WORKGROUP RECOMMENDATIONS

The 12 workgroups have provided the following 184 recommendations to the Task Force.

Agriculture
1. Educate Landowners on Pipeline Development Issues
2. Build a GIS Database of PA's Farms

Agriculture and Conservation and Natural Resources
1. Develop Best Management Practices Manual for Pipeline Development on Agricultural Operations

Conservation and Natural Resources
1. Communicate Pipeline Development Conservation Practices to the Public
2. Develop Public Access to Pipeline GIS Information
3. Use a Landscape Approach for Planning and Siting Right-of-Way Corridors
4. Give Special Consideration to Protected / Designated Lands in Pipeline Siting
5. Mitigate the Loss of Public Use of Public Lands Resulting from Pipeline Development
6. Avoid Geological Hazards During Planning
7. Implement Full-Time Environmental Inspections During Pipeline Construction
8. Monitor Water Quality During Construction
9. Implement Post-Construction Monitoring for an Appropriate Period
10. Tie Permitting Standards to the Duration of Impact
11. Implement a Mitigation Bank to Improve Water Quality
12. Reduce Forest Fragmentation in Pipeline Development
13. Promote Biodiversity in Pipeline Development
14. Develop Rare Species Work Windows to Avoid Impacts
15. Minimize Impacts to Riparian Areas at Stream Crossings
16. Promote Wildlife Habitat Opportunities Along Pipeline Corridors
17. Restore and Maintain a Boarder Zone in Forested Areas
18. Minimize Aesthetic Impacts in Pipeline Development
19. Minimize Recreational Impacts in Pipeline Development
20. Provide Recreational Opportunities in Pipeline Development
21. Reseed Right-of-Ways Using Native Plants
22. Use Pennsylvania-Sources Plant and Seed Vendors and Landscape Services
23. Require Performance-Based Metrics for Long Term Maintenance of Right-of-Ways
24. Prevent Invasive Plant Species Establishment
25. Finalize Functional Protocols for Impacts and Offsets
26. DEP Should Follow the 2008 Final Mitigation Rule for all Mitigation Sites

County Government

1. Counties Should Partner in Implementation of Task Force Recommendations
2. Counties Should Include Pipelines Development in County Comprehensive Plans
3. Counties Should Make GIS Mapping Available to Operators and Require Them to Provide Their Mapping to Counties and Municipalities
4. Develop Training Opportunities for County Officials
5. Develop Tools to Educate the Public on Pipeline Development
6. Operators Should Engage in Timely Communications
7. Develop Advisory Standards for Pipeline Setback and Buffers
8. Amend Municipalities Planning Code to Empower County Comprehensive Plan
9. Consider Opportunities for Shared Right-of-Ways
10. Empower GIS Mapping
11. Create a Commonwealth Library of Pipeline Information
12. Require Pipeline Abandonment Plans

Emergency Preparedness

1. Standardize Emergency Response Plans
2. Train Emergency Responders
3. Require Infrastructure Mapping
4. Coordinate Pipeline Mapping Plans
5. PUC Should Develop a Comprehensive List of Pipeline Classifications
6. Enhance Emergency Response Training for Responder Agencies
7. Create County/Regional Safety Task Forces
8. Provide Training to Local Emergency Responders
9. Assess Need for Additional Training for Local Responders
10. Establish Protocol for Emergency Movement of Heavy Equipment during Off-Hours
11. Assigning a 9-1-1 Address to Pipeline-Related Facilities
12. Authorize a Fee for Emergency Response to Pipeline Incidents

