

Pipeline Safety In Spokane County



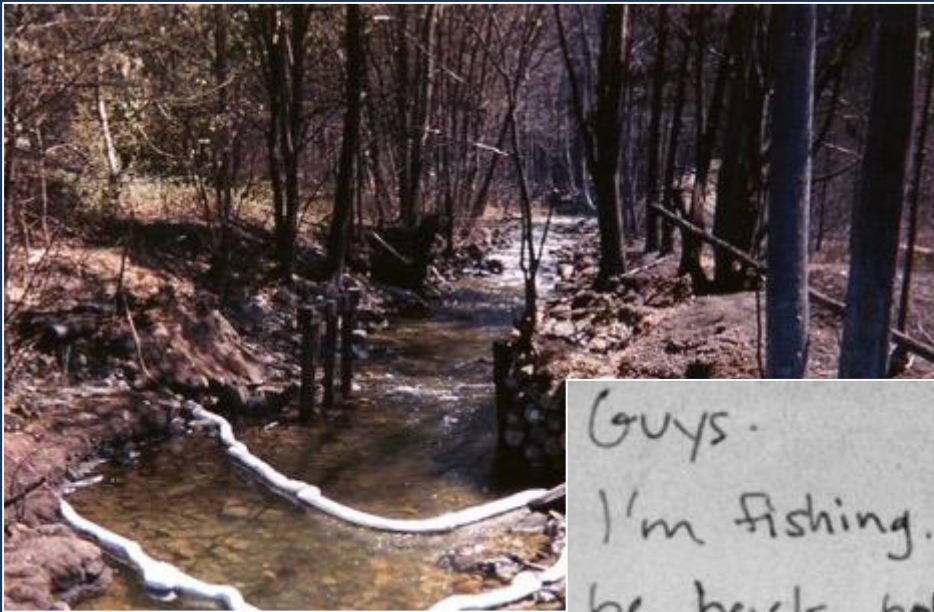
Carl Weimer, Special Projects Advisor

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

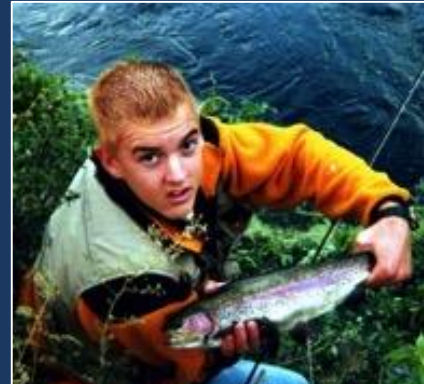


The Pipeline Safety Trust

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

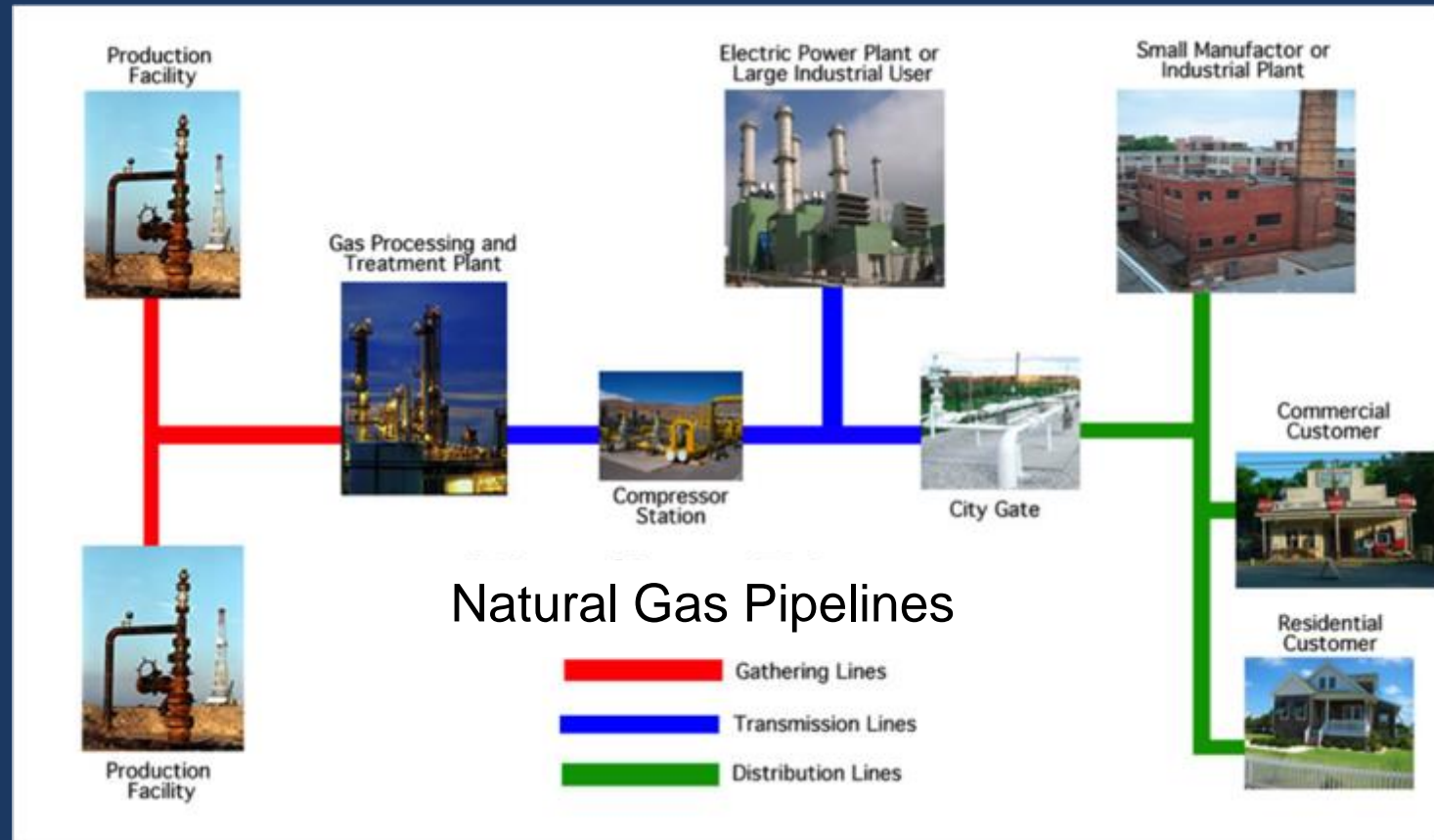
