index, yet to be determined.

Gas Year or Portfolio Period – The one-year period that begins on the November 1st of any year and concludes on October 31st of the following year.

ISDA – The International Swaps and Derivatives Association, a global trade organization setting standards for over-the-counter financial derivatives.

MAOP (Maximum Allowable Operating Pressure) – The maximum pressure at which a pipeline or segment of a pipeline may be operated. MAOP is generally established through a qualification pressure test of the facility.

MOP (Maximum Operating Pressure) – The greatest operating pressure chosen by the operator to provide adequate supply and efficient operation. The MOP may never exceed the MAOP, but may be less than the MAOP.

P1, P2, etc. – Customer priority class designations. P1 is the highest priority. These priority classes are used for capacity planning purposes and, in the event of a service curtailment, may be used to determine which classes are curtailed first.

PLS (Pressure Limiting Station) – Pressure regulating station between systems with different MAOP/MOP.

PSIG – (Pounds per Square Inch – Gauge) – A measurement of pressure relative to ambient atmospheric pressure.

Remaining Marketable Reserves – The estimated volume of recoverable reserves that remain after processing.

ROFR (Right of First Refusal) – Is a contractual right that gives its holder the option to enter a business transaction with the owner of something, according to specified terms, before the owner is entitled to enter into that transaction with a third party.

Unaccounted for Gas – The difference between the amount of gas purchased and the quantity of gas sold, whether it is more or less.

Volatility Mitigation Program (VMP) – Firm contracts providing fixed-price supplies that Southwest Gas acquires periodically one to two years in advance of flow to mitigate short-term market price volatility and reduce customer rate volatility.

K. APPENDICES

APPENDIX A: NATURAL GAS CURTAILMENT PLAN

SOUTHWEST GAS CORPORATION

ALL DIVISIONS

NATURAL GAS CURTAILMENT PLAN

Revised April 1, 2022

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INTRODUCTION

If a situation occurs that requires a natural gas distribution load reduction (curtailment) by Southwest Gas Corporation (Southwest), this plan will be used to determine the level of service available to the various customer priorities.

The need for load reduction falls into two basic categories:

1. Limitation or loss of natural gas supplies delivered to Southwest due to:
   (a) Limitation of or failure of actual natural gas supplies.
   (b) Limitation of an upstream pipeline's ability to deliver gas to Southwest that may or may not be due to a force majeure event.

2. Limitation of Southwest's ability to deliver gas to its customers that may or may not be due to force majeure.

Southwest Gas Scheduling (SGS) is the point of contact with the upstream pipelines and Southwest's Gas Purchases & Transportation department (GP&T). In the case of a limitation or loss of natural gas supplies that may result in curtailment of service to customers (Category 1), SGS will initiate load reduction communications. These types of situations are typically broader in scope and may impact the entire division distribution system. With system limitations that may result in curtailment of service to customers (Category 2), the division on-call duty manager and/or other division management personnel will coordinate load reduction efforts, utilizing Division Dispatch for communications to appropriate personnel. These situations are typically not system-wide but rather limited to one or more specific areas.

After a Category 1 event has been initiated, division personnel may also identify and initiate a Category 2 situation if one or more specific areas of the distribution system require more immediate action and escalation.

The following procedural plan outlines the approved steps to curtail customers when load reduction becomes necessary under Category 1 or Category 2. However, the sequence of the steps within the plan may or may not be practical for every curtailment situation that Southwest may encounter. Therefore, to maintain system integrity, it is incumbent upon SGS, GP&T, Energy Solutions Key Accounts (ESKA) and division personnel to follow these procedures until they determine that system integrity requires deviation and/or escalation. For determining the order of curtailment and making customer contact in the most expeditious manner, the ESKA group will maintain appropriate files and records which contain customer priority and contact information for all transportation customers and transportation-eligible customers, as well as contact numbers for Southwest personnel. Customer and company contact information will be updated periodically by ESKA and is reflected in Exhibit "A" and Exhibit "B", respectively.

This Curtailment Plan and the applicable Exhibits will be maintained on Southwest's internal InfoNet website for access at all times by any interested personnel.

PROCEDURE

Category 1—Limitation or loss of natural gas supplies delivered to Southwest
If SGS and GP&T determine that all effective steps have been taken to increase available supplies but still believe supplies may not be sufficient to serve all customers, the Category 1 curtailment sequence will be initiated by SGS.

Category 2—Limitation of Southwest to deliver natural gas to its customers
If division personnel determine that loss of customers is either occurring or appears to be imminent in one or more areas of the distribution system, whether due to a force majeure condition on Southwest facilities, maintenance on Southwest or upstream facilities, declining delivery pressure from upstream pipelines, or any event having impact on the distribution system, the Category 2 sequence will be initiated by division personnel.

For either category, emergency conditions may require escalating curtailment action steps.

CATEGORY 1

1. Southwest Issues General Curtailment Warning and Requests Voluntary Reduction in Usage by Low Priority Customers

When an upstream pipeline delivering gas to Southwest issues a warning of a potential critical draft condition on its system that is applicable to Southwest, the following steps will be initiated:

a) SGS will notify Division Dispatch of the upstream pipeline condition and that Southwest is requesting voluntary curtailment from the P3 through P5 customers to continue reliable service to P1 and P2 customers.

b) SGS will issue a general Notice to transportation customers and agents in the form of Exhibit "C", advising that a curtailment situation (Category 1) may be imminent and requesting a voluntary reduction in usage by low priority customers.

c) Division Dispatch will inform appropriate division personnel that the voluntary reduction request is in effect. Division Dispatch will also inform ESKA that the voluntary reduction notice has been sent by SGS and that it should contact selected P3 through P5 customers and request voluntary reduction in usage to the extent practicable.

d) ESKA will contact the selected customers, typically by telephone and in reverse order of priority (i.e., lowest priority first). As customers are contacted and results determined, ESKA will inform SGS and Division Dispatch of the total anticipated reduction in usage from the voluntary reduction.

e) Division or Corporate Communication, with approval of Division Vice President, may issue a media announcement seeking voluntary conservation from P1 and P2 customers.

