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Effectiveness Evaluation Objectives

The four year effectiveness evaluation is implemented to measure the effectiveness of the Public Awareness Program implemented by West Texas Gas Energy, L.P. (West Texas Gas) from the years 2014 to 2017. The study was developed and implemented in order for West Texas Gas to comply with 49 CFR Part 192.616 and 195.440 and API RP 1162, and increase the safety of the stakeholders along, or in proximity of, their pipeline system.

The objectives of the study are to:

- 1. Measure program outreach and % of stakeholders actually reached
- 2. Measure stakeholder's understandability of the public awareness messages
- 3. Measure stakeholders' behavior alignment with public awareness messages
- 4. Measure West Texas Gas' bottom line results
- 5. Compare results of study against West Texas Gas PAP objectives
- 6. Understand key findings
- 7. Identify program improvement considerations.

API RP 1162 Four Measures (§ 8.4.2)

- 1. Outreach
- 2. Understandability of Messages
- 3. Stakeholder Behavior
- 4. Bottom Line Results

API RP 1162 Objectives

- Raise the awareness of the affected public and key stakeholders of the presence of pipelines and increase their understanding of the role of pipelines in transporting energy.
- Help the public understand pipelines are a relatively safe mode of transportation, that pipeline operators undertake a variety of measures to prevent pipeline accidents, and pipeline operators anticipate and plan for management of accidents if they occur.
- Inform the public they have a significant role in helping to prevent accidents that are caused by third party damage and ROW encroachment.
- Help the public understand the steps to take to prevent and respond to pipeline emergencies.



Study Methodology

West Texas Gas utilized an outside firm (Paradigm) to implement their stakeholder communications and surveys over the four-year period 2014-2017. A business reply response survey program was used as a data point in the evaluation process.

Four individual stakeholder surveys were designed to apply specific measures to each API RP 1162 audience category. Appropriate questions included the use of the pipeline operator name to measure specific outreach and effectiveness efforts of West Texas Gas. Between 8 and 10 questions, depending on stakeholder audience, were asked of the stakeholders in order to gauge their knowledge and behavior when it comes to pipeline safety.

When available we will compare the current knowledge, behaviors and bottom line results to those results compiled from West Texas Gas' previous four-year effectiveness evaluation.

The most current population of stakeholders was used along with the sample size of data from 2014-2017 for each stakeholder audience group to calculate the statistical percentages.

Margin of error was calculated utilizing 50% proportion and 95% confidence factor. http://www.rmpd.ca/en/calculators.php

Sample Size and Margin of Error

Audience	Population	Sample Size	Margin of Error
Affected Public	31,965	814	3.39%
Excavator	11,201	168	7.50%
Emergency Official	1,223	242	5.64%
Public Official	1,762	209	6.37%
Total	46,151	1,433	2.55%



MEASURE 1 – OUTREACH: PERCENTAGE OF EACH INTENDED AUDIENCE REACHED WITH DESIRED MESSAGES



Outreach and Awareness Measurement Methodology

This is a basic measurement indicating whether the operator's public awareness messages are getting to the intended stakeholders. A baseline evaluation program should establish a methodology to track the number of individuals or entities reached within an intended audience. Additionally, this measure should estimate the percentage of the stakeholders <u>actually reached</u> within the target geographic region along the pipeline.

Baseline measure

Outreach is measured by tracking the amount of materials distributed either by, or on behalf of, West Texas Gas. Following the implementation of West Texas Gas' baseline public awareness program, or other public awareness effort, a series of reports are provided to gauge stakeholder audience identification. Print materials are the baseline method of distributing public awareness messages, therefore, return mail is also tracked for each program and taken into consideration for outreach purposes.

Supplemental measures

Stakeholder Awareness is measured by asking key questions through survey efforts. Percentage of stakeholders actually reached is measured by gauging recall of messages distributed by West Texas Gas.

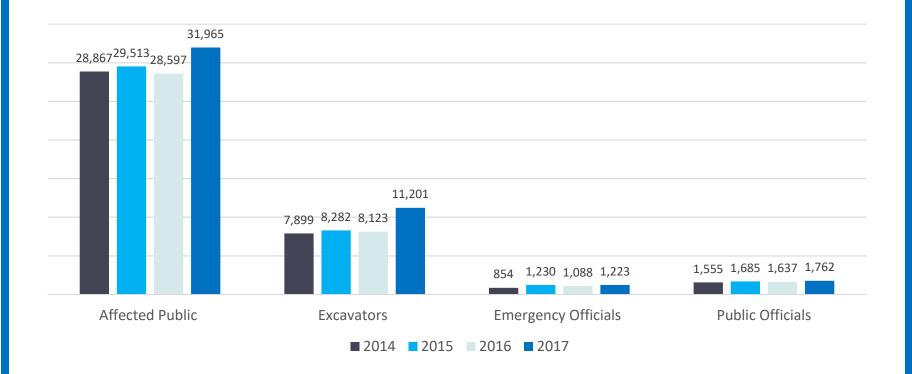
Additional stakeholder awareness measures are included in the evaluation questionnaire as follows:

• Within the past [API RP1162 Stakeholder Specific Frequency], do you recall receiving information from West Texas Gas Energy?



