

Statewide Damage Prevention Programs and the Nine Elements - 2011

The Pipeline Inspection, Protection, Enforcement, and Safety (PIPES) Act of 2006 placed strong emphasis on improving state damage prevention programs. PHMSA's position is that effective damage prevention programs should be developed and implemented at the state level. However, there is considerable variability among state damage prevention laws and related damage prevention programs.

In 2009 and 2010 PHMSA sought to gain a better understanding of state damage prevention programs with respect to the nine elements of effective damage prevention programs cited in the PIPES Act. Utilizing questions drawn from the Common Ground Alliance (CGA) Best Practices and input from state and federal regulators, PHMSA developed a "characterization tool" and conducted a series of discussions with key damage prevention stakeholders in each state. The results were compiled in a "Consumer Reports" style format and posted on PHMSA's Stakeholder Communications web-site. Along with the results of the exercise, PHMSA included a link for providing feedback concerning the results and/or the damage prevention program characterization effort.

The initial characterization exercise prompted discussions in states across the country concerning damage prevention and the nine elements. Based on comments and feedback, as well as the overall experience in conducting the characterization discussions for each state, PHMSA has revised the characterization tool and is seeking to have states revisit the characterization of their programs through a self-assessment process. Many questions on the original characterization tool have been revised or removed to help streamline and clarify the information we seek to capture. Also, this version of the tool has four options for characterization, rather than five. In considering the characterization tool criteria, if the respondent is characterizing a particular criterion as "partially implemented", PHMSA requests that the respondent also describe any actions underway in the state to address that criterion. In general respondents are encouraged to provide additional information in the "Notes" section of the document.

In a separate initiative, PHMSA has developed and compiled information about individual state one-call laws and regulations and has posted that information in a Summary of Damage Prevention Laws (<http://primis.phmsa.dot.gov/comm/DamagePreventionSummary.htm>) on our Stakeholder Communications website. Responses to the relevant characterization tool criteria can be cross-referenced with the state law/regulation information. The criteria that can be readily associated with the information on the state law/regulation summary are marked with an asterisk *.

PHMSA's goal in this effort is to gain a better understanding of the variability in state damage prevention programs across the United States at a level of detail that can assist PHMSA with making decisions regarding where and how to apply available resources to support state damage prevention efforts. PHMSA will not use the results of this effort as a basis for adjusting funding for state pipeline safety base grants. Additionally, the purpose of the characterization of state damage prevention programs is *not* to assign

scores to state programs or to compare individual state programs against one another. Rather, this effort is designed to illustrate damage prevention program strengths and areas that could use improvement relative to the nine elements. The characterization for each element criterion will be indicated by the following symbols:

- = Program element implemented
- = Partially implemented or not fully developed program element; describe actions underway to improve
- = Program element is not implemented
- ⊗ = No information available or not applicable

Some of the nine elements are more easily analyzed than others. Accordingly, the number of questions for each element varies and should not be construed as an indicator of the importance of the element. For this effort, each of the nine elements is considered equally important.

The criteria used in this version of the characterization tool are very similar to the criteria used in the first version of the tool. The resources used to develop the original elemental criteria in this characterization tool were:

- PHMSA personnel and support staff recommendations
- PHMSA's Damage Prevention Assistance Program (DPAP) Guide (<http://primis.phmsa.dot.gov/comm/publications/DPAP-Guide-FirstEdition-20080911.pdf>)
- Common Ground Alliance (CGA) Best Practices v. 8.0 (http://www.commongroundalliance.com/Content/NavigationMenu/Best_Practices/Best_Practices_2011/Best_Practices_Version_8_0.htm)
- Integrity Management for Gas Distribution (DIMP) Phase I Report, December 2005 (http://www.cycla.com/opsiswc/docs/S8/P0068/DIMP_PhaseIReport_Final.pdf)
- Excavation Damage Prevention Initiative (EDPI) Guide to the 9 Elements (http://www.commongroundalliance.com/Content/ContentGroups/General_CGA/EDPI_GuideTo9Elements_CGAWebVersion.pdf)
- National Association of Pipeline Safety Representatives (NAPSR) member input
- Feedback from stakeholders after first round of discussions.

Element 1 – Effective Communications

Overall Characterization:



“Participation by operators, excavators, and other stakeholders in the development and implementation of methods for establishing and maintaining effective communications between stakeholders from receipt of an excavation notification until successful completion of the excavation, as appropriate.”

