

OIL AND GAS PIPELINE FAILURE

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Hazard Description

Fuel pipeline breach or pipeline failure addresses the rare, but serious hazard of an oil or natural gas pipeline. An estimated 2.2 million miles of pipelines in the United States carry hazardous materials. Natural gas pipelines transport natural gas, and oil or liquid petroleum pipelines transport crude oil and refined products from crude oils, such as gasoline, home heating oil, jet fuel and kerosene in addition to liquefied propane, ethylene, butane and some petrochemical products. Sometimes oil pipelines are also used to transport liquefied gases, such as carbon dioxide.

Pipeline failure is a rare occurrence, but has the potential to cause extensive property damage and loss of life. Pipelines have caused fires and explosions that killed more than 200 people and injured more than 1,000 people nationwide and 50 people in Texas in the last decade.



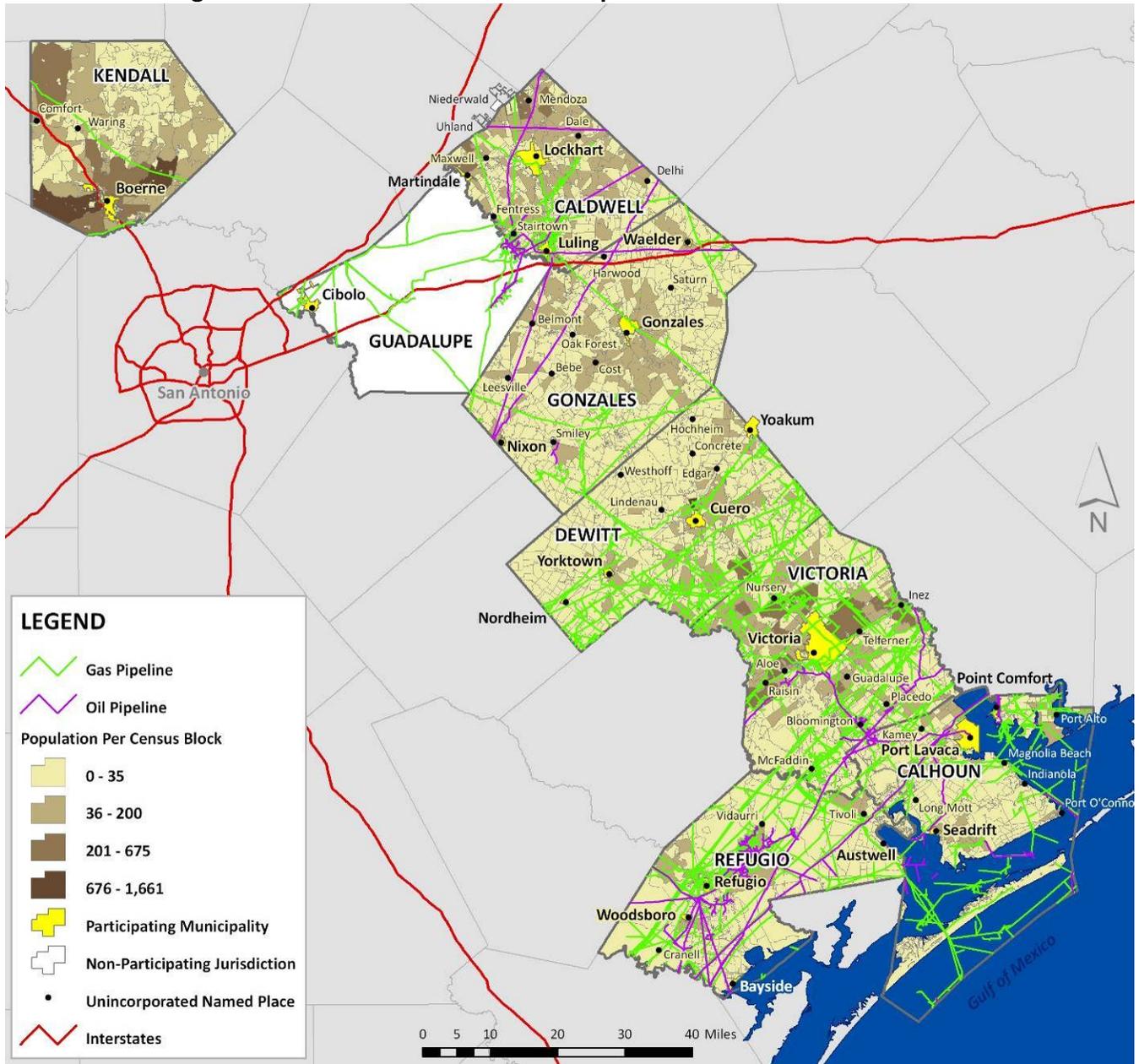
Location

Figures 15-1 on the following page shows the locations of gas and oil pipelines throughout the GBRA Basin region. Figures 15-2 through 15-9 show locations of pipelines in each respective county. It is important to note that due to scale, some pipelines cannot be seen on maps where one pipeline runs directly over another or where pipelines appear too close together to be visible on the map.

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If any of these energy pipelines were to rupture, such an event could endanger property and lives in the immediate area. Immediate impacts can occur within a half-mile area and secondary impacts within a mile of the incident. Therefore, due to the location of both oil and gas pipelines in the county, each participating jurisdiction faces a moderate to high risk, with the exception of Jamaica Beach.

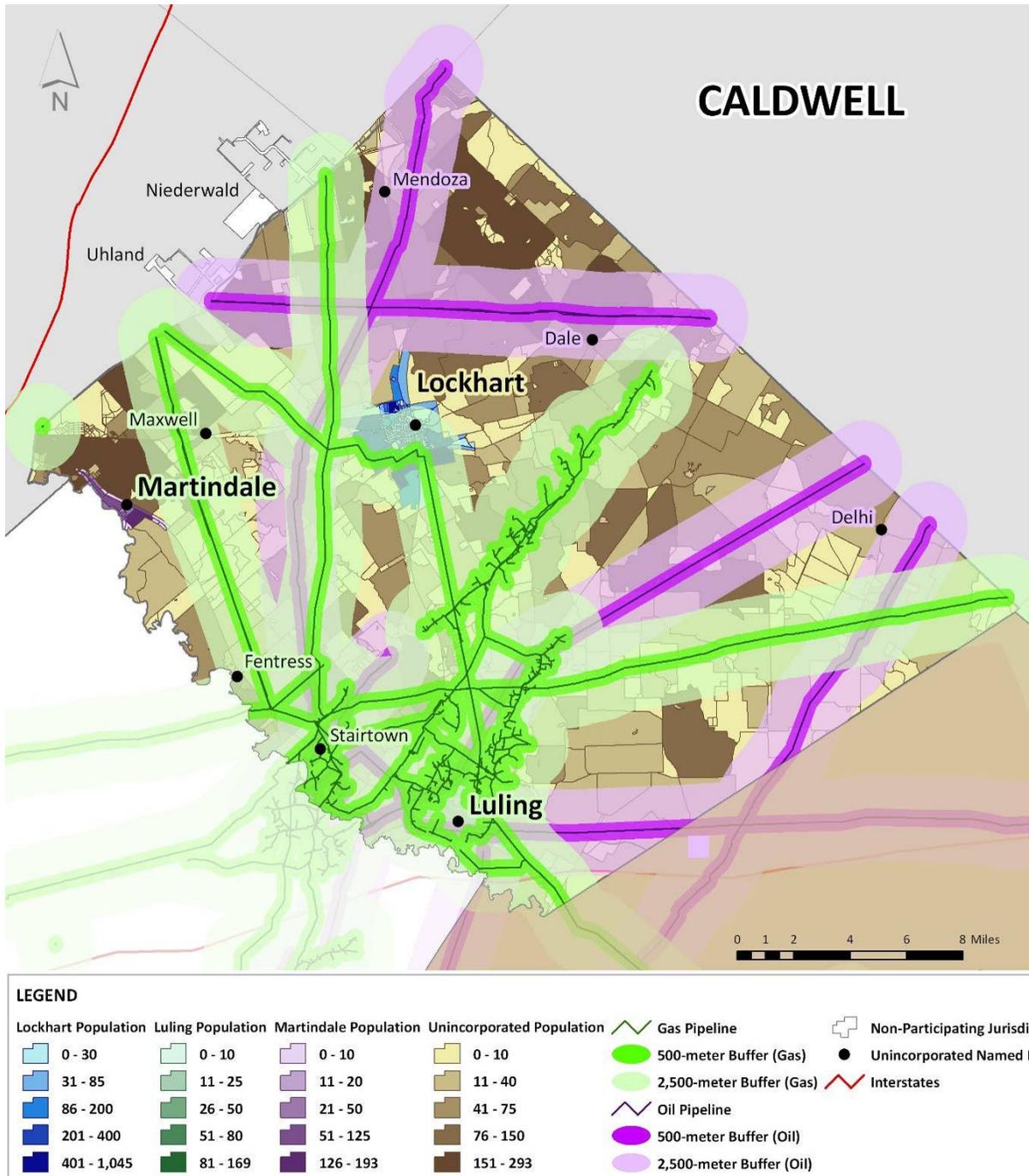
Figure 15-1. Location of Oil and Gas Pipelines in the GBRA Basin