Environmental Protection

1. Establish Early of Partnerships and Coordination in Relationships with Regulatory Agencies
2. Establish Early Coordination with Local Non-Governmental Groups
3. Establish Early Coordination with Local Landowners and Lessors
4. Project Sponsors Should Review Pennsylvania Stormwater BMP Manual
5. Sponsors Should Review the Pennsylvania Erosion and Sediment Pollution Control Program Manual
6. Sponsors Should Request Pre-Application Meetings with Regulatory Agencies
7. Sponsors Should Perform Alternative Analysis to Avoid/Minimize Impacts
8. Develop Standard Water Quality Monitoring Practices
9. Develop An Advanced High-Quality Environmental Resources Planning Tool
10. Sponsors Should Use Landscape Level Planning
11. Minimize Water Withdrawals for Testing
12. Do Not Locate Pipelines Parallel to Streams Within its 100-Year Floodway
13. Employ Smart Timing of Construction
14. Assess Potential Subsurface Hazards in Planning

15. Route Pipelines to Minimize Disturbance to Forest Interiors
16. Avoid Steep Slopes and High Erodible Soils
17. Share Rights-of-Ways
18. Identify Barrier to Sharing Rights-of-Ways
19. Evaluate Existing and Needed Setbacks from Wetlands and Watercourses
20. Use Dry Seals for Centrifugal Compressors
21. Minimize Methane Emissions During Compressor State Shutdown Periods
22. Use Pump-Down Techniques Before Maintenance and Repair
23. Develop Plans for Construction, Operation, and Maintenance
24. Implement Directed Inspection and Maintenance Program for Compressor Stations
25. Implement Wetland Banking/Mitigation Measures
26. Use Antidegredation Best Available Combination of Technologies to Protect EV and HQ Waters
27. Avoid Dams and Reservoirs
28. Avoid Water and/or Wastewater Discharge
29. Develop Plans for No Net Loss of Forests in Headwater Watersheds
30. Develop Plans for No Net Loss of Forested Riparian Buffers
31. Develop Plans for No Net Loss of Wetlands
32. Study Long-Term Impacts of Pipeline Infrastructure on Water Resources and Sensitive Landscape
33. Minimize Methane Emissions
34. Minimize Impacts of Stream Crossings
35. Conduct Research to Improve Revegetation BMPs
36. Require ShutOff Valves for Liquid Product Pipelines
37. Use Dust Suppression Controls Near Water Resources
38. Test Efficacy of Silt Fencing
39. Test Soils in Acid Deposition Impaired Watersheds to Identify Need for Additional Liming
40. Sponsors Should Review the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Tool
41. Develop Construction Sequencing Plan
42. Stockpile Topsoil During Construction for Use in Restoration
43. Soften Forest/Right-of-Ways Edges and Promote Canopy Closure
44. Create Onsite Habitat
45. Prevent Invasive Species from Entering Sites
46. Ensure Ecologically Sensitive Revegetation of Right-of-Ways
47. Conduct Quantitative Site Monitoring Where Appropriate
48. Conduct Regular Site Maintenance
49. Properly Use and Maintain Pipeline Components
50. Implement Leak Detection and Repair for all Above-Ground Components of Pipeline Infrastructure
51. Clarify Remediation of Spills Under Shale Regulation
52. Establish Forest Mitigation Program
53. Implement Electronic Permit Submissions for Chapters 102 and 105
54. Establish Electronic Payment for Chapters 102 and 105 Permit Fees

55. Evaluate Need for Hard Copies of Chapter 102 and 105 Permit Submissions
56. Evaluate Erosion and Sediment Control General Permit (ESCGP-2) Expedited Review
57. Ensure Adequate Agency Staffing for Reviewing Pipeline Infrastructure Projects
58. Evaluate DEP Retention and Attrition of Staff and Succession Planning
59. Evaluate the Effectiveness of the Permit Decision Guarantee Policy
60. Evaluate the Permit Decision Guarantee Priority Status Hierarchy
61. Increase DEP Staff Training
62. Eliminate Duplicate Questions in Erosion and Sediment Control General Permit (ESCGP-2) Notice of Intent (NOI)
63. Create Pipeline Erosion and Sediment Control Manual
64. Consider Limited Permit Review Assistance Using Qualified Contractors
65. Convene Annual Regulatory Agency Meetings
66. Re-Assess and Update Standing Memoranda of Understanding (MOUs) between State and Federal Agencies
67. Incorporate Cumulative Impacts into Applications and Review Process
68. Conduct Joint Agency Coordination Meetings During Pre-Application and Planning
69. Assess Oil and Gas Programs Chapter 102 Training