2. Southwest Initiates a Category 1 Curtailment

If Southwest is advised by an upstream pipeline that its system is in a critical/emergency draft condition and/or SGS and GP&T determine that supplies anticipated for delivery to Southwest may not be adequate to serve all customers, the following steps will be initiated:

a) SGS will notify Division Dispatch that Southwest is requiring mandatory reduction in usage from the P3 through P5 customers to continue reliable services to P1 and P2 customers.

b) SGS will issue an electronic Notice to transportation customers and agents in the form of Exhibit "D", advising that curtailment of low priority customers (P3 through P5) is required. If a customer cannot be contacted by electronic communication, then notification by telephone will be attempted.

c) Division Dispatch will inform appropriate division personnel that curtailment of low priority customers (P3 through P5) is in effect. Division Dispatch will also notify Division Communications or Corporate Communications, as applicable, that a curtailment process is being implemented.

d) Division Dispatch will inform ESKA that a mandatory curtailment notice has been issued by SGS and that it is necessary to contact P3 through P5 customers. ESKA will make every reasonable effort to contact the impacted customers, typically in reverse order of priority but with the discretion to proceed with contacts in the most efficient and effective manner.

e) If customers receiving a notice of curtailment do not respond, division personnel will coordinate the physical curtailing effort. This step may require on-site customer contact and coordination with the local ESKA representative to confirm and/or execute curtailment requirements (i.e., turning off service at the meter).

f) If further curtailments are required, then steps a) through e) will be repeated to include P2 customers to the extent ESKA and/or SGS has contact information for those accounts. Other personnel and/or departments may be enlisted to assist with contacting higher priority P2 customers if necessary and as time permits.

g) **Division personnel will notify their respective state regulatory commission as required by the state or if such notification is deemed appropriate.**

h) **Media Announcement**

If the curtailment procedures to this point do not resolve critical system usage levels and/or system pressures, Southwest, with the approval of the Division Vice President or designee, will request the general public to reduce gas consumption to help ensure service to P1 and P2 customers. If a media announcement is necessary, the Division Vice President or designee will coordinate the effort with Division Communications or Corporate Communications, as applicable.

Note: Part "h" may be implemented during any period of the curtailment process, if considered necessary.

CATEGORY 2

1. Southwest Issues General Curtailment Warning and Requests Voluntary Reduction in Usage by Low Priority Customers

When division personnel determine that there may be an inability to serve all customers in an area of the distribution system, Southwest will issue a warning of a potential critical draft condition for the applicable area(s) of its system and the following steps will be initiated:

a) Division Dispatch will notify SGS of the system condition and is requesting voluntary curtailment from the P3 through P5 customers to continue reliable service to P1 and P2 customers.

b) SGS will issue a general Notice to transportation customers and agents in the form of Exhibit "C", advising that a curtailment situation (Category 2) may be imminent and requesting a voluntary reduction in usage by low priority customers.

c) Division Dispatch will inform appropriate division personnel that the voluntary reduction request is in effect. Division Dispatch will also inform ESKA that the voluntary reduction notice has been sent by SGS and that it should contact selected P3 through P5 customers and request voluntary reduction in usage to the extent practicable.

d) ESKA will contact the selected customers, typically by telephone and in reverse order of priority (i.e., lowest priority first). As customers are contacted and results determined, ESKA will inform SGS and Division Dispatch of the total anticipated reduction in usage from the voluntary reduction.

e) Division or Corporate Communication, with approval of Division Vice President, may issue a media announcement seeking voluntary conservation from P1 and P2 customers.

2. Division Initiates a Category 2 Curtailment

If Division personnel determine that delivery pressure from an upstream pipeline or any condition on Southwest's system have caused or will likely cause an inability to serve all customers in one or more areas of the distribution system, a Category 2 curtailment

situation will be declared for the area(s) that are impacted and the following steps will be initiated:

a) Division Dispatch will notify SGS that a mandatory reduction in usage is required from the P3 through P5 customers to continue reliable services to P1 and P2 customers.

b) SGS will issue an electronic Notice in the form of Exhibit "E" to all transportation customers and agents advising that curtailment is required. Such Notice shall specify the priority levels to be curtailed and the identified area(s) where curtailment is required. If a customer cannot be contacted by electronic communication, then notification by telephone will be attempted.

c) Division Dispatch will inform appropriate division personnel that curtailment of low priority customers (P3 through P5) is in effect. Division Dispatch will also notify Division Communications or Corporate Communications, as applicable, that a curtailment process is being implemented.

d) Division Dispatch will inform ESKA that a mandatory curtailment notice has been issued by SGS and that it is necessary to contact P3 through P5 customers situated in the identified area(s). ESKA will make every reasonable effort to contact the impacted customers, typically in reverse order of priority but with the discretion to proceed with contacts in the most efficient and effective manner.

e) If customers receiving a notice of curtailment do not respond, division personnel will coordinate the physical curtailing effort. This step may require on-site customer contact and coordination with the local ESKA representative to confirm and/or execute curtailment requirements (i.e. turning off service at the meter).

f) If further curtailments are required, then steps a through e will be repeated to include P2 customers to the extent ESKA and/or SGS has contact information for those accounts. Other personnel and/or departments may be enlisted to assist with contacting higher priority P2 customers if necessary and as time permits.

g) **Division personnel will notify their respective state regulatory commission as/when required by the state or if such notification is deemed appropriate.**

h) **Media Announcement**

If the previous curtailment procedures to this point do not resolve critical system usage levels and/or system pressures, Southwest, with the approval of the Division Vice President or designee, will request the general public to reduce gas consumption to help ensure service to P1 and P2 customers. If a media announcement is necessary, the Division Vice President or designee will coordinate the effort with Division Communications or Corporate Communications, as applicable.

Note: Part "h" may be implemented during any period of the curtailment process if considered necessary.

DIVISION OPERATIONS IMPLEMENTS SYSTEM ISOLATION PLAN

This part of the curtailment procedure is to be implemented if Category 1 or 2 procedures have not provided adequate load reduction.