Gas and Oil Pipelines in GBRA Basin

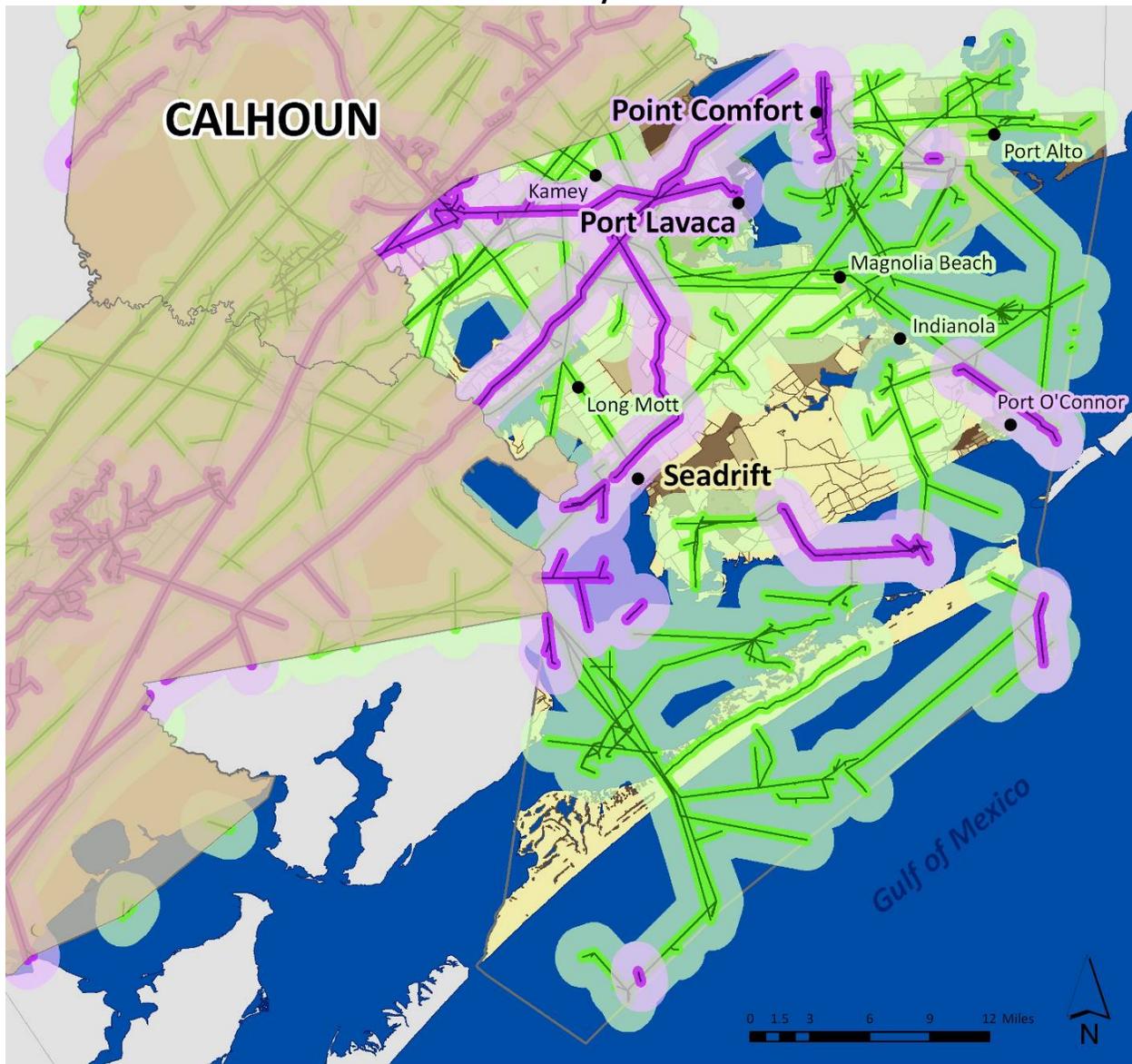
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Figure 15-2. Gas and Oil Pipelines in Caldwell County



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Figure 15-3. Gas and Oil Pipelines in Calhoun County

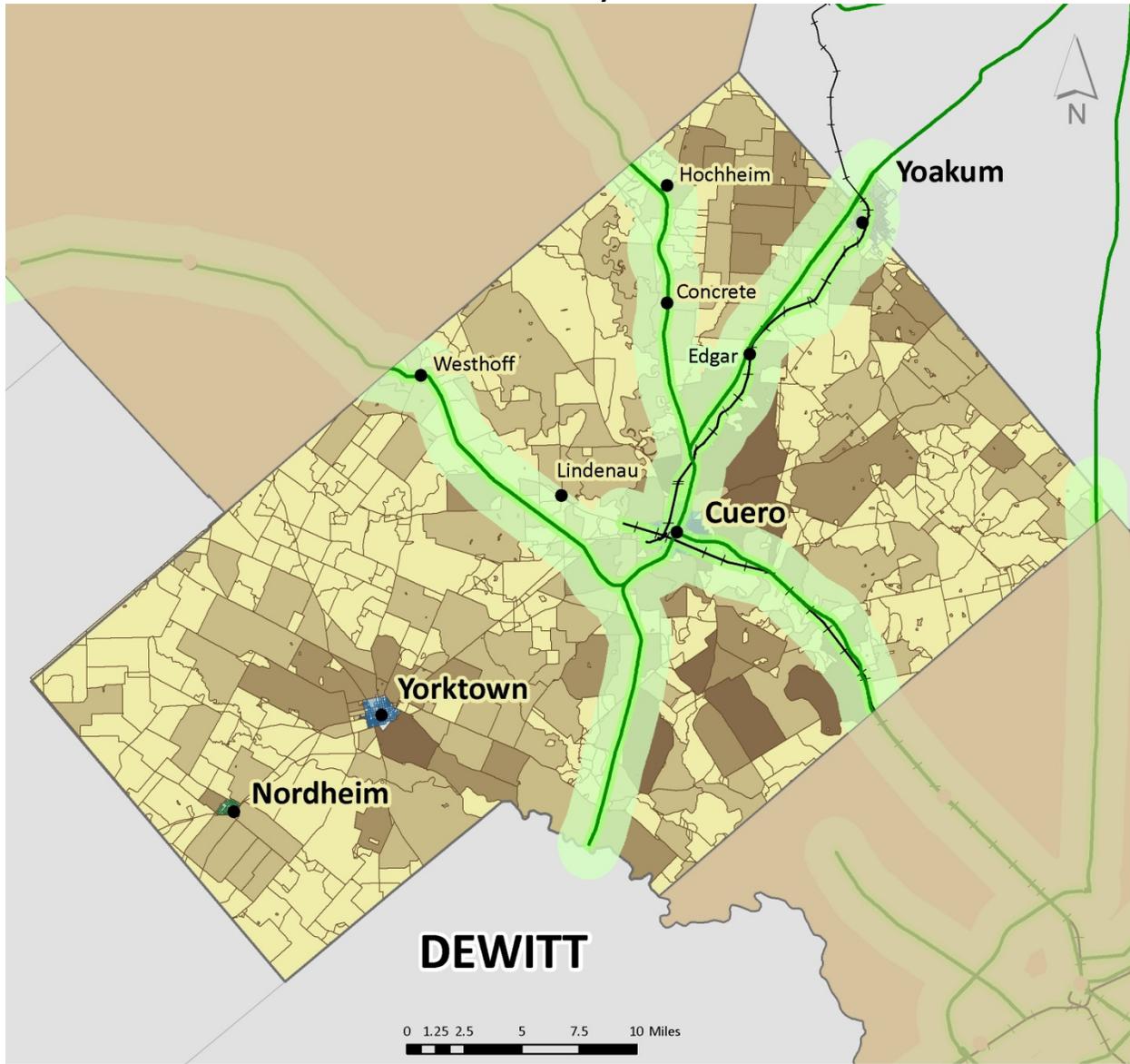


LEGEND

Point Comfort Population	Port Lavaca Population	Seadrift Population	Unincorporated Population	Gas Pipeline
0 - 5	0 - 15	0 - 5	0 - 10	500-meter Buffer (Gas)
6 - 30	16 - 40	6 - 10	11 - 25	2,500-meter Buffer (Gas)
31 - 40	41 - 80	11 - 20	26 - 50	Oil Pipeline
41 - 50	81 - 180	21 - 40	51 - 100	500-meter Buffer (Oil)
51 - 63	181 - 585	41 - 80	101 - 292	2,500-meter Buffer (Oil)
				● Unincorporated Named Place

