

# Pipeline Safety In Spokane County

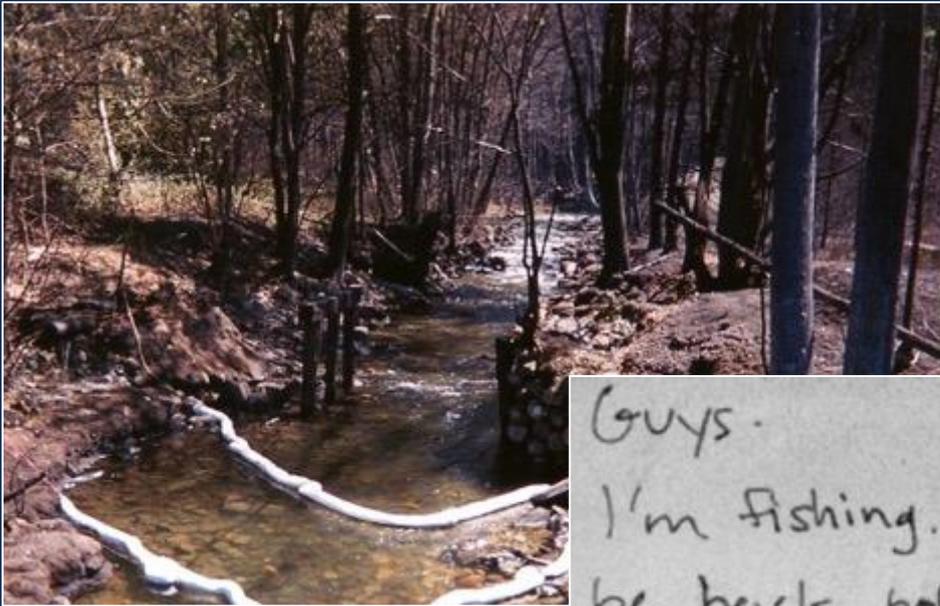


Carl Weimer, Special Projects Advisor

**Pipeline Safety**  
  
**T R U S T**

**Credible.  
Independent.  
In the public interest.**





Guys.  
I'm fishing. Will  
be back before dark.  
Homework is done.  
  
♡/Liam

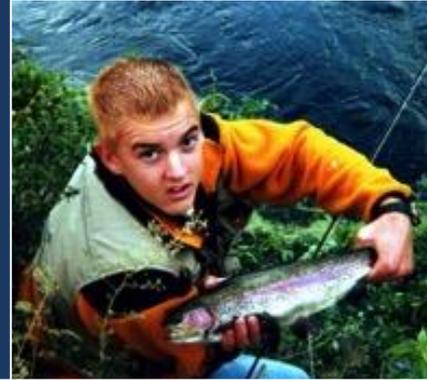


# The Pipeline Safety Trust

## Born from a pipeline tragedy

### What happen in Bellingham

- Pipeline was damaged by 3rd party
- Damage known but not fixed
- Valve installed wrong but not fixed
- Valve malfunctioned multiple times
- SCADA failure
- Operator Error
- Pipeline burst and exploded killing 3 youngsters and an entire salmon stream



# The Pipeline Safety Trust

## Who we are and where we came from?



“... there’s going to be a Trust that’s going to be funded as part of today’s sentencing. With \$4,000,000 ... they’ve nowhere near the lobbying potential of the oil industry. It’s not even David and Goliath. It’s more like Bambi and Godzilla. You’ve heard people today that are going to spend their lives trying to make this right, and they should be listened to. No industry polices itself very well... you need outside people, and these are going to be the people so pay attention to them.”



The Honorable Barbara Rothstein  
United States District Judge  
At Olympic Pipe Line Co Sentencing

# The things the Pipeline Safety Trust does to try to increase safety



- Improve pipeline safety regulations
- Increase transparency and access to pipeline information
- Provide a “public interest” voice to pipeline safety processes and events
- Partner with groups trying to move pipeline safety forward.



- Provide technical assistance to impacted communities

# Path to Greater Pipeline Safety



Regulators

The Public & Local  
Government

Pipeline Operators

# Pipeline Systems in Spokane County

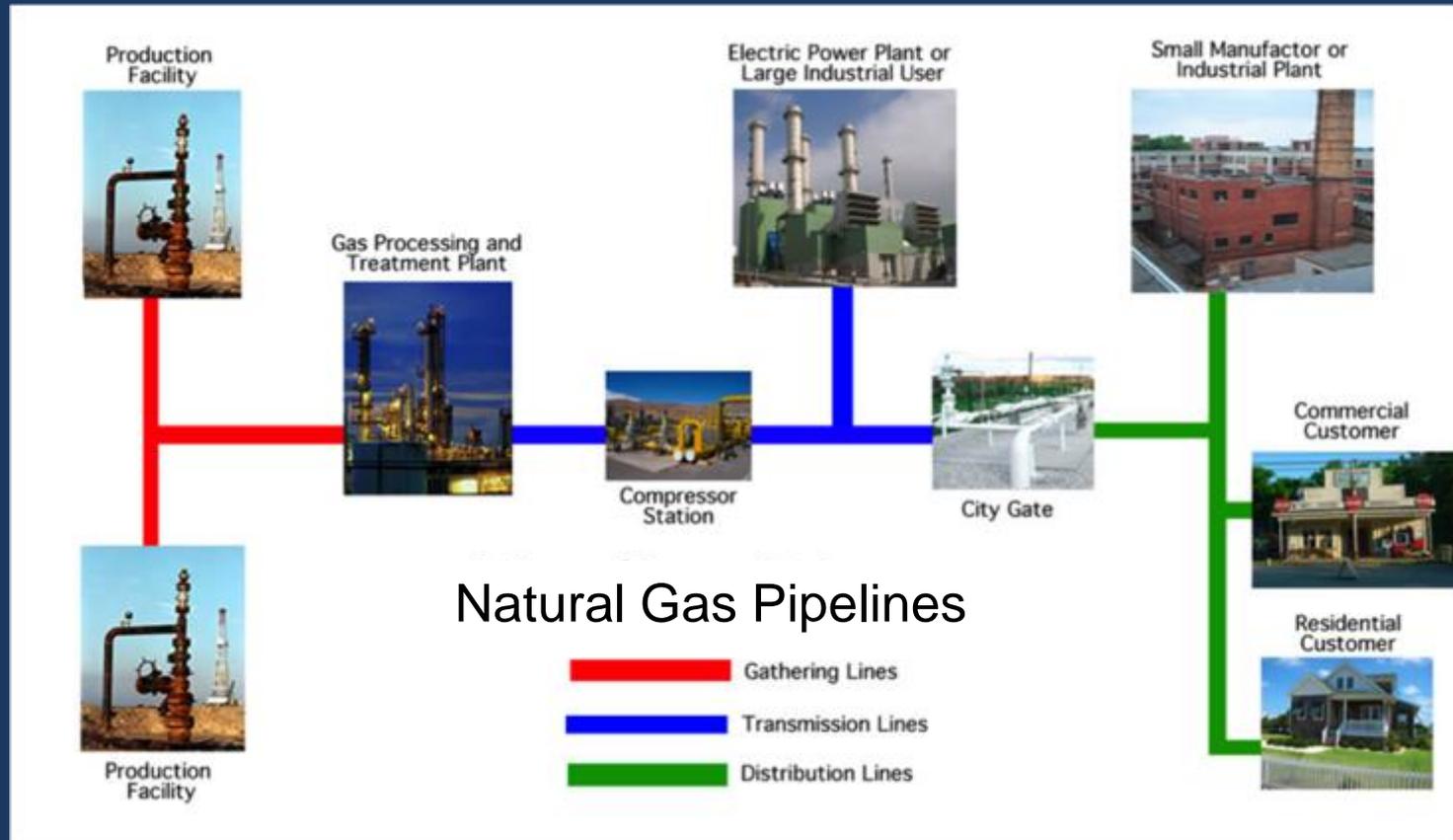
## Natural Gas Pipelines

- Transmission lines
- Distribution lines

## Hazardous Liquid Pipelines

(Crude oil, gasoline, diesel, propane, etc.)

