Are We Speaking the Right Language?

Removing Barriers for Excavation Safety
Presented by: Ian Turnbull and Michelle Petrusевич
FortisBC

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Agenda
What we will cover today:
• Background
• Who we are
• Progress to date
• Current Status & Challenges
• Going Forward
• Conclusions

FortisBC’s Service Area
Excavation Damages

Regulatory Environment Background
Unique regulatory environment in BC
- In most cases, the responsibility for locating underground facilities is split between the infrastructure owner & the excavator
- Utilities have the option of responding by providing maps to excavators
- Excavators are responsible for locating the utilities
- FortisBC responds by providing mapping for requests on our distribution system
  - Physical locates are done:
    - on all high pressure lines
    - if the excavator has difficulty with the provided information

Locating Practices in BC
Response times
- FortisBC is required to positively respond within 2 days
- We meet this requirement 98% of the time
- The system is scalable
Evolution of Damage Prevention in BC

BC One Call (1994)
Role of Damage Prevention Manager (2005)
BC Common Ground Alliance (2006)
FortisBC regulatory approval
- Public Safety Manager (2010)
- Increased budget for education & awareness (2010)

Raised internal awareness of damage prevention
- Damage reduction is an element of bonus plan

Market Research Results: Safety Excavation Index

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Knows where underground utilities are located</td>
<td>70%</td>
<td>75%</td>
<td>77%</td>
<td>79%</td>
<td>74%</td>
<td>76%</td>
<td>75%</td>
</tr>
<tr>
<td>Knows to call before digging</td>
<td>65%</td>
<td>68%</td>
<td>63%</td>
<td>65%</td>
<td>63%</td>
<td>64%</td>
<td>65%</td>
</tr>
<tr>
<td>Knows who to call (i.e., FortisBC / BC One Call)</td>
<td>30%</td>
<td>35%</td>
<td>35%</td>
<td>36%</td>
<td>37%</td>
<td>34%</td>
<td>35%</td>
</tr>
<tr>
<td>Aware of BC One Call</td>
<td>45%</td>
<td>53%</td>
<td>51%</td>
<td>52%</td>
<td>50%</td>
<td>51%</td>
<td>50%</td>
</tr>
<tr>
<td>Extremely Prepared</td>
<td>13%</td>
<td>19%</td>
<td>18%</td>
<td>20%</td>
<td>19%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Very Prepared</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Somewhat Prepared</td>
<td>11%</td>
<td>12%</td>
<td>10%</td>
<td>11%</td>
<td>9%</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Unprepared</td>
<td>63%</td>
<td>57%</td>
<td>59%</td>
<td>56%</td>
<td>61%</td>
<td>58%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Excavation Knowledge

- Knows location of underground utilities %
- Law requires obtaining utilities location before digging %
- Location info on underground utilities available to residents %
- Underground location info is free of charge %
- Required to call before digging yard %
**Excavation Knowledge, cont’d**

<table>
<thead>
<tr>
<th><strong>Where consumers would get information on location of underground natural gas line</strong></th>
<th><strong>Who consumers would call before digging or excavating</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Q30: How would you find out where the underground natural gas line is? Wave 7 (n=623); 6 Waves (n=3161)</td>
<td>Q34: Who should you contact before you start digging or excavating in your yard? Wave 7 (n=521); 6 Waves (n=2658)</td>
</tr>
<tr>
<td>Aug 2016 6 Waves Rolling Average</td>
<td>Aug 2016 6 Waves Rolling Average</td>
</tr>
<tr>
<td>1. Contact FortisBC / gas company</td>
<td>41% 9%</td>
</tr>
<tr>
<td>2. Call / Ask before you dig</td>
<td>20% 14%</td>
</tr>
<tr>
<td>3. Phone BC One Call</td>
<td>13% 12%</td>
</tr>
<tr>
<td>4. Ask city government / engineering</td>
<td>17% 14%</td>
</tr>
<tr>
<td>5. Don’t know</td>
<td>28% 25%</td>
</tr>
</tbody>
</table>

*How would you find out where the underground natural gas line is? (Wave 7: n=623; 6 Waves: n=3161).*

*Who should you contact before you start digging or excavating in your yard? (Wave 7: n=521; 6 Waves: n=2658).*

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**Damaged Lines**

<table>
<thead>
<tr>
<th><strong>First step of action, if underground natural gas line is damaged</strong></th>
<th><strong>Person / organization to contact, if underground natural gas line is damaged</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 2016 6 Waves Rolling Average</td>
<td>Aug 2016 6 Waves Rolling Average</td>
</tr>
<tr>
<td>1. Contact 911</td>
<td>31% 30%</td>
</tr>
<tr>
<td>2. Contact FortisBC / gas company</td>
<td>27% 27%</td>
</tr>
<tr>
<td>3. Evacuate area</td>
<td>16% 16%</td>
</tr>
<tr>
<td>4. Turn off gas at the meter</td>
<td>2% 2%</td>
</tr>
<tr>
<td>5. Don’t know</td>
<td>10% 10%</td>
</tr>
</tbody>
</table>

*If you damaged the underground natural gas line, what would you first do? Wave 7: n=800; 6 Waves: n=3893.*

*Who would you call if you damaged the underground gas line? Wave 7: n=279; 6 Waves: n=1394.*

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**Education & Outreach: Public Awareness Programs**

![Image of a classroom with a presentation]
Current Status: Where are we now

Hit a plateau 2013 to present


- Tickets received have increased every year
- Usage of BC One Call is low compared to similar jurisdictions

Challenged to continue our downward trend

- Profile of damage:
  - Small independent contractors - ~40%
  - Homeowners - ~30%
  - Municipal & government - ~12%
  - Large Contractors - ~10%
  - Other Utilities - ~3%
  - Agriculture - ~3%
  - Misc - ~2%

Market Research Results

Qualitative Research Findings: What did we learn?

- Methodology overview – whom did we talk to and when
- Setting the scene: excavation knowledge & practices
- Excavation Practices and how they vary
- What happens on site during excavation
- Overview of awareness levels
- Wish lists, findings and next steps
Usability study highlights

Going Forward: Communication Strategy
Have updated print and radio ads
Leveraging internal resources and programs
Use of social media channels strategically
Align social media with campaigns in market
April Safe Digging Month
Targeted events: homeowners and contractors
Earned media leverage
National and provincial efforts
Based on research – targeted approach for specific audiences

Going Forward
Data Mining
- Crews enter damage details via truck laptops
- Collected data mirrors CGA DIRT format
- Provides ability to quickly analyze data to determine trends
Conclusions

Good research takes time
Internal barriers
Not everybody wants to do the right thing, what it means for utility owner
Homeowners: do they get our message?
Languages barriers?
Keeping up with society’s acceptance of technology platforms

Questions?

Thank you
Please complete the survey