Annual Outreach

Baseline outreach measurement shows the frequency of distribution of messages. The following statistics report program outreach. Each effort is tracked and reported following implementation of targeted distribution of print materials. Fluctuations in numbers are expected due to improvements in data and acquisitions of additional assets. West Texas Gas annually updates centerline data with the public awareness vendor to identify the appropriate stakeholders along their pipeline.





Return Mail Tracking

West Texas Gas' direct mail contractor began tracking return mail annually in 2010. However, due to; 1) their annual distribution of targeted print materials to each stakeholder audience - including the affected public and 2) multiple methods of outreach, return mail tracking does not weigh heavily in effectiveness results of the overall public awareness program.

Return mail fluctuates over the years, mainly since the communications are mailed standard mail and the USPS is not required to return the piece to the sender. The return percentages remain well below direct mail industry standards.

2.0% National average mail return rate: Source: http://www.pb.com/docs/US/pdf/Microsite/Mail-Services/News-and-Resources/webinars/attacking-return-mail-webinar-2012.pdf





Emergency Official Liaison Outreach

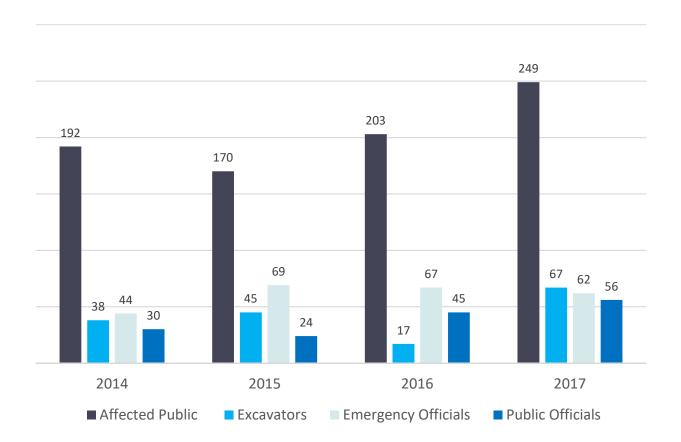
In addition to the targeted mail distribution to all stakeholders West Texas Gas regularly participates in liaison events with emergency responders. Below is an overview of face-to-face efforts.

Year	States	# Meetings Sponsored	# Agencies Attended	# Non-Attendee Mailing
2014	TX	8	116	593
2015	LA,TX	10	141	970
2016	LA,TX	11	184	976
2017	LA, TX	10	170	1480



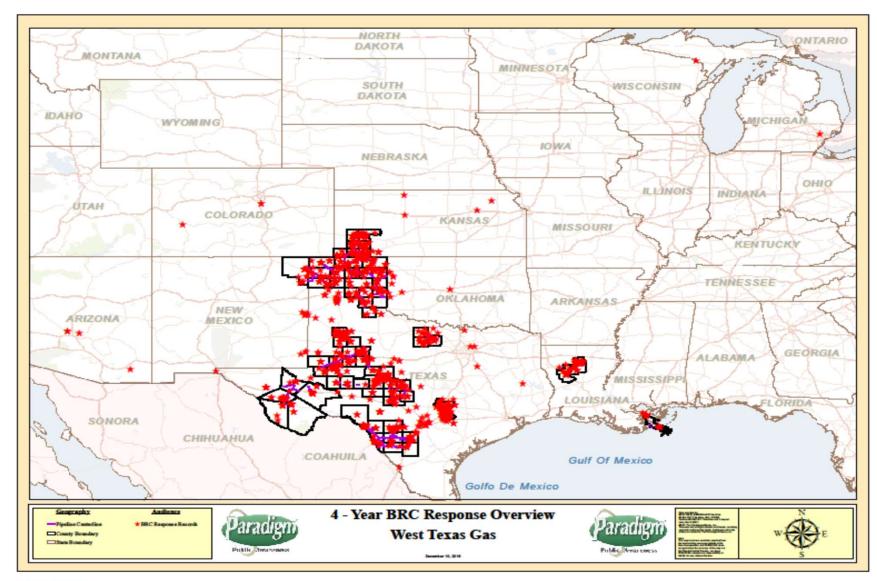
Business Reply Survey Tracking

The response surveys returned by year and audience are noted below. Although there are some slight fluctuations both up and down through the four-year period, the counts have remained very steady.





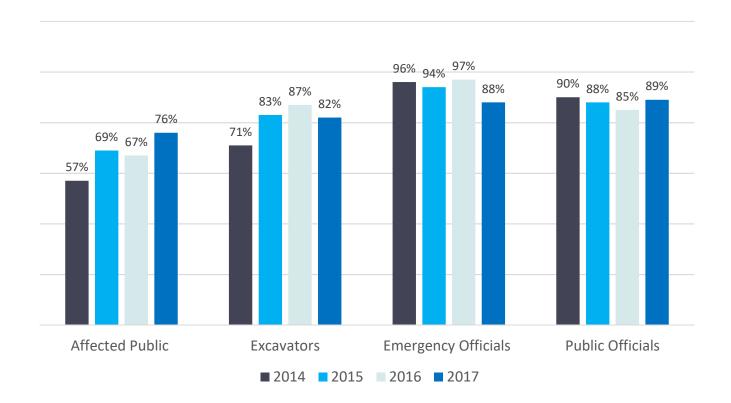
The map below references where each of the business reply cards were returned from. As you can see, the responses were from across West Texas Gas' assets.