Historical/Cultural/Tribal
1. Improve Communications with Landowners
2. Consult with Federally Recognized Tribes on Section 106-Related Projects
3. Consult with Citizens' Groups, Including Heritage and Historical Organizations and Non-Federally Recognized (NFR) Tribes for Oil and Gas Development
4. Implement Best Practices for Upstream and Midstream Oil and Gas Development that Fall Outside of USACE Permit Areas
5. Conduct Early Outreach with Affected Communities
6. Conduct County-Based Siting and Mitigation Research

Local Government
1. Communicate Early and Often with Local Government Officials
2. Minimize Impact on Local Roads
3. Clarify and Examine Need for Local Regulation of Surface Facilities

Natural Gas End Use
1. Create A State Level Permit Coordinator
2. Create Regional Energy Corridors and Energy Action Teams
3. Create Energy Opportunity Zones
4. Enact Statute to Permit Use of a Charge for New Service (Similar to a Distribution System Improvement Charge (DSIC))
5. Develop Municipal Guidelines for Natural Gas Distribution Lines

Pipeline Safety and Integrity
1. Require Leak Detection Survey Schedules
2. Require Leak Repair Schedules
3. Establish Publicly Available Pipeline Inspection Information
4. Require A Cathodic Protection Program
5. Require An Integrity Management Program (IMP) for Gathering Pipelines
6. Authorize PA Public Utility Commission (PUC) Regulation of Non-Jurisdictional Pipelines
7. Require Best Practices and Standards for Production Lines Located Beyond the Well Pad and Gas Gathering Lines in Class 1 Locations
8. Establish Mapping/GIS for Emergency Response
9. Designate PA PUC As Enforcement Agency for Underground Utility Line Protection Law
10. Enhance Public Awareness via Mapping/GIS
11. Create A Public Education Program on Gathering Systems
12. Enhance Public Awareness of Pipeline Location
13. Develop Public Education Program for Emergencies

Public Participation
1. Establish Statewide Pipeline Information Resource Center
2. Adopt Guidelines for Public Participation
3. Amend General Information Form to Require Information on Public Participation
4. Form Pipeline Advisory Committee
5. Require Publication of Intent to Apply for DEP Permits Association with Pipeline Development
6. Issue Annual Report Implementations on the PITF Recommendations

Siting and Routing
1. Utilize Planning Process Appropriate for the Scale of the Pipeline Project
2. Create an Inter-Agency Coordinating Committee to Resolve Conflicting Construction Requirements
3. Create Statewide Technical Review Committee Within DEP for Multi-Region Pipeline Applications
4. Explore the Creation of a Taskforce of Affected Stakeholders to Study the Creation of a New Regulatory Entity, or Empower Existing Regulatory Entity to Review and Approve the Siting and Routing of Intrastate Gas Transmission Lines
5. Create DEP Plans and Procedures Design Manual for Pipeline Construction
6. Create Third Party Consultant Staffing at DEP
7. Expand PA1Call for All Classes of Pipelines
8. Pipeline Developers Should Engage with Private and Governmental Stakeholders and Educate Landowners
9. Invest in Digital Infrastructure to Improve Data Availability

Workforce and Economic Development

Workforce Development
1. Commission Workforce Assessment and Economic Development Impact Study
2. Enhance STEM Education
3. Promote Apprenticeship and On-the-Job Training
4. Attract Military Veterans to the Energy Workforce
5. Conduct a State Employee Workforce Audit to Identify Training and Other Needs of Pertinent State Agencies
6. Enhance Workforce Training