- Transmission lines



INTERstate pipelines vs. INTRAstate pipelines

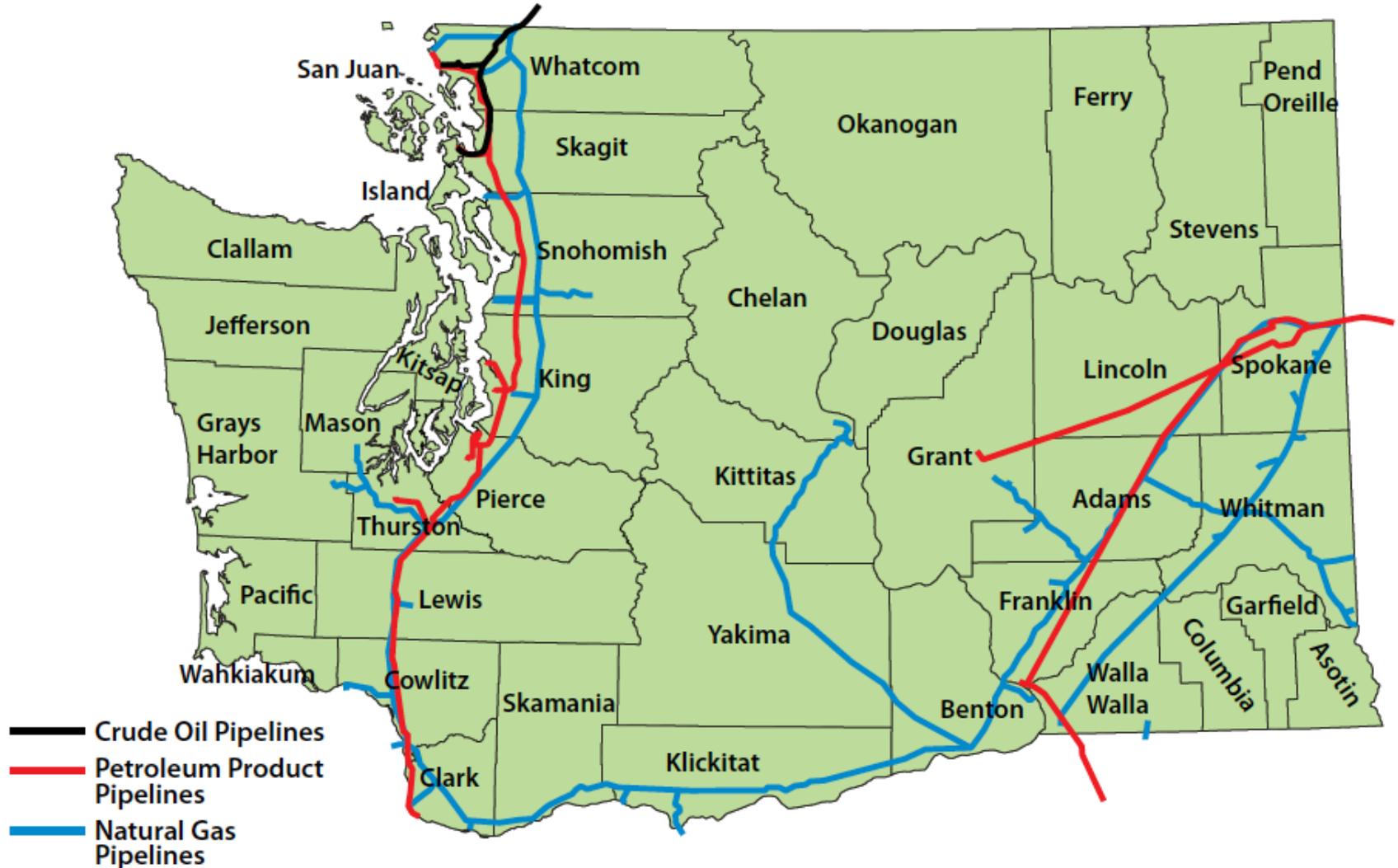
# National and Washington Pipeline System

**Table 1: Mileage of Regulated Pipelines – U.S. and Washington\***

|                                  | U.S.             | Washington    |
|----------------------------------|------------------|---------------|
| Gas Transmission                 | 301,578          | 1,972         |
| Gas Gathering                    | 17,944           | 0             |
| Gas Distribution Mains           | 1,307,735        | 22,337        |
| Gas Distribution Service Lines   | 930,877          | 19,638        |
| Crude Oil                        | 80,528           | 69            |
| Refined Products                 | 62,751           | 732           |
| HVLs (like propane, butane, etc) | 70,130           | 5             |
| <b>Total</b>                     | <b>2,771,543</b> | <b>44,753</b> |

\* Data from PHMSA as of 10/30/2019

# Transmission Pipelines In Washington

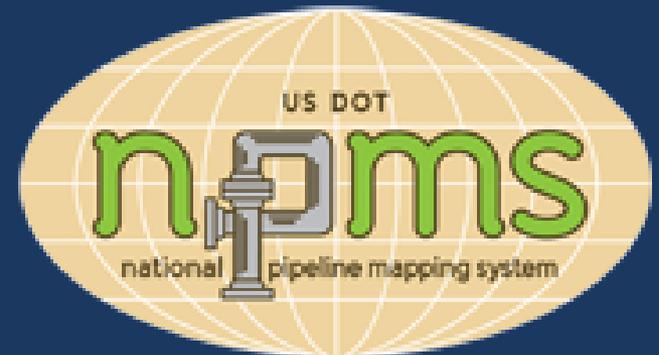


# Who Currently Operates Pipelines in Spokane County?

| <b>Pipeline Operator ID Number &amp; Name</b>      | <b>Carries</b>           |
|--|--------------------------|
| 13845 - NORTHWEST PIPELINE LLC (Williams)          | Natural Gas              |
| 15014 - GAS TRANSMISSION NORTHWEST LLC (TC Energy) | Natural Gas              |
| 31232 - AVISTA CORP                                | Natural Gas              |
| 31684 - PHILLIPS 66 PIPELINE LLC                   | Refined Products         |
| 38933 - MARATHON PIPE LINE (WEST)                  | Refined Products         |
| 4906 - EXXONMOBIL PIPELINE CO                      | Refined Products (Tanks) |
| 8140 - INLAND EMPIRE PAPER CO                      | Natural Gas              |