Stakeholder Recall

West Texas Gas measures stakeholders actually reached through questioning recall of the message through the business reply survey. Each stakeholder is asked "In the past 12/24/36 months, do you recall receiving information from West Texas Gas?" The following chart indicates those who answered "yes" to this question. The Affected Public and Excavators maintain an incline in positive response over the four-year period while Emergency and Public saw a slight decrease in 2017.





MEASURE 2 - UNDERSTANDABILITY OF MESSAGE CONTENT



Understandability Evaluation Methodology

Message understandability assesses the percentage of the intended stakeholder audience that understood and retained the **key** information in the message received. This measure helps to evaluate the effectiveness of the delivery media and the message style and content. This measure also helps to assess the effectiveness of the delivery methods used.

To measure understandability, West Texas Gas utilizes both qualitative and quantitative analysis techniques to evaluate the message clarity, format, media and the stakeholder's understanding of the messages.

Several drivers impact the messaging, style and format of West Texas Gas' messaging, including:

- Focus Group pretest of materials
- Stakeholder feedback
- Operator personnel feedback/evaluation
- Regulatory requirements/feedback

Focus Group: (Pre-test materials)

Focus groups were conducted upon initial design, or major redesign, of West Texas Gas' public awareness materials, messages are pre-tested using focus groups consisting of stakeholder audience members (6-10 members) in a closed setting, or through in-depth interviews in cases where stakeholders are unreachable.

The focus groups are organized by Paradigm, an external resource contracted by West Texas Gas. The sessions are moderated and evaluated by a 3rd party to maintain an unbiased review.

- 2015 Dallas, TX
 - Audiences Targeted
 - ✓ Affected Public /Farmers
 - ✓ Emergency Officials
 - ✓ Public Officials
 - ✓ Excavators

Quantitative Analysis (Survey)

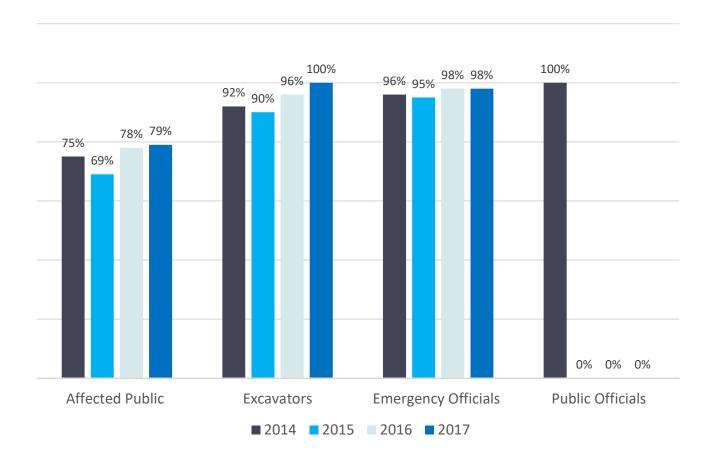
Survey questions were reviewed by West Texas Gas prior to the implementation of the evaluation. Questions pertaining to understandability consist of:

- Do you know how to recognize a pipeline right-of-way?
- · Are you aware of the prevention measures pipelines take to maintain safe operations?
- Which of the following is the safest way to transport oil or natural gas?
- Have you ever heard of 811?
- Do you know how to recognize a pipeline leak?
- Are you aware of the National Pipeline Mapping System?



Right-of-Way Recognition

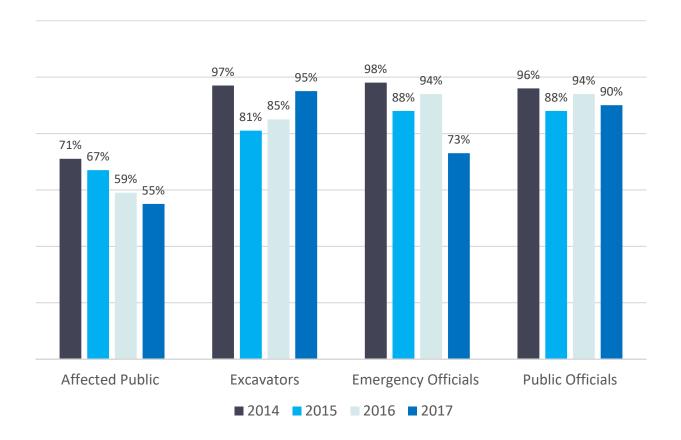
West Texas Gas stakeholders were asked "Do you know how to recognize a pipeline right-of-way?". The percentages of those who answered "yes" are identified below.





