



# Washington Utilities and Transportation Commission

## Report on the Effectiveness of the Damage Prevention Program

Pursuant to Chapter 19.122 RCW  
(ES2HB 1634)

December 2015

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## Executive Summary

The Utilities and Transportation commission regulates investor-owned electric and natural gas utilities, landline telephone companies, solid waste, and private water systems, to ensure that services are fairly priced, available, reliable and safe.<sup>1</sup> The commission also regulates the safety practices of railroads, intrastate passenger and freight transportation, and 32 pipeline companies that operate more than 41,000 miles of hazardous liquid and natural gas pipelines.<sup>2</sup> Since 2003, the commission has been the lead inspector of all interstate pipelines in the state, through a certification by the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA).

In 1984, the Washington Legislature enacted the Underground Utilities Damage Prevention Act (Act), commonly known as the “call before you dig” law, with the goal of protecting underground facilities (pipes, conduits, cables, wires, and sewers) from damage and assigning responsibilities for locating and record keeping of facilities, as part of a comprehensive damage prevention program.<sup>3</sup> The Act requires that anyone excavating must call the 8-1-1 one-number locator service before digging begins, to have all underground utilities located and marked. However, the Act lacked clarity with regard to oversight, enforcement, and penalties for violators. Recognizing the need for improvement, stakeholders, including legislators, the commission, public and private utilities, contractors, local governments, citizen organizations, and others began meeting in 2010 to address possible improvements to the law.

Based on the work of these stakeholders, the Legislature in 2011 amended the Act by passing Engrossed Second Substitute House Bill (E2SHB) 1634, which, among other things strengthened the law by requiring reporting of all damage to underground utility facilities, providing the commission with authority to take enforcement action for violations, developing a stakeholder process to review violations and encourage better excavation practices.<sup>4</sup>

The legislation, which took effect on Jan. 1, 2013:

- Required facility operators to subscribe to a one-call locator service,
- Clarified the responsibilities of facility operators and excavators, including how “un-locatable” facilities<sup>5</sup> and service laterals must be identified,
- Clarified the exemptions from the requirement to notify a one-number service before excavating,
- Strengthened notice requirements for excavation near underground pipeline facilities and responsibilities when damage occurs to those pipelines,
- Increased penalties for violations

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<sup>1</sup> Title 80-81 RCW.

<sup>2</sup> Title 81.88 RCW.

<sup>3</sup> RCW 19.122.

<sup>4</sup> Chapter 263, Laws of 2011.

<sup>5</sup> “Un-locatable” facilities includes, but is not limited to, service laterals, storm drains, and nonconductive and nonmetallic underground facilities that do not contain trace wires.

- Authorized the commission and the Attorney General’s Office to enforce violations by assessing penalties or other remedial actions;
- Required facility operators and excavators to report damage events to the facility operator, one-call number service and the omission; and
- Created a Safety Committee to promote safe excavation practices and review complaints of alleged violations.

As part of the bill, the Legislature directed the commission to report by Dec. 1, 2015, on the effectiveness of the damage prevention program.<sup>6</sup> This report examines the effectiveness of the damage prevention program, and includes analysis of damage data reported to the commission by facility operators and excavators.

## **Introduction**

An underground utility line is damaged once every six minutes nationwide because someone begins excavation without first calling 8-1-1.<sup>7</sup> Since 2000, excavation damage is the leading cause of failure incidents to underground utilities.<sup>8</sup> In 1984, the first comprehensive damage prevention program in Washington state was instituted. Since that time, there have been several updates to the law, which prior to the 2011 legislation, essentially assigned responsibilities to excavators and facility operators, established a one-call locating number, and gave the commission authority to penalize excavators or facility operators in instances regarding the safety of hazardous liquid or gas pipelines.

The 2011 legislation created a more comprehensive damage prevention program by requiring all facility operators to subscribe to the one-call locating service, with failure to subscribe considered willful intent to avoid compliance. Calling 8-1-1, or accessing the one-number service through [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org), allows anyone intending to excavate a means to alert facility operators of a planned excavation. The facility operators then must provide the excavator with reasonably accurate information by marking their utilities using paint or flags with specific identifying colors within two business days. Facility operators must also provide information about the presence of un-locatable facilities by either placing a triangular mark at the main utility line within the proposed excavation area, or providing available information regarding the un-locatable facility to the excavator.

The legislation also assigns excavators additional responsibilities. Excavators must outline their dig area in white paint prior to calling for a locate, maintain the locate marks for 45 days, and confer with facility operators when digging on multiple or large sites.

Another significant change to the 2011 Act authorizes the commission to take enforcement action for all violations of the dig law. Central to the enforcement program is the newly formed Safety Committee (See Attachment A), made up of 13 members, of whom 10 must come from specific stakeholder groups. This multi-party stakeholder committee receives and reviews complaints,

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<sup>6</sup> Section 26, E2SHB 1634 (2011).

<sup>7</sup> <http://www.commongroundalliance.com>

<sup>8</sup> [http://pstrust.org/docs/Briefing\\_Paper\\_DamPre07.pdf](http://pstrust.org/docs/Briefing_Paper_DamPre07.pdf).

makes penalty recommendations to the commission, and helps to develop better excavation and utility locating practices through education and training.

The 2011 legislation requires that excavators and facility operators report all damage incidents to a virtual damage incident reporting tool (DIRT), an on-line reporting database, hosted by the commission. The DIRT tool also allows anyone to report damage or suspected violations anonymously.

The commission and its stakeholder partners also participate, and are in good standing, in a comprehensive damage prevention evaluation program that follows the standards set forth in the federal Pipeline Inspection, Protection, Enforcement, and Safety (PIPES) Act. The PIPES Act identifies nine elements of an effective damage prevention program:

- Effective communication between operators and excavators from excavation notification to completion of excavation.
- Fostering support and partnership of all stakeholders in all phase of the program.
- Operators' use of performance measures for locators.
- Partnership in employee training.
- Partnership in public education.
- A dispute resolution process that defines the enforcement agency as a partner and facilitator.
- Fair and consistent enforcement of the law.
- Use of technology to improve the locating process.
- Data analysis to continually improve program effectiveness.