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Figure 15-4. Gas and Oil Pipelines in DeWitt County

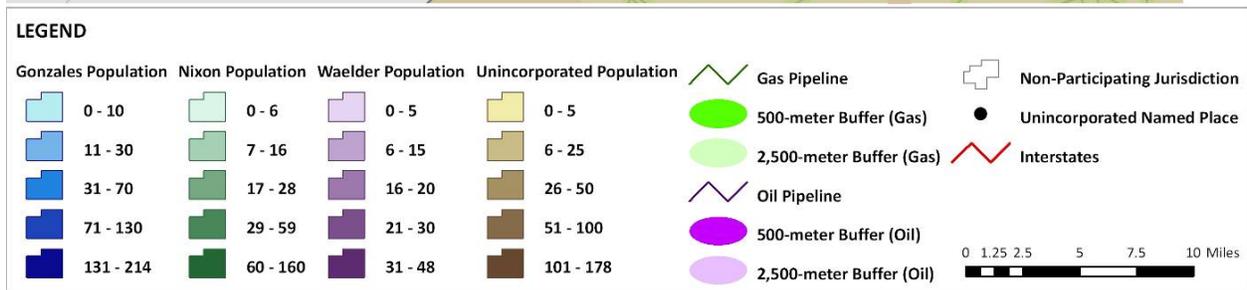
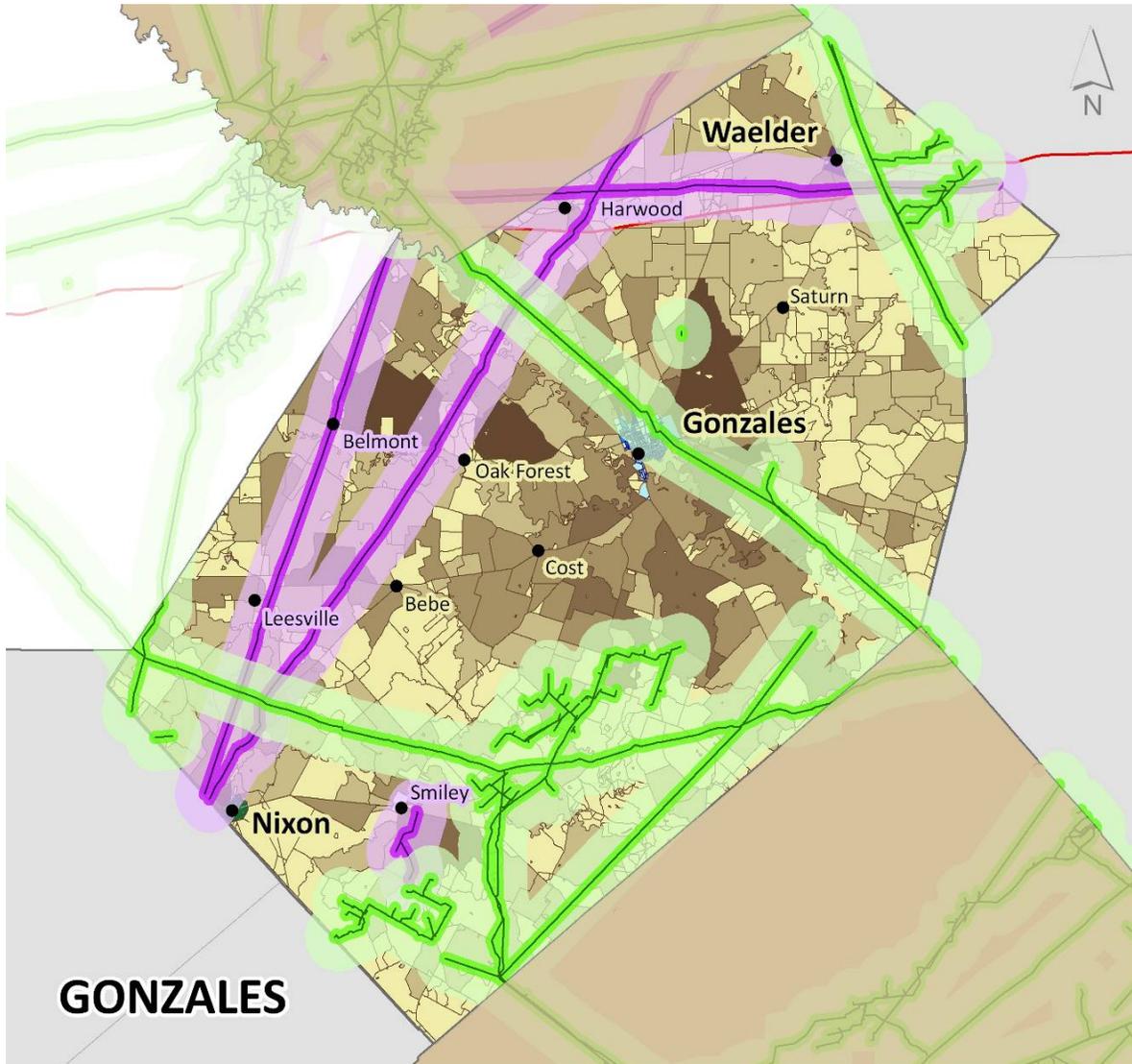


LEGEND

Cuero Population	Nordheim Population	Yoakum Population	Yorktown Population	Unincorporated Population	Highway Segments
0 - 10	0 - 1	0 - 10	0 - 10	0 - 10	Highway Segments
11 - 20	2 - 5	11 - 20	11 - 20	11 - 30	Rail Segments
21 - 40	6 - 10	21 - 35	21 - 30	31 - 75	500-meter Buffer
41 - 110	11 - 12	36 - 70	31 - 50	76 - 225	2,500-meter Buffer
111 - 259	13 - 16	71 - 115	51 - 97	226 - 1,320	Unincorporated Named Place