Safety Prevention Measures

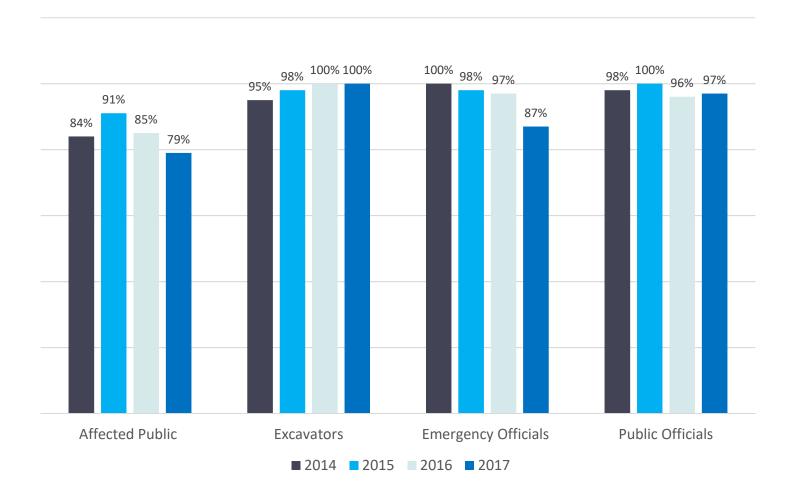
West Texas Gas stakeholders were asked "Are you aware of the prevention measures pipeline companies take to maintain safe operations?" The percentages of those who answered "yes" are identified below.





Pipeline Reliability

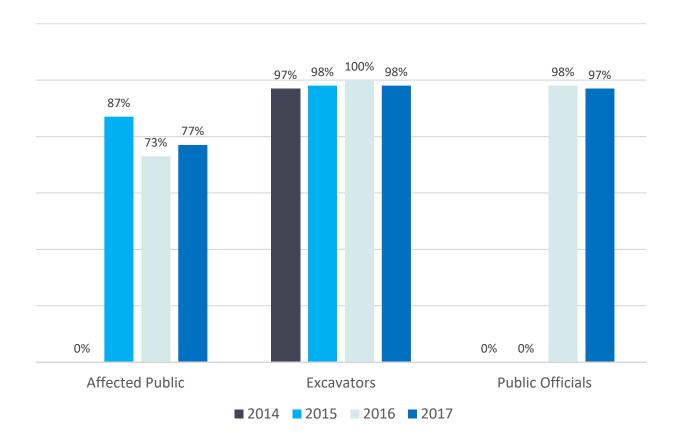
When asked "Which of the following is the safest way to transport petroleum or gas products?" A high percentage of each stakeholder audience group understands "pipelines" are the safest method of transportation.





811 Awareness

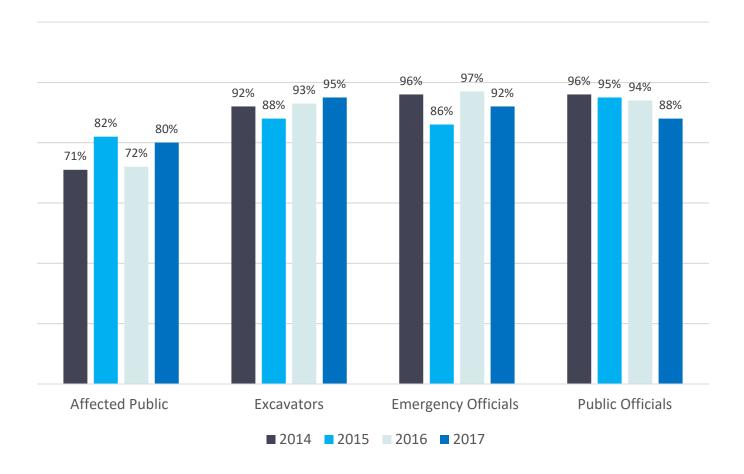
The appropriate stakeholders were asked "Have you ever heard of 811?" This question was not asked in 2014 to the Affected Public and Public Officials groups but Excavators were asked all four years. The percentages below reflect those who answered "yes" to this question.





Leak Recognition

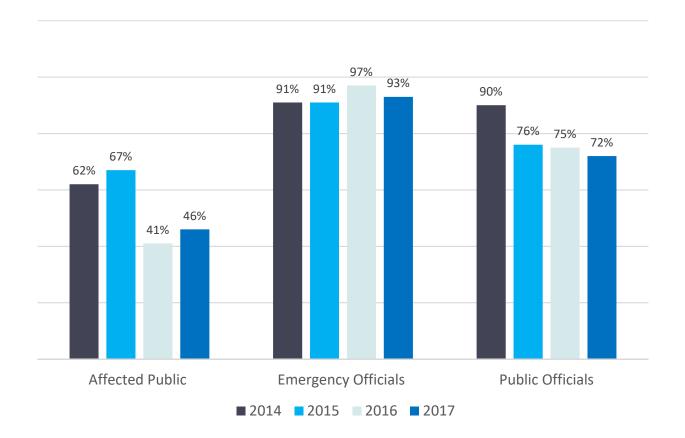
The numbers below reflect those who answered "yes" when asked "Do you know how to recognize a pipeline leak?"





Pipeline Location Awareness

The following stakeholders audience groups were asked "Are you aware of the National Pipeline Mapping System?". Those who answered "yes" are noted below.