### **Recent Federal Regulatory Amendments**

PHMSA recently adopted amendments to its rules that lay out the criteria for a satisfactory pipeline damage prevention program.<sup>9</sup> These rules become effective Jan. 1, 2016. The regulations address how PHMSA will audit state pipeline damage prevention programs and establish reduced funding levels for damage prevention enforcement programs it deems ineffective.

The commission believes the damage prevention and enforcement program currently codified in RCW 19.122 meets the requirements of the new PHMSA rules. However, if the program or its enforcement provisions are weakened, PHMSA may find the program inadequate and reduce federal grant funding to the commission for its pipeline safety program.

### **Scope of the Commission Report**

As directed by the Legislature, the commission has assessed the effectiveness of the damage prevention program including analysis of damage data. This report also describes the changes to the Act, preliminary results of the improvements, and analysis of the data received from Jan. 1, 2013 to July 31, 2015, and makes recommendations for improvements to the Act. It should also be emphasized that the report looks at data collected during the 19 months since the effective date of the Act's amendments.

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<sup>9</sup> 49 CFR Part 196; 49 C.F.R.Part198.

## SECTION I – One-Number Locate Requirements

Washington law requires that all underground facility operators participate in the statewide toll-free telephone service referred to as one-number locator service. This one-number system provides excavators a clear and specific way to alert underground facility operators of a proposed excavation project in a specific area. The steps required by the Act are as follows:

1. Excavator marks the boundary of the excavation site in white paint.
2. Between two and 10 business days prior to excavation, the excavator calls the one-number locator service 8-1-1, or submits a request online at [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org), giving specific information about the scope and location of the project, and a locate ticket is issued.
3. The one-number locator service alerts all underground facility operators in the area of the proposed excavation site, and provides the information given by the excavator on the locate ticket.
4. Upon receipt of the notice, underground facility operators mark their locatable underground facilities (typically with paint or flags) within two business days.
5. After all utilities are marked, the excavator may proceed, using safe digging practices to avoid damage to underground facilities.

### Findings

All underground facility operators are required to participate in the one-number locator service.<sup>10</sup> All excavators must use the one-number locator service before commencing any excavation,<sup>11</sup> unless they fall under an exempted activity.<sup>12</sup> As of July 31, 2015, some 1,020 underground facility operators in Washington had registered in the service.

Significantly, in 2014, the number of one-number locate requests jumped 25 percent over the 2012 one-number locate requests (the last year before the 2011 law amendments took effect). Because construction activity can affect the number of requests, it is notable to compare the 25 percent

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<sup>10</sup> RCW 19.122.027.

<sup>11</sup> RCW 19.122.030.

<sup>12</sup> RCW 19.122.031. These include -- (a) An emergency excavation, but only with respect to boundary marking and notice requirements specified in RCW 19.122.030(1) and (2), and provided that the excavator provides notice to a one-number locator service at the earliest practicable opportunity;

(b) An excavation of less than twelve inches in depth on private noncommercial property, if the excavation is performed by the person or an employee of the person who owns or occupies the property on which the excavation is being performed;

(c) The tilling of soil for agricultural purposes less than: (i) Twelve inches in depth within a utility easement; and (ii) Twenty inches in depth outside of a utility easement;

(d) The replacement of an official traffic sign installed prior to January 1, 2013, no deeper than the depth at which it was installed;

(e) Road maintenance activities involving excavation less than six inches in depth below the original road grade and ditch maintenance activities involving excavation less than six inches in depth below the original ditch flowline, or alteration of the original ditch horizontal alignment;

(f) The creation of bar holes less than twelve inches in depth, or of any depth during emergency leak investigations, provided that the excavator takes reasonable measures to eliminate electrical arc hazards; or

(g) Construction, operation, or maintenance activities by an irrigation district on rights-of-way, easements, or facilities owned by the federal bureau of reclamation in federal reclamation projects.

increase in locate requests to the 8.5 percent increase in new private housing construction permits<sup>13</sup> approved during that same time period. Perhaps more telling is how little change there was in the number of locate calls before the 2011 amendments to the Act became effective. From 2010 to 2012, the number of one-number locate calls in Washington increased by only 3.2 percent, despite a jump of almost 11 percent in housing construction permits.

## **SECTION II – Safety Committee**

At the direction of the 2011 legislation, the commission contracted with the Washington Utility Coordinating Council (WUCC) to create a Safety Committee, charged with the responsibility of reviewing alleged violations of the Damage Prevention Act.<sup>14</sup> This resulted in a more robust investigation and enforcement process. The Safety Committee comprises 13 members nominated by represented groups and appointed to staggered three-year terms.<sup>15</sup> The committee promotes safe excavation practices, reviews complaints of alleged violations of the Act, and recommends penalties to the commission regarding violations.

### **Findings**

Beginning in 2012, the Safety Committee completed its bylaws, established terms for members, and developed a process to review complaints. The committee began meeting quarterly in 2013 to establish a work program, train members on the complaint review process, and discuss training and recommendations to enhance the law. The committee also applied for a “One-Call Grant” from PHMSA to help with office expenses and hire a part-time administrative assistant.

In the first 30 months following the effective date of the Act, the Safety Committee received 82 excavation-related complaints. In many cases, the Safety Committee chair and vice-chair discussed the complaint with both the complainants and the alleged violators to check the validity of the complaint, educate the parties involved, and, if appropriate, reach an agreement with regard to practices. If an agreement cannot be reached, a panel of five Safety Committee members are selected to review the complaint. If the Safety Committee determines a probable violation occurred, the complaint is referred to the commission with a recommendation for enforcement.

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<sup>13</sup> Building Permits Survey on United States Census Bureau at [www.census.gov/construction](http://www.census.gov/construction).

