

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

PIPA is a stakeholder initiative led and supported by the US Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). PIPA's goal is to reduce risks and improve the safety of affected communities and transmission pipelines through implementation of recommended practices related to risk-informed land use and development near transmission pipelines. The PIPA recommended practices are not mandated by any public or private entity. However, they were developed by task teams of representative stakeholders using a consensus agreement process and the PIPA participants recommend that all stakeholders become aware of and implement the PIPA recommended practices where appropriate.

The PIPA recommended practices describe actions for key stakeholders, including property developers/owners, local government, transmission pipeline operators, and real estate commissions to improve pipeline safety. Property developers/owners are encouraged to become familiar with each of the recommended practices. Even though the property developers/owners tor may not be taking action under a practice, the property developers/owners may be affected by other stakeholders implementing the practice.

Within the PIPA Report, each recommended practice includes the practice title, a brief practice statement, the stakeholder audience intended to take action to implement the practice, practice details, and references if applicable. The recommended practices are grouped into one of two scenarios:

- Baseline (BL) Recommended Practices These practices should be implemented by stakeholders in preparation for future land use and development.
- New Development (ND) Recommended Practices These practices should be implemented by stakeholders when specific new land use and development projects are proposed.

A key PIPA recommended practice promotes consultation between property developers/owners and transmission pipeline operators early in the development process, so that development designs minimize risks to the populace living or working nearby and are consistent with the needs and legal rights of the operators. This is an important concept to put into practice. If the transmission pipeline operator is involved early in the development process, there should be adequate time to incorporate the operator's concerns into the design. Property developers/owners have an opportunity to influence pipeline and community safety through siting, design and construction considerations. The PIPA recommended practices ND11 – ND23 promote ways to:

- 1. Reduce pipeline risk maximize the separation between the structure and the pipeline right of way
- 2. Prevent interference with emergency response and pipeline operations & maintenance
- 3. Prevent environmental contamination
- 4. Reduce the likelihood of excavation damage
- 5. Consider pipeline noise and odor
- 6. Consider ability to evacuate

#### **PIPA Recommended Practice Evaluation Worksheet**

This worksheet was developed to facilitate a property developer/owner's review of the PIPA recommended practices compared with their current practices. The practices are grouped in functional categories which include: Land Planning and Development, Pipeline Maintenance & Damage Prevention, Maps & Records, and Communication. Practices for which property developers/owners have a primary action are presented first. Practices for which other stakeholders have the primary action are shaded and follow those for property developers/owners.

The worksheet includes each PIPA recommended practice statement, actions property developers/owners might consider to implement the practice, and a column for use in describing the property developers/owner's current relevant practices and the actions needed or that are being considered to address the recommended practice. The <u>PIPA Report</u> contains the recommended practices in their entirety. Transmission pipeline locations can be found in the <u>National Pipeline Mapping System</u> (NPMS).

The following is an example of how property developers/owners might evaluate PIPA Recommended Practice ND06:

<i>PIPA RP #</i>	Practice Title and Description	Property Developer/Owner Practice	Current Practice Action(s) Needed or Considered
ND06	Require Consideration of Transmission Pipeline Facilities in Land Development Design Whenever development is proposed on property containing transmission pipeline facilities, local governments should require that the submitted land development plans address in detail the steps necessary to safely integrate the transmission pipeline into the design of the project. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	Address the detailed steps necessary to safely integrate the affected transmission pipelines into the design of the project. This should be included along with other issues that must be addressed as part of the land development review process, such as the availability of potable water, sewer, adequate roads, environmental constraints, etc. Document that PIPA Recommended Practices ND11 through ND23 were considered, as applicable, for new land development located within a transmission pipeline planning area, to reduce the potential safety impacts of transmission pipeline incidents and to avoid interference with pipeline operations and emergency response.	

For more information, property developers/owners can contact the PHMSA Community Assistance and Technical Services (CATS) representatives. Email: <u>Christie.Murray@dot.gov</u>.