Southwest will implement the System Isolation Plan if curtailment for P1 customers is required:

a) Division Operations will inform the Division Vice President or designee that a loss of P1 customers is either occurring or imminent and that the System Isolation Plan needs to be implemented. This step may require that additional Division management and ESKA be contacted.

b) The Division Vice President or designee authorizes Division Operations to implement the System Isolation Plan.

c) The Division Emergency Operations Center (EOC) will coordinate the curtailing of each isolation area until system pressures are adequate to serve remaining active customers. The Division Vice President or designee will coordinate with Division Communications or Corporate Communications, as applicable, to produce a media announcement of the resulting customer outage.

CURTAILMENT CONDITION LIFTED

After an existing Category 1 or Category 2 curtailment situation has been resolved, SGS will notify all customers that previously were sent a curtailment Notice that the curtailment condition is lifted. Such "Curtailment Lifted" Notice will be by electronic communication advising that curtailment requirements have been terminated. If a customer cannot be contacted by electronic communication, then notification by telephone will be attempted. The form of Notice for "Curtailment Lifted" is attached as Exhibit "F." ESKA will assist SGS as necessary with calling selected customers to advise that the curtailment condition is lifted.

RE-ESTABLISHMENT OF SERVICE FOR CURTAILED CUSTOMERS

The Division will coordinate re-establishing service for all of the curtailed customers as detailed in the operating district's System Isolation Plan and Emergency Plan Manual. The Division Vice President or designee will coordinate with Division Communications or Corporate Communications, as applicable, to produce a media announcement of the resulting customer relights.

Curtailment Quick Reference Checklist

Curtailment may be initiated by either:

- SGS (with GP&T) for upstream supply related events (Category 1)
- Division on-call duty manager and/or other Division management for on-system events (Category 2), utilizing Division Dispatch to communicate to appropriate personnel.

For Category 1 or Category 2 events, the procedures are the same, except for which party initiates the applicable steps:

- Category 1: SGS initiates the applicable steps
- Category 2: Division on-call duty manager and/or other division management initiates the applicable steps

Request for Voluntary Curtailment:

- SGS sends Notice to transportation customers
- Division Dispatch notifies division personnel and ESKA
- ESKA contacts customers and advises Division Dispatch of anticipated load reduction.
- Division or Corporate Communication, with approval of Division Vice President, may issue media announcements seeking voluntary conservation from P1 and P2 customers

Curtailment Required:

- SGS sends Notice to transportation customers
- Division Dispatch notifies division personnel and ESKA
- ESKA contacts customers
- Division Dispatch notifies Division Communications or Corporate Communications, as applicable, that a curtailment event is in progress
- Division personnel and ESKA follow up with customers that do not respond, as applicable
- Division personnel notify state regulatory authorities as required or as deemed appropriate
- Media announcement, as necessary, with approval of Division Vice President

System Isolation Plan and Emergency Plan Manual implemented, if required.

When applicable, "Curtailment Lifted" Notice sent to customers by SGS and media announcement by Division or Corporate Communications concerning customer relights.

EXHIBIT "A"

SOUTHWEST GAS CORPORATION

Posted on Southwest Gas InfoNet

http://home.swgas.com/

EXHIBIT "B"

SOUTHWEST GAS CORPORATION CONTACT LIST

Revision Date: April 14, 2021

Corporate

SWG Gas Control* .....

SWG Gas Scheduling ** .....

[redacted] (SWG Gas Control) .....

[redacted] (SWG Gas Scheduling) .....

[redacted] (Gas Purchases & Transportation) .....

[redacted] (Gas Purchases & Transportation) .....

[redacted] (Gas Purchases & Transportation) .....

[redacted] (Gas Purchases & Transportation) .....

[redacted] (ESKA) .....

*Primary **Secondary

Central Arizona Division

CAD Dispatch..... [redacted]

[redacted] (ESKA)..... [redacted]

[redacted] (ESKA)..... [redacted]

Northern Nevada/Northern California Division

NND Dispatch ..... [redacted]

[redacted] (ESKA)..... [redacted]

Southern Arizona Division

SAD Dispatch..... [redacted]

SAD Emergency..... [redacted]

[redacted] (ESKA)..... [redacted]

[redacted] (ESKA)..... [redacted]

Southern California Division

SCD Dispatch..... [redacted]

[redacted] (ESKA) ..... [redacted]

Southern Nevada Division

Dispatch ..... [redacted]

[redacted] (ESKA)..... [redacted]

[redacted] (ESKA) ..... [redacted]

EXHIBIT "C"

SOUTHWEST GAS CORPORATION
("Southwest")
_____ Division

Customer Notice
General Curtailment Warning and Request for Voluntary Reduction in Usage

Issued: (Insert Date and Time)

NOTICE TO CUSTOMERS AND AGENTS

____ All areas
____ Specific Area(s): _____

Either due to conditions developing on upstream pipelines or on certain segments of Southwest's distribution system, Southwest has determined that there may be insufficient volumes of natural gas being delivered and/or insufficient system pressure capabilities to meet the requirements of all Southwest customers. Due to this situation, Southwest is hereby advising customers and agents that curtailment of service to low-priority customers may be required.

To avoid the eventuality of mandatory curtailment, it is requested that you cease operation of nonessential gas-fired equipment as soon as operationally feasible. If you have specific questions regarding safety or permanent harm to equipment or product, contact Southwest before proceeding. When this condition has been resolved, you will be notified as to when normal operations may be resumed.

Thank you for your cooperation.

EXHIBIT "D"

SOUTHWEST GAS CORPORATION
("Southwest")
_____ Division

Customer Notice
General Curtailment Required

Issued: (Insert Date and Time)

NOTICE TO CUSTOMERS AND AGENTS

Applicable to Priority_____ Service

Southwest has been advised by upstream pipelines that such systems are in a critical draft condition. With this condition, it is likely there will be insufficient volumes of natural gas being delivered and/or insufficient system pressure capabilities to meet the requirements of all Southwest customers. Southwest is required to curtail service to low-priority customers in accordance with applicable sections of Southwest's Nevada Gas Tariff.

This curtailment procedure requires that you cease operation of nonessential gas-fired equipment as soon as operationally feasible. If you have specific questions regarding safety or permanent harm to equipment or product, contact Southwest before proceeding with the curtailment. When this condition has been resolved, you will be notified as to when you may resume normal natural gas service.

Thank you for your cooperation.

