Colorado Underground Damage Prevention Legislative Study

Commissioned by:
The Colorado Legislative Task Force
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June 13, 2016
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Subject: Final Report on the Damage Prevention Legislative Study

Dear Mr. Vitale,

Quality Engineering is pleased to present the results of the Colorado Damage Prevention Legislative Study in their entirety. We thank the CLTF sub-committee for their diligent work on this project and the wide latitude that we were given to complete this study.

The Damage Prevention Legislative Study confirms, in most cases, what stakeholder groups believe to be true about Underground Damage Prevention in Colorado. However, new information or new methods of analysis are presented that will challenge the status-quo in some areas.

The data presented in the Executive Summary and the Overview use the industry accepted Damages per Thousand Notification Requests as a tool for comparison of the relative effectiveness of the various study topics. Using this measurement, Colorado is in the top quartile of all states in minimizing damage to underground facilities. None the less, Colorado has areas for improvement that would potentially benefit numerous stakeholders.

During the course of the study it was beneficial to develop new ways to compare the effectiveness of the various statutes studied. These new measurement methods provide a more complete comparison of the impact on public safety and damages than the single dimensioned Damages per Thousand Notification Requests; the Data Section of the report provides further details.

Each Study Topic has its own unique section that is independent of all other sections. The Study Topic sections do not build on each other and are complete works in their own right. In this manner the reader can study the section they are most interested in without the need to read the other sections. There are numerous supporting documents that are provided for reference and convenience.

The study information presented here does not represent the full body of knowledge that was developed. If, at a later date, the CLTF would like to have further investigative work completed Quality Engineering is in a perfect position to provide that assistance quickly and efficiently.

If we can assist in anyway, please feel free to contact John Benjamin at 970-324-7048.

Best Regards,

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# Table of Contents

**Executive Summary** .............................................................................................................................................. 1  
Key Points to Consider ............................................................................................................................................... 1  
Topic 1: Compare Colorado’s Public Safety & DpK to states with an enforcement authority 2  
Topic 2a: Facility owner accountability for failing to provide a locate in the required time frame 2  
Topic 2b: Facility owner accountability for failing to provide general locate information for Architects and Engineers during the project design phase 2  
Topic 3: Examine whether other states hold excavators accountable when a Notification Request is made and subsequent damage occurs 2  
Topic 4: Facility Owner Mandatory Reporting of Damages to the One Call Center 2  
Topic 5: Multi-Tiered Membership Systems 3  
Final Observations .................................................................................................................................................. 3  

**Study Overview** .................................................................................................................................................. 8  
Background .......................................................................................................................................................... 8  
The Creation of a State-wide Enforcement Authority – Why now? Risk Remains ......................... 8  
The Study’s Objectives ......................................................................................................................................... 8  
The 15 Study States ........................................................................................................................................... 10  
The Study’s Methods ......................................................................................................................................... 10  
PHMSA Database .............................................................................................................................................. 10  
Study Results ..................................................................................................................................................... 11  
Nationally .......................................................................................................................................................... 11  
Study Highlights ............................................................................................................................................... 11  
Study Topic Notes:  
General Study interpretation notes: ..................................................................................................................... 11  
Study Topic 1: Compare Colorado’s Public Safety and Facility Damages per Thousand Notification Requests to other states that have an enforcement authority defined within their Underground Damage Prevention Law page 12  
Study Topic 2a: The Law does not define compliance and enforcement for: Facility owners who fail to provide a locate in the required time frame page 13  
Study Topic 2b: The Law does not define compliance & enforcement clauses for Facility Owners who fail to provide locate support for Architects & Engineers during the design phase of a project page 13  
Study Topic 3: Examine whether other states hold excavators accountable when a Notification Request is made and subsequent damage occurs page 14  
Study Topic 4: Examine whether other states require Facility Owners and Operators to report facility damages to the One Call Center, and whether an enforcement authority holds Facility Owners and Operators accountable for not reporting page 14  
Study Topic 5: Multi-Tiered Membership Systems page 61  

**PHMSA Ruling for Colorado** .......................................................................................................................... 17  

**Topic 1: Compare Colorado’s Public Safety & DpK to states with an enforcement authority** ........................................... 21
Findings on ENFORCEMENT OF THE COLORADO ONE CALL LAW ........................................ 21
Public Safety – Colorado has good performance ........................................ 21
No PHMSA Approved Enforcement Authority ........................................ 21
Strong Stakeholder Support for Enforcement ........................................ 21
Statistically Significant Difference ......................................................... 21
Background Additional Material............................................................. 24
PHMSA Letter and Background ............................................................ 24
Colorado Enforcement is between aggrieved parties ................................ 24
The Two Main Types of Enforcement Systems ....................................... 25
Comparing study states against each other based on the type of enforcement system ............................................................. 28
Actual Damage Rate of Change ............................................................ 29
Advisory Board in partnership with the PUC or the Attorney General as the Enforcement Authority ............................................................. 30
Changes in DpK over the 5-Year period based on start of enforcement .... 32
Stakeholder Input .................................................................................. 32
Should Colorado establish an Enforcement Authority – Consensus favors YES 33
Comments from the Forums and On-Line survey .................................. 33
Summarized comments from the Interviews and Forums ....................... 34
Comments from the Forums .................................................................. 35
The following are unedited comments from the on-line survey. ............... 35

Topic 2a: Facility owner accountability for failing to provide a locate in the required time frame ........................................................................................................ 38
Section Summary .................................................................................. 38
Background and Additional Information .................................................. 39
Stakeholder Input Documentation .......................................................... 41
Locating, Locators and Second Notice comments (unedited from the survey participants) ............................................................. 41

Topic 2b: Facility owner accountability for failing to provide general locate information for Architects and Engineers during the project design phase ........................................................................................................ 48
Study Points .......................................................................................... 48
Section Summary .................................................................................. 48
Background and Additional Information .................................................. 49
Stakeholder Input Documentation .......................................................... 50
Comments from the Forums ................................................................ 50
Comments from the on-line survey ......................................................... 51

Topic 3: Do other states hold facility owners accountable for damages when a Notification Request is made and subsequent damage occurs.... 53
Study Points .......................................................................................... 53
Section Overview .................................................................................. 53
Specific Findings and Comments from Forums and Interviews ........................................ 56
Comments from the Stakeholders ................................................................................. 57

**Topic 4: Facility Owner Mandatory Reporting of Damages to the One Call Center** ................................................................. 61

Study Points ........................................................................................................... 61
Section Summary ................................................................................................. 61
Background and Additional Information ............................................................... 63
Stakeholders stated in the interviews and forums that:

On-Line Survey Data ........................................................................................................ 64

**Public Safety** ........................................................................................................ 65

Summary of the Public Safety Data .............................................................................. 65

**Topic 5: Multi-Tiered Membership Systems** ........................................................ 69

Study Points ........................................................................................................... 69
Section Overview ...................................................................................................... 69
Abbreviations Unique to this Section ........................................................................... 70
Comparison Data – Membership Structures for across the Continental USA ............. 70
Specific Findings ........................................................................................................... 70

Findings - Public Safety ........................................................................................... 71
Findings - Does the evidence suggest that a multi-tiered One Call Membership has a positive or negative impact on public safety and the number of facility damages? ................................................................. 71
Study States Data Damages/1,000 Tickets DPK ......................................................................... 71
Tier Membership and Locate Requests .......................................................................... 73
Findings: Impact on Excavators of a MTS ...................................................................... 74
Findings - Impact on Tier 2 Members ............................................................................... 75
Background and Commentary ..................................................................................... 77
Other MTS States’ Operations ....................................................................................... 77
How Safe are MTS states relative to the STS states? ......................................................... 78
Annual Average Rate of Change of Damages and Tickets .................................................. 79
Annual Average Rate-of-Change Data Tables .................................................................... 80
What other States have Multi-Tiered One Call Membership Structures? ............................. 83
Observations on the Study States and Multi-Tiered Structure .............................................. 84

Does the evidence suggest that a multi-tiered One Call Membership has a positive or negative impact on public safety and the number of facility damages? ................................................................. 84

Public Safety ........................................................................................................... 86
Damage comparison .................................................................................................... 86
Biasing the DPK Metric ............................................................................................... 87
Does the evidence suggest that a Multi-Tiered One Call Membership has a positive or negative impact on Excavators? ................................................................................................................................. 87
Supporting Documentation .......................................................................................... 88
Identify and assess the impact on Tier 2 owners/operators if the Tier 2 membership level were eliminated. 

89

Data ........................................................................................................... 93
  Rationale for use of the PHMSA database .............................................. 93
  Damages per 1,000 Tickets (DpK) ............................................................ 93
  Tickets as a Variable .............................................................................. 94
  Damages as a Variable ............................................................................ 94
  Three Approaches Employed for Data Analysis ................................. 95
  Colorado Damage and Ticket Data ......................................................... 95
  Approach #2: Rate of Change of Actual Damages ............................ 97
  Approach #3: Biasing Damages ............................................................... 98
  Performing the calculations: ................................................................. 98

Stakeholder Input ....................................................................................... 101
  Survey Geographical Coverage ............................................................. 101
  See graph next page for breakdown by County .................................. 102
  Interviews – In-Person and Phone ......................................................... 104
  Forum Coverage .................................................................................... 107
  Forum Highlights .................................................................................. 108

Tabulation and Categorization of the Survey Comments from the Broad Stakeholder Survey ........................................................................... 113
  Locating, Locators and 2nd Notice comments ...................................... 113
  Planning comments .............................................................................. 120
  Law, Equitable for all and Enforcement comments ............................ 121
  General comments ............................................................................... 123
  Excavating, Drilling, Boring specific comments ................................. 124

Glossary ..................................................................................................... 125
Executive Summary

Colorado's Underground Damage Prevention stakeholders maintain a very strong record for public safety and damage prevention, with no deaths for over 5-years and 2 injuries in 2014. Despite the many efforts that underlie this strong record, reported underground facility damages have recently begun trending upward, with a 24% increase in gas distribution pipeline damages from 2013 to 2014.

In December of 2015, the Pipeline and Hazardous Materials Safety Administration (PHMSA) determined that Colorado does not have a state enforcement authority and therefore fails to meet Federal criteria for enforcement. Colorado stakeholders are now subject to Federal regulatory penalties if they should damage a pipeline under PHMSA's jurisdiction. These fines are significant; $200,000 per day and a maximum of $2 million per occurrence.

During the first quarter of 2015, key stakeholders made up of excavators, facility owners, regulators and One-Call, met to discuss key issues related to the current Underground Damage Prevention Law. Subsequently, the stakeholder group came together, formed the Colorado Legislative Task Force (CLTF) and chartered this study. This data-driven research and analysis highlight Colorado's current efforts as they relate to other States' damage prevention enforcement and compliance practices which protect public safety and reduce damages.

This study reviews five key aspects of Colorado's current Underground Damage Prevention Law and evaluates the impact on Public Safety (deaths, injuries and cost of damages) as measured by the industry-accepted Damages per Thousand Notification Requests (DpK), relative to 15 other states, referred to as the Study States. Over 900 Stakeholder opinions and ideas about the study topics are also presented. The five study topics include:

1. Compare Colorado's Public Safety and Facility Damages per Thousand Notification Requests to other states that have an enforcement authority defined within their Underground Damage Prevention Law

2. Examine whether other states, with an enforcement authority, hold Facility Owners accountable for:
   a. Failing to provide a locate in the required time frame
   b. Failing to provide general locate information for Architects and Engineers during the design phase of a project

3. Examine whether other states, with an enforcement authority, hold excavators accountable when a Notification Request is made and subsequent damage occurs

4. Examine whether other states require facility owners and operators to report facility damages to the One Call Center, and whether an enforcement authority holds Facility Owners and Operators accountable for not reporting

5. Examine what other states have multi-tiered One Call Membership structures
   a. What is the impact on public safety in those states?
   b. What is the impact on excavators?
   c. What is the potential impact on Colorado's current Tier Two members if a single Tier membership system is adopted?

Note: Greater detail of the Study's findings are provided in the Overview and in each Study Topic's section; to jump to these Study Topics, click on the topic heading.

Key Points to Consider

Colorado ranks in the top 25% nationally for fewest Damages per Thousand Notification Requests for the
5-year period from 2010 through 2014. However, Colorado is experiencing a growth in facility owner reported damages larger than the National average.

**Topic 1: Compare Colorado’s Public Safety & DPK to states with an enforcement authority**

- The states with the lowest Damages per Thousand Notification Requests have an enforcement authority, and a track record of decreasing damages at some of the fastest rates
- A stakeholder complaint-driven process enables accountability and a fair and equitable participation for all stakeholders
- Stakeholders in Colorado have indicated a preference for an enforcement authority Colorado stakeholders support an enforcement authority that can clearly determine the current law’s ambiguous term “reasonable”

**Topic 2a: Facility owner accountability for failing to provide a locate in the required time frame**

- Based on the Colorado Contractors Association analysis, during 2015 the economic impact on Excavators due to waiting for 2nd notice locates is estimated at $250M per year (CCA DATA)
- Excavators indicate there is no accountability on the facility owner to complete locates on-time. Stakeholders overwhelmingly agree that all parties should perform per the law and be held accountable for not meeting their obligations

**Topic 2b: Facility owner accountability for failing to provide general locate information for Architects and Engineers during the project design phase**

- Colorado Law has a provision to support Architects and Engineers, but has no penalties associated for failure to provide this information
- Best performing states hold stakeholders accountable and clearly define expectations for Architects, Engineers and facility owners

**Topic 3: Examine whether other states hold excavators accountable when a Notification Request is made and subsequent damage occurs**

- Colorado Law requires excavators and facility owners to exercise “reasonable care” in carrying out their respective responsibilities
- The study reinforced a clear need to provide stakeholders a definition for “reasonable”
- Colorado is one of several states that presume the excavator innocent compared to states with laws that presume the excavator guilty. The study concluded that states like Colorado perform 2 ½ times better when the excavator is presumed innocent.

**Topic 4: Facility Owner Mandatory Reporting of Damages to the One Call Center**

- 3.9% of the facility owners report damage as required by the law, these owners represent 75% of all the Notification requests.
- Colorado has no authority identified in the law to enforce this reporting requirement, nor does it have penalties associated with this clause to improve compliance
- States with mandatory damage reporting by the facility owner to the One Call Center perform approximately 2 ½ times better than those with no mandatory reporting
Topic 5: Multi-Tiered Membership Systems

• The Study States show Single Tier states have a lower DpK rate than multi-tier states
• Single Tier states reduce damages at a quicker rate than Multi-Tier states
• Certain rural communities on the Colorado Western Slope indicated a positive experience with current Tier Two members
• Tier 2 members only receive ~ 25% of the total referrals that are provided to the excavator by One-Call; the remaining 75% (nearly 700,000 locate requests in 2014) did not notify the Tier 2 facility owner, increasing the risk for damages to occur.
• Based on information provided by the Colorado Contractors Association, the excavator community could potentially save $3.2 million per year in reduced notification time via the elimination of the Tier 2 membership level

Final Observations

Interactions with the Colorado excavators and facility owners involved in this study, indicate a shared desire for a state-wide enforcement authority. The most commonly cited reason for this position is to have more equality between the various stakeholder groups. All stakeholders want the ability to have each other held equally accountable for their actions, or lack thereof.

In states with an enforcement authority, there is a consistent and unbiased application of the law for all stakeholders. An enforcement authority would assist in resolving one of Colorado's more contentious stakeholder issues, that being the definition and application of what is “reasonable.”

The use of the word “reasonable” in Colorado's Underground Damage Prevention Law, while well intentioned to allow latitude in determining if a stakeholder’s actions were appropriate without being over restrictive, creates friction among the stakeholders who seek to settle their disputes outside of the court or arbitration system.

Given Colorado's top quartile results, stakeholders agree there is room for improvement in several areas associated with the current Colorado law. If Colorado can identify and implement an active State Enforcement Authority for its Damage Prevention Law, the current increasing trend in reported damages may be reversed, fairness and accountability for all stakeholders can be provided, and the expensive threat to Colorado stakeholders from PHMSAs's steep Federal regulatory penalties will be removed.
Study Overview

Note: many parts of this Overview are hyperlinked to additional information, this is indicated by blue text.

Background

In the first quarter of 2015, key Damage Prevention stakeholders comprised of excavators, facility owners, regulators and One-Call, met to discuss key issues related to the current Underground Damage Prevention Law formally known as Colorado Revised Statue (CRS) § 9-1.5-(101-107). Subsequently, the stakeholder group came together, formed the Colorado Legislative Task Force (CLTF) and chartered this study.

This report highlights Colorado’s current efforts as they compare to other States’ damage prevention enforcement and compliance practices which protect public safety and reduce damages. Improving public safety and reducing excavation related damages is of primary importance to Underground Damage Prevention Stakeholders as well as government agencies at the state and Federal level.

In the summer of 2015 Congress authorized the Pipeline and Hazardous Materials Safety Administration (PHMSA) to use its enforcement authority at the state level when pipelines in their jurisdiction were damaged during excavation activities. This Federal enforcement authorization applies to states that do not have an effective enforcement authority designated in their underground damage prevention law. Colorado, along with Alaska, Mississippi, Montana, and West Virginia currently do not meet PHMSA’s newly established enforcement guidelines.

In December of 2015, PHMSA officially determined that Colorado does not meet the Federal criteria for effective enforcement. Colorado stakeholders are now subject to Federal regulatory penalties if they should cause damages to a pipeline under PHMSA’s jurisdiction. These fines are significant; $200,000 per day and a maximum of $2 million per occurrence.

(Please refer to page 13, the PHMSA evaluation guidelines for determining compliance and the ruling in its entirety 49 CFR Parts 196 and 198, Pipeline Safety: Pipeline Damage Prevention Programs; Final Rule.)

Colorado’s Damage Prevention stakeholders have an enviable record for public safety and damage prevention. In light of these new PHMSA guidelines, coupled with its intent of furthering the Colorado Damage Prevention community’s strong performance, the CLTF directed an objective analysis to more fully understand which statutes improve public safety and reduce damages.

Creation of a State-wide Enforcement Authority – Why now? Risk Remains

Despite the Underground Damage Prevention Industry’s nationwide efforts, damages and injuries still occur. Nationally, in 2014, 61 significant gas facility damage incidents were evaluated by PHMSA; these included one death, 15 injuries and over $21 million in damages.

Colorado, is not immune from this nationwide trend. In 2014, Colorado had two reported injuries resulting from underground digging activity. 2014 CO811 Damage Report (v1a), Foresight Advantage.

In 2015, a 6” Williams’ gas line near Lucerne, Colorado caught fire at the same time as an excavator subcontracted to work for pipeline company “X” was excavating in close proximity. The investigation of this incident is on-going, and no cause has been established at this point. The intensity of the fire resulted in homes and businesses being evacuated in a 3-mile radius; fortunately, there were no injuries or deaths.

The Study’s Objectives

This study evaluates the impact on Public Safety (deaths, injuries and cost of damages) as measured by the industry-accepted Damages per Thousand Notification Requests (DpK) measurement relative to 15 other states,
referred to as the Study States (see map). Additionally, the evaluation of Colorado stakeholder opinions and ideas on current 'habits and attitudes' relative to the study topics provides additional context to the data analysis.

Each study topic has its own unique section which provides additional detail beyond what is summarized here in this overview. The study topics are:

1. Compare Colorado's Public Safety and Facility Damages per Thousand Notification Requests to other states that have an enforcement authority defined within their Underground Damage Prevention Law

2. Examine whether other states, with an enforcement authority, hold Facility Owners accountable for:
   a. Failing to provide a locate in the required time frame
   b. Failing to provide general locate information for Architects and Engineers during the design phase of a project

3. Examine whether other states, with an enforcement authority, hold excavators accountable when a Notification Request is made and subsequent damage occurs

4. Examine whether other states require facility owners and operators to report facility damages to the One Call Center, and whether an enforcement authority holds Facility Owners and Operators accountable for not reporting

5. Examine what other states have multi-tiered One Call Membership structures and report on:
   a. What is the impact on public safety in those states?
   b. What is the impact on excavators?
   c. What is the potential impact on Colorado's current Tier Two members if a single Tier membership system is adopted?

See Next Page This Space Intentionally Blank
The 15 Study States

These 15 states (shown in green) were chosen based on three criteria; they either have a very good reputation for safety, have recently changed their laws or are a Colorado neighboring state. The four states shown in red are the non-enforcement states. Alaska, not shown, is also a non-enforcement state.

Study States are in - GREEN
Non-Enforcement States - RED

The Study’s Methods

While analyzing the study topics, several comparisons between Colorado and other states were made. The study uses the following methods to determine which statutes, when enforced, have a positive impact on public safety and damage reduction.

- Interviews with Colorado Stakeholders and Damage Prevention Professionals in the Study States
- Review and comparison of Colorado’s statutes versus the Study States
- The use of Damage Records and Notification Requests from the PHMSA Gas Distribution Pipeline Damages
- The use of the Damages per Thousand Notification Requests (DpK) and the creation of several other measurements to determine the effectiveness of the statues in reducing damages over a 5-Year period (2010 to 2014)
- The percentage change in DpK from 2010 to 2014 is used for illustration purposes

More detailed and advanced calculations are included in the Data Section page 89 and each sub-section; these calculations provide an in-depth picture of how a certain aspect of the law affects notification requests and damages and how fast these are changing

PHMSA Database

The PHMSA database, being well regarded in the Underground Damage Prevention Community for its
consistency, is the data source for state-to-state comparisons. The database is specific to Excavation Damages to Gas Distribution Pipelines and contains the damages resulting from excavation activity and the total notification requests by state over a 5-year period. The results of this study are based exclusively on this database unless otherwise noted.

In addition to these databases, over 900 stakeholders’ opinions and ideas were gathered for analysis via online and phone surveys, face-to-face meetings and through a series of six forums conducted in various locations across Colorado. Details are in the Survey and Stakeholder Data & Comments Sections.

Study Results

Nationally

Compared to the National average of actual damages and the National DpK measurement, Colorado ranks:

- 12th in the nation for the lowest DpK for the 5-year period from 2010 through 2014.
- 9th out of 26 states with lower risk factors, in terms of DpK. [These risk factors are: fewer miles of gas distribution pipeline (fewer miles equates to a lower potential for damages), and Population Density (higher density equates to a lower potential for damages; these states build up in multi-story/high-rise buildings, so one foundation excavation may house several hundred people whereas in the lower density states one hundred foundations might need to be excavated to accommodate the same number of people).] These risk factors do directly correlate with gas distribution pipeline damages. (See the DATA Section for additional details)

Study Highlights

Study Topic Notes:

In the following sections, states were Grouped into one of two categories:

- 1. Like Colorado (the state has a similar statue in the law and with enforcement)
- 2. Not like Colorado (The state does not have a similar statute)

These groups were then evaluated to determine the change in DpK from 2010 to 2014. These changes in DpK are presented for the purpose of comparing the effects of having and enforcing this statute or not having it. (All Study States have an enforcement mechanism in place)

When the group's change in DpK is better than Colorado's 18% decrease in DpK from 2010 to 2014, this indicates a potential area for Colorado to improve. Stakeholder preference is also indicated when survey and interview data is available to support that conclusion.

NOTE: An improvement in Damage Prevention is indicated when the DpK number goes down. A positive percentage indicates a growing DpK number, meaning damage prevention efforts are not achieving their intended result; a negative or decreasing DpK number means damage prevention efforts are working. For a more in-depth discussion page 91

General Study interpretation notes:

The three symbols below are used to assist the reader in understanding the data analysis results; in general terms green is good, red is not good, and yellow highlights that observation is warranted.

▲ This symbol means that this is the best change in DpK (DpK went down)

● This symbol means that DpK went up

▼ This symbol has dual meanings: it can mean that DpK moved down but not as much as the other
Study Topic 1: Compare Colorado’s Public Safety and Facility Damages per Thousand Notification Requests to other states that have an enforcement authority defined within their Underground Damage Prevention Law

Nationally there are two common methods states use to provide enforcement, either an Advisory Board System or the Public Utilities Commission. All of the Study States use a complaint-based enforcement system through which any stakeholder can report any other stakeholder’s alleged violation of the law, thus providing all stakeholders the opportunity to equally participate in the enforcement process. Of note:

▲ The states with the lowest DpK have an Advisory Board System; these states decreased damages by 24.7% over the 5-Year period

♦ States with a PUC system saw an increase in DpK of 2.3% over the same 5-Year period

▼ Colorado stakeholder preference is for the Advisory Board System

Colorado currently has neither an Advisory Board system or PUC system, yet its stakeholders have learned to manage their damage disputes amongst themselves. This system works reasonably well when damages occur; the excavator and the facility owner/operator negotiate the costs of the damages and what, if any, penalties as defined under the law should be applied and are paid to the aggrieved party.

In instances where there are no damages to the underground facility and the excavator believes they have been unreasonably delayed by waiting for a facility to be located, there is no quid pro quo with the facility owner/operators.

Two questions were posed to the stakeholders in the on-line and phone surveys; their opinions follow: Refer to the Enforcement Section Survey sub-Section for complete details

- Should Colorado establish an Enforcement Authority?

▲ The simple majority of stakeholders want an enforcement authority.

- What type of enforcement authority would they prefer: Advisory Board, PUC System or the Attorney General?

▲ In the forums and interviews, the Advisory Board was the clear choice. Data collected via the on-line and phone surveys shows the preference for an Advisory Board by a 3 to 1 margin over the PUC model and 14 to 1 margin over the Attorney General.

The laws in the Study States have numerous points of compliance as well as processes that allow for enforcement of all compliance points. These processes clearly state:

- All points of the law are enforceable
- Via the complaint process, any alleged violation of the law may be investigated and penalties levied, as appropriate
- Penalties are selected from an incremental scale based on the severity of law violation and other mitigating factors

Designated enforcement authorities exercise the power to determine what is “reasonable.” In Colorado, most grievances are settled outside of court and the issue of “reasonableness” is rarely resolved. This is a challenging issue since both the excavator and the facility owner are required to be “reasonable” in performing their legal duties. However, with no clear standard of what is “reasonable”, disagreements are all too often the norm and lose/lose outcomes frustrate stakeholders. This is one of the reasons why many Colorado stakeholders would welcome an enforcement authority.
Study Topic 2a: The Law does not define compliance and enforcement for: Facility owners who fail to provide a locate in the required time frame

Providing accurate locates in a timely manner underlie effective underground damage prevention efforts. Currently in Colorado, excavators indicate there is no accountability on the facility owner to complete locates on time. page 34

The Colorado law states that immediately after a Second Notice Request is made, the excavator may start excavating using reasonable care. Stakeholders in the forums felt that 3-hours is a reasonable time to give a facility owner to respond. Citing safety reasons, many excavators will not start excavating until all facilities are located, even if it means days of delay.

There is a significant economic impact on excavators from delayed locates, and excavators indicate that a change in the law would make for a more equitable arrangement. The Colorado Contractors Association reports that Excavators, as a stakeholder group, face yearly economic losses due to Second Notices being required of $250 million per year on average. See the CCA Addendum for more details. Of note:

▲ States that Penalize the Facility Owner for not locating on time decreased their DpK by 17% over the last 5-Years (this group of states have a statute similar to Colorado)

▲ States that Do NOT penalize the Facility Owner for failing to provide the locate on time have decreased DpK 29% over the last 5-Years

▼ Stakeholder Preference is FOR an Enforcement Clause in the law

Across the board, Colorado stakeholders overwhelmingly agree that all parties should perform per the law and be held accountable for not meeting their obligations.

Study Topic 2b: The Law does not define compliance & enforcement clauses for Facility Owners who fail to provide locate support for Architects & Engineers during the design phase of a project page 44

Nine out of 15 States do require and penalize facility owners for not supporting design phase efforts; these nine states and have the same 5-Year DpK average as Colorado. Colorado law has this provision, but has no enforceable penalty for failure to comply. The best performing states in terms of a low DpK have this provision in their law; these best performing states are also very clear about the expectations for both Designers and Facility Owners. Of Note:

▲ States that do Penalize the Facility Owner for not Supporting Planning Requests saw their DpK increase by 20% over the 5-Year period (this group of states have statutes similar to Colorado)

▲ States that Do NOT have the provision to Penalize the Facility Owner for failing to Support Planning Requests had a decrease in DpK of 9% over the 5-Year period

▼ Stakeholder Preference is to have this provision in the law or at least have more clarity on the expectations of the stakeholders

The majority of Colorado stakeholders agree that supporting planning requests is an important issue; all stakeholders desire to provide proper design and planning support. However, the law, in the opinion of these same stakeholders, does not clearly define the expectations of either party.

Note: It has been suggested that the Colorado Contractors Association measure the economic impact relative to this study point. No hypothetical case was developed for this point.
Study Topic 3: Examine whether other states hold excavators accountable when a Notification Request is made and subsequent damage occurs page 49

Nine of the Study States have laws similar to Colorado’s, which in summary has two parts; first, a proper notification request must be made and second, “reasonable” care must be used in the excavation process. If both of these conditions are met, then the excavator is NOT presumed liable for the damages, but may not be automatically relieved of liability. An investigation by the aggrieved parties, and/or the enforcement authority, is needed to establish fault/liability and subsequently determine appropriate damages and penalties, if any. The burden of proof is with the facility owner/operator. Please refer to the Excavator Liability Section for details page 49

Of Note:

▲ States where the Excavator is NOT liable for damages if a proper locate request has been submitted decreased their DpK 27% over the 5-Year period (these states have a law similar to Colorado law and also have an enforcement authority)

▲ States where the Excavator is liable for damages subsequent to a proper locate request being completed decreased their DpK 12% over the 5-Year period

▼ Stakeholder Preference is to have this provision in the law

Colorado stakeholders view whether an excavator is liable for damages subsequent to a proper locate request being completed as a contentious topic. Per the law, excavators and facility owners are to exercise “reasonable” care in carrying out their respective responsibilities. Both parties are presumed to be innocent if damage has occurred; they are also presumed to have acted in a “reasonable” manner until proven otherwise. With no definition for “reasonableness”, some stakeholders have taken liberties with this concept to the detriment of others.

Study Topic 4: Examine whether other states require Facility Owners and Operators to report facility damages to the One Call Center, and whether an enforcement authority holds Facility Owners and Operators accountable for not reporting page 57

Five of the 15 Study States have some type of mandatory damage reporting by the Facility Owner to a central authority; these states have enforcement clauses to ensure compliance with the law. Colorado does not have penalties associated with this clause as a tool to improve compliance. Of Note:

▲ States with Facility Owner Mandatory Reporting of Damages to the One Call Center decreased their DpK by 27% (these state have a statute similar to Colorado and also have an enforcement authority)

▲ States with NO Facility Owner Mandatory Reporting of Damages to the One Call Center decreased their DpK by 25%

▼ Colorado stakeholders believe that it is the responsibility of the Facility Owners/Operators to report damages and their associated causes

Mandatory reporting supports accurate, timely, actionable and consistent damage data, which enables proactive development of programs to address specific stakeholder damage prevention needs (requesting locates, reducing mis-locates and practicing better excavation techniques). These measures can save both time and money for all of the Damage Prevention Industry stakeholders and increases public safety.

Currently 3.9% of all Facility Owners, which represent 75% of all notification requests, report damages, with Tier 2 Members having the lowest volume of reported damages.
Study Topic 5: Multi-Tiered Membership Systems

To ensure a thorough review of membership systems, all 50 States plus the District of Columbia were evaluated. Nationally, 36 states have single tier membership systems, seven states (including Colorado) have multi-tiered membership systems. Six states have specific exemptions that were not evaluated and two states have voluntary membership requirements.

The nationwide data shows Single Tier States have the potential to reduce damages to all facility types at a faster rate than the Multi-Tier States. This trend holds true when the larger data set is used and a comparison of the 36 Single-Tier States to the 7 Multi-Tier States is done. When the comparison is strictly based on the Study States, Single-Tier States have a statistically significant better reduction in DpK than do the Multi-Tier States.

There may appear to be a conflict in the data regarding which membership system is best. The conflict results from comparing the 5-Year Average DpK, which Single Tier systems have the best record and the change in DpK over the 5-Year period in which case the Multi-Tier system has the better record. This can be explained by the fact that the Multi-Tier states have a much higher Average DpK and therefore any improvement appears to be significantly larger than for the Single-Tier system. In effect would you rather have 10% of a $100 or 10% of $10. Of Note:

- **States with a Multi-Tier Membership system and with a statute similar to Colorado have decreased their DpK by 23%; for the Study Group and Nationally by 25%**
- **States with a Multi-Tier Membership system and with a statute similar to Colorado have an average DpK of 3.28 for the Study Group and Nationally a DpK of 3.32**
- **States with a Single Tier Membership system have decreased their DpK by 13%, for the Study Group and Nationally by 17%**
- **States with a Single Tier Membership system have a DpK of 2.79%, for the Study Group and Nationally a DpK of 3.32**

- The Stakeholder preference is for a Single-Tier system; this would create a true One-Call system

While Colorado has a lower 5-Year Average DpK than either groups’ average, the study indicates there are risks associated with Colorado’s current Multi-Tier system.

The study affirmed that Colorado facility owners are at risk for incurring additional damages due to the large number of incomplete locates resulting from Tier 2 members not being contacted by excavators. Tier 2 members only receive approximately 25% of the total referrals that are provided (per the Colorado 811 database and Tier 2 members); nearly 700,000 locate requests in 2014 were not completed. There is an increased risk for damages with every un-located facility.

The incremental cost to the current Tier 2 members would vary if a Single Tier system were adopted. For example, of the total 565 Tier 2 members, 52% of the members would pay $150 or less annually; on the high end, one (largest) Tier 2 member would have costs closer to $170,000 per year.

CCA excavators report that the costs to complete all the Tier 2 referrals per year exceeds $4.1 million per year.

The adoption of a Single Tier system would generate an increase in locate costs for the current Tier 2 members due to the cost associated with servicing the 75% of notification requests that are currently not being received. Tier 2 members are only contacted 25% of the time that they are referred by the Colorado One Call Center (UNCC). If the Tier 2 members were to receive every notification request (as the system is designed to function), their notification volume would be approximately 4 times greater. While some of these notifications may be cleared, the others will need to be properly located. While there is a monetary cost associated with performing these locates, a properly functioning system supports Public Safety and Damage Prevention efforts. Please refer to the Section on Multi-Tiered Membership Systems for details.
<table>
<thead>
<tr>
<th>State</th>
<th>Year Enforcement</th>
<th>5 Year Avg DPK</th>
<th>Rate of Change of Damages 5-Year Period</th>
<th>Type of Enforcement</th>
<th>If Facility Owners Fail to Locate</th>
<th>Facility Owners Fail to meet Planning Requests</th>
<th>Must Facility Owner report damages to the State One Call Center or Other</th>
<th>Excavator Accountability if following all procedures</th>
<th>Tiers STS/MTS</th>
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Quick Law and DpK Reference Guide
OVERNIGHT EXPRESS MAIL

Mr. Joshua Epel  
Chairman  
Colorado Public Utilities Commission  
1560 Broadway, Suite 250  
Denver, Colorado 80202

Dear Mr. Epel:

On July 23, 2015, the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (PHMSA) published its Pipeline Damage Prevention Program Final Rule (49 FR 43835–43869) that may likely impact Colorado. The rule includes new criteria and procedures to determine the adequacy of State damage prevention enforcement programs. Administrative procedures for States to contest a notice of inadequacy, the Federal requirements for PHMSA will enforce against excavators for violations in States with inadequate damage prevention laws and programs, and the adjudication process for administrative enforcement proceedings against excavators where Federal authority is exercised. These new rules become effective on January 1, 2016. Please refer to the included guidance brief for background on this new regulation.

Excavation damage continues to be a leading cause of hazardous liquid and natural gas pipeline incidents resulting in death, serious injury, and environmental damage. Damaging a pipeline during an excavation poses a serious safety risk to excavators, the general public living and working in proximity to the excavation site, and the environment. Nationwide statistics show that effective enforcement of State’s one-call laws reduces excavation damage and pipeline incidents, and results in increased safety.

In early 2016, PHMSA will initiate State evaluations to determine if State damage prevention one-call laws allow for adequate enforcement. As of the date of this letter, the Colorado one-call law, Title 9, Article 1.5 Excavation Requirements, does not include an enforcement mechanism.

PHMSA will evaluate Colorado’s damage prevention enforcement program. It appears that the lack of an enforcement mechanism in Colorado’s one-call law will weigh heavily towards finding the enforcement program inadequate. We would like to meet with you in early 2016 (prior to a formal finding) to conduct an evaluation and understand if there are potential changes to the Colorado one-call law or other factors that may impact the determination of inadequacy for your State.
An inadequate determination means that PHMSA may use Federal excavation standards to take enforcement action against an excavator who damages a hazardous liquid or natural gas pipeline in Colorado. Federal civil penalty levels are $200,000 for each violation for each day the violation continues with a maximum civil penalty of $2,000,000 for any related series of violations. Additionally, States that fail to establish an adequate one-call law enforcement program, within five years from the date of the final PHMSA determination notice, may be subject to a 4 percent reduction in PHMSA State Base Grant funding. These grants currently fund the pipeline safety program with the Colorado Public Utilities Commission.

PHMSA strongly believes that effective damage prevention programs, including enforcement, are best addressed at the State level. We very much appreciate the efforts to address damage prevention in your State, as well as many of the existing and strong damage prevention programs in Colorado. PHMSA representatives have also met with interested parties in Colorado and will continue to reach out periodically to offer support.

PHMSA stands ready to assist Colorado in developing effective State one-call law enforcement. We offer resources including subject matter experts; grant funding; letters of support; coordination with State and national pipeline safety, damage prevention, and excavator stakeholders who are willing to share experiences and lessons learned from other States; safety workshops; and, presentations to Colorado stakeholders to foster success in improving their damage prevention programs. If we can be of any further assistance, please contact our Damage Prevention Team by email at excavation.enforcement@idot.gov or by phone at (804) 556-4678.

Sincerely,

[Signature]
Alan K. Mayberry
Deputy Associate Administrator
for Policy and Programs

cc: The Honorable John Hickenlooper, Office of the Governor, State of Colorado
    Joseph Molloy, Chief, Gas Pipeline Safety, Colorado Public Utilities Commission
    J.D. Maniscalco, Executive Director, Colorado 811
United States Department of Transportation (USDOT)
Pipeline and Hazardous Materials Safety Administration (PHMSA)
Pipeline Safety: Pipeline Damage Prevention Programs
49 CFR 196 – Protection of Underground Pipelines from Excavation Activity
49 CFR 198 – Regulations for Grants to Aid State Pipeline Safety Programs
Effective January 1, 2016

Background

49 USC § 50114 provides the United States Department of Transportation with back stop authority to conduct administrative civil enforcement proceedings against excavators who damage hazardous liquid and natural gas pipelines in a State that has failed to adequately enforce its excavation damage prevention or one-call laws.

PHMSA published a Final Rule on July 23, 2015, that establishes:

1. Criteria and procedures for determining the adequacy of state pipeline excavation damage prevention law enforcement programs
2. An administrative process for making adequacy determinations
3. Federal requirements PHMSA will enforce in States with inadequate excavation damage prevention law enforcement programs
4. The adjudication process for administrative enforcement proceedings against excavators where Federal authority is exercised

Criteria to be used to Evaluate State Damage Prevention Programs

1. Does the State have enforcement authority including civil penalties?
2. Is there a designated enforcement body?
3. Is the State using its authority and making enforcement records available to the public?
4. Does the State have a reliable means of learning about damages?
5. Does the State have damage investigation practices that are adequate to determine the at-fault party when damage occurs?
6. At a minimum, does State law require:
   a. Excavators must call 811 before digging
   b. Excavators must “respect the marks”
   c. If damage to a pipeline occurs:
      i. Excavator must report damage to operator at earliest practical moment
      ii. If release occurs, excavator must call 911
7. Are exemptions from the DP law limited? Written justification of exemptions is required.
Administrative Process for States to Contest Notices of Inadequacy

1. PHMSA issues a notice of inadequacy to the State in accordance with 49 CFR 190.5
2. State will have 30 days to submit written response
3. PHMSA issues final decision
4. State may petition PHMSA to reconsider at any time following a finding of inadequacy; PHMSA will respond not later than the date of the next annual review
5. States that fail to establish an adequate enforcement program within five years of effective date of final rule may be subject to 4 percent reduction in base grant funding

Federal Standard for Excavators

1. Call 811 before excavating
2. Wait for pipeline operators to establish and mark the location of underground pipelines before excavating
3. Excavate with proper regard for the marks, take all practicable steps to prevent excavation damage
4. Make additional use of one-call as necessary
5. Any contact with pipelines must be reported to operator at earliest practical moment
6. If there is a release, excavator must call 911

There are no exemptions in the new regulation for calling 811 prior to excavation. PHMSA understands many States have one-call law exemptions and will be considerate of those exemptions when undertaking Federal enforcement action.

For More Information


Contact Our Damage Prevention Team

Our team of damage prevention professionals, Sam Hall, Annmarie Robertson, and Steve Fischer, are available to answer questions pertaining to this final rule, State one call laws, and damage prevention. They may be reached at excavation.enforcement@dot.gov.
Topic 1: Compare Colorado’s Public Safety & DpK to states with an enforcement authority

Areas of Investigation:

The Law does not define and identify a state enforcement authority. The Law defines the District Court Civil system as the venue where an “aggrieved party” can take “action to recover the civil penalty” [104.5(3)(a)].

Comparison:

How does Colorado compare in terms of Public Safety and Facility Damages per 1,000 Notifications Requests to other states which have a state enforcement authority defined within their One Call Law?

Definition specific to this section

Enforcement - As used in this instance refers to an authority that has exclusive jurisdiction to enforce the applicable state laws and codes.

Note: The data sets used are small even though they represent the entire population. Relying too heavily on data from small data sets can lead to the erroneous conclusions.

To provide a more meaningful comparison of the effects of enforcement on the DpK rate, the other 4 states without an enforcement authority (Alaska, Montana, Mississippi, and West Virginia) are included for reference purposes.

Findings on ENFORCEMENT OF THE COLORADO ONE CALL LAW

Details on each of these findings follows in the next section.

Public Safety – Colorado has good performance

Public Safety is fully addressed in a separate section of this report. States with enforcement, over a 5-year period, are at a 2.97 DpK rate while for the same time period those states without enforcement have a 3.73 DpK rate. Colorado, without an enforcement authority, has a 2.49 DpK rate for this same time period. Refer to the section on Public Safety for more details.

It is beyond the scope of this study to explain why Colorado’s DpK is at such a low level relative to states with enforcement authorities. In the next sub-section Background and Additional material there is a listing of possible, but not exhaustive, factors that may have a positive effect on lowering the damage rates in a state.

No PHMSA Approved Enforcement Authority

Colorado law does not have an enforcement authority approved by PHMSA. Therefore, PHMSA now has the authority to fine excavators in the state of Colorado who damage federally regulated pipelines. The PHMSA fine levels are significant, starting at $200,000 per day up to a maximum of $2 million per incident.

Strong Stakeholder Support for Enforcement

Of the participating stakeholders (over 200 in-person interviews and forums), all except one thought that having an enforcement authority in Colorado would be positive. The reason most often cited is that it “would level the playing field.” All on-line stakeholder surveys indicated the desire for an enforcement system.

Statistically Significant Difference

There is a strong statistical probability that enforcement is a factor in the differences in DpK in the states with an enforcement authority and those without one. See the DATA section for details.
States with an Enforcement Authority have lower DPK on average than those without.

Using all 50 states plus the District of Columbia, the states WITH enforcement have a 5-year average DPK rate of 3.4 as opposed to those WITHOUT, shown in YELLOW that are at 3.73 DPK. The range of the graph is limited to 7.0 DPK; Alaska, Alabama, Arkansas and Hawaii have 5-year average DPKs >7.0. States shown in the graph below in RED are states that have Multi-Tiered Membership Structures.
The study states are performing well relative to all other states and form the basis for a good benchmark for comparison to Colorado.

An analysis of the 15 Study States plus the other 4 states without enforcement is shown. These 5 states in **YELLOW** at the time of this report do not have PHMSA approved enforcement authorities. The study states have on average 0.73 DpK fewer damages than the states without an approved enforcement authority and have 0.40 fewer damages than the other states; refer to the previous graph.

While the most widely-used method for enforcement is the Advisory Board, the method with the lowest DpK rate is the PUC method. Both systems were legislated in different states at approximately the same time. Since 2007 the Advisory Board growth has exceeded that of the PUC system by 7 to 3. In 2016, Ohio legislated the use of the Advisory Board as its enforcement model of choice.

There are two typical types of enforcement mechanisms used by the study states. One model is with the equivalent of the Colorado Public Utilities Commission providing enforcement and the other is a combination of a Stakeholder Advisory Board and the PUC or the Attorney General providing the enforcement authority. In two instances these Advisory Boards are empowered to issue fines and penalties.

These two systems are detailed more fully in the following section.
Background Additional Material

PHMSA Letter and Background
See Portfolio Index

Colorado Enforcement is between aggrieved parties

Colorado law requires that a damage occurs before any action can be taken by one party against another party. The aggrieved party may bring suit before the other party, and if successful, collects the penalties established in the current Colorado law. By requiring damages to have occurred, failure to comply with other parts of the law is currently unenforceable; for example, failing to support planning requests, through the legally defined process, is currently unenforceable. In the view of many participating stakeholders, this lack enforceability makes the current system unfair. Click here to see the entire Colorado Law; the applicable sections of the law are included at the end of this section.

In all of the states studied, an enforcement action can be initiated by any person that believes any stakeholder has violated any portion of the law. The process in other states starts with a complaint being filed with the proper agency. These systems are covered in detail later in this section.

In all states studied, any fines or penalties collected go to a state agency defined fund or school district; currently in Colorado those fines or penalties awarded go to the successful party in the court case. This has caused these cases to be settled out of court to avoid the time and costs of litigating in the courtroom.

Colorado has three available ways that damages are settled between parties; 1) through the court system, 2) through the UNCC Arbitration process, and 3) directly between the injured parties.

The Court System

The court system is used infrequently in Colorado to settle damage disputes. There are some excavators that have been able to mount an affirmative defense and have even brought suit against facility owners to collect for damages. These suits are the result of damage to an underground facility. These excavators are the minority and do not represent the general excavator community.
Direct Negotiation

Most of the time when a facility is damaged, the excavator and the facility owner discuss the incident and determine what the restitution will be. There are two principal reasons this is the default process; the aggrieved party collects the penalty if the case goes to court and they win, and the avoidance of court costs for both parties. This process allows the aggrieved party to ensure accountability, but only after a damage has occurred.

Arbitration Process

According to the UNCC, the arbitration process defined in the law has never been used. The reason excavators cite for not using this process is that it is not binding on either party.

Unintended Consequences

One of the unintended consequences of the current law is that excavators have no legal recourse against Facility Owners who fail to locate their facilities in the time required by law. For this reason, excavators strongly support the addition of an enforcement authority. Excavators believe, although not formally documented, that they are losing money waiting for Facility Owners to locate their underground facilities. This is money they currently are unable to collect as no damage to the underground facility has occurred.

For further information in this please refer to the section Compliance and Enforcement for Facility Owners, page 34

The Two Main Types of Enforcement Systems

The two types of Enforcement Systems are referred to as PUC based (6 study states use this system), or Advisory Board based (9 study states use this system).

For simplicity, the PUC refers to the state agency/department assigned with regulatory oversight and authority; for example, in Texas it is the Rail Road Commission, in Nebraska it is the Chief Fire Marshall, and in Kansas it is the Kansas Corporation Commission, office of Pipeline Safety.

The Advisory Board also goes by other synonyms such as Technical Review Committee and Technical Advisory Committee; all serve the same essential function.

The two systems share the following traits:

- They are complaint driven; any person can file a complaint for claiming a violation of that state's underground dig laws.
- There is an identified agent/agency who investigates the complaint to ensure it is valid.
- In both systems the penalties range from warning letters to fines, or any combination thereof.
- In both systems the judicial system becomes the final arbiter if an alleged violator disagrees with the outcome of the process.

In the PUC system, once the investigation is completed by the assigned agent/agency and a basis for the complaint is found, the alleged violator meets with the appointed PUC representative; it could be the Administrative Law Judge (ALJ), similar to a City Attorney, that adjudicates the process. If the ALJ finds the alleged violator guilty, they will refer to a menu of penalties that range from warning letters, to training, to monetary fines or any combination thereof. The violator at that point can accept the judgement or appeal through the legal system.

With the Advisory Board system, once the investigation is completed by the assigned agent/agency and a basis for the complaint is found, the alleged violator can agree to accept the assessed penalty or, along with any other named parties, may opt to meet with the Advisory Board. Representatives from each stakeholder groups
comprise the Advisory Board membership; it is in essence a peer review board. The Advisory Board then hears from the alleged violator(s), considers the presented information and forms a judgement. If the Advisory Board finds them innocent, that effectively concludes the matter. If the Advisory Board finds them in violation of the law, they will use a menu of penalties that range from warning letters, to training, to monetary fines or any combination thereof. The violator at that point can accept the judgement or appeal through the legal system. In some states the Advisory Board is empowered to issue the judgement directly in other states the judgement is referred to either the PUC or the Attorney General who can accept the recommendation or not, and issue the judgement.