<i>PIPA RP #</i>	Practice Title and Description	Property Developer/Owner Practice	Current Practice	
			Action(s) Needed or Considered	
	<b>Recommended Practices:</b>	Primary Action for Property Developer,	/Owner	
	Land	Planning and Development		
ND02	Gather Information for Design of Property Development near Transmission Pipelines In designing a proposed property development the property developer/owner should use all reasonable means to obtain information about transmission pipeline facilities in the area of the proposed development. Primary Action: Property Developer/Owner, Pipeline Operators	Using NPMS, determine if there is a transmission pipeline in the vicinity of the property development. If there is a transmission pipeline, contact the pipeline operator(s) to verify the location of the pipeline and the pipeline easement. Some one-call centers have a process for receiving and transmitting request for meetings between developers and pipeline operators.		
ND03	Review Acceptability of Proposed Land Use of Transmission Pipeline Right-of-Way Prior to Design The property developer/owner should review preliminary information about acceptable land uses on a transmission pipeline right-of-way prior to the design of a property development. Primary Action: Property Developer/Owner	When possible, facilitate effective communications among pipeline safety stakeholders regarding land use planning and development near transmission pipelines to help assure public and pipeline safety. Appendix D lists common land use activities as a guideline in determining if a proposed land use may be acceptable or not. Understanding encroachment issues can help to facilitate their resolution. (Reference PIPA Recommended Practice BL13.)		
ND04	Coordinate Property Development Design and Construction with Transmission Pipeline Operator When property development is planned within the consultation zone (reference PIPA Recommended	Communicate with the pipeline operator at the earliest reasonable date in the design phase.		

PIPA	Practice Title and Description	Dronorty	Current Practice
RP #		Property Developer/Owner Practice	Action(s) Needed or Considered
	Practice BL05), the property developer/owner and the transmission pipeline operator should communicate to ensure possible impacts of pipeline incidents and maintenance needs are considered during development design and construction. Primary Action: Property Developer/Owner, Pipeline Operators		
ND06	Require Consideration of Transmission Pipeline Facilities in Land Development Design Whenever development is proposed on property containing transmission pipeline facilities, local governments should require that the submitted land development plans address in detail the steps necessary to safely integrate the transmission pipeline into the design of the project. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	Address the detailed steps necessary to safely integrate the affected transmission pipelines into the design of the project. This should be included along with other issues that must be addressed as part of the land development review process, such as the availability of potable water, sewer, adequate roads, environmental constraints, etc. Document that PIPA Recommended Practices ND11 through ND23 were considered, as applicable, for new land development located within a transmission pipeline planning area, to reduce the potential safety impacts of transmission pipeline incidents and to avoid interference with pipeline operations and emergency response.	
ND08	Collaborate on Alternate Use and Development of Transmission Pipeline Right-of-Way	Collaborate with operators and local governments to identify alternative uses of transmission pipeline rights- of-way and define who would	

חוח	Practice Title and Description	Property Developer/Owner Practice	Current Practice	
<i>PIPA RP #</i>			Action(s) Needed or Considered	
	Property developers/owners, local governments and transmission pipeline operators may collaborate on alternative use of the transmission pipeline right-of-way and related maintenance.	maintain the rights-of-way under specific circumstances. Appendix C provides visual examples of successful collaborative efforts and situations to avoid.		
	Primary Action: Local Government , Property Developer/Owner, Pipeline Operators			
ND11	Reduce Transmission Pipeline Risk through Design and Location of New Parking Lots and Parking Structures Parking lots and parking structures should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and to reduce potential interference with transmission pipeline maintenance and inspections. <i>Primary Action: Local Government,</i> <i>Property Developer/Owner</i>	Consider location and design elements of commercial developments such as parking lots and parking structures to reduce the potential safety impacts of transmission pipeline incidents and to avoid interference with pipeline operations/emergency response when development is adjacent to a pipeline right-of-way.		
ND12	Reduce Transmission Pipeline Risk through Design and Location of New Roads Roads and associated appurtenances should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and reduce the potential of interference with pipeline operations and maintenance. <i>Primary Action: Local Government , Property Developer/Owner</i>	Consider location and design elements of road developments to reduce the potential safety impacts of transmission pipeline incidents and to avoid interference with pipeline operations/emergency response when development is adjacent to or crosses a pipeline right-of-way.		
ND13	Reduce Transmission Pipeline Risk through Design and Location of New	Consider location and design elements of new utilities and related infrastructure developments to		

