



Risk Assessment and Mitigation Phase

(Chapter SCG -Risk-2-WP)

**Excavation Damage (Dig-In) on the
Gas System**

Workpapers

May 17, 2021

2021 RAMP
SCG-Risk-2-WP
Risks Recorded and Forecast Costs Incurred Allocations Workpaper
Tab: Incurred5
(2020 Direct \$500)

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	RECORDED DOLLARS								FORECAST DOLLARS								Shared Allocations (Yes/No)	
				ORM				Capital				ORM				Capital					
				2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2022	2023	2024	2022	2023	2024		
				\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High		
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C01	Locate and Mark Training - (MP)	\$ 584	\$ 329	\$ 311	\$ 410	\$ 416	\$ -	\$ -	\$ -	\$ -	\$ 401	\$ 486	\$ 413	\$ 500	\$ 426	\$ 515	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C12	Locate Prevention Analysts - (HP)	\$ -	\$ 30	\$ 94	\$ 116	\$ 112	\$ -	\$ -	\$ -	\$ -	\$ 184	\$ 236	\$ 265	\$ 338	\$ 345	\$ 440	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C13	Locating Equipment and Supporting Computer Hardware/Software - (MP)	\$ -	\$ -	\$ -	\$ -	\$ 547	\$ 3,021	\$ 1,420	\$ 3,568	\$ 2,874	\$ -	\$ -	\$ -	\$ -	\$ 253	\$ 6,359	\$ 5,410	\$ 6,549	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C14	Locating Equipment and Supporting Computer Hardware/Software - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 131	\$ 722	\$ 339	\$ 1,282	\$ 686	\$ -	\$ -	\$ -	\$ -	\$ 1,254	\$ 1,518	\$ 1,293	\$ 1,564
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C15-T1	Public Awareness - Affected Public - (MP)	\$ 206	\$ 180	\$ 509	\$ 757	\$ 737	\$ -	\$ -	\$ -	\$ -	\$ 740	\$ 896	\$ 763	\$ 923	\$ 785	\$ 941	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C15-T2	Public Awareness - Emergency Officials - (MP)	\$ 1	\$ 2	\$ 12	\$ 2	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ 12	\$ 15	\$ 12	\$ 15	\$ 13	\$ 16	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C15-T3	Public Awareness - Local Public Officials - (MP)	\$ 0	\$ 1	\$ 1	\$ 20	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ 19	\$ 24	\$ 19	\$ 25	\$ 24	\$ 20	\$ 25	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C15-T4	Public Awareness - Escalators - (MP)	\$ 112	\$ 53	\$ 220	\$ 376	\$ 363	\$ -	\$ -	\$ -	\$ -	\$ 215	\$ 260	\$ 221	\$ 268	\$ 228	\$ 276	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C16-T1	Public Awareness - Affected Public - (HP)	\$ 49	\$ 210	\$ 121	\$ 181	\$ 78	\$ -	\$ -	\$ -	\$ -	\$ 177	\$ 214	\$ 182	\$ 220	\$ 188	\$ 227	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C16-T2	Public Awareness - Emergency Officials - (HP)	\$ 0	\$ 0	\$ 5	\$ 5	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ 3	\$ 4	\$ 3	\$ 4	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C16-T3	Public Awareness - Local Public Officials - (HP)	\$ 0	\$ 0	\$ 5	\$ 5	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ 4	\$ 5	\$ 5	\$ 5	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C16-T4	Public Awareness - Escalators - (HP)	\$ 27	\$ 13	\$ 52	\$ 42	\$ 72	\$ -	\$ -	\$ -	\$ -	\$ 51	\$ 62	\$ 53	\$ 64	\$ 54	\$ 66	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C17	Increase Reporting of Unsafe Excavation - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Yes	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C19	Damage Prevention Policy Activities - (MP)	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C18	Increase Reporting of Unsafe Excavation - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Yes	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C20	Damage Prevention Policy Activities - (HP)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C22	