	Characterization Criteria					Notes
1.a	State law requires excavators to call the one-call center within a specified period of time prior to beginning excavation to request facility locates and notify facility owners/operators of excavation plans.” *	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
1.b	By law, all excavators must request the location of underground facilities at each excavation site by notifying the facility owner/operator through the one call center.	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
1.c	Few excavation activities are exempted from the one call requirement. Please list exemptions and if known, rationale for exemptions. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.d	The one-call center(s) is staffed 24x7x365 so that excavators may call in a locate request directly to a one-call center employee at any time.	<input type="checkbox"/>			<input type="checkbox"/>	
1.e	One call center(s) serving a specifically defined geopolitical area is (are) structured so that an excavator need only make one call and a facility owner/operator need only belong to a single one call center.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.f	State law requires a positive response to all facility locate requests. A positive response may include one or more of the following: markings or documentation left at the job site,	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

	Characterization Criteria					Notes
	callback, fax, or automated response system. A positive response allows the excavator to know whether all facility owners/operators have marked the requested area prior to the beginning of the excavation. *					
1.g	The one call center has a process for receiving and transmitting requests for meetings between the excavator and facility operator(s) for the purpose of discussing locating facilities on large or complex jobs. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.h	State law requires excavators to pre-mark (white line) the excavation area; or, state law requires the excavation area be pre-marked upon request by a facility operator. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.i	A uniform color code for marking is adopted in state law. *	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
1.j	A uniform set of marking symbols is adopted in state law. *	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
1.k	State law establishes response times for locating and marking no more than three days or 72 hours. *	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
1.l	The one-call center requires that member facility operators provide the one-call center with mapping data that will allow proper notification of excavation activities near the facility owners'/operators' infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.m	State law requires that the excavator notify the facility owner/operator directly or through the one call center if an underground facility is not found where one has been marked or if an unmarked underground facility is found. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.n	State law requires that an excavator discovering or causing damage to underground facilities notifies the facility owner/operator and the one call center. All breaks, leaks, nicks, dents, gouges, grooves, or other damages to facility lines, conduits, coatings or cathodic protection are reported. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.o	State law requires that, in the event of a damage that results in	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	

	Characterization Criteria					Notes
	the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health or property, the excavator responsible for the damage immediately notifies 911 and the facility owner/operator. *					

Element 2 – Comprehensive Stakeholder Support





Overall Characterization:

“A process for fostering and ensuring the support and partnership of stakeholders, including excavators, operators, locators, designers, and local government in all phases of the program.”

	Characterization Criteria					Notes
2.a	There is a prominent and recognizable damage prevention program champion (organization or person) in the lead on improving the damage prevention program in the state.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.b	There are ongoing outreach efforts to engage and recruit stakeholders as partners in the damage prevention process, including legislative and policy discussions. Please describe these efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.c	There are few facility owners/operators that are exempt from one call membership. Please list exemptions and, if known, rationale for exemptions. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.d	The one call center board of directors is composed of representatives of all stakeholders, assuring that the viewpoints of all stakeholders will be considered in the policies and programs of the one call center. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 3 – Operator Internal Performance Measurement

Overall Characterization:    

“A process for reviewing the adequacy of a pipeline operator’s internal performance measures regarding persons performing locating services and quality assurance programs.”

Note: As stated in the PIPES Act, this element is focused on hazardous liquid and gas pipeline operators.

	Characterization Criteria					Notes
3.a	Pipeline owners/operators have programs in place to routinely monitor the performance of facility locators that include training, qualification and performance measures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.b	Performance problems for persons performing locating services for pipeline operators are addressed through mechanisms such as re-training, process change, or changes in staffing levels. Please provide examples.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.c	During inspections of jurisdictional operators, the state pipeline safety agency reviews operators’ locating and excavation <u>procedures</u> for compliance with state law and regulations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.d	During inspections of jurisdictional operators, the state pipeline safety agency examines a sample of <u>records</u> to determine if locates are being made within the timeframes required by state law and regulations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.e	During inspections of jurisdictional operators, the state pipeline safety agency conducts field inspections to determine if locating and excavating personnel are properly <u>qualified</u> in accordance with the operator’s Operator Qualification plan and with federal and state requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 4 – Effective Employee Training

Overall Characterization:    

“Participation by operators, excavators, and other stakeholders in the development and implementation of effective employee training programs to ensure that operators, the one call center, the enforcing agency, and the excavators have partnered to design and implement training for the employees of operators, excavators, and locators.”

	Characterization Criteria					Notes
4.a	A statewide damage prevention training program has been established and is conducted for employees of operators, excavators and locators, with participation by the one call center, facility owners/operators, the state enforcement agency, excavators, locators, and other interested stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.b	The statewide damage prevention training program curricula and calendar is maintained and available to operators, excavators, and locators.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.c	The statewide damage prevention training program and its development process are periodically evaluated for effectiveness and needed changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.d	The statewide damage prevention training program is tailored to available data trends relative to performance, complaints, near misses or damage incidents and, if necessary, in response to specific incidents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.f	Training records for individuals that participate in the statewide damage prevention training program are maintained.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 5 – Public Education

Overall Characterization:    

“A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.”

	Characterization Criteria					Notes
5.a	Statewide public education about damage prevention is led by a single entity and includes programs to educate all stakeholders about the existence and content of the damage prevention laws and regulations. This is not meant to discourage individual stakeholders from providing educational programs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.b	The lead entity in statewide damage prevention education identifies target audiences and their individual needs and develops a planned approach that effectively utilizes available resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.c	The one call center has a documented, proactive public awareness, education and damage prevention program that includes the following key messages: Call 811 before you dig. Wait the required time. Locate accurately. Dig with care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 6 – Dispute Resolution

Overall Characterization:    

“A process for resolving disputes that defines the State authority’s role as a partner and facilitator to resolve issues.”