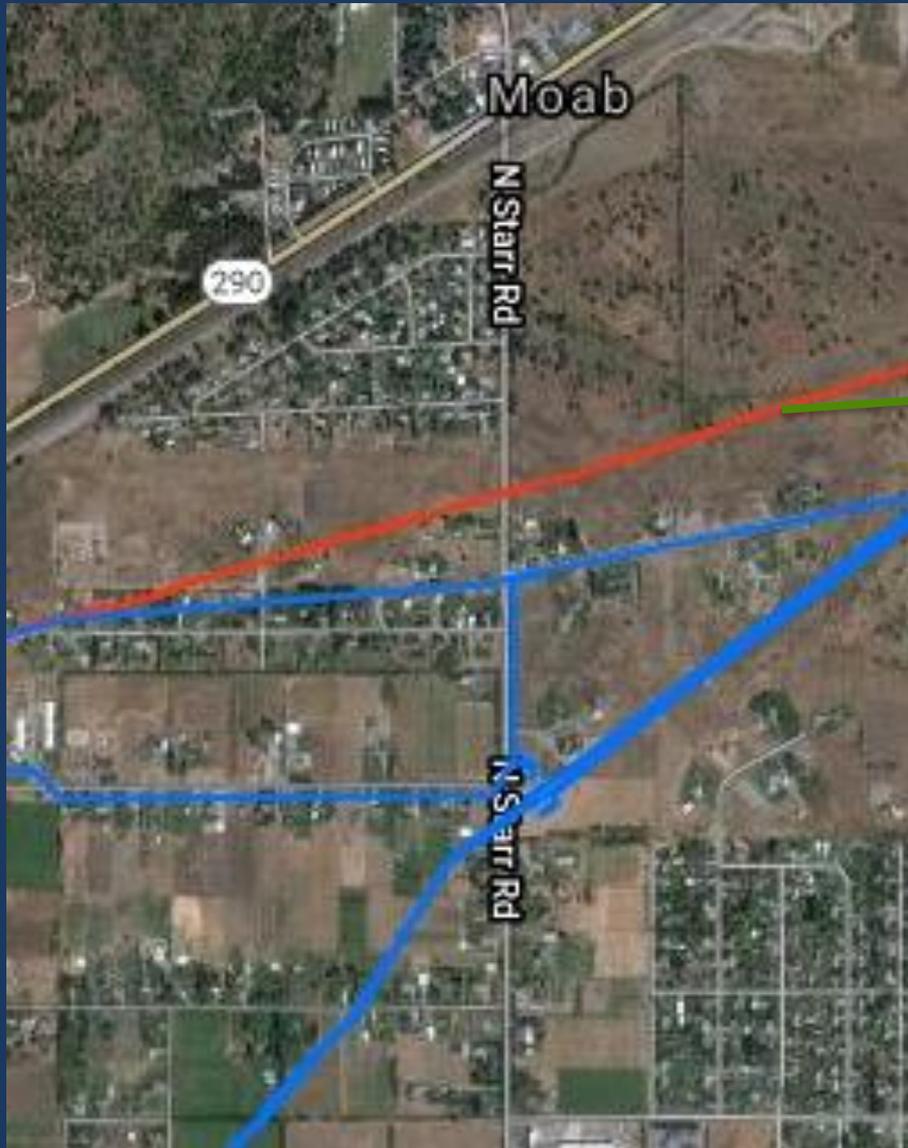


Where are the major pipelines in Spokane County?



National Pipeline Mapping System

<https://www.npms.phmsa.dot.gov/PublicViewer/>



31684

| Attribute                            | Value   |
|--------------------------------------|---|
| <b>Category: PIPELINE ATTRIBUTES</b> |   |
| OPERATOR ID                          | 31684   |
| OPERATOR NAME                        | PHILLIPS 66 PIPELINE LLC  |
| SYSTEM NAME                          | YELLOWSTONE WEST 10 IN/8 IN/6*  |
| SUBSYSTEM NAME                       | THOMPSON FALLS/MOSES LAKE   |
| PIPELINE ID                          | 805_54_1  |
| MILES                                | 11.09   |
| COMMODITY CATEGORY                   | Non-HVL Product   |
| COMMODITY DESCRIPTION                |   |
| INTERSTATE DESIGNATION               | Y   |
| PIPELINE STATUS CODE                 | Active (filled)   |
| REVISION DATE                        | 11/17/2020  |
| FRP SEQUENCE NUMBER                  |   |
| INSPECTION AUTHORITY                 | State   |
| <b>Category: GENERAL CONTACT</b>     |   |
| FIRST NAME                           | Ryan  |
| LAST NAME                            | Martin  |
| TITLE                                | Public Awareness Administrator  |
| ENTITY                               |   |
| PHONE                                | (832) 765-3226  |
| EMAIL                                | Ryan.Martin@p66.com   |
| ADDRESS                              | 2331 Citywest Blvd  |
| CITY                                 | Houston   |
| STATE                                | TX  |
| ZIP                                  | 77042   |
| Public Awareness URL                 | <a href="https://www.phillips66pipeline.com/">https://www.phillips66pipeline.com/</a> |

# Who Regulates Pipeline Safety in WA?



The federal Office of Pipeline Safety (OPS) within the Pipelines and Hazardous Materials Safety Administration (PHMSA) enforces the pipeline safety regulations for interstate gas and hazardous liquid pipeline operators in Washington based on inspections performed by the state.

Through certification and agreements with OPS, the state inspects and enforces the pipeline safety regulations for intrastate gas and hazardous liquid pipeline operators, and also, inspects interstate gas and hazardous liquid pipeline operators in Washington



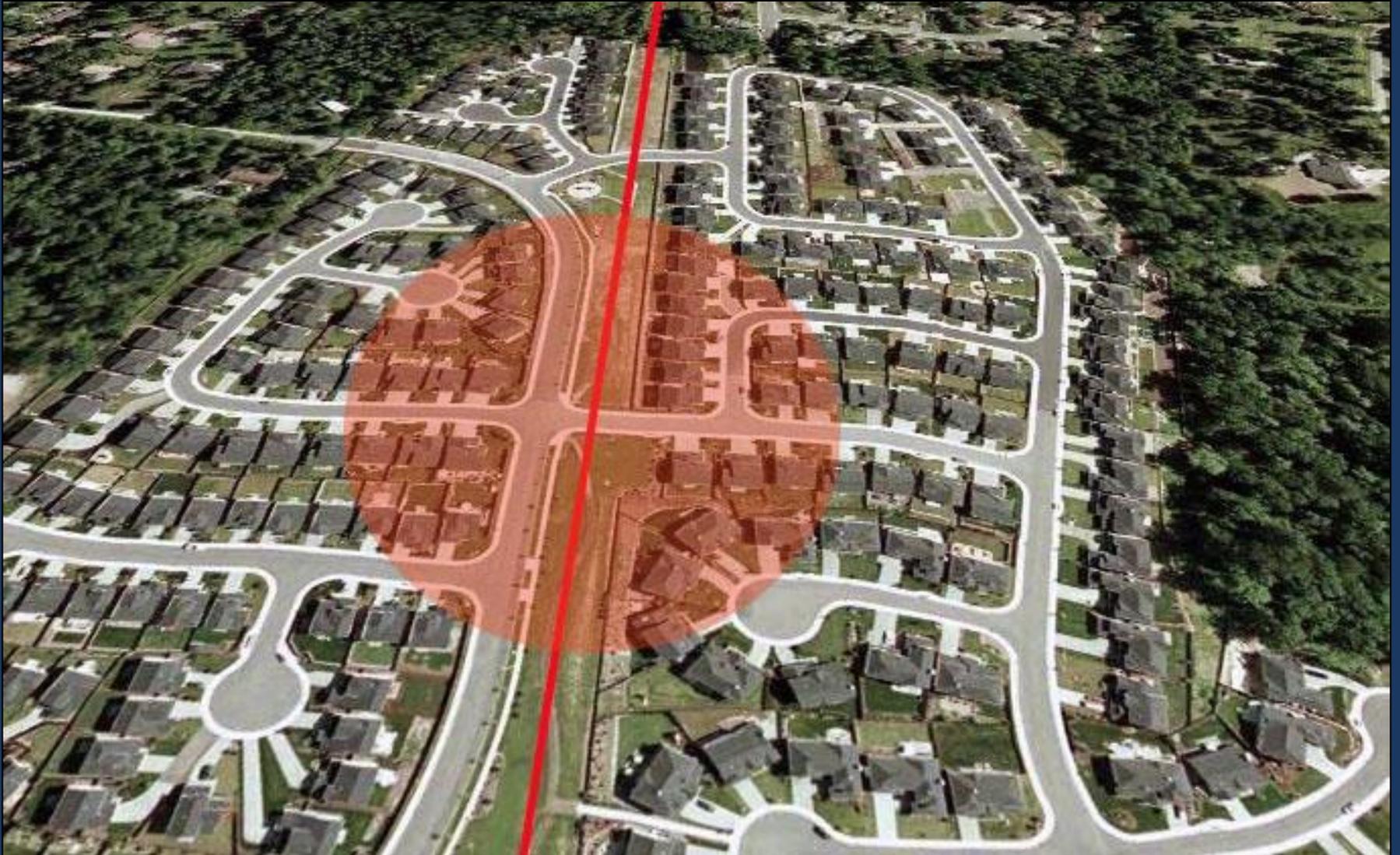
**Local Government – Can't regulate the safety of pipelines, but can use their authority to increase the safety of people living near pipelines**