Locate and Mark Training - (HP)	\$ 51	\$ 28	\$ 30	\$ 35	\$ 37	\$ -	\$ -	\$ -	\$ -	\$ 34	\$ 41	\$ 35	\$ 42	\$ 36	\$ 43	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C23	Locate and Mark Activities - (MP)	\$18,730	\$18,491	\$18,188	\$18,363	\$18,395	\$ -	\$ -	\$ -	\$ -	\$ 17,968	\$21,751	\$18,507	\$22,404	\$19,062	\$23,076	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C24	Locate and Mark Activities - (HP)	\$ 4,373	\$ 4,402	\$ 4,111	\$ 4,186	\$ 4,113	\$ -	\$ -	\$ -	\$ -	\$ 4,096	\$ 4,959	\$ 4,219	\$ 5,108	\$ 4,346	\$ 5,261	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C27	Locate and Mark Operator Qualification - (MP)	\$ 106	\$ 109	\$ 112	\$ 116	\$ 118	\$ -	\$ -	\$ -	\$ -	\$ 113	\$ 137	\$ 116	\$ 141	\$ 120	\$ 145	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C28	Locate and Mark Operator Qualification - (HP)	\$ 25	\$ 26	\$ 27	\$ 28	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ 27	\$ 33	\$ 28	\$ 34	\$ 29	\$ 35	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C29	Locate and Mark Quality Assurance - (MP)	\$ 2,800	\$ 1,076	\$ 2,008	\$ 1,832	\$ 2,004	\$ -	\$ -	\$ -	\$ -	\$ 1,792	\$ 2,170	\$ 1,846	\$ 2,235	\$ 1,902	\$ 2,362	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C30	Locate and Mark Quality Assurance - (HP)	\$ 206	\$ 637	\$ 387	\$ 355	\$ 387	\$ -	\$ -	\$ -	\$ -	\$ 346	\$ 418	\$ 356	\$ 431	\$ 367	\$ 444	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C31	Damage Prevention Analysts - (MP)	\$ -	\$ 127	\$ 304	\$ 486	\$ 470	\$ -	\$ -	\$ -	\$ -	\$ 873	\$ 1,116	\$ 773	\$ 1,209	\$ 1,673	\$ 1,745	\$ 2,230	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M3	Automate Third Party Excavation Incident Reporting - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 73	\$ 93	\$ 75	\$ 96	\$ 86	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M3	Locate and Mark Photographs - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 392	\$ 501	\$ 392	\$ 501	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M7	Leverage Technology for Difficult Locations - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C33	Enhance Ticket Management Software - (MP)	\$ -	\$ 4	\$ 12	\$ 8	\$ 67	\$ 103	\$ 193	\$ 213	\$ 7	\$ 9	\$ 8	\$ 10	\$ 8	\$ 10	\$ 176	\$ 229	\$ 184	\$ 236
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C35	Leverage Data Gathered by Locating Equipment - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115	\$ 147	\$ 118	\$ 151	\$ 122	\$ 156	Yes	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C36	Locate and Mark Annual Refresher Training and Competency Programs - (MP)	\$ 49	\$ 47	\$ 49	\$ 47	\$ 47	\$ -	\$ -	\$ -	\$ -	\$ 46	\$ 56	\$ 47	\$ 57	\$ 49	\$ 59	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C22	Gold Shovel Standard Program - (MP)	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ 3	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M5	Electronic Positive Response - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C24	Excess Flow Valve or Curb Valve Installation - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 201	\$ 910	\$ 832	\$ 915	\$ -	\$ -	\$ -	\$ -	\$ 771	\$ 985	\$ 794	\$ 1,016	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C31	Ticket Risk Assessment and Evaluating City Permit Data - (MP)	\$ -	\$ 39	\$ 225	\$ 220	\$ 369	\$ -	\$ -	\$ -	\$ -	\$ 204	\$ 26	\$ 210	\$ 268	\$ 216	\$ 276	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C25	Pipeline Patrol and Pipeline Markers - (MP)	\$ 134	\$ 140	\$ 89	\$ 81	\$ 83	\$ -	\$ -	\$ -	\$ -	\$ 75	\$ 96	\$ 77	\$ 98	\$ 79	\$ 101	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M11	Outsource for Latent 3rd