<sup>14</sup> RCW 19.122.130. The WUCC is a voluntary statewide organization of utilities, governmental agencies, contractors, excavators, and other interested organizations and individuals established in 1972 to cooperate to reduce damage to buried and above-ground utility facilities, and promote orderly planning and installation of underground facilities.

<sup>15</sup> The Safety Committee must include persons from: local government, a regulated natural gas utility, contractors, excavators, a regulated electric utility, a pipeline company, the insurance industry, the commission, and a telecommunications company.

Referrals to the commission by year:

- 2013 - 2 Referrals
- 2014 - 8 Referrals
- 2015 - 10 Referrals (Jan. – Oct.)

In 2015, the Safety Committee also reviewed three complaints for which it determined that no violation of the law occurred, and one complaint resulting in a letter of warning rather than a referral to the commission.

In matters referred to the commission, the Safety Committee has recommended a range of penalties to technical assistance. Its recommendations have included warnings with information about the Act; directives that excavators receive training; monetary penalties; and a combination of training and penalties. The commission expects the number of complaints received by the Committee will rise as awareness of its role in resolving or reviewing damage complaints increases.

The Safety Committee is also working on best practices and recommendations for potential updates to the law. Areas of concern identified by the Safety Committee so far are:

- **Design locates** –Allowing a process to request and receive design locates prior to the start of a project will help reduce damages to the current underground network at the onset of the project.
- **New facilities should be locatable** – Frustration around un-locatable facilities and determining liability if facilities are damaged can result in lengthy disputes that in turn can slow down construction. This issue can be resolved by requiring new facilities, even nonmetallic underground facilities, to be buried with a copper wire or indicators that would register on an electronic locating device or provide a visual indicator. However, an exemption may be needed for deeply buried facilities.
- **Positive or “all clear” responses when utilities have been located** – The law forbids excavation until all utilities have been located. A “positive response” or “all clear” service would clarify for the excavator when all locates are complete and excavation can proceed. This function can also be part of the one-number locator service currently in place.
- **Emergency locates** – Current law waives the two-business day requirement for acquiring a locate in the case of an emergency that presents danger to life or property, or a customer service outage.<sup>16</sup> While the provision is essential when there is danger to life or property, the waiver for customer service outages often requires immediate locates in non-emergency situations, taxing the resources of facility operators and locators. One proposed solution is for locators and facility operators to file a complaint when the emergency locate request is being abused. Another is to prohibit emergency locate requests in the event of new construction.

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<sup>16</sup> RCW 19.122.020(5) RCW and RCW 19.122.031(1)(a).

- **Review panel configuration** – Scheduling complaint reviews has proven difficult due to the rigid membership criteria in the law. Currently, RCW 19.122.130(5) states that the Safety Committee review panel cannot have more than five members. One must be a representative of a pipeline company or natural gas utility regulated by the commission, and one must represent the insurance industry, and members representing excavators and facility operators must serve in equal numbers. Loosening the criteria while maintaining the intent of the legislation by allowing a surrogate insurance representative, only requiring a gas pipeline representative when the case involves gas, and allowing representatives who are both facility operators and excavators (such as municipalities) to serve on either side would help to alleviate this issue.
- **Large projects** – On large projects, it can be difficult to mark all of the utilities within two days, and at times a project can extend beyond 45 days, with markings needing to be refreshed. RCW 19.122.030(2) states, in part, that if any excavator intends to work at multiple sites or at a large project, the excavator must take reasonable steps to “confer” with the facilities operators to enable them to locate underground facilities reasonably in advance of the start of excavation. Some stakeholders say the language has helped communication between facility operators, excavators and locators, while others have not seen the benefit and believe the term “confer” needs to be defined more precisely.

See Attachment B for the entire list of the Safety Committee accomplishments in 2013 and 2014.

### **SECTION III – Damage Reporting**

Another key addition to the Act is a requirement that facility operators and excavators report damage to underground facilities through the damage information reporting tool (DIRT), a damage reporting database developed by the Common Ground Alliance (CGA), a national organization comprising excavators, locators, road builders, utilities, railroads, equipment manufacturers, state regulators, insurance providers, and emergency services, among others. This national database, recognized and endorsed by PHMSA, allows anonymous reporting of all damage incidents to utilities.

Since 2010, the commission’s pipeline safety program has managed a state version of the DIRT database. Starting in 2013, when the 2011 amendments took effect, reporting to the DIRT database became mandatory for all facility operators and excavators who observe or cause damage to an underground facility<sup>17</sup>. In October 2015, 369 verified subscriber accounts (with one or more users) were registered in the commission’s virtual DIRT database, and identified by stakeholder groups as follows:

- |   |     |
|---|-----|
| • Excavators                              | 146 |
| • Public Works / Public Utility Districts | 112 |
| • Private Utilities                       | 56  |
| • Local Government                        | 17  |

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<sup>17</sup> RCW 19.122.053.



- Unknown / Other 12
- Natural Gas Users 10
- Liquid Pipeline 8
- Consultant / Engineer 8

The law also requires DIRT reports to be submitted to the commission within 45 days of the damage event. In conjunction with the law, the Washington Administrative Code adds an additional requirement for gas pipeline, liquid pipeline, and telecommunications companies to report the name of the person or entity that caused the damage, if the facility operator believes that the excavation was started before a facilities locate was completed.<sup>18</sup>

**Findings**

In 2012, the commission received 875 damage reports through the DIRT database. In 2013, that number jumped to 3,224 and increased again in 2014 to 3,482. The commission believes this significant increase in report filing is the result of the statutory requirement. In previous years, reporting had been non-existent from some classes of utilities and inconsistent from others. While the DIRT database has some issues in terms of data quality, the level of reporting showed more consistency from 2013 to 2014 than in previous years.

