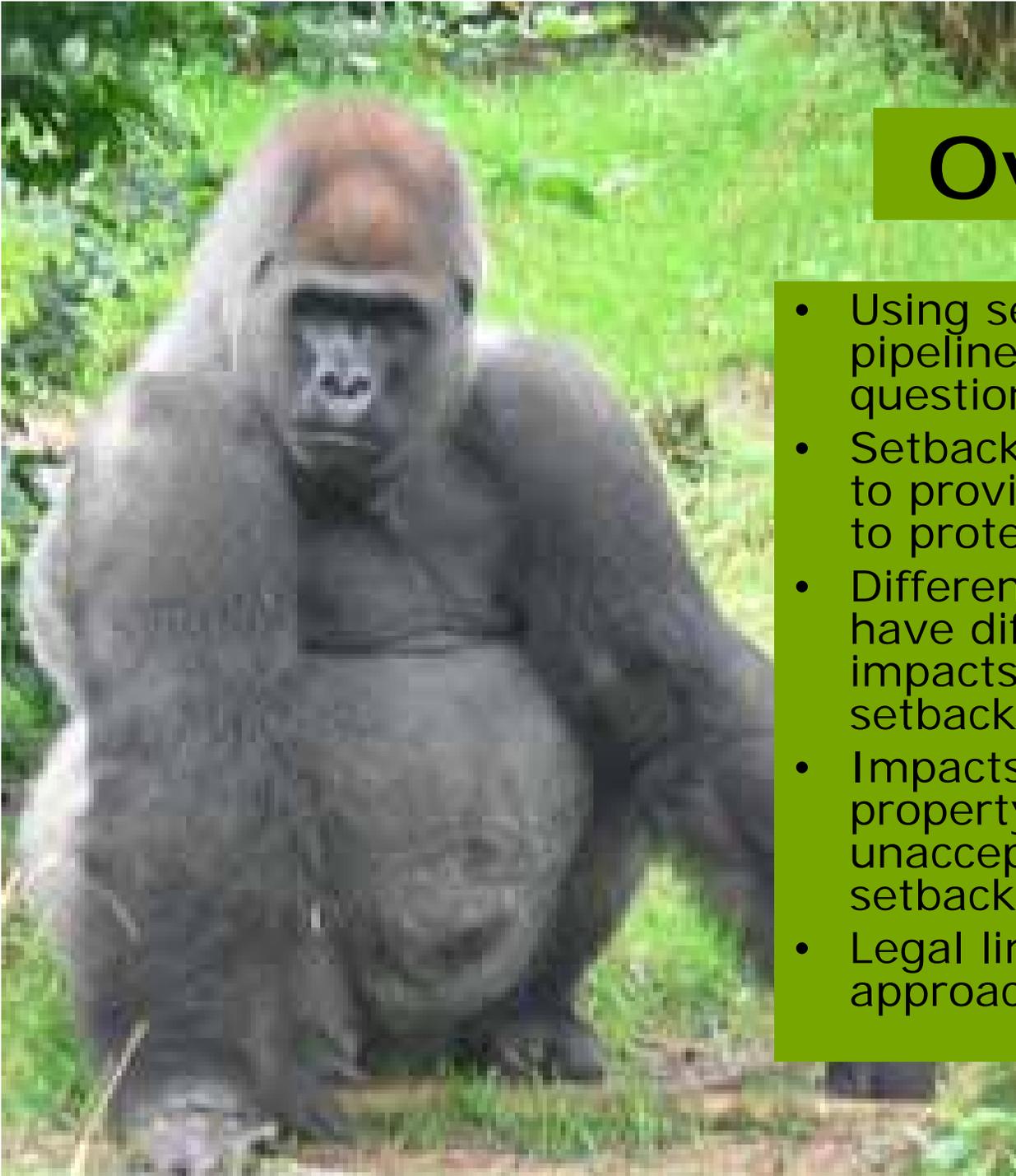


The 800 Pound Gorillas

Carol M. Parker

A photograph of a gorilla sitting in a grassy field. The gorilla is the central focus, with its head and shoulders visible. It has dark grey fur and a prominent silver back. The background is a blurred green field.

Overview

- Using setbacks to make pipelines safer raises difficult questions
- Setbacks usually are intended to provide an adequate distance to protect others from impacts
- Different types of pipelines have different patterns of impacts frustrating the usual setback approach
- Impacts (death, injuries and property damage) are unacceptable within any setback
- Legal limitations make this approach difficult to execute

What Are We Really Talking About?