Economic Development
1. Develop a Pipeline Map
2. Coordinate Project Management for Projects Using Natural Gas in PA
3. Create Last Mile Funding
4. Enact Statute to Permit the Use of a Charge for New Service, to Permit Recovery of Gas Service Advertising by Utilities and to Amortize New Construction Costs Over Longer Time Period for New Customers
5. Encourage Natural Gas Use in Ports
6. Develop Targeted Investment, Business Attraction Effects and Regional Energy Hubs
7. Collaborate to Promote Downstream Shale Manufacturing Opportunity
8. Encourage Virtual Pipeline (Trucking) Delivery Systems
9. Allow Creation of Natural Gas Municipal Authorities
10. Compile Funding and Resource Guidebook
11. Support Natural Gas for Compliance with Pennsylvania's Clean Power Plan (CPP)

For Other Workgroups
1. Assess Requirement of Consulting Services for Permitting
2. Ensure Pipeline Permit Consistency
3. Reform Application of the Pennsylvania Natural Diversity Index (PNDI)

County Government Workgroup Recommendation #3

Counties Should Make GIS Mapping Available to Operators and Require Them to Provide Their Mapping to Counties and Municipalities

Full recommendation:
1. Make county GIS mapping available to operators and require operators provide their mapping to counties and municipalities.
2. Counties with GIS expertise should be sharing their information with commonwealth agencies that have a role or regulatory oversight in pipeline development, e.g., DEP, PUC and DCNR (Department of Environmental Protection, Public Utility Commission, and Department of Conservation and Natural Resources).

Relevant agencies:
County planning agencies
GIS departments/staff
Conservation districts

Justification:
Counties and municipalities want to make sure operators are using accurate maps, and that state and local governments are using a common mapping picture.

Actions that would be required to achieve recommendation:
Develop data sharing tools (e.g., a tool that provides a common platform) and license agreement templates that could make it easier to exchange the needed data.

Challenges to achieving recommendation:
- Some counties might require funding to generate up-to-date maps.
- A requirement for operators to provide mapping would need state and/or federal legislation.

Additional supporting material:

Issues to address (such as cost, environmental impacts):

County Government Workgroup Recommendation #10

Empower GIS Mapping

Full recommendation:
Commonwealth should convene the Statewide Geospatial Board created under Act 178 of 2014 to help provide a way to efficiently understand from the community of stakeholders what mapping data exists regarding previously built pipelines, who has the data, as well as what mapping data is needed and how it can be acquired.

Relevant agencies:
Office of Administration - Statewide Geospatial Board

Justification:
Counties and municipalities want to make sure operators are using accurate maps, and that state and local governments are using a common mapping picture.

Actions that would be required to achieve recommendation:
Office of Administration to convene the first meeting of the Board.

Challenges to achieving recommendation:

Additional supporting material:

Issues to address (such as cost, environmental impacts):

Emergency Preparedness Workgroup Recommendation #1

Standardize Emergency Response Plans

Full recommendation:
In coordination with Pennsylvania Emergency Management Agency (PEMA) and the Department of Environmental Protection (DEP), Emergency Response Plans (ERPs) for responding to pipeline infrastructure incidents should be standardized across the Commonwealth to ensure an acceptable level of expectation for safety and response coordination. The ERPs should be made available to the county emergency management coordinator, and shall include the well-pad or segments as appropriate to the end point of ownership. This plan shall include aerial view(s) of the site(s) for each well-pad and associated assets.

Emergency Preparedness Workgroup Recommendation #2

Train Emergency Responders

Full recommendation:
An enhanced effort to provide education and training for emergency responders will require marketing and oversight. The following recommendations were offered to assist with the diminishing pool of resources and provide access and interest in existing and new training opportunities:

- The development of a "Resource Book" is needed to help communities and first responders identify programs, training, classes, grants, and other opportunities from all sources to include PHMSA, PEMA, SFA, etc.