Party Damages - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C27	Company Excavator Training - (MP)	\$ 393	\$ 333	\$ 189	\$ 327	\$ 217	\$ -	\$ -	\$ -	\$ -	\$ 303	\$ 387	\$ 312	\$ 399	\$ 321	\$ 411	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C29	Warning Mesh - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 89	\$ 196	\$ 61	\$ 249	\$ 273	\$ -	\$ -	\$ -	\$ 243	\$ 295	\$ 291	\$ 304	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	A1	Virtual Reality Training - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 240	\$ 254	\$ 212	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	A2	GPS Tracking of Excavation Equipment - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 306	\$ 336	\$ 306	\$ 391	\$ 306	\$ 391	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M2	Automate Third Party Excavation Incident Reporting - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17	\$ 22	\$ 18	\$ 21	\$ -	\$ -	Yes	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M4	Locate and Mark Photographs - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M8	Leverage Technology for Difficult Locations - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C34	Enhance Ticket Management Software - (HP)	\$ -	\$ 1	\$ 3	\$ 1	\$ 2	\$ -	\$ 16	\$ 25	\$ 46	\$ 51	\$ -	\$ 2	\$ 2	\$ 2	\$ 2	\$ 43	\$ 55	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C36	Leverage Data Gathered by Locating Equipment - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27	\$ 35	\$ 28	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C26	Locate and Mark Annual Refresher Training and Competency Programs - (HP)	\$ -	\$ 13	\$ 13	\$ 13	\$ 13	\$ -	\$ -	\$ -	\$ -	\$ 13	\$ 15	\$ 13	\$ 16	\$ 14	\$ 16	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C23	Gold Shovel Standard Program - (HP)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 1	\$ 0	\$ 1	\$ 0	\$ 1	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M6	Electronic Positive Response - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C32	Ticket Risk Assessment and Evaluating City Permit Data - (HP)	\$ -	\$ 9	\$ 54	\$ 52	\$ 88	\$ -	\$ -	\$ -	\$ -	\$ 49	\$ 62	\$ 36	\$ 64	\$ 32	\$ 66	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C26	Pipeline Patrol and Pipeline Markers - (HP)	\$ 480	\$ 521	\$ 488	\$ 440	\$ 458	\$ -	\$ -	\$ -	\$ -	\$ 425	\$ 543	\$ 438	\$ 559	\$ 451	\$ 576	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	M12	Dispatch for Latent 3rd Party Damages - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4	\$ 5	\$ 4	\$ 5	\$ 4	\$ 5	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C28	Company Excavator Training - (HP)	\$ 54	\$ 36	\$ 37	\$ 54	\$ -	\$ -	\$ -	\$ -	\$ 34	\$ 44	\$ 35	\$ 45	\$ 36	\$ 47	\$ -	\$ -	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C30	Warning Mesh - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24	\$ 47	\$ 15	\$ 59	\$ 65	\$ -	\$ -	\$ -	\$ -	\$ 58	\$ 70	\$ 60	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C21	Prevention & Improvements - Fiber Optics - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 537	\$ 236	\$ 1,264	\$ 2,505	\$ -	\$ -	\$ -	\$ -	\$ 2,451	\$ 2,947	\$ 2,521	\$ 3,056	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	C37	Pipeline Monitoring Technologies - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 49	\$ 71	\$ 104	\$ 151	\$ 169	\$ 244	\$ 1,013	\$ 1,463	\$ 1,305	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM	A3	Virtual Reality Training - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 94	\$ 120	\$ 94	\$ 120	\$ 94	\$ 120	\$ 94	\$ 120	No	
SCG-Risk-2	EXCAVATION DAMAGE (D5-IN) ON THE GAS SYSTEM																				