Natural Gas Pipelines

- Transmission lines
- Distribution lines

Hazardous Liquid Pipelines

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

- Transmission lines



INTERstate pipelines vs. INTRAstate pipelines

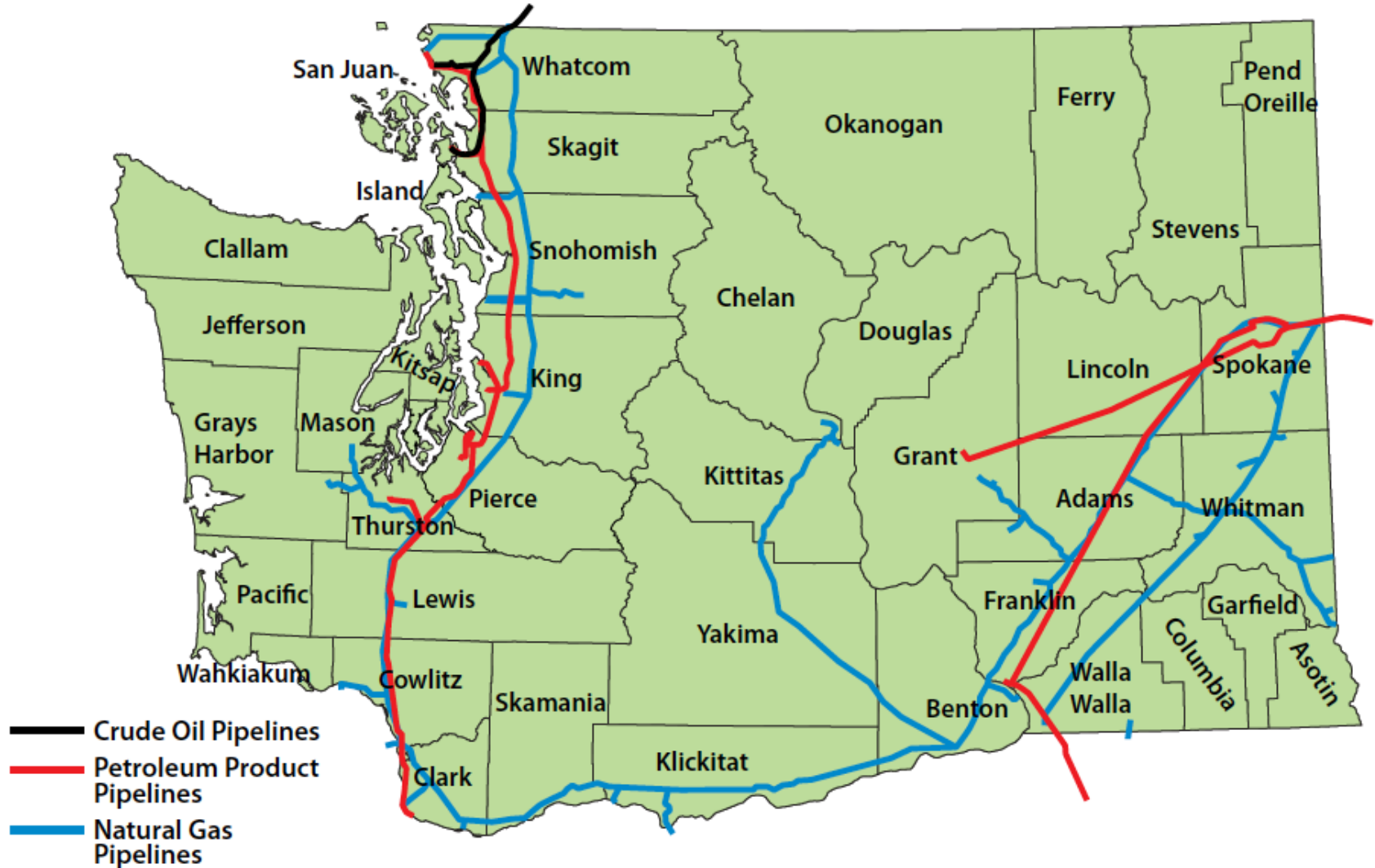
National and Washington Pipeline System

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