The database shows that there is still an absence of damage reporting from excavators. While each damage event should generate two DIRT reports, excavators only submitted 7.3 percent of DIRT reports in 2013, and 4.6 percent in 2014, despite education and training by the commission, the Safety Committee, WUCC, Washington811,<sup>19</sup> the National Utility Contractors Association of Washington, and other stakeholders and facility operators. In the 2014 DIRT Analysis and Recommendations report published by the CGA, excavators submit only about 5 percent of DIRT reports nationally.<sup>20</sup>

DIRT statistics by year:

<b>YEAR</b>	<b>TOTAL DIRT REPORTS</b>	<b>SUBMITTED BY FACILITY OPERATORS</b>	<b>SUBMITTED BY EXCAVATORS</b>	<b>SUBMITTED BY ALL OTHERS</b>
2012	875	871	4	0
2013	3,224	2,931	234	59
2014	3,378	3,168	160	50

<sup>18</sup> WAC 480-93-200(7)(b) and WAC 480-120-495(1)(b).

<sup>19</sup> Washington811, formerly the Utilities Underground Location Center, provides one-call service to more than 1,400 facility owners in Washington and Montana. The organization was formed in King County in 1978 by five Seattle-area utilities: Pacific Northwest Bell (now CenturyLink), Puget Sound Power & Light (Puget Sound Energy), Washington Natural Gas (Puget Sound Energy), Seattle City Light, and King County Department of Public Works. Washington811 also undertakes communication and education, and leadership programs to promote safety and event damage to underground utilities.

<sup>20</sup> [www.commongroundalliance.com](http://www.commongroundalliance.com).

## SECTION IV – Analysis of Damage Data

With only two years of significant data to analyze, it is difficult to draw more than tentative conclusions. The commission and the Safety Committee continue to educate facility operators and excavators on how to use the DIRT database to record damage events and thereby provide more accurate and useful data. Because the DIRT tool provides a way to report damage events anonymously, it is difficult to reach out to those who incorrectly input data. Furthermore, making changes to DIRT is complicated by the fact that the tool is designed and maintained at the national level by the CGA, and proposals for changes must go through a lengthy review and approval process.

Data reported in the DIRT database clearly show that the failure of an excavator to request and wait for underground utilities to be located is a prominent factor when utility facilities are damaged.<sup>21</sup> In 2013, roughly 38 percent of the reported damage incidents involved excavations where a utility locate request had not been made. In 2014, almost 44 percent of damage incidents involved excavations without a locate request. In contrast, the CGA reports that nationally about 26 percent of incidents are caused by failure to request a utility locate.

While excavators are involved in over 55 percent of the damage incidents, roughly 60 percent of those excavators requested locates. This indicates that there are other root causes for utility damage, such as the quality of the locate markings and unsafe digging practices.

The number of damage incidents associated with the four investor-owned natural gas utilities in Washington declined by 1 percent from 2012 to 2014, despite a significant increase in construction activity. When adjusted by the number of locate requests, the number of damage incidents has declined significantly since the onset of the law.

<b>Damage Incidents per 1,000 Locates</b>			
<b>Gas Utility</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Avista	5.9	5.4	4.7
Cascade	3.7	3.4	3.8
NW Natural Gas	4.1	2.9	3.7
PSE	6.5	5.8	5.1
<b>Total</b>	<b>5.7</b>	<b>5.1</b>	<b>4.7</b>

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<sup>21</sup> See Attachment C - 2012, 2013, and 2014 DIRT Data.

## SECTION V – Enforcement

Under the 2011 amendments, the commission maintains enforcement authority in cases the Safety Committee determines involve facilities of a commission-regulated company or underground facility. If the person or underground facility is not subject to regulation by the commission, the matter may be referred to the Attorney General for enforcement. The commission also has the authority, without a referral from the Safety Committee, to investigate and enforce violations in specific instances involving natural gas or hazardous liquid pipelines. These changes in law may be a factor in the significant reduction of repeat violators and the decline in damage to natural gas facilities when adjusted for construction activity.

### **Findings:**

As of October 2015, the Safety Committee has sent 20 recommendations to the commission that resulted in monetary penalties, suspension of penalties on the condition of attending training, or suspension of the penalties on the condition of no further violations for a period of 12 months. As a result of the Safety Committee recommendation referrals, the commission has collected \$10,500 in penalties, which were deposited into the Damage Prevention Account.<sup>22</sup>

The 2011 amendment also granted the commission authority to investigate and enforce violations relating to pipeline facilities, without initial referral to the Safety Committee.<sup>23</sup> Under this authority, the commission has sent letters to excavators (including homeowners) identified on DIRT reports, that damaged natural gas facilities after failing to obtain a utility locate. The letter informs the excavator about the requirement to obtain an underground utility locate prior to excavating, offers technical assistance, and warns of the possibility of being assessed penalties should non-compliant practices continue. In 2013, the commission sent 262 of the letters; in 2014 the number increased to 382. As of November, the commission has sent 362 letters in 2015.

In addition, the commission has investigated and issued penalty assessments against 10 excavators that, on multiple occasions, did not request a utility locate prior to excavation, resulting in damage to natural gas facilities. Through those proceedings, the commission has collected \$22,000 in penalties, which have been deposited into the Damage Prevention Account. There are 30 pending penalty investigations as of the date of this report.

The Damage Prevention Account held \$32,500 in penalty funds on Nov. 15, 2015. By law, the fund is to be spent on education campaigns designed to improve worker and public safety relating to excavation and underground facilities. The commission to date has made no expenditures, but is working with the Safety Committee to release funding for excavator dig-safe and locator training.

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<sup>22</sup> RCW 19.122.170.

<sup>23</sup> RCW 19.122.150.

## SECTION VI – Education

From 2011 to 2014, the commission organized, and Washington811 contributed to, statewide “Call 811 Before You Dig” public awareness campaigns through radio, television, billboards, Internet, and social media channels. In surveys conducted before and after the 2014 campaign, homeowners showed a substantial increase in their awareness of safe digging practices. Awareness of the 8-1-1 telephone number increased fourfold while the number of homeowners aware of the need to make the call increased from 45 percent of respondents to 75 percent.