# Where Do The Regulations Come From?

## Main Sources of Pipeline Regulations

- U.S. Congress – the Statutes
- U.S. Department of Transportation, Office of Pipeline Safety (PHMSA) – the safety regulations
- The States – Can pass stronger rules for intrastate pipelines
- Local Government – Cannot regulate the safety of pipelines, but can use their land use and permitting authority to help increase the safety of people living near pipelines

# Thinking About Risk



# What's the risk? Things to think about

The industry mostly concentrates on probability.

“A total of 99.999997 percent of all gas moves safely through interstate natural gas transmission pipelines.”

*The public mostly concentrates on the consequences.*



# What can the consequences be?



# What can the consequences be?

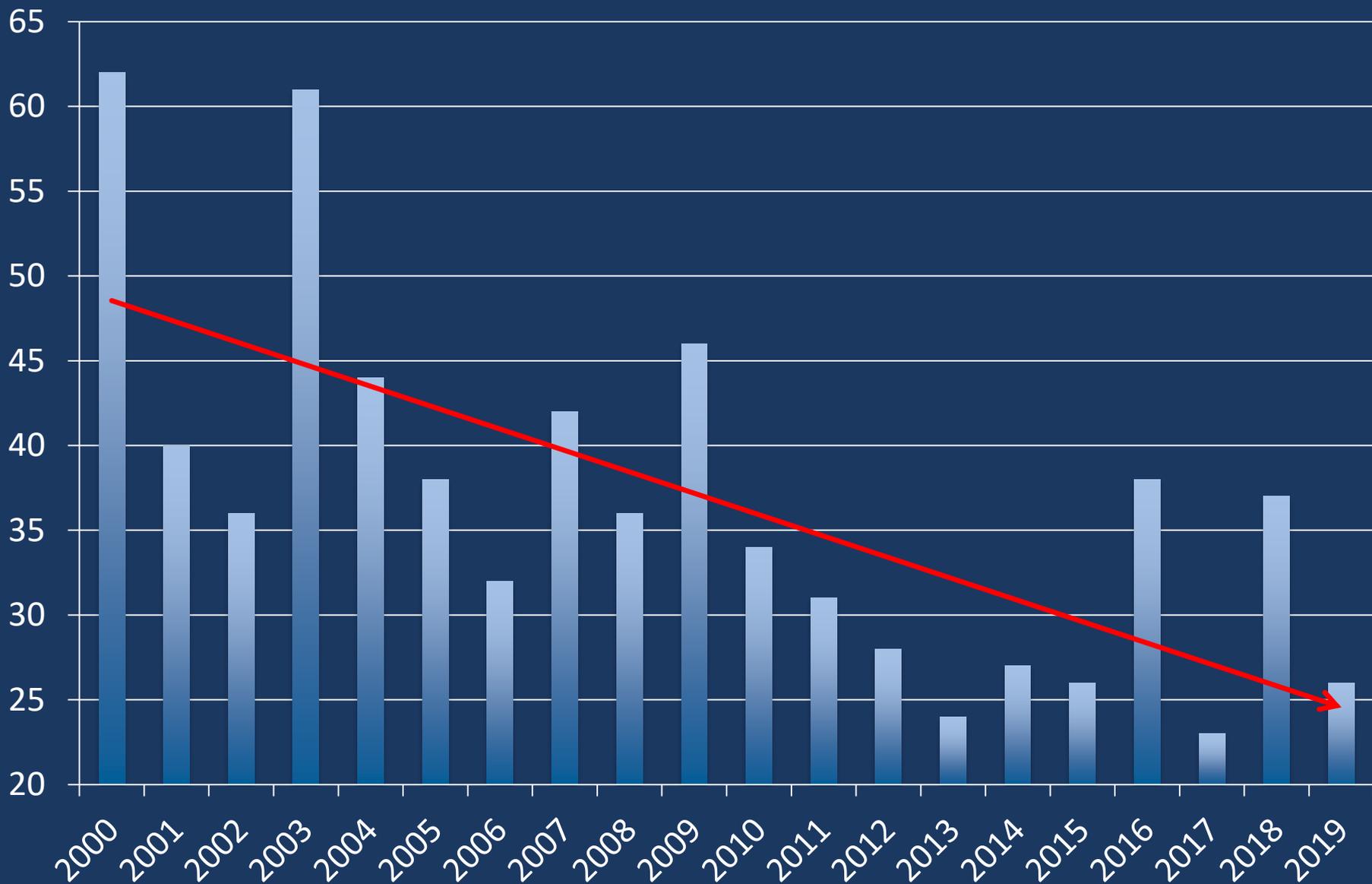


# Pressure Impacts

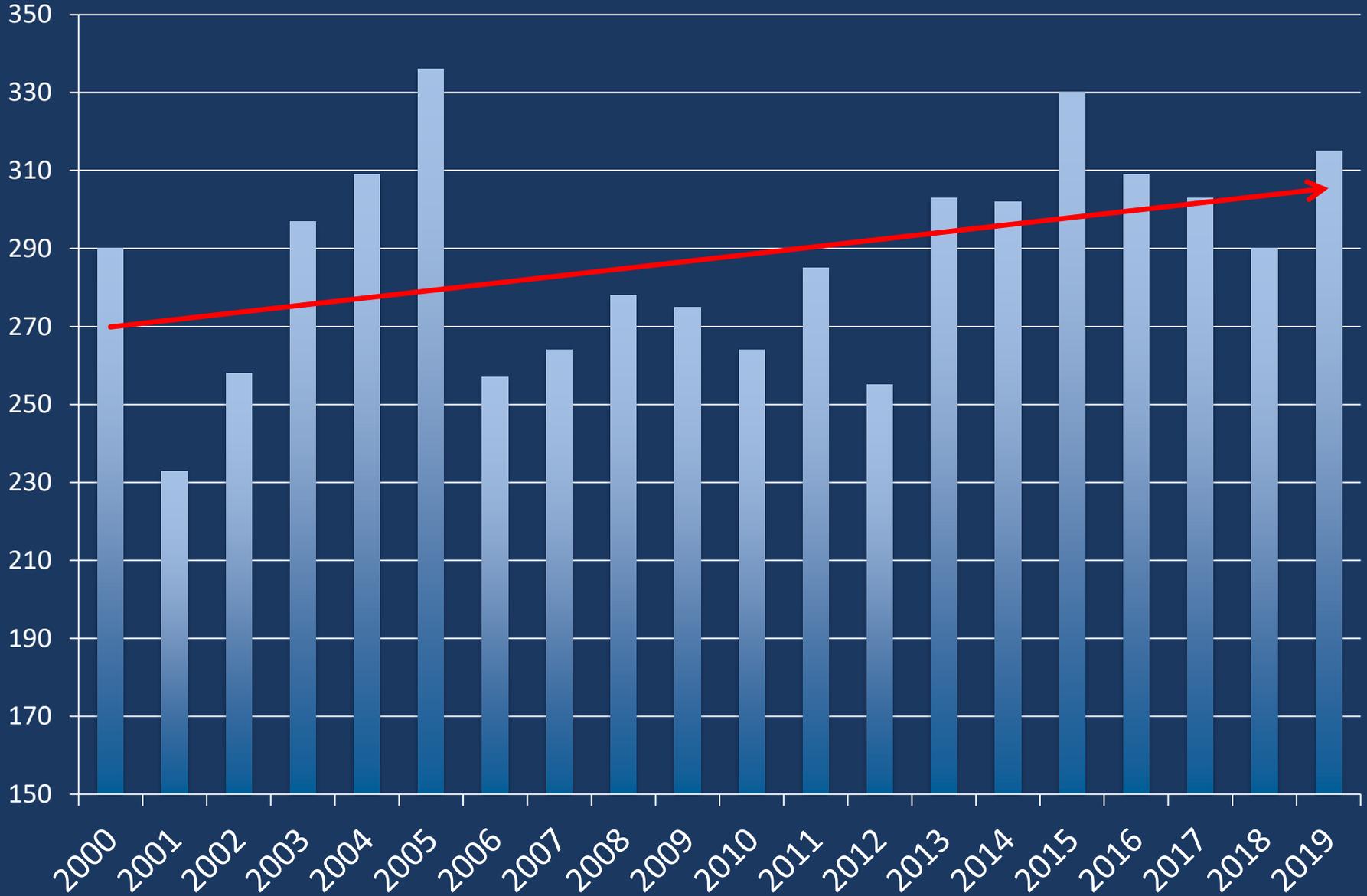


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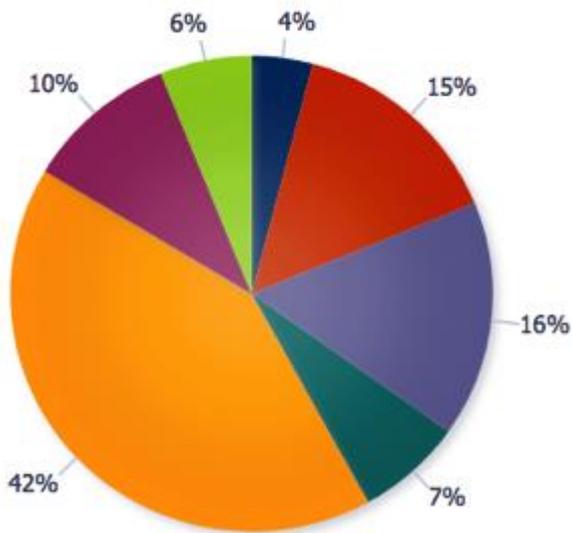
# U.S. Incidents with deaths or hospitalizations



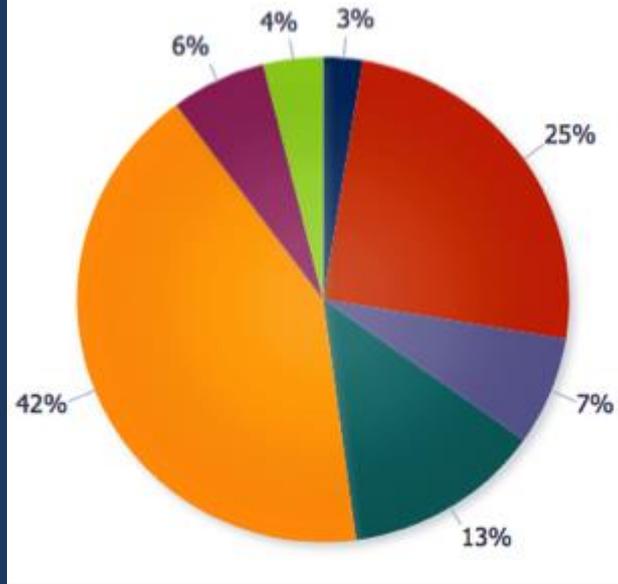
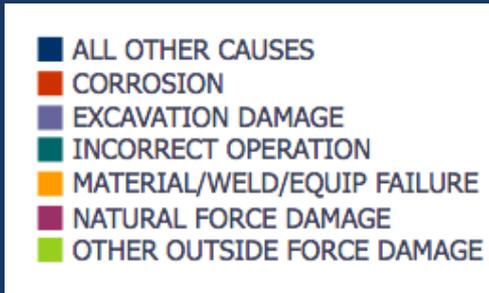
# Significant Incidents - All U.S. Regulates Pipelines