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	Utilities and Related Infrastructure Utilities (both above and below ground) and related infrastructure should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and to reduce the potential of interference with transmission pipeline maintenance and inspections. Primary Action: Local Government , Property Developer/Owner	reduce the potential safety impacts of transmission pipeline incidents and to avoid interference with pipeline operations/emergency response when development is adjacent to or crosses a pipeline right-of-way.	
ND14	Reduce Transmission Pipeline Risk through Design and Location of Aboveground Water Management Infrastructure Storm water and irrigation water management facilities, retention ponds, and other above-ground water management infrastructure should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and to reduce the potential of interference with transmission pipeline operations and maintenance. <i>Primary Action: Local Government , Property Developer/Owner</i>	Consider location and design elements of new aboveground water management infrastructure developments to reduce the potential safety impacts of transmission pipeline incidents and to avoid interference with pipeline operations/emergency response when development is adjacent to or crosses a pipeline right-of-way.	
ND15	Plan and Locate Vegetation to Prevent Interference with	Discuss with the pipeline operator the proper planning and location of	

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	Transmission Pipeline Activities	vegetation to reduce the potential of interference with transmission	
	Trees and other vegetation should be planned and located to reduce the potential of interference with transmission pipeline operations, maintenance, and inspections.	pipeline operations, maintenance, and inspections.	
	Primary Action: Local Government , Property Developer/Owner		
ND16	Locate and Design Water Supply and Sanitary Systems to Prevent Contamination and Excavation Damage Individual water supplies (water wells), small public/private water systems and sanitary disposal systems (septic tanks, leach or drain fields) should be designed and located to prevent excavation damage to transmission pipelines, interference with transmission pipeline maintenance and inspections, and environmental contamination in the event of a transmission pipeline incident. Primary Action: Local Government ,	Consider location and design elements of water supplies (wells), water supply systems, and sanitary disposal systems to reduce the potential of environmental contamination in the event of a pipeline incident, prevent excavation damage to the pipeline, and avoid interference with pipeline operations when development is adjacent to or crosses a pipeline right-of-way.	
	Property Developer/Owner		
ND17	Reduce Transmission Pipeline Risk in New Development for Residential, Mixed-Use, and Commercial Land Use New development within a	Reduce risk by locating structures away from the ROW, ensuring adequate access for pipeline operations & maintenance and future pipeline facilities, and	

PIPA	Practice Title and Description	Property Developer/Owner Practice	Current Practice
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	transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and buildings located to reduce the consequences that could result from a transmission pipeline incident and to provide adequate access to the pipeline for operations and maintenance. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	considering evacuation routes in the event of a pipeline incident. Specific emergency plans should be developed for difficult to evacuate buildings. Check to ensure appropriate life safety codes and enhanced fire protection has been considered where needed. Consider modeling of fire, explosion, or toxic release impacts that could occur during a transmission pipeline incident for the specific land use under consideration.	
ND18	Consider Transmission Pipeline Operation Noise and Odor in Design and Location of Residential, Mixed- Use, and Commercial Land Use Development Consider noise, odor and other issues when planning and locating developments near above-ground transmission pipeline facilities, such as compressor stations, pumping stations, odorant equipment, regulator stations and other pipeline appurtenances. Primary Action: Local Government , Property Developer/Owner, Pipeline Operators	Use information provided by pipeline operators regarding aboveground pipeline facilities to understand the impact of such facilities on proposed land use and development. Establish requirements for land use and development around the particular aboveground sites based upon the guidance on specific land uses provided in the PIPA recommended practices.	
ND19	Reduce Transmission Pipeline Risk through Design and Location of New Industrial Land Use Development New industrial land use development	Reduce risk by locating structures away from the ROW, ensuring adequate access for pipeline operations & maintenance and	