Excavators also received information about the 2011 legislation and requirements in the Act. Through excavator training by Washington811, commission staff, local utility coordinating councils, facility operators, and other stakeholder associations, thousands of excavators have received information about the Act, the 2011 amendments, and the requirement to report damages. While these education and the media campaigns have increased public awareness and, we believe, have been a contributing factor in the increase in the number of calls to 8-1-1 prior to excavation, there are still many more opportunities to communicate to the public about safe digging to excavators and homeowners.

## SECTION VII – Recommendations

In developing this report, the commission held two meetings involving more than 60 stakeholders, and distributed a survey receiving more than 500 stakeholder responses. Using information gathered from the meetings and survey responses, in addition to input from the Safety Committee, the commission finds that the Act is working well overall, but could be amended to improve understanding, communication and effectiveness.

The commission’s recommendations fall into the following two categories, safety/enforcement and administration. **Safety/Enforcement** recommendations seek to enhance the safety of underground utilities through prevention efforts or make the “call before you dig” law provisions clearer to violators and easier for the commission and the Safety Committee to enforce. **Administration** recommendations seek to improve the ease and efficiency of the “call before you dig” program, and performance data on the effectiveness of the program. These are discussed below:

SAFETY/ENFORCEMENT	RANK
<p><b>1. Require new underground facilities to be locatable</b> – Excavators, facility operators, and locators appear to be in agreement that “un-locatable facilities” are a significant problem. When asked in the survey to identify their greatest frustration in the law, 44 percent responded that it was un-locatable facilities. When facilities are damaged because they are not locatable, disputes often arise as to who is liable for the damage. This problem could be remedied by requiring utility owners and operators to design new underground utility installations, including non-metallic underground facilities, to be installed with a copper wire or other means to allow the facility to be locatable.</p>	<p><b>High</b></p>

<p><b>2. Improve the complaint review panel configuration (Safety Committee) -</b>  Under the Act, the Safety Committee must assign a panel to review complaints following four criteria: (1) The panel may not have more than five members; (2) One member must be a representative of a pipeline company or natural gas utility regulated by the commission; (3) One member must represent the insurance industry; and (4) There must be an equal number of members representing excavators and facility operators. Meeting all four criteria when selecting panel members from an all-volunteer Safety Committee has proven to be difficult. The following changes to the legislation would allow more flexibility in selection of a complaint review panel:</p> <ul style="list-style-type: none"> <li>• Allow for a surrogate insurance industry representative.</li> <li>• Require a natural gas representative to serve on the panel only when the case involves a natural gas company.</li> <li>• Require a pipeline representative to serve on the panel only when the case involves a pipeline company.</li> <li>• Allow representatives who are both facility operators and excavators (such as municipalities) to serve as either representative for purposes of a specific review panel.</li> </ul>	<b>High</b>
<p><b>3. Require or allow design locates</b> – One way to reduce underground facility damage is to begin with a design of new construction or public works projects that works in concert with the underground network. The commission and the Safety Committee have been considering ways to encourage the use of utility locates during the design phase of projects, as the law currently does not encourage or require this procedure. An amendment to accommodate design locate requests would assist facility operators and other stakeholders at the beginning of a project.</p>	<b>High</b>
<p><b>4. Adopt a “Tolerance Zone” standard</b> – The tolerance zone is an area equal to the width of the underground facility, plus 24-inches on each side and acts as a buffer zone for accuracy. When excavation is planned within the specified tolerance zone, the excavator exercises such reasonable care as may be necessary for the protection of any underground facility in or near the excavation area. Methods to consider, based on certain climate or geographical conditions, include hand digging when practical (pot holing), soft digging, vacuum excavation methods, pneumatic hand tools, other mechanical methods with the approval of the facility owner/operator, or other technical methods that may be developed. Hand digging and non-invasive methods are not required for pavement removal.</p>	<b>Med</b>
<p><b>5. Adopt mandatory training or certification for persons who perform utility locates</b> –Minimum training guidelines and practices should be adopted for locator training to ensure accuracy and consistency. The National Utility Locating Contractors Association (NULCA) Locator Training Standards and Practices represent an accepted model within the locate industry nationwide. Facility locators should be required to retain documentation of all training to ensure locators have been properly trained. <i>If state agencies were to administer such a program, there likely would be fiscal impact.</i></p>	<b>Med</b>

<p><b>6. Define “reasonable care”</b> – In 2014, almost 30 percent of damage reports to DIRT listed unsafe digging practices as the cause. In survey responses, facility owners listed unsafe excavation practices and failure to use hand tools as the top two common causes for underground facility damage. Under accepted practice, excavators are encouraged to use caution and safe digging practices to avoid damaging underground facilities. The commission and the Safety Committee recommend the Act be amended to include a standard of “reasonable care” that excavators must apply to avoid damage.</p>	<p><b>Low</b></p>
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<b>ADMINISTRATION</b>	<b>RANK</b>
<p><b>1. Require a positive response</b> – State law forbids excavation until all utilities have been located. However, knowing if all the facility owners have completed their locates is not always clear to the excavator, particularly if there are multiple utilities involved. A “Positive Response”<sup>24</sup> service would clarify for the excavator when locates are complete and excavation can commence. This would require the facility owner or locator to report back to the one-call system when locates are completed or not needed.</p>	<p><b>High</b></p>
<p><b>2. Report cause of damage to underground facility</b> - Many reports to the DIRT database list as the root cause for damage “Data Not Collected” or “Other/Unknown,” making it difficult to identify reasons for the damage or analyze the real cause of damage. This in turn makes identifying education, prevention and enforcement efforts more difficult. The Act should be amended to require the cause of damage to be identified in DIRT reports.</p>	<p><b>High</b></p>
<p><b>3. Repeal the sunset dates for the Safety Committee and the commission enforcement authority</b> – The 2011 amendments created a Safety Committee and an enforcement mechanism, which are set forth in RCW 19.122.130, RCW 19.122.140, and RCW 19.122.150. Each of these provisions will sunset or expire on December 31, 2020. Without the ability to review complaints for referral to the commission, the Safety Committee would lose a mechanism to change the behavior of excavators who violate the law. Similarly, without the ability to enforce violations of the Act related to natural gas or pipeline incidents and Safety Committee referrals, the commission will be limited in working to change excavator behavior and reduce underground infrastructure damage. Further, elimination of enforcement authority related to damaging pipelines will likely lead to a reduction in federal grant money supporting the pipeline safety program under recently adopted PHMSA rules.</p>	<p><b>High</b></p>