MEASURE 3 – DESIRED BEHAVIORS BY THE INTENDED STAKEHOLDER AUDIENCE



Baseline Behavior Measurement Methodology

This measure is aimed at determining whether appropriate prevention behaviors have been learned and are taking place when needed and whether appropriate response or mitigation behaviors would occur and have taken place. This is a measure of learned and, <u>if applicable</u>, actual reported behavior.

The survey conducted by West Texas Gas includes a means of assessing behavior by including questions to report on damage prevention activities, leak response behavior, and reporting possible ROW encroachment.

Behavior questions incorporated in the stakeholder survey include:

- If you were planning on digging, which of the following actions would you be likely to take?
- How often do you check to see if a pipeline exists, and where it is located, prior to digging? (Excavators)
- What would you do in the event of a pipeline emergency?
- What would you likely do if you saw suspicious or construction activity on or near a pipeline right of way?

Supplemental Behavior Measurement Methodology

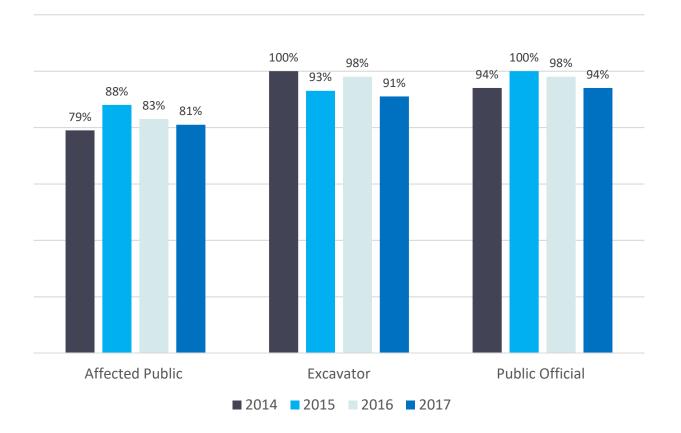
As a supplement to the baseline evaluation, the following examples were reviewed as a means of assessing this measure:

- Whether excavators are following through on all safe excavation practices, in addition to calling the One-Call Center
- The number of notifications received by the operator from the excavation One-Call Center (e.g. is there a noticeable increase following distribution of public awareness materials?)
- An assessment of first responder behaviors, including the response to pipeline-related calls, and a post incident assessment to determine whether their actions would be and were consistent with key messages included in the public awareness communications. Assessments of actual incidents should recognize that each response would require unique on-scene planning and response to specifics of each emergency.
- Measuring the appropriateness of public stakeholders' responses is also anecdotal but could include tracking whether an
 actual incident that affected residents was correctly identified and whether reported and personal safety actions
 undertaken were consistent with public awareness communications.



Damage Prevention

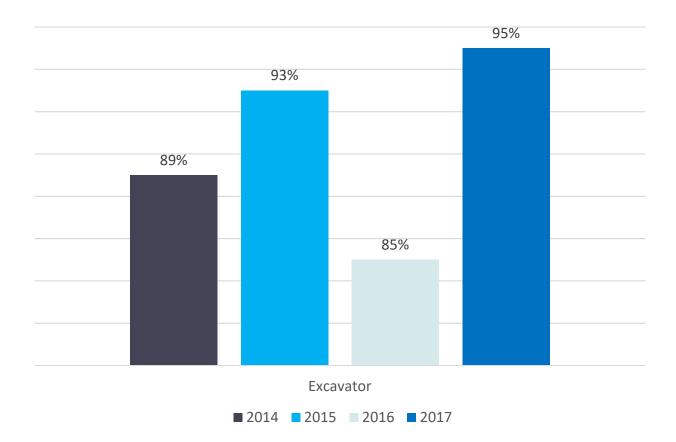
Damage prevention behavior is measured by what a stakeholder would do prior to beginning a digging project. Noted below are those stakeholders that said that they would **call 811 and One-Call** as appropriate options when asked, "**If you were** planning on digging, which of the following actions would you likely take?"





Excavator One-Call Compliance

West Texas Gas' Excavators were asked "How often do you check to see if a pipeline exists, and where it is located, prior to digging?" Below are those who said they always check prior to digging.

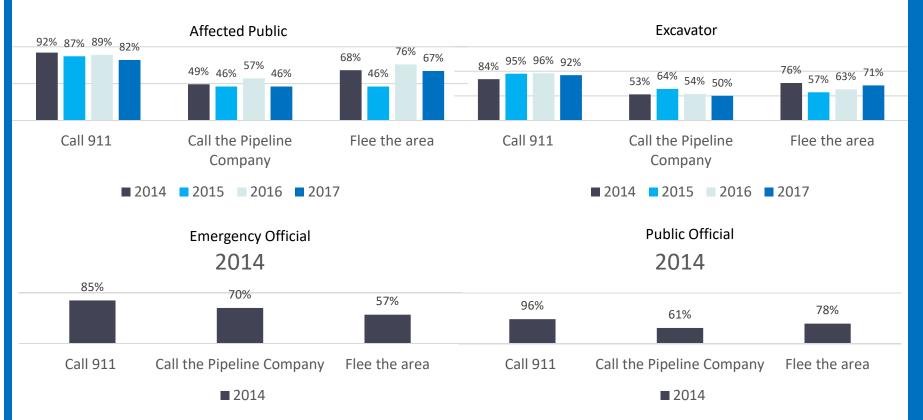




Emergency Preparedness

The appropriate stakeholders were asked "What would you do in the event of a pipeline emergency?" Below we are reviewing those who answered "call 911", "call the pipeline company" or "flee the area".