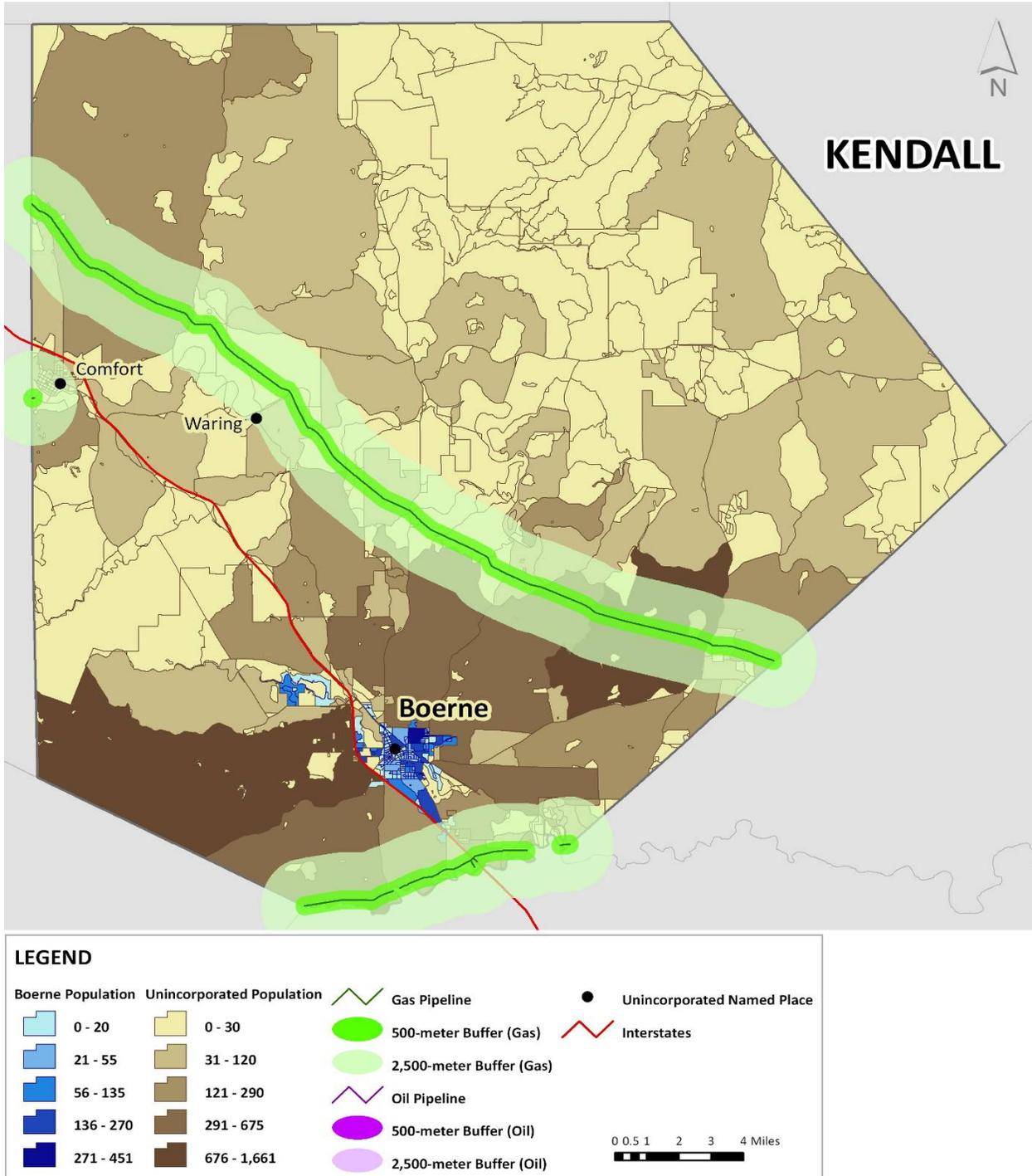
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Figure 15-5. Gas and Oil Pipelines in Gonzales County



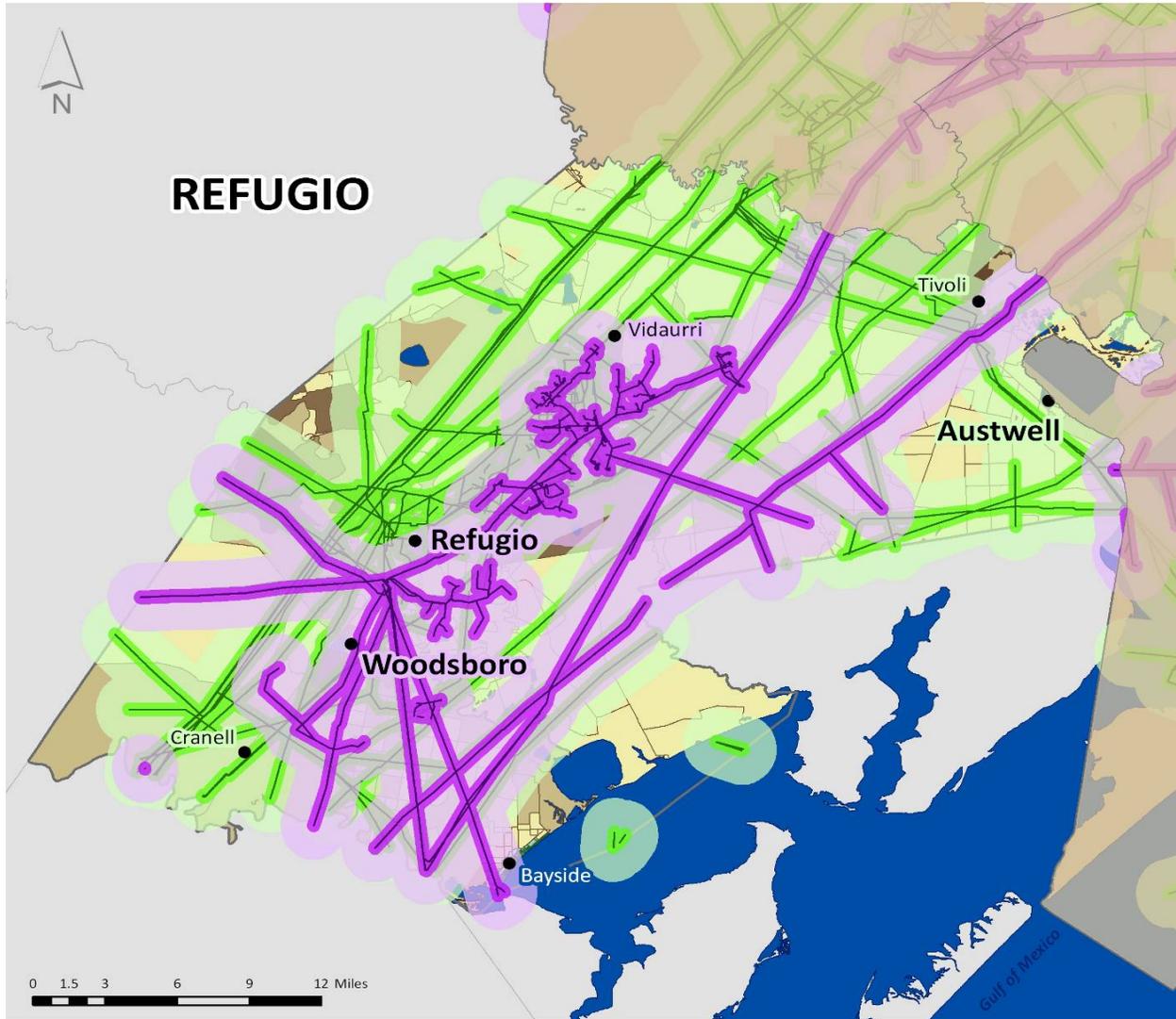
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Figure 15-6. Gas and Oil Pipelines in Kendall County



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Figure 15-7. Gas and Oil Pipelines in Refugio County