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<sup>24</sup> Positive Response provides a means of communication between the facility operator, excavator and locator and closes the circle of information on a locate request. Instead of trying to figure out if a locate has been performed, the excavator can access the status of a locate request on the one-call ticket system.

<p><b>4. Provide the Commission with additional rulemaking authority to implement RCW 19.122</b> – The Act did not grant the commission rulemaking authority. Because several provisions of the law are general in nature and open to interpretation, the Legislature should consider granting the commission additional rulemaking authority to provide further clarity. <i>This recommendation may have a fiscal impact.</i></p>	<p><b>High</b></p>
<p><b>5. Expand the commission’s direct enforcement authority to include telecommunications facilities</b> – Currently, the Act grants the commission <i>direct</i> authority to investigate and enforce violations of the dig law related to hazardous liquid or gas pipeline companies in the following situations:</p> <ul style="list-style-type: none"> <li>• <b>An excavator</b>, who did not first obtain a locate for the underground facilities prior to digging, damages pipeline facilities (RCW 19.122.055);</li> <li>• <b>An excavator</b> digs within 35 feet of a transmission pipeline and did not first obtain a locate for underground facilities (RCW 19.122.090); or</li> <li>• <b>When someone</b> damages or removes marks indicating the location or presence of pipeline facilities (RCW 19.122.075).</li> </ul> <p>Except in these cases, the commission has no authority to enforce violations of the Act without first receiving a referral from the Safety Committee. Consequently, many alleged violations of the Act go without further action or consequences to the offender. While the data does not show a need for direct authority over electric infrastructure at this time, the commission believes that expanding the commission’s investigation and enforcement authority to include telecommunications companies would allow it to enforce the law more effectively as it relates to underground damage of telecommunications infrastructure and disruption to vital 911 services. Specifically, the Act should be amended to allow the commission direct enforcement authority concerning violations of the Act related to telecommunications companies under the regulatory jurisdiction of the commission, as well as all excavators who damage underground telecommunications facilities owned or operated by a commission regulated company, regardless of whether a locate was obtained prior to digging. Incidents over the last two years resulted in severing landline and critical 911 facilities with significant impact to the public. The recommended change in the law would allow commission enforcement of such actions. <i>This recommendation likely has fiscal impact.</i></p>	<p><b>Med</b></p>

<p><b>6. Adopt American Public Works Association (APWA) national marking standards</b> - State law requires that the excavator follow national standards for paint colors when marking underground facilities, but does not address standards for the markings themselves. More detailed and consistent markings can improve the quality of underground utility locates, making it more likely that excavators clearly understand the markings and can safely work around the buried utilities.</p>	<p><b>Med</b></p>
<p><b>7. Clarify use of emergency locates</b> - The two-business day notice for acquiring a locate is waived in the case of an emergency that presents danger to life or property, or a customer service outage. There is a general concern among the stakeholder group about the abuse of “emergency” locates. The Act should be amended to clarify and potentially limit the use of emergency locates to genuine emergencies.</p>	<p><b>Med</b></p>
<p><b>8. Clearly define “large project”</b> – Providing an accurate description of a locate request (size and scope of work area) together with providing clear locate instructions will reduce uncertainty and provide clarity to utility operators and locators. This recommendation is intended to prevent unnecessary locator effort and allow adequate time to locate and mark the affected underground facilities within the time frame and marking requirements of the Act.</p>	<p><b>Med</b></p>



## ATTACHMENT A

### Washington Dig Law Safety Committee

#### About

The Washington Dig Law Safety Committee (Safety Committee) is a dispute resolution board established by the Legislature in RCW 19.122.130 to advise the commission, other state agencies, local governments and the Legislature on best practices, policies and training to prevent damage to underground utilities, and enhance worker and public safety.

The Safety Committee is also charged with hearing complaints of alleged violations of the dig law, and recommending enforcement action to the commission. Any persons may file a complaint with the Safety Committee if they believe any portion of the dig law has been violated.

#### Members

The Safety Committee is made up of 13 members representing various stakeholder groups. Members must be nominated by their respective group or organization to be considered to sit on the Safety Committee. Below is a list of the current members:

<b>Seat</b>	<b>Name</b>	<b>Company</b>
<b>Natural Gas</b>	Scott Sammons	Puget Sound Energy
<b>Electric</b>	Bryan Sabari	Potelco, Inc.
<b>Member Owned Utility</b>	Zella West (Vice Chair)	Nob Hill Water Association
<b>Contractor</b>	Mark Scoccolo	SCI Infrastructure, LLC
<b>Pipeline</b>	Verlyn Bailly	TransCanada
<b>Local Government</b>	Dave Christensen (Chair)	City of Renton Wastewater
<b>Commission</b>	Lynda Holloway	Utilities and Transportation Commission
<b>Excavator</b>	Scot Hattenburg	M and L Construction
<b>Insurance</b>	Larry Bailey	Water and Sewer Risk Management Pool
<b>Telecommunications</b>	Joe Robertson	CenturyLink Communications
<b>Open Position</b>	Jon Cornelius	WA Department of Transportation
<b>Open Position</b>	Jim Walton	Linescape, LLC
<b>Open Position</b>	James Yoder	Avista Corporation