Sizing the Ground Area Potentially Impacted by the Failure of a High-Pressure Natural Gas Pipeline

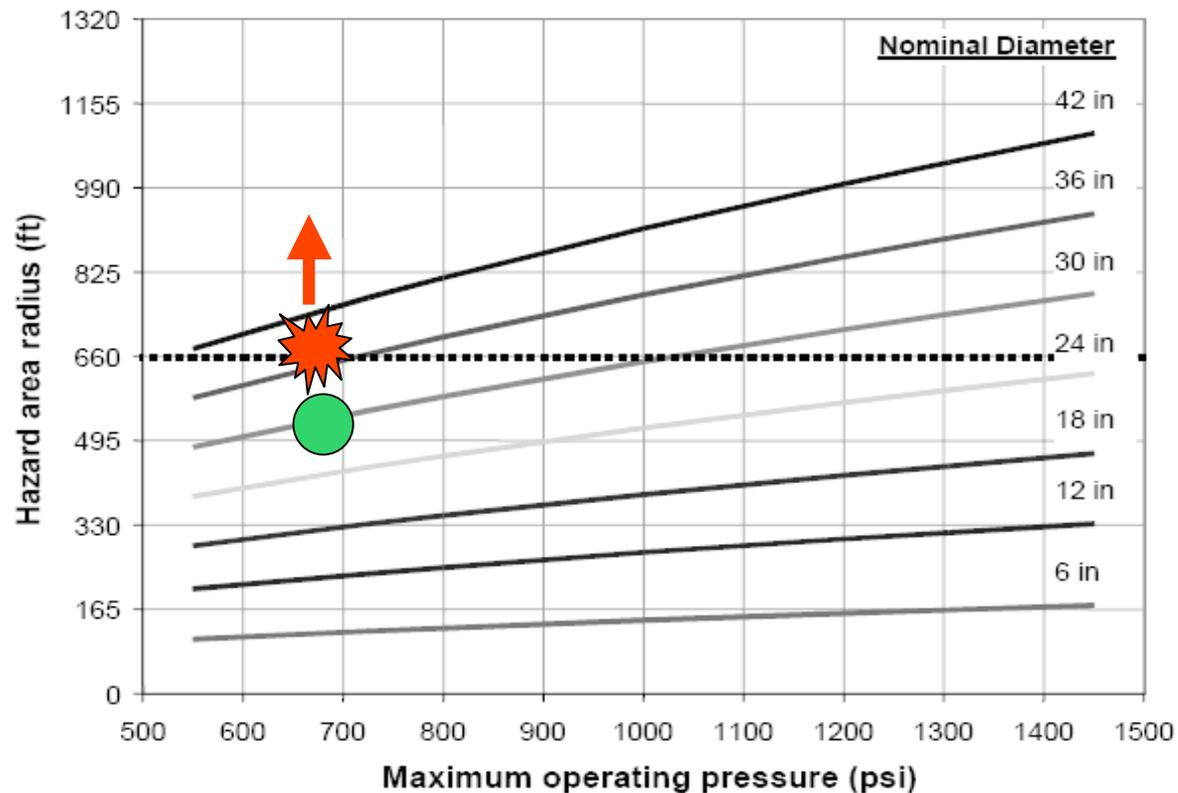


Figure 2.4 Proposed hazard area radius as a function of line diameter and pressure

First 800 Pound Gorilla

In order for a setback to provide meaningful protection from a gas pipeline, it will have to be hundreds of feet wide



The Rules Are Different for Liquid Pipelines



Second 800 Pound Gorilla

**Impacts of liquid
pipelines
follow zones
based on
terrain and
wind direction**



Third 800 Pound Gorilla

**Pipeline
companies
change the use
of pipelines
from gas to
liquid or liquid
to gas**





Fourth 800 Pound Gorilla--The potential impact of an accident is too severe to be compatible with any land use





Fifth 800 Pound Gorilla—Setbacks can't be used to protect people from distribution pipelines because they bring energy to each individual property



Figure 2. Damage to 404, 406, and 408 Alabama Avenue



Sixth 800 Pound Gorilla--Excavation damage affects all types of pipelines but a focus on adequately protected rights-of-way only addresses transmission pipelines

2005-2006 Excavation Pipeline Incidents

	# Incidents	2006 Onshore Mileage	Incidents per 10,000 miles
Gas Transmission	42	307,666	1.36
Liquid Transmission	36	159,728	2.25
Gas Distribution	112	1,214,464	0.92



Seventh 800 Pound Gorilla—Setback rules would need to work bilaterally to be effective

If a local government prohibits certain types of structures, e.g., those difficult to evacuate, near transmission pipelines, it would also have to be able to prohibit transmission pipelines from being located near those types of structures AND prohibit a pipeline company from changing the use of the pipeline—but local government would probably be preempted from doing those things.



Eighth 800 Pound Gorilla—a focus on land use planning does nothing about current pipeline safety problems because existing structures would almost certainly be grandfathered



8 Questions

1. If we need to protect transmission pipeline rights-of-way, why not accomplish that through regulations for mandatory minimum easement terms? Give companies ten years to bring all rights-of-way into compliance through use of eminent domain and payments to property owners.



8 Questions

2. Why don't we have uniform and serious enforcement of One Call requirements?



8 Questions

3. Why don't we require licensing and certification of backhoe operators?



8 Questions

4. Why don't we require the use of warning tape in all new pipeline installations and in all pipeline repairs?



8 Questions

5. Why aren't there regulations about what constitutes adequate maintenance of rights-of-way (are tree roots really a problem?)



8 Questions

6. Why don't we require pipeline companies to maintain a minimum burial depth of the pipeline below ground surface?



8 Questions

7. Why are there so many more incidents on transmission pipelines per mile than on distribution pipelines? Why don't we apply the answer to reduce the incidents of excavation incidents on transmission pipelines?



8 Questions

8. What are the odds that all local governments will actually impose the recommended setback limitations? And how long will that take to become effective?

The 100 Pound Chimpanzees