Total	2,771,543	44,753

* Data from PHMSA as of 10/30/2019

Transmission Pipelines In Washington



Who Currently Operates Pipelines in Spokane County?

Pipeline Operator ID Number & Name	Carries
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

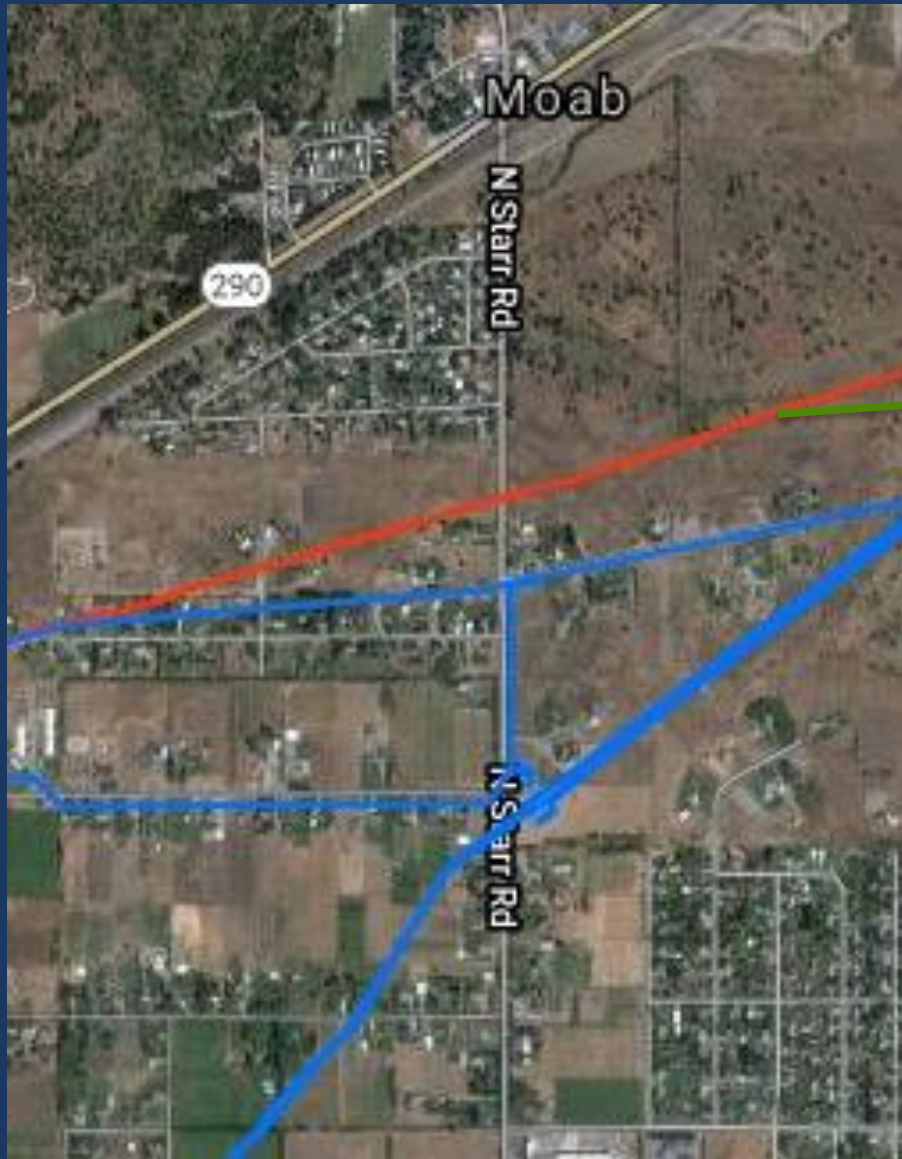


Where are the
major pipelines in
Spokane County?