## ATTACHMENT B

### Washington State Dig Law Safety Committee 2013 in Review

Prepared by:

Jon Cornelius, Chair

Dave Christensen, Vice Chair

#### What We Accomplished in 2013

- Began meeting in October of 2012 to establish our bylaws.
- Established the staggered terms for all thirteen members of the committee.
- Developed our process for holding Review Committee meetings regarding complaints filed.
- Established our letterhead and standard cover letters regarding the complaint review process.
- Received and processed 26 dig law complaints. Of those complaints, the Committee triaged them to bring resolution. Two went to hearing and are currently being referred to the commission for next steps. The remaining ones were handled internally by either sending letters to the alleged violators reminding them of their responsibilities under the dig law or by referring them to the appropriate resource, be it the commission or DIRT. Of the 26, at the end of the year we only have three outstanding cases that we are looking to bring to resolution.
- Met quarterly in 2013 to establish work program and to train for Review Committee meetings.
- Applied for One Call Grant in the amount of \$40,000 for assistance with administrative support services and assistance from a consultant for work on Best Practices.
- Began process for identifying areas in the dig law that may require amending or supplementation.
- Established the penalty schedule that the Review Committee will use for alleged violators of the dig law in its recommendation to the commission.
- Reviewed requests for law changes by interested parties:
  - Surveyors request to be exempt from requirement to call for dig ticket.
  - Facility Operators request to be exempt from requirement to call for dig ticket on their facility.
- Review requests for law changes from within the committee as well as from outside sources within the industry, including:
  1. All utilities installed from here forward shall be locatable.
  2. The requirement for insurance representative to be on every Review Committee process.
  3. A copy of a dig ticket be required to be on-site.
  4. Redefine an emergency locate.

- Established quarterly meetings between the Chair and Vice Chair of the Committee along with WUCC members to meet with the commission staff to check in on progress of the committee and to identify areas of need.

#### **Areas of Concern as We Head into 2014**

- The requirements for formation of a Review Committee severely hinder the Safety Committees ability to establish a review committee. Starting with the requirement of the Insurance representative being required being on all reviews, but also the requirement to have the Gas Representative have to be the first facility operator, and then for each facility operator, we must have an equal number of excavators. These constraints severely restrict the flexibility needed to form Review Committees. We anticipate this will be clearly obvious as we move forward and as we process more complaints through the Review Committee.
- Adequate funding and resources needed to properly operate the Safety Committee. Given the restraint by the legislature of no state funding, on top of limited resources available through the non-profit that operates the Safety Committee, this committee only can meet minimum expectations as described in the law. The committee struggles to formulate sub committees, and other required functions of a committee as it does not have the proper regular oversight to ensure those processes are implemented. We will want to look into multiple options for the provision of adequately funding the committee.
- We need to better document what we have done into actual processes so that as the current leadership transitions out of that role, the next group will have an easier time transitioning into the roles and responsibilities.
- Emphasis of the dig law was geared toward standard excavator/facility operator relationship. We have found that there is a lot of confusion on the part of home owners who are using the one call system as to exactly the level of service they are being provided. Confusion over private underground facilities that are not located.

This provides a broad perspective of both what we accomplished in 2013 as well as our areas of concern as we proceed into 2014. We both feel strongly that we made great strides this year in establishing a solid foundation to work from, but also recognize that there is still a lot left to be completed in order to have a complete program for the Safety Committee.

## ATTACHMENT B (Cont.)

### Washington State Dig Law Safety Committee 2014 in Review

Prepared by: Dave Christensen, Chair

#### What We Accomplished in 2014

- Developed procedure and written script for holding Review Committee meetings regarding complaints filed.
- Received and processed 31 dig law complaints. Of those complaints, the Committee triaged them to bring resolution. Of the 31 complaints, 12 will go through the Review Hearing process. Five have had both the Review Hearing and commission determination complete. The remaining 7 are currently scheduled for Review Hearings in March, April, and May of 2015. The remaining 19 were handled internally through the triage process by either sending letters to the alleged violators reminding them of their responsibilities under the dig law or by meeting directly with the alleged violators to provide the information/educational materials they may need to understand their requirements under the law. Of the 31, at the end of the year, we have twelve outstanding cases that we are working to bring to resolution.
- In addition to the 31 complaints, the Safety Committee has worked with many different facility operators and excavators outside of the complaint process. In many cases, the Safety Committee has been able to either educate those in need of clarification of the dig law or act as a mediator between parties to bring resolution on how the groups can meet their needs to be in compliance with the law.
- Met quarterly in 2014 to further develop our work program with primary interest on establishing proposed best practices and potential law changes. Updated the Safety Committee on status of complaints. Utilize this forum for outside groups to express their concerns regarding the dig law.
- Received One Call Grant for Administrative Support Staff. This additional staff support has been critical in meeting all of our needs for the Committee.
- Applied for One Call Grant in the amount of \$40,000 for continued assistance with administrative support services and funding for additional excavator dig safe training, as well as funding for locator training.
- Established subgroups who are developing specific language for both best practices and potential law changes around the following topic areas:
  - Design Locates
  - All New Facilities Installed be Required to be Locatable
  - Positive Response
  - Emergency Locates
  - Membership Of Review Committee Rules
  - Large Projects

### **Areas of Concern as We Head into 2015**

- **The requirements for the formation of a Review Committee continue to hinder the Safety Committee's ability to establish a review committee.** Starting with the requirement of the Insurance representative being required on all reviews, but also the requirement to have the Gas Representative be the first facility operator, and then for each facility operator, we must have an equal number of excavators. As we process complaints in 2014, this issue has hampered our ability to hold the hearings while meeting the conditions for a panel. As described above, we are working at formulating law change that would rectify this issue.
- **Adequate funding and resources needed to properly operate the Safety Committee.** Given the restraint by the legislature of no State funding, and given that we are reliant upon a One Call Grant to fund our part time Administrative Staff person, we will need to look into the ability to obtain a more reliable funding source in order to assure we can continue to fund the current needs for administrative support as well as anticipated future needs.
- **We need to continue to document what we have done into actual processes so that as the current leadership transitions out of that role, the next group will have an easier time transitioning into the roles and responsibilities.**
- **We also need to share some of the responsibilities that the Chair and Vice Chair lead amongst the Committee as a whole to both help reduce the total work load on those individuals, but also to help in the transition as members take on the Chair or Vice Chair role in the future.**

This provides a broad perspective of both what we accomplished in 2014 as well as our areas of concern as we proceed into 2015. We have continued to make great strides this past year in establishing a solid foundation to work from, but also recognize that there is still a lot left to be completed in order to have a complete program for the Safety Committee, including the full body of work anticipated by the Legislature when they established the Safety Committee.

