



U. S. Department of Transportation

Pipeline and Hazardous Materials  
Safety Administration

---

[www.dot.gov](http://www.dot.gov)



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# **Pipelines and Informed Planning Alliance (PIPA)**

## **Land Use Planning Examples & Resources**

**Presented by Blaine Keener, PHMSA  
January 15, 2008**





WARNING  
PIPE ROLLING



TRY OUR  
BIG  
YOUR OF MEAT







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

# Community Growth

- **Communities throughout our Nation are Expanding**
- **Community Growth is Managed at the County, City, or Township Level**
  - **Texas has 254 Counties**
  - **Rhode Island has 5 Counties**
- **Disparate Management of Development along Transmission Pipeline ROW**





U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Excavation Damage to Pipelines

- **Excavation Damage happens locally and a people are usually close by**
- **Gas Transmission & Hazardous Liquid Pipeline Excavation Damage from 2002 thru 2006:**
  - **14% total Significant Incidents**
  - **9 Fatalities (70% total)**
  - **9 Injuries (19% total)**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Communities are Pipeline Safety Stakeholders

- **Residents along ROW are Directly Impacted by Pipeline Incidents**
- **Residents May be the First to Identify a Pipeline Incident**
- **API RP 1162 Public Awareness Programs for Pipeline Operators seeks improved awareness by the public, local government officials, and excavation contractors**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# PIPA Advance Materials

- **Risk-Informed Land Use Planning Familiarization Material**
  - Risk Concept
  - Risk Characterization in the Pipeline Industry
  - Overview of Role of Risk in Land Use Planning
- **Word document covers the basics**
- **Excel spreadsheet covers additional topics**
  - Land Rights
  - Communication Process



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Examples of Local Guidance

- **Washington State Model Ordinances**
- **Municipal Code of Edison (NJ)  
Township**
- **City of Austin Hazardous Liquid Pipeline  
Ordinance**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Washington State Model Ordinances

- **Setback for buildings 50 feet from edge of ROW**
- **Noted that setback designed to protect the pipeline from damage during building construction**
- **Protection of people achieved through restricting allowed building uses**
- **Comprehensive model Franchise ordinance**



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

# **Municipal Code of Edison (NJ) Township**

- **Interference with pipelines in Section 17.08.210**
- **No building or land disturbance within 75 feet of any pipeline**
- **No building containing hazardous materials within 125 feet of any pipeline**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Austin, TX Hazardous Liquid Ordinance

- **“Use requiring evacuation” prohibited within 500 ft of pipeline**
- **New construction within 200 ft of pipeline must meet enhanced building code**
- **No structures or excavation within “restricted pipeline area” (within 25 feet of pipeline)**
- **Residential lot less than 1 acre cannot include a “restricted pipeline area”**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Existing Resources

- **Washington State Consultation Process**
- **API Guidelines for Property Development**
- **National Pipeline Mapping System (NPMS)**
- **Public Awareness Programs**





U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Consultation Process in Washington State

- **Focus is on promoting stakeholder communication when considering changes to land use near existing transmission pipelines**
- **Consultation should take place if proposed development is within 660 feet of pipeline**
- **Roles and responsibilities for participants in consultation are proposed**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Beyond the Consultation Process

- **Draw property development stakeholders into the process**
- **Risk-informed guidance allowing land use planners to “calculate” size of the consultation zone based on basic pipeline characteristics**
- **Risk mitigation measures, such as more stringent building codes near transmission pipelines**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# API Guidelines for Property Development

- **Similar to document prepared independently by many gas transmission and liquid pipeline operators**
- **Describe unacceptable ROW uses**
- **Setbacks for specific structures, roads, and vegetation**
- **Measures setbacks from center of pipeline**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# National Pipeline Mapping System (NPMS)

<http://www.npms.phmsa.dot.gov/>

**PIMMA**  
Pipeline Integrity Management  
Mapping Application

Click Here to Apply  
for PIMMA Access

Already have a Username?  
Log on here:

- PIPELINE OPERATOR
- FEDERAL GOVERNMENT
- STATE & LOCAL GOVERNMENT

The banner features a background image of a pipeline running through a forested valley with mountains in the distance. The text is overlaid on the image in various colors and fonts. A yellow button with black text is positioned in the upper right, and three white buttons with black text are stacked in the lower left.



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# NPMS

- **Layered Geographic Information System (GIS)**
- **Public and Local Official access through the Pipeline Integrity Management Mapping Application (PIMMA)**
- **Local officials are allowed to release information obtained through PIMMA and show pipelines on Planning Maps**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# PHMSA's Public Awareness History

- **Pipeline Safety Regulations Requiring:**
  - **Damage Prevention awareness for Excavators**
  - **Emergency Plans for Fire, Police, & Public Officials**
  - **Public Education**
- **Participant in American Petroleum Institute (API) committee to create API RP 1162**
- **Operator workshops in 2003 and 2005**
- **Final Rule published May 2005 requiring RP 1162-style programs by June 20, 2006**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Pipeline Operator Public Awareness Programs

- **Baseline Program**
  - Applied to all portions of pipeline system
  - Creates minimum level of Awareness among all Stakeholder Audiences
- **Supplemental Enhancements**
  - When conditions along the pipeline suggest a more intensive effort is needed
  - Land Development Activity is one condition to be considered



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Baseline Program

- **Pipeline awareness targets Residents along pipeline ROW**
- **New emphasis on raising awareness among Local Public Officials – permit agencies and planning & zoning officials**
- **Land Use Guidance created through PIPA would be used by these same Local Public Officials**





U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# Supplemental Program

- **Supplemental Messages to Local Public Officials include ROW encroachment prevention**
- **Supplemental Messages to Land Developers and Real Estate Agents include ROW encroachment prevention and NPMS**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# **PHMSA Pipeline Safety Stakeholder Communications Web Site for PIPA**

- **Land Use Planning Examples and Resources already available**
- **PIPA Advance Materials will be posted**
- **All presentations from January 2008 PIPA meetings, both Plenary and Task Team, will be posted**
- **<http://primis.phmsa.dot.gov/comm/PIPA.htm>**



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

# THE END

## Questions ???

**Presented by Blaine Keener**

**Community Assistance & Technical Services Coordinator**

**202-366-0970**

**[blaine.keener@dot.gov](mailto:blaine.keener@dot.gov)**



U. S. Department of Transportation

Pipeline and Hazardous Materials  
Safety Administration

---

[www.dot.gov](http://www.dot.gov)