Please provide a description of the state authority’s role in any existing dispute resolution process, and descriptions of any initiatives underway with respect to these elements, in a summary paragraph on the last page.

	Characterization Criteria					Notes
6.a	A state authority is designated as having a clearly defined role as a partner and facilitator in addressing damage prevention policy and programmatic issues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.b	The state authority regularly meets with damage prevention stakeholder groups to discuss challenges and resolve issues relating the state damage prevention program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.c	The state authority actively engages stakeholders, seeking input and participation with the goal of reaching consensus on damage prevention policies and programs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.d	The damage prevention enforcement program (if one exists) includes provisions for dispute resolution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 7 – Enforcement

Overall Characterization:    

“Enforcement of State damage prevention laws and regulations for all aspects of the damage prevention process, including public education, and the use of civil penalties for violations assessable by the appropriate State authority.”

	Characterization Criteria					Notes
7.a	The state one call law designates an authority for enforcement of the damage prevention law. * (If “Not Implemented”, please Skip to Element 8.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.b	The enforcement authority has a defined process for receiving reports of violations from any stakeholder.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.c	The violation review process and violation assessment considerations are published and easily accessible to stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.d	The enforcement authority collects and makes available to interested parties annual statistics on the numbers of incidents, investigations, enforcement actions, proposed penalties, and collected penalties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.e	The enforcement program includes civil penalties for violations of the damage prevention laws or regulations. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.f	The enforcement authority has issued civil penalties against violators of the one call law within the last 12 months.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.g	The penalty system distinguishes violations by level of severity or repeat offenses. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.h	The penalty system (if one exists) does not allow any violator or class of violators to be shielded from the consequences of a violation (i.e., all stakeholders are held accountable). *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.i	The enforcement authority’s process encourages stakeholder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Characterization Criteria					Notes
	involvement in the periodic review and modification of enforcement processes.					
7.j	The enforcement authority has the resources to respond to notifications of alleged violations in a timely manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.k	Any time pipeline damage is reported, the enforcement authority performs an investigation. This is to determine not only the responsible party but also the root cause of the damage. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.l	A structured review process is used to impartially adjudicate alleged violations. The review process is performed by either: <input type="checkbox"/> Type 1: A single entity, like a state pipeline regulatory authority, Attorney General, etc. Please indicate the entity performing reviews in notes. <input type="checkbox"/> Type 2: An advisory committee (made up of stakeholders), which may be partnered with separate enforcement authority. *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.m	The enforcement authority uses incentives, such as performance and education credits, to encourage compliance by stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 8 – Technology

Overall Characterization:    

“A process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that may enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs.”

	Characterization Criteria					Notes
8.a	Stakeholders work together to evaluate technologies that may improve damage prevention processes. As appropriate, participation by the one call center, facility owners/operators, the state enforcement agency, excavators, locators, and other interested stakeholders is included in decision-making, based on the technology being considered. Damage prevention program technology needs are systematically and periodically identified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.b	Implementation of technology among stakeholders is generally tailored to data trends relative to performance, complaints, near misses or damage incidents and, if necessary, in response to specific incidents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.c	The one call center uses available technology whenever possible to enhance all aspects of its communications with members, excavators, and the general public.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Element 9 – Damage Prevention Program Review

Overall Characterization:    

“A process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews.”

	Characterization Criteria					Notes
9.a	The state has a process for program evaluation that utilizes data to track the effectiveness of the program or each of the nine elements. Please describe the process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.b	The one call center establishes and monitors performance standards for the operation of the center, including average speed of answer, abandoned call rate, busy signal rate, customer satisfaction, locate request quality, and notification delivery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.c	Facility owners/operators, locators, and excavators are required by state law to report damages to the CGA Damage Information Reporting Tool (DIRT) or equivalent. *	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
9.d	Pipeline operators are required to report damages to the state pipeline safety office, with information that include the damaging party and the apparent cause of the damage. *	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
9.e	The reported damages data is used to assess and improve underground damage prevention efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.f	Results of damage reports are quantified against a standardized risk factor. The risk factor considers a stakeholder’s exposure to potential damage. This risk factor may be based on factors such as the number of miles of line installed or the number of one call center notification tickets. For example, a risk factor may compare how many underground damages occurred in a certain time period versus the total number of notification tickets issued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Characterization Criteria	●	●	●	⊗	Notes
9.g	The reported damages data (in whole or summarized) is made available to the public.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Information (add additional pages as necessary):

- *Who (stakeholder entities) participated in completing this self-assessment and who else (stakeholder entities) should be consulted?*
- *Does the questionnaire include the appropriate questions to effectively characterize your state damage prevention program? PHMSA would like feedback concerning this initiative, whether specific to one element, several the process used, etc.*
- *Summary: In a paragraph, please summarize results, key points, challenges and initiatives underway relative to underground facility damage prevention for the state.*

Date: _____

Name/ Organization/e-mail address:

*See the [Summary of Damage Prevention Laws](#) on PHMSA’s Stakeholder Communications website.