The following two diagrams show an overview of the two processes. For simplicity the two systems have been labeled PUC Model and Advisory Board Model. In the LAW section there is a more detailed breakdown of the Ohio Advisory Board process which was recently updated in 2016.
Effect of Enforcement on Damages
All of the 15 Study States have enforcement and in aggregate show a lower DpK than other states with enforcement. This is significant in that the study states represent a “best in class” sample. In comparison to the study states Colorado, without an enforcement authority, has a lower 5-year average DpK rate than many of the study states at a rate of 2.49 DpK.

Expanding the data set out to all 50 states, the results are similar; the states with an enforcement authority have lower 5-year average DpK rate than those without (3.40 DpK as compared to 3.73 DpK). States in Yellow are the states with no current enforcement authority.

Comparing study states against each other based on the type of enforcement system

Looking at the 5-year trend for DpK for the 2 types of enforcement systems and No Enforcement system, we can see that the Advisory Board is decreasing the annual DpK rate at a faster rate than the PUC system. The No Enforcement states are shown with and without Colorado. Colorado is performing on average as well or better than most states with enforcement; this is unique in the non-enforcement states.
Actual Damage Rate of Change

Several of the study states’ One-Call centers that were interviewed suggested that measuring the rate of change of actual damages might provide a more equitable way to compare one state to another. The rationale behind this is based on the fact that the definition of a ticket varies from state to state and can skew the DpK ratio. Decreasing damages is the goal of damage prevention programs and since that can be measured directly, and most states have a similar definition, measuring the rate of change would provide an alternative indicator from state to state.

Tickets and Damages can do one of three things; the volume can go up, go down or stay the same. Some relationships of these two values are better than others.

This is a simple and straightforward calculation and can be a good comparison between states if using the same method to count damages. For this report, we have standardized data via the PHMSA Gas Distribution Damage database.
The following tables include the data used for the previous graph 5-Year DpK Trend by Enforcement Type and adds several new elements:

- The actual damages per year
- The actual tickets per year
- A rate of change calculation for both damages and tickets
- The type enforcement authority
- The date of inception of enforcement in the law
type of membership structure

Notes on the data tables: STS/MTS, STS is the abbreviation used in this report for the Single Tier Membership Structure, and MTS stands for Multi-Tier Membership System which is the type that Colorado currently uses. Please see the section on Multi-Tier Membership Structure for details.

**Decreasing of actual Damages** is always seen as a positive indication especially so when accompanied by increasing ticket volume.

**Increasing Ticket volume** is generally seen as a positive indication; it can indicate more participation in the One-Call system and it can also indicate an increase in construction and related fields. The reason for the increase in tickets must be ascertained to make an accurate judgement.

**Note:** The Group Average does not match the simple average of the states’ individual numbers, it is incorrect mathematically to take an average of an average. These averages are calculated based on the actual damages and tickets volumes for this category. The data can be found in the DATA Section for your own calculations.

**PUC as the Enforcement Authority**

In the charts below, 2.42 DpK is the lowest average of the two systems represented by the Study States. Based on 5 years of data, Actual Damages are decreasing on an annual basis by -0.13%.

Tickets are increasing at the rate of 3.78% per year which is slower than the Advisory Board system and those states with no enforcement authority. No rationale was found for this trend.

<table>
<thead>
<tr>
<th>State</th>
<th>STS/MTS</th>
<th>Type of Enforcement</th>
<th>Year Law had Enforcement</th>
<th>5 Year Avg DpK</th>
<th>% Change in actual damages over 5-years</th>
<th>% Change in Ticket Volume over 5-years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>MTS</td>
<td>PUC</td>
<td>2010</td>
<td>1.67</td>
<td>-0.77%</td>
<td>-0.91%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>STS</td>
<td>PUC</td>
<td>2005</td>
<td>2.31</td>
<td>2.41%</td>
<td>3.25%</td>
</tr>
<tr>
<td>Kansas</td>
<td>MTS</td>
<td>PUC</td>
<td>1993</td>
<td>2.58</td>
<td>-7.35%</td>
<td>9.43%</td>
</tr>
<tr>
<td>Nebraska</td>
<td>STS</td>
<td>PUC</td>
<td>2014</td>
<td>2.59</td>
<td>2.13%</td>
<td>6.16%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>STS</td>
<td>PUC</td>
<td>2014</td>
<td>2.67</td>
<td>3.13%</td>
<td>4.15%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>STS</td>
<td>PUC</td>
<td>2006</td>
<td>3.73</td>
<td>-0.09%</td>
<td>-0.75%</td>
</tr>
<tr>
<td>Group Average</td>
<td></td>
<td></td>
<td></td>
<td>2.42</td>
<td>-0.13%</td>
<td>3.78%</td>
</tr>
</tbody>
</table>

**Advisory Board in partnership with the PUC or the Attorney General as the Enforcement Authority**

The Advisory Board system is the most common system for the STS states; its 3.21 DpK rate is higher than
the PUC as the enforcement authority. Actual Damages are increasing at a rate of 0.56% per year. Tickets are increasing at a rate of 6.05% per year, a rate faster than the PUC enforcement model. Tickets can increase for any number of reasons (faster growing economy and/or increased damage prevention training, etc.)

<table>
<thead>
<tr>
<th>State</th>
<th>STS/ MTS</th>
<th>Type of Enforcement</th>
<th>Year Law had Enforcement</th>
<th>5 Year Avg DpK</th>
<th>% Change in actual damages over 5-years</th>
<th>% Change in Ticket Volume over 5-years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia</td>
<td>STS</td>
<td>Advisory Board</td>
<td>1994</td>
<td>1.49</td>
<td>-2.75%</td>
<td>2.95%</td>
</tr>
<tr>
<td>Maryland</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2010</td>
<td>1.53</td>
<td>-2.81%</td>
<td>6.13%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2014</td>
<td>2.52</td>
<td>2.55%</td>
<td>4.38%</td>
</tr>
<tr>
<td>Indiana</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2009</td>
<td>3.13</td>
<td>-0.76%</td>
<td>5.36%</td>
</tr>
<tr>
<td>Ohio</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2016</td>
<td>3.80</td>
<td>-0.38%</td>
<td>4.03%</td>
</tr>
<tr>
<td>Utah</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2008</td>
<td>3.96</td>
<td>-0.70%</td>
<td>3.60%</td>
</tr>
<tr>
<td>Texas</td>
<td>MTS</td>
<td>Advisory Board</td>
<td>2011</td>
<td>4.02</td>
<td>1.84%</td>
<td>10.09%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2002</td>
<td>4.04</td>
<td>6.25%</td>
<td>4.15%</td>
</tr>
<tr>
<td>Washington</td>
<td>STS</td>
<td>Advisory Board</td>
<td>2013</td>
<td>5.29</td>
<td>0.11%</td>
<td>3.22%</td>
</tr>
<tr>
<td><strong>Group Average</strong></td>
<td></td>
<td></td>
<td></td>
<td>3.21</td>
<td>0.56%</td>
<td>6.05%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>STS/ MTS</th>
<th>Type of Enforcement</th>
<th>Year Law had Enforcement</th>
<th>5 Year Avg DpK</th>
<th>% Change in actual damages over 5-years</th>
<th>% Change in Ticket Volume over 5-years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>MTS</td>
<td>None</td>
<td>TBD</td>
<td>2.49</td>
<td>2.64%</td>
<td>6.70%</td>
</tr>
<tr>
<td>Montana</td>
<td>STS</td>
<td>None</td>
<td>TBD</td>
<td>3.48</td>
<td>-0.76%</td>
<td>0.60%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>Special</td>
<td>None</td>
<td>TBD</td>
<td>5.15</td>
<td>2.17%</td>
<td>11.62%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>STS</td>
<td>None</td>
<td>TBD</td>
<td>6.27</td>
<td>2.01%</td>
<td>4.30%</td>
</tr>
<tr>
<td>Alaska</td>
<td>STS</td>
<td>None</td>
<td>TBD</td>
<td>10.25</td>
<td>-4.68%</td>
<td>17.82%</td>
</tr>
<tr>
<td><strong>Group Average</strong></td>
<td></td>
<td></td>
<td></td>
<td>3.73</td>
<td>1.48%</td>
<td>38.50%</td>
</tr>
<tr>
<td><strong>Group Average WITHOUT Alaska</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alaska</td>
<td></td>
<td></td>
<td></td>
<td>3.52</td>
<td>2.04%</td>
<td>33.61%</td>
</tr>
</tbody>
</table>

The States in the study group that are STS show a preference for the Advisory Board System; whereas States with the PUC are a mix of the two systems. PHMSA reports that 16 States use the PUC as the Enforcement Authority and 9 States use the Advisory Board in coordination with the PUC or Attorney General. The study
would argue that 11 States use the Advisory Board system when defined a little more broadly.

**Changes in DpK over the 5-Year period based on start of enforcement**

The Study States were evaluated relative to the change in actual damages and sorted by the date their states law first required enforcement. The date of commencement may or may not coincide with the actual implementation of enforcement.

Two states show an increase in damages from 2010 to 2014. South Dakota changed what damages are to be reported and has made a push to collect all of the Gas Distribution Damages and other damages; this change in the data collection process can skew the data the first few years it is implemented. Likewise, New Mexico has undergone additional changes which have improved their data collection efforts and again skew the data in the short term. New Mexico now believes they are capturing more than 85% of all of the damages occurring in their state. Conversely, Arizona shows no real change over this 5 -year period displayed; however, if the intervening years are studied very real changes in the DpK rate exist, but are masked by showing the beginning and ending points of the data set. Complete state by state data is included in the DATA section.

The average change in actual damages for the 15 Study States shown above with enforcement is \( \text{-0.75 DpK} \); the average decrease for the non-enforcement states is \( \text{-0.95 DpK} \). The 2010 DpK level was higher for the states without enforcement so greater gains are more likely.

**Stakeholder Input**

Stakeholder input was collected in several ways; phone surveys, on-line surveys, interviews and forums. For complete information on Stakeholder input please refer to the Survey Section. page 97
There were two questions posed to the stakeholders:

- Should Colorado establish an Enforcement Authority?
- What type of enforcement authority would they prefer based on three choices?

**Should Colorado establish an Enforcement Authority – Consensus favors YES**

The results were unanimous, save one person, in the interviews and forums that Colorado should establish an Enforcement Authority. The results of the on-line survey are not so clear cut. The question posed on-line was:

*Current Colorado Law states that the Attorney General and the civil court system have jurisdiction of the Underground Dig Law. Enforcement at this point in time requires the aggrieved parties (those who have incurred damages) to turn to the legal system for relief. Typically, today the parties to the damage have used one on one negotiation and avoided arbitration as well. Colorado law also provides an arbitration process that can be used by the aggrieved parties. Should Colorado have a more user-friendly and equitable (all stakeholders are equal) enforcement system?*

44% of the respondents favor changing the enforcement authority.

43% of the respondents are not sure about changing.

**A possible explanation**

In the in-person versions there was dialog around the current system, the on-line version lacked that background information. There is also fear of the unknown so a person may be hesitant to take a yes/no position until they have more information.

**Comments from the Forums and On-Line survey**

**Survey Responses  Note: No editing of the comments has been done**

1. Would need more information on results of current system to evaluate.
2. CenturyLink needs to be held accountable for their lack of response, inaccurate locates, and billing for damages to the incorrect party. In our experience Century Link puts all blame on the locating company they hire and will not take action to insure lines are located properly. Excavators are held to obey the law yet Century Link does little or nothing to ensure locates are completed on time, accurately, or at all.
3. The current system allows for the affected parties to have an open dialog about the damage. This makes it more likely to have damages reported.
4. Leave the grievance system the way it is now.
5. Enforcement by COPUC - Gas Pipeline Safety Division

6. We had to spend $$$$$$$$$ and precious time filing suit against a utility which did not utilize 811 and damaged our facility.

7. Too much responsibility is placed on the utility owner. People need to be reminded that the two working day notice is a “minimum”. Excavators need to plan better and give more notice on large projects as not all utility owners have dozens of locators at their disposal. Some of us don’t even have a position designated for a full time locator.

8. Utility owners tend to assume and even use incorrect damage investigations to blame the excavator and also send damages to more collection agencies even after one collector has found that the locator was at fault.

9. Documentation of the actual locate by the locate company is poor and it makes it very difficult to place blame one way or another.

10. Seems to be a biased question in the way that it is worded.

11. Doesn’t seem to matter as it seems the contractor usually pays no matter what.

12. We’ve never had to use the court system. If there was a problem, we’ve always worked it out with the customer directly.

13. We have lost countless hours of production from no-shows by the locators. They need to be liable for this time.

14. If you want that then go to a single tier system and be done with it.

**Summarized comments from the Interviews and Forums**

Either Locator or Excavator is held responsible and liable by Facility Owner– Facility Owners are reluctant to take or accept responsibility for damages.

Locators assumes liability for the Facility Owner when they contract with them to provide the locating services. Attendees would prefer to have an enforcement system that “Trains stakeholders into Compliance”, and does not “Fine stakeholders into Compliance.”

Fines should be used for habitual or repeat offenders.

What type of enforcement authority do stakeholders prefer based on three choices?

Stakeholders were asked about their preferences for an enforcement authority, the choices were, the Attorney General (what Colorado Currently has), the PUC Model or the Advisory Board.

Stakeholders demonstrate a preference in both the on-line surveys and forums/interviews for the Advisory Board enforcement model.

**The choices presented are:**

- The Public Utilities Commission meets and reviews the case directly with the alleged violator and determines the penalty if applicable.
- The Attorney General meets and reviews the case directly with the alleged violator and determines the penalty if applicable.
- A combination of a stakeholder board made up of my peers who review the allegations and refer their suggestions for subsequent actions to either the Public Utilities Commission or the Attorney General.
The Advisory Model is the preferred model of those expressing a preference. Almost 3 times as many respondents prefer the Advisory Board Model. The survey did not provide a significant amount of background data which most likely accounts for the 40% with no opinion.

**Comments from the Forums**

**General Comments from the Forums and Interviews**

Who pays for this, regardless of the system chosen.

Want to have all viewpoints represented in any system.

There is a strong belief that this will drive accountability.

Colorado is currently reasonable in assigning fault and recovering true damages.

If the system becomes too complex it could increase costs and excavators fear that cost could be passed to them.

**PUC Model**

- This could be a non-biased decision, performed quickly
- Authority needs to have industry knowledge to offer fair judgment
- Fines should not be used to enrich state budget or this program
- Fines should be used for industry education
- This needs an appeal process if a complaint rejected by authority
- This was deemed fast and efficient
- Authority needs to have industry knowledge to offer fair judgment
- 1 person out of roughly 120 people voted for this method.

**Advisory Board Model**

- There should be a central database to track repeat offenders across the state by the Advisory Board
- Fines should go to support industry/stakeholder education, not state budget

**Comments from On-Line Survey**

The following are unedited comments from the on-line survey.

1. *There is no recourse for reciprocal damages to the planner/engineer/excavator if the locates are not done properly or at all. Utility owners should be accountable for lost time/equipment hours/re-design/field changes due to mis-locates or no locates in the planning stage or after.*
2. It is not strict enough for violators

3. There is no penalty for repeat offenders who dig without locates or those who repeatedly call emergency locates in non-emergency locate situations

4. I don't like that guilt must be proven by the contract to utility locator. I my opinion the utility owner should prove guilt to the contractor. I have to prove the innocence. That goes against the law of the land plus it takes forever for the utility owner to take responsibility even when you have proven them to be in the wrong. I hate the current system. There should never be a charge to the contractor to be a part of a system that is attempting to protect the owners property.

5. As a state employee with CDOT, digging contractors do try and get away with not following their permits or even carry permits when working on any state right of way.

6. Having a dedicated enforcement agency for the marking and damage of utilities seems to be a very practical approach, like Arizona has with the Corporation Commission. Colorado's current system doesn't really help if someone doesn't respond to a locate request, the excavator has little recourse other than a second notice which costs him production and money. In Arizona if someone doesn't respond to your request you can contact the corporation commission and they will fine the responsible party. The system needs to hold the locators/operators accountable for not marking, just as contractors are held accountable for damages, because when locators don't mark jobs it costs contractors money in waiting for them to do what was already requested of them.

7. I think that Utility owners and operators have a first right to protect their respective assets and by contracting locating companies to protect them with strict rules and state policies they have the right to have federal and state and local laws protect those rights that are defined in black and white. the law should be unbiased and weighed for what is morally and socially correct for the public safety regardless of whom is at fault. we are all doing what's responsible to protect our public, Environment, and infrastructure to keep promoting a safe way for one and all. So yes be more aggressive and uphold the law to protect these assets used for a day to day living.

8. All parties should be held accountable because I know customers who throw a bitch when they hear their project is on hold for a 48-hour locate. If they had some liability then I believe locates would happen and there would less likely hood of rushing contractors into situations where they are the only exposed party.

9. The law should impose penalties for facility owners who do not respond in the time frame already required by law and provide an easy way for excavators to notify the owners and regulators when response is late/incomplete/ignored.

10. My opinion is that if you do not join the one call system you are responsible for damages to your utilities. Tier two owners should be responsible for marking all underground utilities, just the same as tier one members.

11. I think that EVERY underground utility should be required belong to the one call system. As a homeowner, I should not need to call several different utilities before I dig.

12. If underground utilities were not installed to local code for proper depth, any damages due to excavation should be waived

13. It is IMPOSSIBLE for an excavator to be compensated for costs incurred when a utility is not located or mismarked. This needs to change as it is very easy for the utility to receive compensation.

14. Question 17: In indicating that each group needs its own law, I would have preferred an option that there is clarification and language in the law designating the uniqueness of each group and their responsibilities
15. I have been worried that I would be held liable for damaging a marked utility while hand digging in very hard soils. It may worth considering exemptions to being liable for ‘hardship’ cases like these. In all other cases, if a contractor damages a utility within the mark area, they should take responsibility for their actions.

16. The exemption of Rancher/Farmers doing Maintenance work on their property and not being required to call 811, follow any safe digging practices or responsible for damages is not only irresponsible by the state to allow this but is it going to cause someone to be killed. Hundreds of miles of underground pipeline goes through private property. These utilities are explosive or damage to them can cause health risks to entire communities. This issue needs to be changed, not just for the utility owner but for the lives of the property owner.

17. All the burdens are on the contractors. There are no consequences to the locators if they fail to perform the locates and there is a work stoppage as a result. We lost thousands last year in this scenario. The locate companies should be required to pay for a crew and equipment unable to work because the locates were not done. This industry is driven by tight schedules. We do not get a grace period if locates are not done as scheduled, meaning we must work overtime to make up for the lost time. This also results in higher insurance rates, which are based on payroll.

18. The web ticket entry system is severely flawed. Your mapping portion especially. Follow either Kansas or Nebraska’s (in that order) example of web ticket entries. As for 17. Requiring a home owner to be licensed and trained and pay a fee for a yearly registration to plant a tree, or install a fence, or any other normal landscaping/home maintenance is absurd. Requiring them to have a dig safe however is not.

19. The rancher or farmer excavation exemption is the most vague in the nation IMO.

20. Private Locators - Constantly Trespass into Utility owner facilities and damage these (Protective coatings) without an ability to tract due to marking based on private requests. Register private locators as well and mandate a requirement for their jobs to be reported.

21. In rural areas there are many irrigation pipelines that have no registered owner to contact for locates. There needs to be a way to make all underground utilities be registered or the owner faces a fine if an excavator damages the line.
Topic 2a: Facility owner accountability for failing to provide a locate in the required time frame

Study Points

The Law does not define compliance and enforcement clauses to hold facility owners and operators accountable who do not provide the location of underground facilities within the required timeframe. Reasonable care is required, though the term is not defined in the Law.

Question:

Do other states hold facility owners and operators accountable for not providing a facility locate within the required timeframe?

Comparison:

How does Colorado compare in terms of Public Safety and Facility Damages per 1,000 Notification Requests to other states which hold facility owners and operators accountable in this fashion? Please refer to the Public Safety Section page 61 of this report for details on this subject.

Analysis:

Identify examples of compliance and enforcement measures in other states.

Section Summary

Colorado Contractors Association CCA, reports that the economic impact on them for waiting on Second Notices to be completed averages out to $250 million per year. Please refer to their addendum for details on this calculation.

Every state of the 15 states studied has a time frame within which the Facility Owner should complete marking the requested site; in most states this is a 48-hour time-frame.

Not every state of the 15 states studied has penalties associated with not completing the locate in the required time-frame.

In the states that have a penalty, the penalties can range from a warning letter, fines or to holding the excavator harmless for damages if the Facility Owner did not locate their facilities.

Of all of the areas covered by this study, this topic of completing locates in the required timeframe produced a significant amount of Stakeholder input. Stakeholder concerns centered mainly on Second Notice Locate Requests; a Second Notice occurs when a Locate Request has been submitted and the Excavator, upon arriving at the site, finds that one or more locates are not done. Most excavators, citing safety concerns, will not start to excavate after they have placed this Second Notice with the UNCC, (even though the law allows them to commence); this increases the excavators’ costs as they wait for the Facility Owner to arrive and locate their facilities.

There is a high 0.86 correlation for all Colorado Damages (raw Norfield data) and Second Notice Requests (as Second Notices go up, damages go up) and an even stronger correlation 0.95 for Colorado Gas Distribution Damages. A correlation does not indicate causation but can be a predictor of damages. See Data Section for additional details.

Though there is a difference in the DPK rates between those states that do and do not penalize for locates being completed in the required time-frame, it is not a statistically significant difference.
White States are NOT included in the study.

**GREEN** States have penalties and enforce them for not completing a locate in the prescribed time-frame.

**RED** States have no enforceable penalties for not completing a locate in the prescribed time-frame.

There is a measureable difference between the states with and without penalties.

This measurable difference is NOT statistically significant, implying that there are other factors accounting for the differences in DPK.

States with No Penalties have held their damages constant (decreasing 0.1%/year over the 5-year period); at the same time states With Penalties have been relatively constant as well (increasing 0.7%/year) over the same 5-year time period.

Excavators indicate that certain Facility Owner categories, cable and fiber, are typically slower to provide locates in the required time frame. Please refer to the comments at the end of this section for specific comments.

**Background and Additional Information**

**The Colorado Law**

“Any owner or operator receiving notice pursuant to subsection (3) of this section shall, at no cost to the excavator, use reasonable care to advise the excavator of the location and size of any underground facilities in the proposed excavation area . . .” [103(4)(a)].

The states with the lowest DPK rates are those states that have a penalty for NOT locating in the required timeframe. This does not imply causation.

Colorado, without enforcement, is the lowest of the states without a penalty.
Facility Owner/Operators stated in the forums that 48 hours should be sufficient for them to properly locate their facilities.

This study found that Second Notices, and the use of them, is not consistent. Many Excavators are fearful of using the Second Notice system as it can reflect negatively on the companies hired by the Facility Owner/Operators to perform the locate. This angst has created a “work-around” whereby the excavators contact the locating company directly or the Facility Owner. It was explained to excavators (by who?) that this practice was not advisable as it put them at greater financial risk if they started to excavate and caused damage; the Second Notice protects them from liability as long as they were reasonable in their excavation efforts.

Statistically, Second Notices have a strong correlation with damages; this does NOT imply causation, but does provide a potential forecasting tool for damages.
Stakeholder Input Documentation

Excavators report confusion about the accuracy of the locates that are provided. The law states that “reasonable care” is to be used to mark the location of the underground facility. This safety concern over unknown accuracy causes extra work for the excavators in the form of hand digging, potholing and the need to go slower.

Stakeholders expressed concerns about the volume of locates that individual locators were required to do in a single day. Excavators felt that the locators’ assigned workload were too high and would lead to inaccurate locates.

Comments from the On-Line Survey

Stakeholders indicated in the on-line survey that they contacted both Tier 1 and Tier 2 at about the same frequency regarding Second Notices. Many stakeholders bypass the UNCC for Second Notices and call the Facility Owner Directly. This is contrary to both the law and the Colorado Excavators Handbook procedures.

Facility owners, regardless of Tier level, failing to locate in accordance with the law is the most commented on subject of all, 77 comments were made on this subject out of 113 total comments.

Locating, Locators and Second Notice comments (unedited from the survey participants)

The following are comments – unedited – that indicate Stakeholder frustration with the failure to have Locates performed in the time frame stated by law; these are both Excavator and Facility Owner Comments.

1. **The locating contractors are not doing their legally required jobs**

2. **Usic never locates by agreed date, usually get a call from a locator days after the agreed date and time**

3. **The enforcement of subcontracted locators and the time frame as to which locates are performed and their accuracy. The excavator should have right to damages in the event locates are done incorrectly and/or not on time.**

4. **There is one clearing center that puts out tickets. When a facility owner decides they don’t have anything there, they clear the ticket but don’t send it to the locate company to see if there are other facilities in the area. If there is something there then the contractors are forced to call out another emergency locate to get the facility locators to come and find the facilities. Also, sometimes facility locators are called but they are too lazy to go to the site and so they call it a bad address on the ticket and don’t go to the site. Then the contractor has to call an emergency locate request because the facility locator didn’t do their job. Not right for the contractors. Facility locators and facility owners need to be help more responsible.**

5. **Facility owners should be held accountable for completing locates on time and accurately. CenturyLink seems to think they can put blame on the contracted locate company and not ensure locates are done on time or accurate. Multiple times this year we have had locates not completed for weeks after the call, even after 2nd and 3rd notices. When CenturyLink is notified of this the blame is put on the contract locater and nothing is done to complete the locate. The facility belongs to CenturyLink therefore, it is CenturyLink’s responsibility to ensure the locate is completed. Multiple damages, down time, equipment time and labor was incurred by my company this year due to CenturyLink’s and USIC’s incompetence and inability to show up. This must stop. All of the responsibility can not be on the excavator.**

6. **locate times, and noncompliance are getting annoying there should be a penalty for noncompliance.**
7. Third party locators MUST be better trained, given more time to do their job meaning if it takes 5 hours to complete a ticket so be it. Too many times locators have showed up to locate and asked for more time cause they have 100 tickets to complete for the day and don’t have the information they need. Phone, Cable T.V. and Power locates are raley done on time and not correctly. The loop hole of needing to have a supervisor verify their work 2 days after the ticket is due needs to be tighten up.

8. All utilities should have a locatable source. Utility owners should assist or request standbys for high profile utilities. If the utility is un-locatable the utility owner should be responsible to provide daylighting, for verification of utility prior to excavation/HDD, and the utility owner is responsible for the expense. Require positive response from utility owner or contract locate company upon completion of ALL locates.

9. There is a legal requirement for excavators to notify in advance of excavating (2 days prior to excavation, not including the day of the call), however no legal requirement for the facility owners to actually locate within any specific time period of the request. This requirement places an undue burden of protection of un-located facilities on the excavator without any relief to the excavator for the utility owner’s failure to properly locate the facility in a reasonable time.

10. The current way of locates requires a different locate request if it is more than a certain distance. As a county we sometimes do signs or culverts in several locations that are further apart but along the same road. Separate requests for each location is very time consuming for UNCC & for the County.

11. We never receive sketches of the locates, even though we asked for them, we are told they do not give them out any more. Which makes it extremely hard to remember where everything is. Also we are having trouble with locators saying they can’t locate because there is no tracer wire, they will just mark off a huge section of the road and paint pot hole on the road? What the hell am I gonna do with that? Pay my crews days to explore the street with shovels because they can’t figure out how to do there dam job? When we call in meets 90% of the time no one ever shows up? How am I gonna explain how to locate this job if no one is there for the meet? I set up meets because they are hard to describe in the location, and i can’t get anyone to show up? Then you come back the next day and the locate was done that note and it is in the wrong place, now you have to call it back in and wait two days and hope someone will show up to the meet, all while my crews are sitting there on downtime costing me thousands of dollars. Who the hell is going to make that up? We will 100% of the time receive locates up to 5 days late of the due date on jobs. You are required to have them done by the end of the day given to me. I have got emails saying the gates were locked and no one is on site at 1 in the afternoon and in the techs picture of the fence you can see me standing there on the other side? This system is broken, we get no help from the locators. If I didn’t east my time looking for UN located things we would hit something every day, the locators cost our company thousands of dollars every week by simply not doing there job!!!!!

12. Not all contractors understand how electric primary is designed and may not be located by tier 1 or 2. The locator needs to locate all high voltage from provider to house, not just from source to transformer. The counties all purge building plans every few years and the as built are thus gone for the tier 2 type power, etc.

13. usic can not keep up with the ticket load period they do not address issues they do not beef up locate staff they cancel tickets constantly with no notice

14. The locating companies need to be held accountable for their negligence. Most of the damages that occur are due to unmarked/mismarked locates.

15. Phone Company’s should be more accountable to get the locates done on time. They are terrable about working with Montrose county to get the job done.
16. Emergency locate seem to be more common and called in as “emergency” when not a true emergency - should be a penalty.

17. The locate contractors are understaffed. We spend a lot of time waiting for locaters to show for a meet. This is also true for emergency locates as well. Also the Excell high pressure outfit needs to figure out a way to expedite their services in a more timely manner. They seem to be above any of the Underground Dig Laws.

18. Locators often look for ways to avoid locates. Mostly say lot is not marked, or fence disallows locate not providing additional effort

19. The locators seem to be immune from responsibility if they do not perform the locates.

20. We have specific contractors that perform work under our direction, while we are on-site. The contractor is not privy to locations in advance of doing the work, and therefore, it is EXTREMELY difficult to have the “contractor” call in the locate. Our engineering staff call in locates, so we believe we meet the intent of the law. In my opinion, this is no different than a homeowner hiring a day laborer to dig holes for new trees...the day laborer would not be expected to call in locates provided the homeowner had already done so. I would like to see the law re-written to allow for such an arrangement or a way to add select “subcontractors” to the ticket.

21. Yes CDOT should be on your list of under ground utilities for locating when we place our one call. We were not informed to call them and unaware of there utilities in our dig area and hit their electric for a stop light. My company had to pay for the repair and we had an unsafe situation during the night without the stop light working.

22. Locates from USIC hardly ever get done for our work

23. There needs to be a better way of contacting the locators when we have a problem with our locates ..... (USIC)

24. I have had ongoing problems getting responses from all Tier 1 members through 811, wish we could make response mandatory.

25. Facility owners need to take responsibility for having lined buried at adequate depths if they are wanting certain amounts of cover over there lines, not putting these requirements on someone else because they did not install there line properly to begin with. Also tired of Oil and Gas lines that were laid next agricultural irrigation lines that now the oil and gas company wants the agricultural line to foot the bill to move away from them and also is often a gravity feed line that can't easily be changed because of gravity grade requirements that would keep line from working properly.

26. Especially since gas line was installed after irrigation line. Another concern is that all underground facility owners are required to locate facilities and are liable if not done which creates an excessive burden on Agricultural facilities.

27. Especially since the State CDOT and counties do not locate culverts in roads and ROW under a one call ticket.

28. Damage caused by incorrect locates are a huge issue. As a contractor I have basically 0 recourse for downtime caused by a mislocated jobsite. My employees must accept the risk that the locate company hired by most major facility owners has done their job correctly. Should a facility go unmarked and we damage said facility my company loses time and money. I have numerous invoices that consistently go unpaid by the large locating companys for this lost time. If my company is held legally accountable to pay for all damages when a properly located facility is damaged then it is only logical that the facility locator be held legally responsible for all damages caused by an incorrect locate including down time for the excavating contractor.

29. Excavators need to be held more responsible for checking their responses. Too many just put
in a ticket and proceed without ever checking their responses. -Better rules need to be put in place for large projects covering multi-mile sections of road. 2 days is not enough time to locate 10 mile sections of highway. -Location of work sites needs to be improved. I get too many tickets from people working in fields a mile or more away from the intersection they listed. I not only have to respond to these tickets but get charged for them too. -Better regulations are needed for long term projects. Utility owners with small crews cannot afford to send locators back to a project over and over because the project destroys the marks every day.

30. Hold Utilities liable for their locates

31. The law should impose penalties for facility owners who do not respond in the time frame already required by law and provide an easy way for excavators to notify the owners and regulators when response is late/incomplete/ignored.

32. AND excavators should not be held responsible when locates are not performed within the allowed time frame.

33. Premarked dig areas should be mandatory in rural areas, or when there is not a clearly defined property line. Also, locate requests for example, .5miles x .5miles shouldn’t be allowed if they are only taking soil samples in 5-10 spots in this area. No access code should be enforced when snow blocks roads or fields in. Location should always be accessed via vehicle. No walking .25 - .5 miles for a locate

34. The current system of notification causes us great time and expense due to the way the 250+ impacts us. There needs to be a much tighter system of notification based on real geography, not artificial constructs

35. I have been digging about 15 years and this year just about every time the locate was not done in the 2 working days and most times unless I call a 2nd request it don’t get done. I asked a licator why and he said they were short handed. This is costing me money and unacceptable. I’m a small business and can’t afford the delays. Thank you

36. Yes, I and several others have complained about the maps that are being used when we call in are not up to date, resulting in poor or no locates, if 811 cant find it on their map the ticket should not be released.

37. As a geotechnical engineering firm, we control the excavation locations of our subcontractors, both at initial layout, and during the excavation / drilling process with an on-site representative. We still have occasional issues with member firms wanting to hear from or meet with the subcontractor, even though they do not have knowledge of the locations prior to arriving on-site.

38. Tickets should be left on site or emailed regardless if the site is clear or not. Too many times we get to the site and no ticket is found. Most of the time we call the owner of the utility to find out the site is clear and no ticket was left. At this point, I have wasted about 30 minutes and possibly the same amount of time for the crew sitting on site while I track down the info.

39. My opinion is that if you do not join the one call system you are responsible for damages to your utilities. Tier two owners should be responsible for marking all underground utilities, just the same as tier one members.

40. I think that EVERY underground utility should be required belong to the one call system. As a homeowner, I should not need to call several different utilities before I dig.

41. All utility owners/locators should be required to respond to UNCC on the status of locates by the due date. All locators should also be required to provide a sketch and also flag if requested.

42. Locaters are not responding within 48 hours and locaters often ignore the response system if they are clear and do not notify ticketholder of same.
43. The facility owners and locate company should be responsible by statute to use the same 
required care as excavating companies and be required to locate their facilities correctly.
44. GPS coordinates should be allowed to locate a dig site that is not easily located by an 
address.
45. It is IMPOSSIBLE for an excavator to be compensated for costs incurred when a utility is 
not located or mismarked. This needs to change as it is very easy for the utility to receive 
compensation.
46. Not happy with CenturyLink locates not on time or not done
47. The entire process of setting up locates is done so with the goal of covering the facility 
owner and project owner from any damage. The detail of the initial description is all that is 
recorded. Often times when the locator arrives to the site there is additional information that 
is needed or given. Never does this get recorded. I have had locators clear the area only to 
find out they did not understand the locate request. Sometimes I am standing and looking at 
a facility while on the phone with the locator telling me there is nothing there. I spend hours 
trying to get in touch with locators to see if they have even been to the site. There needs to be 
more communication between locators and the excavators. If
48. utility owners were really interested in having contractors not damage their lines they would 
invest in getting better, more accurate locates. Right now, they just want to have a way to 
blame the excavator for damage. One way to make the locates more accurate is to have them 
give both location and depth. This may force the utility owner to pothole in addition to just 
mark on the ground. The fact that service lines are not located in a UNCC call is absolutely 
asinine.
49. The locate needs to be performed completely taking into account all lines. The disconnect 
between primary and secondary locates puts both the facility and the excavator in danger. 
The other major disconnect is that the facility owner pushes responsibility for the locates onto 
a third party and therefore has very little incentive to worry about the accuracy of locates. 
Again, this puts both the facility and the excavator in danger. Facility owners need to be 
directly responsible for the locate accuracy. The gas companies have been particularly good 
at taking full responsibility in Eagle County. The electric company is the absolute worst. 
One final thought is that the Engineers and Owners need to be responsible for designing and 
paying for utility relocations on projects. Contractors are always being forced to bid projects 
where the Engineer has noted on the plans that all utility relocations in order to construct the 
project are the responsibility of the contractor. This needs to be an illegal note on a stamped 
set of drawings as they have not given the proper information to do the project and have 
clearly not acquired enough information to design the project.
50. Locators seem under staffed, waiting over a week in the summer to get a locate even after a 
second or third call costs me a lot of money.
51. less tickets a day for the locator, their not doing a good job because of to many
52. I have had several tickets recently where locators have not responded to tickets and I’ve had 
to call each company individually to find out why they didn’t respond. I’ve gotten responses 
from locators that they didn’t want to mark the line because it would be too much work. I 
would like to see some sort of penalty when this occurs to encourage positive response even if 
the utility owner is clear.
53. Telecommunications should be held to locate time frame just as gas and electric, water, 
sewer.
54. Why do my land surveyors get denied their locate requests? I need their survey info to be as 
accurate and complete as possible to help avoid future conflicts. They do a fair amount of 
hand digging for property corners that should require painted locates also.
55. telephone locator’s are terrible
56. our main problem normaly, timely, and accurately the phone locates...
57. Quit telling us to contact anybody you haven’t mentioned. That’s like giving driving
directions that say “turn where the old yellow barn used to be”
58. It can get extremely confusing who you are waiting on to respond in an emergency. “Is
Sitewise marking both electric and gas for Xcel? Or are we waiting on Utiliquest. Wait,
they’re marking fiber? What is Safesite marking? “ This is kind of a bad example, but you can
understand how things might get dropped during and emergency excavation. Add on top of
that, the fact that Tier 2 members only respond half the time, or wait so long, the job is done
by the time they DO respond, it makes for a very unorganized process. The more confusing,
expensive, time consuming, and cumbersome the process is, the more likely you are to have
contractors “risk” it, and dig without proper locates.
59. Locating companies should not be able to send out notices saying the contractor has agreed
to a locate date without contacting the contractor. That has happened a lot lately due to
the locating company not having enough personal to take care of the work load. Locating
companies should be required to have the adequate number of employees to handle the work
load to get the locates done by the due date.
60. Having correct numbers of members so that if we get a clear and we find lines we can contact
them. They are paying for a service and aren’t getting it.
61. With the current overwhelming access to GPS devices locate requests should be based on Lat/
Lon coordinates rather than written descriptions of how to get to the work area. Additionally,
aerial imagery of dig areas should be part of a locate request. This would reduce the need for
overlapping site meets in most cases, and minimize confusion with respect to work areas.
62. There is not enough access to communicate with the locators. The typical response to an
inquiry is to submit a new ticket, which requires another 48 hours, and does not clear up
misunderstandings. Also, mapping should be indicated in addition to ground marks, to
clarify that locations were properly communicated. Excavators rely on accuracy.
63. Locators should be held accountable to meeting the locate due date.
64. The notification of address changes is very slow. We have had issues with Tier entities not
being able to find certain addresses which increases to amount of time to locate.
65. I used to locate utilities for Utiliquest. There were times that an excavator damaged utilities
that I located correctly, but the “Investigator” told the operator “I owe you one” or “you took
the last one” and the ticket was written up as an incorrect locate. While this was 10 years ago,
I hope this issue has been corrected. Also, the 2 tier system makes for a much longer process,
and explaining my dig area multiple times. The system should be streamlined with one call.
It is frustrating to spend 2 hours calling in a ticket.
66. Why the locators in Colorado Springs will not locate underground utilities for engineers. I
would think the better planning goes in ahead of excavating the better.
67. Limit the # of requests and remarks for each job, then have the utility owner be able to apply
a fee schedule if they would like. Have billing through one call so engineering requests can
be paid up front before the utility owner marks it. There is abuse of the system by excavators.
They have areas marked several times before doing the job, increasing costs to utility owners.
Maybe have a small $20 fee charged to excavators for each locate they request. This would
pay for one call system and then to the utility to somewhat offset the locate costs they bear for
work that does not in any way benefit the utility owner.
68. Private Locators - Constantly Trespass into Utility owner facilities and damage these
(Protective coatings) without an ability to tract due to marking based on private requests.
Register private locators as well and mandate a requirement for their jobs to be reported.
69. There should be some way to force the utility locate company that does the phone and cable tv locates to use flags and/or whiskers. There are so many dig-ins on these lines in Gunnison County because these lines are scantily marked, marked in the rain or snow, marked on dirt roads with traffic erasing the marks just after the paint was put down, etc. It has been brought to the locator’s supervisor attention many times, but still no flags or whiskers being used. Also, Century link screens their tickets in Denver and doesn’t send all of the locate requests to the locate company, such as for vacant lot excavation. Some of the phone dig-ins are because the locate company never showed up for these locates. The excavator assumes there is no phone lines in the area and proceeds. Century link is forcing the excavators to use the second notice thus increasing their wait time another 2 days. How is it Century Link can hold these excavators “hostage”? The location services for the phone and cable tv lines in Gunnison is insufficient for the excavators’ needs.

70. In rural areas there are many irrigation pipelines that have no registered owner to contact for locates. There needs to be a way to make all underground utilities be registered or the owner faces a fine if an excavator damages the line.

71. The one issue that is see is lack of locators to perform the locates that are needed and scheduled.

72. My biggest concern with this whole program, is that companies/individuals who call in a ticket for a locate either 1) do not always give good description of where the excavation will occur, or 2) the staff taking the information and putting it in the ticket is not understanding the explanation. I frequently can not understand where the locate is from the description. More concerning is half the time, I call the person who called the ticket in and they have never been to the site and can not tell me where they are planning to excavate adequately. I am in a rural area of El Paso County for reference. I just think the description on the tickets should be more descriptive and possibly needs pictures/maps or GPS coordinates so that we can quickly determine whether we need to provide a locate or that the activity will not be close to our facilities.

73. There is no enforcement on how many tickets a contractor can call in with is a huge cost to the facility owner. With Colorado one call paid per ticket processed they will never have a reason to prevent the abuse of the system. This is a flawed system that is a money maker for most parties involved and that is the reason the system will not be fixed. 6 million in surplus last year is all that needs to be said. It’s a joke.

74. Most of this isn’t an issue for those of us who work on the Eastern Plains. We just want a system where all parties are contacted for the locate. I don’t like that we have to call certain parties directly in addition to using one-call. If we call and follow the markings, we should not be held liable -- correct?

75. One utility does not respond to locates, centry link, never responds this delays projects.

76. None only gets request for locates, Home owners water district

77. Gets calls for locates but has nothing underground just Dams
Topic 2b: Facility owner accountability for failing to provide general locate information for Architects and Engineers during the project design phase

Study Points

While the Law does define a requirement for engineers and designers to obtain location information, the Law does not define compliance and enforcement clauses to hold facility owners and operators accountable who do not provide location information for engineering and design.

Question:
Do facility owners and operators provide general information when requested by persons performing engineering and design?

Analysis:
What is the impact to engineers and designers when general locate information is not provided?

**Colorado Law:** § 103(2). “Architects, engineers, or other persons designing excavation shall obtain general information as to the description, nature, and location of underground facilities in the area of such proposed excavation and include such general information in the plans or specifications to inform an excavation contractor of the existence of such facilities and of the need to obtain information thereon . . . “

§ 103(4)(a). “Any owner or operator receiving notice pursuant to subsection (3) of this section shall, at no cost to the excavator, use reasonable care to advise the excavator of the location and size of any underground facilities in the proposed excavation area . . .” Full details are at the conclusion of this section.

Section Summary

Project planning, design and engineering that incorporates considerations for required excavation intuitively makes good sense. The 15 study states’ underground dig laws were evaluated for the inclusion of this requirement in their law; 10 of the study states and Colorado have this provision in their law, while the other 6 states do not.
In the 15 Study State group, those states that have a planning, design and engineering requirement in their law have a statistically significant lower DPK rate (98% Confidence Interval) than those states without a planning requirement. The chart on the right depicts: 2.47 DPK with a legal requirement

3.69 DPK without a legal requirement

As further validation, the study evaluated the 15 Study States, Colorado and the four states without enforcement and found the same pattern regarding planning locates. The data is:

2.56 DPK for states with a legal planning locate requirement

3.81 DPK for states without a legal planning locate requirement

There are wide variations in planning locate request guidance and management state to state. Colorado law contains a few paragraphs on the topic while the Ohio law’s detailed guidance is several pages in length. Please see the Law sub-section for additional information.

Based on the study’s findings, it is reasonable to assume that planning requests, regardless of how well they are done, have a positive impact the DPK metric.

**Background and Additional Information**

**The Colorado Law**

The general consensus of all stakeholders who participated in this study is that the current Colorado law sets rather low expectations for performance on the part of all stakeholders.

9-1.5-103 (2) Architects, engineers, or other persons designing excavation shall obtain general information as to the description, nature, and location of underground facilities in the area of such proposed excavation and include such general information in the plans or specifications to inform an excavation contractor of the existence of such facilities and of the need to obtain information thereon pursuant to subsection (3) of this section.

**Expectations Vary**

While discussing this topic amongst Colorado stakeholders, there was considerable debate about how well the various parties are meeting their obligations. From interviews and discussions at the various forums, the general theme that surfaced is that the expectations of the designers and the facility owners are different. The current Colorado law requires the facility owners to support the design efforts; however, it is not explicit in what constitutes support. While each stakeholder group believes they are following the appropriate procedure, a gap in performance expectations exists.

**Independent Locators and Planning**
This gap in performance expectations has led to a common practice of using independent locating companies to aid designers in their project planning. The designers are frustrated that they do not get the service they require and feel they have no real way to legally to force the issue. The Colorado state underground dig law is silent on the practice of using independent locators for this purpose.

Designers have the perception that some types of facility owners ignore their planning locate requests; this perception is supported by on-line survey comments. See the General Survey Comments and the next subsection for all the Planning-related comments.

Some Facility Owners strongly discourage the practice of using independent locators should we state why?). Some Municipal Facility Owners have established local ordinances making it illegal to use independent locators to locate Municipal Facilities.

**Unique Planning Issues**

Geotechnical stakeholders seem to be the one segment that is impacted the most on a daily basis by the current vagueness in the Colorado law. These firms engage in drilling for monitoring wells and doing soil samples, and not having access to accurate locate information is a significant issue as they may not be able to adjust the well locations at the site.

**Stakeholder Input Documentation**

Stakeholder input is best classified as frustrated. The survey results indicate a general frustration and no clear consensus on how best to move forward.

Alternative processes are being used by Designers and others to complete their project designs due to the frustration in using the current process.

Just under 50% of the respondents believe the current planning system works very well. This is in stark contrast to what the comments state and the information gained at the forums.

**Comments from the Forums**

Summary of comments from the 4 forums, all recorded comments can be read in the SURVEY section.

With the system as it is today, according to excavators at the forums, planning is done on the fly as they are excavating. This makes it more dangerous and time consuming.

Excavators and Engineers attending the Forums state that Engineering Tickets get overlooked and are not located, and most Facility Owners will not locate for free as required by law. There are, of course, exceptions to these general statements.
Facility Owners at the Forums want engineers to meet and plan with them at the site and perhaps at their offices as well.

All stakeholders agree that the Law does a POOR job of setting expectations for the performance of all stakeholders.

All agreed that CO811 should be used to request Engineering Locates and follow the same process as a normal locate request.

There is no one conclusive statement on who pays for the cost on an engineering locate among the Colorado stakeholders.

Excavators and Engineering firms believe that Facility Owners should be held accountable for not providing design information when requested.

There is a consensus that engineering and planning requests should have a longer time frame than the 48 hours for a normal locate request. Most stakeholders believe that a 5-10 day window is reasonable.

**Comments from the on-line survey**

Of the 114 comments gathered, 6% of them were related to the Planning Locate Process. The comments are as follows:

1. Geotechnical and Environmental Engineering firms that subcontract to Soil Test drilling companies should be required to use the One Call System as well as call in private locates and, where needed, complete Hydro Excavating. They (hydro excavators?) are the ones who contract with the owners of the properties and are the ones who dictate exactly where and what size boring is to be drilled. Soil Test drilling companies work at Geotechnical and Environmental Engineering firms' direction and as such they effectively operate the drills by telling the operators how and where to drill. Drilling is not the same as excavating where the excavator has a say in what equipment is to be used and how to go about the excavation. By the time the driller is contacted, the consultant has already called in locates and in many times is in need of a drilling company that can get on site the next day. If the drilling company needs to call in locates then he will have to delay the project for 48 hours. This is not good for business cash flows for all entities and does not further safety as locates have already been completed. It is apparent that the current law has been crafted by the operators, who at the advice of their attorneys, have made it easier to go after the little guy on the bottom of the totem pole and make him liable for any damage done if his name is not on a locate ticket. Locates should always be performed and private locates and hydro Excavating may need to be completed as well and this should be the responsibility of the firm who is contracting with the owner of the property. Again, there is a huge difference between drilling and excavating. Drilling teat holes and installing monitor wells is not excavating.