EXHIBIT "E"

SOUTHWEST GAS CORPORATION
("Southwest")
_____ Division

Customer Notice
Specific Area Curtailment Required

Issued: (Insert Date and Time)

NOTICE TO CUSTOMERS AND AGENTS

Applicable to Priority_____ Service

Southwest has experienced insufficient volumes of natural gas being delivered, insufficient system pressure capabilities, or other conditions on Southwest's system that make it unable to meet the requirements of all Southwest customers in the area(s) identified below. Southwest is required to curtail service to low-priority customers situated in the identified area(s) in accordance with applicable sections of Southwest's tariff.

The area(s) of curtailment are as follows:

You will be notified if your facilities are situated in the identified area(s).

This curtailment procedure requires that you cease operation of nonessential gas-fired equipment as soon as operationally feasible. If you have specific questions regarding safety or permanent harm to equipment or product, contact Southwest before proceeding with the curtailment. When this condition has been resolved, you will be notified as to when you may resume normal natural gas service.

Thank you for your cooperation.

EXHIBIT "F"

SOUTHWEST GAS CORPORATION
("Southwest")
_____ Division

Customer Notice-Curtailment Lifted

Issued: (Insert Date and Time)

NOTICE TO CUSTOMERS AND AGENTS

Southwest has determined that the recent curtailment situation has been resolved and the curtailment requirement is lifted. **If you lost gas service from Southwest during this curtailment event or shut down plant operations because of it, Southwest personnel will be working with customers as required to reestablish normal service and operations.**

Thank you for your cooperation during this event.

APPENDIX B: RESOURCE SELECTION PROCESS

Appendix B
Resource Selection Process

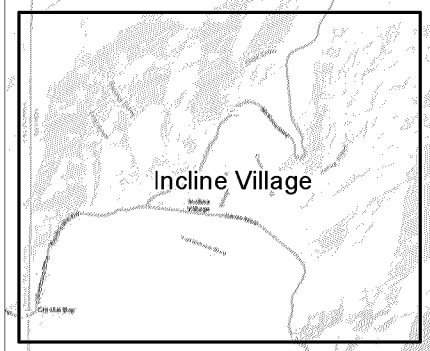
The Company contracts sufficient resources to serve its forecasted extreme weather daily demands. It routinely compares forecasted extreme weather demands to contracted resources to determine when a shortfall exists and when incremental interstate resources are required to meet that shortfall. Contracted resources may include upstream interstate transportation capacity, bundled delivered supplies, storage services, or another resource that could be used to meet the forecasted extreme weather demand.

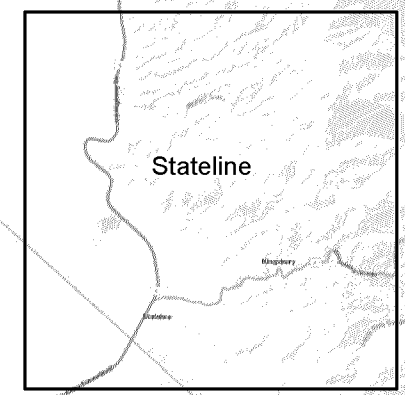
When the Company identifies a year when a shortfall will occur and incremental interstate resources are required for a service area, it quantifies the incremental resources needed in each year of a three- to five-year period, starting with the first year in which the shortfall occurs. Gas Resources Planning then works with Gas Supply to solicit offers for resources to serve the projected shortfalls. Solicitations are typically done at least two to three years in advance of the first year in which a shortfall is projected to occur, because interstate pipeline(s) or storage service providers may not have sufficient available capacity and an expansion may be required. Gas Supply forwards responsive offers to Gas Resources Planning for evaluation. Gas Resources Planning analyzes the responsive offers and meets with Gas Supply personnel and the Vice President/Administration and provides a recommendation regarding the resources needed to meet the shortfall. After the Vice President/Administration approves the recommended resources, Gas Supply contracts for the selected resources.

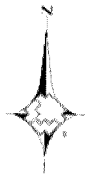
In addition, Gas Resources Planning assesses when existing contract resources terminate and when and if replacement resources are needed to serve projected extreme weather daily demands. The general processes used to assess and acquire replacement interstate resources, either through extending the primary term of existing interstate resources or replacing expiring interstate resources with new interstate resources, is the same as the process described above to solicit and acquire incremental resources to serve a shortfall.

APPENDIX C: MAPS

District 23 High Pressure Lines







Carson City

Lake Tahoe

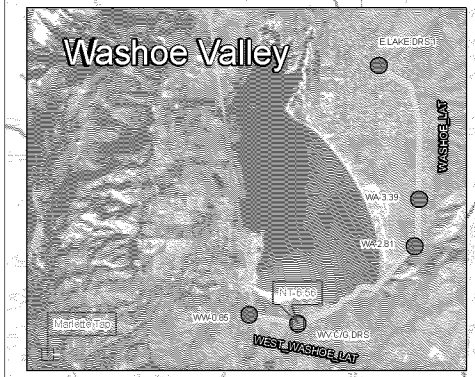
Legend

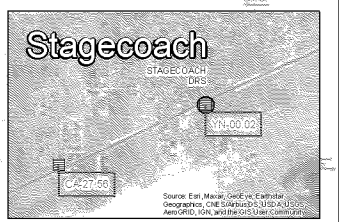
- GateTap
- Regulator Station
- High Pressure Distribution Main