2021 RAMP

SCG-Risk-2-WP

Risks Shared Allocations Workpaper

Tab: Shared Allocations

(2020 Direct \$000)

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	Shared Allocations			
				Retained	SDG&E	Sempra Energy	Other
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C01	Locate and Mark Training - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C12	Damage Prevention Analysts - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C13	Locating Equipment and supporting computer Hardware/Software - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C14	Locating Equipment and supporting computer Hardware/Software - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T1	Public Awareness - Affected Public - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T2	Public Awareness - Emergency Officials - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T3	Public Awareness - Local Public Officials - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T4	Public Awareness - Excavators - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T1	Public Awareness - Affected Public - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T2	Public Awareness - Emergency Officials - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T3	Public Awareness - Local Public Officials - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T4	Public Awareness - Excavators - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C17	Increase Reporting of Unsafe Excavation - (MP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C19	Damage Prevention Policy Activities - (MP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C18	Increase Reporting of Unsafe Excavation - (HP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C20	Damage Prevention Policy Activities - (HP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C02	Locate and Mark Training - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C03	Locate and Mark Activities - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C04	Locate and Mark Activities - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C07	Locate and Mark Operator Qualification - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C08	Locate and Mark Operator Qualification - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C09	Locate and Mark Quality Assurance - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C10	Locate and Mark Quality Assurance - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C11	Damage Prevention Analysts - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M1	Automate Third Party Excavation Incident Reporting - (MP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M3	Locate and Mark Photographs - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M7	Leverage Technology for Difficult Locates - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C33	Enhance Ticket Management Software - (MP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C35	Leverage Data Gathered by Locating Equipment - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C05	Locate and Mark Annual Refresher Training and Competency Program - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C22	Gold Shovel Standard Program - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M5	Electronic Positive Response - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C24	Excess Flow Valve or Curb Valve Installation - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C31	Ticket Risk Assessment and Evaluating City Permit Data - (MP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C25	Pipeline Patrol and Pipeline Markers - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M11	Outreach for Latent 3rd Party Damages - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C27	Company Excavator Training - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C29	Warning Mesh - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	A1	Virtual Reality Training - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	A2	GPS Tracking of Excavation Equipment - (MP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M2	Automate Third Party Excavation Incident Reporting - (HP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M4	Locate and Mark Photographs - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M8	Leverage Technology for Difficult Locates - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C34	Enhance Ticket Management Software - (HP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C36	Leverage Data Gathered by Locating Equipment - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C06	Locate and Mark Annual Refresher Training and Competency Program - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C23	Gold Shovel Standard Program - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M6	Electronic Positive Response - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C32	Ticket Risk Assessment and Evaluating City Permit Data - (HP)	84%	16%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C26	Pipeline Patrol and Pipeline Markers - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M12	Outreach for Latent 3rd Party Damages - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C28	Company Excavator Training - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C30	Warning Mesh - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C21	Prevention & Improvements - Fiber Optics - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C37	Pipeline Monitoring Technologies - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	A3	Virtual Reality Training - (HP)	100%	0%	0%	0%
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	A4	GPS Tracking of Excavation Equipment - (HP)	100%	0%	0%	0%

2021 RAMP

SCG-Risk-2-WP

Risks Recorded and Forecast Costs After Allocations Workpaper

Tab: After Allocations\$

(2020 Direct 5000)