National Pipeline Mapping
System

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



31684

Attribute	Value
Category: PIPELINE ATTRIBUTES	
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
Category: GENERAL CONTACT	
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	https://www.phillips66pipeline.com/

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?



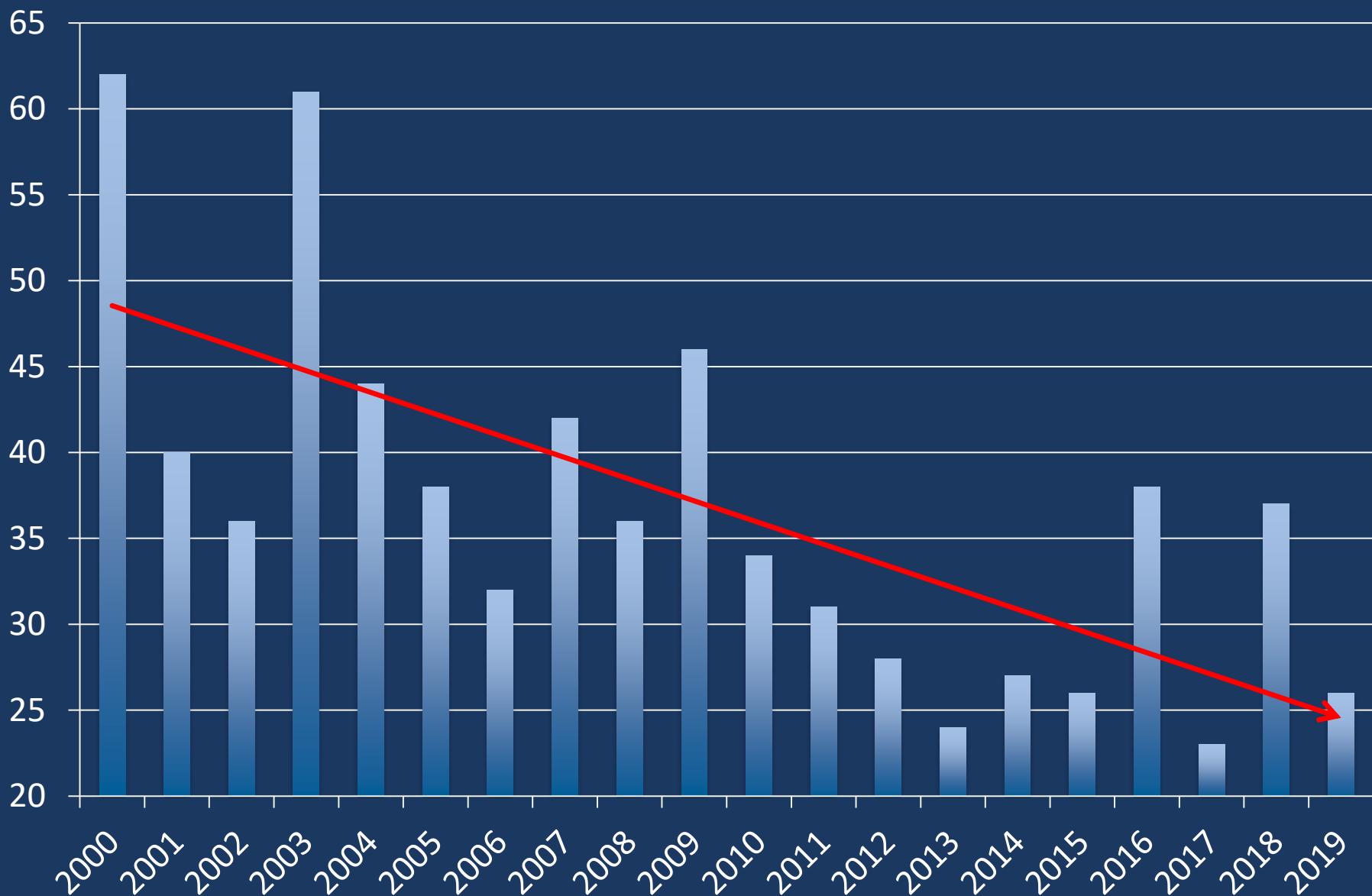
What can the consequences be?