2. It is difficult, and at times impossible, to get locates during the design phase of the project forcing designs to be based somewhat on GIS information. Many unexpected conflicts result in not having accurate design phase information. Often the only way to get locates is to call them in for potholing, often when potholing is not necessary, but the locators do respond and the utilities can be surveyed within reason and potholed if necessary. The system should provide design phase locates.

3. As a geotechnical engineering firm, we control the excavation locations of our subcontractors, both at initial layout, and during the excavation / drilling process with an on-site representative. We still have occasional issues with member firms wanting to hear from or meet with the subcontractor, even though they do not have knowledge of the locations prior to arriving on-site.

4. The entire process of setting up locates is done so with the goal of covering the facility...
owner and project owner from any damage. The detail of the initial description is all that is recorded. Often times when the locator arrives to the site there is additional information that is needed or given. Never does this get recorded. I have had locators clear the area only to find out they did not understand the locate request. Sometimes I am standing and looking at a facility while on the phone with the locator telling me there is nothing there. I spend hours trying to get in touch with locators to see if they have even been to the site. There needs to be more communication between locators and the excavators. If ??

5. utility owners were really interested in having contractors not damage their lines they would invest in getting better, more accurate locates. Right now, they just want to have a way to blame the excavator for damage. One way to make the locates more accurate is to have them give both location and depth. This may force the utility owner to pothole in addition to just mark on the ground. The fact that service lines are not located in a UNCC call is absolutely asinine.

6. The locate needs to be performed completely taking into account all lines. The disconnect between primary and secondary locates puts both the facility and the excavator in danger. The other major disconnect is that the facility owner pushes responsibility for the locates onto a third party and therefore has very little incentive to worry about the accuracy of locates. Again, this puts both the facility and the excavator in danger. Facility owners need to be directly responsible for the locate accuracy. The gas companies have been particularly good at taking full responsibility in Eagle County. The electric company is the absolute worst. One final thought is that the Engineers and Owners need to be responsible for designing and paying for utility relocations on projects. Contractors are always being forced to bid projects where the Engineer has noted on the plans that all utility relocations in order to construct the project are the responsibility of the contractor. This needs to be an illegal note on a stamped set of drawings as they have not given the proper information to do the project and have clearly not acquired enough information to design the project.

7. Why the locators in Colorado Springs will not locate underground utilities for engineers. I would think the better planning goes in ahead of excavating the better.
Topic 3: Do other states hold facility owners accountable for damages when a Notification Request is made and subsequent damage occurs

Study Points

A) The Law does not define enforcement clauses to hold excavators accountable to protect a facility when a Notification Request is properly made and subsequent damage occurs. Reasonable care is required, though the term is not defined in the Law.

1) “When a person excavates within eighteen inches horizontally from the exterior sides of any underground facility, such person shall exercise such reasonable care as necessary to protect any underground facility in or near the excavation area.” [103(c)(1)].

2) “If any person . . . fails to comply (request a notification) . . . and damages an underground facility during excavation, such person shall be liable for a civil penalty in the amount of five thousand dollars for the first offense” [104.5(c)(1)].

Question:
Do other states hold excavators accountable when a Notification Request is made and subsequent damage occurs?

Comparison:
How does Colorado compare in terms of Public Safety and Facility Damages per 1,000 Notification Requests to other states which hold excavators accountable in this fashion?

Section Overview

States vary widely in their management of this topic. Many states have laws similar to Colorado’s and others hold the excavators accountable regardless of the precautions they took.

States emphasize in their laws that excavators must be careful, prudent or reasonable in their excavating approach; each state varies in the extent that the law defines these terms.

Many states have special rules for damages that occur inside of their respective tolerance zones regardless of any other provisions. Typically, all Study States hold the excavator liable for damaging a facility inside of the established tolerance zone.

In the interviews and forums, all Stakeholders agreed that excavators should be accountable for damages when they performed work without having a locate completed. At these same meetings, excavators felt especially vulnerable as there is no clear definition of what constitutes ‘Reasonable’ in the law. (See the following section for more details)

All states in the study, except Colorado, have enforcement for failing to request a locate; this is a violation of the One Call law and punishable. In all cases, not requesting a locate or not having a valid locate completed makes the excavator liable for damages regardless of how careful they were during the excavation process.

The various Study State laws have caveats that might also impact excavators’ liability; these caveats/factors are too varied and detract from attempts to measure them from state-to-state in any meaningful way. Some of the factors (some are common and others not so typical) considered by other states are:

1. Was the locate requested?
2. Was the locate completed?
3. Was the locate accurate and did it identify the proper facility?
4. If the locate was not completed, did the excavator follow the proper procedures before commencing the excavation? (Example: Colorado's Second Notice process)
5. Was the excavator following established state guidelines for the physical excavation?
6. Did the excavator follow the law in reporting damages if damages did occur?
7. Did the excavator damage an unmarked facility?
8. Was the damaged facility owned by a non-member of the respective states One Call system?
9. Was this an emergency excavation?

The study has defined two scenarios to provide a general state-by-state comparison of how excavator damages are dealt with.

**Scenario #1**
Locate request was made, completed, excavator was reasonable (as defined by the applicable state law) and damage occurs.

**Scenario #2**
Locate request was made, completed, excavator caused damages, and did **NOT** follow excavation practices as defined by their state's law.

The Table below shows a breakdown of the Study States and how they initially assign liability.

<table>
<thead>
<tr>
<th>State</th>
<th>Scenario #1</th>
<th>Scenario #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>South Dakota</td>
<td>Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Arizona</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Colorado</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Indiana</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Kansas</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Maryland</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Ohio</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Texas</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Utah</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Virginia</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
<tr>
<td>Washington</td>
<td>Not Liable</td>
<td>Liable</td>
</tr>
</tbody>
</table>

Not Liable is a presumption of not being at fault.
Liable is a presumption of being at fault.
The following Table illustrates the differences in 5-year average DPK rates of states based on Scenario #1. The individual state's DPK rate is shown, as is the group 5-Year average DPK. NOTE: All damages are uniquely Gas Distribution Pipeline damages, these are the best reported and validated damages.

There is a statistically significant difference between the two systems, implying that the difference is attributable to some factor and not just random.

States that do NOT hold the excavator liable when all legal excavating requirements have been satisfied and damage occurs are experiencing a DPK rate decrease of 6% per year as compared to states where the excavator is liable even if they have fully complied with the law.
There is a statistically significant difference between the two systems, implying that the difference is attributable to some factor and not just random.

### Specific Findings and Comments from Forums and Interviews

All of the Study States have complaint driven enforcement systems, which offers any stakeholder the ability to report a violation regardless of whether a damage actually occurred; this also affords stakeholders the ability to contest any alleged violation. The enforcement system levels the playing field for the excavators as they have an effective mechanism to make sure locates are being completed in a timely manner. Facility Owners also benefit as they can implement action against excavators that they believe are not following the proper excavation procedures.

This enforcement mechanism also allows for effectively dealing with the gray issues that often arise. Examples of some commonly acknowledged gray areas are:

- Was it a real emergency
- Were the locate marks moved by one of the parties
- Were excavators digging inside of the tolerance zone
- Was the excavator being reasonable given the site conditions at the time of the excavation
- Was there previous damage
- What is this excavators damage history

As an example of differing interpretations of these gray areas, Ohio does not have a requirement for a Second
Notice and does not hold the excavator liable for damaging unmarked underground facilities. Conversely, Oklahoma holds the excavator liable for any and all damages, even to unmarked facilities.

The states that follow a similar policy as that of Ohio mentioned above (Ohio’s law is new in 2016 and patterned after several other states’ laws) are seeing damage rates drop 6% per year. Colorado stakeholders at the forums indicated indirectly that policies such as this encouraged them to report damages. They stated that by automatically making the excavator liable that some excavators would be reluctant to report less obvious damages.

A case could be made that in the states where liability is automatically assumed, that the actual damages could actually be higher and that in the states where liability is not automatically assumed that the reported damages are a more accurate reflection of the true state of affairs.

States with laws that encourage reporting by heavily penalizing non-reporting, such as Washington State, have seen success in maintaining the actual number of damages. It could be concluded that the trebling of penalties for failing to report damages, coupled with no excavator liability for having followed the proper procedures, can improve damage reporting. Washington’s actual damages over the last 5 years have remained constant at 1,290 per year; their DPK rate is high due to a very low ticket volume relative to other states with comparable miles of pipeline.

Excavators feel that the word “Reasonable” in the current Colorado law is too vague and very open to interpretation. As an example, the Second Notice allows an excavator to commence excavating once the Second Notice call is made; however, the majority of excavators felt it was prudent to wait for a locate to be completed for two reasons. First is the safety of their crews and the desire to keep them, and the general public, as safe as possible. Second, when damages do occur, typically the court system (fear of court costs) or the Arbitration System is not used leaving the Facility Owner and the Excavator to determine what constitutes “Reasonable.” Excavators report feeling bullied into accepting the Facility Owner’s position and end up paying the penalty and/or damages to the Facility Owner even when they believe their excavation work was performed in a “Reasonable” manner.

Comments from the Stakeholders

The intent and content of the following unedited stakeholder comments have been incorporated into the preceding section. The following comments are, in some cases, more generic and not specific to this section of the report. However, they do help show the level of frustration experienced by all stakeholders.

1. Need to address the law when it comes to farmers because right now they do not have to do anything and are except from the law period!
2. It would be hard to enforce the excavation registration for farmers and ranchers that all have their own backhoes but aren’t necessarily professional excavators (i.e. not associated with construction)
3. Every “Law” should have an enforcement mechanism.
4. Instead of facility owner paying fee for every locate the contractor should pay the fee. Facility owners get charged for every ticket and contractors should have to pay that.
5. There is no penalty for a facility owner that does not respond in a timely manner to a locate request.
6. The enforcement issue is the biggest issue. Right now it seems it’s difficult to hold someone accountable. enacting the fee schedule has been unsuccessful for them. Landscapers are the worst.
7. There should not have to be damage before there is an issue. if they are caught digging before
ticket start work time should be just as bad. also there does not have to be specific damage before some operators have to excavate and inspect their facilities

8. There is no recourse for reciprocal damages to the planner/engineer/excavator if the locates are not done properly or at all. Utility owners should be accountable for lost time/equipment hours/re-design/field changes due to mis-locates or no locates in the planning stage or after.

9. It is not strict enough for violators

10. There is no penalty for repeat offenders who dig without locates or those who repeatedly call emergency locates in non-emergency locate situations

11. I don't like that guilt must be proven by the contract to utility locator. I my opinion the utility owner should prove guilt to the contractor. I have to prove the innocence. That goes against the law of the land plus it takes forever for the utility owner to take responsibility even when you have proven them to be in the wrong. I hate the current system. There should never be a charge to the contractor to be a part of a system that is attempting to protect the owners property.

12. As a state employee with CDOT, digging contractors do try and get away with not following their permits or even carry permits when working on any state right of way.

13. Having a dedicated enforcement agency for the marking and damage of utilities seems to be a very practical approach, like Arizona has with the Corporation Commission. Colorado's current system doesn't really help if someone doesn't respond to a locate request, the excavator has little recourse other than a second notice which costs him production and money. In Arizona if someone doesn't respond to your request you can contact the corporation commission and they will fine the responsible party. The system needs to hold the locators/operators accountable for not marking, just as contractors are held accountable for damages, because when locators don't mark jobs it costs contractors money in waiting for them to do what was already requested of them.

14. I think that Utility owners and operators have a first right to protect their respective assets and by contracting locating companies to protect them with strict rules and state policies they have the right to have federal and state and local laws protect those rights that are defined in black and white, the law should be unbiased and weighed for what is morally and socially correct for the public safety regardless of whom is at fault. we are all doing what's responsible to protect our public, Environment, and infrastructure to keep promoting a safe way for one and all. So yes be more aggressive and uphold the law to protect these assets used for a day to day living.

15. All parties should be held accountable because I know customers who throw a bitch when they hear their project is on hold for a 48-hour locate. If they had some liability then I believe locates would happen and there would less likely hood of rushing contractors into situations where they are the only exposed party.

16. The law should impose penalties for facility owners who do not respond in the time frame already required by law and provide an easy way for excavators to notify the owners and regulators when response is late/incomplete/ignored.

17. My opinion is that if you do not join the one call system you are responsible for damages to your utilities. Tier two owners should be responsible for marking all underground utilities, just the same as tier one members.

18. I think that EVERY underground utility should be required belong to the one call system. As a homeowner, I should not need to call several different utilities before I dig.

19. If underground utilities were not installed to local code for proper depth, any damages due to excavation should be waived
20. It is IMPOSSIBLE for an excavator to be compensated for costs incurred when a utility is not located or mismarked. This needs to change as it is very easy for the utility to receive compensation.

21. Question 17: In indicating that each group needs its own law, I would have preferred an option that there is clarification and language in the law designating the uniqueness of each group and their responsibilities.

22. I have been worried that I would be held liable for damaging a marked utility while hand digging in very hard soils. It may worth considering exemptions to being liable for ‘hardship’ cases like these. In all other cases, if a contractor damages a utility within the mark area, they should take responsibility for their actions.

23. The exemption of Rancher/Farmers doing Maintenance work on their property and not being required to call 811, follow any safe digging practices or responsible for damages is not only irresponsible by the state to allow this but is it going to cause someone to be killed. Hundreds of miles of underground pipeline goes through private property. These utilities are explosive or damage to them can cause health risks to entire communities. This issue needs to be changed, not just for the utility owner but for the lives of the property owner.

24. All the burdens are on the contractors. There are no consequences to the locators if they fail to perform the locates and there is a work stoppage as a result. We lost thousands last year in this scenario. The locate companies should be required to pay for a crew and equipment unable to work because the locates were not done. This industry is driven by tight schedules. We do not get a grace period if locates are not done as scheduled, meaning we must work overtime to make up for the lost time. This also results in higher insurance rates, which are based on payroll.

25. The web ticket entry system is severely flawed. Your mapping portion especially. Follow either Kansas or Nebraska’s (in that order) example of web ticket entries. As for 17. Requiring a home owner to be licensed and trained and pay a fee for a yearly registration to plant a tree, or install a fence, or any other normal landscaping/home maintenance is absurd. Requiring them to have a dig safe however is not.

26. The rancher or farmer excavation exemption is the most vague in the nation IMO.

27. Private Locators - Constantly Trespass into Utility owner facilities and damage these (Protective coatings) without an ability to trac due to marking based on private requests. Register private locators as well and mandate a requirement for their jobs to be reported.

28. In rural areas there are many irrigation pipelines that have no registered owner to contact for locates. There needs to be a way to make all underground utilities be registered or the owner faces a fine if an excavator damages the line.
Topic 4: Facility Owner Mandatory Reporting of Damages to the One Call Center

Study Points

A) The Law does not define an enforcement mechanism for the requirement for Facility Owners/Operators to report facility damages to the One Call Center.

1) The Law does define a requirement that “If a damage to an underground facility (occurs)...the owner or operator of the damaged underground facility shall provide information...to the notification association...” [103(7)(b)] (i.e., report the damage to the One Call Center).

This requirement is in addition to the requirement for the excavator to notify the One Call Center when damage occurs:

2) “In the event of damage to any underground facility, the excavator shall immediately notify the affected owner or operator and the notification association of the location and extent of such damage.” [103(5)].

Comparison: Do other states require facility owners and operators to report facility damages to the One Call Center?

Comparison: Do these other states hold facility owners and operators accountable for not reporting facility damages when required under their laws?

Analysis: Does the evidence suggest that reporting facility damages to the One Call Center has had an impact on the number of facility damages over the years (since 2001) in Colorado or the others states?

Note:
This part of the study considered any study state that required public reporting of facility damages to a public entity that provides a central repository for the data collection to be the equivalent of the One Call Center.

Section Summary

Of the 15 Study States, 6 have some type of mandatory damage reporting to a central authority; 5 of these 6 states have enforcement clauses to help ensure compliance with the law. Colorado does not have an enforcement authority to ensure compliance. Since no damage is attributable to the failure to report, there is no aggrieved party and therefore no enforcement option exists.

States with mandatory reporting have decreased their DPK at a faster rate than those without reporting. The States without a Facility Owner requirement to report damages start at a lower baseline of DPK than the reporting states. It would be reasonable to conclude that mandatory reporting of damages is an important factor in reducing damages.

Colorado is included in the Reporting group even though it does not have an enforcement mechanism as it does have a strong culture of damages being reported by excavators to the UNCC.
The following table summarizes how each of the Study States manages this aspect of damage prevention.

<table>
<thead>
<tr>
<th>State</th>
<th>Facility Owner Requirement to report damages to the applicable One Call Center</th>
<th>Are Facility Owners and Excavators held accountable for not reporting when required by law?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Colorado</td>
<td>Yes</td>
<td>No Enforcement Mechanism</td>
</tr>
<tr>
<td>Indiana</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Kansas</td>
<td>No, report to the KCC and only those with &gt;2,000 locate requests per year.</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Maryland</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Minnesota</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Nebraska</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Yes</td>
<td>Subject to penalties</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Yes</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Ohio</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>South Dakota</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Texas</td>
<td>No, only report Pipeline damages to the Rail Road Commission</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Utah</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Virginia</td>
<td>No</td>
<td>Complaint driven</td>
</tr>
<tr>
<td>Washington</td>
<td>To the PUC only via private DIRT system</td>
<td>Complaint driven</td>
</tr>
</tbody>
</table>

In all cases of damage, the Excavator is required to contact the Facility Owner and notify them of the damages and, if required, notify the appropriate emergency services.

The Colorado stakeholders participating in this study support the idea of Facility Owners having responsibility to report damages to the UNCC. Stakeholders also support Excavators reporting, as they currently do, damages as they occur to both the Facility Owner and the UNCC. In both instances, stakeholders agree that there should be enforceable penalties in the law for not reporting damages as required; this will ensure accountability and fairness for all.
Background and Additional Information

The following table shows the rate of changes in DPK and in Actual Damages (Gas Distribution Damages).

DPK may show a downward trend while actual damages are trending up; this is a result of the DPK calculation which factors in Tickets (requests for locates) and if, Ticket requests go up at a faster rate than damages, the DPK rate can drop.

<table>
<thead>
<tr>
<th>State</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Rate of Change of DPK</th>
<th>Rate of Change of Actual Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>4.90</td>
<td>2.17</td>
<td>2.56</td>
<td>1.93</td>
<td>2.12</td>
<td>-16.8%</td>
<td>-7.4%</td>
</tr>
<tr>
<td>Maryland</td>
<td>1.80</td>
<td>2.12</td>
<td>1.62</td>
<td>1.27</td>
<td>1.15</td>
<td>-8.9%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Texas</td>
<td>4.93</td>
<td>4.73</td>
<td>4.01</td>
<td>3.67</td>
<td>3.26</td>
<td>-8.2%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Indiana</td>
<td>3.46</td>
<td>3.36</td>
<td>3.61</td>
<td>2.84</td>
<td>2.55</td>
<td>-6.1%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Virginia</td>
<td>1.73</td>
<td>1.70</td>
<td>1.45</td>
<td>1.30</td>
<td>1.30</td>
<td>-5.7%</td>
<td>-2.8%</td>
</tr>
<tr>
<td>Ohio</td>
<td>4.32</td>
<td>4.13</td>
<td>3.77</td>
<td>3.41</td>
<td>3.47</td>
<td>-4.4%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Utah</td>
<td>4.34</td>
<td>4.18</td>
<td>4.12</td>
<td>3.77</td>
<td>3.50</td>
<td>-4.3%</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Colorado</td>
<td>3.08</td>
<td>2.65</td>
<td>2.27</td>
<td>2.10</td>
<td>2.52</td>
<td>-4.1%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Nebraska</td>
<td>2.51</td>
<td>3.22</td>
<td>3.24</td>
<td>2.20</td>
<td>2.05</td>
<td>-4.0%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Washington</td>
<td>5.49</td>
<td>5.64</td>
<td>5.72</td>
<td>5.06</td>
<td>4.70</td>
<td>-3.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>2.59</td>
<td>2.75</td>
<td>2.50</td>
<td>2.47</td>
<td>2.36</td>
<td>-1.8%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>2.81</td>
<td>2.92</td>
<td>3.04</td>
<td>1.97</td>
<td>2.68</td>
<td>-1.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2.25</td>
<td>2.55</td>
<td>2.57</td>
<td>2.05</td>
<td>2.16</td>
<td>-0.8%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Arizona</td>
<td>1.64</td>
<td>1.73</td>
<td>1.53</td>
<td>1.81</td>
<td>1.65</td>
<td>0.1%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>3.70</td>
<td>3.48</td>
<td>3.79</td>
<td>3.84</td>
<td>3.83</td>
<td>0.7%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>3.55</td>
<td>3.64</td>
<td>4.86</td>
<td>4.10</td>
<td>3.94</td>
<td>2.1%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

Colorado has an underground damage prevention industry-wide reputation for concise data. This reputation is based on the length of time that damages have actively been tracked and managed. While it would be consistent with Colorado's data to conclude that this reporting of damages plays a role in reducing the actual damages, it's difficult to conclude how large that role is from the data analyzed.

Colorado has an underground damage prevention industry-wide reputation for concise data. This reputation is based on the length of time that damages have actively been tracked and managed. While it would be consistent with Colorado's data to conclude that this reporting of damages plays a role in reducing the actual damages, it's difficult to conclude how large that role is from the data analyzed.
PHMSA has collect data on pipeline damages for over 20 years. This data is used to identify the root causes of excavation damages and also design programs to reduce these root causes. PHMSA in their 2009 report on this subject states:

_The purpose of this data quality assessment is to ensure our safety data provide a sound basis for risk-based decision making. The assessment focused on the major data collection programs we use to assess and manage risk in the pipeline and hazardous materials safety programs. These data collection programs—together with shared, professional experience—comprise the core of our knowledge base about systems and program performance. The data are used by PHMSA, states, communities, other agencies, researchers, the private sector (companies and trade associations), and the general public._

- A Data Quality Assessment, Evaluating the major safety data programs for pipeline and hazardous materials safety, November 10, 2009; Prepared by Rick Kowalewski Senior Policy Advisor Pipeline and Hazardous Materials Safety Administration U.S. Department of Transportation Click here to go to the full report.

Many business practices, Six Sigma for example, are built on the premise that accurate and timely data recording and analysis of this data leads to improvements. Six Sigma is used by GE, Toyota, Amazon and Motorola on a daily basis to improve their business operations. The US Military is also embracing these practices to improve their readiness and reduce costs at the same time.

Having accurate damage information and leveraging data-driven decision making is one way that Colorado can continue to lead the industry in damage reduction performance.

**Stakeholder Input Documentation**

**Stakeholders stated in the interviews and forums that:**

Excavators should report all damages to the UNCC
All tickets should have the Facility Owner/Operator telephone numbers on them
Facility Owner/Operators should be the one to report the type of damage to the UNCC and not the Excavator Damage reporting is important
Fines or penalties should be applied for failing to follow any portion of the damage reporting process.

**On-Line Survey Data**

66% of the Stakeholders responding to the on-line survey indicated that all stakeholders should be held accountable for obeying the law.
Public Safety

Public Safety information is not readily available for the correlation of damages at the national level. Public safety categories are broadly discussed from state to state, and no common standard for comparison exists. In general, public safety is often discussed in preventing incidents that cause fatalities, injury and significant property damages.

The measure of success for any damage prevention system is ultimately whether the public at large is safer as a result of the program's efforts.

In assessing whether the Colorado Damage Prevention Program is succeeding in its efforts to enhance public safety, the data generated by this study confirms that the program is achieving this goal. Data covering the 10-year period ending in 2014 shows a decrease in damages of 2.49% per year; during this same period the Colorado economy grew at an average 2% annual rate. Typically, a state would see an increase in damages as its economy grows. Colorado is not immune to this effect but was able to have a general downward damage trend in spite of its positive growth trend.

PHMSA and other agencies have researched the Public Safety topic extensively and the intention of this study is not to re-create this body of knowledge, but rather to provide the Colorado Legislative Task Force the resources to research this topic in more depth as required.

Total number of incidents is shown by the RED line and the Cost of Damages shown by the BLUE bars.

10-Year Trend of Cost of Damages and Number of Incidents

Summary of the Public Safety Data

Across the United States the number of fatalities related to excavation damages to Gas Distribution pipelines has dropped to 1 per year and total injuries hover in the high teens year over year. In the past 10 years, Colorado has had 1 fatality and 12 injuries that are related to the Gas Industry.

The cost of damages to property have gone up and are not isolated to industrial complexes. In New Jersey the Public Service Electric & Gas and Henkels & McCoy Inc. were heavily fined for their roles in the 2014 gas
explosion that damaged or destroyed 55 homes, injured seven utility workers and killed a South Fork resident; over $15,000,000 in losses and $1,500,000 in fines and penalties were levied. Both the utility and the excavator were found to have acted in violation of the underground dig law. It should be noted that in this case both companies failed to properly follow procedures laid out in the law. See Newspaper Article

Based on the PHMSA data for Gas Distribution damages nationally, the Damages per Thousand Tickets (DPK) has been dropping steadily to its current rate of 2.92 DPK. Colorado, by comparison, is doing better than the national average with a DPK of 2.49 in 2014. It is interesting to note that although the DPK has been moving down, the actual damages have changed very little over this 5-year period. In Colorado the changes in Gas Distribution damages correlate very well with non-gas distribution damages in the state.

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tickets all 50 States</td>
<td>20,020,284</td>
<td>20,376,846</td>
<td>21,949,019</td>
<td>23,586,626</td>
<td>25,322,363</td>
</tr>
<tr>
<td>Damages all 50 States, Gas Distribution ONLY</td>
<td>76,578</td>
<td>76,100</td>
<td>76,742</td>
<td>73,953</td>
<td>77,020</td>
</tr>
<tr>
<td>DPK all 50 States &amp; Washington D.C.</td>
<td>3.83</td>
<td>3.76</td>
<td>3.47</td>
<td>3.25</td>
<td>2.92</td>
</tr>
<tr>
<td>Actual Damages ALL types Colorado</td>
<td>7,479</td>
<td>6,707</td>
<td>7,229</td>
<td>7,331</td>
<td>8,734</td>
</tr>
<tr>
<td>Gas Distribution Damages ONLY Colorado</td>
<td>1,587</td>
<td>1,351</td>
<td>1,441</td>
<td>1,465</td>
<td>1,811</td>
</tr>
</tbody>
</table>

The goals of Damage Prevention and the 811 Call Before You Dig program are to prevent possible damage to underground utility lines, injury, property damage and service outages; increasing public and worker safety are paramount focus areas. The reality faced by the 811 Community is that an underground utility line is damaged once every six minutes nationwide because someone decided to dig without first calling 811, according to data collected by Common Ground Alliance (CGA).

Two measures of public and worker safety are the number of fatalities and injuries recorded nationally by PHMSA. 10 years of PHMSA data for fatalities and shows a leveling off at 1 per year; considering that in 2104 there were over 25,000,000 locate requests made nationwide, the safety record is very impressive. Injuries have had a leveling effect over the same time period with injuries hovering in the high teens. By way of comparison there were 4,821 work related deaths in 2014 in all industries combined.

See the Bureau of Labor Statistics report.
The number of excavator caused damages has decreased between reporting years 2005 to 2014. The efforts of 811 organizations to make the general public aware of the dangers of underground digging have most likely had a positive impact as evidenced by the following two pie-charts, the breakdown of PHMSA recorded damages by excavator type in 2005 and in 2014.

The next challenge for the damage prevention community is to continue decreasing damages in aggregate. Based on the fact that Private Excavators represent the largest segment of players in damage prevention arena, their sheer size suggests that they be involved with the largest segment of damages incurred. Pipeline operators currently generate a larger percentage of the damages, but only as a result of decreases in the General Public and Government damages. Pipeline Operators have averaged 10 damages per year for this time period.

The number of incidents is extracted from the PHMSA database Pipeline Incidents Caused by Excavation Damage Details - 2005 – Present, a subset of the larger PHMSA damage database used for the study, shows that the number of recorded incidents with significant costs has decreased and that the associated costs have increased. Costs are shown here in the dollars of the year they occurred. The cumulative rate of inflation over the 10-year time period is approximately 21%; (http://www.bls.gov/data/inflation_calculator.htm) even counting for inflation the cost of damages has nearly doubled. The data suggests that although damages are dropping in number when they do occur they are costlier but not as deadly.
Topic 5: Multi-Tiered Membership Systems

Study Points

Comparison:
What other states have multi-tiered One Call Membership structures?

Analysis:
• Does the evidence suggest that a multi-tiered One Call Membership has a positive or negative impact on public safety and the number of facility damages?
• Does the evidence suggest that a multi-tiered One Call Membership has a positive or negative impact on excavators?
• Identify and assess the impact on Tier Two owners/operators if the Tier Two membership level were eliminated.

Colorado Law:
9-1.5-105. (2) Notification association-structure and funding requirements-duties of owners and operators-report. This portion of the law is provided at the end of this section and in full in the Law appendices.

Section Overview

In the previous sections of this study, data from 15 selected states is used to compare damage prevention program effectiveness relative to Colorado’s program. For the purpose of comparing single or multi-tiered Membership Structures, insufficient information is provided from the original 15 selected states; hence this section expands the data presented to all 50 states plus the District of Columbia. In certain cases, data is presented relative to the 15 study states and is noted where used.

There are 36 states with single-tier membership systems and 7 states with multi-tier membership systems similar to Colorado’s; data from these 43 constitute the primary data pool for analysis. Of the remaining 8 states, 2 have Voluntary Membership Systems and 6 have Membership Exemptions; these 8 are not included in the analysis unless specifically stated.

As in the previous sections of this study, damage information in this section is from the Pipeline and Hazardous Materials Safety Administration, PHMSA. This dataset is comprised of damages and ticket history (2010-2014) for Gas Distribution Pipelines. Hence, data presented here will differ from the 2014 CO811 Annual Report; 2015 data was not available in time of this report.

In reviewing whether a multi-tiered One Call Membership system positively or negatively impacts public safety and the number of facility damages, this section focuses on the number of facility damages. Public safety categories are broadly discussed from state to state, and the standard for comparison is DPK. In this section’s findings, the data indicates that STS have fewer DPK than MTS over a 5-year period. The 7 states with a multi-tier system have a higher damage per 1,000 tickets rate than the MTS. This is a statistically significant difference.

While the study found no hard evidence that a multi-tiered One Call Membership positively or negatively impacts excavators, there are additional coordination challenges inherent within a multi-tier system can elevate risk. Excavators’ responses during the on-line and phone surveys, interviews, and forums indicate a strong desire to have a single-tier system. An estimated cost to the excavating community for working within a multi-tier system is included.

A MTS’ impact on excavators can be seen within the Texas MTS which contains a Class B membership. This Class B membership does not register their facilities with the One Call center resulting in these
facilities being virtually invisible to stakeholders until damaged, often by an excavator. The Texas One Call Center acknowledges this Class B category of membership generates the most confusion and frustration for stakeholders, particularly the excavating community.

In assessing the impact on Colorado's Tier 2 owners/operators if the two tiered membership were eliminated, no hard evidence exists to prove a positive or negative impact on Tier 2 members. Through the on-line and phone surveys, interviews and forums, Tier 2 members indicate a strong desire to have a single-tier system. An estimated cost to the Tier 2 community for working within a single-tier system is included in this study. Calculations show that 51% of the Tier 2 members would have a direct financial impact of under $150 per year.

**Abbreviations Unique to this Section**

**Damages per 1,000 Tickets (DPK):** a common measurement of states’ damage prevention efforts.

**Single-Tier (STS): Single Tier Membership Structure:** a system in which a single call to a Notification Center, like the UNCC, relays the locate request to all affected facility owners. First Tier or Tier 1 members receive locate requests directly from the Notification Center and participate in the Positive Response system. Positive Response provides feedback to the Notification Center and to the excavator on locate completion.

**Multi-Tier (MTS): Multi-Tier Membership Structure:** a system in which Facility Owners/Operators can elect the level of service they receive from the Notification Center. Multi-tier members receive fewer services, the most notable being the lack of receiving locate requests from the Notification Center. In some states like Colorado, the choice is a business decision; other states’ law dictates the minimum service level facility owners are allowed to use.

**Comparison Data – Membership Structures for across the Continental USA**

The following graphic depicts the two data sets that were used for this portion of the study; one data set includes the 15 Study States plus Colorado; the other data set includes the 36 STS states and the 7 MTS states.

Colorado is one of seven states in the 50 states and the District of Columbia to have a MTS.

**Map color coding:**

- **RED = MTS**
- **GREEN = STS**
- **YELLOW = Voluntary**
- **BLUE = Membership Exemptions**

**Specific Findings**

*This section of the report is a high level overview of the comparison and analysis conducted on the study points.*
Background and detailed information is included in the subsequent report sections.

Findings - Public Safety

No common data on public safety is available for this comparison. It is reasonable to expect that as damages to underground facilities decrease, the overall risk and danger levels to the general public decreases as well.

Findings - Does the evidence suggest that a multi-tiered One Call Membership has a positive or negative impact on public safety and the number of facility damages?

PHMSA reports that one-call memberships can have an impact on pipeline safety. A MTS creates, in effect, a membership exemption for those facilities that are NOT notified as part of the automated One-Call process. In its 2014 report provided to Congress, “A Study on The Impact of Excavation Damage on Pipeline Safety”, PHMSA focused on the impact of notification exemptions and less on one-call center membership exemptions. However, it is recognized that one-call membership exemptions can have an impact on pipeline safety.

2010 CGA Report - Analysis of the damages reported to the CGA’s 2010 DIRT database further demonstrates that approximately one third (32%) of the damages resulted from failure to notify prior to excavation. Therefore, a call to a one call center may be the simplest and most effective means to reduce or eliminate excavation-related underground utility damages. (highlighting added for emphasis) CGA’s 2010 DIRT Analysis and Recommendations

All MTS states in the study group, except Colorado, charge a fee for members to receive referrals.

Study States Data Damages/1,000 Tickets DPK

Based on the 15 Study States and using the DPK metric, the MTS states maintain damages above the level of the STS based over a 5-year period (2010-2014).

Colorado’s 5-year average DPK is lower than the two groups.

When expanded to use the 36 STS states and the 7 MTS states, the gap between the averages narrows. More states in each group provide a broader dataset to review.

Nationally, both membership systems DPK rates went up. However, the overall ranking did not change.
The graphic below is a simplified flow chart depicting how the two types of Colorado Facility Owners receive locate requests. Tier 1 members are notified directly through the Norfield ticketing system, Tier 2 members are referred to the excavator for individual follow-up (this is shown in red).

A typical locate request will generate between 5-7 transmissions/referrals to Tier 1 and possibly Tier 2 members; an excavator then must contact via phone each Tier 2 member identified by the UNCC on the locate request. The only portion of the Tier 2 notification process that is automated is the passing of the referral to the excavator. Each additional step in the process is a chance for an error to occur, which elevates risk.

There may be no Tier 2 members to contact or there could be 1 or more Referrals to contact.
Tier Membership and Locate Requests

There is roughly a 60/40 split of Tier 1 to Tier 2 members. The next section will illustrate the volume of referrals that excavators receive for Tier 2 Facility Owners. This large number of Tier 2 members increases the chances that any locate request will result in at least one Tier 2 member being referred to the excavator.

Transmissions refers to the locate request notice that a Facility Owner receives from the Norfield ticketing system. On average there are 5-7 Transmissions/Referrals generated for each locate request.

Tier 2 members receive NO automatic notice and thus rely on the excavator to contact them based on the referral the excavator receives from the UNCC.

Of the almost 7,000,000 transmissions/referrals, about 1,000,000 are referrals for Tier 2 Members.

In Colorado, Insufficient Notification practices account for 28.2% of all damages, which is a bit better than the national average of 32%. Referencing the 2014 CO811 Damage Report and 2010 CGA Annual Report: With almost 1,000,000 referrals needing to be completed manually by excavators the chances that some are not completed presents a real threat to excavators and Tier 2 Facility Owners. This threat was evaluated as part of this study and serves as confirmation to a larger study conducted by CO811 previously.

The Colorado data shows that in a small sample, three Tier 2 Members account for 25% of all Tier 2 Member referrals (there are 571 Tier 2 Members in total); 75% of the referrals to these three Tier 2 members are never completed by excavators. If this ratio holds true for the larger dataset of 973,146 referrals, then potentially there could be as many as 730,000 referred locate requests that are never passed to Tier 2 Members. The UNCC has investigated this issue previously and reached a very similar conclusion on the number of referrals that are not completed.
Three Tier 2 Members were referred 253,201 times to excavators. However, these Tier 2 Members report that they were only contacted 64,271 times, or 25% of the time. According to CGA, these 188,930 incomplete locate requests represent a risk. The three Tier 2 members make a reasonable sized sample based on their volume of referrals relative to all Tier 2 referrals. These three Tier 2 Members also have very good locate request systems in place.

Findings: Impact on Excavators of a MTS

The pie chart on the next page displays data collected via the on-line surveys. The chart details the preference for maintaining either a single Tier or 2 Tier System; the majority of respondents (63%) state a preference for a STS. (see survey data in the next sub-section).

The most common response from excavators is that Colorado's system is not a true "One-Call" system.

The excavators surveyed state that they experience increased costs using the MTS; this is based on their perceptions of time and labor costs expended to contact and follow-up with the Tier 2 members to ensure locates...
are completed. As of this report’s writing, excavators had not documented these perceived additional costs; they have been encouraged to document their real costs associated with the MTS.

It’s possible to estimate the cost for the excavators to contact each Tier 2 member. While this estimate is shown in the following table for illustrative purposes only, it does offer an objective look at costs associated with the additional coordination steps required under a MTS. Per the CO811 2014 Annual Report, the average call time for an excavator to make a locate request via telephone is 7 minutes 50 seconds. The way all Tier 2 referrals are made, it would be reasonable and conservative to assume that each referral will take at least 50% less as it would to the UNCC; hence 4 minutes is used for the purposes of this illustration.

<table>
<thead>
<tr>
<th>THIS IS AN ESTIMATE ONLY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UNCC minutes per call to notify ALL Tier 1 member Facility Owners</td>
<td>7:50</td>
</tr>
<tr>
<td>Excavator Estimated time to call each referred Tier 2 member Facility Owner</td>
<td>4:00</td>
</tr>
<tr>
<td>Number of referrals 2014 – if each referral must be contacted under the current law.</td>
<td>973,146</td>
</tr>
<tr>
<td>Total time to contact just one Tier 2 member</td>
<td>64,864 hours</td>
</tr>
<tr>
<td>Cost of person to make calls [This is not the wage, but the fully burdened labor rate]</td>
<td>$50/hour</td>
</tr>
<tr>
<td>$50/hour x 64,864 hours = $3,243,200</td>
<td>Potentially a $3.2M Annual Impact</td>
</tr>
</tbody>
</table>

Findings - Impact on Tier 2 Members

When surveyed via the online survey, 46% of Tier 1 and Tier 2 members indicate a preference for a STS; only 26% indicating they want to keep the current 2 Tier system.

28% indicated no preference for one system or the other.

Tier 2 members commonly cite the cost of paying for Locate Requests, like the Tier 1 members do, as being their biggest challenge for them moving to Tier 1 membership. An estimate in the table below shows that more than 50% of the Tier 2 members would see less than a $150 per year cost to be a Tier 1 member.

This chart may be helpful in assessing the financial impact to Tier 2 members if the MTS option in Colorado were to be eliminated:

<table>
<thead>
<tr>
<th>Cost per transmission to a Tier 1 Facility Owner</th>
<th>$1.43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget based on Billable Transmissions 3,951,493 x $1.43</td>
<td>$5,650,635</td>
</tr>
</tbody>
</table>
Tier 2 members became Tier 1 members
Increase the transmission base by 973,146.

3,951,493 + 973,146 = 4,924,639 total transmissions

Budget divided by the total tickets

$1.15 Estimated ticket price  ESTIMATE ONLY

ESTIMATED Economic Impact for Tier 2
4,924,639 x $1.15

$1,119,118

<table>
<thead>
<tr>
<th>Number of Tier 2 Members, 572 total, and the estimated financial cost per year based on their current referral volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>$150</td>
</tr>
<tr>
<td>$500</td>
</tr>
<tr>
<td>$1,000</td>
</tr>
<tr>
<td>$2,000</td>
</tr>
<tr>
<td>$10,000</td>
</tr>
<tr>
<td>$50,000</td>
</tr>
<tr>
<td>$200,000</td>
</tr>
<tr>
<td>$1,000,000</td>
</tr>
</tbody>
</table>

The impact of receiving transmissions as opposed to referrals is less than $1,000 per year per member for 80% of the Tier 2 membership. Many of these members would see no change in their cost to participate as a Tier 1 member, as they receive no referrals today.

CGA is explicit in its position on the cause and effect relationship between locate requests and damages. CGA makes the point that there is less than a 1% chance of damages occurring if a locate request is made and transmitted to the facility owner. Colorado does NOT have a good record of completing referrals to Tier 2.
members for any number of reasons; and, this increases the probability of damages occurring. In 2014, 28% of the facility damages in Colorado were attributed to insufficient notification practices; how many of these could have been avoided? Further study and reporting of damages by all Facility Owners would be required to accurately answer that question.

The information collection methods employed during this study found that Tier 2 members are not always familiar with their responsibilities under the current Colorado Dig Law; this could lead to additional unidentified costs for Tier 2 members such as costs in documenting their facilities, and providing locates within the required time frame. Several Tier 2 members interviewed did not realize what their obligations were, here is an example:

From a comment made in the on-line survey: the respondent stated that “the 48 hours was the minimum time to complete a locate and not the maximum and excavators needed to be taught that”; this is not a completely true statement. The law requires locates to be completed within 48 hours, 2 full business days, after the day of the request unless other arrangements are made. In this case the facility owner was in error on their understanding of the law.

**Background and Commentary**

**Colorado Law § 9-1.5-105. Notification association--structure and funding requirements--duties of owners and operators—report**

(2) All underground facility owners and operators except the Colorado Department of Transportation shall be members of the notification association which shall be organized as follows:

(a) “Tier one” members who shall be full members of the notification association and shall receive full service benefits as part of such membership as specified in this article. Any owner or operator required to be a member of the association who was a member on February 1, 1993, shall be designated a tier one member without further action by such member.

(b)(1) “Tier two” members who shall be limited members and shall receive limited services as a part of such membership as specified in this article. Tier two members shall pay a one-time membership fee of twenty-five dollars to the notification association to partially defray the costs incurred by the association in organizing pursuant to this article. The notification association shall not assess any charges, costs, or fees to any tier two member other than the one-time membership fee.

CGA 2010 Analysis and Recommendations states:

*Data collected from 31 One Call centers and associated damage data in DIRT indicates that less than 1% of excavations preceded by a locate request resulted in a damage. This is further described on page 10 of this report.*

**Page 10 of the CGA 2010 Analysis and Recommendations**

Was a locate request made prior to excavation?

A locate request is the most effective means of preventing damages. An analysis of 31 One Call center ticket volumes and damages included in the 2010 DIRT data set for the corresponding states supports this. The number of damages in the 2010 DIRT data set for which a locate request was made was compared to the total number of one call center tickets for those 31 states in which one-to-one comparisons could be made; this comparison shows that less than 1% result in damage.

The CGA 2014 Analysis and Recommendations re-validates the above findings in summary form only; for details refer to the 2010 report.

**Other MTS States’ Operations**

The study looked specifically at Arizona and Kansas as two MTS in the study group. These two states are very similar to Colorado in the services they provide relative to the various tier levels of membership.
Arizona and Kansas differ from Colorado in that they both charge all members for receiving notices and providing referrals. The pricing for referrals is a percentage of what a full service or Tier 1 member would receive.

**How Safe are MTS states relative to the STS states?**

Across the United States, there is no commonly acknowledged standard metric established for Public Safety; hence, the working assumption is that if damages are being controlled and trending downward (DPK rates moving lower) then the public is safer.

Note: Average yearly ticket volume is measured in the 100,000s; Colorado in 2014 had over 720,000 tickets. Damages typically run in the 5 - 8,000 range per state. Colorado in 2014 had 1,811 gas distribution damages. The damages in the report are Gas Distribution damages recorded by PHMSA.

The following four graphs on page 12 illustrate that the type of membership structure has little, if any, effect on actual damages as ticket volume increases. The dotted line indicates the trend of damages over the 5-year period. The bars represent the changes in ticket volume year over year.

Colorado (a MTS state) and Minnesota (a STS state) have the same approximate number of tickets as of 2014 and they both show a small growth in actual damages. Their DPK ratio is below the group average. (Recommend we steer clear of declaring a state as doing a “good job” …this is implied by their DPK being below the group average.

Contrasting the performance of Colorado and Minnesota with Kansas and Indiana, a different story is portrayed. Kansas is a MTS state and Indiana is a STS. Both states are experiencing growth in ticket volume and the number of actual damages is dropping. Indiana is on a slower downward trend than Kansas.

If these trends were the result of the MTS or the STS system there should be some consistent behavior in the relationship between ticket growth and damages; in fact, there is no consistent correlation.
Annual Average Rate of Change of Damages and Tickets

During interviews with other states’ One Call centers, it was identified that state-to-state comparisons of damage prevention program effectiveness using damages per 1,000 tickets is difficult since each state defines damages and tickets differently. One suggestion to assist in an “apples-to-apples” comparison of damage prevention program effectiveness is to calculate the rate-of-change between Damages and Tickets with each state separately, then compare the rates of change broadly amongst all states being reviewed; this could provide a meaningful benchmark tool.

Using a rate-of-change metric eliminates any confusion regarding differences in ticket parameters or the definition of damages. Additionally, this type of metric is very straightforward and not overly difficult to calculate. The formula applied is Rate of Change = \( \frac{1}{t} \ln \left( \frac{N}{No} \right) \);

refer to the DATA section for calculation details.

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Annual Average Rate-of-Change Data Tables

To provide the best comparison, the 15 Study States were used along with the 3 other states that have and use a MTS system.

The states, regardless of membership structure, are relatively homogenous in their distribution on each list. The most notable clustering is in Table 1 where two of the seven MTS states have the highest DPK rate.

Table 1 shows the ranking by DPK, lowest to highest, and the MTS are spread over the range, with Tennessee and Idaho having the highest DPK. States with a lower DPK are thought to be safest and have effective Damage prevention programs.

<table>
<thead>
<tr>
<th>5 Year State Average DPK</th>
<th>Average Annual Growth Rate</th>
<th>Damages</th>
<th>Tickets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.49 Virginia</td>
<td>-2.8%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>1.53 Maryland</td>
<td>-2.8%</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>1.67 Arizona</td>
<td>-0.8%</td>
<td>-0.9%</td>
<td></td>
</tr>
<tr>
<td>1.68 Wisconsin</td>
<td>-0.6%</td>
<td>2.1%</td>
<td></td>
</tr>
<tr>
<td>2.31 Minnesota</td>
<td>2.4%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>2.49 Colorado</td>
<td>2.6%</td>
<td>6.7%</td>
<td></td>
</tr>
<tr>
<td>2.52 Ohio</td>
<td>-0.4%</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td>2.58 Kansas</td>
<td>-7.4%</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>2.59 Nebraska</td>
<td>2.1%</td>
<td>6.2%</td>
<td></td>
</tr>
<tr>
<td>2.67 North Carolina</td>
<td>2.6%</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>3.13 Indiana</td>
<td>-0.8%</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>3.73 New Mexico</td>
<td>-0.1%</td>
<td>-0.7%</td>
<td></td>
</tr>
<tr>
<td>3.80 Oklahoma</td>
<td>3.1%</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>3.96 Utah</td>
<td>-0.7%</td>
<td>3.6%</td>
<td></td>
</tr>
<tr>
<td>4.02 Texas</td>
<td>1.8%</td>
<td>10.1%</td>
<td></td>
</tr>
<tr>
<td>4.04 South Dakota</td>
<td>6.3%</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>5.29 Washington</td>
<td>0.1%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>5.65 Tennessee</td>
<td>0.01</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>6.87 Idaho</td>
<td>5.9%</td>
<td>9.4%</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 is sorted based on the changes in damage growth rates. A negative number or a GREEN colored cell indicate decreasing damage rates of growth, while RED indicates more damages. The MTS states are spread throughout the table, hence there is no positive or negative correlation to damage growth rates.