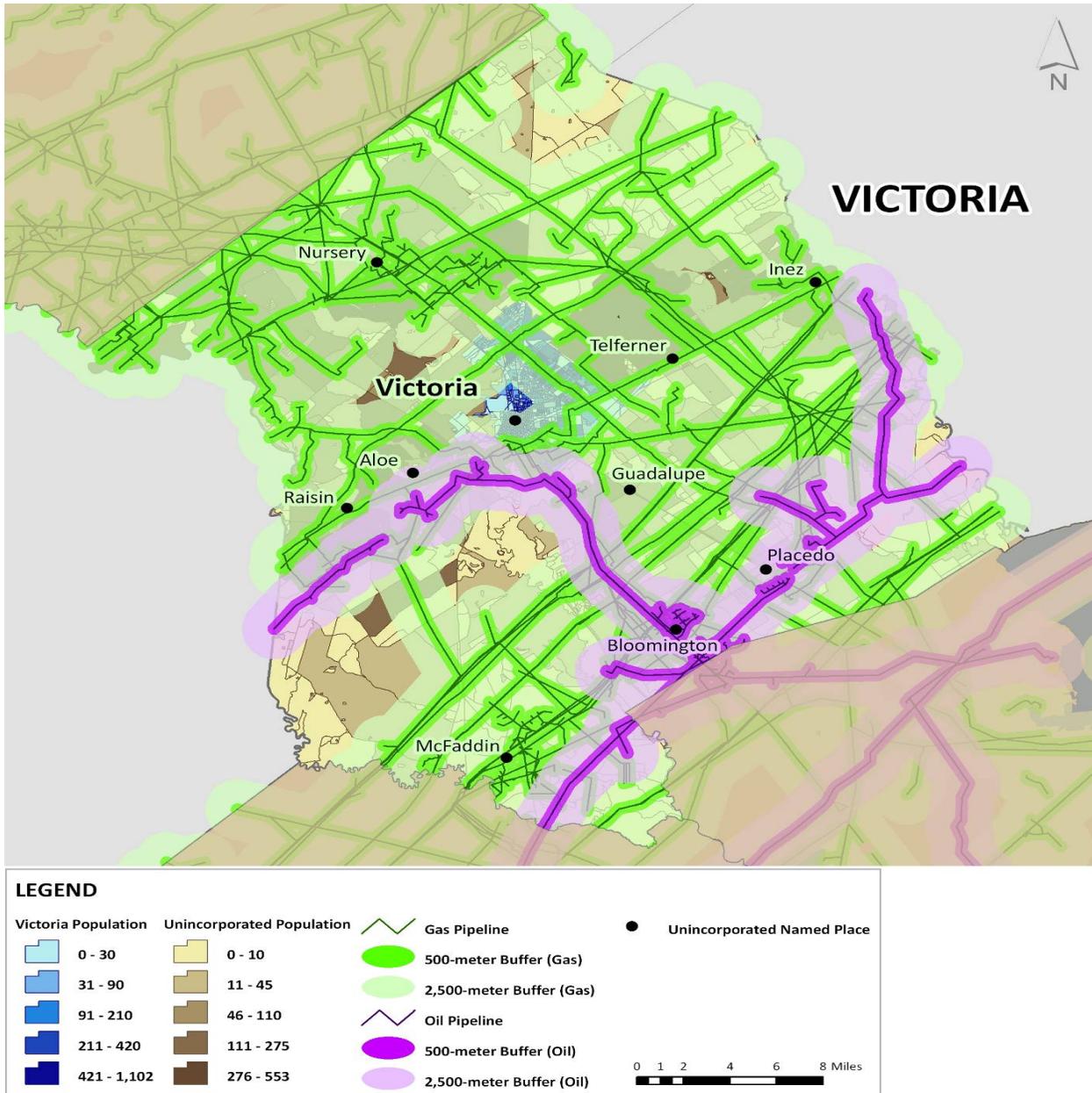


LEGEND

Austwell Population	Bayside Population	Refugio Population	Woodsboro Population	Unincorporated Population	
0 - 1	0 - 1	0 - 6	0 - 6	0 - 7	Gas Pipeline
2 - 5	2 - 5	7 - 20	7 - 15	8 - 25	500-meter Buffer (Gas)
6 - 8	6 - 10	21 - 40	16 - 25	26 - 50	2,500-meter Buffer (Gas)
9 - 10	11 - 15	41 - 60	26 - 35	51 - 100	Oil Pipeline
11 - 17	16 - 27	61 - 110	36 - 52	101 - 183	500-meter Buffer (Oil)
					2,500-meter Buffer (Oil)
					Unincorporated Named Place

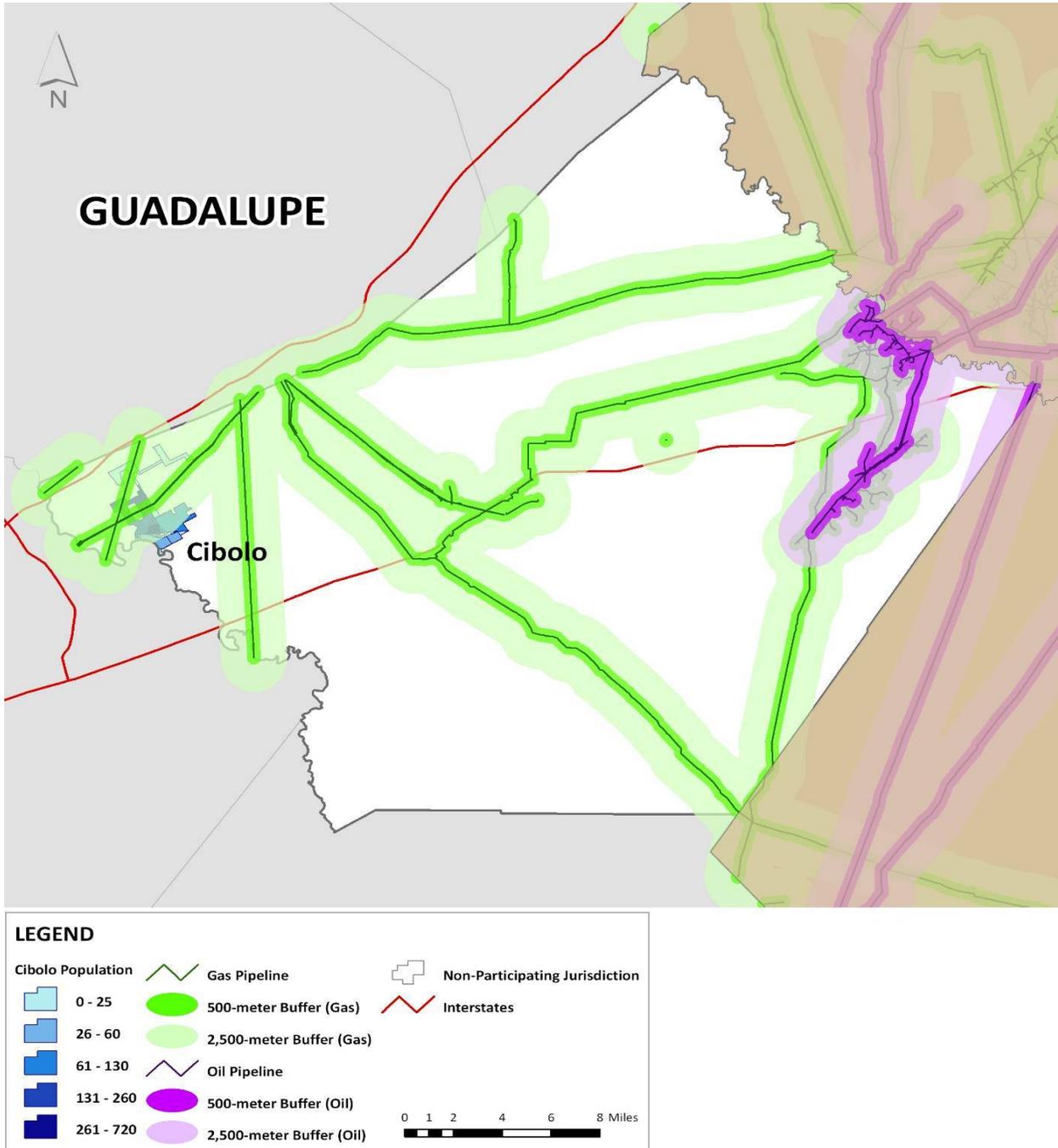
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Figure 15-8. Gas and Oil Pipelines in Victoria County



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Figure 15-9. Gas and Oil Pipelines in Cibolo (in Guadalupe County)



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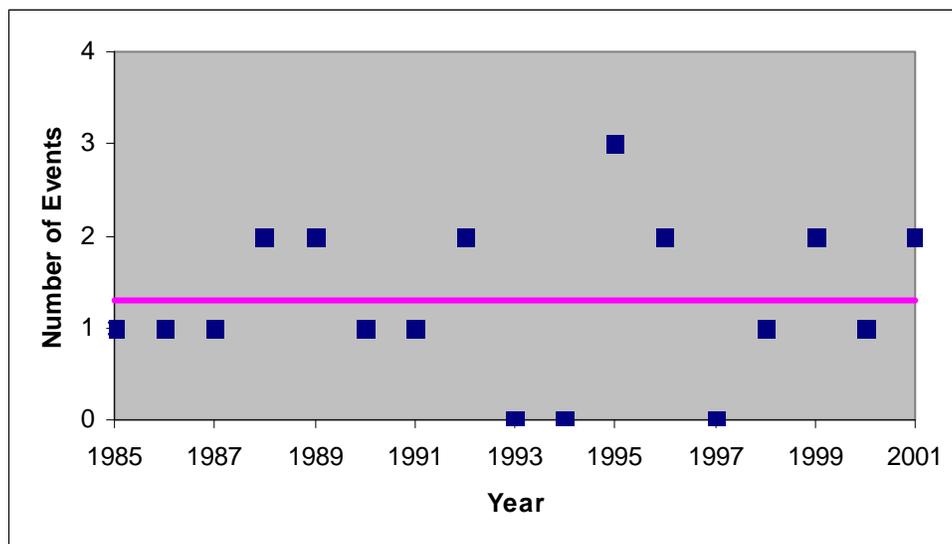
Extent

While many of the historical accidents presented in Table 15-1 are relatively small in terms of the amount of property damage that was reported, and while some may not meet the conventional idea of a “pipeline failure,” it is valuable to consider these events as presenting a range in magnitude of a possible occurrence. Reading Table 15-1 in conjunction with the Figures 15-1 through 15-9 provides an indication of the possible intensity of an event. In addition historical occurrences provide an indication of the types of issues related to gas and oil present in the GBRA Basin and the preventable nature of many of these occurrences. For example, in Table 15-2, several of the incidents reported to the Railroad Commission of Texas were of unknown origin, the result of drivers hitting presumably unprotected facilities with their vehicles. Several incidents appeared to be the result of miscommunication or lack of communication regarding locates prior to digging. Maintenance and possibly homeowner education could have been a contributing factor in two of the events.