# Causes of Onshore Significant Incidents 2014 – 2018 1533 Total Incidents

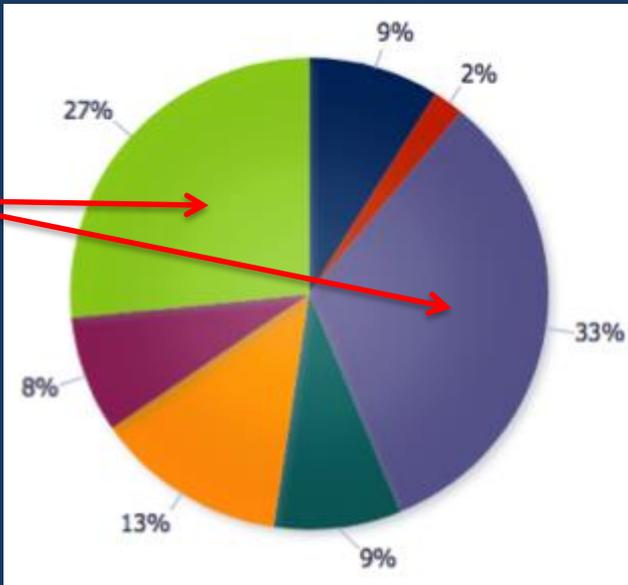


Gas Transmission



Hazardous Liquids

Local Government  
can help reduce  
these causes



Gas Distribution



# Washington Significant Incidents – Past Decade

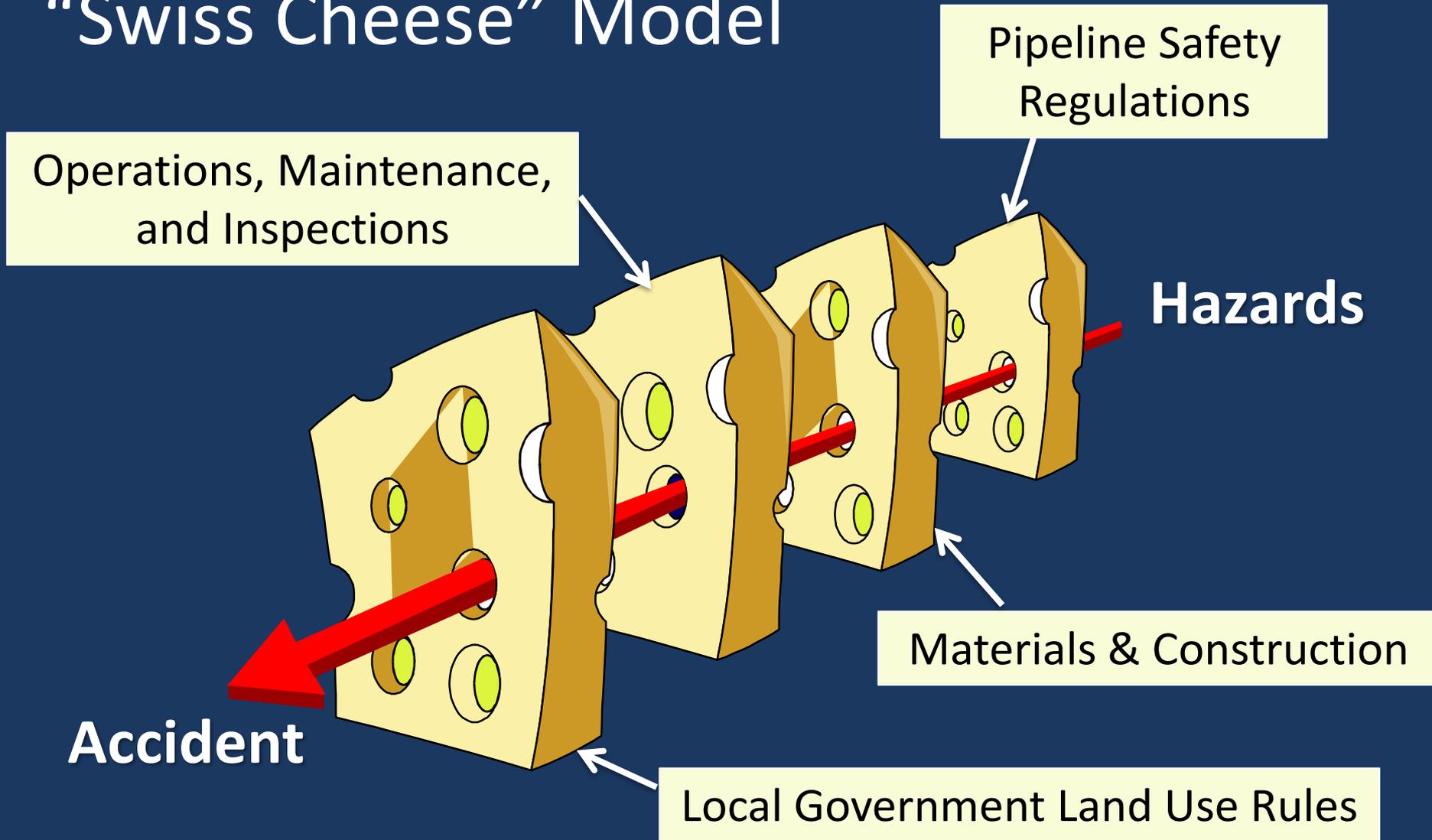
| Date       | Reported Cause of Incident  | County    | Operator Name               | System Type      | Fatalities | Injuries | Total Cost As Reported |
|------------|-----------------------------|-----------|-----------------------------|------------------|------------|----------|------------------------|
| 06/04/2011 | EXCAVATION DAMAGE           | KING      | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 0        | \$103,133              |
| 09/13/2011 | OTHER OUTSIDE FORCE DAMAGE  | KITSAP    | CASCADE NATURAL GAS CORP    | GAS DISTRIBUTION | 0          | 1        | \$59,201               |
| 09/26/2011 | OTHER OUTSIDE FORCE DAMAGE  | KING      | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 2        | \$511,500              |
| 04/28/2012 | OTHER OUTSIDE FORCE DAMAGE  |           | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 0        | \$155,350              |
| 03/14/2013 | MATERIAL/WELD/EQUIP FAILURE | WHITMAN   | GAS TRANSMISSION NORTHWEST  | GAS TRANSMISSION | 0          | 0        | \$544,030              |
| 04/12/2013 | EXCAVATION DAMAGE           | SPOKANE   | AVISTA CORP                 | GAS DISTRIBUTION | 0          | 0        | \$147,349              |
| 12/16/2013 | NATURAL FORCE DAMAGE        | CHELAN    | NORTHWEST PIPELINE LLC      | GAS TRANSMISSION | 0          | 0        | \$250,847              |
| 03/31/2014 | INCORRECT OPERATION         |           | WILLIAMS PARTNERS OPERATING | LNG              | 0          | 1        | \$87,293,060           |
| 11/10/2014 | MATERIAL/WELD/EQUIP FAILURE | SKAGIT    | OLYMPIC PIPE LINE COMPANY   | HAZARDOUS LIQUID | 0          | 0        | \$1,561,513            |
| 06/18/2015 | OTHER OUTSIDE FORCE DAMAGE  | KING      | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 2        | \$8,972                |
| 08/18/2015 | OTHER OUTSIDE FORCE DAMAGE  | KITSAP    | CASCADE NATURAL GAS CORP    | GAS DISTRIBUTION | 0          | 1        | \$1,006,935            |
| 03/09/2016 | OTHER OUTSIDE FORCE DAMAGE  | KING      | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 0        | \$3,018,172            |
| 03/29/2017 | MATERIAL/WELD/EQUIP FAILURE | PIERCE    | NORTHWEST PIPELINE LLC      | GAS TRANSMISSION | 0          | 0        | \$68,250               |
| 06/12/2017 | MATERIAL/WELD/EQUIP FAILURE | KING      | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 0        | \$183,374              |
| 08/02/2017 | EXCAVATION DAMAGE           | PIERCE    | MCCHORD PIPELINE CO.        | HAZARDOUS LIQUID | 0          | 0        | \$1,550,000            |
| 10/31/2018 | EXCAVATION DAMAGE           | THURSTON  | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 0        | \$127,509              |
| 09/01/2019 | OTHER OUTSIDE FORCE DAMAGE  | WHATCOM   | CASCADE NATURAL GAS CORP    | GAS DISTRIBUTION | 0          | 0        | \$401,753              |
| 10/11/2019 | EXCAVATION DAMAGE           | KING      | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 1        | \$9,738                |
| 06/30/2020 | EXCAVATION DAMAGE           | PIERCE    | PUGET SOUND ENERGY          | GAS DISTRIBUTION | 0          | 0        | \$565,554              |
| 12/20/2020 | OTHER OUTSIDE FORCE DAMAGE  | KLICKITAT | NORTHWEST PIPELINE LLC      | GAS TRANSMISSION | 0          | 0        | \$1,302,670            |

# U.S. Fatalities - Pipelines Compared to other Causes – 2014 data

- Heart Disease – 633,842
- Flu and Pneumonia – 57,062
- Occupant in passenger vehicle crash – 21,022
- Assault by firearm – 10,945
- Hit by vehicle while walking – 6,259
- Falling on stairs – 2,285
- Drowning in a swimming pool – 701
- Air transport accident – 412
- Earthquake and ground movement – 86
- Killed by tornado - 47
- Bitten or struck by dog – 36
- All Types of Pipelines - 26
- Hit by lightning - 25
- Gas Transmission Pipeline – 2