<table>
<thead>
<tr>
<th>5 Year State Avg. DPK rate</th>
<th>Average Annual Growth Rate</th>
<th>Damages</th>
<th>Tickets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.58 Kansas</td>
<td>-7.4%</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>1.53 Maryland</td>
<td>-2.8%</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>1.49 Virginia</td>
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<td>3.13 Indiana</td>
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<tr>
<td>3.96 Utah</td>
<td>-0.7%</td>
<td>3.6%</td>
<td></td>
</tr>
<tr>
<td>1.68 Wisconsin</td>
<td>-0.6%</td>
<td>2.1%</td>
<td></td>
</tr>
<tr>
<td>2.52 Ohio</td>
<td>-0.4%</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td>3.73 New Mexico</td>
<td>-0.1%</td>
<td>-0.7%</td>
<td></td>
</tr>
<tr>
<td>5.29 Washington</td>
<td>0.1%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>5.65 Tennessee</td>
<td>1.1%</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>4.02 Texas</td>
<td>1.8%</td>
<td>10.1%</td>
<td></td>
</tr>
<tr>
<td>2.59 Nebraska</td>
<td>2.1%</td>
<td>6.2%</td>
<td></td>
</tr>
<tr>
<td>2.31 Minnesota</td>
<td>2.4%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>2.67 North Carolina</td>
<td>2.6%</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>2.49 Colorado</td>
<td>2.6%</td>
<td>6.7%</td>
<td></td>
</tr>
<tr>
<td>3.80 Oklahoma</td>
<td>3.1%</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>6.87 Idaho</td>
<td>5.9%</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>4.04 South Dakota</td>
<td>6.3%</td>
<td>4.1%</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 is ordered based on ticket volume changes; GREEN indicates a growing volume of tickets and RED a decreasing volume tickets. CGA data would indicate that ticket growth is an indicator of an effective damage prevention program due to more excavators may be submitting locate requests. Ticket volume can also change for any number of reasons, such as changes to the economy; ticket volume changes need to be considered relative to other factors; using the 5-year Annual Average Growth formula minimizes that impact. Tickets are more of an independent variable and can change due to the economy or due to damage prevention efforts; again the 5-year look at the data provides a reasonable analysis of the data.

<table>
<thead>
<tr>
<th>5 Year State</th>
<th>Average Annual Growth Rate</th>
<th>Damages</th>
<th>Tickets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.67 Arizona</td>
<td>-0.8%</td>
<td>-0.9%</td>
<td></td>
</tr>
<tr>
<td>3.73 New Mexico</td>
<td>-0.1%</td>
<td>-0.7%</td>
<td></td>
</tr>
<tr>
<td>1.68 Wisconsin</td>
<td>-0.6%</td>
<td>2.1%</td>
<td></td>
</tr>
<tr>
<td>1.49 Virginia</td>
<td>-2.8%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>5.29 Washington</td>
<td>0.1%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>2.31 Minnesota</td>
<td>2.4%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>3.96 Utah</td>
<td>-0.7%</td>
<td>3.6%</td>
<td></td>
</tr>
<tr>
<td>2.52 Ohio</td>
<td>-0.4%</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td>4.04 South Dakota</td>
<td>6.3%</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>3.80 Oklahoma</td>
<td>3.1%</td>
<td>4.1%</td>
<td></td>
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<tr>
<td>2.67 North Carolina</td>
<td>2.6%</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>3.13 Indiana</td>
<td>-0.8%</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>5.65 Tennessee</td>
<td>0.01</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>1.53 Maryland</td>
<td>-2.8%</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>2.59 Nebraska</td>
<td>2.1%</td>
<td>6.2%</td>
<td></td>
</tr>
<tr>
<td>2.49 Colorado</td>
<td>2.6%</td>
<td>6.7%</td>
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<tr>
<td>6.87 Idaho</td>
<td>5.9%</td>
<td>9.4%</td>
<td></td>
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<tr>
<td>2.58 Kansas</td>
<td>-7.4%</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>4.02 Texas</td>
<td>1.8%</td>
<td>10.1%</td>
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</tr>
</tbody>
</table>
What other States have Multi-Tiered One Call Membership Structures?

Due to this very small data set the researchers considered all 50 states plus the District of Columbia in their data analysis of this topic; the larger data set provides greater accuracy for this analysis.

<table>
<thead>
<tr>
<th>State by State Membership Structure</th>
<th>One-Tier</th>
<th>Multi-Tiered</th>
<th>Exemptions to Membership</th>
<th>Voluntary Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Arizona</td>
<td>Maine</td>
<td>Alabama</td>
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<tr>
<td>Arkansas</td>
<td>Colorado</td>
<td>Mass</td>
<td>Kentucky</td>
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<tr>
<td>California</td>
<td>Idaho</td>
<td>Nevada</td>
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<tr>
<td>Connecticut</td>
<td>Kansas</td>
<td>Oregon</td>
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<tr>
<td>Delaware</td>
<td>Tennessee</td>
<td>Pennsylvania</td>
<td></td>
<td></td>
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<tr>
<td>District of Columbia</td>
<td>Wisconsin</td>
<td>West Virginia</td>
<td></td>
<td></td>
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<tr>
<td>Florida</td>
<td>Texas</td>
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<td>Georgia</td>
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<td>Hawaii</td>
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<td>Illinois</td>
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<td>Indiana</td>
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<td>Iowa</td>
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<tr>
<td>Louisiana</td>
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<td>Maryland</td>
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<td>Michigan</td>
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<td>Minnesota</td>
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<td>Mississippi</td>
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<tr>
<td>Missouri</td>
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<tr>
<td>Montana</td>
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<tr>
<td>Nebraska</td>
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<tr>
<td>New Hampshire</td>
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<tr>
<td>New Jersey</td>
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<tr>
<td>New Mexico</td>
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<tr>
<td>New York</td>
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<td></td>
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<td></td>
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<tr>
<td>North Carolina</td>
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<tr>
<td>North Dakota</td>
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<tr>
<td>Ohio</td>
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<tr>
<td>Oklahoma</td>
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<tr>
<td>Rhode Island</td>
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<tr>
<td>South Carolina</td>
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<tr>
<td>South Dakota</td>
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<tr>
<td>Utah</td>
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<tr>
<td>Vermont</td>
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<tr>
<td>Virginia</td>
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</tr>
<tr>
<td>Washington</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wyoming</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Observations on the Study States and Multi-Tiered Structure

<table>
<thead>
<tr>
<th>State</th>
<th>Tier Structure like Colorado</th>
<th>Damage Rate 5 Year Average</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona*</td>
<td>Yes</td>
<td>1.67</td>
<td>Arizona has a multi-tier system similar to Colorado’s. In Arizona’s system all Tier members pay for notices or referrals</td>
</tr>
<tr>
<td>Colorado</td>
<td>NA</td>
<td>2.49</td>
<td>Two distinct tiers with distinct levels of service provided. Only Tier 1 pays for notices or referrals</td>
</tr>
<tr>
<td>Kansas*</td>
<td>Yes</td>
<td>2.58</td>
<td>Kansas has a multi-tier system similar to Colorado’s. In Kansas’ system all Tier level members pay for notices or referrals</td>
</tr>
<tr>
<td>Texas*</td>
<td>Yes</td>
<td>4.02</td>
<td>Texas has 2 classes: Class A is similar to Colorado’s Tier 1 members; Class B members’ facilities are not identified or tracked</td>
</tr>
<tr>
<td>Idaho</td>
<td>Yes</td>
<td>20.78</td>
<td>Membership Level denotes service level, similar to Colorado</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Yes</td>
<td>5.65</td>
<td>Membership Level denotes service level, similar to Colorado</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Yes</td>
<td>1.68</td>
<td>Membership Level denotes service level, similar to Colorado</td>
</tr>
</tbody>
</table>

### Does the evidence suggest that a multi-tiered One Call Membership has a positive or negative impact on public safety and the number of facility damages?

The data comparing the number of multi-tier facility damages to single-tier facility damages from the study states was not conclusive. Therefore, the study expanded the dataset to include an evaluation of the 36 STS states and the 7 MTS States. For clarity, Alaska and Hawaii are not shown; their high damage rates (DPK >10) skews the visual analysis and they were removed from the group. The remaining group average is 3.51 DPK, higher than the study group at 3.17 DPK.
The data for the 36 STS states and for the 7 MTS shows very little difference. On average, the MTS have a lower DPK than the STS. On an individual comparison the results vary.

A third data analysis was performed. States of similar size in relation to the miles of Gas Distribution Pipeline in Colorado were compared to each other. Please refer to the Data section page 89 for details.

In this analysis, the STS states perform better than the MTS states, by 0.15 DPK; this is not a statistically significant amount.
The six states analyzed for this segment where chosen based on the miles of Gas Distribution Miles they have relative to Colorado's miles.

The MTS are shown in RED and the STS are shown in BLUE.

The DPK over a 5-year period are shown, the MTS is RED and the STS in BLUE.

The MTS and STS group Averages are:

MTS = 2.98 DPK  
STS = 2.85 DPK  

The STS states have a lower rate of damages, but not enough to make a statistical difference.

Public Safety

Public Safety information is not readily available for the correlation of damages and membership tier levels at the national level. Public safety categories are broadly discussed from state to state, and no common standard for comparison exists. In general, public safety is often discussed in preventing incidents that cause fatalities, injury and significant property damages.

Damage comparison

An accurate measurement of the true damages a state has relative to others is hampered for several reasons; damage reporting is not mandatory in many states. See the Section on REPORTING for details.

Many states only report Gas Damages as it is a federal requirement. This mandatory reporting provides consistent data and is the reason that Gas Distribution pipeline damages are the industry standard; thus its use in this study.
Biasing the DPK Metric

In an effort to provide better data clarity, a portion of the study did bias the data based several factors. The factors considered in the bias are Building Permits, Gas Pipeline miles, State GDP, Population Density and the actual Gas Damages for the state. The results are tabulated below and shown in actual damages, not DPK. Please refer to the DATA section page 89 for more details on this subject.

The rankings in the adjacent table, Damages Biased, are based on damages adjusted for Gas Distribution miles, Building Permits, State GDP and Population Density. Please refer to the DATA section page 89 for further details.

Colorado ranks 33rd overall of the 50 states plus the District of Columbia in Gas Distribution damages based on a 5 Year Average of Damages/1,000 tickets.

In the ranking of the 15 study states, Colorado is #8 and maintains that position regardless of the bias applied.

Additional Multi-Tiered Membership Structures states are highlighted in Green.

<table>
<thead>
<tr>
<th>State</th>
<th>Colorado equivalent Adjusted Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota</td>
<td>937</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1157</td>
</tr>
<tr>
<td>Nebraska</td>
<td>1193</td>
</tr>
<tr>
<td>Kansas</td>
<td>1416</td>
</tr>
<tr>
<td>Maryland</td>
<td>1422</td>
</tr>
<tr>
<td>Utah</td>
<td>1429</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>1606</td>
</tr>
<tr>
<td>Colorado</td>
<td>1811</td>
</tr>
<tr>
<td>Arizona</td>
<td>1822</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1843</td>
</tr>
<tr>
<td>Virginia</td>
<td>1896</td>
</tr>
<tr>
<td>Washington</td>
<td>1972</td>
</tr>
<tr>
<td>Indiana</td>
<td>2058</td>
</tr>
<tr>
<td>North Carolina</td>
<td>2351</td>
</tr>
<tr>
<td>Ohio</td>
<td>2630</td>
</tr>
<tr>
<td>Texas</td>
<td>6252</td>
</tr>
</tbody>
</table>

Table – Damages Biased

Does the evidence suggest that a Multi-Tiered One Call Membership has a positive or negative impact on Excavators?

Summary of Excavator input

- Excavators believe that the current Multi-Tiered Membership system puts their employees at risk and costs them time and money. (Excavators have been urged to formally document this belief as supporting data is not readily available)

- Several alternative ad-hoc processes have been developed by stakeholders in the various areas to deal with challenges resulting from their frustration with the current system.
  - For example, excavators often bypass the Facility Owner and directly call the locator that typically performs locates for the Facility Owner as opposed to calling the UNCC with a Second Notice as required by law.
  - A more dangerous ad-hoc process finds the excavator starting the project before the Tier 2 Facility Owner has responded. This was witnessed first-hand during the study.
Excavators anecdotally report that more than 30% of the time Tier 2 members do not respond to locate requests, and when they do respond, it is not in the legally required time frame. This increases confusion and frustration for all stakeholders and could conceivably lead to additional damages.

**Supporting Documentation**

The question of whether multi-tiered One Call Membership has a positive or negative impact on Excavators was addressed from four different data collection sources: Interviews, Forums, Phone Surveys, and On-Line Surveys.

**On-Line Survey** – 25% of the respondents self-identified themselves as an Excavator or Contractor.

Those who indicated a knowledge of the Two Tier system in Colorado where asked if that system should be maintained or not.

63% of the respondents indicated that they supported moving to a One Tier system as opposed to 16% who indicated a desire to keep the current Two Tier system.

**Excavator Preferences on-Line Survey**

- 63% of the excavators surveyed indicate a preference for a STS.
- 16% of the excavators would prefer to keep the MTS.
- 21% indicate no preference for one system or the other.

**Phone Survey** – There were approximately 50 phone surveys collected and 90% of the respondents indicated a preference for a One Tier Membership Structure.

**Interviews** – There were 10 interviews conducted with excavator/contractors either individually or in groups; there were a total of 30 participants. These interview groups included private excavators, contractors and landscapers, as well as Tier 1 and Tier 2 member excavation crews.

The interview groups, without exception, expressed a strong sentiment for a Single-Tier system. In one interview with a Tier 2 Member, the excavation crew chief received a call from a Tier 2 member clearing a locate request; of note was that this “clearance” was for a job that the crew chief had completed 3 days earlier. Tier 2 Member excavation crews were equally adamant about Colorado moving to a Single Tier Membership Structure as were private excavators.

For the study’s researchers, our challenges in contacting the Tier 2 members mirror those reported by the excavators; 22% of the calls made to Tier 2 Facility Owners/Operators were never answered or returned when voice mail messages were left.

**Forums** – Attendance at the Forums totaled over 100. Attendees consistently expressed the numerous challenges in contacting the Tier 2 members.

In only one instance were the Tier 2 members favorably compared with the Tier 1 members; this occurred during the forum in Grand Junction. No reason for this dichotomy in opinion has been discovered. Based on
other comments at forums around the state, there appears to be a number of long term relationships that have been formed over the years in this area and a number of ad-hoc processes have been developed and put into practice.

**Identify and assess the impact on Tier 2 owners/operators if the Tier 2 membership level were eliminated.**

**Summary**

- Tier 2 owners report not wanting to comply with the laws and procedures governing Tier 1 members. Both membership levels have the same performance requirements procedurally under the law.
- Tier 2 members consistently cite financial concerns as their motivation for not becoming a Tier 1 member.
- Tier 2 members state that they are very responsive to all locate requests.
- Tier 2 members consistently report fewer calls for locate requests than the One Call Center reports in referrals to the same member. This results in potentially dangerous situations as locates are not being performed. See the previous section *Tier Membership and Locate Requests*.

**Documentation**

This question *Identify and assess the impact on Tier 2 owners/operators if the Tier 2 membership level were eliminated* was addressed from four different data collection sources; Interviews, Forums, Phone Surveys, and On-Line Surveys.  

**On-Line Survey** – of the almost 300 Facility Owner/Operator respondents, 76 could not identify their Tier Level in the One Call system. Note: In the phone survey, a number of the Tier 2 members could not state what tier level they were or if they were actually members at all.

When surveying Tier 2 Members, 46% indicated a preference for a STS with only 26% indicating they want to keep the 2 tier system.  

28% indicate no preference for one system or the other.

When surveyed about the membership duties under the law, 58% of Tier 2 respondents were not sure if there were differences or not.
Comments on the type of Membership System preferred:

The comments are unedited and are uniquely in response to this question.

1. This makes keeping private entities in the system. Not everyone can afford tier 1.
2. If State could just make a note of where their pipe is that would be easier than everyone always having to call them.
3. We must equal the playing field
4. never dealt with tier 2
5. it would facilitate less damages to tier 2 members
6. Due to fees associated with tier 1
7. The tiered system does not benefit the excavator, thus making it more likely for those members to not be called.
8. I like the OK one call system, very easy (Note: presume this to mean Oklahoma – a Single Tier Membership state)
9. Sometimes Tier 2 change contact information but do not update one call. I think this would improve contact information.
10. Having a 2 tier system is confusing
11. I don’t know enough about single system to comment
12. These are mostly private entities and are not always effected by the locate request.
13. sometimes tier 2 is not a major concern or responsibility
14. For the public safety and to provide a method of enforcement which is needed within Colorado, the single Tier system should be implemented for utility facilities including water/ sewer, etc and municipalities. The only exception “might” be in regards to irrigation systems and HOA establishments. Tier Two members do provide exceptional service though
15. If there is not a 2 tier system the small companies will not participate.
16. Our area needs to have Chipeta and Tri County water added to tier one
17. Some tier 2 are hard to contact
18. do not have an opinion
19. Annual fees & budgets should be based on the state’s complete facility owner base, not the partial support of the one-call system now existing based primarily on tier 1 facility owner contributions
Law Section

Colorado Law click here to review the entire Colorado Law.

Kansas – MTS defines both a membership level and a facility level as well. Each allowed combination membership and facility size carry with it certain obligations and costs.

**Tier 2 Members participate financially for having referrals provided to excavators.**

The notification center shall charge a referral fee to tier 2 facility members in an amount no more than 50% of the referral fee rate charged to tier 1 facility members. From **Obligations of the Notification Center**, K.S.A. 66-1801 et seq.

Kansas has an MTS and defines facilities as Tier 1, 2 or 3. Membership defines the level and cost of services provided while the tiered facility definition applies to the size of the facility operation and creates certain expectations for the facility owner.

<table>
<thead>
<tr>
<th>Tier 1 Facility</th>
<th>Tier 2 Member</th>
<th>Tier 3 Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Not allowed</td>
<td>Not allowed</td>
</tr>
<tr>
<td>Tier 2 Facility</td>
<td>Optional</td>
<td>Minimum Required</td>
</tr>
<tr>
<td>Not allowed</td>
<td>Optional</td>
<td>Minimum Required</td>
</tr>
</tbody>
</table>

The following are excerpts are from K.S.A. 66-1801 et seq, the statute and K.A.R. 82-14-1 through 82-14-5 the regulations.

“Tier 1 member” means any operator of a tier 1 facility, as defined in K.S.A. 66-1802 and amendments thereto, or any operator of a tier 2 facility, as defined in K.S.A. 66-1802 and amendments thereto, that elects to be a tier 1 member of the notification center pursuant to K.A.R. 82-14-3.

“Tier 2 member” means any operator of a tier 2 facility, as defined in K.S.A. 66-1802 Page 5 of 19 and amendments thereto, that elects to be a tier 2 member of the notification center.

“Tier 3 member” means any operator of a tier 2 facility, as defined in K.S.A. 66-1802 and amendments thereto, that meets the requirements for a tier 3 facility, as defined in K.S.A. 66-1802 and amendments thereto, and elects to be a tier 3 member of the notification center.

“Tier 1 facility” means an underground facility used for transporting, gathering, storing, conveying, transmitting or distributing gas, electricity, communications, crude oil, refined or reprocessed petroleum, petroleum products or hazardous liquids.

“Tier 2 facility” means an underground facility used for transporting, gathering, storing, conveying, transmitting or distributing potable water or sanitary sewage.

“Tier 3 facility” means a water or wastewater system utility which serves more than 20,000 customers who elects to be a tier 3 member of the notification center pursuant to this subsection.

**Additional Obligations of the Tier 3 Member of the Notification Center**

The operator of a tier 3 facility shall:

(1) Develop and operate a locate service website capable of receiving locate requests; (2): Publish and maintain a dedicated telephone number for locate services; (3): Maintain 24-hour response capability for emergency locates; and (4): Employ not less than two individuals whose primary job function shall be the location of underground utilities.

Operators of tier 3 facilities shall make either such website or contact information available to the notification center. Tier 3 members shall be subject to all provisions of 66-1804, 66-1805, 66-1806 and amendments thereto.

Arizona
The MTS in use is similar to Colorado's in most respects.

Arizona like Kansas requires financial participation of all members for locate requests and referrals.

ARIZONA REVISED STATUTE
Title 40 - Public Utilities and Carriers
Chapter 2 - Public Service Corporations Generally
40-360.32. Onecall notification center membership; termination; designated representatives

B. Every underground facilities operator who is obligated to locate and mark underground facilities pursuant to section 40360.22, subsection B, except a landlord exempted by this section, shall be a member of a onecall notification center, either statewide or serving each county in which such entity or person has underground facilities. This subsection does not apply to a landlord if the only underground facilities that the landlord are obligated to locate and mark are within an apartment community or mobile home park.

C. Each onecall notification center shall establish a limited basis participation membership option, which may be made available to all members, but which must be made available for any member serving less than one thousand customers, or any member irrigation or electrical district. An underground facilities operator who elects limited basis participation membership shall provide to the onecall notification center the location of its underground facilities solely by identifying the incorporated cities and towns, or for unincorporated county areas, by identifying the townships, in which it has facilities. The service level provided to limited basis participation members by the onecall notification center is limited to providing excavators with the names and telephone numbers the excavators should contact to obtain facilities location. Each onecall notification center shall establish fair and reasonable fees for limited basis participation members, based on customer count, areas occupied or miles of underground facilities.
Data

This section of the report explains how the various calculations are made and the rationale for using these calculations. In exploring the Topics of Interest regarding the Colorado One Call Law as called for in this study, several comparisons between Colorado and other states were conducted in terms of Public Safety and Facility Damages per 1,000 Notification Requests.

The report utilizes two primary calculations for measuring Public Safety: Damages Per Thousand Tickets (DpK) and the Rate of Change of Damages.

A third measure developed for the study shows the relative ranking of each state using four variables to compare one state’s estimated performance to each other; the state’s actual performance is then compared to their estimated performance.

Rationale for use of the PHMSA database

The PHMSA database is well regarded in the Underground Damage Prevention community as it has matured and stabilized over the past 10-years; the database is very well maintained and the data is double checked before final inclusion. The database used is specific to Excavation Damages to Gas Distribution Miles and contains the damages caused by excavation and the total tickets by state over a 5-year period.

Gas Distribution Damages serve as the focal point in the analysis conducted for the following reasons:

- Many states only collect damage data for Gas Distribution Pipelines.
- Many states, as reported by CGA, do not have robust damage collection and validation programs. In contrast, reporting of Gas Distribution Pipeline damage is a federal requirement.
- The definition of damages is not the same from state-to-state. As an example, South Dakota recently changed how they internally report damages and the recorded number of damages increased dramatically. South Dakota believes that their reported damages increased due to the new reporting procedures, and that their actual damages have remained relatively the same.
- Many states believe that by diligently monitoring the safety of the Gas Distribution Pipelines that they will create a safer work environment for all excavation processes; this is referred to in the industry as “habits and attitudes” transferal. With the limited data from states regarding the non-Gas Distribution Pipelines, this is difficult to validate.

Colorado’s damage prevention data collection, which is highly respected by many US damage prevention community peers for its accuracy and completeness, provides a high correlation of the damages between Gas Distribution Pipelines and other damages. Although there is not a solid statistical correlation, it does provide a means to develop logical assertions. It is worthy to highlight that damage analysis uses averages, like a baseball batting average, so changes in ticket volume can impact the results as much as actual damages.

Damages per 1,000 Tickets (DpK)

The damages per 1,000 tickets measure has been widely used since 2008 and is strongly promoted by CGA as a good benchmark for state-to-state comparisons. Its abbreviation, DpK, is used throughout the study to simplify the reading of the report. This metric provides a good approximation of one state’s damage prevention effectiveness relative to another state’s. The DpK metric does not provide any specific forecasting or specific correlation to various programs and their impact on reducing damages.

The measurement is straight forward: dividing total damages by total tickets and then multiplying the resultant by 1,000.

\[
DpK = \frac{\text{Damages}}{\text{Tickets}} \times 1,000
\]
This number is used as a common industry baseline.

**Tickets as a Variable**

Tickets refers to the locate requests that are made by an excavator. Tickets are defined at the state level and can encompass various areas, from several city blocks to a 25-mile stretch of highway. These wide-ranging parameters are an accepted characterization of the calculation; it is recognized as an influencer on the consistency of the ticket number on a state-by-state comparison. Thus, ticket data is debated as an effective measurement tool due to the various definitions of what constitutes a “Ticket” state-to-state.

However, it is suggested that each state has optimized the definition of a ticket to provide the best balance between safety and practicality possible for that particular state. When viewed from this perspective, it accounts for the wide variations in what defines a ticket state-to-state and allows for an unbiased comparison. Additionally, in the larger state groupings, those differences in ticket definition from one state to the next are minimized due to the large sample size.

Using the PHMSA database we can correlate Tickets with damages on a 5-year average; tickets do correlate with actual damages at a coefficient of 0.77, which is representative of a strong correlation. Therefore, even with the different definitions of a “Ticket” it is possible to obtain very representative data for trends and general comparative analysis.

Using the PHMSA database for tickets includes the same data consistency so if there is any offset due to the ticket data, it is consistent across all the states.

**Damages as a Variable**

Damages are difficult, but not impossible, to analyze for a number of reasons. Some states only collect damages to gas distribution pipelines; other states input all of their damage data into the DIRT tool and often make limited efforts to validate the data they are inputting.

To provide the best analysis possible for this study, the PHMSA Gas Distribution damages database is used as the source for damage data. As mentioned previously, this database has been in use for over 10 years and the data collection is now very stable due to the Federal mandate; it is much more accurate than other non-regulated self-reported data.

**Correlation of All Colorado Damages to PHMSA Damages**

<table>
<thead>
<tr>
<th>Correlation of Colorado Damages to PHMSA Damages</th>
<th>All Damages</th>
<th>Gas Dist. Damages</th>
<th>Correlation of Colorado Non-Gas Damages to PHMSA Damages</th>
<th>Gas Dist. Damages</th>
<th>Non-Gas Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Damages</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Dist. Damages</td>
<td>0.979172</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Non-Gas damages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.964576</td>
</tr>
</tbody>
</table>

A factor of 1 is a perfect correlation; therefore 0.979 and 0.964 demonstrate that, for Colorado, using Gas Distribution Damages is a good surrogate for actual damages. Other states demonstrate a similar correlation. For example, Kansas has a statistically acceptable correlation of 0.751 between Gas Distribution Damages and all damages in the state. Nebraska has a strong negative correlation of -0.850 which means all other damages are going up as Gas Distribution Damages go down.

Texas does not have a strong correlation but it is still somewhat significant. Other states do not have or did not supply sufficient data to calculate an accurate correlation. However, these states often state that their policy is to control Gas Distribution Damages and then the other damages will come down accordingly.

Please refer to the discussion on the Pearson product-moment correlation coefficient later in this section.
Three Approaches Employed for Data Analysis

There are at least three avenues that one can compare the success of Colorado’s damage prevention efforts with other states. (All data is based on PHMSA Gas Distribution damages and tickets database)

1. Using the most common and accepted method: making comparisons using the Damages per 1,000 tickets, DpK, based on the PHMSA database.
2. Using the states’ damage and ticket data and compare the rate of change of actual damages and tickets to each other.
3. Using the actual damages, from PHMSA, and bias them with known correlation factors to get a more accurate comparison between states.

Colorado Damage and Ticket Data

<table>
<thead>
<tr>
<th>Year</th>
<th>Tickets</th>
<th>Damages, Gas Distribution Pipeline</th>
<th>DpK</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>514,689</td>
<td>1587</td>
<td>3.08</td>
</tr>
<tr>
<td>2011</td>
<td>509,263</td>
<td>1351</td>
<td>2.65</td>
</tr>
<tr>
<td>2012</td>
<td>633,768</td>
<td>1441</td>
<td>2.27</td>
</tr>
<tr>
<td>2013</td>
<td>698,905</td>
<td>1465</td>
<td>2.10</td>
</tr>
<tr>
<td>2014</td>
<td>719,411</td>
<td>1811</td>
<td>2.52</td>
</tr>
</tbody>
</table>

Colorado’s Damages per 1,000 Tickets shown graphically below:

The downward trend of Damages per 1,000 Tickets is a positive indicator and is a good trend to have. However, it fails to tell the whole story. As the following graphs will show, further exploration is instructive. Comparing Colorado to North Carolina, a state with a very close DpK measurement.
Colorado has a 2.49 rate and North Carolina has a 2.52; both states appear to be doing good when compared to other study states.

The range of DpK for the study states over a 5-year period spans:
- Virginia at 1.49 DpK is at the low end
- Average of the group is ~3.0 DpK
- Washington at 5.29 DpK is at the high end

Based on this measurement, one would expect to find roughly the same damages in each state.

Over this 5-year period, the ticket volume is much higher for North Carolina than it is for Colorado.

Colorado has 76% of the ticket volume of North Carolina over this 5-year period.

Highest Ticket Volume study state over the 5-year period is Texas with >10,000,000 tickets

Lowest Ticket Volume study state over the 5-year period is South Dakota with 434,000 tickets

The actual damages for Colorado and North Carolina are very different as well. This may not be unexpected as tickets do represent an opportunity for damages to occur.

Colorado has 75% of the damages relative to North Carolina over 5-years.

Highest Actual Damages of the study states is Texas with > 40,000 total over the 5-year period.

Lowest Actual Damages of the study states is South Dakota with 1,752 total over the 5-year period.
When we compare the two states the via Damages per 1,000 Tickets, the two states look identical. However, when comparing the rate of damage growth to the rate of ticket growth, a very different story emerges. North Carolina’s damages remain relatively flat and improvements in DpK are the result of increased tickets. Colorado’s data shows ticket volume and damage growth moving up together.

### Approach #2: Rate of Change of Actual Damages

A second method of measuring a state’s performance is to directly measure the variable you are most interested in controlling; in this case, damages. DpK is adequate for making comparisons between states, however strictly measuring damages and their rate of change provides a different and valuable view of the effectiveness of a state’s damage prevention efforts.

By analyzing the rate of change of both ticket volume and damages, a true picture of the state’s damage prevention efforts can be seen.

Tickets and Damages can do one of three things; the volume can go up, go down or stay the same. Some relationships of these two values are better than others.

<table>
<thead>
<tr>
<th>Tickets up</th>
<th>Damages up</th>
<th>Damages same</th>
<th>Damages down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tickets same</td>
<td>Bad</td>
<td>OK</td>
<td>Good</td>
</tr>
<tr>
<td>Tickets down</td>
<td>Bad</td>
<td>Bad</td>
<td>OK</td>
</tr>
</tbody>
</table>

This is a simple and straightforward calculation and can be a good comparison between states if using the same method to count damages. For this report, we have standardized data via the PHMSA Gas Distribution Damage database.
The states with the lowest DpK also have a decreasing damage trend. This demonstrates that damages can continue to drop even at the lowest DpK rates.

The real value of this measurement is not comparing against other states, but in establishing a state’s “personal best” and working to improve that every year. Note: Kansas had an unexplained drop in damages in 2010 to 2011; finding a satisfactory explanation for has been difficult; however, even without that drop they are still decreasing damages at 9% per year.

The rate of change is calculated as follows:

\[
\text{Rate of Change} = \frac{1}{\text{Time Period}} \times \ln \left( \frac{\text{Ending Value}}{\text{Beginning Value}} \right)
\]

**Approach #3: Biasing Damages**

The third method involves establishing correlations between other industry variables and the actual damages in a state. With the years of research data collected in Colorado on this topic, the opportunity existed to quickly narrow down the variables for consideration to: Building permits, miles of Gas Distribution Pipeline, State GDP and Population density. Additionally, data from all 50 states plus the District of Columbia was used in these calculations.

Based on this information, Projected Damages were calculated for each state. The Projected Damages can then be used to compare one state to another, as well as, the state to itself. For example, are the actual damages higher or lower than projected. Projected Damages is an indication of the anticipated potential for damages a state. If the actual damages are below the Project Damages then the state, by default, must be doing to something positive to influence the Actual Damage number.

**Performing the calculations:**

The first step determines the validity of these variables; Pearson’s Correlation Co-efficient was calculated relative to the Actual Damages from the PHMSA database.

Pearson product-moment correlation coefficient
**Pearson Product-Moment Correlation Coefficient**

In statistics, the Pearson product-moment correlation coefficient (\(\text{PPMCC}\) or \(\text{PCC}\) or Pearson’s \(r\)) is a measure of the linear correlation between two variables \(X\) and \(Y\), giving a value between +1 and −1 inclusive, where 1 is total positive correlation, 0 is no correlation, and −1 is total negative correlation. It is widely used in the sciences as a measure of the degree of linear dependence between two variables. It was developed by Karl Pearson from a related idea introduced by Francis Galton in the 1880s. Early work on the distribution of the sample correlation coefficient was carried out by Anil Kumar Gain and R. A. Fisher from the University of Cambridge.

**Coefficient Definition**

\(r\) = \(\frac{\text{cov}(X,Y)}{\sigma_X \sigma_Y}\)

where \(\text{cov}(X,Y)\) is the covariance of \(X\) and \(Y\), \(\sigma_X\) is the standard deviation of \(X\), and \(\sigma_Y\) is the standard deviation of \(Y\).

**Correlation Interpretation**

- A coefficient greater than 0.50 or smaller than -0.50 is considered strong.
- As the coefficient approaches 1.0 or -1.0, the correlation is stronger.
- In some statistical arenas, the cutoff for a strong correlation is 0.75 or -0.75.

**Study Evaluation**

The correlation of the study variables used for biasing damage are above the higher threshold of 0.75. The study evaluation points exceed these criteria in all cases.

To make the calculations faster and simpler, a Multivariate Regression was done on using all the variables and selecting only those variables with \(p<0.15\). This provides for a slightly larger than normal allowance for the variables used in the calculation and provides more fine tuning of the Projected Damages.

The table below indicates how a state could be projected to perform relative to other states when the major variables are accounted for in the DpK calculation. Using the Projected Damages provides a good point of comparison from one state to the next without accounting for tickets which can skew the numbers.

<table>
<thead>
<tr>
<th>State</th>
<th>Damages 5-Year Average</th>
<th>Projected Damage</th>
<th>DpK Projected</th>
<th>DpK Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia</td>
<td>1213.2</td>
<td>1483</td>
<td>1.82</td>
<td>1.49</td>
</tr>
<tr>
<td>Maryland</td>
<td>973.8</td>
<td>910</td>
<td>1.43</td>
<td>1.53</td>
</tr>
<tr>
<td>Arizona</td>
<td>786</td>
<td>1726</td>
<td>3.67</td>
<td>1.67</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1298.6</td>
<td>1897</td>
<td>3.37</td>
<td>2.31</td>
</tr>
<tr>
<td>Colorado</td>
<td>1531</td>
<td>2551</td>
<td>4.15</td>
<td>2.49</td>
</tr>
<tr>
<td>State</td>
<td>BPI</td>
<td>AS</td>
<td>GDM</td>
<td>AS</td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>North Carolina</td>
<td>2042.4</td>
<td>2362</td>
<td>2.92</td>
<td>2.52</td>
</tr>
<tr>
<td>Kansas</td>
<td>1115.6</td>
<td>1403</td>
<td>3.24</td>
<td>2.58</td>
</tr>
<tr>
<td>Nebraska</td>
<td>612</td>
<td>751</td>
<td>3.19</td>
<td>2.59</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>1708.2</td>
<td>1839</td>
<td>2.87</td>
<td>2.67</td>
</tr>
<tr>
<td>Indiana</td>
<td>2292.2</td>
<td>2691</td>
<td>3.67</td>
<td>3.13</td>
</tr>
<tr>
<td>New Mexico</td>
<td>437</td>
<td>693</td>
<td>5.91</td>
<td>3.73</td>
</tr>
<tr>
<td>Ohio</td>
<td>4085.8</td>
<td>3529</td>
<td>3.28</td>
<td>3.80</td>
</tr>
<tr>
<td>Utah</td>
<td>1036.2</td>
<td>1175</td>
<td>4.49</td>
<td>3.96</td>
</tr>
<tr>
<td>Texas</td>
<td>8356</td>
<td>7742</td>
<td>3.72</td>
<td>4.02</td>
</tr>
<tr>
<td>South Dakota</td>
<td>350.4</td>
<td>217</td>
<td>2.50</td>
<td>4.04</td>
</tr>
<tr>
<td>Washington</td>
<td>1289.4</td>
<td>1337</td>
<td>5.49</td>
<td>5.29</td>
</tr>
</tbody>
</table>

The equation used to calculate Projected Damages is:

\[
\text{Projected Damages} = (\text{BPI}_{\text{AS}} \times \text{BPI CoEff}) + (\text{GDM}_{\text{AS}} \times \text{GDM CoEff}) + (\text{SGDP}_{\text{AS}} \times \text{SGDP CoEff}) + (\text{TV}_{\text{AS}} \times \text{TV CoEff})
\]

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>CoEff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Permits Issued Actual State</td>
<td>BPI&lt;sub&gt;AS&lt;/sub&gt;</td>
</tr>
<tr>
<td>Gas Distribution Miles Actual State</td>
<td>GDM&lt;sub&gt;AS&lt;/sub&gt;</td>
</tr>
<tr>
<td>State GDP Actual State</td>
<td>SGDP&lt;sub&gt;AS&lt;/sub&gt;</td>
</tr>
<tr>
<td>Ticket Volume Actual State</td>
<td>TV&lt;sub&gt;AS&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

Population Density had too low of a P factor to be included in the calculation.
Stakeholder Input

This section of the study contains background and supporting information for the study points. Discussion on the study points is contained in the respective part of the study.

In addition to understanding how Colorado’s laws impact public safety the CLTF wanted to understand how these issues impacted the industry stakeholders.

Stakeholder input was collected in several ways:

- Phone surveys
- In person Interviews
- On-Line Surveys – full survey data can be found by clicking here.
- Forums

Survey Geographical Coverage

The first map represents the actual distribution of UNCC members across the state. The second map represents the respondents to the phone surveys and the on-line surveys.
32% of all UNCC members responded to the on-line and phone surveys. On average each county had approximately 25% of their UNCC membership base respond to the survey. There are 63 respondents who identified the entire state as their operational area.

The following table graphically represents the number of UNCC Members in a county and the number of UNCC Members that responded from that county.

Since Membership in the UNCC is mandatory under Colorado Law this is a valid data set for collecting stakeholder input. Both Excavators and Facility Owners are included in these tabulations.

The responses mirror the general stakeholder population in each county.

See graph next page for breakdown by County.

Who took the Survey
Interviews – In-Person and Phone

Interviews, in-person and over the phone were conducted.

The participants are in addition to those above.
Tier 2 Phone Survey

Randomly targeted Tier 2 Members, adjusted for geographical bias
Goal, survey Tier 2 Members
Did not want to participate in the survey
Did not respond to messages or calls, 5 attempts made to reach them
Completed the survey
Completed survey online

Tier 1 Phone Surveys

Randomly targeted Tier 1 Members, adjusted for geographical bias
Goal, survey Tier 1 Members
Did not want to participate in the survey
Did not respond to messages or calls, 5 attempts made to reach them
Completed the survey
Completed survey online
**Interviews Planned**  |  **Planned Number**  |  **Held – includes meeting at Forums**
---|---|---
Tier 1  | 10  | 10
Tier 2  | 10  | 10
Excavators  | 10  | 10
Architects and Engineers  | 10  | 10

**Breakdown by Tier level**

<table>
<thead>
<tr>
<th>Tier 1 Company Name</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Century Link</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>Comcast</td>
<td>Never connected</td>
</tr>
<tr>
<td>City of Fort Collins</td>
<td>In-Person Interview</td>
</tr>
<tr>
<td>SOURCE GAS - DISTRIBUTION</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>ATMOS ENERGY</td>
<td>In-Person Interview in Grand Junction</td>
</tr>
<tr>
<td>Excel</td>
<td>In-Person, 2 sessions in Denver</td>
</tr>
<tr>
<td>Municipal League</td>
<td>Multiple Phone calls to discuss scope and CLTF</td>
</tr>
<tr>
<td>CORTEZ, PIPELINE C/O KINDER MORGAN</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>Colorado Springs Utilities</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>PIONDRE VALLEY RURAL ELECTRIC ASSN., INC</td>
<td>In-Person Interview during Windsor Forum</td>
</tr>
<tr>
<td>Town of Palisade</td>
<td>Never Returned Calls</td>
</tr>
<tr>
<td>Tier 2 Company Name</td>
<td>Outcome</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Denver Water</td>
<td>In-Person Interview whole staff</td>
</tr>
<tr>
<td>City of Aspen- Water Department</td>
<td>Left 5 messages never returned calls</td>
</tr>
<tr>
<td>Jefferson School District</td>
<td>Left 5 messages never returned calls</td>
</tr>
<tr>
<td>City of Colorado Springs Traffic Signals</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>Town of Mountain View</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>Denver Traffic Engineering Operations</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>Cherry Hills Farm H.O.A.</td>
<td>Phone Interview</td>
</tr>
<tr>
<td>Snake River Water District</td>
<td>Left 5 messages never returned calls</td>
</tr>
<tr>
<td>South Suburban Park &amp; Recreation District</td>
<td>Left 5 messages never returned calls</td>
</tr>
<tr>
<td>Clifton Water District</td>
<td>Left 5 messages never returned calls</td>
</tr>
</tbody>
</table>

**Forum Coverage**

Five forums were held to solicit additional stakeholder input. These forums were located in:

- Fountain – Colorado Springs and Pueblo area
  - Attendees from Pueblo and as far east as Cheyenne Wells
- Windsor – NOCO area
  - Attendees from as far away as Sterling and Ohio attend.
- Grand Junction – Western Slope and Steamboat Springs
  - Attendees from as far away as Steamboat Springs
- Denver – Metro area
  - The metro area was very well represented
- 2 Webinars targeted at Southwestern Colorado and the Western Slope

Attendance totaled over 120 for the 6 events. These participants are in addition to those above. Mr. Barry Miller, the CLTF Project Facilitator, attended these events. Mr. Miller added valuable history and helped to uncover stakeholder opinions.

The following map illustrates the locations and approximate reach of each forum.
Each forum followed the same format and lasted for 3-3 ½ hours.

1. Introductions of presenters and attendees
2. Overview of the CLTF Study
3. Presentation on each of the study areas and what information was available from other states.
4. Discussion on each study point:
5. What would work best in Colorado
6. Challenges with the current system in Colorado
7. Straw polling of the participants on Enforcement and type of system they would prefer.

**Forum Highlights**

The following are consolidated notes from the 6 forums. The notes in their entirety can be found by clicking here.

**Regarding Tiered Membership**

Forum attendees were asked to share their opinions on the two tier membership system for Facility Owners in Colorado.
Tier 2 members are:

- Difficult to get a response from, messages and voicemail are not returned.
- Are slow to respond if they do at all.
- There is no record of a call being made to Tier 2 –
  one excavator will send a certified letter to prove they contacted them
- Others maintain a log book for all of their calls to Tier 2, Tier 1 and Locators
- Tier 2 Excavators report the same problems dealing with Tier 2 Facility Owners as any other excavator.
- NOT all Tier 2 Facility Owners are difficult to deal with, some are very responsive
- Excavators feel they are in a “no-win” situation when a Tier 2 Facility Owner does not locate a facility and they have given a second notice. They still feel that they will penalized for not being careful enough.
- The perception is that Tier 2 Facility Owners do not meet their legal obligations or know what they are.

Other Tier 2 Challenges:

- As many as 75% of all Tier 2 referrals are not being followed through on by the excavator.
- Tier 2 members cite the cost to locate as the reason they do not join the UNCC. Even though required to locate their facilities they still report getting damaged so they would rather not locate them at all.

Damage Reporting

Forum attendees we are asked to discuss the damage reporting process and how the pro's and con's of the current system. By law, Excavators are required to report all damages to the UNCC and all Facility Owners are required by law to file a report regarding these damages within 90-days via the Colorado Virtual Dirt system.

All attendees agreed that the Excavator needed to contact someone about damages when they occurred. There is a mixed response from excavators about the proper entity to contact, should they contact the UNCC or the Facility Owner if known. The law requires the excavator to contact the UNCC; some contact the Facility Owner directly. This undermines damage collection information for monitoring the effectiveness damage prevention efforts.

The majority of attendees felt that the Facility Owner was the only one who should determine the extent of damage to a facility.

All excavators felt that any formal reporting of damages to the UNCC, by whatever manner, was the responsibility of the Facility Owner.

Abandoned facilities are a major challenge for both locators and excavators. Damaging abandoned facilities causes work slowdowns and a challenge in obtaining accurate damage counts.

A collateral issue for excavators is that they feel they are the victims of aggressive collection efforts for damages to telecom/fiber installations and many times these facilities were not located even after the Second Notice.
What is Reasonable

The law allows an excavator to commence excavating after making a Second Notice request to CO811 of the site has not been located by Facility Owner(s); provided they are reasonable in their efforts. Forum attendees responded to what they felt was “Reasonable.”

The majority of attendees agreed that “Reasonable” was not defined and was too ambiguous to offer any protection to the excavator, anything the excavator did could be considered unreasonable in the opinion of the Facility Owner. Excavators felt the burden of proof was too high with this much ambiguity.

All agreed that failing to make a locate request with CO811 was unreasonable and by default the Excavator is liable for all damages, regardless of how “reasonable” they were during the actual excavation.

What is “Reasonable?”

1. Making a locate request with CO811
2. Preplanning prior to excavation
3. Visual Identification, potholing or hand-digging as required
4. Use the CGA best practices

Common Excavator practices to insure they are being “Reasonable.”

1. They will schedule a site meet
2. Video recording of their excavation
3. Using spotters
4. Hire private locators to be sure they are keeping their crew’s safe
5. Obtain “as-built” plans when possible.

Engineering and Design Locates

Forum attendees were asked how well the current law and process for obtaining Engineering Locates was working. The current law requires Facility Owners to make an effort to provide design information when requested.

All attendees agreed the Law does a POOR job of setting expectations as to what the engineer can expect to get from the FO.

Points of agreement Facility Owners and Excavators

1. Requests need to go through the CO811 System
2. 48 hours was an unreasonable time to respond to an engineering locate request, 7-10 business days would be more reasonable.
3. Some fee structure could be implemented to cover the costs of these design requests.
4. Engineering requests need to be used for this purpose and not a Normal Locate request.

The biggest challenge recorded is the use of private locators to provide the engineering firms with the locate information. Engineering firms do not like this method as it costs them a substantial amount of money to get them done. Facility Owners do not like this practice as they believe they are the only ones who should locate their facilities.
State Enforcement Authority
The Forum attendees were presented with the need to add enforcement to the Colorado 811 law and then shown the two most common systems. They were then asked for their opinions on the two systems.

Attendees agreed that a system with a peer board would be best for Colorado.

There were one or two people who liked the idea of the PUC being the sole arbiter of these cases; their reasoning is that it could be faster than the peer board system.

Fines should be used for habitual offenders and that training should be the first step in any penalty process.

Stakeholders agree that any fines or penalties that are collected should go to fund further training and not the state budget.

Stakeholders agree that a complaint driven system would serve all of their needs equitably.
Tabulation and Categorization of the Survey Comments from the Broad Stakeholder Survey

The following are unedited comments from the stakeholder survey sent out in the January/February 2016 timeframe. The responses are categorized into six broad categories.

Comments that could fit into more than one category are copied into those categories; for this reason, the total comments are higher than the actual number received.

As of April 15, 2016 there were a total of 131 comments attached to 750 surveys.

The question asked is:

*Are there other concerns you have regarding the Underground Dig laws that we should be aware of?*

<table>
<thead>
<tr>
<th>Category Name</th>
<th>Number of Comments in this category</th>
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<tbody>
<tr>
<td>1 NO or None was written in the comment space</td>
<td>12</td>
</tr>
<tr>
<td>2 Locating, Locators and 2nd Notice comments</td>
<td>87</td>
</tr>
<tr>
<td>3 Planning comments</td>
<td>7</td>
</tr>
<tr>
<td>4 Law, Equitable for all and Enforcement comments</td>
<td>28</td>
</tr>
<tr>
<td>5 General comments</td>
<td>19</td>
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<td>6 Excavating, Drilling, Boring specific comments</td>
<td>2</td>
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<tr>
<td>Total Comments</td>
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</tr>
<tr>
<td>Some comments fit into more than one category</td>
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Locating, Locators and 2nd Notice comments

1. 2nd notice is a pain to get people to come out. There are a lot of reasons why it didn’t get done. 1st notice should get a locate request at no charge.
2. Better training for people receiving locate requests
3. Marking in sketches at the site. People aren’t doing sketches anymore and those are helpful.
4. They are a small farm with a water pipeline. They have notified the State of Colorado where their pipe is and would think people shouldn’t need to call them to locate it each time they dig because it should be clear where the pipe is.
5. Locators seem to be overwhelmed and do not seem to give the proper time to marking utilities or do not mark out the entire work area.
6. There are more utilities underground so this is something that needs to be watched and regulated. Every time we go to dig we call in a locate. Good common practice to keep ourselves safe.
7. Instead of facility owner paying fee for every locate the contractor should pay the fee. Facility owners get charged for every ticket and contractors should have to pay that.
8. There is no penalty for a facility owner that does not respond in a timely manner to a locate request.
9. WISH PEOPLE WOULD COME AND SHOW UP. ESPECIALLY CABLE TV AND OTHER TIER 2.
10. Locators should have to be certified for locating facilities. So many that come and go they don’t seem to get the necessary training that they need.
11. The locating contractors are not doing their legally required jobs

12. Usic never locates by agreed date, usually get a call from a locator days after the agreed date and time

13. The enforcement of subcontracted locators and the time frame as to which locates are performed and their accuracy. The excavator should have right to damages in the event locates are done incorrectly and/or not on time.