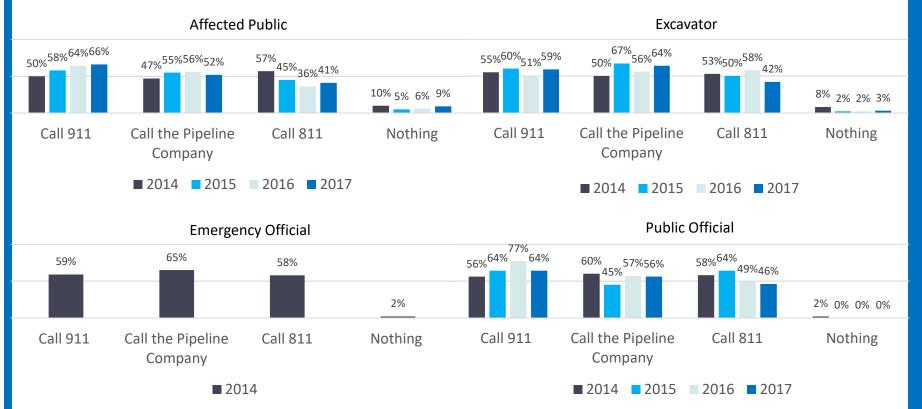
(stakeholders were asked to check all that apply therefore may have multiple answers)





Emergency Preparedness

The appropriate stakeholders were asked, "What would you do if you saw suspicious activity or construction related activity on or near a pipeline right of way?" the most popular responses are charted below. Calling 911 is the most positive response for this event. Emergency Officials were only asked this question in 2014.





MEASURE 4 – ACHIEVING BOTTOM LINE RESULTS



Bottom-Line Results Measurement Methodology

API RP 1162

One measure of the "bottom-line results" is the damage prevention effectiveness of an operator's Public Awareness Program and the change in the number and consequences of third-party incidents. As a baseline, the operator should track the number of incidents and consequences caused by third party excavators. This should include reported near misses; reported pipeline damage occurrences that did not result in a release; and third-party excavation damage events that resulted in pipeline failures. The tracking of leaks caused by third-party excavation damage should be compared to statistics of pipelines in the same sector (e.g. gathering, transmission, local distribution). While thirdparty excavation damage is a major cause of pipeline incidents, data regarding such incidents should be evaluated over a long period of time to determine any meaningful trends relative to the operator's Public Awareness Program. This is due to the low frequency of such incidents on a specific pipeline system. The operator should also look for other types of bottom-line measures. One other measure that operators may consider is the affected public's perception of the safety of pipelines.

Operator Measures

- Findings from reported incident tracking via PHMSA website
- · Third party damages
- One-Call ticket trends

Stakeholder Survey:

How well informed are you regarding pipelines in your community?

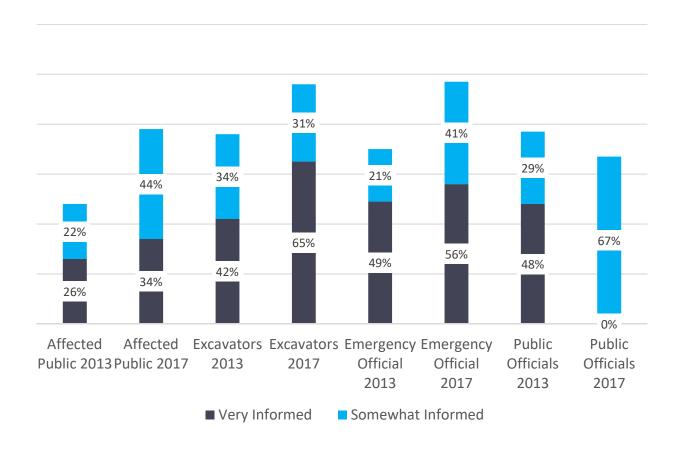
Additional Measures

- Stakeholder survey data trending to track key message effectiveness improvements
- Compare the current West Texas Gas stakeholder responses to those responses received in previous effectiveness evaluation completed in 2014 for the year's 2010-2013.



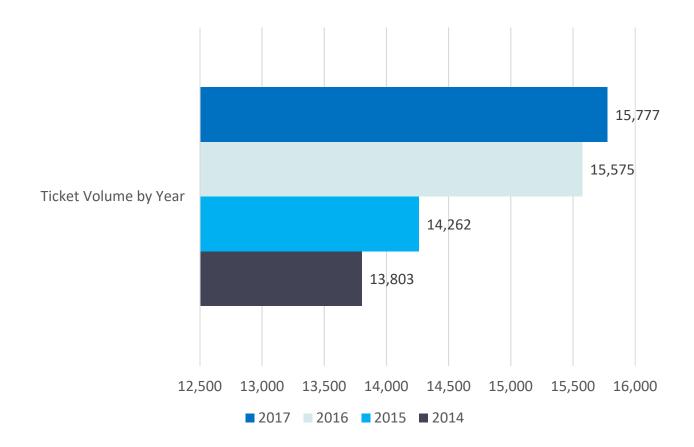
Reporting Encroachment Behavior

How well informed are you regarding pipelines in your community?