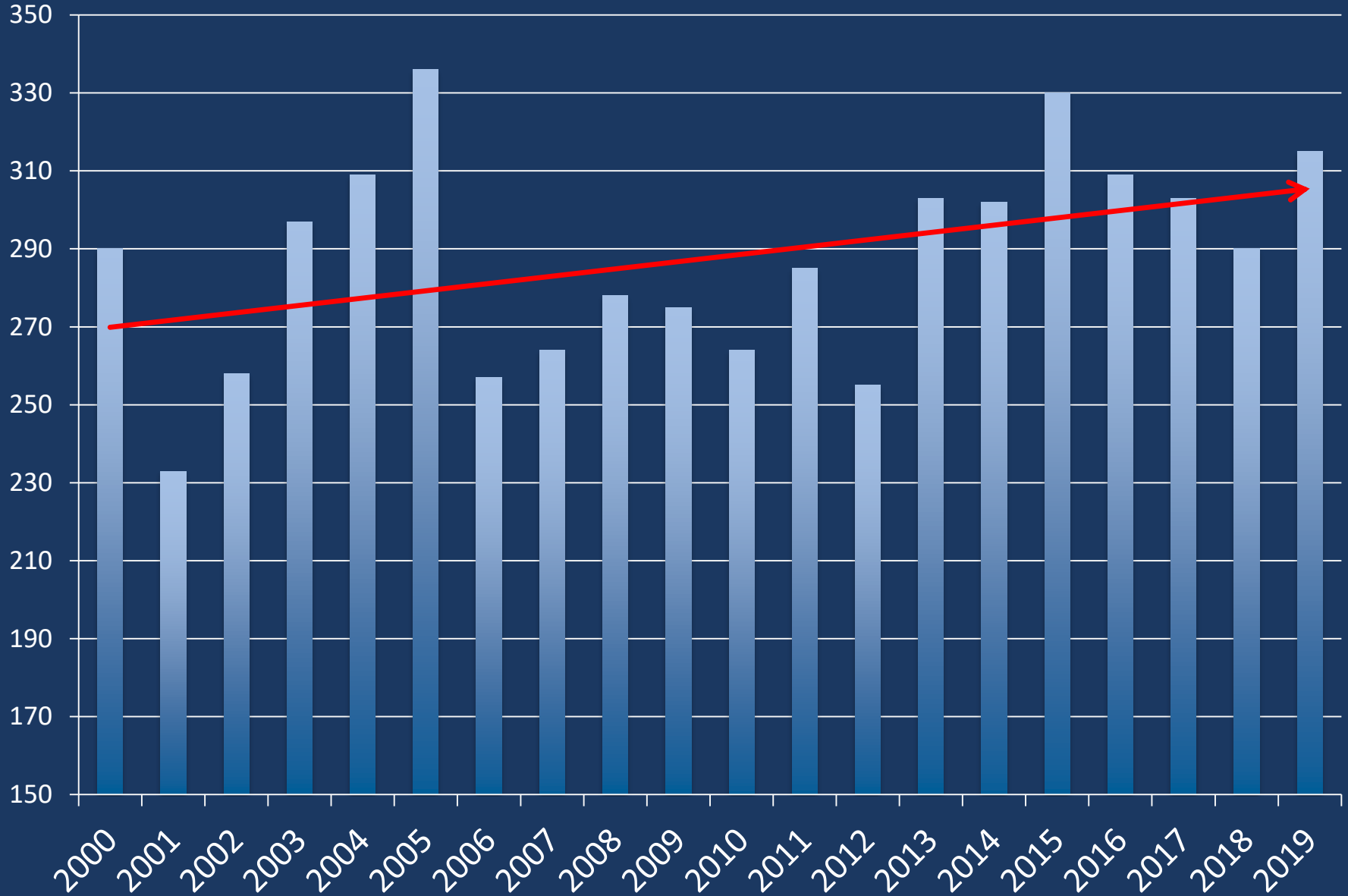
Pressure Impacts



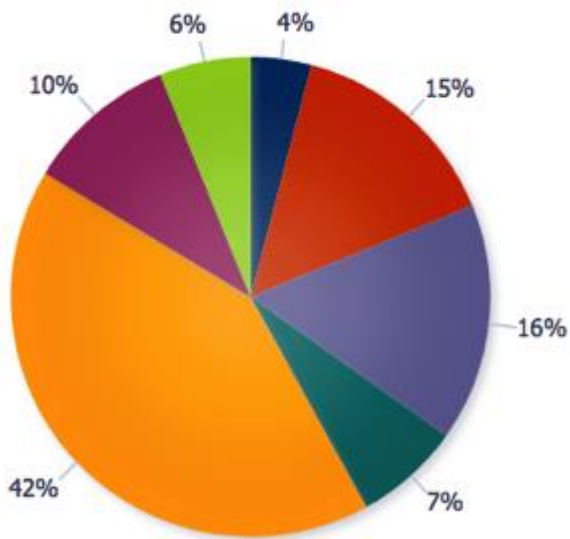
U.S. Incidents with deaths or hospitalizations