14. There is one clearing center that puts out tickets. When a facility owner decides they don’t have anything there, they clear the ticket but don’t send it to the locate company to see if there are other facilities in the area. If there is something there then the contractors are forced to call out another emergency locate to get the facility locators to come and find the facilities. Also, sometimes facility locators are called but they are too lazy to go to the site and so they call it a bad address on the ticket and don’t go to the site. Then the contractor has to call an emergency locate request because the facility locator didn’t do their job. Not right for the contractors. Facility locators and facility owners need to be held more responsible.

15. Facility owners should be held accountable for completing locates on time and accurately. CenturyLink seems to think they can put blame on the contracted locate company and not ensure locates are done on time or accurate. Multiple times this year we have had locates not completed for weeks after the call, even after 2nd and 3rd notices. When CenturyLink is notified of this the blame is put on the contract locator and nothing is done to complete the locator. The facility belongs to CenturyLink therefore, it is CenturyLink’s responsibility to ensure the locate is completed. Multiple damages, down time, equipment time and labor was incurred by my company this year due to CenturyLink’s and USIC’s incompetence and inability to show up. This must stop. All of the responsibility can not be on the excavator.

16. The locate times, and noncompliance are getting annoying there should be a penalty for noncompliance.

17. Third party locators MUST be better trained, given more time to do their job meaning if it takes 5 hours to complete a ticket so be it. Too many times locators have showed up to locate and asked for more time cause they have 100 tickets to complete for the day and don’t have the information they need. Phone, Cable T.V. and Power locates are raley done on time and not correctly. The loop hole of needing to have a supervisor verify their work 2 days after the ticket is due needs to be tighten up.

18. All utilities should have a locatable source. Utility owners should assist or request standbys for high profile utilities. If the utility is un-locatable the utility owner should be responsible to provide daylighting, for verification of utility prior to excavation/HDD, and the utility owner is responsible for the expense. Require positive response from utility owner or contract locate company upon completion of ALL locates.

19. There is a legal requirement for excavators to notify in advance of excavating (2 days prior to excavation, not including the day of the call), however no legal requirement for the facility owners to actually locate within any specific time period of the request. This requirement places an undue burden of protection of un-located facilities on the excavator without any relief to the excavator for the utility owner’s failure to properly locate the facility in a reasonable time.

20. The current way of locates requires a different locate request if it is more than a certain distance. As a county we sometimes do signs or culverts in several locations that are further apart but along the same road. Separate requests for each location is very time consuming for UNCC & for the County.

21. We never receive sketches of the locates, even though we asked for them, we are told they do not give them out any more. Which makes it extremely hard to remember where everything is. Also we are having trouble with locators saying they can’t locate because there is no tracer wire, they will just mark off a huge section of the road and paint pot hole on the road? What the hell am I gonna do with that? Pay my crews days to explore the street with shovels because they can’t figure out how to do there dam job? When we call in meets 90% of the time no one ever shows up? How am I gonna explain how to locate this job if no one is there for
the meet? I set up meets because they are hard to describe in the location, and I can't get anyone to show up? Then you come back the next day and the locate was done that note and it is in the wrong place, now you have to call it back in and wait two days and hope someone will show up to the meet, all while my crews are sitting there on downtime costing me thousands of dollars. Who the hell is going to make that up? We will 100% of the time receive locates up to 5 days late of the due date on jobs. You are required to have them done by the end of the day given to me. I have got emails saying the gates were locked and no one is on site at 1 in the afternoon and in the techs picture of the fence you can see me standing there on the other side? This system is broken, we get no help from the locators. If I didn't east my time looking for UN located things we would hit something every day, the locators cost our company thousands of dollars every week by simply not doing their job!!!!!

22. Not all contractors understand how electric primary is designed and may not be located by tier 1 or 2. The locator needs to locate all high voltage from provider to house, not just from source to transformer. The counties all purge building plans every few years and the as built are thus gone for the tier 2 type power, etc.

23. usic can not keep up with the ticket load period they do not address issues they do not beef up locate staff they cancel tickets constantly with no notice

24. The locating companies need to be held accountable for their negligence. Most of the damages that occur are due to unmarked/mismarked locates.

25. Phone Company's should be more accountable to get the locates done on time. They are terrable about working with Montrose county to get the job done.

26. Emergency locate seem to be more common and called in as “emergency” when not a true emergency - should be a penalty.

27. The locate contractors are understaffed. We spend a lot of time waiting for locaters to show for a meet. This is also true for emergency locates as well. Also the Excell high pressure outfit needs to figure out a way to expedite their services in a more timely manner. They seem to be above any of the Underground Dig Laws.

28. Locators often look for ways to avoid locates. Mostly say lot is not marked, or fence disallows locate not providing additional effort

29. The locators seem to be immune from responsibility if they do not perform the locates.

30. We have specific contractors that perform work under our direction, while we are on-site. The contractor is not privy to locations in advance of doing the work, and therefore, it is EXTREMELY difficult to have the “contractor” call in the locate. Our engineering staff call in locates, so we believe we meet the intent of the law. In my opinion, this is no different than a homeowner hiring a day laborer to dig holes for new trees...the day laborer would not be expected to call in locates provided the homeowner had already done so. I would like to see the law re-written to allow for such an arrangement or a way to add select “subcontractors” to the ticket.

31. Yes CDOT should be on your list of under ground utilities for locating when we place our one call. We were not informed to call them and unaware of there utilities in our dig area and hit there electric for a stop light. My company had to pay for the repair and we had a unsafe situation during the night without the stop light working.

32. Locates from USIC hardly ever get done for our work

33. there needs to be a better way of contacting the locators when we have a problem with our locates ..... (USIC)

34. I have had ongoing problems getting responses from all Tier 1 members through 811, wish we could make
response mandatory.

35. Facility owners need to take responsibility for having lined buried at adequate depths if they are wanting certain amounts of cover over there lines, not putting these requirements on someone else because they did not install there line properly to begin with. Also tired of Oil and Gas lines that were laid next agricultural irrigation lines that now the oil and gas company wants the agricultural line to foot the bill to move away from them and also is often a gravity feed line that can’t easily be changed because of gravity grade requirements that would keep line from working properly.

36. Especially since gas line was installed after irrigation line. Another concern is that all underground facility owners are required to locate facilities and are liable if not done which creates an excessive burden on Agricultural facilities.

37. Especially since the State CDOT and counties do not locate culverts in roads and ROW under a one call ticket.

38. Damage caused by incorrect locates are a huge issue. As a contractor I have basically 0 recourse for downtime caused by a mislocated jobsite. My employees must accept the risk that the locate company hired by most major facility owners has done their job correctly. Should a facility go unmarked and we damage said facility my company loses time and money. I have numerous invoices that consistently go unpaid by the large locating companys for this lost time. If my company is held legally accountable to pay for all damages when a properly located facility is damaged then it is only logical that the facility locator be held legally responsible for all damages caused by an incorrect locate including down time for the excavating contractor.

39. Excavators need to be held more responsible for checking their responses. Too many just put in a ticket and proceed without ever checking their responses. -Better rules need to be put in place for large projects covering multi-mile sections of road. 2 days is not enough time to locate 10 mile sections of highway. -Location of work sites needs to be improved. I get too many tickets from people working in fields a mile or more away from the intersection they listed. I not only have to respond to these tickets but get charged for them too. -Better regulations are needed for long term projects. Utility owners with small crews cannot afford to send locators back to a project over and over because the project destroys the marks every day.

40. Hold Utilities liable for their locates

41. The law should impose penalties for facility owners who do not respond in the time frame already required by law and provide an easy way for excavators to notify the owners and regulators when response is late/incomplete/ignored.

42. AND excavators should not be held responsible when locates are not performed within the allowed time frame.

43. Premarked dig areas should be mandatory in rural areas, or when there is not a clearly defined property line. Also, locate requests for example, .5miles x .5miles shouldn't be allowed if they are only taking soil samples in 5-10 spots in this area. No access code should be enforced when snow blocks roads or fields in. Location should always be accessed via vehicle. No walking .25 -.5 miles for a locate

44. The current system of notification causes us great time and expense due to the way the 250+- impacts us. There needs to be a much tighter system of notification based on real geography, not artificial constructs

45. I have been digging about 15 years and this year just about every time the locate was not done in the 2 working days and most times unless I call a 2nd request it don't get done. I asked a licator why and he said they were short handed. This is costing me money and unacceptable. I'm a small business and can't afford the delays. Thank you
46. Yes, I and several others have complained about the maps that are being used when we call in are not up to date, resulting in poor or no locates, if 811 cant find it on their map the ticket should not be released.

47. As a geotechnical engineering firm, we control the excavation locations of our subcontractors, both at initial layout, and during the excavation / drilling process with an on-site representative. We still have occasional issues with member firms wanting to hear from or meet with the subcontractor, even though they do not have knowledge of the locations prior to arriving on-site.

48. Tickets should be left on site or emailed regardless if the site is clear or not. Too many times we get to the site and no ticket is found. Most of the time we call the owner of the utility to find out the site is clear and no ticket was left. At this point, I have wasted about 30 minutes and possibly the same amount of time for the crew sitting on site while I track down the info.

49. My opinion is that if you do not join the one call system you are responsible for damages to your utilities. Tier two owners should be responsible for marking all underground utilities, just the same as tier one members.

50. I think that EVERY underground utility should be required belong to the one call system. As a homeowner, I should not need to call several different utilities before I dig.

51. All utility owners/locators should be required to respond to UNCC on the status of locates by the due date. All locators should also be required to provide a sketch and also flag if requested.

52. Locaters are not responding within 48 hours and locaters often ignore the response system if they are clear and do not notify ticketholder of same.

53. The facility owners and locate company should be responsible by statute to use the same required care as excavating companies and be required to locate their facilities correctly.

54. GPS coordinates should be allowed to locate a dig site that is not easily located by an address.

55. It is IMPOSSIBLE for an excavator to be compensated for costs incurred when a utility is not located or mis-marked. This needs to change as it is very easy for the utility to receive compensation.

56. Not happy with CenturyLink locates not on time or not done

57. The entire process of setting up locates is done so with the goal of covering the facility owner and project owner from any damage. The detail of the initial description is all that is recorded. Often times when the locator arrives to the site there is additional information that is needed or given. Never does this get recorded. I have had locators clear the area only to find out they did not understand the locate request. Sometimes I am standing and looking at a facility while on the phone with the locator telling me there is nothing there. I spend hours trying to get in touch with locators to see if they have even been to the site. There needs to be more communication between locators and the excavators.

58. utility owners were really interested in having contractors not damage their lines they would invest in getting better, more accurate locates. Right now, they just want to have a way to blame the excavator for damage. One way to make the locates more accurate is to have them give both location and depth. This may force the utility owner to pothole in addition to just mark on the ground. The fact that service lines are not located in a UNCC call is absolutely asinine.

59. The locate needs to be performed completely taking into account all lines. The disconnect between primary and secondary locates puts both the facility and the excavator in danger. The other major disconnect is that the facility owner pushes responsibility for the locates onto a third party and therefore has very little incentive to worry about the accuracy of locates. Again, this puts both the facility and the excavator in danger. Facility owners need to be directly responsible for the locate accuracy. The gas companies have been particu-
larly good at taking full responsibility in Eagle County. The electric company is the absolute worst. One final thought is that the Engineers and Owners need to be responsible for designing and paying for utility relocations on projects. Contractors are always being forced to bid projects where the Engineer has noted on the plans that all utility relocations in order to construct the project are the responsibility of the contractor. This needs to be an illegal note on a stamped set of drawings as they have not given the proper information to do the project and have clearly not acquired enough information to design the project.

60. Locators seem under staffed, waiting over a week in the summer to get a locate even after a second or third call costs me a lot of money.

61. Less tickets a day for the locator, their not doing a good job because of too many

62. I have had several tickets recently where locators have not responded to tickets and I’ve had to call each company individually to find out why they didn’t respond. I’ve gotten responses from locators that they didn’t want to mark the line because it would be too much work. I would like to see some sort of penalty when this occurs to encourage positive response even if the utility owner is clear.

63. Telecommunications should be held to locate time frame just as gas and electric, water, sewer.

64. Why do my land surveyors get denied their locate requests? I need their survey info to be as accurate and complete as possible to help avoid future conflicts. They do a fair amount of hand digging for property corners that should require painted locates also.

65. Telephone locator’s are terrible

66. our main problem normaly, timely, and accurately the phone locates...

67. Quit telling us to contact anybody you haven’t mentioned. That’s like giving driving directions that say “turn where the old yellow barn used to be”

68. It can get extremely confusing who you are waiting on to respond in an emergency. “Is Sitewise marking both electric and gas for Xcel? Or are we waiting on Utiliquest. Wait, they’re marking fiber? What is Safesite marking? “ This is kind of a bad example, but you can understand how things might get dropped during an emergency excavation. Add on top of that, the fact that Tier 2 members only respond half the time, or wait so long, the job is done by the time they DO respond, it makes for a very unorganized process. The more confusing, expensive, time consuming, and cumbersome the process is, the more likely you are to have contractors “risk” it, and dig without proper locates.

69. Locating companies should not be able to send out notices saying the contractor has agreed to a locate date without contacting the contractor. That has happened a lot lately due to the locating company not having enough personal to take care of the work load. Locating companies should be required to have the adequate number of employees to handle the work load to get the locates done by the due date.

70. Having correct numbers of members so that if we get a clear and we find lines we can contact them. They are paying for a service and aren’t getting it.

71. With the current overwhelming access to GPS devices locate requests should be based on Lat/Lon coordinates rather than written descriptions of how to get to the work area. Additionally, aerial imagery of dig areas should be part of a locate request. This would reduce the need for overlapping site meets in most cases, and minimize confusion with respect to work areas.

72. There is not enough access to communicate with the locators. The typical response to an inquiry is to submit a new ticket, which requires another 48 hours, and does not clear up misunderstandings. Also, mapping should be indicated in addition to ground marks, to clarify that locations were properly communicated. Excavators rely on accuracy.

73. Locators should be held accountable to meeting the locate due date.
74. The notification of address changes is very slow. We have had issues with Tier entities not being able to find certain addresses which increases to amount of time to locate.

75. I used to locate utilities for Utiliquest. There were times that an excavator damaged utilities that I located correctly, but the “Investigator” told the operator “I owe you one” or “you took the last one” and the ticket was written up as an incorrect locate. While this was 10 years ago, I hope this issue has been corrected. Also, the 2 tier system makes for a much longer process, and explaining my dig area multiple times. The system should be streamlined with one call. It is frustrating to spend 2 hours calling in a ticket.

76. Why the locators in Colorado Springs will not locate underground utilities for engineers. I would think the better planning goes in ahead of excavating the better.

77. Limit the # of requests and remarks for each job, then have the utility owner be able to apply a fee schedule if they would like. Have billing through one call so engineering requests can be paid up front before the utility owner marks it. There is abuse of the system by excavators. They have areas marked several times before doing the job, increasing costs to utility owners. Maybe have a small $20 fee charged to excavators for each locate they request. This would pay for one call system and then to the utility to somewhat offset the locate costs they bear for work that does not in any way benefit the utility owner.

78. Private Locators - Constantly Trespass into Utility owner facilities and damage these (Protective coatings) without an ability to tract due to marking based on private requests. Register private locators as well and mandate a requirement for their jobs to be reported.

79. There should be some way to force the utility locate company that does the phone and cable tv locates to use flags and/or whiskers. There are so many dig-ins on these lines in Gunnison County because these lines are scantily marked, marked in the rain or snow, marked on dirt roads with traffic erasing the marks just after the paint was put down, etc. It has been brought to the locator’s supervisor attention many times, but still no flags or whiskers being used. Also, Century link screens their tickets in Denver and doesn’t send all of the locate requests to the locate company, such as for vacant lot excavation. Some of the phone dig-ins are because the locate company never showed up for these locates. The excavator assumes there is no phone lines in the area and proceeds. Century link is forcing the excavators to use the second notice thus increasing their wait time another 2 days. How is it Century Link can hold these excavators “hostage”? The location services for the phone and cable tv lines in Gunnison is insufficient for the excavators’ needs.

80. In rural areas there are many irrigation pipelines that have no registered owner to contact for locates. There needs to be a way to make all underground utilities be registered or the owner faces a fine if an excavator damages the line.

81. The one issue that is see is lack of locators to perform the locates that are needed and scheduled.

82. My biggest concern with this whole program, is that companies/individuals who call in a ticket for a locate either 1) do not always give good description of where the excavation will occur, or 2) the staff taking the information and putting it in the ticket is not understanding the explanation. I frequently can not understand where the locate is from the description. More concerning is half the time, I call the person who called the ticket in and they have never been to the site and can not tell me where they are planning to excavate adequately. I am in a rural area of El Paso County for reference. I just think the description on the tickets should be more descriptive and possibly needs pictures/maps or GPS coordinates so that we can quickly determine whether we need to provide a locate or that the activity will not be close to our facilities.

83. There is no enforcement on how many tickets a contractor can call in which is a huge cost to the facility owner. With Colorado one call paid per ticket processed they will never have a reason to prevent the abuse of the system. This is a flawed system that is a money maker for most parties involved and that is the reason the system will not be fixed. 6 million in surplus last year is all that needs to be said. It’s a joke
84. Most of this isn’t an issue for those of us who work on the Eastern Plains. We just want a system where all parties are contacted for the locate. I don’t like that we have to call certain parties directly in addition to using one-call. If we call and follow the markings, we should not be held liable – correct?

85. One utility does not respond to locates, centry link, never responds this delays projects.

86. None only gets request for locates, Home owners water district

87. Gets calls for locates but has nothing underground just Dams

**Planning comments**

1. Geotechnical and Environmental Engineering firms that subcontract to Soil Test Drilling Companies should be required to use the One Call system as well as call in private locates and where needed complete Hydro Excavating. They are the ones who contract with the owners of the properties and are the ones who dictate exactly where and what size boring is to be drilled. Soil Test drilling companies work at their direction and as such they effectively operate the drills by telling the operators how and where to drill. Drilling is not the same as excavating where the excavator has a say in what equipment is to be used and how to go about the excavation. By the time the driller is contacted the consultant has already called in locates and in many times is in need of a drilling company that can get on site the next day. If the drilling company needs to call in locates then he will have to delay the project for 48 hours. This is not good for cash flow of business for all entities and does not further safety as locates have already been competed. It is apparent that the current law has been crafted by the operators who at the advice of their attorneys have made easier to go after the little guy on the bottom of the totem pole and make him liable for any damage done if his name is not on a locate ticket. Locates should always be preformed and private locates and hydro Excavating may need to be completed as well and this should be the responsibility of the firm who is contracting with the owner of the property. Again, there is a huge difference between drilling and excavating. Drilling test holes and installing monitor wells is not excavating.

2. It is difficult and at times impossible to get locates during the design phase of the project forcing designs to be based somewhat on GIS information. Many unexpected conflicts result in not having accurate design phase information. Often the only way to get locates is to call them in for potholing, often when potholing is not necessary, but the locators do respond and the utilities can be surveyed within reason and potholed if necessary. The system should provide design phase locates.

3. As a geotechnical engineering firm, we control the excavation locations of our subcontractors, both at initial layout, and during the excavation / drilling process with an on-site representative. We still have occasional issues with member firms wanting to hear from or meet with the subcontractor, even though they do not have knowledge of the locations prior to arriving on-site.

4. The entire process of setting up locates is done so with the goal of covering the facility owner and project owner from any damage. The detail of the initial description is all that is recorded. Often times when the locator arrives to the site there is additional information that is needed or given. Never does this get recorded. I have had locators clear the area only to find out they did not understand the locate request. Sometimes I am standing and looking at a facility while on the phone with the locator telling me there is nothing there. I spend hours trying to get in touch with locators to see if they have even been to the site. There needs to be more communication between locators and the excavators. If

5. Utility owners were really interested in having contractors not damage their lines they would invest in getting better, more accurate locates. Right now, they just want to have a way to blame the excavator for damage. One
way to make the locates more accurate is to have them give both location and depth. This may force the utility owner to pothole in addition to just mark on the ground. The fact that service lines are not located in a UNCC call is absolutely asinine.

6. The locate needs to be performed completely taking into account all lines. The disconnect between primary and secondary locates puts both the facility and the excavator in danger. The other major disconnect is that the facility owner pushes responsibility for the locates onto a third party and therefore has very little incentive to worry about the accuracy of locates. Again, this puts both the facility and the excavator in danger. Facility owners need to be directly responsible for the locate accuracy. The gas companies have been particularly good at taking full responsibility in Eagle County. The electric company is the absolute worst. One final thought is that the Engineers and Owners need to be responsible for designing and paying for utility relocations on projects. Contractors are always being forced to bid projects where the Engineer has noted on the plans that all utility relocations in order to construct the project are the responsibility of the contractor. This needs to be an illegal note on a stamped set of drawings as they have not given the proper information to do the project and have clearly not acquired enough information to design the project.

7. Why the locators in Colorado Springs will not locate underground utilities for engineers. I would think the better planning goes in ahead of excavating the better.

Law, Equitable for all and Enforcement comments

1. Need to address the law when it comes to farmers because right now they do not have to do anything and are except from the law period!

2. It would be hard to enforce the excavation registration for farmers and ranchers that all have their own back-hoes but aren't necessarily professional excavators (i.e. not associated with construction)

3. Every “Law” should have an enforcement mechanism.

4. Instead of facility owner paying fee for every locate the contractor should pay the fee. Facility owners get charged for every ticket and contractors should have to pay that.

5. There is no penalty for a facility owner that does not respond in a timely manner to a locate request.

6. The enforcement issue is the biggest issue. Right now it seems it's difficult to hold someone accountable. en-acting the fee schedule has been unsuccessful for them. Landscapers are the worst.

7. There should not have to be damage before there is an issue. if they are caught digging before ticket start work time should be just as bad. also there does not have to be specific damage before some operators have to excavate and inspect their facilities

8. There is no recourse for reciprocal damages to the planner/engineer/excavator if the locates are not done properly or at all. Utility owners should be accountable for lost time/equipment hours/re-design/field changes due to mis-locates or no locates in the planning stage or after.

9. It is not strict enough for violators

10. There is no penalty for repeat offenders who dig without locates or those who repeatedly call emergency locates in non-emergency locate situations

11. I don't like that guilt must be proven by the contract to utility locator. I my opinion the utility owner should prove guilt to the contractor. I have to prove the innocence. That goes against the law of the land plus it takes forever for the utility owner to take responsibility even when you have proven them to be in the wrong. I hate
the current system. There should never be a charge to the contractor to be a part of a system that is attempting to protect the owners property.

12. As a state employee with CDOT, digging contractors do try and get away with not following their permits or even carry permits when working on any state right of way.

13. Having a dedicated enforcement agency for the marking and damage of utilities seems to be a very practical approach, like Arizona has with the Corporation Commission. Colorado's current system doesn't really help if someone doesn't respond to a locate request, the excavator has little recourse other than a second notice which costs him production and money. In Arizona if someone doesn't respond to your request you can contact the corporation commission and they will fine the responsible party. The system needs to hold the locators/operators accountable for not marking, just as contractors are held accountable for damages, because when locators don't mark jobs it costs contractors money in waiting for them to do what was already requested of them.

14. I think that Utility owners and operators have a first right to protect their respective assets and by contracting locating companies to protect them with strict rules and state policies they have the right to have federal and state and local laws protect those rights that are defined in black and white. the law should be unbiased and weighed for what is morally and socially correct for the public safety regardless of whom is at fault. we are all doing what's responsible to protect our public, Environment, and infrastructure to keep promoting a safe way for one and all. So yes be more aggressive and uphold the law to protect these assets used for a day to day living.

15. All parties should be held accountable because I know customers who throw a bitch when they hear their project is on hold for a 48-hour locate. If they had some liability then I believe locate would happen and there would less likely hood of rushing contractors into situations where they are the only exposed party.

16. The law should impose penalties for facility owners who do not respond in the time frame already required by law and provide an easy way for excavators to notify the owners and regulators when response is late/incomplete/ignored.

17. My opinion is that if you do not join the one call system you are responsible for damages to your utilities. Tier two owners should be responsible for marking all underground utilities, just the same as tier one members.

18. I think that EVERY underground utility should be required belong to the one call system. As a homeowner, I should not need to call several different utilities before I dig.

19. If underground utilities were not installed to local code for proper depth, any damages due to excavation should be waived.

20. It is IMPOSSIBLE for an excavator to be compensated for costs incurred when a utility is not located or mismarked. This needs to change as it is very easy for the utility to receive compensation.

21. Question 17: In indicating that each group needs its own law, I would have preferred an option that there is clarification and language in the law designating the uniqueness of each group and their responsibilities.

22. I have been worried that I would be held liable for damaging a marked utility while hand digging in very hard soils. It may worth considering exemptions to being liable for 'hardship' cases like these. In all other cases, if a contractor damages a utility within the mark area, they should take responsibility for their actions.

23. The exemption of Rancher/Farmers doing Maintenance work on their property and not being required to call 811, follow any safe digging practices or responsible for damages is not only irresponsible by the state to allow this but is it going to cause someone to be killed. Hundreds of miles of underground pipeline goes through private property. These utilities are explosive or damage to them can cause heath risks to entire communities. This issue needs to be changed, not just for the utility owner but for the lives of the property owner.
24. All the burdens are on the contractors. There are no consequences to the locators if they fail to perform the locates and there is a work stoppage as a result. We lost thousands last year in this scenario. The locate companies should be required to pay for a crew and equipment unable to work because the locates were not done. This industry is driven by tight schedules. We do not get a grace period if locates are not done as scheduled, meaning we must work overtime to make up for the lost time. This also results in higher insurance rates, which are based on payroll.

25. The web ticket entry system is severely flawed. Your mapping portion especially. Follow either Kansas or Nebraska’s (in that order) example of web ticket entries. As for 17. Requiring a home owner to be licensed and trained and pay a fee for a yearly registration to plant a tree, or install a fence, or any other normal landscaping/home maintenance is absurd. Requiring them to have a dig safe however is not.

26. The rancher or farmer excavation exemption is the most vague in the nation IMO.

27. Private Locators - Constantly Trespass into Utility owner facilities and damage these (Protective coatings) without an ability to tract due to marking based on private requests. Register private locators as well and mandate a requirement for their jobs to be reported.

28. In rural areas there are many irrigation pipelines that have no registered owner to contact for locates. There needs to be a way to make all underground utilities be registered or the owner faces a fine if an excavator damages the line.

General comments

1. As a Facility Owner, I feel as though there should be some type of annual training requirement for the personnel that are involved with the Underground Dig Laws. There are different types of positions and responsibilities within our company just to process these requests, yet none of our people are 100% competent.

2. METRO DISTRICT FALLS UNDER METRO AND HOA SO PERHAPS THESE GUYS SHOULD BE INCLUDED AS A SEPARATE GROUP ON THE SURVEY AS THERE ARE ABOUT 2700 IN THE STATE OF COLORADO.

3. Property owners should not have to register or pay any kind of fee to excavate for fence posts, etc.

4. The circle or radius around our facility is so large that more often than not they aren’t relevant to where I have stuff buried. They are a half mile away. A tighter radius would be better.

5. I am in favor of a mandatory registration for a for all Businesses titled as Landscapers / Excavators, or any business that owns and uses Heavy Digging Equipment, such as a Home Owners ASS. I am not in favor of registration of everybody in the building/planning general contracting trades.

6. No, we all need to adhere to these laws to keep everyone safe.

7. We have specific contractors that perform work under our direction, while we are on-site. The contractor is not privy to locations in advance of doing the work, and therefore, it is EXTREMELY difficult to have the “contractor” call in the locate. Our engineering staff call in locates, so we believe we meet the intent of the law. In my opinion, this is no different than a homeowner hiring a day laborer to dig holes for new trees…the day laborer would not be expected to call in locates provided the homeowner had already done so. I would like to see the law re-written to allow for such an arrangement or a way to add select “subcontractors” to the ticket.

8. I found the UNCC to be unresponsive when our UF was damaged.

9. Facility owners need to take responsibility for having lined buried at adequate depths if they are wanting certain amounts of cover over there lines, not putting these requirements on someone else because they did
not install there line properly to begin with. Also tired of Oil and Gas lines that were laid next agricultural ir-
rigation lines that now the oil and gas company wants the agricultural line to foot the bill to move away from
them and also is often a gravity feed line that can’t easily be changed because of gravity grade requirements
that would keep line from working properly.

10. Especially since gas line was installed after irrigation line. Another concern is that all underground facility
owners are required to locate facilities and are liable if not done which creates an excessive burden on Agri-
cultural facilities.

11. Especially since the State CDOT and counties do not locate culverts in roads and ROW under a one call
ticket.

12. This is the most difficult survey to read and attempt to make sense of questions asked. It’s like some law
review board is asking some Ph.D. Lawyers the questions. Really! We’re a bunch of dirt guys trying not to
damage underground facilities and make a living!!

13. Please contrast the above to this email comment received - Can I please respectfully say that whoever wrote
this survey did a horrible job at making sure it was professionally done and it appears it was never reviewed for
editing. Like a lot of contractors, I am well educated (2 undergraduate degrees and graduate work completed),
which I only say to indicate that something like this should look professional (correct grammar, punctuation, etc)
and be presented with questions that are clear and can be clearly answered in the format that is provided.

14. There is no enforcement on how many tickets a contractor can call in witch is a huge cost to the facility
owner. With Colorado one call paid per ticket processed they will never have a reason to prevent the abuse of
the system. This is a flawed system that is a money maker for most parties involved and that is the reason the
system will not be fixed. 6 million in surplus last year is all that needs to be said. It’s a joke

15. more public awareness

16. Regarding #18 above, in concept I like and would support a registration system for excavators and facility
owners. I marked “Not Support” though, I believe in reality this would create an atmosphere of failing to
request locates and very likely would increase damages.

17. The Federal Government should stay out of making the rules for our state regulations.

18. When utilities are installed better detection methods should be implemented at time of burial

19. Abandoned utilities ???

**Excavating, Drilling, Boring specific comments**

1. The 18-inch ‘window’ around the locate mark should be greater. There are many old lines in the ground that
do not have any sort of tracer wire or definitive means by which to locate them. This allows excavators too
much leeway in digging and damaging lines, and it makes it very difficult if a line is damaged to try to deter-
mine exactly where the locate paint was (it is gone at that point, i.e. excavated), and even if it is still visible
nearby it is difficult to pinpoint exactly where the paint was at the damage location to know whether the lo-
cate was within 18-inches of the damaged line. I believe the number should be increased to at least 24-inches.

2. 15.I have been worried that I would be held liable for damaging a marked utility while hand digging in very
hard soils. It may worth considering exemptions to being liable for ‘hardship’ cases like these. In all other
cases, if a contractor damages a utility within the mark area, they should take responsibility for their actions.
Glossary

**Actual Damages**: this is a measure of the damages recorded by the state, it is referred to as raw damages as well. See Facility Damage

**Advisory Board** A peer board that reviews the complaints filed against a stakeholder relative to the law. See the Section on Enforcement

**Average Damages per 1,000 Notification Requests (DpK)** This is the simple arithmetic average of a stated number of years of DpK. The average is used to provide a more realistic comparison of actual performance by reducing the effects of an exceptionally bad or good year.

Average DpK = \( \frac{DpK_1 + DpK_2 + \cdots + DpK_X}{DpK(N)} \)


**CCA - Colorado Contractors Association**. A professional organization established in 1933 which represents members in the heavy equipment and utility industries. CCA is very active in the industry, provides training services and provides a powerful industry lobby in Colorado. [http://www.coloradocontractors.org/Home/](http://www.coloradocontractors.org/Home/)

**CGA - Common Ground Alliance**. CGA is a member driven association of stakeholders in the underground utility industry that was established in 2000. The organization represents a continuation of the damage prevention efforts embodied by the Common Ground Study sponsored by the US Department of Transportation in 1999. [http://commongroundalliance.com/about-us](http://commongroundalliance.com/about-us)

**Change in Damages per 1,000 Notification Requests (DpK)**: This is used to see how far and in what direction changes in a states damage prevention efforts have gone. Because it is over a period of time it reduces the impact on the highs and lows that a state may experience and provide a more realistic view of the progress they are making in improving their DpK. This measurement is the percent change from one year to another year. The formula is

\[ \frac{(Final \ Year\ value - First \ Year\ Value)}{First \ Year\ Value} = \%\ Change\ in\ DpK \]

**CLTF - Colorado Legislative Task Force**. A temporary committee comprised of industry stakeholders. The CLTF was formed in 2015 with the intent of discussing and studying topics relating to underground facility damage prevention and the Colorado One Call Law. email: CODPL@co811.org

**CO811 Utility Notification Center of Colorado (UNCC)**. Established under the 1986 Colorado One Call Law to prevent injury to persons and damage to property from accidents resulting from damage to underground facilities by excavation. CO811 serves as an electronic communications intermediary between facility owners/operators and excavators. CO811 also promotes damage prevention awareness to the general public as well as industry stakeholders and collects and reports on facility damages in Colorado. [CO811.org](http://www.co811.org)

**COGA - Colorado Oil and Gas Association**. A statewide industry association. [http://www.coga.org/](http://www.coga.org/)

**Complaint Driven** is part of an enforcement system whereby any person can present an alleged violation to the PUC or Advisory Board for consideration.

**COPUC - Colorado Public Utilities Commission**. State agency established under Colorado Department of Regulatory Agencies (DORA) responsible for regulating intrastate utilities. COPUC also enforces pipeline safety regulations and performs intrastate pipelines inspections. [http://cdn.colorado.gov/cs/Satellite/DORA-PUC/CBON/DORA/1251632608618](http://cdn.colorado.gov/cs/Satellite/DORA-PUC/CBON/DORA/1251632608618)

**Damages per 1,000 Notification Requests (DpK)**: a common measurement of states’ damage prevention efforts. It is calculated by dividing the states damages by the number of tickets for the same time period and multiplying
by 1,000. It is valid only for the year being measured.

**Exemptions** Are a term that is used to describe those facility owners/operators that are not required to be members of a One Call System

**Facility Damage** According to the Colorado One Call Law, “damage” is defined to “include the penetration or destruction of any protective coating, housing, or other protective device of an underground facility, the partial or complete severance of an underground facility, or the rendering of any underground facility inaccessible.”

**Multi-Tier (MTS): Multi-Tier Membership Structure;** a system in which Facility Owners/Operators can elect the level of service they receive from the Notification Center. Multi-tier members receive fewer services, the most notable being the lack of receiving locate requests from the Notification Center. In some states like Colorado, the choice is a business decision; other states’ law dictates the minimum service level facility owners are allowed to use.

**Notification Request** Contact made by persons planning excavation and persons performing excavation to the One Call center, whether by phone or internet. The contact is made to request that an electronic notification of the intention to excavate within a defined area be forwarded to all underground facility owners/operators with underground facility in the immediate area of the excavation activity.

**NUCA - National Utility Contractors Association.** A large national industry association.
http://www.nuca.com/about-nuca/


**Rate of Change of Damages per 1,000 Notification Requests (DpK):** A time based calculation that demonstrates how fast the DpK is changing over a period of time. This is similar to the Change in DpK; however, it measures how fast the DpK measurement is changing. A larger percentage indicates faster change and a smaller or negative number indicates that some aspect of the damage prevention program is not as effective as it could be.

**OCSI - One Call Systems International.** OCSI is an industry association formed as a committee in CGA in 2003. OCSI, originally organized in 1985, offers a forum for One Call system employees and board members to discuss industry trends and promotes collaboration and solutions between industry call centers. http://commongroundalliance.com/about-us/commitees/one-call-systems-international

**PHMSA - Pipeline and Hazardous Material Safety Administration.** Federal agency established under the Department of Transportation responsible for regulating and ensuring safe movement of hazardous material by all modes of transportation, including pipelines. PHMSA develops regulations and standards, provides enforcement, performs data collection and tracking, and funds state agencies such as the Colorado PUC for pipeline inspection. http://www.phmsa.dot.gov/about

**SDPPC - State Damage Prevention Program Characterization.** An ongoing program to evaluate and characterize the damage prevention efforts and results in all states sponsored by PHMSA starting in 2009.

**Single-Tier (STS): Single Tier Membership Structure;** a system in which a single call to a Notification Center, like the UNCC, relays the locate request to all effected facility owners. First Tier or Tier 1 members receive locate requests directly from the Notification Center and participate in the Positive Response system. Positive Response provides feedback to the Notification Center and to the excavator on locate completion.

**Utility Notification Center of Colorado (UNCC).** See CO811.

**Public Safety** Public safety refers to the welfare and protection of people and can generally be extended to include protection of public and private property. In the context of excavation activity, it includes protecting facility, equipment and other real property, as well as workers and the public, from injury or fatality when excavat-
ing near underground facility. Public safety can be measured by the number of people (and animals) injured or killed, as well as the total costs to repair and restore services and for lost services, the costs to repair and replace equipment, and the costs to repair real property.

**Stakeholders in the Colorado damage prevention industry** include: public agency and private underground facility owners/operators; facility locating companies; excavating companies; companies designing excavation activity; the One Call center; government agencies such as COPUC and PHMSA and first responders; industry organizations such as Colorado Contractors Association (CCA), NULCA, NUCA, APWA, COGA, etc.; and local government organizations: Special Districts Association of Colorado, Colorado Counties Incorporated, and Colorado Municipal League.

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<th>Colorado Legislative Task Force Members</th>
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<td><strong>Black Hills Corp</strong></td>
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Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 196 and 198

Pipeline Safety: Pipeline Damage Prevention Programs; Final Rule
I. Executive Summary

A. Purpose of the Regulatory Action

The purpose of this final rule is to reduce pipeline accidents and failures resulting from excavation damage by strengthening the enforcement of pipeline damage prevention requirements. Based on incident data PHMSA has received from pipeline operators, excavation damage is a leading cause of natural gas and hazardous liquid pipeline failure incidents. Excavation damage means any excavation activity that results in the need to repair or replace a pipeline due to a weakening, or the partial or complete destruction, of the pipeline, including, but not limited to, the pipe, appurtenances to the pipe, protective coatings, support, cathodic protection or the housing for the line device or facility. Better, more effective enforcement of State excavation damage prevention laws, such as the requirement to “call before you dig,” is a key to reducing pipeline excavation damage incidents. Though all States have a damage prevention program, some States may not adequately enforce their State damage prevention laws. Under section 26(a)(1) of the PIPES Act (Pub. L. 109–468), PHMSA developed criteria and procedures for determining whether a State's enforcement of its excavation damage prevention laws is adequate. Under the PIPES Act, such a determination is a prerequisite for PHMSA if the agency finds it necessary to conduct an administrative enforcement proceeding against an excavator for violating Federal excavation standards.

B. Summary of the Major Provisions of the Regulatory Action

Pursuant to the PIPES Act of 2006, this final rule amends the Federal pipeline safety regulations to establish the following: (1) Criteria and procedures PHMSA will use to determine the adequacy of State pipeline excavation damage prevention law enforcement programs; (2) an administrative process for States to contest notices of inadequacy from PHMSA should they elect to do so; (3) the Federal requirements PHMSA will enforce against excavators for violations in States with inadequate excavation damage prevention law enforcement programs; and (4) the adjudication process for administrative enforcement proceedings against excavators where Federal authority is exercised. The establishment of regulations specifying the criteria that PHMSA will use to evaluate a State’s excavation damage prevention law enforcement program is a prerequisite for PHMSA to conduct an enforcement proceeding against an excavator in the absence of an adequate enforcement program in a State where a damage prevention violation occurs.

C. Costs and Benefits

The total first year costs of this rulemaking action is estimated to be $658,145. The following years, the costs are estimated to be approximately $183,145 per year. The total cost of this alternative over 10 years, with a 3% discount rate in 2012, is $1,720,214. The average annual benefits of this alternative range from $4,642,829 to $14,739,141. Evaluating just the lower range of benefits over 10 years results in a total benefit of over $38,000,000, with a 3% discount rate, and over $31,000,000, with a 7% discount rate. Therefore, the estimated benefits of this alternative far outweigh the relatively minor costs, both annually and over ten years.

II. Background

A. Pipeline Incidents Caused by Excavation Damage

Excavation damage is a leading cause of natural gas and hazardous liquid pipeline failure incidents. From 1988 to 2012, 188 fatalities, 723 injuries, 1,678 incidents, and $474,759,544 in estimated property damages were reported as being caused by excavation damage on all PHMSA regulated pipeline systems in the United States, including onshore and offshore hazardous liquid, gas transmission, and gas distribution lines. While excavation damage is the cause of a significant number of all pipeline failure incidents, it is cited as the cause of a relatively higher number of natural gas distribution incidents. In 2005, PHMSA initiated and sponsored an investigation of the risks and threats to gas distribution systems. This investigation was conducted through the efforts of four joint work/study groups.
groups, each of which included representatives of the stakeholder public, the gas distribution pipeline industry, State pipeline safety representatives, and PHMSA. The areas of their investigations included excavation damage prevention. The Integrity Management for Gas Distribution, Report of Phase I Investigations (DIMP Report) was issued in December 2005. As noted in the DIMP Report, the Excavation Damage Prevention work/study group reached four key conclusions:

- Excavation damage poses by far the single greatest threat to distribution system safety, reliability, and integrity; therefore, excavation damage prevention presents the most significant opportunity for improving distribution pipeline safety.
- States with comprehensive damage prevention programs that include effective enforcement have a substantially lower probability of excavation damage to pipeline facilities than States that do not. The lower probability of excavation damage translates to a substantially lower risk of serious incidents and consequences resulting from excavation damage to pipelines.
- A comprehensive damage prevention program requires nine important elements to be present and functional for the program to be effective. All stakeholders must participate in the excavation damage prevention process. The elements are:
  1. Enhanced communication between operators and excavators.
  2. Fostering support and partnership of all stakeholders in all phases (enforcement, system improvement, etc.) of the program.
  3. Operator’s use of performance measures for persons performing locating of pipelines and pipeline construction.
  4. Partnership in employee training.
  5. Partnership in public education.
  6. Enforcement agencies’ role as partner and facilitator to help resolve issues.
  7. Fair and consistent enforcement of the law.
  8. Use of technology to improve all parts of the process.
  9. Analysis of data to continually evaluate/improve program effectiveness.
- Federal action is needed to support the development and implementation of damage prevention programs that includes effective enforcement as a part of the State’s pipeline safety program. This is consistent with a State’s pipeline safety program’s objectives, which are to ensure the safety of the public by addressing threats to the distribution infrastructure. Federal action must include provisions for ongoing funding, such as Federal grants, to support State pipeline safety efforts. This funding is intended to be in addition to, and independent of, existing Federal funding of State pipeline safety programs.

Other studies have indicated that improvements in State damage prevention enforcement can contribute to lowering excavation damage rates. A 2009 Mechanical Damage Final Report, prepared on behalf of PHMSA, concluded that excavation damage continues to be a leading cause of serious pipeline failures and that better one-call enforcement is a key gap in damage prevention. In that regard, the report noted that most jurisdictions have established laws to enforce one-call notification compliance; however, the report noted that many pipeline operators consider lack of enforcement to be degrading the effectiveness of one-call programs. The report cited that in Massachusetts, 3,000 violation notices were issued from 1986 to the mid-1990s, contributing to a decrease of third-party damage incidents on all types of facilities from 1,138 in 1986 to 421 in 1993. The report also cited findings from another study that enforcement of the one-call notification requirement was the most influential factor in reducing the probability of pipeline strikes and that the number of pipeline strikes is proportionate to the degree of enforcement.

With respect to the effectiveness of current regulations, the report stated that an estimated two-thirds of pipeline excavation damage is caused by third parties and found that the problem is compounded if the pipeline damage is not promptly reported to the pipeline operator so that corrective action can be taken. It also noted “when the oil pipeline industry developed the survey for its voluntary spill reporting system—known as the Pipeline Performance Tracking System—it recognized that damage to pipelines, including that resulting from excavation, digging, and other impacts, is also precipitated by operators (first parties) and their contractors (second parties).”

Finally, the report found that for some pipeline excavation damage data that was evaluated, “in more than 50 percent of the incidents, one-call associations were not contacted first.” In addition, “failure to take responsible care, to respect the instructions of the pipeline personnel, and to wait the proper time accounted for 50 percent of the incidents.”

B. State Damage Prevention Programs

States have historically been the primary enforcers of pipeline damage prevention requirements, and while this final rule will allow PHMSA to conduct Federal enforcement where necessary, PHMSA’s view is that States should remain the primary enforcers of these requirements to the greatest extent possible. In analyzing the need for Federal enforcement authority, PHMSA notes that there is considerable variability among the States in terms of physical geography, population density, underground infrastructure, excavation activity, and economic activity. For example, South Dakota is a rural, agricultural State with a relatively low population density. In contrast, New Jersey is more densely populated and is host to a greater variety of land uses, denser underground infrastructure, and different patterns of excavation activity. These differences between States equate to differences in the risk of excavation damage to underground infrastructure, including pipelines. Denser population often means denser underground infrastructure; rural and agricultural States have different underground infrastructure densities and excavation patterns than more urbanized States.

There is no single, comprehensive national damage prevention law setting forth requirements for excavators. On the contrary, all 50 States in the United States have a law designed to prevent excavation damage to underground utilities. However, these State laws vary considerably, and no two State laws are identical. Therefore, excavation damage prevention stakeholders in each State are subject to different legal and regulatory requirements. Variances in State laws include excavation notice requirements, damage reporting requirements, exemptions from the requirements of the laws for excavators and/or utility operators, provisions for enforcement of the laws, and many others. PHMSA has developed a tool to better understand the variability in these State laws at http://primis.phmsa.dot.gov/comm/DamagePreventionSummary.htm.

C. PHMSA Damage Prevention Efforts

Prior to developing this final rule, PHMSA has made extensive efforts over many years to improve excavation damage prevention as it relates to
pipeline safety. These efforts have included outreach, grants, and funding of cooperative agreements with a wide spectrum of excavation damage prevention stakeholders including:

- Public and community organizations
- Excavators and property developers
- Emergency responders
- Local, State, and Federal government agencies
- Pipeline and other underground facility operators
- Industry trade associations
- Consensus standards organizations
- Environmental organizations

These initiatives are described in detail in the Advance Notice of Proposed Rulemaking (ANPRM) on this subject that PHMSA published in the Federal Register on October 29, 2009 (74 FR 55797).

**D. The Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006.**

On December 29, 2006, PHMSA’s pipeline safety program was reauthorized by the enactment of the PIPES Act. The PIPES Act provides for enhanced safety and environmental protection in pipeline transportation, enhanced reliability in the transportation of the Nation’s energy products by pipeline, and other purposes. Major portions of the PIPES Act focus on damage prevention, including additional resources in the form of State damage prevention grants, clear program guidelines as well as additional enforcement authority to encourage States to develop and sustain effective excavation damage prevention programs. The PIPES Act identifies nine elements that effective damage prevention programs should include. These are essentially identical to the nine elements noted in the DIMP Report discussed in the previous subsection.

The PIPES Act gave PHMSA limited authority to conduct administrative civil enforcement proceedings against excavators who damage pipelines in a State that has failed to adequately enforce its excavation damage prevention laws. Specifically, Section 2 of the PIPES Act provides that the Secretary of Transportation may take civil enforcement action against excavators who:

1. Fail to use the one-call notification system in a State that has adopted a one-call notification system before engaging in demolition, excavation, tunneling, or construction activity to establish the location of underground facilities in the demolition, excavation, tunneling, or construction area;
2. Disregard location information or markings established by a pipeline facility operator while engaging in demolition, excavation, tunneling, or construction activity; and
3. Fail to report excavation damage to a pipeline facility to the owner or operator of the facility promptly, and report to other appropriate authorities by calling the 911 emergency telephone number if the damage results in the escape of any flammable, toxic, or corrosive gas or liquid that may endanger life or cause serious bodily harm or damage to property.

Section 2 of the PIPES Act limited the Secretary’s ability to take civil enforcement action against these excavators unless the Secretary determined that the State’s enforcement of its damage prevention laws is inadequate to protect safety.

**E. Advance Notice of Proposed Rulemaking**

On October 29, 2009, PHMSA published an ANPRM (74 FR 55797) to seek feedback and comments regarding the development of criteria and procedures for determining whether States are adequately enforcing their excavation damage prevention laws and for conducting Federal administrative enforcement, if necessary. The ANPRM also outlined PHMSA’s excavation damage prevention initiatives and described the requirements of the PIPES Act, which authorizes PHMSA to conduct this rulemaking action. The comments received on the ANPRM were generally supportive of the need for this rulemaking.

**F. Notice of Proposed Rulemaking**

On April 2, 2012, PHMSA published a Notice of Proposed Rulemaking (NPRM) (77 FR 19800) that reflected the comments and input received in connection with the ANPRM. The NPRM proposed to respond to the congressional mandate specified in Section 2 of the PIPES Act and included proposed amendments to Title 49, Code of Federal Regulations (CFR) to establish the following:

1. Criteria and procedures PHMSA would use to determine the adequacy of State pipeline excavation damage prevention law enforcement programs. PHMSA would first need to determine that the State’s enforcement program is inadequate before conducting an administrative enforcement proceeding against an excavator for violating Federal requirements;
2. An administrative process for States to contest notices of inadequacy from PHMSA should the States elect to do so; and
3. The Federal requirements PHMSA would enforce in States with inadequate excavation damage prevention law enforcement programs; and
4. The adjudication process for administrative enforcement proceedings against excavators where Federal authority is exercised.