One-Call Ticket Trends





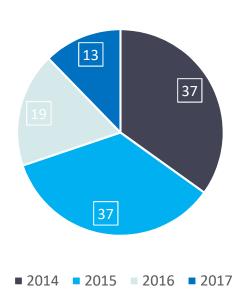
Incident Behaviors

There are no recorded incidents according to the PHMSA website for the 2014-2017. The third party damages that were reported to the state of Texas for distribution assets during the same timeframe are charted below.

WEST TEXAS GAS INC All Incidents, All Pipeline Systems⁽²⁾: 2006-2018

Year	Number	Fatalities	Injuries	Property Damage (A)	
2006	0	0	0	\$0	
2007	0	0	0	\$0	
2008	0	0	0	\$0	
2009	0	0	0	\$0	
2010	0	0	0	\$0	
2011	0	0	0	\$0	
2012	0	0	0	\$0	
2013	1	0	0	\$800,972	
2014	0	0	0	\$0	
2015	0	0	0	\$0	
2016	0	0	0	\$0	
2017	0	0	0	\$0	
2018 YTD	1	0	0	\$45,025	
Totals	2	0	0	\$845,997	

Third Party Damages



Source: https://primis.phmsa.dot.gov/comm/reports/operator/OperatorList.html?nocache=769



KFY FINDINGS



Key Findings

Measure 1 – Outreach: Percentage of Each Intended Audience Reached with Desired Messages

- Stakeholder outreach numbers over the four-year period was very comparable but the responses returned have decreased across the board.
- From the map you can see that West Texas Gas has a very good collection of data for this study across their entire asset footprint.
- Recall with stakeholders have made progress over the four-year period in the Affected Public and Excavator audiences. The Public Officials have remained steady while the Emergency Officials took a dip. The largest increase was in Affected Public at 19% and the Emergency Officials had the largest decrease with 8%.

Measure 2 - Understandability of Message Content

- When asked about understanding the prevention measures that West Texas Gas takes to keep operations safe, there was a quit a fluctuation over the four-year period with Excavators and Public Officials. The Emergency Officials and Affected audiences both took a negative turn. They had a significant decrease in positive response of 16% and 24%.
- When asked the safest way to transport products, again the Affected Public and Emergency Official audiences declined in positive response.
- On the topic of 811 the Excavator group has great understanding of 811 which is important. The Affected Public however, lost traction in this area.
- Excavators have the best response that they know how to recognize a pipeline leak. The Affected Public had a nice increase over the period while the Emergency Official group stayed steady. The Public Officials are showing an 8% decrease in this area.
- Understandable the Emergency Officials audience knows about The National Pipeline Mapping System. The Affected Public audience had a significant decrease from the first two years to the next two and we again see a decrease in positive response in the Public Officials audience group. The decrease is 18% from 2014 to 2017

Measure 3 – Desired Behaviors by the Intended Stakeholder Audience

- Calling 811 before planning to dig has remain steady with Affected Public and Public Officials but the Excavators saw a slight decrease in positive response.
- Although they had a slight decrease in the previous question, Excavators still seem to know the importance of always calling before they start an excavation project.
- Calling 911 in the event of emergency has remained steady through the review period.
- Calling 911 on any suspicious behavior on the right-of-way made some progress over the years as well.

Measure 4 - Achieving Bottom Line Results

- The feeling of being informed has had an impressive increase in every group other than Public Officials. From 2013 to 2017 Public Officials were 10% less likely to feel "very informed".
- One-Call tickets have increased over the years while third-party damages reported has decreased. This shows a very positive response overall for public awareness.



CONSIDERATIONS



Considerations

The following considerations are meant to provide West Texas Gas direction for improving their public awareness program outreach. These considerations do not guarantee increased results. They are simply Paradigm's identification of areas for improvement and application of our experience through the implementation of public awareness programs.

- Consider a targeted communication to Public Officials and Emergency Officials. This audience group had the only overall decrease in positive response in a majority of the questions. Consider identifying targeted titles in the audience group in order to make it feasible to deliver a more targeted approach in your communication. You might also consider adding something personal to each outreach effort such as a map of the city/county identifying any parks or golf courses in the area. The more personal the message the more intrigued they might be to engage. This could be accomplished by email, phone, or meeting. If delivered by email or phone, consider an online survey to capture responses after the contact.
- Consider supplementing outreach either in April (safe digging month) or August (National 8/11 Day) for stakeholder with messages that target general excavation safety practices to further educate on damage prevention messages.
- Continue working with industry groups and regulatory agencies to encourage stronger enforcement of one call laws.