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	within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and buildings located to reduce the consequences that could result from a transmission pipeline incident and reduce the potential of interference with transmission pipeline operations and maintenance. Primary Action: Local Government , Property Developer/Owner	future pipeline facilities, and considering evacuation routes in the event of a pipeline incident. More complex emergency plans may need to be developed depending on the hazardous materials are stored in the structure. Critical infrastructure such as power plants, and water supplies may be compromised during a pipeline incident. Consider additional precautions concerning water supplies in ND 16.= Check to ensure appropriate life safety codes and enhanced fire protection have been considered where needed. Consider modeling of fire, explosion, or toxic release impacts that could occur during a transmission pipeline incident for the specific land use under consideration. Also consider egress models for such incidents. If appropriate, land use and development design should take this modeling into account to minimize potential impacts. The models should be fit-for-purpose and the model user should have appropriate expertise.	
ND20	Reduce Transmission Pipeline Risk through Location, Design, and Construction of New Institutional Land Use Developments	Reduce risk by locating structures away from the ROW, ensuring adequate access for pipeline operations & maintenance and future pipeline facilities, and	

PIPA	Practice Title and Description	Dreamanta	Current Practice
RP #		Property Developer/Owner Practice	Action(s) Needed or Considered
	New development of institutional facilities that may be difficult to evacuate within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and the facilities located and constructed to reduce the consequences that could result from a transmission pipeline incident. Such facilities should also be located to reduce the potential of interference with transmission pipeline operations and maintenance activities. Emergency plans for these facilities should consider potential transmission pipeline incidents. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	considering evacuation routes in the event of a pipeline incident. Specific emergency plans should be developed for difficult to evacuate buildings. Check to ensure appropriate life safety codes and enhanced fire protection have been considered where needed. Consider modeling of fire, explosion, or toxic release impacts that could occur during a transmission pipeline incident for the specific land use under consideration. Also consider egress models for such incidents. If appropriate, land use and development design should take this modeling into account to minimize potential impacts. The models should be fit-for-purpose and the model user should have appropriate expertise.	
ND21	Reduce Transmission Pipeline Risk through Design and Location of New Public Safety and Enforcement Facilities New development of emergency	Reduce risk by locating structures away from the ROW, ensuring adequate access for pipeline operations & maintenance and future pipeline facilities, and considering evacuation routes in the	

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	responder facilities within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and the facilities located and constructed to reduce the consequences that could result from a transmission pipeline incident. Such facilities should also be designed and located to avoid the potential of interference with pipeline operations and maintenance. Planning for these facilities should include emergency plans that consider the effects of a transmission pipeline incident. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	event of a pipeline incident. Specific emergency and contingency plans should be developed for difficult to evacuate buildings. Check to ensure appropriate life safety codes and enhanced fire protection have been considered where needed. Consider modeling of fire, explosion, or toxic release impacts that could occur during a transmission pipeline incident for the specific land use under consideration. Also consider egress models for such incidents. If appropriate, land use and development design should take this modeling into account to minimize potential impacts. The models should be fit-for-purpose and the model user should have appropriate expertise.	
ND22	Reduce Transmission Pipeline Risk through Design and Location of New Places of Mass Public Assembly (Future Identified Sites) New development of places of	Reduce risk by locating structures away from the ROW, ensuring adequate access for pipeline operations & maintenance and future pipeline facilities, and	

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	potential mass public assembly within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and the facilities located and constructed to reduce the consequences of a potential transmission pipeline incident, the risk of excavation damage to the pipeline, and the potential of interference with transmission pipeline operations and maintenance. Planning for these facilities should include emergency plans that consider the effects of a potential pipeline incident. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	considering evacuation routes in the event of a pipeline incident. Specific emergency plans should be developed for difficult to evacuate buildings. Check to ensure appropriate life safety codes and enhanced fire protection have been considered where needed. Consider modeling of fire, explosion, or toxic release impacts that could occur during a transmission pipeline incident for the specific land use under consideration. Also consider egress models for such incidents. The models should be fit-for-purpose and the model user should have appropriate expertise.	
ND23	Consider Site Emergency Response Plans in Land Use Development Emergency response plan	Be receptive to coordination with pipeline operators and emergency responders regarding emergency planning. Note that transmission	