**III. Advisory Committees Meeting**

On December 12, 2012, the Gas Pipeline Advisory Committee* and the Liquids Pipeline Advisory Committee† met jointly in Alexandria, Virginia. The Committees are statutorily mandated advisory committees that advise PHMSA on proposed safety standards, risk assessments, and safety policies for natural gas and hazardous liquids pipelines. Both committees were established under the Federal Advisory Committee Act (Pub. L. 92–463, 5 U.S.C. App. 11) and the pipeline safety laws (49 U.S.C. 60115). Each committee consists of 15 members, with membership evenly divided among the Federal and State governments, the regulated industry, and the public. The Committees advise PHMSA on the technical feasibility, practicability, and cost-effectiveness of each proposed pipeline safety standard.

During the meeting, the Committees considered the NPRM to establish excavation damage prevention enforcement actions applicable to third-party excavators. To assist the Committees in their deliberations, PHMSA presented a description and summary of the major issues for comment. These issues are (1) the criteria for evaluating State enforcement programs, (2) the Federal excavation standard, and (3) the incentives for States to implement adequate enforcement programs.

After discussion, both Committees separately voted to recommend that PHMSA implement the NPRM with certain changes. Specifically, the Committees recommended as follows:

1. **The Liquids Advisory Committee** voted unanimously, and the gas advisory committee voted 10-to-1 that the Notice of Proposed Rulemaking as published in the Federal Register, in terms of the criteria for evaluating State enforcement programs, is technically feasible, reasonable, cost-effective, and practicable if the following changes are considered:
   - PHMSA develops a policy, incorporated into the preamble of the final rule, that clarifies the scope and applicability of the State evaluation criteria. The policy will address the

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*Officially designated as the Technical Pipeline Safety Standards Committee.
†Officially designated as the Technical Hazardous Liquid Pipeline Safety Standards Committee.
relative importance and intent of each of the criteria and the three items identified in paragraph 9 of a document provided by member Pierson.*

The three items of paragraph 9 are:

- PHMSA should look beyond enforcement actions in evaluating a State damage prevention program. PHMSA should consider using a broad range of factors, such as a State’s investigation processes, standards for excavators, excavator education efforts, and commitment to continued improvement.
- The criteria to determine whether a State damage prevention program is deemed adequate should also include consideration of whether the State’s one-call centers are required to provide a mandatory positive response to locate requests. A mandatory positive response will ensure that an excavator is aware of whether owners/operators have marked the requested area prior to the beginning of an excavation, consistent with Common Ground Alliance (CGA) Best Practice 4–9.
- To engage stakeholders in the process of determining the adequacy of a State’s program, the administrative process for States should be amended to include public comment. PHMSA should accept public comment on the adequacy of a State’s damage prevention program.

The Liquids Advisory Committee voted unanimously and the Gas Advisory Committee voted 10-to-1 to recommend that PHMSA implement the NPRM with the changes reflected.

(2) Both Committees unanimously voted that the NPRM as published in the Federal Register, in terms of the proposed Federal excavation standard, is technically feasible, reasonable, cost-effective, and practicable if the following changes are considered:

- Eliminate the homeowner exemption.
- PHMSA develops a policy, incorporated into the preamble of the final rule that clarifies the scope and applicability of the Federal excavation standard. The policy will address triggers for Federal enforcement, how PHMSA will consider State exemptions in enforcement decisions, and how the Federal excavation standard will be applied in States with inadequate enforcement programs.
- In addition, the items 2 through 5 and 7 as provided by member Pierson, should be considered for incorporation into the final rule (including the policy as appropriate).

The items are:

196.109—Discretion to Dispatch 911 Emergency Personnel

- PHMSA’s proposed § 196.109 states that, “Upon calling the 911 emergency telephone number, the excavator may exercise discretion as to whether to request emergency response personnel be dispatched to the damage site.” PHMSA should eliminate the discretion of the excavator in determining whether emergency personnel should be dispatched.

196.103—Excavator Responsibilities

- To foreclose ignorance as a reason for noncompliance, PHMSA should edit § 196.103, which lists an excavator’s obligations to protect underground pipelines from excavation-related damage. Section 196.103 should be revised to read “Prior to commencing excavation activity the excavator must:”


- A “stop work” provision should be incorporated into the regulations, which would require excavators to stop work if a pipeline is damaged in any way by excavation activity until the operator of the pipeline has had an opportunity to assess the damage. Consistent with CGA Best Practice 5–25, PHMSA should also require the excavator to take reasonable measures to protect those in immediate danger, the general public, property, and the environment until the facility owner/operator or emergency responders have arrived and completed their assessment of the situation.

196.107—Backfilling Locations

- PHMSA should include a requirement that an excavator may not backfill a site where damage or a near miss has occurred until the operator has been provided an opportunity to inspect the site.

Reporting Time Frame

- PHMSA should not include an upper time frame for reporting emergency release of hazardous products to appropriate authorities by calling 911. Excavators should “promptly” report incidents.

(3) The liquids advisory committee voted 8-to-1, and the gas advisory committee voted 8-to-3, that the NPRM as published in the Federal Register, in terms of the incentives for States to implement adequate enforcement programs, is technically feasible, reasonable, cost-effective, and practicable if the following changes are considered:

- Retain the potential penalty to base grants but consider lowering the percentage that may be affected.
- Develop a policy, incorporated into the preamble of the final rule that clarifies the scope and applicability of the Federal excavation standard. The policy will address the relative importance and intent of each of the criteria.
- PHMSA has also considered the three items identified in paragraph 9 of the document provided by member Pierson.

With regard to the second item, which addresses the factors PHMSA should consider when evaluating State enforcement programs, PHMSA believes that the seven criteria listed in section § 198.55 of this final rule are adequate for evaluating the effectiveness of a State damage prevention enforcement program. PHMSA recognizes that there are many factors, such as excavator education and continual improvement, which contribute to effective damage prevention programs; however, this final rule is intended to address damage prevention enforcement and not other program elements.

PHMSA’s Response to the Committees’ Recommendations

With respect to Item 1, PHMSA has considered the Committees’ recommended changes to the criteria for evaluating State enforcement programs. PHMSA has developed a policy, outlined below in this preamble, which clarifies the scope and applicability of the criteria.

PHMSA has also considered the three items identified in paragraph 9 of the document provided by member Pierson. With regard to the first item, which addresses the factors PHMSA should consider when evaluating State enforcement programs, PHMSA believes that the seven criteria listed in section § 198.55 of this final rule are adequate for evaluating the effectiveness of a State damage prevention enforcement program. PHMSA recognizes that there are many factors, such as excavator education and continual improvement, which contribute to effective damage prevention programs; however, this final rule is intended to address damage prevention enforcement and not other program elements.

With regard to the second item, which addresses the factors PHMSA should consider when evaluating State enforcement programs, PHMSA believes that the concept has not been subject to public or stakeholder review. In addition, PHMSA believes that positive response is outside the scope of this rulemaking.

* At the Advisory Committees’ meeting, member Pierson representing the pipeline industry submitted a written recommendation for the members’ consideration.
which is focused on evaluating State enforcement programs. Therefore, PHMSA has not included positive response in the criteria listed in § 198.55 of this final rule.

PHMSA also did not propose in the NPRM to engage stakeholders in the process of determining the adequacy of a State’s enforcement program, as suggested in the third item from member Pierson. Like positive response, the concept of stakeholder review of State programs has not been subject to stakeholder and public review. Additionally, PHMSA believes that engaging stakeholders in determining the adequacy of State programs would be overly cumbersome for both PHMSA and the States and would result in significant delays in the determination process.

With respect to Item 2, PHMSA has considered the Committees’ recommendation to consider changes to the proposed Federal excavation standard. In response to the Committees’ recommendation, PHMSA has eliminated the homeowner exemption originally proposed in § 196.105. PHMSA eliminated the homeowner exemption because homeowners excavating on their own property without first calling 811 poses a significant risk of excavation damage to pipelines. PHMSA has also developed a policy, incorporated into the preamble of this final rule, which clarifies how base grants will be calculated by including the State program evaluation criteria defined in § 198.55. The policy also addresses PHMSA’s process for notifying Governors of States with inadequate programs, including potential consequences to base grant funding. PHMSA reserves the right to modify these policies in the future, if necessary.

**Policies**

PHMSA will prepare stand-alone documents and post them on the agency’s Web site for the following two policies: State Enforcement Program Evaluation Criteria, and Federal Enforcement Policy.

**State Enforcement Program Evaluation Criteria**

The criteria PHMSA will use to evaluate the adequacy of State damage prevention law enforcement programs are listed in § 198.55 of this final rule. The criteria are:

- Does the State have the authority to enforce its State excavation damage prevention law using civil penalties and other appropriate sanctions for violations?
- Has the State designated a State agency or other body as the authority responsible for enforcement of the State excavation damage prevention law?
- Is the State assessing civil penalties and other appropriate sanctions for violations at levels sufficient to deter noncompliance and is the State making publicly available information that demonstrates the effectiveness of the State’s enforcement program?
- Does the enforcement authority (if one exists) have a reliable mechanism (e.g., mandatory reporting, complaint-driven reporting) for learning about excavation damage to underground facilities?
- Does the State employ excavation damage investigation practices that are adequate to determine the responsible party or parties when excavation damage to underground facilities occurs?
- At a minimum, do the State’s excavation damage prevention requirements include the following:
  a. Excavators may not engage in excavation activity without first using an available one-call notification system to establish the location of underground facilities in the excavation area.
  b. Excavators may not engage in excavation activity in disregard of the marked location of a pipeline facility as established by a pipeline operator.
  c. An excavator who causes damage to a pipeline facility:
     i. Must report the damage to the operator of the facility at the earliest practical moment following discovery of the damage; and
     ii. If the damage results in the escape of any PHMSA regulated natural and other gas or hazardous liquid, must promptly report to other appropriate authorities by calling the 911 emergency telephone number or another emergency telephone number.

- Does the State limit exemptions for excavators from its excavation damage prevention law? A State must provide to PHMSA a written justification for any exemptions for excavators from State damage prevention requirements. PHMSA will make the written justifications available to the public.

The evaluation will involve all of the criteria, and the final determination will be based on the totality of the review. The following policy describes the manner in which PHMSA intends to apply the criteria. As experience with adequacy reviews is gained, PHMSA may modify this approach as necessary.

**Criterion 1 and 2 guidance:**

- Criteria 1 and 2 are pass/fail.
- If the answer to either of the questions posed in criteria 1 or 2 is "no," the State excavation damage prevention law enforcement program will likely be deemed inadequate.
- Criterion 3 guidance:

**PHMSA will seek records that demonstrate that the State enforcement agency is using its enforcement authority and imposing appropriate sanctions for violations. If a State cannot demonstrate use of its enforcement authority, the State enforcement**
program will likely be deemed inadequate.

- PHMSA expects States to maintain records that demonstrate whether the rate of excavation damage incidents is being reduced as a result of enforcement. The result of PHMSA’s review of a State’s records in this regard will not, by itself, render a State enforcement program inadequate.

- PHMSA expects State enforcement programs to generally make damage prevention law enforcement information and statistics available to the public via a Web site. PHMSA does not expect States to violate any State laws, jeopardize any ongoing enforcement case, or post information that would violate the privacy of individuals as defined by State or Federal law. The result of PHMSA’s review of the public availability of a State’s information and statistics will not, by itself, render a State enforcement program inadequate.

Criterion 4 guidance:

- PHMSA will review how State enforcement programs learn about excavation damage to underground pipelines. In particular, PHMSA will be looking for reporting mechanisms that encourage parity in the application of enforcement resources. For example, does the reporting mechanism identify potential violations of law by both excavators and pipeline operators? If the State enforcement program learns of violations via road patrols that specifically target excavators without valid excavation tickets, how does the State also learn about violations of other provisions of State damage prevention laws, such as operators’ failure to locate and mark pipelines? Also, PHMSA will review the State’s methods for making stakeholders aware of the process and requirements for reporting damage incidents to the enforcement authority.

- The result of PHMSA’s review of a State’s program under criterion 4 will not, by itself, render a State enforcement program inadequate.

Criterion 5 guidance:

- PHMSA expects State enforcement programs to be balanced with regard to how they apply enforcement authority.

- PHMSA expects enforcement programs to be focused on the responsibilities of not only excavators, but also of utility owners and operators. PHMSA seeks patterns of enforcement activity that demonstrate that penalties are applied to the responsible party or parties in excavation damage incidents and not consistently to only one stakeholder group.

- The result of PHMSA’s review of a State’s program under criterion 5 will not, by itself, render a State enforcement program inadequate.

Criterion 6 guidance:

- PHMSA will review State requirements to ensure they address the basic Federal requirements in the PIPES Act for excavators, such as using an available one-call system. Also, PHMSA will review PHMSA’s review of a State’s requirements will not, by itself, render the State’s enforcement program inadequate.

Criterion 7 guidance:

- PHMSA expects States to document the exemptions provided in State damage prevention laws for excavators and one-call membership, and any such exemptions should not be too broad. Documentation should include the types of exemptions included in State law and any reason for the exemptions, such as data or other evidence that justifies the exemptions.

- The result of PHMSA’s review of a State’s program under criterion 7 will not, by itself, render a State enforcement program inadequate.

The criteria are listed in order of greatest to least importance. That is, criteria 1 and 2 and a portion of criterion 3 are pass/fail, while criteria 4 through 7 are not pass/fail. PHMSA may declare a State enforcement program inadequate if the State’s program does not satisfy a combination of the criteria as described above. PHMSA will notify the Governor’s office or other appropriate State authority of a State deemed to have an inadequate enforcement program.

States that PHMSA deems to have inadequate enforcement programs may be subject to reductions in pipeline safety grant funding as described in §198.53 of this final rule. PHMSA will use the existing process for calculating base grants but is considering a policy that would incorporate and/or substitute the evaluation criteria in §198.55 for the criteria that are currently used for evaluating State damage prevention programs. PHMSA may modify its policies, as necessary, for determining how inadequate enforcement programs may impact pipeline safety grant funding.

Federal Enforcement Policy

PHMSA may enforce the Federal excavation standard defined in 49 CFR part 196, as established by this final rule, in States enforcement action. PHMSA has deemed to have inadequate damage prevention law enforcement programs. The following policy describes the scope and applicability of the Federal excavation standard.

PHMSA may use its enforcement authority, as limited by the law and this final rule, in any excavation damage case involving a violation of this standard in a State where a finding of inadequacy has been made. PHMSA generally will focus its limited resources on serious violations that have the potential to directly impact safety. PHMSA will determine if Federal enforcement action is warranted on a case-by-case basis. PHMSA will seek to use its enforcement authority in cases where PHMSA believes Federal enforcement against an excavator is appropriate and will deter future infractions (PHMSA already exercises its enforcement authority against pipeline operators who commit violations).

PHMSA is flexible with regard to how it learns about excavation damage incidents that may warrant Federal enforcement action. PHMSA may learn about incidents through complaints from stakeholders, incident reports, the media, and other mechanisms.

PHMSA acknowledges that most State damage prevention laws and regulations are more specific than the Federal excavation standard defined in this final rule. The Federal excavation standard forms the “floor” and sets forth the basic requirements for excavators so that its application can be fair and consistent even in States with very different requirements. When determining whether to take Federal enforcement action for an alleged violation of the Federal excavation standard, PHMSA will be cognizant of the damage prevention practices of the State in which the alleged violation occurred. For example, PHMSA will be sensitive to exemptions, waiting periods, tolerance zones, and other specific requirements that States could have applied to excavators in the State prior to the determination of inadequacy.

IV. Summary and Response to Comments

PHMSA received 40 comments from pipeline trade associations, excavation and construction trade associations, the National Association of Pipeline Safety Representatives (NAPSR), PHMSA State partners, the CGA, State one-call organizations and one-call service providers, utility locating trade associations, the American Farm Bureau Federation (AFBF), the Association of American Railroads (AAR), the Gas Processors Association (GPA), pipeline operators, utility locating companies, pipeline safety consultants, and citizens.

List of Commenters:
1. American Farm Bureau Federation (AFBF)
2. American Gas Association (AGA)
3. American Public Gas Association (APGA)
4. Association of Oil Pipe Lines (AOPL) and American Petroleum Institute (API)
5. Associated General Contractors of America (AGC)
6. Association of American Railroads (AAR)
7. Black Hills Corporation
8. Bob Fenton
9. Center Point Energy (CenterPoint)
10. Common Ground Alliance (CGA)
11. Distribution Contractors Association (DCA)
12. Emily Krafjack (2 separate comments)
13. Emma K.
14. Gas Processors Association (GPA)
15. Industry Perspective (AGA, AGC, AOPL, API, DCA, NUCA, and NULCA)
16. Interstate natural Gas Association of America (INGAA)
17. Iowa Association of Municipal Utilities (IAMU)
18. Iowa One Call
19. Iowa Utilities Board (IUB)
20. Kansas Corporation Commission (KCC)
21. Kern River
22. MidAmerican Energy Company (MidAmerican)
23. Missouri Public Service Commission (Missouri PSC)
24. National Association of Pipeline Safety Representatives (NAPSR)
25. National Grid
27. National Utility Contractors Association (NUCA)
28. National Utility Locating Contractors Association (NULCA)
29. New York State Department of Public Service (NPDPS)
30. Northern Natural Gas
32. Ohio Gas Association (OGA)
33. Oleksa and Associates, Inc. (Oleksa)
34. Paiute Pipeline Company (Paiute)
35. Pennsylvania One Call System, Inc. (Pennsylvania One Call)
36. Qualified One Call Systems (Oleksa comments repeated)
37. Southwest Gas Corporation (Southwest)
38. Tennessee Regulatory Authority (TRA)
39. Texas Pipeline Association (TPA)
40. Texas Pipeline Safety Coalition

General Comments
Most of the comments were supportive of the NPRM. PHMSA’s State partners have concerns regarding the potential reduction of State base grant funding to States with inadequate excavation damage prevention law enforcement programs. A few State partners questioned the authority given to PHMSA by the PIPES Act to take enforcement action in States with inadequate excavation damage prevention law enforcement programs. A few comments were out of the scope of this rulemaking, either because the comments were on a specific State’s excavation damage program or because the comments were regarding pipeline safety more generally.

Comments Requesting PHMSA To Include All Nine Elements
Associated General Contractors of America (AGC), Distribution Contractors Association (DCA), National Utility Locating Contractors Association (NULCA), National Utility Contractors Association of Ohio (NUCA of Ohio), and Southwest Gas Corporation (Southwest) commented that not only enforcement but also all other elements should be considered when evaluating the effectiveness of State excavation damage prevention programs.

AGC and DCA suggested that PHMSA take into account all nine elements (as defined in the PIPES Act of 2006) when evaluating the effectiveness of State damage prevention programs and take a holistic and comprehensive approach to reviewing current State damage prevention measures. AGC stated that the proposed standards place too much emphasis on enforcement and the excavator, and too little emphasis on the owner/operator and locators’ responsibilities for timely and accurate locates. The AGC is supportive of PHMSA taking a position to evaluate States’ overall damage prevention programs but suggests that PHMSA make its intentions clearer in the final rule. NULCA and NUCA stated that because the nine elements are supported by a broad range of stakeholders, including the CGA, they should be the sole basis for the evaluation of State programs.

Response
PHMSA agrees that the overall effectiveness of State damage prevention programs can be assessed by evaluating States’ commitment to and implementation of the nine elements. To that end, PHMSA has worked with State partners to conduct regular reviews of State damage prevention programs by characterizing States’ level of implementation of the nine elements. The results of these reviews are available on PHMSA’s Web site at http://primis.phmsa.dot.gov/comm/SDDPCDiscussion.htm. However, the scope of this rulemaking pertains to the enforcement of State excavation damage prevention laws. Section 2 of the PIPES Act states that PHMSA may not conduct an enforcement proceeding unless the State’s enforcement program is determined to be inadequate to protect safety. While other aspects of State damage prevention programs are essential to the effectiveness of those programs, the scope of this rulemaking is limited to the enforcement of State damage prevention laws.

With regard to the comment from AGC pertaining to the proposed standards placing too much emphasis on enforcement and the excavator and too little on the owner/operator and locators’ responsibilities for timely and accurate locates, PHMSA believes that the final rule appropriately addresses the intent of Congress. PHMSA and its State partners have long had the authority to enforce the existing damage prevention regulations that are applicable to pipeline operators. These existing regulations (49 CFR 192.614 and 195.442) require pipeline operators to develop and implement damage prevention programs and to locate their facilities in an accurate and timely manner when in receipt of an excavation notice. In the context of this final rule, if PHMSA conducts an enforcement proceeding in a State with an inadequate enforcement program, PHMSA will ensure that enforcement is applied to the responsible party, whether it is an excavator or a pipeline operator. PHMSA also actively encourages its State partners to enforce the existing damage prevention regulations that are applicable to pipeline operators.

Comments Recommending That PHMSA Hold Public Meetings/Provide Education
DCA, NUCA, and NUCA of Ohio suggested that PHMSA hold additional public meetings before the agency issues a final rule. DCA and NUCA of Ohio believe the proposed criteria for determining the adequacy of a State damage prevention enforcement program are sufficient, but recommend that, prior to moving forward with its enforcement authority in a given State, PHMSA should invite all government and industry stakeholders to a discussion about the alleged problems with the State’s enforcement practices. They recommended that in order to meet Element 2 of the PIPES Act, which calls for participation by operators, excavators, and other stakeholders, PHMSA should ensure that all interested stakeholders are invited to...
NUCA stated that pipeline owners or operators are often not subject to the same types of penalties that excavators are, are not required to reimburse excavators for any of their expenses, and are often subject to significantly lower fines. NUCA stated that in some States, for example, excavators that damage pipelines must reimburse owners or operators up to three times the expenses, can be prevented from bidding on certain projects, and can be fined up to $10,000. NUCA suggested PHMSA include in the final rule that “where a pipeline is hit because of the failure to locate and mark the pipeline accurately in a timely fashion and the excavator is not at fault, owners or operators and/or their contractors (including locators) should be required to reimburse excavators for their costs.” NUCA stated that this should include any damages to the excavator’s equipment or property and any downtime incurred by the excavator while the true location of the pipeline is determined. NUCA stated that because these losses could be significant when an excavator is required to shut down a project due to the pipeline being not marked or marked inaccurately, this problem must be addressed by PHMSA.

Response

PHMSA gathered considerable stakeholder input that informed the development of the final rule and provided opportunity for public participation and comment. PHMSA published an ANPRM on this topic in 2009 to gather stakeholder input prior to publishing the NPRM. PHMSA also developed a video, made available on the PHMSA Web site, which summarized the NPRM and invited comments.

In the context of this final rule, PHMSA does not intend to invite all government and industry stakeholders to a discussion about the alleged problems with a State’s enforcement practices prior to proceeding with enforcement action in a given State. However, PHMSA does welcome the opportunity to participate in those discussions as a matter of course. PHMSA agrees that this rulemaking will require considerable outreach and education for stakeholders impacted by this final rule.

PHMSA is mindful of States’ various enforcement methods as described by Pennsylvania One Call. These enforcement methods are effective in many States. PHMSA believes that the ability of a State to enforce its damage prevention law, specifically with civil penalties, is essential to an effective enforcement program because it deters noncompliance and ensures a level playing field for businesses that adhere to the requirements.

Comments Supporting the Proposed Rule

Association of Oil Pipe Lines (AOPL) and American Petroleum Institute (API) are in strong support of the final rule and urge PHMSA to issue and implement a final rule expeditiously to help advance the ultimate goal of zero pipeline incidents. AOPL and API support PHMSA’s proposed criteria for evaluating State excavation damage prevention law enforcement programs for minimum adequacy. The Ohio Gas Association (OGA) stated that it endorses PHMSA’s efforts to bring national uniformity to the enforcement of pipeline damage prevention laws.

The Texas Pipeline Association (TPA) stated that it is supportive of the proposed Federal damage prevention and enforcement requirements as well as the proposed regulations on State program evaluation. TPA recommended that these regulations be adopted in order to encourage effective enforcement.

Ms. Emily Krafjack recommended that PHMSA adopt all proposed regulatory language and noted that all gathering line classes could benefit from the NPRM. Ms. Emma K. commented in general support of pipeline safety.

Response

PHMSA appreciates the comments in support of promulgating a final rule expeditiously.

Comments Requesting Cost Recovery for Excavators’ Downtime

NUCA requested that PHMSA include cost consideration for excavators’ downtime when excavation damage is due to pipeline operators’ failure to locate and mark pipelines properly.

NUCA stated that downtime is not within the scope of this rulemaking.

Comments Opposing the Proposed Rule

The Iowa Utilities Board (IUB), the Kansas Corporation Commission (KCCC), and the Tennessee Regulatory Authority (TRA) are not in support of the NPRM. The IUB believes that PHMSA must still recognize the system established by State law when considering enforcement of Part 196. The IUB further indicated that PHMSA does not have authority over excavators except as provided in 49 U.S.C. 60114(d). Nor would 49 CFR part 196 apply to persons other than excavators. The IUB stated that the proposed language of this final rule exceeds the scope of the specific law on which it is based and asserts broader authority than Federal law permits. The IUB stated that if the intent of the proposed §196.205 is to make the point that PHMSA can take civil penalty action against excavators who violate 49 U.S.C. 60114(f) provided the conditions of 49 U.S.C. 60114(f) have been met, then the final rule should be clarified. The IUB stated that 49 U.S.C. 60114(f) says PHMSA may find State enforcement is inadequate only if it does not (in PHMSA’s estimation) adequately enforce that State’s damage prevention laws. The IUB believes that PHMSA does not have the power to challenge a State law due to perceived inadequacies in areas other than adequate enforcement of that State law.
KCC believes PHMSA taking direct enforcement action against excavators will likely cause confusion and uncertainty in the excavator community. State damage prevention laws regulate many types of underground utilities in addition to protecting underground pipelines subject to regulation by PHMSA and subject to the standards established by PHMSA under 49 U.S.C. 60114(d). KCC stated that currently, 49 CFR part 198 requires States to address underground utility damage prevention on their own terms, taking into account the State’s demographics and political process to structure laws and regulations best suited for the operations of its regulated community. However, under PHMSA’s proposal, KCC believes that the potential exists that on-going attempts to tweak the State law in order to meet PHMSA’s evolving “adequacy” requirements may upset the delicate legislative balance established in the Kansas Underground Utility Damage Prevention Act and potentially lead to a double standard: One set of rules for excavators working in the vicinity of natural gas and hazardous liquid pipelines, and another set of rules for all other excavators.

KCC stated that PHMSA proposes to establish its own Federal standards in those States where PHMSA deems the State’s enforcement efforts “inadequate” and questioned why PHMSA would not merely enforce the State standards. KCC stated that PHMSA’s NPRM does not include any exemptions, whereas the State program includes State-specific exemptions from the requirements of the State program for certain categories of “excavators.” In doing so, PHMSA goes well beyond stepping in to enforce State standards where a determination has been made that the State’s enforcement programs are inadequate. KCC stated its view that 49 U.S.C. 60114(d) does not authorize such action.

TRA stated that it is concerned that the approach PHMSA proposes in the NPRM to penalize States that implement and operate pipeline excavation damage prevention law enforcement programs that do not meet what the TRA considers to be potentially ambiguous Federal standards is not sound policy. Rather than using the penalty of withholding funding, the TRA advises PHMSA that an incentive, like increased funding, in part, or more flexibility in use of existing funding, is more appropriate for States that implement sufficient pipeline excavation damage prevention law enforcement programs. If PHMSA finds that a State pipeline excavation damage prevention law enforcement program is inadequate, the TRA is concerned that such a finding may be misinterpreted as a finding about a State’s efforts to promote pipeline safety through inspections.

TRA commented that review of State excavation damage prevention law enforcement programs is part of PHMSA’s annual review of a State’s overall pipeline safety program. Therefore, to avoid such misunderstanding by the public, the TRA recommends that if PHMSA finds a State excavation damage prevention enforcement program deficient, PHMSA should clearly state that the finding does not imply that a State’s pipeline safety program is inadequate in protecting the public. Also, Texas Pipeline Safety Coalition provided red line edits to the proposed regulatory language.

Response
PHMSA recognizes that the proposed Federal excavation standard is less specific than many existing State damage prevention laws. In particular, State laws are often more specific than the proposed Federal rule in the areas of what constitutes excavation, exemptions established by State laws, notification standards, and what specifically is enforceable. This final rule is intended, in part, to establish Federal “backstop” enforcement authority in States with inadequate damage prevention law enforcement programs. As has been explained at length in the ANPRM and the NPRM, the Federal authority will only be used when the State has not been adequately enforcing its law. This position is clarified in the enforcement policy in the preamble of this final rule.

Additionally, in response to the TRA’s comments, it is important to note that incentives and grant funding have been made available to build State damage prevention programs. It is only the States that truly fail at damage prevention enforcement where excavators will be subject to Federal authority. Finally, if PHMSA finds a State’s damage prevention enforcement program inadequate, that is not the same as PHMSA finding the State’s entire pipeline safety program inadequate.

PHMSA disagrees with the IUB’s comment that the NPRM asserts broader authority than the law permits. One aspect of a State’s damage prevention authority is the extent to which the appropriate State authority is able to execute and enforce it. Whether a given State’s law does not provide enforcement mechanisms or a State has such enforcement mechanisms but is not exercising its enforcement authority, the PIPES Act provides authority for PHMSA to establish and exercise Federal authority to ensure effective enforcement.

A major goal of this final rule is to encourage States to adopt and sustain adequate damage prevention law enforcement programs. However, PHMSA has limited ability to encourage States to do so. In addition to incentivizing States with grant funds, one way PHMSA can encourage States is by making a portion of a State’s base grant funding dependent upon that State having an adequate damage prevention law enforcement program. PHMSA currently makes base grant funding dependent upon the adequacy of some aspects of States’ damage prevention programs. This position, which defines how the State program evaluation criteria will be applied, is clarified in the policy in the preamble of this final rule.

On PHMSA’s Request for Comment on Its View That State and Federal Requirements Will Not Be Enforced Simultaneously; the Existence of a Federal Requirement Should Not Present Any Conflicts With Existing State Requirements for Excavators

KCC stated that it believes that the final rule could result in simultaneous Federal and State enforcement actions. KCC also stated its belief that PHMSA has not rejected the possibility of taking Federal enforcement action on an incident that occurred before the State program was ruled inadequate. KCC stated that it believes significant due process considerations exist that, if ignored by PHMSA, may later undermine PHMSA’s own ability to take appropriate enforcement actions when PHMSA’s enforcement actions are subject to judicial scrutiny. KCC seeks a definitive recognition from PHMSA on the limitations imposed on PHMSA’s authority to take such an enforcement action.

New York State Department of Public Service (NYDPS) believes that PHMSA has not fully considered the potential for Federal regulations and State laws to be enforced at the same time. NYDPS stated that it needs to be fundamental to all State excavation damage prevention programs that a call to 811 will notify all utilities of the excavator’s intent to excavate at a particular work site and that there is one set of rules that applies to the State damage prevention program. Even if PHMSA deems a State program inadequate, the State law will not be repealed by this action and would remain in effect. The regulations proposed contemplate this because they assume a one-call system is actively operating in the State. NYDPS is
concerned that the imposition of a Federal program may have the deleterious effect of causing confusion among one-call laws and systems. This may be particularly true in instances where a State’s law goes beyond Federal regulations in its application or requirements. While there may only be 1 one-call center that takes notices of intent to excavate under both the Federal and State programs, it would be up to the excavators and operators to ensure that their employees understand the different requirements in States that have been deemed inadequate. NYDPS believes PHMSA should fully consider these impacts. Also Missouri Public Service Commission (Missouri PSC) stated that the proposed Federal regulations are the minimal standard. It is not clear, however, whether a determination that a State’s damage prevention program is inadequate would preclude that State from pursuing violations of the State damage prevention laws.

Response

PHMSA can assure these commenters that it will not pursue Federal enforcement action if a State has an adequate enforcement program in accordance with this final rule. Likewise, PHMSA will not take enforcement action on incidents that occurred in a State before that State’s enforcement program was deemed inadequate. Additionally, PHMSA will not enforce State standards, but will instead enforce the minimum Federal standards defined in this final rule. When conducting enforcement, PHMSA will be considerate of State practices and exemptions in the application of the minimal standard defined in this final rule.

As we have stated repeatedly in the ANPRM and the NPRM, PHMSA has no intention of taking over the damage prevention responsibilities of States. PHMSA’s enforcement authority is intended to backstop State’s enforcement authority. This final rule only impacts States deemed to have inadequate enforcement programs. If a State is exercising its damage prevention enforcement authority, there is no reason to believe there will be any need for Federal enforcement. If a State has not been exercising its authority, and PHMSA exercises Federal authority, PHMSA would not expect that State to suddenly start exercising its authority on the very same violation that was the subject of a Federal enforcement action. A State that decides to begin exercising its authority should petition to have the finding of inadequacy lifted and begin enforcement once it is lifted and should not “overfile” on a Federal case.

If PHMSA determines a State’s excavation enforcement program is inadequate, it is unlikely that the State is conducting enforcement. Conversely, if a State is enforcing its damage prevention law, it is unlikely that PHMSA would deem that State’s enforcement program inadequate. Therefore, it is unlikely that Federal and State enforcement would be applied simultaneously. If instances arise where Federal and State enforcement could potentially be applied simultaneously, PHMSA will work cooperatively with the State enforcement agency to ensure that enforcement is applied fairly and consistently. PHMSA strongly encourages States to enforce their own damage prevention laws.

On PHMSA’s Request for Comments on Ways or Mechanisms That PHMSA Can Utilize To Become Aware of Excavation Damage Incidents

Missouri PSC stated that the lack of a mechanism to notify PHMSA of excavation damages to pipelines is an obvious weakness in the NPRM. Under Missouri statute, damages are required to be reported to the Missouri One Call System (MOCS). Operator data compiled by the Missouri PSC indicates, on average, operators are aware of about 200 excavation damages to intrastate natural gas pipelines each month; yet, the MOCS is not receiving nearly that many reports. If a State is found to have an inadequate damage prevention program, PHMSA would have to require operators to report damages to their facilities or institute a complaint-driven mechanism to become aware of damages.

Response

As stated in previous responses to other comments, PHMSA’s goal is to act as a Federal backstop enforcement authority to States. PHMSA does not intend to conduct enforcement for all excavation damages in States with inadequate enforcement programs. On the contrary, PHMSA’s limited Federal enforcement resources will likely only be applied in limited cases. To that end, PHMSA will learn about violations of this final rule through existing channels (i.e., PHMSA-required incident reports, National Response Center reports, and the media), and the final rule does not require Federal reporting at this time.

On Whether the Evaluation Criteria Should Be Weighted

KCC believes the adequacy of State enforcement of State safety programs must be evaluated on a holistic basis that would necessarily include weighting the criteria. It is important to KCC to have a law in place and the ability to administer the law with appropriate performance metrics. How the laws are administered—and at what level fines are imposed—is less important to KCC if the desired results of damage prevention are being achieved. The KCC suggested that the seven proposed criteria should be ordered as follows in importance: 1, 2, 3, 4, 5, 6, 7.

Missouri PSC agrees with PHMSA that weighting the criteria would be difficult. On the other hand, Missouri PSC recommends PHMSA provide additional clarification as to whether each of the criteria items in 6(a), 6(b), 6(c)(i), and 6(c)(ii) carry the same “weight” as the other criteria items—i.e., whether there are seven items in the criteria or 10—including the four issues in item 6. In giving a “weight” or point value to each of the criteria, the Missouri PSC recommends PHMSA provide additional clarification as to whether there is an expectation or quantification of the criteria a State would have to achieve to be considered “adequate.”

Finally, the Missouri PSC recommends PHMSA provide additional clarification as to whether certain criteria are considered critical and/or essential for a program to be evaluated as adequate.

Response

PHMSA believes that some of the criteria for evaluating State enforcement programs, as proposed in the NPRM, should be considered more important than others because some criteria are more critical and/or essential than others. For example, if a State does not have enforcement authority provided by State law, then that State’s enforcement program should be automatically considered inadequate. However, the matter of exemptions, while important, is less critical. PHMSA has included a policy in the preamble of this final rule that defines how the criteria will be applied when evaluating State enforcement programs. In addition, PHMSA will post a policy document on the agency’s Web site. The adequacy determination involves a complex judgment based on multiple factors, and we will not attempt to discuss definitive or deterministic outcomes in all possible scenarios here.

In order to use Federal enforcement authority in a State, PHMSA must first
declare the State’s damage prevention law enforcement program inadequate. PHMSA will not take unilateral Federal enforcement action in a State that has an adequate enforcement program. However, PHMSA may evaluate individual State enforcement actions in assessing the adequacy of enforcement programs. No determination of State enforcement program adequacy will be based solely upon a single State enforcement action. Instead, PHMSA may evaluate the overall program, including past enforcement cases, to gain a better understanding of the adequacy of the State enforcement program within the context of the criteria listed in § 198.55 of this final rule.

On PHMSA’s Request for Comment on Whether the Criteria for Evaluating the Adequacy of State Excavation Damage Prevention Law Enforcement Programs Are Clear, Well-Defined, Consistent, and as Simple as Possible

KCC responded that consistent application of the criteria would be difficult, at best, because of what it considers to be the lack of well-defined terms, phrases, and procedures on how the criteria will be applied. KCC suggested that PHMSA include additional guidance in the final rule on how the agency will define and apply such phrases as “sufficient levels,” “demonstrates effectiveness,” and “consider individual enforcement actions.”

Response

PHMSA agrees that additional guidance is necessary regarding the application of the criteria that will be used to evaluate the adequacy of State damage prevention law enforcement programs. PHMSA has included a policy that defines this guidance in the preamble of this final rule and will post a policy document on the agency’s Web site.

On PHMSA’s Request for Comments Regarding Using a Determination of State Enforcement Program Adequacy To Be a Factor in Determining State Pipeline Safety Grant Funding Levels

Missouri PSC stated it recognizes that the only incentive or disincentive that PHMSA has to make States comply with the damage prevention criteria is to reduce grant funding if the State does not have and/or enforce what are deemed by PHMSA to be adequate damage prevention laws. However, legislative action is required to make changes to Missouri’s excavation damage prevention statute, and the legislative actions are outside the control of the Missouri PSC. An adequate damage prevention program is only a portion of a State’s overall pipeline safety program. Not having adequate funding for the entire pipeline safety program reduces the effectiveness of Missouri’s overall pipeline safety program. The result would be that Missouri could have an inadequate damage prevention program and an inadequate pipeline safety program.

Response

PHMSA does not intend to render State pipeline safety programs inadequate through the reduction of base grant funding. The reduction of base grant funding for States with inadequate enforcement programs is one tool available to PHMSA to incentivize States to implement effective enforcement programs. However, base grant funding is not the only incentive PHMSA can use. PHMSA will provide other incentives for States to implement adequate enforcement programs, including notification to the Governor explaining PHMSA’s findings of enforcement program inadequacy and the potential safety and financial consequences for the State, publishing PHMSA’s findings of inadequacy on PHMSA’s public Web sites, giving grant funding to States for building stakeholder support for improved enforcement programs, and giving ongoing support to stakeholders in their efforts to improve enforcement programs. PHMSA may be able to provide additional support and incentives.

On 911 Notification by the Excavator

Missouri PSC stated that the PIPES Act of 2006 requires excavators to promptly call the 911 emergency telephone number if damage results in specific circumstances; however, the Missouri PSC asserts PHMSA’s position in the NPRM is unreasonable. The Commission stated that discretion should be allowed as to when a call to 911 is warranted subject to whether (1) there is an emergency and 911 is called to dispatch emergency personnel; or (2) there is not an emergency and emergency personnel are not required. The Missouri PSC stated that the 911 operator should not be notified of damage to a pipeline unless emergency services are needed. The Federal Communications Commission and many communications companies have adopted “311” as the non-emergency number. Calling 911 to report damage in a non-emergency situation may obligate the 911 operator to dispatch even though the caller indicates emergency response personnel are not required at the damage site.

Response

The PIPES Act requires excavators to promptly call the 911 emergency telephone number if a damage results in the escape of any flammable, toxic, or corrosive gas or liquid. PHMSA believes that a call to 911 in such circumstances is fundamental to public safety.

Federal One-Call System

Oleksa suggested that PHMSA review the various one-call systems, determine whether or not they are “qualified,” and publish a list of “qualified” one-call systems on the PHMSA Web site.

Response

By simply dialing 811, the national call-before-you-dig telephone number, damage prevention stakeholders will be connected to a qualified one-call system as defined in 49 CFR 192.614 and 195.442.

Comments on the Proposed Regulatory Language

PART 196—PROTECTION OF UNDERGROUND PIPELINES FROM EXCAVATION ACTIVITY

Subpart A—General

§ 196.1 What is the purpose and scope of this part?

AGA suggested that the new part 196 should include requirements for excavators to follow a tolerance zone, which explicitly states the forms of “softer excavation” that are allowed in the immediate area of the marked location of the pipeline that would include hand-digging and vacuum excavation. AGA stated that these concepts are consistent with the excavation best practices in Chapter 5 of the Common Ground Alliance Best Practices 9.0. Part 196 should include language about the excavator having to take steps to protect and even expose the pipeline using soft excavation methods to confirm accuracy of the markings. Also, AGA recommended a maximum of a 1-hour time limit for excavators to report damage to the pipeline operator. In addition, AGA requested that proposed § 196.107 be amended to state that an excavator may not backfill a site where damage has occurred until the operator has been provided an opportunity to inspect the pipeline at the excavation site.

AOPL and API stated that the minimum threshold requirements for a State damage prevention program should include an incident notification requirement. They believe, however,
that a 2-hour notification ceiling, as suggested in the NPRM, appears unnecessarily prescriptive. They recommended that the standard for excavators to “promptly” report incidents to operators should remain effective without a mandated notification period. On the other hand, Missouri PSC stated that its regulations require notification of 2 hours following discovery by the operator, or as soon as practical if emergency efforts to protect life and property would be hindered. Missouri PCS stated that no issues have been identified with this time frame and recommended a 2-hour time limit for excavators to report damages.

Paiute and Southwest recommended that PHMSA require immediate notification of any damage to the pipeline operator. They stated that an excavator does not have the knowledge to determine the severity of a dent or gouge and/or whether or not the damage requires immediate repair.

PHMSA affirms the Common Ground Alliance Best Practices regarding soft excavation methods. However, PHMSA has not included tolerance zone and/or soft excavation requirements in this final rule. Tolerance zone and soft excavation requirements are very specific requirements and should be left to the States. Federal imposition of these requirements would establish double standards in States with similar requirements. PHMSA reiterates that one of the purposes of this final rule is to provide backstop damage prevention law enforcement authority in States with inadequate enforcement programs; the purpose is not to dictate overly specific requirements of safe excavation. PHMSA believes that the purpose of the Federal enforcement program is to provide a minimum standard. Further, as stated in the enforcement policy in the preamble of this final rule, PHMSA intends to consider the requirements of State damage prevention laws when conducting Federal enforcement proceedings, including State requirements regarding tolerance zones and soft excavation practices.

PHMSA agrees with API and AOPL regarding the requirements that excavators “promptly” report excavation damages to pipeline operators. PHMSA does not intend to create more specific standards than States that already define damage reporting timeframes. PHMSA will consider State requirements for reporting timeframes in instances of Federal enforcement.

§196.3 Definitions.

Excavation/Exemptions

The AFBF believes that, based on the current definition in the NPRM, normal agricultural and farm tillage practices would be considered excavation. AFBF believes the failure to exempt farmers and ranchers from the requirements of one-call laws prior to “excavation” is impractical and not workable for today’s agricultural producers. AFBF requested that an explicit exemption for normal agricultural practices be given.

AAR believes that the NPRM’s definition of “excavation” is unclear from the perspective of railroad maintenance-of-way activities. AAR stated that if railroads were subject to one-call requirements for their maintenance-of-way activities, there would be hundreds, if not thousands, of calls daily. AAR believes routine maintenance-of-way activities should not be subject to one-call notification requirements.

The Interstate Natural Gas Association of America (INGAA) stated that it opposes the last sentence of the proposed definition of excavation because it excludes homeowners excavating on their own property with hand tools. INGAA stated that it has no objection to the homeowner exemption to homeowners or occupants using only hand tools, rather than mechanized excavating equipment, including power augers, on their own property and digging no deeper than 12 inches below natural grade.

TPA stated that, with the growing use of plastic pipe in distribution, transmission, and gathering pipelines, the risk to pipeline infrastructure from hand digging increases. Plastic pipe can be punctured or severed by common digging tools used by homeowners. Beyond the damage to the pipeline infrastructure, excavation damage to plastic pipes would pose a risk to the homeowner. Rather than granting a blanket exemption to homeowners, TPA recommends that PHMSA limit the exemption to homeowner excavations by hand digging to depths of no more than 16 inches. TPA stated that, while the homeowner exemption should be limited, PHMSA should add an exclusion to the definition that would permit probing by an operator.

TPA also stated that the proposed definition of “Excavation,” in § 196.3 introduces ambiguity by the phrase “below existing grade.” It is not uncommon for the grade of the land above a pipeline to vary at different points along the pipeline. TPA stated that because the proposed regulations do not contain any further guidance on these matters, it would, at least initially, fall to individual excavators to determine if they are engaging in “excavation” and whether they are subject to the regulations. TPA also stated that once a pipeline is installed, erosion and prior land grading would impact the amount of cover for the pipeline. TPA stated that there is no reason to take these risks when the alternative is to make a phone call and wait a couple of days for a pipeline to be marked. Therefore, TPA urges PHMSA to remove the phrase “below existing grade” from the definition of excavation.

AGC stated that the term “excavator,” and thus the focus of Federal enforcement proceedings where the excavator is at fault, should refer to all parties doing digging work including, but not limited to, State agencies, municipal entities, agricultural entities, and railroads. State excavation damage prevention laws and enforcement should also apply equally to pipeline operators and their contract excavators and locators. However, AGC agrees that some exemptions can be justified with data, and these exemptions can only be determined at the State level, while many of the existing ones should be carefully scrutinized by PHMSA and eliminated if they present a danger to buried facilities.

The Black Hills Corporation opposes the exemption to homeowners using hand tools from requiring the use of a “Call Before You Dig” one-call system as well as from any Federal administrative enforcement action because it goes against the public safety educational drive for “Call Before You Dig” messages. Also, the Iowa Association of Municipal Utilities (IAMU) stated that exemptions to homeowners using hand tools are in direct conflict with most one-call laws across the country.

Iowa One Call believes that the proposed excavation definition would specifically exclude homeowners excavating on their own property with hand tools. The Iowa One Call stated that this exclusion is inconsistent with Iowa law and directly conflicts with the State’s damage prevention public awareness and outreach communications campaign and program initiatives; however, Iowa One Call believes that some Iowa exemptions, such as opening a grave in a cemetery, normal residential gardening, operations in a solid waste disposal site which has planned for underground facilities, and normal farming operations, are judicious. To exclude these types of well-developed State exceptions would be impractical and possibly unrealistic.
NAPSR stated that the proposed definition of excavation only covers operations performed below existing grades, which may lead to confusion, especially in cases where excavation activities are performed, backfilled, and graded on multiple occasions over a period of time. The proposed definition of excavation specifically excludes homeowners excavating on their own property with hand tools and would directly conflict with many State laws and with State and national awareness initiatives. NAPSR stated that any person performing excavation activities, including homeowners, should be encouraged to call for utility locates and wait the required time allowed for marking before excavation begins, pursuant to State regulations and requirements. Therefore, NAPSR stated that the definition of excavation should not exclude hand digging by homeowners, and the sentence “This does not include homeowners excavating on their own property with hand tools” should be removed from the definition of “excavation” in § 196.3.

The IUB stated that 49 U.S.C. 60114(d)(1) requires excavators to use the one-call notification system of the State; therefore, the definition of excavation in the NPRM should defer to the definition of the State in which the excavation is proposed. The IUB stated the homeowner exclusion would directly conflict with many State laws and with State and national awareness initiatives to encourage landowners to call for utility locates before digging, and therefore, hand digging by homeowners should not be excluded. However, the IUB stated that excluding farm operations is impractical and unrealistic. Also, NUCA requested that the “excavator” definition should include examples such as excavator, contractor excavator, in-house excavators, municipalities, etc.

Northern Natural Gas supports the reduction of exemptions to one-call damage prevention laws. Northern suggested no exemptions. As for farming operations, Northern recommended a requirement for one-call notification whenever the farming operation penetrates the soil to a depth of 12 inches or greater. Northern stated that examples requiring a one-call notification for farm work would include mechanical soil sampling, drainilling, chisel plowing, sub-soiling, ripping, terracing, and waterway or post installation. Also, OGA stated that there should not be a homeowner exemption because there must be the universal acceptance of the requirement to “Call Before You Dig.”