- Educational and training materials will be developed for delivery to and by fire departments (e.g., at monthly Safety Meetings). Information will contain notices of opportunities to secure additional training.

- PEMA will provide funding streams through various state and federal grants for sub-grantees (i.e., counties) to address planning and training needs.

- Explore new or emerging technology applications for remote training delivery.

- Encourage the Pennsylvania State Police (PSP) and other law enforcement organizations throughout the Commonwealth to attend pipeline awareness sessions, as they have a high likelihood of being first responders at a pipeline incident or may discover a release while on patrol.

Emergency Preparedness Workgroup Recommendation #3

Require Infrastructure Mapping

Full recommendation:
Infrastructure mapping shall be required as under HB 445 using PA1Call's Member Mapping System. Access to GIS data will support many planning and preparedness concerns, and GIS mapping is integral to response efforts. It will also assist in developing a risk assessment to determine impacts and needs with the ability to drill down to DEP Site ERPs. Line owners shall include all known facilities in this system, and shall be subject to the update provisions of the Underground Utility Line Protection Law (UULPL).

Emergency Preparedness Workgroup Recommendation #4

Coordinate Pipeline Mapping Plans

Full recommendation:
Efforts to partner with Pipeline, Oil & Gas Producers, Gas, Petroleum Products, and their derivatives shall make "best effort" to use *Best Practices API RP 80* and PIPA to reduce the impact on the environment and provide emergency responders with the training and information needed to handle pipeline emergencies on their facilities.

Efforts to coordinate planning, design, construction, and operation of these lines and facilities should be coordinated through the PA1Call Member Mapping System and its facility owners to reduce local impact and improve Public Safety. The "*PIPA Report*" is a comprehensive siting guide which has been adopted by PHMSA and supported by Industry and Advocacy Groups alike.

http://primis.phmsa.dot.gov/comm/publications/PIPA/PIPA-Report-Final-20101117.pdf#pagemode=bookmarks

Emergency Preparedness Workgroup Recommendation #8

Provide Training to Local Emergency Responders

Full recommendation:
Provide comprehensive training to local fire and emergency responders, focused on the unique situations presented from natural gas-related and other pipeline emergencies, and assist in the identification and acquisition of appropriate materials, through a program overseen and administered by the Office of the State Fire Commissioner (OSFC). Training efforts should always take advantage of ongoing industry-provided training.

Note: The OFSC oversees the training, operational, and informational purposes of the Commonwealth's fire and emergency services community. The number of volunteer fire and emergency service providers in Pennsylvania has decreased substantially in recent years, from over 300,000 in the 1970s to approximately 60,000 today.

Emergency Preparedness Workgroup Recommendation #9

Assess Need for Additional Training for Local Responders

Full recommendation:
Assess the need for additional fire, emergency response, and hazardous materials training; personnel; and preparation based on mapping of the proposed pipeline infrastructure and related facilities.

Note: Act 165, *as amended*, known as the Hazardous Material Emergency Response and Planning Act, governs emergency response to releases of hazardous materials from facilities and transportation-related accidents.

Emergency Preparedness Workgroup Recommendation #11

Assigning a 9-1-1 Address to Pipeline-Related Facilities

Full recommendation:
Related facilities (compressor stations, etc.) should be assigned a 9-1-1 address for emergency response purposes. Gas operators should be required to provide GPS coordinates for access roads and related facilities, and post this information, along with appropriate emergency response contact information, in conspicuous location(s) at the related facilities.

Pipeline Safety and Integrity Workgroup Recommendation #8

Establish Mapping/GIS for Emergency Response

Full recommendation:
The establishment of a Best Practice for Emergency response that pertains to:

> (1) Mapping pipelines - with a GIS Data Model and format compatible for data sharing;
> (2) Best Practices will specify a minimum horizontal accuracy requirement for GIS data of +/- 6.67 ft. for new line construction. For existing infrastructure, while it is highly desirable that it be mapped to that horizontal accuracy, it is recommended that existing infrastructure meet the 2014 PHMSA NPMS accuracy standards as a minimum. Any survey updates to existing infrastructure should meet the +/- 6.67 ft. horizontal accuracy standards.