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	requirements should be considered in new land use development within a planning area (see PIPA Recommended Practice BL06) to reduce the risks of a transmission pipeline incident. <i>Primary Action: Local Government ,</i> <i>Property Developer/Owner</i>	pipeline operators are required by existing pipeline safety regulations to provide emergency liaison and consultations and must maintain, modify as appropriate, and follow their emergency plans, procedures and programs they are required under Title 49 Code of Federal Regulations, Parts 192 and 195, respectively.			
		Check to ensure appropriate life safety codes and enhanced fire protection have been considered where needed. Consider modeling of fire, explosion, or toxic release impacts that could occur during a transmission pipeline incident for the specific land use under consideration. Also consider egress models for such incidents.			
		If appropriate, land use and development design should take this modeling into account to minimize potential impacts. The models should be fit-for-purpose and the model user should have appropriate expertise.			
	Pipeline Maintenance and Damage Prevention				
BL14	Participate to Improve State Excavation Damage Prevention	Participate in a Regional Common Ground Alliance organization.			

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	Programs All pipeline safety stakeholders should participate in the work of organizations seeking to make improvements to state excavation damage prevention programs, especially efforts to reduce exemptions from participation in one- call systems. Primary Action: Local Government , Property Developer/Owner, Pipeline Operators	Always call 811 before you dig.	
ND24	Install Temporary Markers on Edge of Transmission Pipeline Right-of-Way Prior to Construction Adjacent to Right-of-Way The property developer/owner should install temporary right-of-way (ROW) survey markers or fencing on the edge of the transmission pipeline ROW or buffer zone, as determined by the transmission pipeline operator, prior to construction to provide a clearly defined boundary. The property developer/owner should ensure that the temporary markers or fencing are maintained throughout the course of construction. Primary Action: Local Government, Property Developer/Owner	Install temporary right-of-way (ROW) survey markers or fencing on the edge of any transmission pipeline ROW or buffer zone, as determined by the transmission pipeline operator, prior to construction to provide a clearly defined boundary. The markers should be installed before work begins and remain in place until construction is complete.	
ND25	Contact Transmission Pipeline Operator Prior to Excavating or Blasting Anyone planning to conduct excavating, blasting and/or seismic	Notify affected transmission pipeline operators prior to excavating and/or blasting operations.	

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	activities should consult with affected transmission pipeline operators well in advance of commencing these activities. Excavating and blasting have the potential to affect soil stability or lead to movement or settling of the soil surrounding the transmission pipeline.		
	Primary Action: Local Government , Property Developer/Owner, Pipeline Operators		
		Maps and Records	
BL07	Understand the Elements of a Transmission Pipeline Easement Property developers/owners should have an understanding of the elements of and rights conveyed in a transmission pipeline easement. Primary Action: Property Developer/Owner	Be familiar with the issues, elements of and rights conveyed in transmission pipeline easements. Ensure that land use and development plans do not interfere with the current or potential future locations of such pipeline facilities or the operation and maintenance of the pipeline and related facilities.	
BL09	Document and Record Easement Amendments Easement amendments should be documented, managed and recorded. Primary Action: Property Developer/Owner, Pipeline Operators	Record land documents to provide public access to the records and public notice (i.e. constructive notice) of encumbrances on affected properties. Land documents may include easement agreements, encroachment agreements, letters of no objection, partial releases, and easement amendments.	
ND07	Define Blanket Easement Agreements When Necessary Upon request by the landowner, a	Work with the transmission pipeline operator to define easements. Blanket easements should be defined to a specific location to avoid	