Response

Most of the comments regarding the definition of excavation are focused on how the definition of the term will be interpreted in light of existing exemptions from the requirements of State damage prevention laws. The definition of excavation in this final rule is intentionally broad and inclusive. However, PHMSA recognizes that the definition of excavation in this final rule is broader and more generic than many of the definitions of excavation in State damage prevention laws. State laws are specific about which classes of excavators and/or which types of excavation are or are not exempt from State law. In conducting Federal enforcement, PHMSA will be considerate of the definitions of excavation, including exemptions applicable to excavators, in State damage prevention laws. However, PHMSA may choose to pursue Federal enforcement actions against excavators who egregiously and/or negligently damage pipelines in disregard of safety, regardless of whether those excavators are exempt from State law. PHMSA’s enforcement policy is defined in the preamble to this final rule.

NHMA agrees with the comments from INGAA, TPA, IAMU, the Black Hills Corporation, Iowa One Call, and NAPSR that oppose an exemption for homeowners excavating on their own property with hand tools. The exemption for homeowners has been removed from this final rule. PHMSA has not included any exemptions for excavations in this final rule. Exemptions in this final rule could create confusion regarding the applicability of State and Federal standards. Instead, PHMSA will be considerate of State exemptions in exercising Federal enforcement authority.

PHMSA has not clarified the types of excavators to whom the final rule applies, as suggested by NUCA. The definition of the term “excavation” is broad enough to encompass all types of excavators regardless of their relationships to other entities.

PHMSA agrees with TPA regarding the need to eliminate the phrase “below existing grade” from the definition of “excavation.” The definition of “excavation” has been updated accordingly.

Damage/Excavation Damage

AOPL and API believe revising the definition of damage or excavation damage in this section would provide greater clarity. They requested that because nicks, coating scrapes, and damage to cathodic protection wiring or appurtenances could affect the integrity of the pipeline, the word “impact” in the definition should be replaced with the term “excavation activity.” They stated that damage can be caused without physical impact: coating can be worn while pulling up trees or digging out roots in close proximity to a pipe; cathodic protection wiring can be cut, broken, or disconnected as a result of stresses created by heavy loading due to improper backfilling; or external loading itself can create undue stress on the pipe, creating an unsafe condition. Damage can also be caused when the support under the pipeline is taken away. Therefore, they requested a broader definition that would encompass a broad range of activities that impact safety.

Response

PHMSA agrees with AOPL and API regarding the need for greater clarity in the definition of damage or excavation damage. The definition of these terms has been modified to address these concerns.

Pipeline

NAPSR stated that the proposed definition of “pipeline” does not cover all appurtenances of a pipeline structure, only those “attached or connected to pipe . . . .” This would exclude tracer wire systems or other devices, such as radio frequency identification or other electronic marking system (EMS) devices, used to facilitate proper locating and marking of the operator’s infrastructure. NAPSR recommended that the definition of “pipeline” be written to include tracer wire and other devices used to facilitate proper locating and marking of the operator’s infrastructure. NUCA requested that the pipeline definition should clearly describe the types of pipelines to which the final rule will apply, such as gathering, transmission, and distribution (including gas mains and service lines), as defined in existing laws and regulations, so everyone understands exactly what types of lines are included.

Response

PHMSA agrees with NAPSR about the need for the definition of “pipeline” to be expanded to include tracer wire and other devices used to facilitate proper locating and marking of the operator’s infrastructure. PHMSA also agrees with NUCA regarding the need to clearly describe the types of pipelines to which the final rule will apply. The definition of “pipeline” has been modified accordingly.
Tolerance Zone

TPA suggests that PHMSA add a definition of “tolerance zone” to §196.3. TPA stated that such a definition is critical to determining the accuracy of the locate markings and the area where “proper regard” must be used by an excavator as required by §196.103(c). Without the addition of this definition, PHMSA will be repeatedly placed in a difficult enforcement situation if a dispute arises between the excavator and the operator about the accuracy of the marking or the type of excavation practices used near the pipeline. Although the States have many different standards for a tolerance zone, the least controversial standard to use for a Federal standard would be CGA’s Best Practice 5–19, which defines the tolerance zone as the width of the facility plus 18 inches on either side of the outside edge of the underground facility on a horizontal plane. TPA suggested that this definition or a similar definition would facilitate enforcement and enhance the protection of pipeline infrastructure and public safety.

Response

PHMSA has not included a definition of “tolerance zone” in this final rule. State laws are often specific about tolerance zones, and PHMSA does not wish to create confusion by establishing an excavation standard that is more specific or more restrictive than some State standards. Instead, when conducting Federal enforcement, PHMSA will be mindful of tolerance zones as defined by the law in the State where PHMSA is conducting enforcement.

Subpart B—One-Call Damage Prevention Requirements

§196.101 What is the purpose and scope of this subpart?

TPA suggested that the title of this Subchapter should be revised by deleting the word “One-Call” because the proposed Subpart B includes most of the excavation practice requirements, operator locating requirements, and One-Call process. TPA also urges PHMSA to add a provision to Subpart B requiring excavators and operators to report any damage to pipeline facilities using the CGA Damage Information Reporting Tool (DIRT). TPA stated that this provision should also impose a time limit for reporting so that the relevant data is captured as soon as possible after the damage event occurs.

Response

PHMSA agrees with TPA’s suggestion to remove the word “One-Call” from the title of this subpart. The title has been changed from “One-Call Damage Prevention Requirements” to “Damage Prevention Requirements.” PHMSA disagrees with TPA’s suggestion to require excavators and operators to report damages to the CGA DIRT database. The CGA DIRT database was developed as a voluntary system. Further, PHMSA does not own or control the CGA, and PHMSA believes it would be inappropriate to require the use of CGA DIRT database through regulation.

§196.103 What must an excavator do to protect underground pipelines from excavation-related damage?

NAPSR, NYDPS, AGA, INGAA, DCA, NUGA of Ohio, AOPL and API stated that in §196.103, the language “where an underground gas or hazardous liquid pipeline may be present” would directly conflict with many State laws and with State and national awareness initiatives. They stated that the excavator should always call for staking prior to excavating. They stated that there is no way for an excavator to determine if a pipeline may be present without a staking request. Therefore, they рекомендовали to request that this language “where an underground gas or hazardous liquid pipeline may be present” be removed or modified from §196.103.

NAPSR stated that the language in §196.103(b), which reads, “If the underground pipelines exist in the area, wait for the pipeline operator to arrive at the excavation site and establish and mark the location of its underground pipeline facilities before excavating,” fails to define what is meant by “in the area” and does not specify the amount of time in which the pipeline operator is expected to “wait for the pipeline operator to arrive” and “mark the location.” NAPSR recommended that the term “area” should be better defined, the time between calling for locates and the beginning of excavation should be specified, and actions an excavator is to take when an operator fails to establish and mark the location of its underground facilities should be specified.

TPA stated that to increase the clarity of §196.103, PHMSA should restructure the section by creating two major subsections, with one addressing activities prior to excavation and the other addressing activities during excavation. Also, TPA suggested that at least 2 business days should be required for the line locate request through a notification center before the planned beginning of an excavation. TPA stated that such a standard is consistent with the CGA Best Practices. TPA suggests revisions similar to CGA Best Practices 5–17 and 5–19 and believes these revisions should not be controversial.

TPA provided recommended language to modify the proposed language in §196.103. TPA stated that if PHMSA does not adopt TPA’s recommendations, it suggests that the introductory language to §196.103 be revised to read, “Prior to and during excavation activity. . .” to clarify the complete time period when the requirements of proposed §196.103 apply.

Pennsylvania One Call suggested that §196.103(a) should be amended to provide that an excavator must furnish the one-call center with specific location information consistent with State law, regulation, or practice because it believes that the current language does not address this matter.

NUGA suggested that the language in §196.103(b) should require excavators to wait a prescribed time period (established by State law) for pipeline operators to arrive at the excavation site and mark the location of underground pipeline facilities. AOPL and API requested that the language in §196.103(b) stating that an excavator shall “. . . wait for the pipeline operator to arrive at the excavation site and establish and mark the location of its underground pipeline facilities before excavating.” be rephrased to read “Wait for 48 hours from the time of placing a one-call notification prior to excavation, to permit the pipeline operator to arrive at the excavation site and establish and mark the location of its underground pipeline facilities.”

They suggested that if the call is placed on a weekend, the 48-hour notification period would commence the next business morning, and excavation may proceed if the excavator has received an affirmative response from all underground utility operators as marked or cleared.

NAPSR stated that §196.103(c) is vague and does not adequately address what “proper regard” or “respecting the marks” means. NAPSR stated that to clarify the section, PHMSA should add a reference to the CGA best practices for safe excavation around an underground facility.

AGA stated that §196.103(d) seems unnecessary because a marking request is understood to be required at “other” locations. DGA questions the need for §196.103(d) that would require excavators to “. . . make additional use of one-call as necessary to obtain locating and marking before excavating if additional excavations will be
conducted at other locations.” DCA stated that the requirement seems redundant. Excavators would have to comply with the requirements set forth in § 196.103(a), (b) and (c) for “additional excavations” that would be conducted at other locations. AOPL and API recommended that § 196.103(d) state that, prior to commencing excavation activity where an underground gas or hazardous liquid pipeline may be present, the excavator must “make additional use of one-call as necessary to obtain locating and marking before excavating if additional excavations will be conducted at other locations.” They stated that the language appears to only require the use of one-call for excavations that are to be conducted at other locations. Since some State laws require the additional use of one-call for excavations that continue at the same location, AOPL and API recommended that the clause “...if additional excavations will be conducted at other locations,” be deleted, and that PHMSA replace the phrase with the language “...or a locate request or markings have expired and a new one-call notification is required per applicable state law” in its place.

Response

PHMSA agrees with the comments of NAPSR, NYDPS, AGA, INGAA, DCA, NUCA of Ohio, AOPL, and API regarding the need to remove the language “where an underground gas or hazardous liquid pipeline may be present” from § 196.103. The section has been updated to reflect the change. In addition, PHMSA has not adopted the recommendation from NAPSR concerning wait times and actions to be taken when an operator fails to mark its facilities. These issues are typically well-defined in State law. PHMSA intends to be considerate of State requirements when conducting Federal enforcement proceedings.

PHMSA has not restructured the section by creating two major subsections, as suggested by TPA. However, PHMSA has revised the introductory language for the section to read, “Prior to and during excavation activity . . .” to clarify the time period when the requirements of the section apply.

PHMSA has not adopted the suggestions from Pennsylvania One Call and NUCA regarding amending the section to require that excavators furnish the one-call center with information and wait the prescribed time required by State law. The enforcement policy in the preamble of this final rule provides that PHMSA will be considerate of State requirements when conducting Federal enforcement proceedings.

PHMSA has not adopted the recommendations of AOPL and API regarding including specific language pertaining to wait times in § 196.103(b). PHMSA does not wish to create Federal requirements that differ vastly from State requirements. Excavators in each State should already be familiar with the wait time requirements of State damage prevention laws. A different Federal wait time requirement may create confusion. PHMSA will be considerate of the requirements of State laws in instances of Federal enforcement.

PHMSA agrees with NAPSR that the proposed § 196.103(c) is generic. PHMSA has clarified the section in the final rule, but the section is left intentionally generic to allow for the variability in State damage prevention laws, which PHMSA will consider in any Federal enforcement case. PHMSA has not made any references to CGA Best Practices in the section.

PHMSA disagrees with the comments of AGA and DCA regarding the redundant nature of the proposed § 196.103(d). PHMSA has not removed this section from the final regulatory language. This language is taken directly from the PIPES Act, and PHMSA considers it essential to preventing excavation damage to pipelines.

PHMSA agrees with the comments from AOPL and API regarding § 196.103(d). However, PHMSA has not replaced the current language with the language they recommended. The language AOPL and API recommended refers specifically to State law, which PHMSA has no authority to enforce. Therefore, the phrase “...if additional excavations will be conducted at other locations” has been deleted and replaced with the phrase “...to ensure that underground pipelines are not damaged by excavation.”

§ 196.105 Are there any exceptions to the requirement to use one-call before digging?

NAPSR stated that, in § 196.105, the exemption for homeowners conflicts with many State laws and with State and national awareness initiatives. However, NAPSR commented that State laws may include reasonable exemptions to the requirement to use one-call before digging such as opening a grave in a cemetery, landfill operations, and tilling for agricultural purposes. Therefore, NAPSR believes that any requirements or exceptions on when to use the one-call system before digging should be deferred to the State law.

MidAmerican Energy Company (MidAmerican) stated that it is concerned with the homeowner exemption language in § 196.105, and it believes that it would be safer and more appropriate to always require the homeowner to call for a locate than leaving it to the homeowner’s discretion.

AGA stated that the exception from Federal enforcement for homeowners using hand tools on their own property under § 196.105 is to simply attempt to establish a reasonable boundary around the excavation damages PHMSA would be considering for enforcement action in those States with inadequate programs. Therefore, AGA recommended that hand digging to shallow depths be allowed for any party since digging with hand tools to shallow depths (less than 12 inches in depth) is typically not one of the highest risks among third party excavations in States with an inadequate program. AGA suggested that PHMSA delete the sentence “This does not include homeowners excavating on their own property with hand tools” since it is likely to cause confusion and is unnecessary if the language in § 196.105 is amended. AGA also stated that it agrees with PHMSA’s use of the word “exception” under § 196.105 since its incorporation into a Federal excavation standard is very different from the one-call exemptions that exist at the State level. AGA stated that consideration should also be given to whether or not a farmer is a “homeowner” and if so, whether their exception would be for their entire property or just for their farm. AGA pointed out that Page 25 of CGA’s 2010 DIRT Report shows that “occupant/farmer” is the excavator involved in 10 percent to 17 percent of the events collected for six of the eight One-Call System International Regions, and AGA believes this is a significant issue.

INGAA stated that homeowners using hand tools to dig more than 12 inches deep should not be exempt from contacting one-call and opposes the § 196.105 language that would exempt homeowners from contacting one-call before digging with hand tools. TPA stated that § 196.105 should be revised to read as follows: “... provided that the homeowner does not dig deeper than 16 inches.”

NUCA stated that in § 196.107 homeowners should not be exempted from calling one-call before excavation activity.

Response

PHMSA agrees with the comments regarding the need to eliminate the proposed exemption for homeowners.
This exemption has been removed from the regulatory language. The final regulatory language is silent on the subject of exemptions/exceptions.

§ 196.107 What must an excavator do if a pipeline is damaged by excavation activity?

AOPL and API requested that § 196.107 be amended to state that an excavator may not backfill a site where damage has occurred. NYDPS and TPA regarding the time limit by which an excavator must notify the operator of damage to a pipeline. TPA stated that if there is no release of product, an operator needs to get to the damage site as soon as possible to assess the situation and take any necessary remedial action. TPA suggested the time limit be 2 hours following discovery of the damage. TPA also suggested that § 196.107 should be revised to include a requirement that an excavator not backfill any portion of a damaged pipeline without the operator’s approval.

NYDPS stated that § 196.107 should require an excavator to notify the operator of damage to a pipeline but also physical contact with a pipeline because this would prevent an excavator from exercising discretion to determine whether contact did or did not result in damage, and mere contact could create damage to pipeline coating.

Response

While PHMSA understands the comments from AOPL, API, CenterPoint, and Kern River regarding stop work and backfill requirements, PHMSA has not included these requirements in the final rule. These requirements would be very difficult to communicate in States with inadequate enforcement programs. The requirements would also be different from the requirements of State damage prevention laws in most cases. PHMSA does not wish to create confusion or create a scenario under which excavators would be subject to Federal enforcement of a requirement of which they would likely not be aware.

PHMSA has considered requiring excavators to notify the one-call center, in addition to the pipeline operator, in the event of excavation damage to a pipeline. PHMSA does not believe this requirement should be included in the final rule. One-call centers are not necessarily equipped to accept damage reports in every State. NAPSR’s recommendation, therefore, could create an undue burden on both excavators and one-call centers and could lead to confusion among damage prevention stakeholders.

In response to the comments from NYDPS and TPA regarding the time limit for notice of damage to pipeline operators, PHMSA believes that the language proposed in the NPRM is practical and enforceable. Establishing a specific timeline may create confusion among stakeholders in States where PHMSA has Federal enforcement authority.

In response to the Pennsylvania One Call, PHMSA believes the definition of the terms “damage/excavation damage” in § 196.3 is broad enough to encompass all of the types of excavation damage that may have an impact on pipeline integrity and safety.

§ 196.109 What must an excavator do if damage to a pipeline from excavation activity causes a leak where product is released from the pipeline?

AGA suggested in § 196.109, PHMSA add a requirement that an excavator responsible for damage that results in the escape of dangerous fluids or gases must take actions to protect the public until the arrival of the operator or public safety personnel in a manner consistent with the second half of CGA Best Practice 5–25: “The excavator takes reasonable measures to protect everyone in immediate danger, the general public, property, and the environment until the facility owner/operator or emergency responders arrive and complete their assessment.” AGA suggested that in § 196.109, PHMSA delete “Upon calling the 911 emergency telephone number, the excavator may exercise discretion as to whether to request emergency response personnel be dispatched to the damage site,” because this type of decision should rest with the 911 operator not the excavator.

NAPSR commented that in § 196.109, if the incident is such that it “may endanger life or cause serious bodily harm,” then emergency personnel should always respond to the site; the excavator should not be making a “judgment call” at this point. NAPSR recommended that the sentence “Upon calling the 911 emergency telephone number, the excavator may exercise discretion as to whether to request emergency response personnel be dispatched to the damage site,” be removed from the proposed language in this section.

AOPL and API and INGAA suggested that § 196.109 should specify that if damage to a pipeline from excavation activity causes the release of any material, either gas or liquid, the excavator must immediately stop work at that location and report the release to appropriate emergency response authorities by calling 911. Excavators should be required to contact the pipeline operator to notify them of the release after contacting the appropriate emergency...
response authorities. Work should not resume at the location until the pipeline operator determines the work can be resumed.

Kern River stated that § 196.109 should first require that work be stopped immediately, next that the damage be reported to appropriate emergency response authorities, and finally that the pipeline operator be promptly notified.

MidAmerican commented that § 196.109 requires excavators to immediately report the release of hazardous products to the appropriate emergency response authorities by calling 911. Once the 911 emergency telephone number is called, § 196.109 would allow excavators the discretion of whether to request that emergency response personnel be dispatched to the damage. MidAmerican stated that it believes that an exception should be made to the requirement to call 911 for pipeline operators who damage their own pipelines. Pipeline operators’ personnel are directly on-site and can see that the necessary repairs can be made safely and expeditiously without the need to first contact emergency response personnel.

NUCA, NUCA of Ohio, DCA, and Pennsylvania One Call stated that the “911 requirement” in § 196.109 presents a “Pandora’s box” to the excavation community. They stated that professional excavators are not first responders. Expecting a contract excavator to accurately determine if the product released following excavation damage is one that can “cause serious bodily harm or damage property or the environment” is outside their responsibilities. They stated that the decision as to whether a 911 call ought to result in a dispatch of emergency responders is a matter to be decided by the 911 center, not the excavator. They encourage PHMSA to revise or delete this provision in the final rule. NUCA agrees with PHMSA’s proposal for calling 911 except for the excavator needing to maintain the option to exercise discretion on whether it is necessary for the 911 dispatcher to send emergency response personnel. NUCA stated that in many situations, the only excavator may need to do is inform the owner/operator that the pipeline was damaged so the pipeline operator can respond with the personnel who are best educated and equipped to handle the situation.

TPA stated that § 196.109 should be revised in three ways. First, to prevent the excavators using their discretion to call 911, the phrase, “that may endanger life or cause serious bodily harm or damage to property or the environment” should be deleted. Second, to eliminate any ambiguity in the final rule, concerning when 911 should be contacted, the phrase, “of hazardous products,” which occurs immediately following the second occurrence of the word, “release,” in the first sentence of the Section, should be deleted. Third, the phrase, “in addition to contacting the operator,” should be added to the end of the first sentence of the Subsection to clarify that the operator needs to be contacted first.

Response

PHMSA disagrees with AGA’s suggestion of requiring compliance with CGA Best Practice 5–25. While PHMSA supports CGA Best Practices (including Best Practice 5–25), PHMSA does not intend to require compliance with the Best Practice. PHMSA agrees with AGA’s and NAPSR’s suggestion of removing the phrase, “Upon calling the 911 emergency telephone number, the excavator may exercise discretion as to whether to request emergency response personnel be dispatched to the damage site” from § 196.109. The phrase has been removed from the final regulatory language. PHMSA agrees with the suggestions from AOPL, API, INGAA, and NUCA regarding the need for excavators to contact 911 and the pipeline operator if excavation damage causes a release. PHMSA has removed from the final rule the proposed option for excavators to exercise discretion as to whether emergency response personnel be dispatched to a damage site. For reasons already noted in previous responses to comments, PHMSA disagrees with the idea of requiring excavators to stop work because of challenges related to communication and enforcement of the requirement.

PHMSA disagrees with MidAmerican’s belief that an exception to the 911 requirement be made for operators who damage their own pipelines. The PIPES Act of 2006 requires the call to 911 in cases of excavation damage that result in releases, regardless of who is conducting the excavation.

PHMSA has made the changes to § 196.109 as recommended by TPA, with one exception. PHMSA has not included the phrase, “in addition to contacting the operator,” as recommended by TPA because contacting the operator after excavation damage occurs is already required under § 196.107.

PHMSA has also modified § 196.109 from the originally proposed “any flammable, toxic, or corrosive gas or liquid from the pipeline that may endanger life or cause serious bodily harm or damage to property or the environment” to “any PHMSA regulated natural and other gas or hazardous liquid as defined in parts 192, 193 or 195.” PHMSA made this change to ensure consistency with existing PHMSA regulations.

§ 196.111 What if a pipeline operator fails to respond to a locate request or fails to accurately locate and mark its pipeline?

NAPSR stated that § 196.111 states that “PHMSA may enforce existing requirements applicable to pipeline operators, including those specified in 49 CFR 192.614 and 195.442 and 49 U.S.C. 60114.” However, most State regulations are more stringent than §§ 192.614, 195.442, and 60114, which generally cover only the broad basics and do not include as detailed compliance requirements as State law. NAPSR stated that PHMSA would not have a way of knowing if the pipeline operator fails to respond. In addition, it is not clear to NAPSR whether additional reporting requirements on pipeline operators or excavators, or both, would be established. NAPSR stated that State laws, regulations, and rules usually provide specific and detailed requirements for when an operator fails to respond to a locate request or fails to accurately locate and mark its pipelines. Therefore, NAPSR stated that any requirements concerning failure to respond or accurately locate needs to defer to the State law in the State where the event occurred.

Pennsylvania One Call requested that § 196.111 be amended to make it clear that PHMSA’s direct role in State enforcement normally will be limited to those situations where (a) the State lacks enforcement authority, or (b) the State systematically refuses (by action or inaction) to utilize the authority it has.

NUCA stated that § 196.111 should include action against the owner/operator that results in reimbursement to the contractor for financial losses due to the owner/operators’ failure to locate and/or accurately mark the pipeline. NUCA stated that this requirement would encourage pipeline owner/operators to respond to a request for “a locate” in a timely manner. TPA stated that § 196.111 requires enforcement for the failure of an operator to accurately locate and mark its pipeline, but there is no standard in part 196 establishing the requirements for accurate locating and marking. TPA suggested that, to make sure pipeline operators accurately locate and mark their pipelines under the Federal damage prevention requirements,
§ 196.111 should be revised by adding a sentence that reads as follows: “A locate mark will be considered accurate if it is located anywhere within the tolerance zone.”

Response

In response to the comments from NAPSR, PHMSA will be considerate of State laws and regulations when conducting Federal enforcement. The policy in this preamble further clarifies PHMSA’s position. States often do not enforce 49 CFR 192.614 and 195.442. PHMSA believes that enforcement of these regulations, applicable to pipeline operators, ensures fairness in the damage prevention process and that pipeline operators take their damage prevention responsibilities seriously. In response to the comments from Pennsylvania One Call, § 196.111 will only be enforced in States with damage prevention law enforcement programs that PHMSA deems inadequate.

For reasons stated in response to another comment above, PHMSA disagrees with NUCA’s recommendation that § 196.111 should include action against the owner/operator requiring reimbursement to the excavator for financial losses due to an owner/operator’s failure to locate and/or accurately mark a pipeline. PHMSA disagrees with TPA’s recommendation to include in § 196.111 a sentence that reads as follows: “A locate mark will be considered accurate if it is located anywhere within the tolerance zone.” PHMSA has not defined a tolerance zone in this final rule. In conducting Federal enforcement, PHMSA will be considerate of State requirements for accurate marking, consistent with the enforcement policy included in the preamble to this final rule.

Subpart C—Enforcement

§ 196.203 What is the administrative process PHMSA will use to conduct enforcement proceedings for alleged violations of excavation damage prevention requirements?

and

§ 196.205 Can PHMSA assess administrative civil penalties for violations?

AOPL and API requested that PHMSA clarify whether civil penalties in § 196.205 are intended to be used for failure to report a near-miss, or whether civil penalties will only be issued for damage and release events. They suggested that PHMSA should clarify that civil penalties may be imposed pursuant to the enforcement authority granted in subpart C, even if an excavator violates the subpart but does not cause damage. They support a case-by-case approach to imposing penalties, support weighing the facts and circumstances in each case, and support PHMSA's discretion to assess civil penalties regarding near-misses based on its investigation as to the excavator's efforts at communicating near-miss information. On the other hand, CenterPoint and the IUB were skeptical of the effectiveness of near-miss reporting. CenterPoint stated that the most difficult aspect of reporting near misses may be defining exactly what one is and stated that investigating possible near misses to determine if they are reportable would also tie up limited resources. IUB questioned if meaningful or accurate data would be collected by such a requirement. IUB stated that excavators would have little incentive to report near-misses that would otherwise be unnoticed, and the reports would bring potential penalties and shame. More rigorous (and expensive) monitoring of excavators by operators would also be of little benefit, as near misses would most likely occur during excavations where one-call was not notified, and the operator would be unaware that an excavation, let alone a near miss, had occurred. IUB suggested no rule on near-miss reporting be adopted on the basis that it is unlikely to provide worthwhile information.

AOPL and API also suggested that the right to request the Attorney General to bring an action for relief, as necessary or appropriate, including mandatory or prohibitive injunctive relief, interim equitable relief, civil penalties, and punitive damages, be retained by the Administrator of PHMSA, or a designated authority, as authorized in 49 CFR 190.25.

AGC supported the administrative process outlined in the NPRM. AGC suggested that in the process of the paper hearing that happens after the initial finding of inadequacy, PHMSA should request input from all stakeholders in the State with the inadequacy rating. AGC also suggested that in the penalty phase, PHMSA should consider education as an alternative or supplement to civil or other penalties and in cases where financial penalties are assessed, and/or that revenues generated must be reserved to finance damage prevention education and technologies used in support of damage prevention activities.

CenterPoint suggested that PHMSA should adopt a complaint-based administrative procedure as the primary trigger of the enforcement process provided in proposed §§ 196.205 and 196.207. CenterPoint commented that State and, if necessary, Federal criminal and civil penalties should be imposed to repeat excavation damage offenders who do not respond to any amount of monetary fines.

Paiute and Southwest commented that the process outlined within the NPRM is lengthy and potentially ineffective in dealing with an at-fault excavator. The administrative process defined in the NPRM could develop into 12-to-24 month interplay between the defending State and PHMSA before any enforcement action is taken with the excavator. An excavator should not be penalized for the inadequacy of a State’s enforcement program by receiving a second fine from PHMSA upon the finding that a State’s enforcement activities are inadequate. Additionally, they stated that an excavator would not be given credit for any improvements they may have made immediately following the infraction. Paiute and Southwest encouraged the development of a process for determining the adequacy of a State’s enforcement program in advance of an infraction and prior to invoking Federal administrative enforcement. They stated that PHMSA should first determine if the State’s program is effective, notify the State of the inadequacies, and allow time for the State to take the steps necessary to improve their program. Then, PHMSA should initiate Federal enforcement immediately following an infraction should the State fail to improve its program.

DGA and NULCA of Ohio stated that PHMSA proposes to apply the same adjudication process for these new regulations as is used for other pipeline safety violations included in 49 CFR part 190. They suggested that improvements could be made to the logistical provisions in the final rule for excavators to address alleged violations of the Federal excavation standard. They stated that it is overly burdensome to expect professional excavators to travel to PHMSA regional offices that have jurisdiction over several States. Also, NULCA stated that PHMSA proposes to use the same adjudication process for these new regulations as is used for other pipeline safety violations.
enforcement authority in States with inadequate programs.

PHMSA recognizes that the adjudication process in 49 CFR part 190 for violators of pipeline safety regulations could be burdensome for excavators if excavators are expected to travel to PHMSA regional offices.

PHMSA regularly conducts these hearings via teleconference, which should relieve alleged violators of any requirement to travel.

PHMSA disagrees with the comments from Paiute and Southwest regarding the fairness of the proposed adjudication process for homeowners.

PHMSA does not intend to make special accommodations for homeowners who violate pipeline safety regulations.

§ 196.207 What are the maximum administrative civil penalties for violations?

AGA stated that it is concerned that the civil penalty should always be restricted to the State’s maximum penalty. AGA stated that excessive Federal penalties would actually serve as a deterrent for an excavator in reporting damage or perhaps even tempt individuals to make their own unauthorized repairs to a pipeline rather than notifying the operator. AGA stated that either way, this issue is a legitimate concern that could lead to unsafe conditions.

Response

PHMSA recognizes AGA’s concern about the potential for excessive penalties to create an unsafe condition. However, PHMSA cannot restrict Federal civil penalties to maximum State penalties in States with no civil penalty authority. PHMSA will assess penalties pursuant to 49 CFR 190.225.

§ 196.209 May other civil enforcement actions be taken?

IUB commented that § 196.209 proposes additional types of civil enforcement actions against any person believed to have violated any provision of 49 U.S.C. 60101 et seq. or any regulation issued there under. IUB stated that this language would include any person, not just excavators, for any alleged violation of any Federal pipeline safety law or rule instead of just those related to damage prevention. IUB believes that this language far exceeds the scope of Part 196 and the law on which it is based.

Response

In response to the comment from IUB, § 196.209 is consistent with 49 CFR 190.235.

§ 196.211 May criminal penalties be imposed for violations?

NUCA recommended that, to ensure all parties are aware of potential penalty amounts, § 196.211 should include the penalties specified in 49 U.S.C. 60122.

Response

PHMSA has chosen to reference 49 U.S.C. 60122 with regard to civil penalties instead of noting the penalty amounts listed in 49 U.S.C. 60122. The maximum civil penalties in 49 U.S.C. 60122 are subject to change.

PART 198—REGULATIONS FOR GRANTS TO AID STATE PIPELINE SAFETY PROGRAMS

Subpart D—State Damage Pipeline Enforcement Programs

§ 198.53 When and how will PHMSA evaluate state excavation damage prevention law enforcement programs?

Missouri PSC stated that it understands PHMSA’s incentive to make States comply with the damage prevention criteria is to reduce grant funding; however, Missouri’s pipeline safety legislative actions are outside the control of the Missouri PSC. An adequate damage prevention program is only a portion of a State’s overall pipeline safety program and, therefore, reducing the grant for an inadequate damage prevention program would mean not having adequate funding for the entire pipeline safety program, which would reduce the effectiveness of Missouri’s overall pipeline safety program.

The IUB recommended that this portion of the NPRM be deleted in its entirety. The IUB stated that the section was not required or contemplated by Congress, the proposed penalty to State base grants is disproportionate and excessive, and it has the potential to drive States out of the Federal/State pipeline safety partnership. The IUB believes that this NPRM requires a public meeting for PHMSA to take evidence on the impact of such an onerous provision on State programs, and suggested that if public meetings are not possible, PHMSA should enter discussion with NAPSR on what a reasonable level of penalty on States might be.

IUB stated, with regard to § 198.53, that Congress directed PHMSA to develop “through a rulemaking proceeding, procedures for determining inadequate State enforcement of penalties.” PHMSA was not directed to take punitive action against States whose enforcement was deemed inadequate. IUB argued that the proposed grant penalties for States with...
inadequate enforcement programs are unsupported by the law, unwarranted and unnecessary, and beyond the scope of this rulemaking; in addition, the amount of penalty proposed is disproportionate, excessive, and the deductions are cumulative.

IUB commented that a State pipeline safety program that is dependent on the PHMSA base grant would soon be unable to conduct a pipeline safety program and would be forced to withdraw or would be decertified from the program. IUB stated that the Federal grant reduction would likely drive States out of the pipeline safety program. IUB stated that even if a State would adopt new one-call enforcement provisions that PHMSA would find adequate, under the grant payment limitations of 49 U.S.C. 60107(b), it could take years for a State to recover from the loss of funding. IUB believes that no other single provision of PHMSA State program oversight could have an impact this devastating on the Federal/State pipeline safety partnership or the contributions of States to pipeline safety.

NAPSR stated that § 198.53 proposes that “PHMSA will also conduct annual reviews of state excavation damage prevention law enforcement programs” and “If PHMSA finds a state’s enforcement program inadequate, PHMSA may take immediate enforcement against excavators in that state” and that “a state that fails to establish an adequate enforcement program in accordance with 49 CFR 198.55 within five years of the finding of inadequacy may be subject to reduced grant funding established under 49 U.S.C. 60107.” NAPSR stated that the proposed language further states that “the amount of the reduction in 49 U.S.C. 60107 grant funding shall not exceed 10% of prior year funding.” NAPSR stated that a 10% reduction in a State’s pipeline safety program base grant is disproportionate and excessive, especially when compared with the point allocations of the other parts of the annual evaluation scoring (i.e., incident investigations, field inspections), and penalizing a State that is in need of additional resources to implement an “adequate” program does nothing but increase the difficulty of making the necessary changes, which may require legislative action that is beyond the control of the State agency. NAPSR stated that it believes the proposed penalty for States that are deemed by PHMSA to have inadequate excavation damage prevention law enforcement programs is unnecessary, unjustified, and excessive, and this provision should be removed from the proposed language, or at a minimum, should be reevaluated to determine a more equitable and reasonable level of penalty.

American Public Gas Association (APGA) stated that it believes that any grant funding cuts should be limited to State Damage Prevention grants, and the general pipeline safety funding (base grants) for the State should not be reduced. APGA stated that in many States, the pipeline safety agency is not the agency responsible for enforcing damage prevention laws. In most States, the legislature must act to enact effective damage prevention, and the pipeline safety agency is under the legislature. Therefore, neither the damage prevention grants program nor the general pipeline safety grants program is sufficiently large enough to overcome legislative resistance, but cutting pipeline safety grants would negatively affect the resources available for pipeline safety in a particular State.

AGA suggested a 5-year grace period after the initial determination of inadequacy is too long and suggested a 3-year grace period during which PHMSA should consider any incremental improvements to a State’s damage prevention program before reducing base grant funding. Also, AOPL and API suggested a 2-year grace period. However, DCA supported the administrative process and believes that allowing State authorities 5 years to make program improvements to meet PHMSA’s criteria is appropriate. TPA is fully supportive of the use of PHMSA’s annual program evaluations and certification reviews as the vehicle under which to conduct evaluations of State damage prevention programs as proposed in § 198.53. However, TPA considers the proposed 5-year grace period too long for the improvement of a State damage prevention program that is found to be inadequate. TPA recommended a grace period be limited to 3 years. Also, TPA recommended that a fixed time limit be placed on the temporary waiver period of no more than 2 years. In addition, TPA recommended that if a State program is found to be inadequate, PHMSA not begin enforcement during the 3-year grace period.

AOPL and API supported PHMSA’s proposal that a State’s base grant funding can be impacted due to a determination that the State’s excavation damage prevention program is inadequate. They stated that funding reductions may serve as an appropriate incentive for States to reform inadequate programs expeditiously, but should be coupled with other incentives to remedy inadequate programs. They commented that States are granted ample opportunity to address program deficiencies prior to such a determination and are similarly provided opportunities to demonstrate improvements within programs following this determination. The 10 percent cap on funding reductions would ensure that significant fluctuations in funding do not occur. AOPL and API suggested that those States that demonstrate reductions in damage rates as a result of effective enforcement should qualify to receive additional grant money, serving as a positive incentive to continually improve programs.

TPA urged PHMSA to limit its funding reductions proposed in § 198.53 to 10 percent of the Federal excavation damage prevention funds allocated to a State. TPA stated that while reducing overall funding levels by 10 percent might provide PHMSA with a bigger stick, it would adversely impact a State’s ability to maintain an adequate pipeline safety program in all other respects. Such a result is contrary to the overall goal of PHMSA to promote and support all aspects of pipeline safety.

Response

In response to Missouri PSC’s comments regarding incentives, PHMSA understands that the State’s legislative actions are outside the complete control of the Missouri PSC. The same holds true for most States. Accordingly, PHMSA does not intend to arbitrarily reduce State base grant funding. Base grant funding levels are currently determined, in part, through an evaluation of State damage prevention programs. This final rule simply refines the criteria by which State damage prevention programs are evaluated. It is not PHMSA’s goal to weaken State pipeline safety programs by reducing base grant funding. However, PHMSA, as a granting Federal agency, must use the financial incentives at its disposal to encourage States to adopt adequate excavation damage prevention enforcement programs. In addition to base grant incentives, PHMSA also intends to directly notify the Governors of States that PHMSA has determined to have inadequate enforcement programs. This notification to Governors may help encourage positive legislative action.

Finally, PHMSA offers two grants—the State Damage Prevention grants and the one-call grants—that are available to States for improving damage prevention programs, including enforcement programs.

In response to the IUB, PHMSA has not removed the proposed penalty to State base grants for failure to
implement adequate enforcement programs. PHMSA currently calculates State base grant funding levels based upon a variety of factors, including damage prevention programs. This rulemaking simply changes the criteria upon which damage prevention programs are assessed. PHMSA has opted not to hold public meetings to discuss this provision. It is not PHMSA's intent to drive States out the Federal/State pipeline safety partnership. Instead, it is PHMSA's intent to provide incentives to States with inadequate enforcement programs to adopt adequate enforcement programs. PHMSA has reduced the proposed penalty from a maximum of 10 percent of prior year funding to a maximum of four percent of prior year funding.

As grantmaking agency under 49 U.S.C. 60107, PHMSA has the ability to use base grant funding levels as an incentive for improvements to State pipeline safety programs. The deductions are not intended to be cumulative.

PHMSA recognizes the IUB's concerns regarding potential reductions in base grant funding. PHMSA will take these concerns into consideration when determining the amount of potential reductions. States that are deemed to have inadequate enforcement programs will have a grace period of 5 years before any penalties take place. PHMSA will also notify Governors of determinations of inadequacy. PHMSA believes that adequate enforcement of State damage prevention laws is important enough to warrant the base grant incentive. PHMSA believes that States should enforce their own damage prevention laws and that enforcement is an essential part of a strong pipeline safety program.

In response to the comments from NAPSR regarding the proposed base grant penalty amount, PHMSA has reduced the maximum penalty to four percent. PHMSA does recognize that implementing an adequate State program may take legislative action that is beyond the complete control of PHMSA's State partners.

In response to the comments from AGA and APGA, PHMSA believes that limiting the discretionary State Damage Prevention grants would provide no incentive for States to implement adequate enforcement programs. On the contrary, the State Damage Prevention grants are made to improve damage prevention programs, including enforcement programs, and are a positive incentive for improvement.

PHMSA believes that given that some of PHMSA's State partners have limited influence over legislative processes, States should have a generous 5-year grace period after a finding of enforcement program inadequacy before base grant funding is reduced. PHMSA recognizes AOPL's and API's comments about the need for additional incentives for State enforcement program improvement. PHMSA intends to work with State stakeholders to encourage improvement in States with inadequate enforcement programs. However, PHMSA cannot increase State base grant funding for good performance due to the way base grant levels are calculated. PHMSA may only reduce base grant funding for ineffective State pipeline safety programs, including inadequate State damage prevention enforcement programs.

PHMSA agrees with TPA's comments regarding exercising caution when determining reductions to State base grants.

§ 198.55 What criteria will PHMSA use in evaluating the effectiveness of State damage prevention enforcement programs?

General Comments on § 198.55

KCC stated that PHMSA’s approach toward providing a transparent evaluation process using the seven criteria listed in paragraph (a) of § 198.55 appears to be trumped by paragraph (b) of that section. Paragraph (b) would allow PHMSA to deem a State program inadequate if PHMSA did not agree with an enforcement action taken by the State. What is not clear in the NPRM is whether PHMSA could find a State program inadequate based only on a single, individual State enforcement action, assume jurisdiction over the same excavator, and initiate Federal charges. If a State program is deemed inadequate based on a single, individual State enforcement action, PHMSA is required to re-evaluate the enforcement program. KCC asked, how does a State rectify that situation without putting the excavator in double jeopardy? KCC believes that due process and 49 U.S.C. 60114(f) requires that any Federal determination of inadequacy of a State’s enforcement efforts must be made before PHMSA initiates Federal enforcement activities, and then the applicable Federal standards may be given only prospective effect. KCC also believes that 49 U.S.C. 60114(f) prohibits PHMSA from determining a State’s enforcement of its damage prevention laws is inadequate until PHMSA establishes the procedures for making such a determination. KCC believes that while some of PHMSA’s criteria in the proposed § 198.55(a) are well defined, others can best be described as concepts. KCC believes that PHMSA has not offered sufficient guidance (procedures) on how it will carry out the proposals found in the NPRM.

Missouri PSC commented that PHMSA stated “PHMSA’s primary interest with regard to state civil penalties [for violations of excavation damage prevention law] is that (1) civil penalty authority exists within the state, and (2) civil penalty authority is used by the state consistently enough to deter violation of state excavation damage prevention laws.” Missouri PSC would like clarification as to whether those two criteria are more important than the other criteria, and if they are, they should be identified as mandatory requirements.

AGA stated that PHMSA’s ultimate goal should be to ensure there is effective and consistent enforcement of excavation damage prevention laws and regulations at the State level. AGA and its members are supportive of the NPRM and are encouraged by the possibilities of stronger enforcement in States determined to have inadequate enforcement programs. However, AGA stated that before a State’s damage prevention program is evaluated, PHMSA should consider what circumstances will actually trigger Federal enforcement action in States that have been evaluated and found to have inadequate damage prevention programs. AGA also stated that there should be a mechanism to proactively address repeat offenders who have a history of damaging pipelines due to risky behaviors or who have failed to report damages to the pipeline operator.

AGA stated that because enforcement of pipeline safety regulations is often assigned to State public utility commissions that only have jurisdiction over pipeline operators and the enforcement of excavation laws, related violations may rest with other State agencies having broader jurisdiction over excavators. AGA cautioned PHMSA not to create perverse incentives that spur excessive enforcement actions against pipeline operators alone. In AGA’s opinion, pipeline operators are often the victims of excavation law violations. AGA suggests that PHMSA should create incentive for State agencies assigned the task of enforcing one-call violations against third-party excavators or underground utilities that fail to properly locate and mark their lines in a timely fashion.

AGA suggested that PHMSA examine State damage prevention performance metrics (damages per 1,000 locate requests) to determine if the State is performing adequately or is improving. The Association suggested that damages per 1,000 requests should only be used
to gauge an individual State’s improvement over time without comparing the metric to other States or determine adequate performance. AGA suggested that PHMSA collect data on the number of enforcement actions taken against excavators and operators by the State authority in order to determine overall enforcement effectiveness. In addition, AGA suggested that PHMSA have an annual evaluation of excavation programs in States that are close to being inadequate (or are found to be inadequate) and a more general evaluation of excavation programs in those States that are far above the threshold.

CenterPoint asked that PHMSA provide enough time for a State program to be deemed adequate or better before the agency takes actions against a State so that PHMSA will never have to assume jurisdiction.

AGC stated that PHMSA should encourage State regulatory authorities to equally enforce State laws applicable to underground facility owners and operators who fail to respond to a location request or fail to take reasonable steps in response to such a request. Without accurate locating and marking, contractors are put in harm’s way. AGPA supports the efforts of PHMSA to encourage States to adopt and enforce effective excavation damage prevention programs. Pennsylvania One Call stated that State 811 centers have an audience that is larger than the pipelines covered by Federal statute. Pipelines are only one part of the facilities and parties covered by State one-call statutes, and PHMSA should avoid creating a situation where it places itself in conflict with enforcement policies mandated under State law that apply to all other covered parties, or creates a dual enforcement system at the State level.

NUCA stated that it opposes a permanent Federal role in State enforcement activities. NUCA suggested that the same enforcement requirements should be applied equally to all excavators, no matter their relationship to pipeline owners or operators. When an incident occurs, excavators working in-house for a pipeline owner or operator, and third-party contractors working under contract for pipeline owners or operators, should be treated as any other excavator. NUCA also suggested PHMSA consider adding one more element to the nine already-listed requirements for a comprehensive damage prevention program: The item should require all excavators and pipeline operators or owners to report near misses and/or mismarks to the State one-call (dig safe) system and/or the Damage Information Reporting Tool (DIRT) that is sponsored by the Common Ground Alliance.

NUCA of Ohio stated that PHMSA’s jurisdiction is limited to the natural gas and hazardous liquid pipelines; however, State policymakers will inevitably look at this regulation when adjusting their laws and enforcement practices subject to water, sewer, electric, telecommunications, and other underground infrastructure. To ensure the largest impact on damage prevention. PHMSA must encourage States to consider protection of all underground facilities when adjusting their safe digging programs and the enforcement of damage prevention requirements. Also, Southwest stated that an effective damage prevention program should lead to an overall reduction in damages to all underground facilities, not just natural gas and hazardous liquid pipelines, and PHMSA should take this into account when determining the adequacy of a State’s program.

On PHMSA’s request for comments concerning the issue of evaluating State programs on an incident-by-incident basis, KCC stated that it agrees with PHMSA that an annual review of the adequacy of enforcement of the State program would be less burdensome for the State. KCC stated that incident-by-incident evaluation is impractical given PHMSA’s budgetary constraints. In addition, consistent with due process considerations, Federal enforcement actions could only be implemented prospectively and, therefore, incident-specific review would do little to rectify even glaring omissions or deficiencies in the State enforcement program. KCC, however, stated that the NPRM does not prohibit PHMSA from evaluating a State program based on a single incident. KCC suggested that PHMSA state in the rulemaking that the “adequacy” of State enforcement programs will be determined on the basis of an annual review.

Paine and Southwest stated that they believe mandating adherence to specific criteria without consideration of alternate methodologies may be challenging for States due to staffing levels and varying legislative environments. Therefore, they believe that an effective damage prevention program should lead to an overall reduction in damages to all underground facilities, and not just natural gas and hazardous liquids pipelines. They suggested that PHMSA take this into account when determining the adequacy of a State’s program. They suggested the States utilize data from the CGA’s DIRT. They stated that this existing mechanism provides comprehensive data essential for learning about damages to all underground facilities statewide, not only those to natural gas and hazardous liquids pipelines. They stated that all stakeholders have a shared responsibility in damage prevention, and States should have knowledge of all underground damages when determining the effectiveness and/or necessary enhancements to their enforcement program.

AGA suggested that PHMSA should define an evaluation system using the criteria listed in the NPRM and make it transparent so that the public can see exactly which actions must be taken in order for a particular State’s excavation program to become adequate. AGA suggested that there be a multi-stakeholder advisory council to flesh out the evaluation process after the regulation has been finalized. PHMSA would still conduct the evaluation, but the advisory council would provide guidance on how to perform that evaluation such as the following: What considerations should be made in evaluating each of the criteria listed; what data/information would be used in making the evaluation (and where to obtain the data/information); how to conduct the overall evaluation with respect to the various criteria reviewed and evaluated; how to address criteria where data/information is missing or non-existent; how to determine whether or not a State’s grant funding should be reduced; if the State is taking some actions to improve its damage prevention program under a waiver submission; and, the advisory council could be comprised of anyone with experience in damage prevention. AGA stated that implementing an advisory council will help PHMSA gain support for the evaluations performed for each State.

CenterPoint Energy stated that it supports using the listed criteria, but the level of acceptability for each one needs to be set as pass/fail. If the criteria are properly established, absence of any one should be a basis for a finding of inadequacy. Any fine structure should be tied to a fund used to develop and execute a program to raise public awareness.

KCC stated that in the Commission’s opinion, before subjective requirements, such as those presented in the NPRM, are enforceable, PHMSA should have the burden of proof to demonstrate how a State’s program is ineffective by showing performance metrics that compare to other States of similar demographics.
On whether the proposed criteria strikes the right balance between establishing standards for minimum adequacy of State enforcement programs without being overly prescriptive, TRA stated that it appreciates PHMSA’s acknowledgement that it is a State’s prerogative to craft its own laws and regulations. TRA recommended that States should be granted maximum flexibility to implement excavation damage prevention standards and for PHMSA to evaluate enforcement programs with the only provision that it meet minimum Federal standards, and that those minimum standards should, however, be clear. TRA suggested that as an alternative, PHMSA could comment on State legislative efforts, prior to passage, to provide guidance as to whether they comply with PHMSA standards. Input by PHMSA in the form of explicit minimum standards or comment on legislation is the only way that a State can know it would not meet PHMSA’s standards for excavation damage prevention law enforcement program.