Historical Occurrences

The causes of pipeline failures can range from internal issues such as corrosion or material defects to outside forces. Such forces can include damage from natural hazards, such as earthquakes, or intentional destruction by humans. Table 15-1 summarizes the incident log of historical pipeline accidents reported by the Railroad Commission of Texas. Table 15-2 illustrates pipeline accidents that transpired between 2003 and 2008.

Table 15-1. Historical Pipeline Accidents (Gas and Oil Combined) (1985-2001)



Annualized
Expected Number of
Pipeline Events =
1.571429

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Table 15-2 Historical Pipeline Accidents¹ (Gas and Oil Combined) (2003-2008)²

COUNTY	INCIDENT DATE	TYPE ³	OPERATOR	DEATHS	INJURIES	COST	NEAREST CITY
CALDWELL	07/01/05	GAS	TEXAS GAS SERVICE	0	0	>\$5,000	LOCKHART
CALDWELL	03/09/06	LPG	L & L TRANSPORT	1	0	>\$5,000	LOCKHART
CALDWELL	06/12/06	LIQUID	TEPPCO CRUDE PIPELINE, LP	0	0	UNKNOWN	LULING
CALDWELL	06/18/06	OG	UNKNOWN	0	0	UNKNOWN	STAIRTOWN
CALDWELL	03/31/07	OG	UNKNOWN	0	0	UNKNOWN	LOCKHART
CALDWELL	08/28/08	GAS	UNKNOWN	0	0	>\$50,000	PRAIRIE LEA
CALDWELL	12/08/08	LIQUID	UNKNOWN	0	0	UNKNOWN	LULING
CALDWELL	07/06/09	OG	UNKNOWN	0	0	UNKNOWN	LOCKHART
CALDWELL	01/02/10	OG	UNKNOWN	0	0	UNKNOWN	LULING
CALHOUN	09/01/03	GAS	LAVACA PIPELINE COMPANY	0	0	<\$5,000	MATAGORDA ISLAND
CALHOUN	10/20/03	LIQUID	VINTAGE PETROLEUM	0	0	\$10,000	SEADRIFT
CALHOUN	10/23/03	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	PORT LAVACA
CALHOUN	12/15/03	GAS	ATMOS ENERGY CORP., MID-TEX DIVISION	0	0	>\$5,000	PORT O'CONNOR
CALHOUN	03/07/04	GAS	SABCO OPERATING COMPANY	0	0	\$20,000	OFFSHORE
CALHOUN	04/08/04	GAS	SABCO OPERATING COMPANY	0	0	\$12,000	PORT O'CONNOR
CALHOUN	06/16/04	GAS	SABCO OPERATING COMPANY	0	0	\$30,000	PORT O'CONNOR
CALHOUN	07/15/04	GAS	SABCO OPERATING COMPANY	0	0	\$10,000	OFFSHORE
CALHOUN	01/14/05	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	PORT LAVACA
CALHOUN	01/20/05	GAS	SABCO OPERATING COMPANY	0	0	<\$5,000	MATAGORDA
CALHOUN	03/02/05	GAS	SABCO OPERATING COMPANY	0	0	\$43,000	PORT O'CONNOR
CALHOUN	03/07/05	LIQUID	NEUMIN PRODUCTION	0	0	<\$50,000	SEADRIFT
CALHOUN	03/21/05	LIQUID	NEUMIN PRODUCTION	0	0	<\$5,000	SEADRIFT
CALHOUN	04/04/05	GAS	CENTERPOINT ENERGY ENTEX	0	1	UNKNOWN	SEADRIFT
CALHOUN	04/18/05	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	PORT LAVACA
CALHOUN	04/27/05	GAS	SABCO OPERATING COMPANY	0	0	\$18,000	ROCKPORT

¹ Source: Texas Railroad Commission

² Limitations of the data used to populate Table 15-2 include the following: more than 25 percent of the entries do not provide an operator name, 35 percent of the entries do not show a cost for the release, two incidents are undated, and the data range covers only eight years (2003-2010). All entries are shown in chronological order by county. LPG stands for liquefied petroleum gas.

³ OG stands for oil and gas.

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COUNTY	INCIDENT DATE	TYPE ³	OPERATOR	DEATHS	INJURIES	COST	NEAREST CITY
CALHOUN	08/04/05	GAS	SABCO OPERATING COMPANY	0	0	>\$5,000	PORT O'CONNOR
CALHOUN	09/13/05	LIQUID	NEUMIN PRODUCTION	0	0	<\$5,000	SEA DRIFT
CALHOUN	10/19/05	GAS	LAVACA PIPELINE	0	0	\$34,700	POINT COMFORT
CALHOUN	12/29/05	GAS	VINTAGE PETROLEUM	0	0	<\$5,000	SEADRIFT
CALHOUN	02/08/06	LIQUID	SABCO OPERATING COMPANY	0	0	>\$50,000	ROCKPORT
CALHOUN	04/02/06	GAS	SABCO OPERATING COMPANY	0	0	>\$50,000	UNKNOWN
CALHOUN	04/22/06	GAS	VINTAGE PETROLEUM	0	0	>\$5,000	PORT LAVACA
CALHOUN	05/05/06	GAS	VINTAGE PETROLEUM	0	0	>\$5,000, BUT <\$50,000	SEADRIFT
CALHOUN	07/29/06	GAS	LAVACA PIPELINE	0	0	<\$5,000	MAGNOLIA BEACH
CALHOUN	08/06/06	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SEA DRIFT
CALHOUN	10/24/06	GAS	LAVACA PIPELINE COMPANY	0	0	<\$50,000	PORT LAVACA
CALHOUN	11/08/06	GAS	SABCO OPERATING COMPANY	0	0	>\$5,000, POSSIBLY >\$50,000	PORT O'CONNOR
CALHOUN	12/20/06	OG	AROC TEXAS, INC.	0	0	UNKNOWN	UNKNOWN
CALHOUN	03/05/07	GAS	LAVACA PIPELINE COMPANY	0	0	<\$5,000	POINT COMFORT
CALHOUN	03/13/07	GAS	SABCO OPERATING COMPANY	0	0	>\$5,000 BUT <\$50,000	PORT OCONNOR
CALHOUN	05/13/07	GAS	SABCO OPERATING COMPANY	0	0	\$177,100 FOR 30 DAYS	PORT O'CONNOR
CALHOUN	06/18/07	GAS	SABCO OPERATING COMPANY	0	0	>\$5,000	UNKNOWN
CALHOUN	07/22/07	GAS	SABCO OPERATING COMPANY	0	0	\$10,000	OFFSHORE
CALHOUN	09/13/07	GAS	MAIN ENERGY	0	0	\$9,000	PORT LAVACA
CALHOUN	12/15/07	GAS	LAMAR OIL & GAS	0	0	<\$50,000	SEADRIFT
CALHOUN	02/13/08	GAS	UNKNOWN	0	0	<\$5,000	PORT LAVACA
CALHOUN	03/12/08	LIQUID	UNKNOWN	0	0	<\$50,000	SAN ANTONIO BAY
CALHOUN	04/05/08	OG	UNKNOWN	0	0	UNKNOWN	POINT COMFORT
CALHOUN	09/22/08	GAS	UNKNOWN	0	0	<\$50,000	POINT COMFORT
CALHOUN	09/26/08	LIQUID	UNKNOWN	0	0	UNKNOWN	SEA DRIFT
CALHOUN	11/18/08	OG	UNKNOWN	0	0	UNKNOWN	POINT COMFORT
CALHOUN	12/17/08	LIQUID	UNKNOWN	0	0	UNKNOWN	POINT COMFORT
CALHOUN	01/02/09	GAS	UNKNOWN	0	0	<\$50,000	PORT