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	transmission pipeline easement agreement may be defined to an acceptable, reasonable, and safe width and explicit location. State statutes or local government regulations may require easements to be defined prior to the approval of rezoning, subdivision plats and development permits.	confusion regarding which lands are burdened by the easement rights of the transmission pipeline operator. Record the easement at the appropriate statutory office (e.g., county recorder, parish clerk)		
	Primary Action: Local Government , Property Developer/Owner, Pipeline Operators			
ND10	Record Transmission Pipeline Easements on Development Plans and Final Plats	Show the location of transmission pipeline easements and identify the pipeline operators on development plans and final plats.		
	Local governments should require all recorded development plans and final plats to clearly show the location of transmission pipeline easements and identify the pipeline operators.			
	Primary Action: Local Government , Property Developer/Owner			
ND26	Use, Document, Record and Retain Encroachment Agreements or Permits	Contact the transmission pipeline operator and provide information about the proposed encroachment		
	Encroachment agreements should be used, documented, recorded and retained when a transmission pipeline operator agrees to allow a property developer/owner or local government to encroach on the pipeline right-of- way for a long or perpetual duration in a manner that conflicts with the activities allowed on the easement. <i>Primary Action: Local Government</i> ,	when property developer/owner desires to encroach on a transmission pipeline right-of-way (ROW) for a long or perpetual duration in a manner that conflicts with the activities allowed by the easement agreement. Documented in an encroachment agreement acceptable uses of the right-of-way that are agreed upon.		
	Primary Action: Local Government , Property Developer/Owner, Pipeline Operators			

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ND27	Use, Document and Retain Letters of No Objection and Conditional Approval Letters	Use letters of no when transmission pipeline operators agree to land use activities on or near a transmission pipeline right-of-way.	
	Transmission pipeline operators may use, document and retain "letters of no objection" in agreeing to land use activities on or near a transmission pipeline right-of-way. Such land uses may or may not be temporary.		
	Primary Action: Local Government , Property Developer/Owner, Pipeline Operators		
ND28	Document, Record and Retain Partial Releases	Record at the appropriate statutory office (i.e. county recorder, parish clerk) partial releases that allow some part of the transmission pipeline right-of-way to be released from certain easement conditions. Establish procedures for retention of those releases for the life of the easement.	
	Partial releases may be used to allow some part of the transmission pipeline right-of-way to be released from certain easement conditions, and should be documented, recorded and retained.		
	Primary Action: Property Developer/Owner, Pipeline Operators		
		Communication	
BL10	Implement Communications Plan	Participate in effective	
	Transmission pipeline operators should develop and implement effective communications plans when communicating acceptable transmission pipeline right-of-way uses and activities to property developers/owners and other stakeholders.	communications among pipeline safety stakeholders regarding land use planning and development near transmission pipelines, to help assure public and pipeline safety.	
	Primary Action: Property Developer/Owner, Pipeline Operators		

PIPA RP #	Practice Title and Propert Description Developer/Owne	Dronarty	Current Practice
		Developer/Owner Practice	Action(s) Needed or Considered
	Recommended Practices: Primary Act	ion for Stakeholder Other Than Property	y Developer/Owner
	Land	Planning and Development	
BL03	Utilize Information Regarding Development around Transmission Pipelines Transmission pipeline operators should provide information about their pipelines to local governments and property developers/owners who are planning development around their pipelines. Local government authorities regulating development should use this information to establish requirements regarding land use and development around transmission pipelines. Primary Action: Local Government, Pipeline Operator	Solicit, gather, and use information provided by pipeline operators to establish requirements regarding land use and development around transmission pipelines.	
BL04	Adopt Transmission Pipeline Consultation Zone Ordinance Local governments should adopt land development procedures requiring property developers/owners to consult with transmission pipeline operators early in the development process, so that development designs minimize risks to the populace living or working nearby and are consistent with the needs and legal rights of the operators. <i>Primary Action: Local Government</i>	Adopt procedures to consult with affected transmission pipeline operators early in the development process, so that development designs minimize risks to populations living or working nearby and are consistent with the needs and legal rights of the pipeline operators. Develop a checklist of items to be discussed during the consultation.	
BL05	Define Transmission Pipeline Consultation Zone Local governments should define a	Define a "consultation zone" wherein proposed land use changes and development occurring within the	