SOUTHWEST GAS CORPORATION

Date: 4/5/2022

District 24 High Pressure Lines





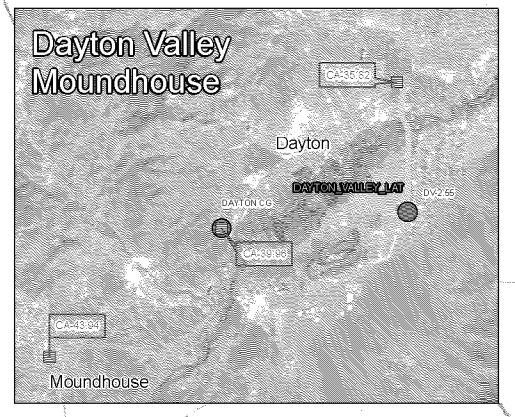
Stagecoach

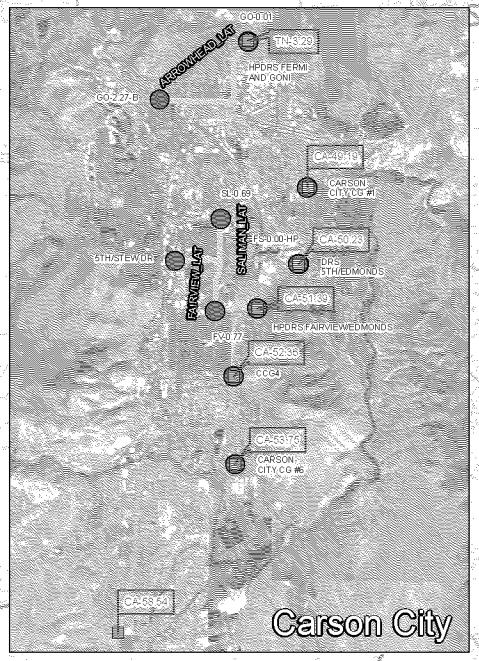
Washoe Valley

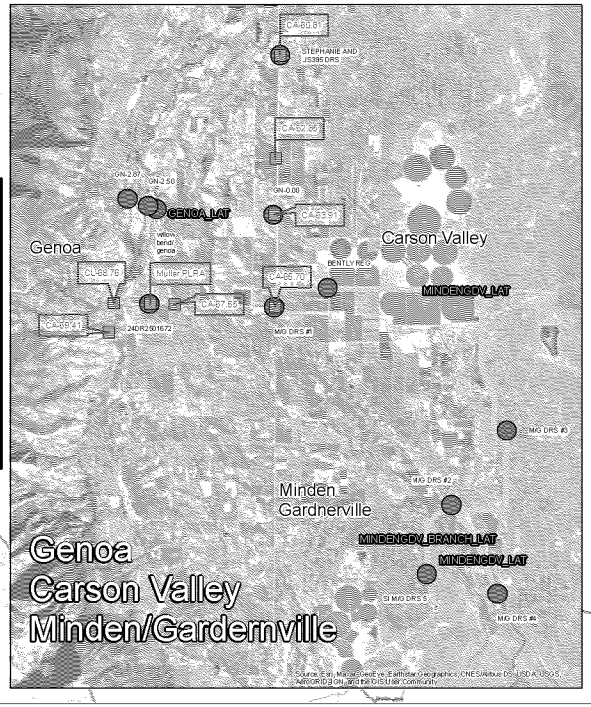
Dayton Valley

Carson City

Genoa
Carson-Valley
Minden/Gardnerville



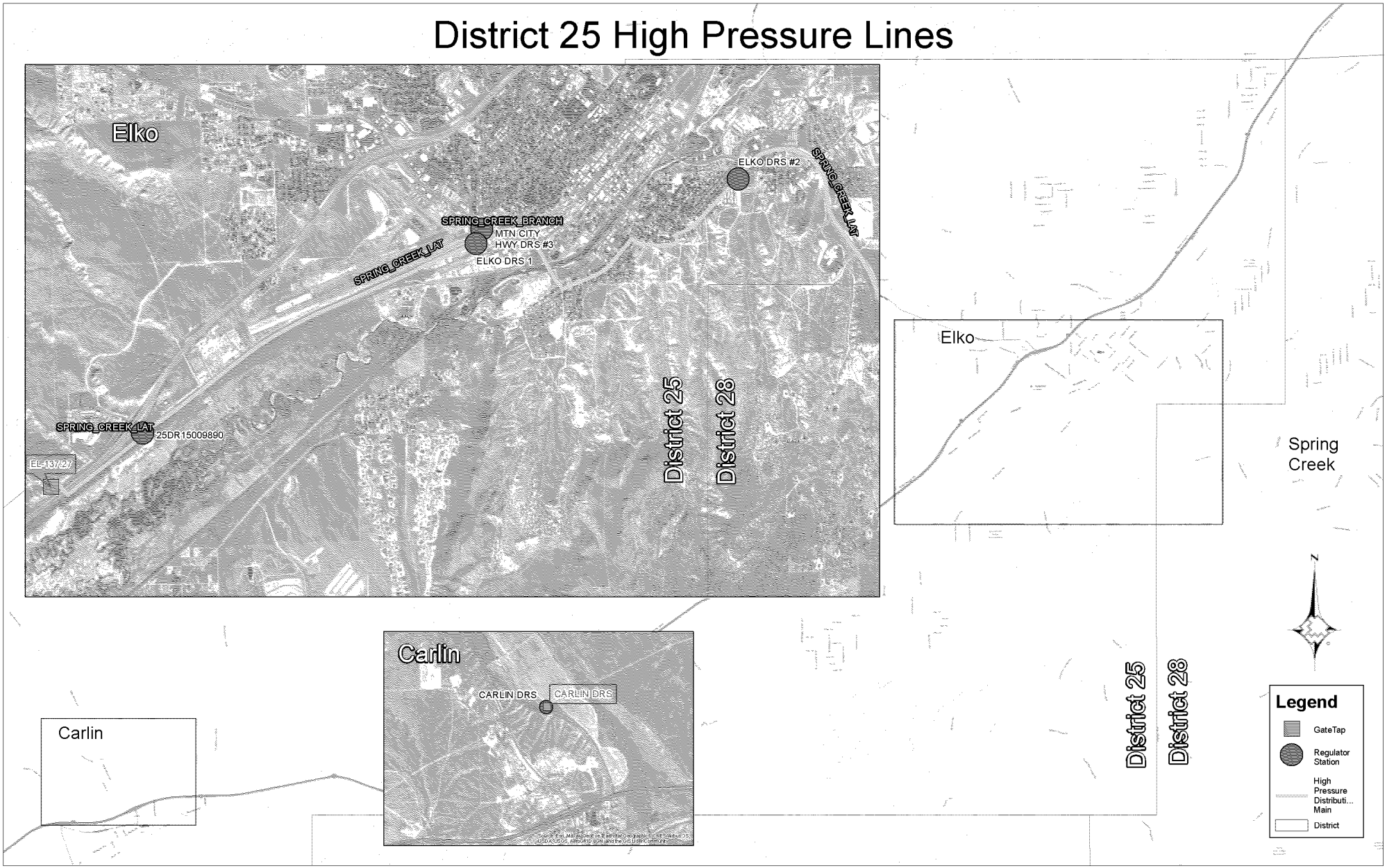




Legend
- GateTap
- Regulator Station
- High Pressure Distribution Main

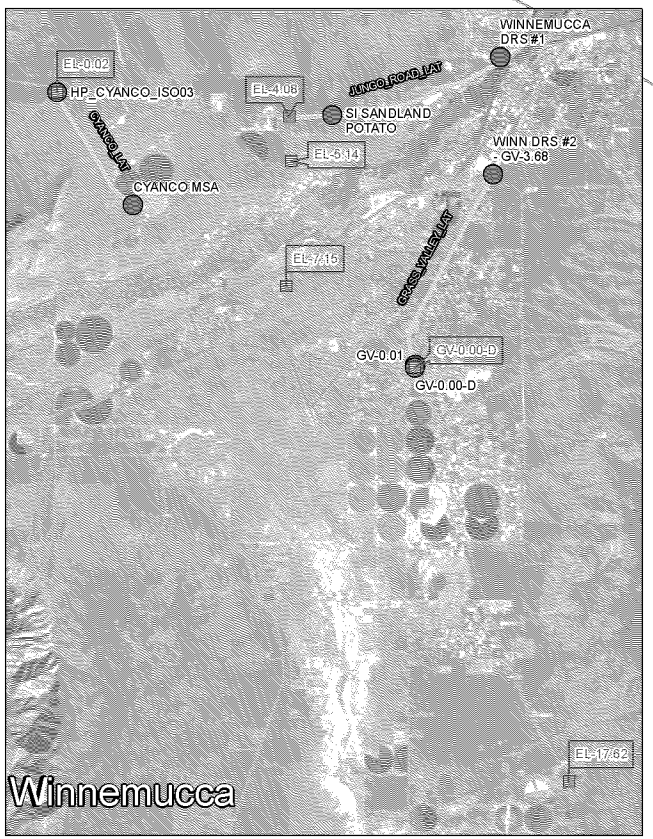
4/5/2022

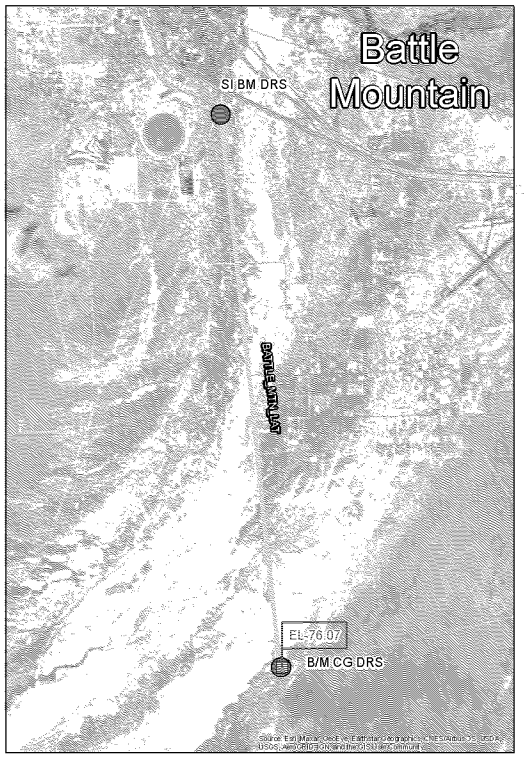
District 25 High Pressure Lines



Date: 4/7/2022

District 26 High Pressure Lines





Winnemucca

Battle Mountain

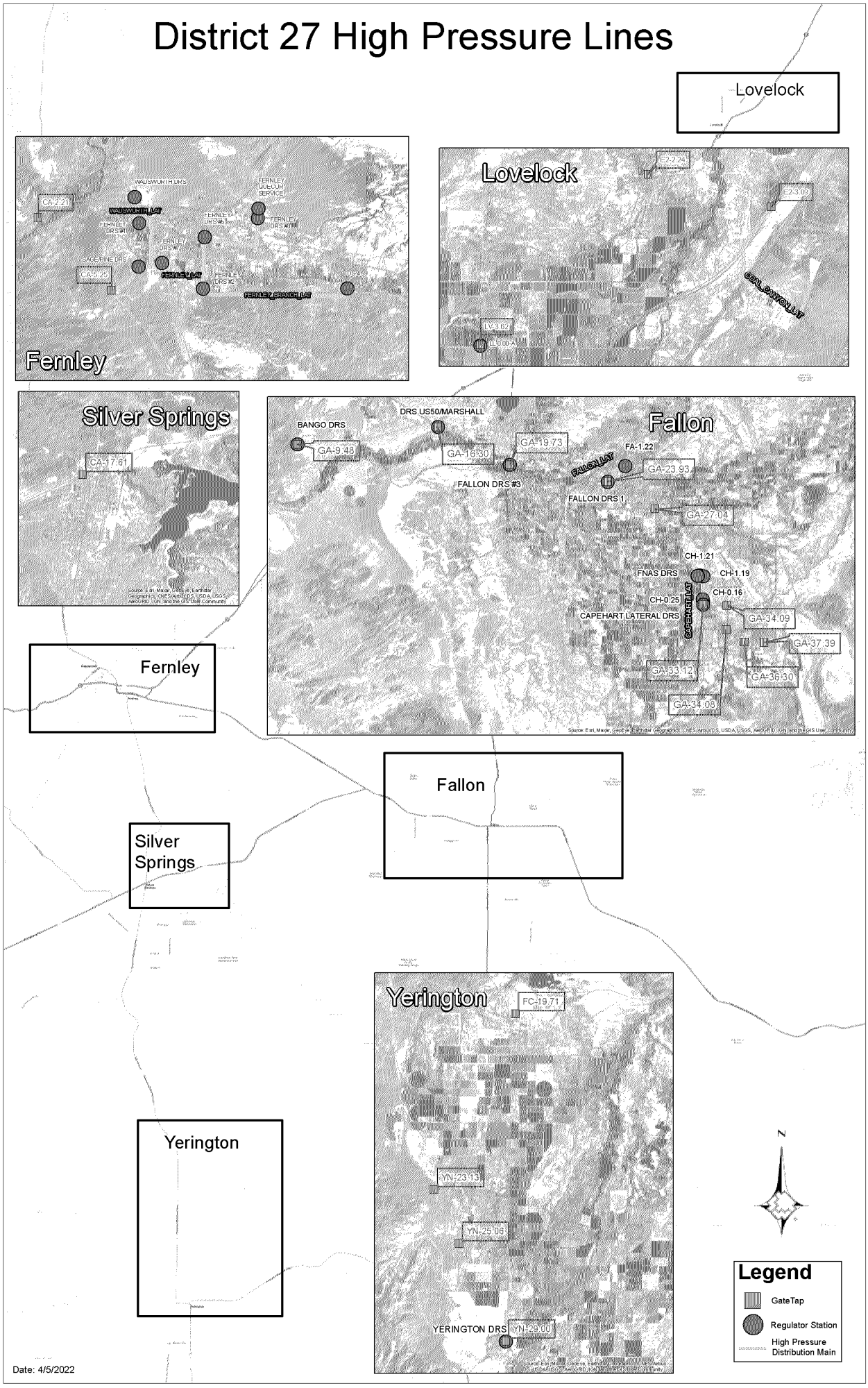
N

Legend

- Gate Lap
- Regulator Station
- High Pressure Distribution Main

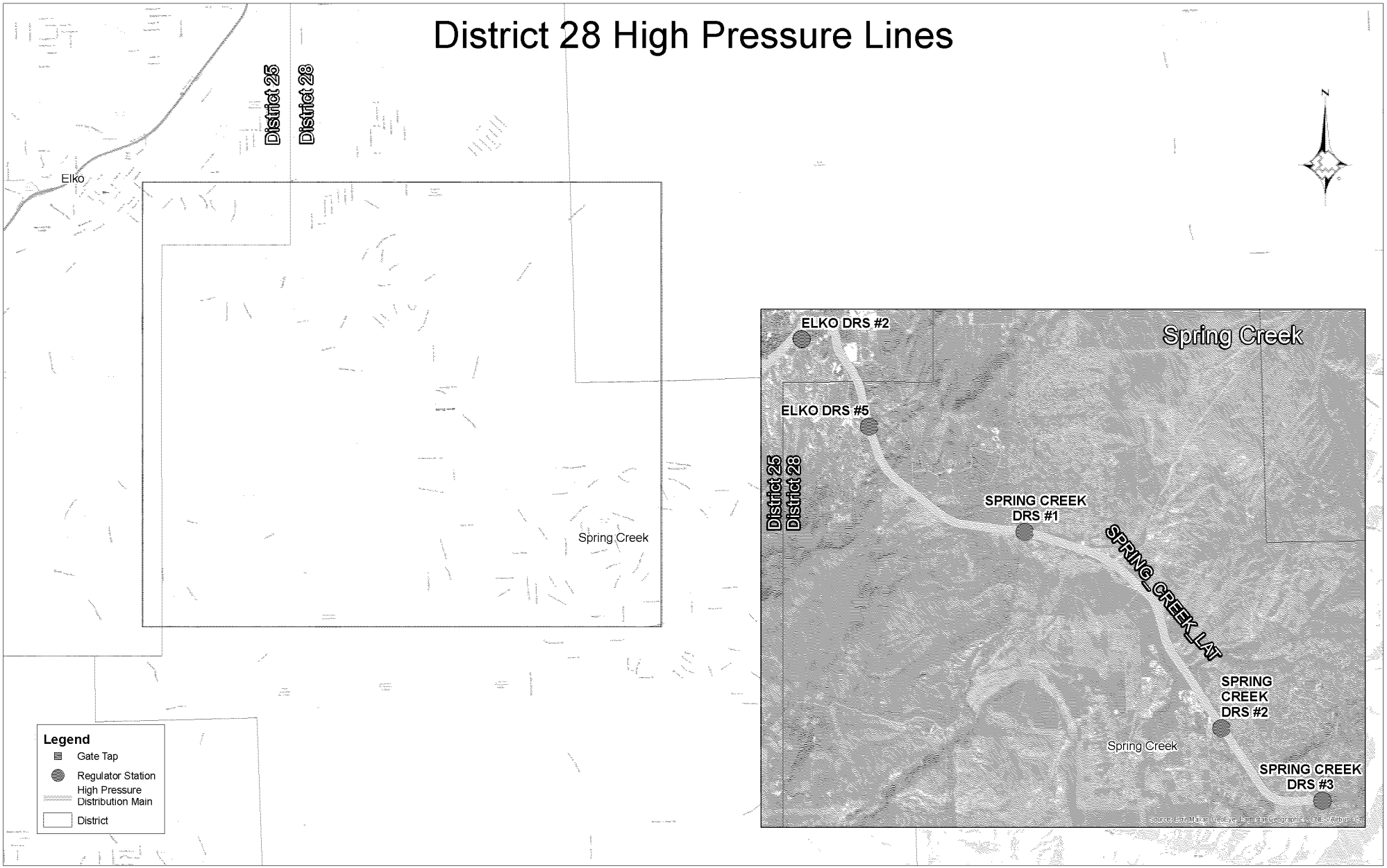
Date: 4/5/2022

District 27 High Pressure Lines



Date: 4/5/2022

District 28 High Pressure Lines



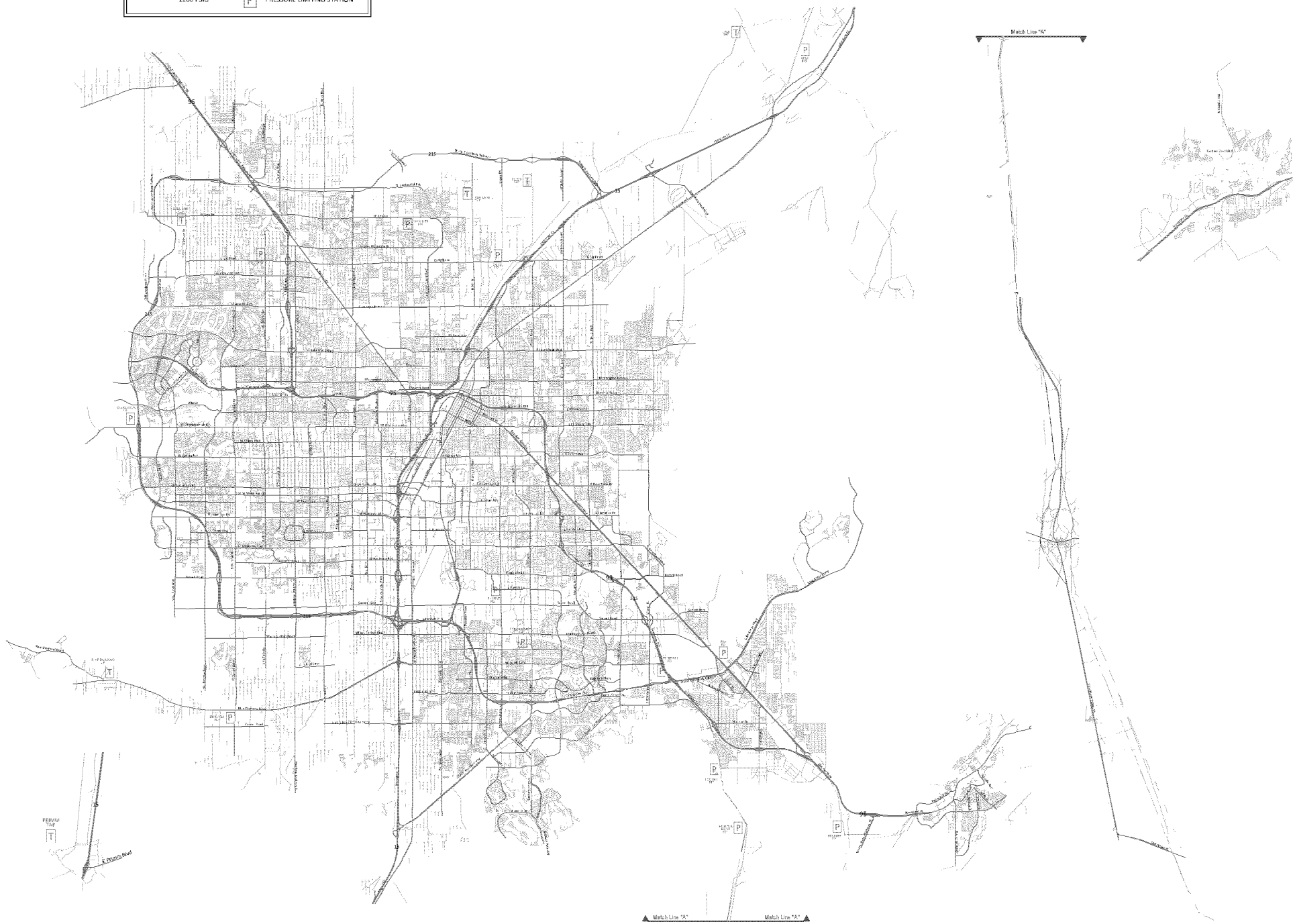
Date: 4/7/2022

SOUTHWEST GAS CORPORATION

Southern Nevada Division
Las Vegas District

LEGEND

- STREETS
- 100 - 175 PSIG
