

**2016 Risk Assessment Mitigation Phase
Investigation 16-10-016
Workpapers to
Catastrophic Damage Involving Third
Party Dig-Ins
(Chapter SCG-1-WP)**

January 2017



2016 Risk Assessment Mitigation Phase
SCG-01-WP
Risk: Catastrophic Damage Involving Third Party Dig-Ins (O&M)

Line No.	Mitigation	Project/Program	Project/Program Description	Status	Recorded (Directs, 2015 \$000)					Forecast Range (Directs, 2015 \$000)						Forecast Methodology
					2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	
1	Training	Locate & Mark Training	Training, certification and compliance of Federal and State laws	B	\$ 127	\$ 130	\$ 188	\$ 137	\$ 137	\$ 137	\$ 151	\$ 137	\$ 151	\$ 137	\$ 151	5-Year Average
2		Locate & Mark Operator Qualification	Qualification program to ensure operators/employees are trained properly in accordance to CFR 49	B	1	2	3	3	4	2	3	2	3	2	3	5-Year Average
3	Training Subtotal				128	132	191	140	141	139	154	139	154	139	154	
4	Locate & Mark Activities	Locate & Mark Field Activities	Prevention of damage to substructures due to unsafe excavation practices	B/P	15,211	16,079	16,429	17,288	18,386	17,942	19,831	18,417	20,356	18,892	20,881	Base Year
5		Staff Support	Staff to translate federal and state regulations into company Gas Standards	B/P	115	110	114	114	108	411	455	924	1,022	924	1,022	Base Year
6		Pipeline Observation (Standby)	Surveillance of excavations in the vicinity of high pressure gas lines to prevent damage	B	2,548	2,950	2,973	3,081	3,384	3,472	3,838	3,472	3,838	3,472	3,838	Trend
7	Locate & Mark Activities Subtotal				17,873	19,139	19,516	20,483	21,879	21,826	24,123	22,814	25,215	23,289	25,740	
8	Public Awareness	Damage Prevention Public Awareness	Promotion of excavation safety to contractors and the public	B/P	687	1,101	799	875	947	992	1,096	1,042	1,151	1,094	1,209	Base Year
9	Public Awareness Subtotal				687	1,101	799	875	947	992	1,096	1,042	1,151	1,094	1,209	
10	Prevention and Improvements	Standardize Locate & Mark Equipment	Standardize locating tools used by Locators by replacing aging tools	P						-	-	-	-	-	-	
11		Issue Smart Devices to Locators	Smart phones issued to Locators used to confirm locate markings and functionality to verify USA ticket information in the field	P						152	168	111	123	116	128	Zero-Based
12		Automated USA Ticket Prioritization	Automate the prioritization process using algorithms based on ticket and GIS information	P						-	-	-	-	-	-	
13	Prevention and Improvements Subtotal				-	-	-	-	-	152	168	111	123	116	128	
14	Analysis	Upgrade reporting systems	Upgrade and integrate systems to automate pipeline damage information and reporting for improved data analysis and prevention of dig-ins	P						-	-	-	-	-	-	
15	Analysis Subtotal				-	-	-	-	-	-	-	-	-	-	-	
16	TOTAL				\$ 18,688	\$ 20,372	\$ 20,506	\$ 21,499	\$ 22,967	\$ 23,108	\$ 25,541	\$ 24,106	\$ 26,643	\$ 24,637	\$ 27,231	

Notes:

- Baseline (B) and Proposed (P).
- Numbers in risk chapter tables may differ due to rounding.
- The purpose of Risk Assessment Mitigation Phase (RAMP) is not to request funding. Any funding requests will be made in the General Rate Case (GRC). The forecasts for mitigations are not for funding purposes, but are rather to provide a range for the future GRC filing. This range will be refined with supporting testimony in the GRC.

2016 Risk Assessment Mitigation Phase
SCG-01-WP
Risk: Catastrophic Damage Involving Third Party Dig-Ins (Capital)

Line No.	Mitigation	Project/Program	Project/Program Description	Status	Recorded (Directs, 2015 \$000)					Forecast Range (Directs, 2015 \$000)								Forecast Methodology
					2011	2012	2013	2014	2015	2017 Low	2017 High	2018 Low	2018 High	2019 Low	2019 High	2017-2019 Low (Sum)	2017-2019 High (Sum)	
1	Training	Locate & Mark Training	Training, certification and compliance of Federal and State laws	B	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2		Locate & Mark Operator Qualification	Qualification program to ensure operators/employees are trained properly in accordance to CFR 49	B	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	Training Subtotal				-	-	-	-	-	-	-	-	-	-	-	-	-	
4	Locate & Mark Activities	Locate & Mark Field Activities	Prevention of damage to substructures due to unsafe excavation practices	B/P	-	-	-	-	-	-	-	-	-	-	-	-	-	
5		Staff Support	Staff to translate federal and state regulations into company Gas Standards	B/P	-	-	-	-	-	-	-	-	-	-	-	-	-	
6		Pipeline Observation (Standby)	Surveillance of excavations in the vicinity of high pressure gas lines to prevent damage	B	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	Locate & Mark Activities Subtotal				-	-	-	-	-	-	-	-	-	-	-	-	-	
8	Public Awareness	Damage Prevention Public Awareness	Promotion of excavation safety to contractors and the public	B/P	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	Public Awareness Subtotal				-	-	-	-	-	-	-	-	-	-	-	-	-	
10	Prevention and Improvements	Standardize Locate & Mark Equipment	Standardize locating tools used by Locators by replacing aging tools	P						5,985	6,615	-	-	-	-	5,985	6,615	Zero-Based
11		Issue Smart Devices to Locators	Smart phones issued to Locators used to confirm locate markings and functionality to verify USA ticket information in the field	P						-	-	-	-	-	-	-	-	
12		Automated USA Ticket Prioritization	Automate the prioritization process using algorithms based on ticket and GIS information	P						180	260	-	-	-	-	180	260	Zero-Based
13	Prevention and Improvements Subtotal				-	-	-	-	-	6,165	6,875	-	-	-	-	6,165	6,875	
14	Analysis	Upgrade reporting systems	Upgrade and integrate systems to automate pipeline damage information and reporting for improved data analysis and prevention of dig-ins	P						2,700	3,300	3,870	4,730	-	-	6,570	8,030	Zero-Based
15	Analysis Subtotal				-	-	-	-	-	2,700	3,300	3,870	4,730	-	-	6,570	8,030	
16	TOTAL				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,865	\$ 10,175	\$ 3,870	\$ 4,730	\$ -	\$ -	\$ 12,735	\$ 14,905	

Notes:

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