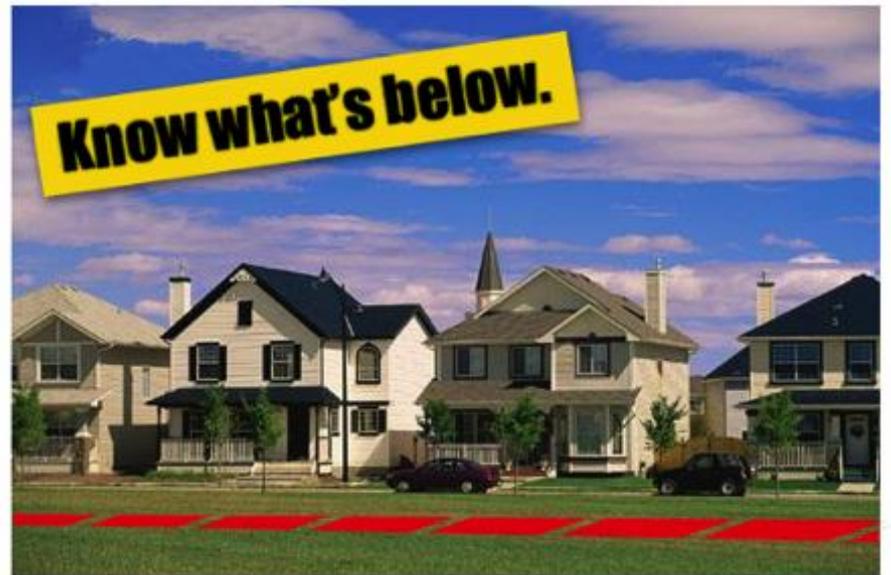


# “Swiss Cheese” Model



Successive layers of defenses, barriers, and safeguards

# What Can Local Government Do?



Help prevent excavation damage

- Require use 811 system
- Report others not using 811



# What Can Local Government Do? Planning Near Transmission Pipelines



Most  
pipelines  
were put in  
rural areas

But now growth is encroaching on many pipelines



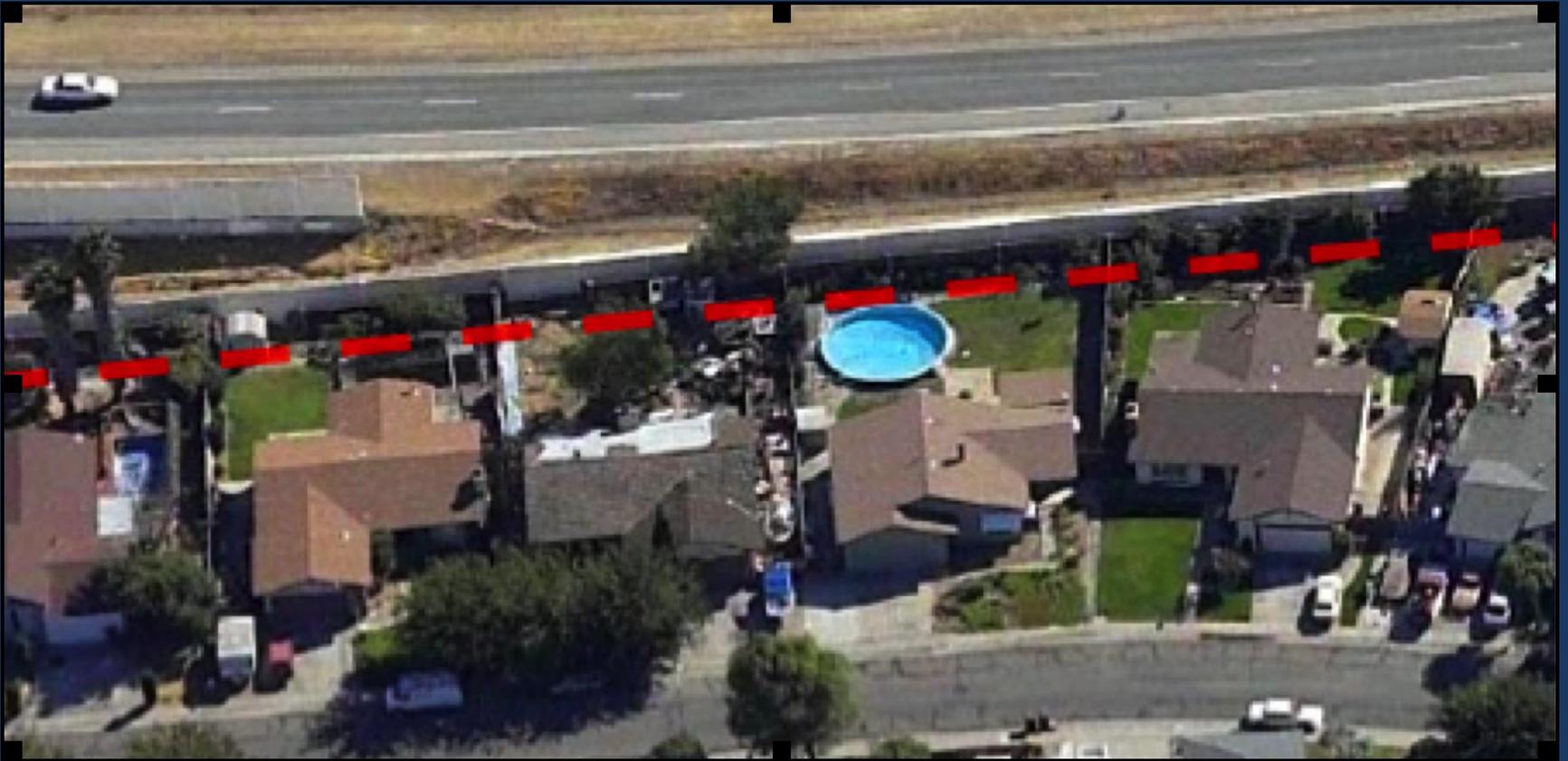
This creates an increased risk that communities should consider when planning



# Different types of development near pipelines



# Multiple layers of bad planning





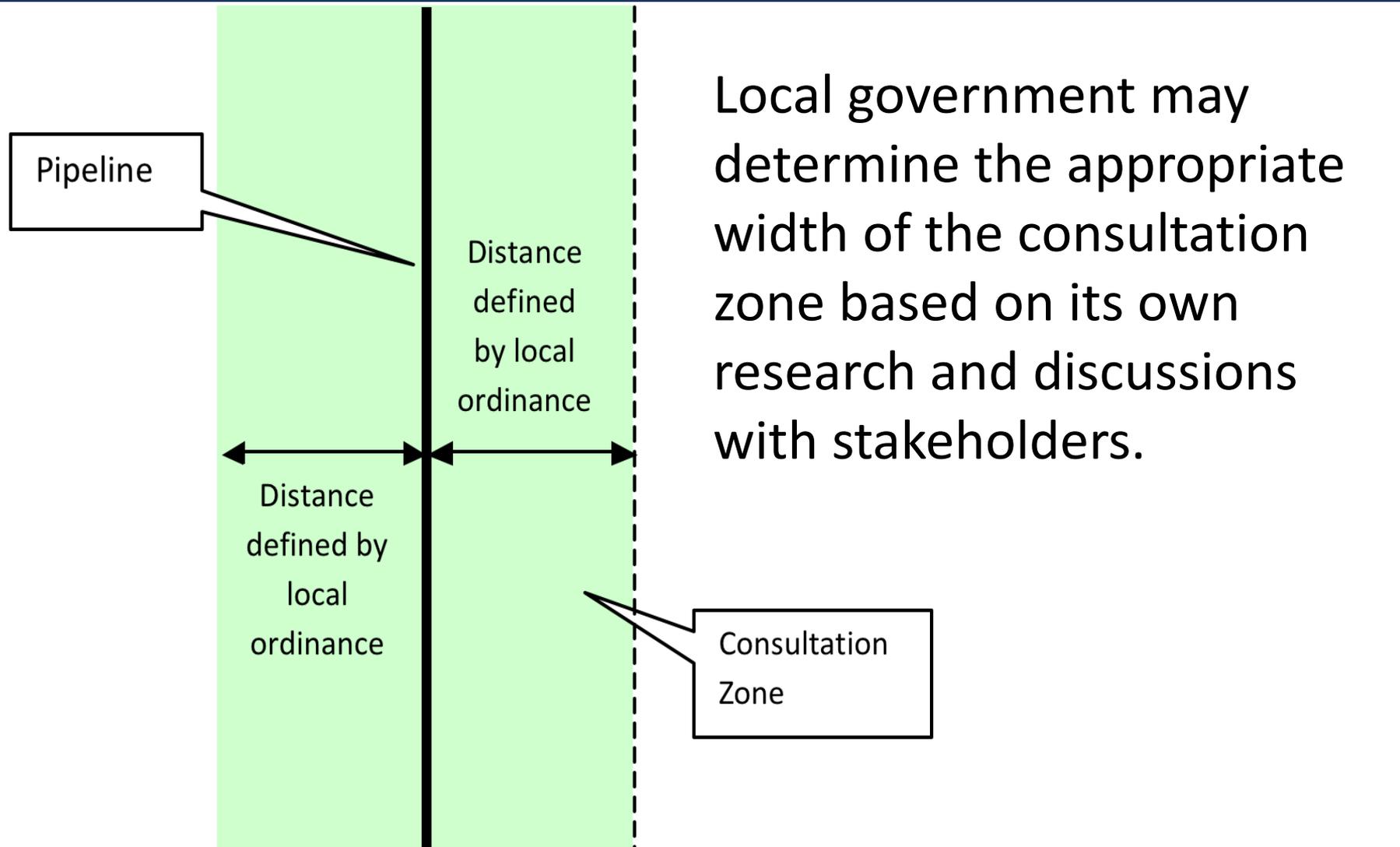
<http://PIPA-info.com>

## 45 Recommended Practices

**Partnering to Further Enhance Pipeline Safety  
In Communities  
Through Risk-Informed Land Use Planning  
Final Report of Recommended Practices  
November 2010**