RAMP Chapter ID	RAMP Chapter Name	Control / Mitigation ID	Control / Mitigation Name	RECORDED DOLLARS										FORECAST DOLLARS										
				O&M					Capital					O&M					Capital					
				2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2022	2023	2024	2022	2023	2024	2022	2023	2024		
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C01	Locate and Mark Training - (MP)	\$ 584	\$ 329	\$ 311	\$ 410	\$ 416	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 401	\$ 486	\$ 413	\$ 500	\$ 426	\$ 515	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C12	Damage Prevention Analysts - (HP)	\$ -	\$ 30	\$ 94	\$ 116	\$ 112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 184	\$ 236	\$ 265	\$ 338	\$ 345	\$ 440	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C13	Locating Equipment and supporting computer Hardware/Software (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 547	\$ 3,021	\$ 1,420	\$ 5,368	\$ 2,874	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,253	\$ 6,359	\$ 5,410	\$ 6,549	\$ 5,573	\$ 6,746
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C14	Locating Equipment and supporting computer Hardware/Software - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 131	\$ 722	\$ 339	\$ 1,282	\$ 686	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,234	\$ 1,518	\$ 1,292	\$ 1,564	\$ 1,331	\$ 1,611
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T1	Public Awareness - Affected Public - (MP)	\$ 206	\$ 880	\$ 509	\$ 757	\$ 327	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 740	\$ 896	\$ 763	\$ 923	\$ 785	\$ 951	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T2	Public Awareness - Emergency Officials - (MP)	\$ 1	\$ 2	\$ 12	\$ 2	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12	\$ 15	\$ 12	\$ 15	\$ 13	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T3	Public Awareness - Local Public Officials - (MP)	\$ 0	\$ 1	\$ 20	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19	\$ 24	\$ 19	\$ 24	\$ 20	\$ 25	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C15-T4	Public Awareness - Excavators - (MP)	\$ 112	\$ 53	\$ 230	\$ 176	\$ 303	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 215	\$ 260	\$ 221	\$ 268	\$ 228	\$ 276	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T1	Public Awareness - Affected Public - (HP)	\$ 49	\$ 230	\$ 121	\$ 181	\$ 78	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 177	\$ 214	\$ 182	\$ 220	\$ 188	\$ 227	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T2	Public Awareness - Emergency Officials - (HP)	\$ 0	\$ 0	\$ 3	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3	\$ 4	\$ 3	\$ 4	\$ 3	\$ 4	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T3	Public Awareness - Local Public Officials - (HP)	\$ 0	\$ 0	\$ 5	\$ 5	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ 4	\$ 6	\$ 5	\$ 6	\$ 5	\$ 6	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C16-T4	Public Awareness - Excavators - (HP)	\$ 27	\$ 13	\$ 52	\$ 42	\$ 72	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51	\$ 62	\$ 53	\$ 64	\$ 54	\$ 66	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C17	Increase Reporting of Unsafe Excavation - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C19	Damage Prevention Policy Activities - (MP)	\$ 1	\$ 0	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C18	Increase Reporting of Unsafe Excavation - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C20	Damage Prevention Policy Activities - (HP)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C02	Locate and Mark Training - (HP)	\$ 51	\$ 28	\$ 30	\$ 35	\$ 37	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34	\$ 41	\$ 35	\$ 42	\$ 36	\$ 43	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C03	Locate and Mark Activities - (MP)	\$ 18,730	\$ 18,491	\$ 18,183	\$ 18,363	\$ 18,395	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,968	\$ 21,751	\$ 18,507	\$ 22,404	\$ 19,062	\$ 23,076	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C04	Locate and Mark Activities - (HP)	\$ 4,270	\$ 4,202	\$ 4,112	\$ 4,186	\$ 4,113	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,096	\$ 4,959	\$ 4,219	\$ 5,109	\$ 4,346	\$ 5,261	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C07	Locate and Mark Operator Qualification - (MP)	\$ 106	\$ 109	\$ 112	\$ 116	\$ 118	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 113	\$ 137	\$ 116	\$ 141	\$ 120	\$ 145	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C08	Locate and Mark Operator Qualification - (HP)	\$ 25	\$ 26	\$ 27	\$ 28	\$ 28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27	\$ 33	\$ 28	\$ 34	\$ 29	\$ 35	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C09	Locate and Mark Quality Assurance - (MP)	\$ 2,800	\$ 1,976	\$ 2,008	\$ 1,832	\$ 2,004	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,792	\$ 2,170	\$ 1,846	\$ 2,239	\$ 1,902	\$ 2,302	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C10	Locate and Mark Quality Assurance - (HP)	\$ 206	\$ 617	\$ 387	\$ 353	\$ 387	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 346	\$ 418	\$ 356	\$ 431	\$ 367	\$ 444	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C11	Damage Prevention Analysts - (MP)	\$ -	\$ 127	\$ 394	\$ 486	\$ 470	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 873	\$ 1,116	\$ 1,309	\$ 1,673	\$ 1,745	\$ 2,230	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M1	Automate Third Party Excavation Incident Reporting - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M3	Locate and Mark Photographs - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 392	\$ 501	\$ 392	\$ 501	\$ 392	\$ 501	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M7	Leverage Technology for Difficult Locates - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C33	Enhance Ticket Management Software - (MP)	\$ -	\$ 3	\$ 10	\$ 7	\$ 6	\$ -	\$ 56	\$ 87	\$ 162	\$ 179	\$ 6	\$ 8	\$ 6	\$ 8	\$ 7	\$ 8	\$ 150	\$ 192	\$ 159	\$ 198	\$ 160