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COUNTY	INCIDENT DATE	TYPE ³	OPERATOR	DEATHS	INJURIES	COST	NEAREST CITY
							O'CONNOR
CALHOUN	05/11/09	OG	UNKNOWN	0	0	UNKNOWN	PORT O'CONNOR
CALHOUN	05/28/09	GAS	UNKNOWN	0	0	UNKNOWN	POINT COMFORT
CALHOUN	07/22/09	GAS	UNKNOWN	0	0	<\$50,000	PORT LAVACA
CALHOUN	09/13/09	GAS	UNKNOWN	0	0	<\$5,000	POINT COMFORT
DEWITT	04/10/06	GAS	TEXAS GAS SERVICE	0	0	<\$5,000	CITY OF CUERO
DEWITT	06/11/06	GAS	CENTERPOINT ENERGY ENTEX	0	2	UNKNOWN	YORKTOWN
DEWITT	07/20/06	OG	ROCK OIL	0	0	UNKNOWN	YORKTOWN
DEWITT	03/30/07	OG	UNKNOWN	0	0	UNKNOWN	NORDHEIM
DEWITT	05/21/07	GAS	ENTERPRISE PRODUCTS OPERATING	0	0	>\$5,000 BUT <\$50,000	HOPE
DEWITT	03/04/09	LIQUID	UNKNOWN	0	0	UNKNOWN	VICTORIA
GONZALES	12/22/03	GAS	TEXAS GAS SERVICE	0	0	<\$10,000	NIXON
GONZALES	06/20/04	GAS	DUKE ENERGY GUADALUPE PIPELINE, INC.	0	0	\$24,000	SEGUIN
GONZALES	12/13/05	GAS	CITGO PRODUCTS PIPELINE	0	0	\$0	GONZALES
GONZALES	01/15/06	LPG	LOGISTICS EXPRESS, INC.	0	2	>\$5,000	WAELEDER
GONZALES	09/28/06	LIQUID	CITGO PRODUCTS PIPELINE	0	0	UNKNOWN	LULING
GONZALES	09/18/07	LIQUID	CITGO PRODUCTS PIPELINE	0	0	UNKNOWN	GONZALES
GONZALES	11/29/07	LPG	PETRON, LLC	0	0	UNKNOWN	GONZALES
GONZALES	12/20/07	LIQUID	CITGO PIPELINE	0	0	UNKNOWN	GONZALES
GONZALES	09/12/08	LIQUID	UNKNOWN	0	0	UNKNOWN	LULING
GUADALUPE	01/08/04	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	MARION
GUADALUPE	03/30/04	LIQUID	EXXON MOBIL PIPELINE	0	0	\$20,000	MCQUEENEY
GUADALUPE	12/03/04	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	MARION
GUADALUPE	04/26/05	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SCHERTZ
GUADALUPE	06/05/06	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SEGUIN
GUADALUPE	06/14/06	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SEGUIN
GUADALUPE	09/19/06	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SCHERTZ
GUADALUPE	03/08/07	LPG	MARSHALL PROPANE	0	0	>\$5,000	SEGUIN
GUADALUPE	04/20/07	GAS	CENTERPOINT ENERGY ENTEX	0	0	>\$5,000	SEGUIN
GUADALUPE	06/26/07	LIQUID	CITGO	0	0	DRILL	KINGSBURY
GUADALUPE	07/19/07	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SEGUIN
GUADALUPE	01/11/08	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	SEGUIN
GUADALUPE	06/08/09	LIQUID	UNKNOWN	0	0	UNKNOWN	SAN ANTONIO
KENDALL	02/21/10	GAS	UNKNOWN	0	0	UNKNOWN	BOERNE

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COUNTY	INCIDENT DATE	TYPE ³	OPERATOR	DEATHS	INJURIES	COST	NEAREST CITY
LAVACA	UNKNOWN	GAS	UNKNOWN	0	0	UNKNOWN	UNKNOWN
LAVACA	10/04/07	LPG	PETRON, LLC	0	1	UNKNOWN	HALLETTSVILLE
LAVACA	01/03/05	GAS	HOUSTON PIPE LINE COMPANY	0	0	>\$5,000	HALLETTSVILLE
REFUGIO	07/29/04	GAS	KINDER MORGAN	0	0	<\$5,000	REFUGIO
REFUGIO	10/23/04	LIQUID	KOCH PIPELINE CO	0	0	>\$50,000	REFUGIO
REFUGIO	02/21/05	LIQUID	KOCH PIPELINE COMPANY, LP	0	0	UNKNOWN	TIVOLI
REFUGIO	05/17/05	LIQUID	EXXONMOBIL PIPELINE COMPANY	0	0	\$0	TIVOLI
REFUGIO	08/12/05	LIQUID	UNKNOWN	0	0	UNKNOWN	REFUGIO
REFUGIO	09/24/06	GAS	NORTHERN NATURAL GAS	0	0	UNKNOWN	TIVOLI
REFUGIO	04/14/07	LIQUID	ENTERPRISE PRODUCTS	0	0	UNKNOWN	VICTORIA
REFUGIO	08/10/07	GAS	NORTHERN NATURAL GAS COMPANY	0	0	UNKNOWN	TIVOLI
REFUGIO	07/19/08	LIQUID	UNKNOWN	0	0	<\$50,000	REFUGIO
REFUGIO	06/02/09	LIQUID	UNKNOWN	0	0	\$5,000,000,000	REFUGIO
REFUGIO	11/13/09	LIQUID	UNKNOWN	0	0	<\$50,000	REFUGIO
VICTORIA	UNKNOWN	GAS	CROSSTEX ENERGY	0	0	\$20,000	BLOOMINGTON
VICTORIA	10/25/04	GAS	CENTERPOINT ENERGY ENTEX	0	0	UNKNOWN	VICTORIA
VICTORIA	03/10/05	GAS	ENTERPRISE PRODUCTS OPERATING	0	0	<\$5,000	NURSERY
VICTORIA	03/13/05	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	VICTORIA
VICTORIA	03/17/05	LIQUID	CITGO PIPELINE	0	0	UNKNOWN	VICTORIA
VICTORIA	01/16/06	GAS	VICTORIA FIRE DEPARTMENT	0	0	UNKNOWN	VICTORIA
VICTORIA	05/04/06	GAS	CENTERPOINT ENERGY ENTEX	0	0	<\$5,000	VICTORIA
VICTORIA	07/02/06	OG	D&S LEASE SERVICE (HART PETOLEUM LEASE)	0	0	UNKNOWN	VICTORIA
VICTORIA	01/27/07	GAS	FUTURE GAS	0	0	UNKNOWN	MCFADDIN
VICTORIA	03/13/07	LIQUID	CITGO PRODUCTS PIPELINE	0	0	UNKNOWN	VICTORIA
VICTORIA	09/11/07	GAS	CROSSTEX ENERGY	0	0	UNKNOWN	MCFADDIN
VICTORIA	02/01/08	GAS	CENTERPOINT ENERGY ENTEX	0	0	>\$50,000	VICTORIA
VICTORIA	04/02/08	GAS	UNKNOWN	0	0	<\$5,000	VICTORIA
VICTORIA	06/04/08	GAS	UNKNOWN	0	0	<\$50,000	VICTORIA
VICTORIA	06/24/08	LIQUID	UNKNOWN	0	0	UNKNOWN	VICTORIA
VICTORIA	07/19/08	LIQUID	UNKNOWN	0	0	UNKNOWN	VICTORIA
VICTORIA	02/27/10	LIQUID	UNKNOWN	0	0	UNKNOWN	VICTORIA
WILSON	02/09/07	GAS	CENTERPOINT ENERGY ENTEX	0	0	\$0	FLORESVILLE
WILSON	12/05/07	LPG	MARSHALL PROPANE	0	6	>\$5,000	NIXON

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Probability of Future Occurrences

Based on the previous incident data and location of pipelines throughout the region, the possibility of a future occurrence is likely, meaning that an event could occur in the next three years.