QUESTIONNAIRES



Affected Public

To complete online or in Spanish/Para completer online o en Espanol: www.pipelinesafetyinfo.com 1. Within the past two years, do you recall receiving information from a pipeline company? O Yes O No WebCode 2. Do you know how to recognize a pipeline right-of-way? O Yes O No 3. Do you know how to recognize a pipeline leak? O Yes 4. Have you ever heard of 811? ONo 5. How do you know if there is a pipeline near you? O Pipeline marker O Received mailing O Line runs through property O Other: If you are planning on digging, which of the following actions will you take? (check all that apply) O Call 811 Call the one-call Call pipeline company O Don't know How often do you check to see if a pipeline exists, and where it is located, prior to digging? O Usually 8. What will you do if you see suspicious activity on or near a pipeline right-of-way? (check all that apply) 9. What will you do if you see construction-related activity on or near a pipeline right-of-way? (check all that apply) O Call 911 Call pipeline company Call the one-call/811 O Nothing O Call 911 O Call pipeline company O Call the one-call/811 O Nothing What will you do in the event of a pipeline emergency? (check all that apply) O Call 911 O Call pipeline company O Flee the area ONothing 11. Which of the following is the safest way for transporting oil or natural gas? O Tanker truck O Rail car O Pipeline O Barge O Not at all informed 12. How well informed are you regarding pipelines in your community? O Very well informed O Somewhat informed O Not too informed 13. Are you aware of the National Pipeline Mapping System (NPMS)? ○ Yes ○ No 14. Are you aware of the prevention measures pipeline companies take to maintain safe operations? O Yes O No AP 2017

Excavator

Within the past year, do you recall receiving information from a pipeline company?		O Yes		O No		WebCode	
2. Do you know how to recognize a pipeline right-of-way?		○ Yes		O No			
3. Do you know how to recognize a pipeline leak?		O Yes		O No			
4. Have you ever heard of 811?		O Yes		O No			
5. How do you know if there is a pipeline near you?		O Pipeline marker		O Received mailing		O Line runs through prop	erty Other:
 If you are planning on digging, which of the following actions you take? (check all that apply) 	will	O Call 811		Call the one-call		Call pipeline company Don't know	
7. How often do you check to see if a pipeline exists, and where it prior to digging?	t is located,	O Always		O Usually		O Sometimes	O Rarely O Nev
 What will you do if you see suspicious activity on or near a pipeline right-of-way? (check all that apply) 		O Call 911		Call pipeline o	ompany	Call the one-call/811	Nothing
 What will you do if you see construction-related activity on or near a pipeline right-of-way? (check all that apply) 		O Call 911		Call pipeline company		Call the one-call/811	O Nothing
 What will you do in the event of a pipeline emergency? (check all that apply) 		O Call 911		Call pipeline o	ompany	O Flee the area	O Nothing
11. Which of the following is the safest way for transporting oil o	r natural gas?	○ Tanker truck		O Rail car		O Pipeline	○ Barge
12. How well informed are you regarding pipelines in your comm	unity?	O Very well informed		O Somewhat inf	formed O Not	O Not too informed	O Not at all informed
13. Are you aware of the National Pipeline Mapping System (NPM	15)?	O Yes	O No	1		157 - 1403 E104-191390E119-51	
14. Are you aware of the prevention measures pipeline companie take to maintain safe operations?	s	O Yes	○ No]	NAME PHONE: 00 E-MAL	00	Est.
EX 2017					COMMENTS	8	



Emergency Official

Public Official

To complete online: www.pipelinesafetyinfo.com		■ To complete online: www.pipelinesafetyinfo.com	3■
	WebCode		WebCode
COMPRAY NAME NAME TITLE	[-MAN].	COMMANY NAME NAME TITLE	E-MAIL F-MONE DOOG
1. Within the past year, do you recall receiving information from a pipeline company? Yes No 2. Are you aware of the National Pipeline Mapping System (NPMS)? Yes No 3. Do you know how to recognize a pipeline right-of-way? Yes No 4. How do you know if there is a pipeline near you? Pipeline marker Received mailing Line runs through property Other: 5. Do you know how to recognize a pipeline leak? Yes No 6. What are the recommended actions to be taken by dispatch while responding to the report of a pipeline incident? (check all that apply) Determine location Determine excitly what has happened Determine excitly what has happened Determine if immediate danger exists initiate public response resources Contact the pipeline company as soon as practical 7. Do you keep the materials you receive from local pipeline companies to reference in the event of a pipeline emergency? Yes No	8. Are you aware of the prevention measures pipeline companies take to maintain safe operations? O Yes O No 9. What additional information, if any, do you feel you need from pipeline companies in your area? (check all that apply) O Mays O Training O Product information Nothing 10. Which of the following is the safest way for transporting oil or natural gas? O Tanker truck O Replene O Barge 11. How well informed O Somewhat informed O Not too Informed O Not too Informed O Not at all informed COMMENTS:		PHONE: DOOL 9. What will you do if you see construction-related activity on or near a pipeline right-of-way? (check all that apply? Call the one-call/811 Call pipeline company) Call the one-call/811 Nothing 10. Which of the following is the safest way for transporting oil or natural gas? Tanker truck Rail car Pipeline Barge 11. Are you aware of the prevention measures pipeline companies take to maintain safe operations? Yes No 12. Does your community have an emergency response plan in the event of a pipeline incident? Yes No COMMENTS:
	EO 2017	_	PO 2017