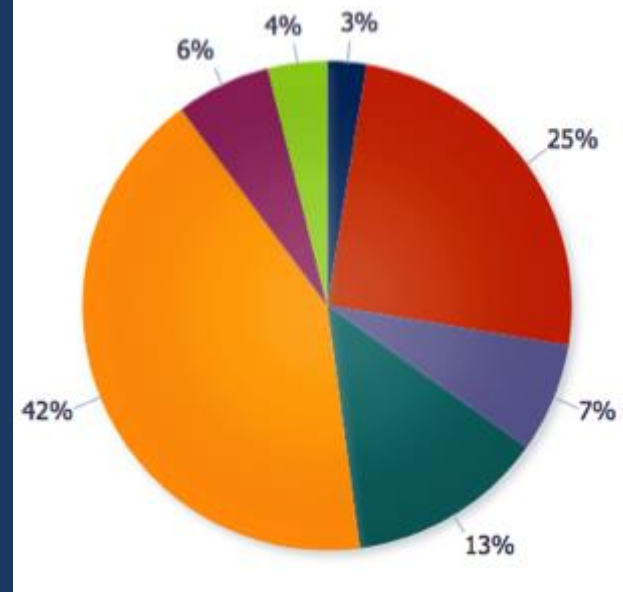
Significant Incidents - All U.S. Regulates Pipelines



Causes of Onshore Significant Incidents 2014 – 2018 1533 Total Incidents

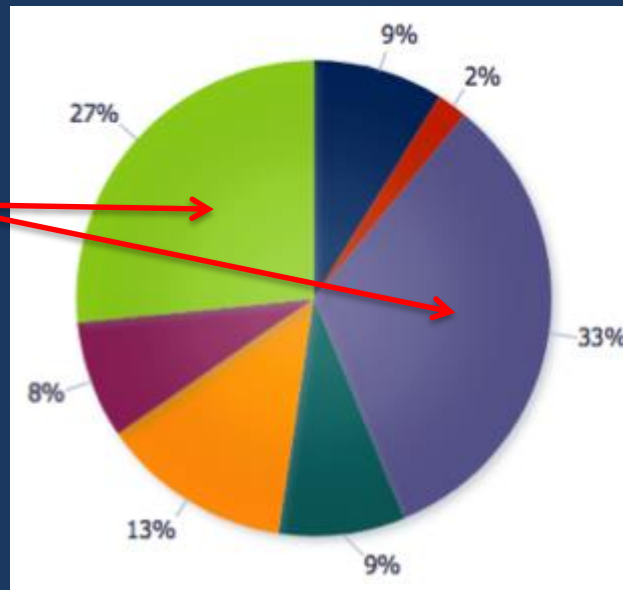


Gas Transmission



Hazardous Liquids

Local Government
can help reduce
these causes



Gas Distribution



Washington Significant Incidents – Past Decade

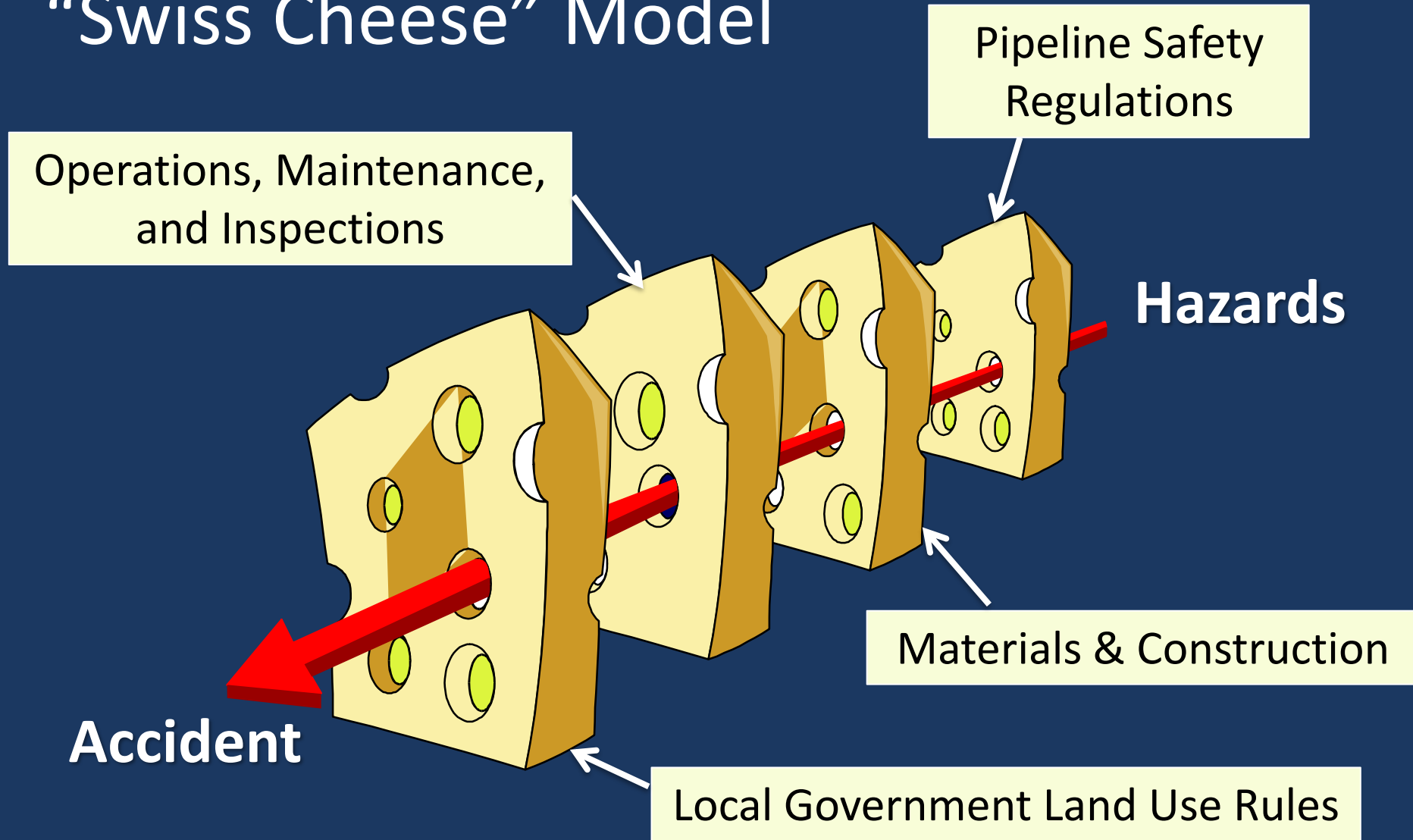
Date	Reported Cause of Incident	County	Operator Name	System Type	Fatalities	Injuries	Total Cost As Reported
06/04/2011	EXCAVATION DAMAGE	KING	PUGET SOUND ENERGY	GAS DISTRIBUTION	0	0	\$103,133
09/13/2011	OTHER OUTSIDE FORCE DAMAGE	KITSAP	CASCADE NATURAL GAS CORP	GAS DISTRIBUTION	0	1	\$59,201
09/26/2011	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