Impact and Vulnerability

Pipeline failure can have a substantial impact. Such events can cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or suffer major damage.

Table 15-3 and Table 15-4 are based on data from the Texas Railroad Commission and show the total number of people and buildings exposed to gas and oil pipeline ruptures, respectively. The analysis for gas pipelines consists of liquid petroleum gas (LPG) and natural gas (NG). The analysis for oil pipelines consists of crude oil (CRD) and natural gas liquids (NGL). The immediate (primary) area of impact for both types of pipeline accidents is a 500-meter buffer. The secondary area of impact for both types of pipeline accidents is a 2,500-meter buffer.

Table 15-3. Potential Impact Due to Gas Pipelines by Jurisdiction

JURISDICTION	TOTAL POPULATION IN JURISDICTION	TOTAL BUILDINGS IN JURISDICTION	IMMEDIATE IMPACT (500 METERS)			SECONDARY IMPACT (2,500 METERS)		
			Number People Exposed	Number Buildings Exposed	Value of Buildings Exposed (\$)	Number People Exposed	Number Buildings Exposed	Value of Buildings Exposed (\$)
Caldwell Co.	14,661	6,462	4,944	2,275	\$220,481,000	8,871	3,998	\$386,230,000
Lockhart	11,591	4,217	4,484	1,239	\$209,500,000	11,081	4,010	\$599,465,000
Luling	5,025	2,584	3,549	1,715	\$183,244,000	5,025	2,584	\$264,373,000
Martindale	917	424	Negligible	0	Negligible	Negligible	14	\$4,849,000
Calhoun Co.	8,541	6,463	4,092	2,940	\$409,521,000	5,915	5,899	\$696,161,000
Point Comfort	781	477	581	381	\$108,781,000	781	477	\$121,298,000
Port Lavaca	12,035	5,489	762	334	\$34,746,000	9,473	3,990	\$490,796,000
Seadrift	1,350	1,069	Negligible	27	\$3,781,000	1,214	839	\$57,555,000
DeWitt Co.	8,805	5,417	6,333	2,777	\$351,817,000	9,172	4,303	\$523,970,000
Cuero	6,544	3,824	2,465	478	\$108,074,000	8,246	3,705	\$445,559,000
Nordheim	323	266	274	150	\$19,004,000	473	266	\$35,517,000
Yoakum	5,729	3,306	911	518	\$48,119,000	5,689	3,275	\$368,441,000
Yorktown	2,204	1,568	935	507	\$47,553,000	2,698	1,568	\$150,778,000
Gonzales Co.	8,343	5,619	2,353	1,538	\$114,617,000	3,910	2,565	\$189,584,000

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JURISDICTION	TOTAL POPULATION IN JURISDICTION	TOTAL BUILDINGS IN JURISDICTION	IMMEDIATE IMPACT (500 METERS)			SECONDARY IMPACT (2,500 METERS)		
			Number People Exposed	Number Buildings Exposed	Value of Buildings Exposed (\$)	Number People Exposed	Number Buildings Exposed	Value of Buildings Exposed (\$)
Gonzales	7,160	3,636	1,478	700	\$84,260,000	7,101	3,596	\$397,921,000
Nixon	2,178	1,326	Negligible	0	Negligible	2,178	1,326	\$94,690,000
Waelder	947	572	Negligible	0	Negligible	395	249	\$16,926,000
Cibolo (Guadalupe County)	3,035	1,338	1,926	734	\$151,541,000	3,035	1,338	\$221,273,000
Kendall Co.	17,618	8,189	4,721	2,036	\$355,143,000	10,168	4,496	\$675,621,000
Boerne	6,125	3,016	Negligible	0	Negligible	297	161	\$36,763,000
Refugio Co.	2,670	1,360	2,195	1,098	\$126,752,000	2,667	1,349	\$148,189,000
Austwell	192	176	Negligible	0	Negligible	192	176	\$28,397,000
Bayside	360	304	Negligible	0	Negligible	360	304	\$26,026,000
Refugio	2,920	1,805	2,254	1,328	\$138,391,000	2,920	1,805	\$186,843,000
Woodsboro	1,683	837	Negligible	17	\$1,480,000	1,686	837	\$78,606,000
Victoria Co.	23,482	9,699	20,148	8,307	\$1,018,746,000	23,407	9,671	\$1,171,269,000
Victoria	60,606	24,412	28,685	10,803	\$1,792,231,000	58,585	23,357	\$3,793,993,000
TOTALS⁴	213,765	103,855	93,144	39,902	\$5,527,782,000	185,548	86,158	\$11,211,093,000

⁴ Totals for the study area may include values less than \$5,000 for dollar amounts and less than 50 for populations that are classified as “Negligible” in the table.

SECTION 15: PIPELINE FAILURE

Table 15-4. Potential Impact Due to Oil Pipelines by Jurisdiction

JURISDICTION	TOTAL POPULATION IN JURISDICTION	TOTAL BUILDINGS IN JURISDICTION	IMMEDIATE IMPACT (500 METERS)			SECONDARY IMPACT (2,500 METERS)		
			Number People Exposed	Number Buildings Exposed	Value of Buildings Exposed	Number People Exposed	Number Buildings Exposed	Value of Buildings Exposed
Caldwell Co.	14,661	6,462	5,108	2,219	\$207,861,000	8,097	3,513	\$330,166,000
Lockhart	11,591	4,217	Negligible	14	\$1,174,000	676	263	\$39,810,000
Luling	5,025	2,584	2,707	1,397	\$151,366,000	5,025	2,584	\$264,373,000
Martindale	917	424	917	424	\$40,522,000	917	424	\$40,522,000
Calhoun Co.	8,541	6,463	1,718	915	\$153,075,000	4,135	3,853	\$486,934,000
Point Comfort	781	477	596	387	\$110,085,000	362	233	\$85,232,000
Port Lavaca	12,035	5,489	2,612	1,243	\$180,751,000	10,618	4,633	\$552,209,000
Seadrift	1,350	1,069	69	56	\$6,259,000	1,477	1,024	\$67,812,000
DeWitt Co.	8,805	5,417	Negligible	0	Negligible	Negligible	0	Negligible
Cuero	6,544	3,824	Negligible	0	Negligible	Negligible	0	Negligible
Nordheim	323	266	Negligible	0	Negligible	Negligible	0	Negligible
Yoakum	5,729	3,306	Negligible	0	Negligible	Negligible	0	Negligible
Yorktown	2,204	1,568	Negligible	0	Negligible	Negligible	0	Negligible
Gonzales Co.	8,343	5,619	1,868	1,040	\$111,340,000	3,460	2,242	\$194,858,000
Gonzales	7,160	3,636	7,160	3,636	\$401,785,000	7,160	3,636	\$401,785,000
Nixon	2,178	1,326	Negligible	0	Negligible	1,821	1,157	\$75,870,000
Waelder	947	572	947	572	\$37,972,000	947	572	\$37,972,000
Cibolo (Guadalupe County)	3,035	1,338	Negligible	0	Negligible	Negligible	0	Negligible
Kendall Co.	17,618	8,189	Negligible	0	Negligible	Negligible	0	Negligible
Boerne	6,125	3,016	Negligible	0	Negligible	Negligible	0	Negligible
Refugio Co.	2,670	1,360	1,220	649	\$74,514,000	2,068	1,065	\$113,495,000
Austwell	192	176	192	176	\$28,397,000	192	176	\$28,397,000
Bayside	360	304	Negligible	27	\$3,216,000	279	240	\$20,668,000
Refugio	2,920	1,805	126	108	\$7,564,000	1,957	1,296	\$127,492,000
Woodsboro	1,683	837	461	211	\$18,121,000	1,686	837	\$78,606,000
Victoria Co.	23,482	9,699	4,841	2,024	\$194,184,000	8,828	3,655	\$392,540,000
Victoria	60,606	24,412	Negligible	0	Negligible	2,867	1,116	\$106,593,000
TOTALS⁵	213,765	103,855	32,751	16,424	\$1,822,876,000	62,572	32,519	\$3,445,334,000

⁵ Totals for the study area may include values less than \$5,000 for dollar amounts and less than 50 for populations (where applicable) that are classified as “Negligible” in the table.