# Consultation Zone – Requiring consultation between developers and pipeline companies



# Planning Area – Where risk reduction strategies apply

The area where you may want to impose additional development regulations to mitigate risk

## Types of Construction

- International Building Code
- National Fire Protection Association (NFPA) 5000



# Setbacks or Protection Zones

The area where you may want to restrict the allowed land uses or the conditions under which those uses will be permitted



Evacuation Plans

# What Can Local Government Do?

Ensure Your People Are Ready



# What Else Can Local Government Do?

Franchise and  
easement  
agreements

Consider applying to be a member of CCOPS

STATE OF WASHINGTON  
Citizens Advisory Committee on  
**Pipeline Safety**

Push for inclusion  
and engage your  
state and federal  
officials



Ensure there  
is a 3<sup>rd</sup> leg

# Lots of good information available!



## Come On Down to New Orleans and Join Us For The Pipeline Safety Trust's 9th Annual Conference

This year's theme is Developing Industry Awareness, which is a logical in check reference to the industry's decade old efforts to develop Public Awareness as is now even required in federal pipeline safety regulations. While we believe Public Awareness is a good thing, greater Public Involvement would be even better, so we will be discussing how to "close the gap between what the industry and public want to talk about."

We believe our conference is still the only pipeline safety conference in the country that brings together significant representation from concerned citizens, regulators, and the pipeline industry. With knowledgeable speakers addressing safety issues, creates a richer dialogue brought back many attendees year after year.

### We Need Your Help!

What makes our conference special are the ideas from, and interactions with, concerned and affected citizens. We have lots of people who would like to attend, but most of these people cannot afford to take time off work and spend \$1000 out-of-pocket for travel expenses to attend the conference.

### A few of this year's conference topics:

- Public Awareness vs. Public Involvement
- The wisdom of reporting out
- New state efforts on spill response
- Climate change and pipelines
- Safety Management Systems
- Why clear cut rights-of-way?
- Local government efforts to improve safety
- New pipeline siting and cost in charge?
- They do it different in California - Different strategies.

This year the conference will be held at the Royal Sonesta Hotel, bordering the heart of the historic French Quarter. Sessions are wonderfully educational, and the best part of the conference is the informal interactions with different attendees, the conference reception, while out in New Orleans food, or at the annual La Cade Du Monde for a piece of being in New Orleans.



**Partnering to Further Enhance Pipeline Safety  
In Communities  
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Final Report of Recommended Practices  
November 2010**

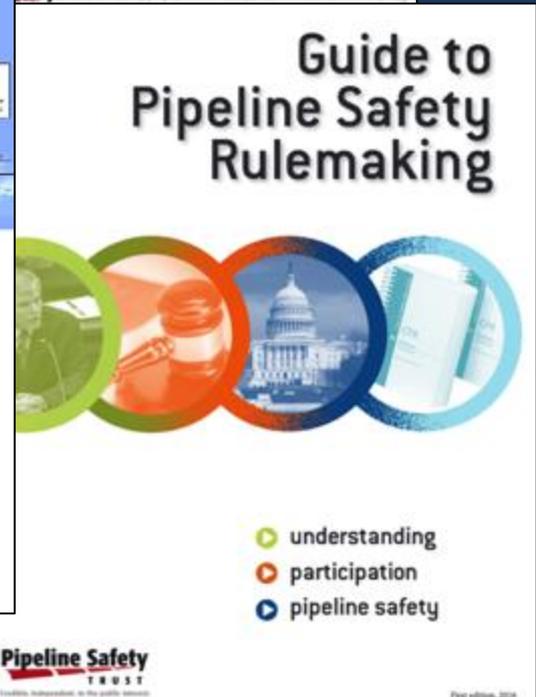
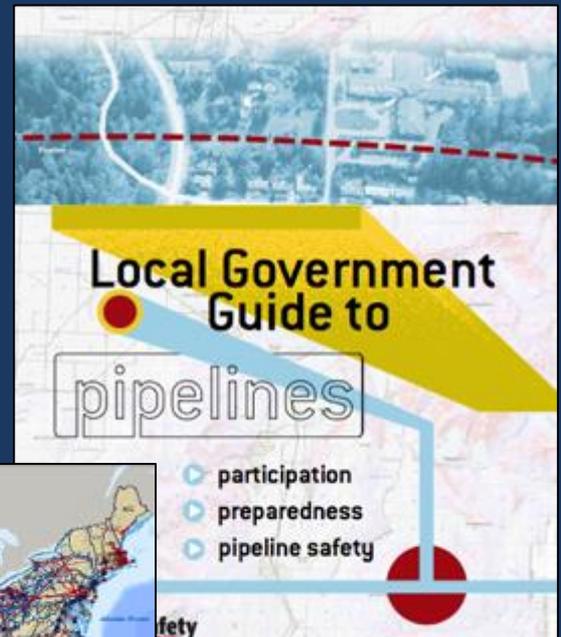


## Hazard Mitigation Planning: Practices for Land Use Planning and Development near Pipelines

2015

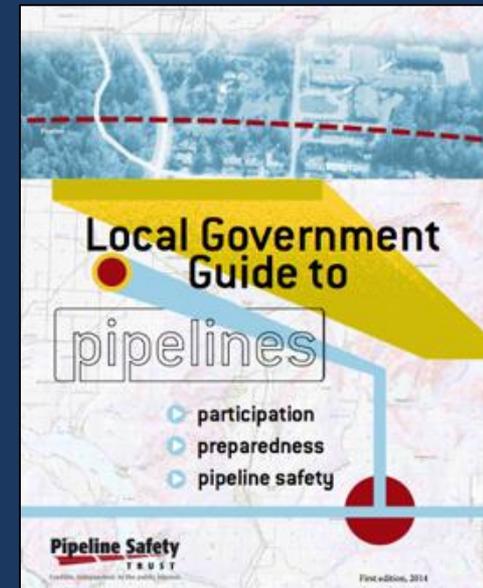


U.S. Department of Transportation  
**Pipeline and Hazardous Materials  
Safety Administration**



# Where to get more information?

- PHMSA Stakeholder website –  
<http://primis.phmsa.dot.gov/comm/Index.htm>
- Washington Utilities and Transportation Commission  
<https://www.utc.wa.gov/publicSafety/pipelineSafety/>
- Washington Municipal Research and Services Center  
<http://mrsc.org/Subjects/PubSafe/transpipes.aspx>
- Pipeline Safety Trust - <http://pstrust.org/>
- Individual Pipeline Companies
- Pipeline Association of the Northwest –  
<https://panw.pipelineawareness.org/>



Thanks for listening and for your  
interest in pipeline safety!

Questions??



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Independent.  
In the public interest.**

Carl Weimer, Special Projects Advisor

Pipeline Safety Trust

<http://www.pipelinesafetytrust.org>

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