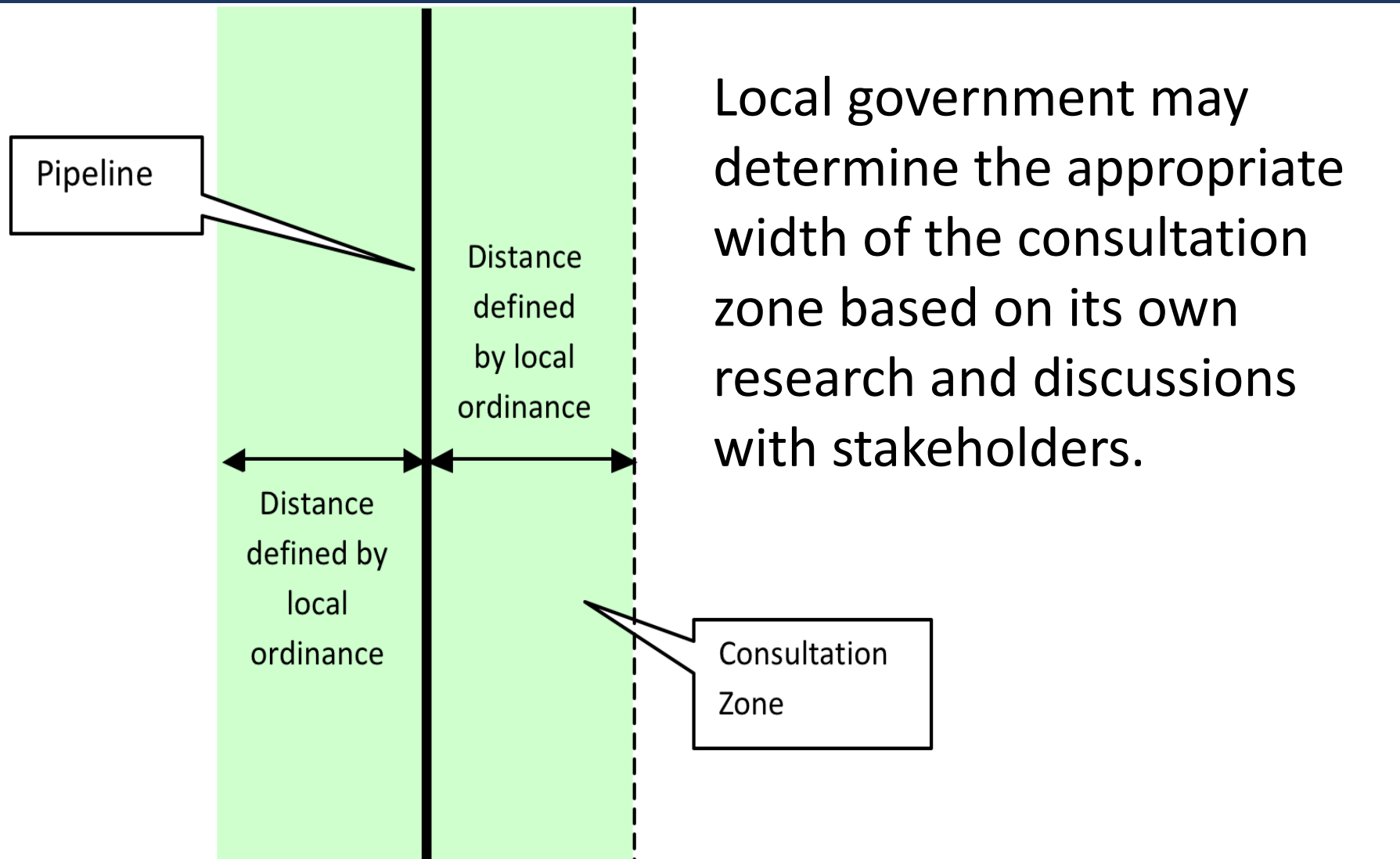
**Partnering to Further Enhance Pipeline Safety
In Communities
Through Risk-Informed Land Use Planning
Final Report of Recommended Practices
November 2010**