- 200 PSIG
- 300 - 350 PSIG
- 500 - 537 PSIG
- 650 - 676 PSIG
- 720 - 746 PSIG
- 1200 PSIG
- T — TAP SITE
- P — PRESSURE LIMITING STATION



CREATED: 05/19/2020

Y:\SNM\Thematic Maps\High Pressure\05192020

PUBLIC UTILITIES COMMISSION OF NEVADA
DRAFT NOTICE
(Applications, Tariff Filings, Complaints, and Petitions)

Pursuant to Nevada Administrative Code ("NAC") 703.162, the Commission requires that a draft notice be included with all applications, tariff filings, complaints and petitions. Please complete and include one copy of this form with your filing.

I. A title that generally describes the relief requested (see NAC 703.160(5)(a)):

Southwest Gas Corporation (Southwest Gas) submits its annual informational report concerning its natural gas resource planning activities in accordance with Nevada Revised Statutes (NRS) 704.991 and Nevada Administrative Code (NAC) 704.961 through 704.968.

II. The name of the applicant, complainant, petitioner or the name of the agent for the applicant, complainant or petitioner (see NAC 703.160(5)(b)):

Southwest Gas Corporation

III. A brief description of the purpose of the filing or proceeding, including, without limitation, a clear and concise introductory statement that summarizes the relief requested or the type of proceeding scheduled AND the effect of the relief or proceeding upon consumers (see NAC 703.160(5)(c)):

The Annual Resource Planning Informational Report contains an overview and supporting details of Southwest Gas' resource planning activities, including: load forecasting, conservation and load management, existing and planned major facilities, price projections for gas supply and transportation, supply strategies, supply reliability assessments and curtailment plans. Southwest Gas seeks Commission acceptance of the report as filed under NAC 704.961 through 704.968, inclusive. There are no effects on customers, Southwest Gas' tariffs, or customer rates resulting from this filing.

IV. A statement indicating whether a consumer session is required to be held pursuant to Nevada Revised Statute ("NRS") 704.069(1)[1]:

Southwest Gas does not believe a consumer session is required.

V. If the draft notice pertains to a tariff filing, please include the tariff number AND the section number(s) or schedule number(s) being revised.

There are no tariff sheets affected by this filing.

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[1] **NRS 704.069 states in pertinent part:**

1. The Commission shall conduct a consumer session to solicit comments from the public in any matter pending before the Commission pursuant to NRS 704.061 to 704.110 inclusive, in which:
(a) A public utility has filed a general rate application, an application to recover the increased cost of purchased fuel, purchased power, or natural gas purchased for resale or an application to clear its deferred accounts; and
(b) The changes proposed in the application will result in an increase in annual gross operating revenue, as certified by the applicant, in an amount that will exceed $50,000 or 10 percent of the applicant's annual gross operating revenue, whichever is less.