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C35	Leverage Data Gathered by Locating Equipment - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 124	\$ -	\$ -	\$ -	\$ -	\$ 115	\$ 147	\$ 118	\$ 151	\$ 122
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C05	Locate and Mark Annual Refresher Training and Competency Program - (MP)	\$ 48	\$ 47	\$ 45	\$ 47	\$ 47	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46	\$ 56	\$ 47	\$ 57	\$ 49	\$ 59	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C22	Gold Shovel Standard Program - (MP)	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ 3	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M5	Electronic Positive Response - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C24	Excess Flow Valve or Curb Valve Installation - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 201	\$ 910	\$ 832	\$ 915	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 771	\$ 985	\$ 794	\$ 1,015	\$ 818
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C31	Ticket Risk Assessment and Evaluating City Permit Data - (MP)	\$ -	\$ 33	\$ 185	\$ 185	\$ 310	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 171	\$ 219	\$ 176	\$ 225	\$ 181	\$ 232	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C25	Pipeline Patrol and Pipeline Markers - (MP)	\$ 134	\$ 140	\$ 89	\$ 91	\$ 83	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75	\$ 96	\$ 77	\$ 98	\$ 79	\$ 101	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M11	Outreach for Latent 3rd Party Damages - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15	\$ 20	\$ 16	\$ 20	\$ 16	\$ 21	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C27	Company Excavator Training - (MP)	\$ 393	\$ 339	\$ 189	\$ 277	\$ 217	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 303	\$ 287	\$ 312	\$ 399	\$ 321	\$ 411	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C29	Warning Mesh - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99	\$ 198	\$ 61	\$ 248	\$ 273	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 243	\$ 295	\$ 251	\$ 304	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	A1	Virtual Reality Training - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 94	\$ 120	\$ 94	\$ 120	\$ 94	\$ 120	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	A2	GPS Tracking of Excavation Equipment - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 306	\$ 391	\$ 306	\$ 391	\$ 306	\$ 391	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M2	Automate Third Party Excavation Incident Reporting - (MP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14	\$ 19	\$ 15	\$ 19	\$ 15	\$ 19	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M4	Locate and Mark Photographs - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 87	\$ 112	\$ 87	\$ 112	\$ 87	\$ 112	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M8	Leverage Technology for Difficult Locates - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C34	Enhance Ticket Management Software - (HP)	\$ -	\$ 1	\$ 2	\$ 2	\$ 2	\$ -	\$ 13	\$ 21	\$ 38	\$ 43	\$ 1	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ 49
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C36	Leverage Data Gathered by Locating Equipment - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ 27	\$ 35	\$ 28	\$ 36	\$ 29
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C06	Locate and Mark Annual Refresher Training and Competency Program - (HP)	\$ 13	\$ 13	\$ 13	\$ 13	\$ 13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13	\$ 15	\$ 13	\$ 16	\$ 14	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ -
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C23	Gold Shovel Standard Program - (HP)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 1	\$ 0	\$ 0	\$ 1	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ 6
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	M6	Electronic Positive Response - (HP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C32	Ticket Risk Assessment and Evaluating City Permit Data - (HP)	\$ -	\$ 8	\$ 44	\$ 44	\$ 74	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41	\$ 52	\$ 42	\$ 54	\$ 43	\$ 55	\$ -	\$ -	\$ -	\$ -	\$ 49
SCG-Risk-2	EXCAVATION DAMAGE (DIG-IN) ON THE GAS SYSTEM	C26	Pipeline Patrol and Pipeline Markers - (HP)	\$ 480	\$ 521	\$ 488	\$ 440	\$																

2021 RAMP

SCG-Risk-2-W

Risks Recorded and Forecast Units Workpaper

Tab: Unit