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	"consultation zone" to provide a mechanism for communication between property developers/owners and operators of nearby transmission pipelines when new land uses and property developments are being planned. <i>Primary Action: Local Government</i>	zone is to be communicated to affected transmission pipeline operators.	
BL06	Implement New Development Planning Areas around Transmission Pipelines Local governments should consider implementing "planning areas" to enhance safety when new land use and property development is planned near transmission pipelines. Primary Action: Local Government	Define and implement "planning areas" to enhance safety when new land use and property development is planned near transmission pipelines. A planning area can provide for the application of additional development regulations, standards, or guidelines to ensure safety. Reference PIPA Recommended Practices ND11 through ND23 which describe additional considerations for use within a planning area.	
ND09	Provide Flexibility for Developing Open Space along Transmission Pipeline Rights-of-Way Local governments should consider allowing site planning flexibility in the development of commercial, industrial or residential property whenever a transmission pipeline is located in, or in close proximity to,	Work with local governments to develop regulations that allow creative designs that address both public and transmission pipeline safety concerns by allowing site planning flexibility in property development. This can enable development when there are specific constraints, such as nearby pipelines or environmentally sensitive areas.	

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	the proposed development. Primary Action: Local Government	Such flexibility can allow, for example, clustered, higher-density development to be located within broader swaths of open space, thereby creating buffers to the constraining areas.	
		The goal is to allow the same overall density of development within a given area while providing more space between the transmission pipeline and the development.	
	Pipeline Mai	ntenance and Damage Prevention	
BL12	Notify Stakeholders of Right-of-Way Maintenance Activities Transmission pipeline operators should notify affected stakeholders of right-of-way maintenance activities, including vegetation management. <i>Primary Action: Pipeline Operators</i>	Read notifications sent by pipeline operators.	
BL13	Prevent and Manage Right-of-Way Encroachment Transmission pipeline operators should communicate in a documented and timely manner with property developers/owners to prevent or rectify unacceptable encroachments or inappropriate human activity within the transmission pipeline right- of-way. Primary Action: Pipeline Operators	Contact pipeline operator if planned land use will encroach on the ROW. Appendix D lists common land use activities as a guideline in determining if a proposed land use may be acceptable or not.	

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BL15	Enhance Damage Prevention Practices near High-Priority Subsurface Facilities Transmission pipeline operators should implement enhanced damage prevention practices within the transmission pipeline right-of-way to ensure that pipeline operators and excavators meet on-site prior to excavation activity near high-priority subsurface facilities. Primary Action: Pipeline Operators	Discuss with the pipeline operator any enhanced excavation practices to be used near transmission pipelines.	
BL16	Halt Dangerous Excavation Activities near Transmission Pipelines Transmission pipeline operators should have procedures and established contacts with local enforcement personnel in order to act appropriately to halt dangerous excavation activities that may damage their pipelines and potentially cause an immediate threat to life or property. Primary Action: Local Government, Pipeline Operators	N/A	
		Maps and Records	
BL01	Obtain Transmission Pipeline Mapping Data Local government agencies responsible for land use and development planning or the issuance of development permits should obtain	Become familiar with NPMS.	

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	mapping data for all transmission pipelines within their areas of jurisdiction from PHMSA's National Pipeline Mapping System or from the transmission pipeline operators and show these pipelines on maps used for development planning. <i>Primary Action: Local Government</i>		
BL08	Manage Land Records Land use agreements between pipeline operators and property owners should be documented and managed and, when necessary, recorded. <i>Primary Action: Local Government,</i> <i>Pipeline Operator</i>	Manage and record land documents. Land documents may include easement agreements, encroachment agreements, letters of no objection, partial releases, and easement amendments.	
BL17	Map Abandoned Pipelines When a transmission pipeline operator abandons a transmission pipeline, information regarding the abandoned pipeline should be maintained and included in the information provided to the one-call center. <i>Primary Action: Pipeline Operators</i>	N/A	
BL18	Disclose Transmission Pipeline Easements in Real Estate Transactions As part of all real estate sales contracts, each state should require the disclosure of known transmission pipeline easements on the property. Primary Action: Real Estate Commission	N/A	

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		Communication	
BL11	Effectively Communicate Pipeline Risk and Risk Management Information Transmission pipeline operators should identify barriers to effectively communicating with stakeholders and use communication techniques designed to overcome those barriers and effectively engage stakeholders to communicate with them regarding pipeline risks and how the operator manages such risks. <i>Primary Action: Pipeline Operators</i>	Communicate with pipeline safety stakeholders regarding land use planning and development near transmission pipelines to help assure public and pipeline safety.	