ATTACHMENT C

2012 DIRT DATA

<b>DIRT REPORTS SUBMITTED:</b>	875	<b>One Call Practices Not Sufficient</b>		
		No Notification made to one-call center	87	<b>89</b>
		Notification made but not sufficient	2	
<b>No locate request:</b>	328	Wrong info provided to one-call		
<b>Inbound Ticket Requests</b>	282,521	<b>Locating Practices Not Sufficient</b>		
<b>Outbound Tickets</b>	2,196,081	Facility could not be found/located	8	<b>41</b>
		Facility marking or location not sufficient	15	
		Facility was not located or marked	11	
		Incorrect facility records/maps	7	
<b>Reporting Stakeholders:</b>		<b>Excavation Practices not Sufficient</b>	53	
Electric	2	Failure to maintain marks	12	<b>116</b>
Engineers/Designers		Failure to support exposed facilities	2	
Excavators	4	Failure to use hand tools where required	35	
Liquid Pipeline		Failure to test-hole (pot-hole)	10	
Natural Gas	284	Improper backfilling practices	1	
One Call Center		Failure to maintain clearance	3	
Public Works	14	Other insufficient excavation practices		
Road Builders				
Telecom	571	<b>Miscellaneous Root Cause</b>		
Unknown		One-call center error		<b>629</b>
Water		Abandoned facility		
		Deteriorated facility		
<b>Facilities Damaged:</b>		Previous damage	9	
Electric	3	Data not collected	559	
Liquid Pipeline		Other	61	
Natural Gas	286			
Sewer	3			
Telecom	581			
Water	2			

**ATTACHMENT C (Cont.)**

**2013 DIRT DATA**

<b>DIRT REPORTS SUBMITTED:</b>	3,224	<b>One Call Practices Not Sufficient</b>		
		No Notification made to one-call center	629	<b>663</b>
		Notification made but not sufficient	29	
<b>No Locate Ticket Request:</b>	1,233	Wrong info provided to one-call	5	
<b>Inbound Ticket Requests</b>	327,721	<b>Locating Practices Not Sufficient</b>		
<b>Outbound Tickets</b>	2,672,143	Facility could not be found/located	31	<b>834</b>
		Facility marking or location not sufficient	409	
<b>Reporting Stakeholders:</b>		Facility was not located or marked	337	
Electric	642	Incorrect facility records/maps	57	
Engineers/Designers	10	<b>Excavation Practices not Sufficient</b>	421	
Excavators	235	Failure to maintain marks	66	<b>1116</b>
Liquid Pipeline	3	Failure to support exposed facilities	17	
Locators	1	Failure to use hand tools where required	472	
Natural Gas	1631	Failure to test-hole (pot-hole)	42	
One Call Center		Improper backfilling practices	3	
Public Works	282	Failure to maintain clearance	95	
Road Builders	16	Other insufficient excavation practices		
Telecom	357	<b>Miscellaneous Root Cause</b>		
Unknown	32	One-call center error	2	<b>611</b>
Water	15	Abandoned facility	49	
		Deteriorated facility	7	
<b>Facilities Damaged:</b>		Previous damage	31	
Cable TV	93	Data not collected	289	
Electric	533	Other	233	
Liquid Pipeline	4			
Natural Gas	1574			
Sewer	69			
Telecom	751			
Unknown/Other	16			
Water	184			

**ATTACHMENT C (Cont.)**

**2014 DIRT DATA**

<b>2014 DIRT REPORTS:</b>	<b>3,378</b>	<b>One Call Practices Not Sufficient</b>		
		No Notification made to one-call center	631	<b>635</b>
		Notification made but not sufficient		
<b>No Locate Ticket Request:</b>	1,479	Wrong info provided to one-call	4	
<b>Inbound Ticket Requests</b>	353,296	<b>Locating Practices Not Sufficient</b>		
<b>Outbound Tickets</b>	2,904,807	Facility could not be found/located	30	<b>825</b>
		Facility marking or location not sufficient	356	
		Facility was not located or marked	405	
		Incorrect facility records/maps	34	
<b>Reporting Stakeholders:</b>		<b>Excavation Practices not Sufficient</b>	<b>319</b>	
Electric	557	Failure to maintain marks	69	<b>1011</b>
Engineers/Designers	13	Failure to support exposed facilities	14	
Excavators	160	Failure to use hand tools where required	459	
Liquid Pipeline		Failure to test-hole (pot-hole)	31	
Locators		Improper backfilling practices	2	
Natural Gas	1577	Failure to maintain clearance	117	
One Call Center	1	Other insufficient excavation practices		
Public Works	206	<b>Miscellaneous Root Cause</b>		
Road Builders	19	One-call center error	3	<b>907</b>
Telecom	812	Abandoned facility	26	
Unknown	17	Deteriorated facility	10	
Water	16	Previous damage	15	
		Data not collected	652	
		Other	201	
<b>Facilities Damaged:</b>				
Cable TV	48			
Electric	465			
Liquid Pipeline	1			
Natural Gas	1482			
Sewer	49			
Steam	1			
Telecom	1143			
Unknown/Other	14			
Water	175			