<http://PIPA-info.com>

45 Recommended Practices

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 3rd 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 tongue in cheek 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 examining here 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 address safety issues, creates a richer dialogue brought back many strategies your ally.

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 on pipeline safety
- New state efforts on spill response
- Climate change and pipelines
- Safety Management Systems
- Why clear cut rights-of-way?
- Local government efforts to improve pipeline safety
- New pipeline siting and construction in charge?
- They do it different in Canada: lessons learned?
- Fees or no fees - Differing strategies.

This year the conference will be held at the Ritz-Carlton Hotel, overlooking the heart of the historic French Quarter. Sessions are wonderfully educational, that the best part of the conference is the networking with different and the conference reception, while out in New Orleans food, or at the annual ball at the Caesars Superdome for a place of being.



**Partnering to Further Enhance Pipeline Safety
In Communities
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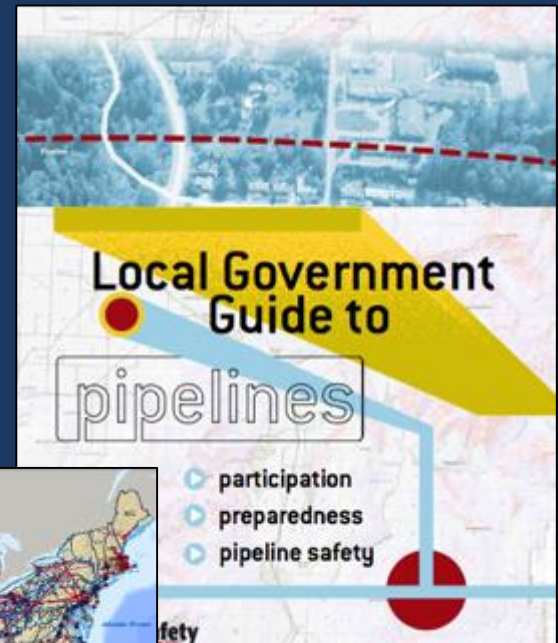


Hazard Mitigation Planning: Practices for Land Use Planning and Development near Pipelines

2015



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



Guide to Pipeline Safety Rulemaking



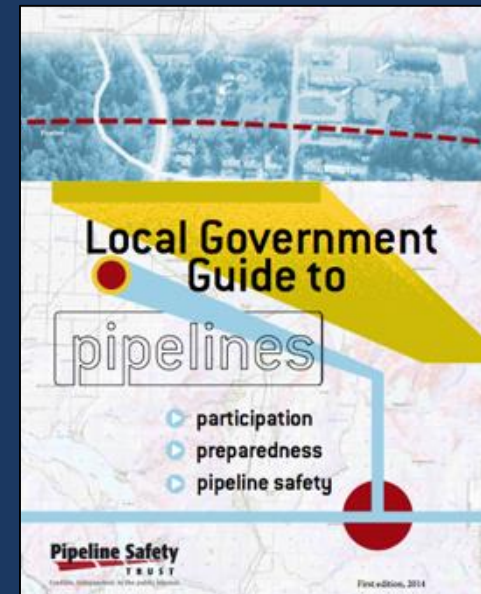
- understanding
- participation
- pipeline safety

**Pipeline Safety
TRUST**
Credit: International Pipeline Safety Trust

Fifth edition, 2014

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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Carl Weimer, Special Projects Advisor

Pipeline Safety Trust

<http://www.pipelinesafetytrust.org>

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