KCC asked if a State program could be determined “inadequate” if only one criterion is not met to PHMSA’s satisfaction, whether PHMSA provides guidance on the more subjective terms, and whether PHMSA’s State partners be offered the opportunity to provide feedback on the guidance. KCC stated that without an opportunity to comment on any guidance that would be the true framework of the regulation, KCC believes that the rulemaking would lack due process and fail to satisfy the procedural requirements of the Administrative Procedure Act.

Response

In response to the comments from KCC, paragraph (b) in the proposal was not intended to trump paragraph (a) in the proposed § 198.55. Paragraph (b) is intended to allow PHMSA to consider individual enforcement actions taken by a State in the overall evaluation of a State’s enforcement program. PHMSA will not make an adequacy determination based on a single enforcement action taken by a State but will evaluate enforcement actions taken by a State in the context of the evaluation criteria. PHMSA agrees that any Federal determination of inadequacy of a State’s enforcement efforts must be made before PHMSA initiates Federal enforcement proceedings, and that the applicable Federal standards may be given only prospective effect. PHMSA has offered guidance regarding the scope and applicability of the evaluation criteria in the preamble to this final rule.

PHMSA agrees with AGA’s comments regarding PHMSA’s ultimate goal to encourage effective and consistent enforcement of State excavation damage prevention laws and regulations. PHMSA has considered what circumstances will trigger Federal enforcement, as described in the enforcement policy in the preamble to this final rule. PHMSA has not developed a mechanism to proactively address repeat offenders who have a history of damaging pipelines because PHMSA is concerned primarily with enforcing future violations of regulations and not addressing past behavior. PHMSA understands AGA’s concerns regarding creating the wrong incentives that may spur unfair or inequitable enforcement programs. PHMSA does not believe the final rule, as written, will create these kinds of incentives. However, PHMSA will monitor the implementation of this final rule with consideration provided to AGA’s concerns.

PHMSA acknowledges AGA’s suggestion to examine State damage prevention performance metrics. However, State and Federal data that would enable this type of analysis are limited. PHMSA will review any data made available by the States in making a determination of enforcement program adequacy. PHMSA also acknowledges AGA’s suggestion to evaluate marginal State programs on a more frequent basis. However, PHMSA does not intend to make determinations of marginal adequacy; rather, PHMSA will deem a State enforcement program either adequate or inadequate.

PHMSA agrees with CenterPoint’s comment regarding providing enough time for State programs to be deemed adequate before PHMSA contemplates reducing State base grant funding. PHMSA will provide a 5-year grace period after the first determination of inadequacy to ensure States have time to improve their enforcement programs before base grants are affected. However, in States deemed to have inadequate enforcement programs, PHMSA will have the authority to take immediate enforcement actions against excavators if necessary and appropriate.

PHMSA agrees with AGC’s comments regarding the need to equally enforce damage prevention requirements applicable to operators. To that end, PHMSA will work to ensure that enforcement is applied to the responsible parties in a damage incident. Fair and equitable enforcement will require thorough investigation of incidents and enforcement of applicable Federal regulations. PHMSA acknowledges the comments from Pennsylvania One Call and believes the final rule and the accompanying policies in the preamble to the final rule largely avoid the creation of dual enforcement systems at the State level.

PHMSA agrees with NUCA and opposes a permanent Federal role in State enforcement activities. Enforcement of State damage prevention laws is a State responsibility. PHMSA also agrees that this final rule should be applied equally to all excavators, regardless of their relationship to pipeline operators. PHMSA disagrees with NUCA’s recommendation to require reporting of near misses and/or mismarks to State one-call systems and/or the Damage Information Reporting Tool. PHMSA believes this requirement would be out of the scope of this rulemaking. PHMSA strongly encourages the use of data to analyze State damage prevention programs and encourages the States to collect damage and near-miss information for such purposes.

PHMSA acknowledges the comments from NUCA of Ohio and Southwest regarding the potential impact of this final rule. However, PHMSA regulatory authority extends only to specific pipelines, and PHMSA has attempted to be cautious in not unduly influencing other aspects of damage prevention.

PHMSA believes that implementing adequate enforcement programs specifically for improving pipeline safety could lead to other changes in State enforcement programs that may result in reductions in the rate of excavation damage to all underground facilities.

With regard to the comments from KCC regarding incident-by-incident analysis, PHMSA agrees. PHMSA will not evaluate a State program based on its handling of a single incident, but instead will evaluate a State program based on the criteria stated in § 198.55. PHMSA agrees with the comments from Paiute and Southwest regarding the holistic nature of damage prevention programs, but PHMSA must also be cognizant of PHMSA’s mission and scope of regulatory authority, which is limited to pipelines. PHMSA is in favor of using DIRT for a variety of analytical purposes, but PHMSA will not use DIRT for evaluating State enforcement programs. DIRT data is consolidated at the regional level, and PHMSA has no access to State-specific data. In addition,
information in DIRT is submitted on a voluntary, anonymous basis by damage prevention stakeholders.

PHMSA agrees with AGA’s suggestion to define a transparent evaluation system using the criteria listed in the final rule. PHMSA has developed a policy in the preamble of this final rule that clarifies the evaluation system. At this time, PHMSA does not intend to implement AGA’s recommendation to convene a multi-stakeholder advisory council to further refine the evaluation process. PHMSA may consider the idea in the future.

PHMSA acknowledges CenterPoint Energy’s recommendation to route civil penalties to a fund that could be used to develop a public awareness program. However, PHMSA is limited by law with regard to how civil penalties are collected. Civil penalties collected by PHMSA go directly to the U.S. Treasury. PHMSA acknowledges KCC’s comments regarding the comparison of States. However, past efforts by many damage prevention stakeholders to compare the performance of States to one another has proven impossible for a variety of reasons. PHMSA will not compare State enforcement programs to one another but will review available records that demonstrate performance trends within States.

In response to the suggestion from TRA regarding influencing State legislative efforts, PHMSA does not generally attempt to directly influence the State legislative process. However, if requested, PHMSA does work with States to provide information and guidance regarding PHMSA enforcement policies and other programs.

In response to the comments from KCC regarding how the evaluation criteria will be applied, PHMSA has developed a policy that addresses the scope and applicability of the evaluation criteria in the preamble of this final rule. This policy is not equivalent to regulation and is subject to change as PHMSA implements this regulation over time.

Comments on § 198.55(a)(2)

Kern River stated that § 198.55(a)(2) should require designation of a State agency, such as the State’s Attorney General’s Office, to enforce local damage prevention laws in a fair and effective manner. Kern River stated that it is important that enforcement remains a responsibility of the State and not be relinquished to local authorities where mechanisms, such as penalties or fines for violators, may not provide sufficient incentive for excavators to utilize the local one-call system.

Response

PHMSA agrees with Kern River that States should be responsible for enforcing damage prevention laws. However, PHMSA is not requiring that enforcement be conducted solely by a State agency. The proposed criterion at § 198.55(a)(2) focuses on enforcement at the State level but does not preclude enforcement by designated bodies other than State agencies. PHMSA does not wish to be overly prescriptive about who conducts enforcement within the State.

Comments on § 198.55(a)(3)

KCC stated that this criterion is vague and does not provide any guidance on how PHMSA would define sufficient levels or how the State would demonstrate effectiveness. Therefore, KCC seeks clarification on whether open records act requests are sufficient means of making information available to demonstrate effectiveness. Also, the KCC asks if PHMSA envisions each State preparing and filing a report on the State’s enforcement program in order to demonstrate effectiveness and, if so, what would the report entail.

Paiute and Southwest stated that States can achieve effective enforcement by imposing remedial actions in lieu of civil penalties, such as through program awareness and/or mandated damage prevention training. As an example, Nevada has effectively enforced its damage prevention program through mandated damage prevention training for at-fault excavators. Other States may have established additional actions that have also been effective. Paiute and Southwest agree when civil penalties are warranted, they should be at levels sufficient to ensure compliance; however, they believe PHMSA should regard all effective actions taken by a State as part of its damage prevention program just as important as civil penalties. They believe that any publicly available damage and enforcement data should be comprehensive enough to demonstrate the effectiveness of the enforcement program while maintaining the confidentiality of the parties involved.

Response

In response to the comments from the KCC, PHMSA has developed a policy in the preamble to this final rule that clarifies how the evaluation criteria will be applied. In addition, PHMSA will post a policy document on the agency’s Web site. PHMSA does not envision each State preparing and filing a report on the State’s enforcement program. PHMSA staff will evaluate State damage prevention enforcement programs as part of the annual certification of State pipeline safety partners. PHMSA does not believe open records acts—or Freedom of Information Act (FOIA) requests—constitute a sufficient means of making enforcement information available to the public. PHMSA prefers to see enforcement records proactively...
PHMSA acknowledges the comments from Paiute and Southwest regarding the use of alternative enforcement actions, in lieu of civil penalties, to promote compliance with damage prevention laws. PHMSA will consider the adequacy of all enforcement actions taken by a State. PHMSA will also evaluate whether State law provides civil penalty authority to the enforcement agency and will evaluate past enforcement actions with the goal of determining if those actions have promoted compliance with State damage prevention laws. The policy in the preamble of this document further clarifies how the State program evaluation criteria will be applied.

In response to the comments from AOPL and API, PHMSA believes that States can and do use alternative enforcement mechanisms (such as required training) to effectively encourage compliance with State damage prevention laws. However, PHMSA believes that civil penalties are the most effective deterrent to violation of the law.

In response to IUB and NAPSR, PHMSA believes that civil penalty authority and publicizing enforcement actions are important components of adequate damage prevention law enforcement programs. However, a State having civil penalty authority is relatively more important to an adequate enforcement program than publicizing enforcement actions. PHMSA has developed a policy in the preamble to this final rule that describes how the evaluation criteria will be applied, including how the criteria will be weighted.

In response to the KCC’s comments about public records, PHMSA believes that transparency is an important component of an adequate enforcement program. PHMSA makes every effort to proactively make those records that are subject to Freedom of Information Act requirements public. PHMSA does this by posting records, to the extent practicable, to PHMSA’s Web sites. PHMSA believes that State damage prevention law enforcement authorities should do the same in an effort to demonstrate the State’s commitment to deterring excavation damage to pipelines through law enforcement. Additional clarification is made in the policies included in this preamble.

In response to the comments from Pennsylvania One Call regarding § 198.55(a)(3), PHMSA recognizes that States use alternatives to civil penalties, such as education requirements, for enforcement of State damage prevention laws. PHMSA believes that, under appropriate circumstances, using civil penalties is essential to adequate enforcement. PHMSA will be considerate of States’ use of alternative enforcement actions when evaluating enforcement programs. In addition, PHMSA recognizes that transparency in enforcement actions may not always be possible under State law in every circumstance.

PHMSA agrees with TRA’s suggestion to replace the word “ensure” with the word “promote” in § 198.55(a)(3). The regulatory language has been modified accordingly.

PHMSA agrees with Southwest’s comments regarding confidentiality concerns pertaining to enforcement records. PHMSA does not intend for States to violate the confidentiality of any party, and PHMSA only seeks for States to make publicly available records that demonstrate the effectiveness of the enforcement program as permitted by State law and as practicable with regard to the rights of all involved parties.

Comments on § 198.55(a)(5)

KCC stated that the phrase “investigation practices that are adequate” in this criterion is a vague phrase and one that requires additional guidance from PHMSA. KCC believes that this guidance, and an opportunity to comment on the guidance, should be part of the rulemaking process.

Paiute and Southwest stated that investigation practices should be employed fairly and consistently to effectively determine the at-fault party. They suggested State investigators be trained in effective and consistent investigation practices.

TRA stated that because excavation damage often is the result of partial failures of the excavator and the operator, it is difficult to always determine a single party who would qualify as the “at-fault” party in any specific situation. Therefore, TRA recommended that the language in § 198.55(a)(5) be revised by replacing the phrase “at-fault party” with the phrase “responsible party or parties.”

Response

PHMSA acknowledges KCC’s request for clarification of how the State program evaluation criteria will be applied. This clarification is provided in the policy in the preamble to this final rule. PHMSA does not intend to subject this guidance to stakeholder comment as part of this rulemaking process. However, PHMSA did take into consideration comments from the NPRM in the development of this guidance.

PHMSA agrees with Paiute and Southwest. State damage investigation practices should be fair and consistent to effectively determine the responsible party. PHMSA also agrees that State investigators should be trained in investigation practices. However, those issues are not within the scope of this final rule.

PHMSA also agrees with TRA’s suggestion to replace the phrase “at-fault party” with the phrase “responsible party or parties” in § 198.55(a)(5). The regulatory language has been updated accordingly.

Comments on § 198.55(a)(6) and (7)

The IUB and NAPSR stated that § 198.55(a)(6) and (7) would include in the evaluation of the effectiveness of a State damage prevention program whether the State’s law contains provisions that have nothing to do with enforcement. They stated that 49 U.S.C. 60114(f) does not authorize PHMSA to find State enforcement is inadequate due to unrelated deficiencies in the State law, and that only the adequacy of enforcement can be considered. Therefore, they recommended § 198.55(a)(6) and (7) be deleted.

The IUB stated that Congress directed PHMSA to conduct a study of the potential safety benefits and adverse consequences of other State exemptions; therefore, until that study is completed, the significance of State exemptions is undetermined. Attempting to link State exemptions to damage prevention enforcement, where it does not belong anyway, is contrary to the direction given by Congress regarding exemptions.

AOPL and API suggested that a stop work requirement be added in § 198.55(a)(6)(c). They suggested language that reads, “An excavator who causes damage to a pipeline facility must immediately stop work at that location and report the damage to the owner or operator of the facility; and if the damage results in the escape of any material, gas or liquid, the excavator must immediately stop work at that location and promptly report to other appropriate authorities by calling the 911 emergency telephone number or another emergency telephone number.” AOPL and API also suggested that the stop work requirement be added to § 198.55(a)(6)(d) (new section). They suggested language that reads, “Work stopped under subparagraph (c) may not resume until the pipeline operator determines it is safe to do so.” Also, AOPL and API stated that they do not
oppose the AGA’s recommendation that PHMSA adopt the full Common Ground Alliance best practices on actions an excavator must practice following a strike and release in this section. Kern River stated that the proposed criteria in § 198.55(a)(6)(i) and (ii) should first clarify that work must be stopped immediately when an excavator causes damage or suspected damage to a pipeline, whether there is a substance released or not.

DCA and NUCA of Ohio stated that the criteria to determine the adequacy of the State law itself provided in § 198.55(a)(6) are incomplete. They stated that PHMSA should restate the operator’s responsibilities related to one-call participation and accurate locating and marking of their facilities in the criteria to determine the adequacy of a State damage prevention law described in the NPRM.

NUCA of Ohio stated that while consideration of exemptions to damage prevention requirements is important, it is one-sided as currently written. Section 198.55(a)(7) asks: “Does the state limit exemptions for excavators from its excavation damage prevention law?” And answers: “A state must provide to PHMSA a written justification for any exemptions for excavators from state damage prevention requirements.” NUCA of Ohio stated the NPRM neglects to include consideration of exemptions to one-call membership requirements as well as from locating and marking responsibilities. As written, PHMSA would only consider enforcement of requirements subject to excavators in its criteria but not pipeline operator requirements.

TPA stated that in § 198.55(a)(6)(i), the words “but no later than two hours following discovery of the damage” should be added immediately following the word “damage” at the end of the subsection because of the need to provide clear guidance on the outer limit of time for a damage notification to occur. In this same subsection, TPA recommended that the phrase “owner or” be deleted because the pipeline safety regulations are directed towards operators of pipeline facilities, and the most effective communication to address damage is with the person who operates the pipeline. In § 198.55(a)(6)(i), TPA suggested that the language should be revised in the same manner as what TPA proposed for the language of § 196.109 to eliminate ambiguity in the provision and promote timely contact of the operator as well as 911.

The Missouri PSC stated that the Missouri damage prevention statute requires that damages to underground facilities must be reported to MOCS by the excavator. MOCS then immediately notifies the facility owner or operator of the damage. This is a method that works well in Missouri. Further, the excavator may not have contact information for the underground facility owner/operator but can readily contact MOCS by dialing “811.” The Missouri PSC requested clarification from PHMSA that this notification process (the excavator reporting damage to MOCS) is acceptable (meets the criteria) and that damages do not have to be reported directly to the owner or operator of the pipeline facility.

Response
In response to the comments from the IUB and NAPSR, PHMSA does have the authority to evaluate State damage prevention laws in order to determine the adequacy of enforcement of the laws. PHMSA believes that an adequate law enforcement program is dependent upon an adequate law that, at a minimum, contains the requirements of § 195.55(a)(6) and does not excessively exempt parties from damage prevention responsibilities.

In response to the IUB, Congress did direct PHMSA to conduct a study of State exemptions in the PHMSA reauthorization bill of 2011 (Public Law 112–90). This final rule is an extension of the PIPES Act of 2006. PHMSA agrees that more information about the safety implications of exemptions is required, but, in general, PHMSA opposes exemptions in State damage prevention laws. However, some exemptions may be warranted, especially when justified by data, which is why PHMSA is requiring a written justification of exemptions in State damage prevention laws. In addition, as described in the policies included in this preamble, PHMSA does not intend to determine the adequacy of a State enforcement program based solely on the existence of exemptions.

PHMSA acknowledges the recommendation from AOPL, API, and Kern River to include a “stop work” requirement to § 198.55(a)(6)(c), which is now § 198.55(a)(6)(ii), and § 198.55(a)(6)(d), which is now § 198.55(a)(6)(iv). However, PHMSA has not added this requirement to the final regulatory language. The requirement was not proposed in the NPRM and has therefore not been subject to public review and comment. In addition, PHMSA believes that communicating a Federal stop work requirement to excavators would be very difficult, thereby making the provision challenging to enforce. PHMSA has also not adopted the recommendation from AGA to require compliance with CGA best practices in excavation work. PHMSA opposes the recommendation to eliminate the phrase “owner or” from this same section; the regulatory language has been updated accordingly.

PHMSA affirms that the notification process described by Missouri PSC is acceptable and meets the intent of this criterion, provided the notification from the excavator to the MOCS is acceptable and meets the intent of this criterion.

Comments on § 198.55(a)(7)
KCC stated that the Kansas damage prevention laws contain negotiated
exemptions for various categories of excavators, such as tillage for agricultural purposes. KCC stated that most tillage occurs during a very small time period over millions of acres in the State. Requiring all farmers to request locates, and for the operators to provide such locates each year during the very narrow planting season window, would be a logistical nightmare with little to no benefit if pipeline depth of cover is regularly monitored and maintained by the operator. KCC stated that Federal enforcement of a standard applied to pipeline rights-of-way, which differs from the statewide standard, would lead to confusion and possibly an increase in accidents. The KCC objected to the proposed requirement that States provide PHMSA a written justification for any exemptions for excavators from State damage prevention requirements. KCC believes that PHMSA has no authority to require States to provide such justifications.

The Missouri PSC stated that some exemptions may be reasonable. The Missouri PSC requested clarification as to what exemptions, if any (beyond a homeowner hand-digging on their private property), may be acceptable. Also, the Missouri PSC stated that a written justification for any exemptions would lead to PHMSA approving or allowing that exemption to remain in the State damage prevention law.

NYDPS commented that exemptions from State excavation damage prevention programs should be limited to ensure public safety, but States and PHMSA must appropriately balance the risks and costs of such exemptions. NYDPS stated that exempting excavators that are only using hand tools from providing notice of intent to excavate when only a homeowner hand-digging on their private property, may be acceptable. Also, the Missouri PSC stated that a written justification for any exemptions would lead to PHMSA approving or allowing that exemption to remain in the State damage prevention law.

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Performance metrics are generally part of most large gas utilities’ rate plans in New York, with negative rate adjustments imposed for failure to meet applicable standards. NYDPS stated that PHMSA should take into account the effect of requiring training for those who violate the requirements of a State excavation damage prevention program. Such non-monetary sanctions have a positive effect on future compliance, particularly with regard to small excavating companies and their employees, and tend to prevent or deter future willful or unintentional noncompliance.

Pennsylvania One Call suggests that where PHMSA determines that a State program’s effectiveness is compromised by the lack of adequate resources, PHMSA should comment on the problem and consider establishing a mechanism to assist the State in making up such a revenue shortfall; fines should be earmarked for enforcement activities and educational efforts related to damage prevention. NYDPS supports PHMSA’s evaluation of whether the State employs investigation practices that are adequate to determine the at-fault party when excavation damage occurs. NYDPS agrees with PHMSA that State programs must be capable of determining fault, since investigative practices are critical to the success and adequacy of State excavation damage prevention programs. However, NYDPS believes that the NPRM is too narrowly focused on determining the person or entity at fault for pipeline damages. NYDPS stated that PHMSA’s data stated that an effective excavation requirement mimics the excavation requirement in each State and does not impose any additional costs on regulators, but the proposed definitions of “excavation” and “excavator” in the NPRM would not mimic State law and would set different standards for when a notice of excavation is required than a State may require. NYDPS stated that the costs to excavators of contending with two sets of notice requirements are not reflected in this evaluation. NYDPS stated that the cost evaluation states that PHMSA believes the NPRM does not mandate States to have adequate excavation damage prevention enforcement programs. IUB stated that perhaps it does not do so explicitly, but it certainly appears to do so implicitly; that the 63 percent rate for Federal enforcement of even 50 percent of the State success rate is over-optimistic; that the 63 percent excavation damage incident reduction rate the evaluation attributes solely to State enforcement, with no consideration of other factors, is exaggerated, and that certain costs were omitted. IUB believes that whether PHMSA’s data stated that an effective rate for Federal enforcement of even 50 percent of the State success rate is unfavorable is unclear, but the 19-to-1 ratio stated in the rulemaking preamble is certainly highly inflated. The KCC questions the accuracy of PHMSA’s cost estimates as unrealistic and that they are based upon flawed assumptions. KCC stated that the NPRM states, “PHMSA believes that excavators will not incur any additional costs because the Federal excavation standard, which is also a self-executing standard, mirrors the excavation standard in each state and does not enforce their own damage prevention regulations and assess fines and other penalties accordingly. PHMSA intends to enforce this final rule with civil penalties in accordance with 49 U.S.C. 190.225. PHMSA acknowledges the comments from NYDPS. PHMSA will use the criteria in § 198.55 to assess the adequacy of State damage prevention law enforcement programs. The applicability of the criteria is clarified in the policy statement in the preamble to this final rule. PHMSA believes that the criteria and the accompanying policy will likely only conduct enforcement proceedings in cases of actual violations of the Federal excavation requirement. PHMSA encourages States to implement adequate enforcement programs that can address the variety of potential violations to State laws and regulations. Comments on the Regulatory Analysis and Notices AAR stated that the Preliminary Regulatory Evaluation errs in stating that the NPRM would not impose any new costs on excavators. The AAR stated that railroads do not routinely contact one-call centers for the constant maintenance-of-way work undertaken along their 140,000 miles of right-of-way; therefore, there would be a significant cost to the railroads, the call centers, and utilities if such calls were required. AAR stated that PHMSA has not shown a safety benefit from requiring railroads to participate in one-call systems for activities that pose no threat to underground pipelines. AAR stated that from a cost-benefit perspective, it makes no sense to require railroads to notify one-call centers for routine maintenance-of-way activities. CenterPoint stated that one cost that PHMSA has not adequately addressed is the cost to administer a damage prevention program. Whether the State incurs the expense to meet the proposed criteria, or PHMSA takes over the enforcement, these costs are significant and would vary depending on the reporting system adopted. Therefore, CenterPoint requested that PHMSA predict the number of States expected to be held inadequate to determine the cost of this rulemaking action. IUB stated that the evaluation for cost analysis states that the proposed Federal excavation damage prevention programs mimics the excavation requirement in each State and does not impose any additional costs on regulators, but the proposed definitions of “excavation” and “excavator” in the NPRM would not mimic State law and would set different standards for when a notice of excavation is required than a State may require. IUB stated that the costs to excavators of contending with two sets of notice requirements are not reflected in this evaluation. IUB stated that the proposed Federal excavation program rules where no damage occurred should be important to correct behavior that could result in damages in future excavations. Response PHMSA acknowledges the concerns of NUCA of Ohio regarding the need to emphasize the responsibilities of all stakeholders, including pipeline operators, in the damage prevention process. Federal regulations at 49 CFR 192.614 and 195.442 address the damage prevention responsibilities of pipeline operators. PHMSA will enforce these regulations in any Federal enforcement case related to this final rule; PHMSA will also work with relevant States to ensure these regulations are enforced with operators under State jurisdiction.

PHMSA understands that many excavators are unable to pay excessive fines. PHMSA encourages States to enforce their own damage prevention
Therefore, unless these States are able to prevention enforcement programs.

nine States without excavation damage of this final rule.

clarified in the policy in the preamble

elements.

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NAPSR stated that PHMSA utilized a helpful starting point on which to suggest that the 63 percent reduction is programs. In the NPRM, PHMSA

excavation damage enforcement programs. In the NPRM, PHMSA stated that for the States without enforcement programs, the NPRM does not indicate that PHMSA reviewed whether these States have experienced damage reduction on a year-to-year basis as the result of non-enforcement damage prevention initiatives—PHMSA

only documents total damages and incidents over a 22-year period. In order to show the true advantages of a damage prevention enforcement program versus non-enforcement initiatives, NAPSR stated that it would be beneficial to show the damage trending rates of the States without enforcement programs. Also, NAPSR stated that PHMSA states that they intend to investigate all incidents in States without pipeline excavation damage enforcement programs. In the NPRM, PHMSA suggests that the 63 percent reduction is a helpful starting point on which to estimate the benefits of this final rule. NAPSR stated that PHMSA utilized three separate rates to conservatively evaluate the benefits of this final rule, but any significant reduction in pipeline damages would depend upon implementation of not just occasional incident enforcement, but all nine elements.

Response

As stated in responses to other comments throughout this preamble, PHMSA will be considerate of existing exemptions in State damage prevention laws. This includes exemptions for railroads. PHMSA’s position is further clarified in the policy in the preamble of this final rule.

As of 2012, PHMSA already identified nine States without excavation damage prevention enforcement programs. Therefore, unless these States are able to begin enforcing their excavation damage prevention laws before the effective date of this final rule, PHMSA would likely deem those State programs inadequate. PHMSA’s preliminary cost/benefit estimates were based on assumptions that PHMSA would be enforcing its rules in States without excavation enforcement programs. With regard to the States already enforcing their excavation damage enforcement programs, this rulemaking action has no effect.

PHMSA is modifying some definitions to address the IUB’s concerns. Also, as stated in the regulatory analysis document (same docket number), PHMSA agrees and has noted that all nine elements do contribute to the reduction of excavation incidents.

It appears to PHMSA that KCC has misunderstood the NPRM because PHMSA has no intention of enforcing the Federal excavation standard in States where the States exercise their enforcement authorities and their excavation damage enforcement programs have not been determined to be inadequate.

PHMSA agrees with NAPSR’s assessment that all nine elements are very important in reducing pipeline excavation damage. However, this action is limited to enforcement. Therefore, available enforcement data was used to determine the effects of excavation damage enforcement prevention programs, and the results show that enforcement may be a major tool in decreasing underground pipeline excavation damages.

Existing Requirements Applicable to Owners and Operators of Pipeline Facilities

Under existing pipeline safety regulations, 49 CFR 192.614 for gas pipelines and 49 CFR 195.442 for hazardous liquid pipelines, operators are required to have written excavation damage prevention programs that require, in part, that the operator provide for marking its pipelines in the area of an excavation for which the excavator has submitted a locate request.

Federal Pipeline Damage Prevention Regulations

No commenters that addressed the existing pipeline safety damage prevention regulations, 49 CFR 192.614 and 195.442, considered these requirements to be inadequate, nor did they believe that PHMSA needed to make these requirements more detailed or specific. Several commented that to do otherwise would lead to confusion where the Federal requirements were different from State standards.

V. Regulatory Analysis and Notices

This final rule amends the Federal Pipeline Safety Regulations (49 CFR parts 190–199) to establish criteria and procedures PHMSA will use to determine the adequacy of State pipeline excavation damage prevention law enforcement programs.

Statutory/Legal Authority for This Rulemaking

PHMSA’s general authority to publish this final rule and prescribe pipeline safety regulations is codified at 49 U.S.C. 60101 et seq. Section 2(a) of the PIPES Act (Pub. L. 109–468) authorizes the Secretary of Transportation to enforce pipeline damage prevention requirements against persons who engage in excavation activity in violation of such requirements provided that, through a proceeding established by rulemaking, the Secretary has determined that the relevant State’s enforcement is inadequate to protect safety.

Executive Order 12866, Executive Order 13563, and DOT Policies and Procedures

This final rule is a non-significant regulatory action under section 3(f) of Executive Order 12866 (58 FR 51735) and 13563, and therefore was not reviewed by the Office of Management and Budget (OMB). This final rule is non-significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

Executive Orders 12866 and 13563 require agencies to regulate in the “most cost-effective manner,” to make a “reasoned determination that the benefits of the intended regulation justify its costs,” and to develop regulations that “impose the least burden on society.” PHMSA analyzed the costs and benefits of this final rule. PHMSA expects the total cost of this final rule to be $1.8 million, and the benefits to be $31 million.9

PHMSA compared the overall costs of this final rule to the average costs associated with a single excavation damage incident. PHMSA found that this final rule has three separate potential cost impacts: (1) The costs to excavators to comply with the Federal excavation standard; (2) the cost to States to have their enforcement programs reviewed, to appeal a determination of ineffectiveness, and to ask for reconsideration; and (3) the cost impact on the Federal Government to enforce the Federal excavation standard.

9 These numbers are discounted over 10 years at 7%.
With regard to the potential cost impacts on excavators, PHMSA believes that excavators will not incur any additional costs because the Federal excavation standard, which is also a self-executing standard, is a minimum standard. Since it is a minimum standard, all States already have excavation standards that are more stringent than the Federal standard. Therefore, this minimum standard imposes no additional costs on excavators. The cost impacts on States are those costs associated with having the State enforcement programs reviewed (estimated to be $20,000 per year), appealing a determination of ineffectiveness (estimated to be a one-time cost of $125,000), asking for reconsideration (estimated to be a one-time cost of $350,000), and excava-
tors. The cost impacts on States are (($20,000 (annually) + (14 × $25,000)) = $495,000. The annual cost impacts on States in subsequent years are estimated to be $20,000. The annual cost impacts on the Federal Government are estimated to be approximately $163,145. Therefore, the total first-year cost of this final rule is estimated to be $658,145 ($495,000 + $163,145). In the following years, the costs are estimated to be approximately $183,145 ($20,000 + $163,145) per year. The total cost over 10 years, with a 7 percent discount rate, is $2,084,132, and at a 5 percent discount rate is $1,720,214. PHMSA specifically asked for comments on whether it had adequately captured the scope and size of the costs of this final rule, but, other than general comments, PHMSA did not receive any identified costs.

To determine the benefits, PHMSA was able to obtain data for three States over the course of the establishment of their excavation damage prevention programs (additional information about these States can be found in the regulatory analysis that is in the public docket). Each of the three States had a decrease of at least 63 percent in the number of excavation damage incidents occurring after they initiated their enforcement programs. While many factors can contribute to the decrease in State excavation damage incidents, the data from these States was useful in helping to estimate the benefits of this final rule. PHMSA utilized three separate effectiveness rates to conservatively evaluate the benefits of this final rule. The rates are based on the reduction of incidents of the three States studied and more conservative effective rates because State pipeline programs vary widely, which may lead to a lower effective rate than that of the three States PHMSA analyzed. One expected unquantifiable benefit is that this rulemaking action will provide an increased deterrent to violate one-call requirements (although requirements vary by State, a one-call system allows excavators to call one number in a given State to ascertain the presence of underground utilities) and the attendant reduction in pipeline incidents and accidents caused by excavation damage. Based on incident reports submitted to PHMSA, failure to use an available one-call system is a known cause of pipeline accidents.

The average annual benefits range from $4,642,629 to $14,739,141. Evaluating just the lower range of benefits over 10 years results in a total benefit of over $40,790,000 with a 3 percent discount rate, and over $31,150,000 with a 7 percent discount rate. In addition, over the past 24 years, the average reportable incident caused $282,930 in property damage alone. Therefore, if this regulatory action prevents just one average reportable incident per year, this final rule would be cost beneficial.

A regulatory evaluation containing a statement of the purpose and need for this rulemaking and an analysis of the costs and benefits is available in the docket.

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.), PHMSA must consider whether rulemaking actions would have a significant economic impact on a substantial number of small entities. Pursuant to 5 U.S.C. 603, PHMSA has made a determination that this final rule will not have a significant economic impact on a substantial number of small entities. This determination is based on the minimal cost to excavators to call the one-call center. In addition, this final rule is procedural in nature, and its purpose is to set forth an administrative enforcement process for actions that are already required. This final rule has no material effect on the costs or burdens of compliance for regulated entities, regardless of size. Thus, the marginal cost, if any, that is imposed by the final rule on regulated entities, including small entities, is not significant. Based on the facts available about the expected impact of this final rule, I certify that this final rule will not have a significant economic impact on a substantial number of small entities.

Since the Regulatory Flexibility Act does not require a final regulatory flexibility analysis when a rule will not have a significant economic impact on a substantial number of small entities, such an analysis is not necessary for this final rule.

Executive Order 13175

PHMSA has analyzed this final rule according to the principles and criteria in Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments.” Because this final rule will not significantly or uniquely affect the communities of the Indian tribal governments or impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

Paperwork Reduction Act

Pursuant to 5 CFR 1320.8(d), PHMSA is required to provide interested members of the public and affected agencies with an opportunity to comment on information collection and recordkeeping requests. PHMSA estimates that this final rule will cause an increase to the currently approved information collection titled “Gas Pipeline Safety Program Certification and Hazardous Liquid Pipeline Safety Program Certification” identified under OMB Control Number 2137–0584. Based on this final rule, PHMSA estimates a 20 percent reporting time increase to States with gas pipeline safety program certifications/agreements. PHMSA estimates the increase at 12 hours per respondent for a total increase of 612 hours (12 hours * 51 respondents). As a result, PHMSA has submitted an information collection revision request to OMB for approval based on the requirements in this final rule. The information collection is contained in the pipeline safety regulations, 49 CFR parts 190–199. The following information is provided for that information collection: (1) Title of the information collection; (2) OMB control number; (3) Current expiration date; (4) Type of request; (5) Abstract of the information collection activity; (6) Description of affected public; (7) Estimate of total annual reporting and recordkeeping burden; and (8) Frequency of collection. The information collection burden for the following information collection will be revised as follows:

Title: Gas Pipeline Safety Program Certification and Hazardous Liquid Pipeline Safety Program Certification.

OMB Control Number: 2137–0584.

Current Expiration Date: October 31, 2017.

Abstract: A State must submit an annual certification to assume responsibility for regulating intrastate
pipelines, and certain records must be maintained to demonstrate that the State is ensuring satisfactory compliance with the pipeline safety regulations. PHMSA uses that information to evaluate a State’s eligibility for Federal grants.

Affected Public: State and local governments.

Annual Reporting and Recordkeeping Burden:

Total Annual Responses: 67.
Total Annual Burden Hours: 4,532 (this estimate includes an increase of 612 hours).

Frequency of Collection: Annually and occasionally at State’s discretion. Requests for a copy of this information collection should be directed to Angela Dow, Office of Pipeline Safety (PH–30), Pipeline and Hazardous Materials Safety Administration (PHMSA), 2nd Floor, 1200 New Jersey Avenue SE., Washington, DC 20590–0001, Telephone 202–366–4595.

Unfunded Mandates Reform Act of 1995

This final rule will not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of $153 million, adjusted for inflation, or more in any one year to either State, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of this final rule.

National Environmental Policy Act

PHMSA analyzed this final rule in accordance with section 102(2)(C) of the National Environmental Policy Act (42 U.S.C. 4332), the Council on Environmental Quality regulations (40 CFR parts 1500–1508), and DOT Order 5610.1C, and has determined that this action, which is designed to reduce pipeline accidents and spills, will not significantly affect the quality of the human environment. An environmental assessment of this final rule is available in the docket.

Executive Order 13132

PHMSA has analyzed this final rule according to the principles and criteria of Executive Order 13132 (“Federalism”). A rule has implications for Federalism under Executive Order 13132 if it has a substantial direct effect on State or local governments, on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government.

The Federal pipeline safety statutes in 49 U.S.C. 60101, et seq., create a strong Federal-State partnership for ensuring the safety of the Nation’s interstate and intrastate pipelines. That partnership permits States to regulate intrastate pipelines after they certify to PHMSA, among other things, that they have and are enforcing standards at least as stringent as the Federal requirements and are promoting a damage prevention program. PHMSA provides Federal grants to States to cover a large portion of their pipeline safety program expenses, and PHMSA also makes grants available to assist in improving the overall quality and effectiveness of their damage prevention programs.

In recognition of the value of this close partnership, PHMSA has made and continues to make every effort to ensure that our State partners have the opportunity to provide input on this final rule. For example, at the ANPRM stage, PHMSA sought advice from NAPSR and offered NAPSR officials the opportunity to meet with PHMSA and discuss issues of concern to the States. As a result of these consultation efforts with State officials and their comments on the ANPRM, PHMSA became aware of State concerns regarding the rigorousness of the criteria for program effectiveness. PHMSA had taken these concerns into account in developing the NPRM and asked for comments from State and local governments on any other Federalism issues. PHMSA received no additional comments on any impacts to the State and local governments.

Under this final rule, Federal administrative enforcement action against an excavator that violates damage prevention requirements will be taken only in the demonstrable absence of enforcement by a State authority. Additionally, the final rule will establish a framework for evaluating State programs individually so that the exercise of Federal administrative enforcement in one State has no effect on the ability of all other States to continue to exercise State enforcement authority. This final rule will not preempt State law in the State where the violation occurred, or any other State, but will authorize Federal enforcement in the limited instance explained above. Finally, a State that establishes an effective damage prevention program has the ability to be recognized by PHMSA as having such a program.

For the reasons discussed above, and based on the results of our consultations with the States, PHMSA has concluded this final rule will not have a substantial direct effect on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. In addition, this final rule does not impose substantial direct compliance costs on State and local governments. Accordingly, the consultation and funding requirements of Executive Order 13132 do not apply.

Executive Order 13211

This final rule is not a “significant energy action” under Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use). It is not likely to have a significant adverse effect on supply, distribution, or energy use. Further, the Office of Information and Regulatory Affairs has not designated this final rule as a significant energy action.

Privacy Act Statement

Anyone may search the electronic form of all comments received for any of our dockets. You may review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (70 FR 19477), or visit http://www.regulations.gov.

List of Subjects

49 CFR Part 196

Administrative practice and procedure. Pipeline safety, Reporting and recordkeeping requirements.

49 CFR Part 198

Grant programs-transportation, Pipeline safety, Reporting and recordkeeping requirements.

For the reasons discussed in the preamble, PHMSA amends 49 CFR subchapter D as follows:

1. Part 196 is added to read as follows:

PART 196—PROTECTION OF UNDERGROUND PIPELINES FROM EXCAVATION ACTIVITY

Subpart A—General

196.1 What is the purpose and scope of this part?
196.2 Definitions.

Subpart B—Damage Prevention Requirements

196.101 What is the purpose and scope of this subpart?
196.103 What must an excavator do to protect underground pipelines from excavation-related damage?
196.105 [Reserved]
196.107 What must an excavator do if a pipeline is damaged by excavation activity?
196.109 What must an excavator do if damage to a pipeline from excavation activity causes a leak where product is released from the pipeline?
196.111 What if a pipeline operator fails to respond to a locate request or fails to accurately locate and mark its pipeline?
Subpart C—Administrative Enforcement Process

§ 196.201 What is the purpose and scope of this subpart?

Subpart B—Damage Prevention Requirements

§ 196.101 What is the purpose and scope of this subpart?

This subpart prescribes the minimum requirements that excavators must follow to protect pipelines subject to PHMSA or State pipeline safety regulations from excavation-related damage.

§ 196.103 What must an excavator do to protect underground pipelines from excavation-related damage?

Prior to and during excavation activity, the excavator must:

(a) Use an available one-call system before excavating to notify operators of underground pipeline facilities of the timing and location of the intended excavation;

(b) If underground pipelines exist in the area, wait for the pipeline operator to arrive at the excavation site and establish and mark the location of its underground pipeline facilities before excavating;

(c) Excavate with proper regard for the marked location of pipelines an operator has established by taking all practicable steps to prevent excavation damage to the pipeline;

(d) Make additional use of one-call as necessary to obtain locating and marking before excavating to ensure that underground pipelines are not damaged by excavation.

§ 196.105 [Reserved]

§ 196.107 What must an excavator do if a pipeline is damaged by excavation activity?

If a pipeline is damaged in any way by excavation activity, the excavator must promptly report such damage to the pipeline operator, whether or not a leak occurs, at the earliest practicable moment following discovery of the damage.

§ 196.109 What must an excavator do if damage to a pipeline from excavation activity causes a leak where product is released from the pipeline?

If damage to a pipeline from excavation activity causes the release of any PHMSA regulated natural and other gas or hazardous liquid as defined in part 192, 193, or 195 of this chapter from the pipeline, the excavator must promptly report the release to appropriate emergency response authorities by calling the 911 emergency telephone number.

§ 196.111 What if a pipeline operator fails to respond to a locate request or fails to accurately locate and mark its pipeline?

PHMSA may enforce existing requirements applicable to pipeline operators, including those specified in 49 CFR 192.614 and 195.442 and 49 U.S.C. 60114 if a pipeline operator fails to properly respond to a locate request or fails to accurately locate and mark its pipeline. The limitation in 49 U.S.C. 60114(f) does not apply to enforcement taken against pipeline operators and excavators working for pipeline operators.

Subpart C—Administrative Enforcement Process

§ 196.201 What is the purpose and scope of this subpart?

This subpart describes the enforcement authority and sanctions exercised by the Associate Administrator for Pipeline Safety for achieving and maintaining pipeline safety under this part. It also prescribes the procedures governing the exercise of that authority and the imposition of those sanctions.

§ 196.203 What is the administrative enforcement process PHMSA will use to conduct enforcement proceedings for alleged violations of excavation damage prevention requirements?

PHMSA will use the existing administrative adjudication process for alleged pipeline safety violations set forth in 49 CFR part 190, subpart B. This process provides for notification that a probable violation has been committed, a 30-day period to respond including the opportunity to request an administrative hearing, the issuance of a final order, and the opportunity to petition for reconsideration.

§ 196.205 Can PHMSA assess administrative civil penalties for violations?

Yes. When the Associate Administrator for Pipeline Safety has reason to believe that a person has violated any provision of the 49 U.S.C. 60101 et seq. or any regulation or order issued thereunder, including a violation of excavation damage prevention requirements under this part and 49 U.S.C. 60114(d) in a State with an excavation damage prevention law enforcement program PHMSA has deemed inadequate under 49 CFR part 198, subpart D, PHMSA may conduct a proceeding to determine the nature and extent of the violation and to assess a civil penalty.

§ 196.207 What are the maximum administrative civil penalties for violations?

The maximum administrative civil penalties that may be imposed are specified in 49 U.S.C. 60122.
§ 196.209 May other civil enforcement actions be taken?

Whenever the Associate Administrator has reason to believe that a person has engaged, is engaged, or is about to engage in any act or practice constituting a violation of any provision of 49 U.S.C. 60101 et seq., or any regulations issued thereunder, PHMSA, or the person to whom the authority has been delegated, may request the Attorney General to bring an action in the appropriate U.S. District Court for such relief as is necessary or appropriate, including mandatory or prohibitive injunctive relief, interim equitable relief, civil penalties, and punitive damages as provided under 49 U.S.C. 60120.

§ 196.211 May criminal penalties be imposed?

Yes. Criminal penalties may be imposed as specified in 49 U.S.C. 60123.

PART 198—REGULATIONS FOR GRANTS TO AID STATE PIPELINE SAFETY PROGRAMS

2. The authority citation for part 198 is revised to read as follows:


3. Part 198 is amended by adding subpart D to read as follows:

Subpart D—State Damage Prevention Enforcement Programs

§ 198.51 What is the purpose and scope of this subpart?

§ 198.53 When and how will PHMSA evaluate State damage prevention enforcement programs?

PHMSA conducts annual program evaluations and certification reviews of State pipeline safety programs. PHMSA will also conduct annual reviews of State excavation damage prevention law enforcement programs. PHMSA will use the criteria described in § 198.55 as the basis for the enforcement program reviews, utilizing information obtained from any State agency or office with a role in the State’s excavation damage prevention law enforcement program. If PHMSA finds a State’s enforcement program inadequate, PHMSA may take immediate enforcement against excavators in that State. The State will have five years from the date of the finding to make program improvements that meet PHMSA’s criteria for minimum adequacy. A State that fails to establish an adequate enforcement program in accordance with § 198.55 within five years of the finding of inadequacy may be subject to reduced grant funding established under 49 U.S.C. 60107. PHMSA will determine the amount of the reduction using the same process it uses to distribute the grant funding; PHMSA will factor the findings from the annual review of the excavation damage prevention enforcement program into the 49 U.S.C. 60107 grant funding distribution to State pipeline safety programs. The amount of the reduction in 49 U.S.C. 60107 grant funding will not exceed four percent (4%) of prior year funding (not cumulative). If a State fails to implement an adequate enforcement program within five years of a finding of inadequacy, the Governor of that State may petition the Administrator of PHMSA, in writing, for a temporary waiver of the penalty, provided the petition includes a clear plan of action and timeline for achieving program adequacy.

§ 198.55 What criteria will PHMSA use in evaluating the effectiveness of State damage prevention enforcement programs?

(a) PHMSA will use the following criteria to evaluate the effectiveness of a State excavation damage prevention enforcement program:

(1) Does the State have the authority to enforce its State excavation damage prevention law using civil penalties and other appropriate sanctions for violations?

(2) Has the State designated a State agency or other body as the authority responsible for enforcement of the State excavation damage prevention law?

(3) Is the State assessing civil penalties and other appropriate sanctions for violations at levels sufficient to deter noncompliance and is the State making publicly available information that demonstrates the effectiveness of the State’s enforcement program?

(4) Does the enforcement authority (if one exists) have a reliable mechanism (e.g., mandatory reporting, complaint-driven reporting) for learning about excavation damage to underground facilities?

(5) Does the State employ excavation damage investigation practices that are adequate to determine the responsible party or parties when excavation damage to underground facilities occurs?

(6) At a minimum, do the State’s excavation damage prevention requirements include the following:

(i) Excavators may not engage in excavation activity without first using an available one-call notification system to establish the location of underground facilities in the excavation area.

(ii) Excavators may not engage in excavation activity in disregard of the marked location of a pipeline facility as established by a pipeline operator.

(iii) An excavator who causes damage to a pipeline facility: (A) Must report the damage to the operator of the facility at the earliest practical moment following discovery of the damage; and

(B) If the damage results in the escape of any PHMSA regulated natural and other gas or hazardous liquid, must promptly report to other appropriate authorities by calling the 911 emergency telephone number or another emergency telephone number.

(7) Does the State limit exemptions for excavators from its excavation damage prevention law? A State must provide to PHMSA a written justification for any exemptions for excavators from State damage prevention requirements.

PHMSA will make the written justifications available to the public.

(b) PHMSA may consider individual enforcement actions taken by a State in evaluating the effectiveness of a State’s damage prevention enforcement program.

§ 198.57 What is the process PHMSA will use to notify a State that its damage prevention enforcement program appears to be inadequate?

PHMSA will issue a notice of inadequacy to the State in accordance with 49 CFR 190.5. The notice will state the basis for PHMSA’s determination that the State’s damage prevention enforcement program appears inadequate for purposes of this subpart and set forth the State’s response options.
§ 198.59 How may a State respond to a notice of inadequacy?

A State receiving a notice of inadequacy will have 30 days from receipt of the notice to submit a written response to the PHMSA official who issued the notice. In its response, the State may include information and explanations concerning the alleged inadequacy or contest the allegation of inadequacy and request the notice be withdrawn.

§ 198.61 How is a State notified of PHMSA’s final decision?

PHMSA will issue a final decision on whether the State’s damage prevention enforcement program has been found inadequate in accordance with 49 CFR 190.5.

§ 198.63 How may a State with an inadequate damage prevention enforcement program seek reconsideration by PHMSA?

At any time following a finding of inadequacy, the State may petition PHMSA to reconsider such finding based on changed circumstances including improvements in the State’s enforcement program. Upon receiving a petition, PHMSA will reconsider its finding of inadequacy promptly and will notify the State of its decision on reconsideration promptly but no later than the time of the next annual certification review.

Issued in Washington, DC, under authority delegated in 49 CFR part 1.97.

Stacy Cummings,
Interim Executive Director.

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