Relevant agencies:
PUC
PA1Call
General Assembly
PEMA
County EMA
Public Safety Answering Point (PSAPs)
PA Geospatial Coordinating Board

Justification:
Mapping/GIS
1. Across the Commonwealth of Pennsylvania there is a variety of pipeline GIS data in various formats. Some Pennsylvania counties have no requirements for GIS Data collection or formatting. Some counties access the NPMS hosted on the PHMSA. In some cases there is an inability to readily share the data that is being collected due to differences in data schema and format. The PA1Call System (PA1Call) provides information sharing for all underground facilities and is associated with Damage Prevention in Pennsylvania. PA1Call sponsors a member mapping service that allows the members to map its underground facilities in the PA1Call data base. If PA1Call could provide real time mapping services and/or the option to download the most recent data every 24hrs. to emergency responders at no cost, PA1Call would be a natural fit as the Commonwealth's mapping repository for all pipeline data.

    a. Further, it is imperative that this information interface with counties and 911 centers (PSAPs) in particular. In case of emergency, telecommunicators need this information at their fingertips, with ease of access in one location. Emergency response requires that emphasis be placed on real time data; PSAPs will need to have the option to download data directly to their systems.

2. GIS data formats tend to evolve as software evolves; and although there is a de facto GIS software standard in the Commonwealth, it is also recognized that as software evolves

other options may become the new standard for a GIS platform. Data exchange formats should be to open standards.

    a. All mapping of pipelines and related facilities should be as a minimum in a format compatible with the Open Geospatial Consortium (OGC) data sharing standards.

3.

    a. The PAMAP project as managed by DCNR had specific horizontal accuracy requirements; the PAMAP ortho-images have a horizontal scale accuracy of 1:2400 (http://www.dcnr.state.pa.us/topogeo/pamap/imagery/index.htm); the short version of which translates to a horizontal accuracy of +/- 6.67 ft. That is the language which is included in the Act 9 Rules and Regulation governing the addressing of unconventional wells'; it was argued during the finalizing of the rules and regulations that since PAMAP essentially created a base map with specific accuracy across the Commonwealth, that accuracy requirement should be the minimum accuracy in any document requiring mapping in the Commonwealth. http://www.pabulletin.com/secure/data/vol43/43-4/132.html

PA Code Chapter 25, Subchapter C – Environmental Protection Performance Standards, §78.55(e)(3)(ii).

    b. The case was made and accepted in the Act 9 Rules and Regulations that GPS coordinates expressed as decimal degrees to 6 decimal points is the only acceptable GPS coordinate for mapping purposes. This makes the format of GPS coordinates standard across the Commonwealth and eliminates much potential for error when multiple formats of coordinates are used.

    c. In 2014 PHMSA NPMS changed the positional accuracy standard to +/- 50 feet for most pipelines. Most pipelines, all natural gas gathering and Class 1 Area transmission pipelines do not fall under this classification, but rather, are mapped to a positional accuracy of +/- 100 feet. This new 100 foot standard is meant to accommodate lines in very rural areas. However, Pennsylvania's unconventional natural gas development is not in isolated rural areas, but rather areas that are rural communities and neighborhoods. With an eye to the future, and the immense pipeline network that is necessary to transport unconventional shale gas, the Commonwealth needs a more accurate standard. For example, +/- 50 feet can be the difference of one side or the other of a road; or a stream; or other boundaries in rural areas. Thus, it is imperative that mapping sufficiently represent the actual pipeline location to avoid errors in jurisdictional emergency response.

Actions that would be required to achieve recommendation:
- An agency such as PA1Call would need to be designated as the repository agency.
  Note: In regards to PA1Call, their board would need to agree to accept the responsibility.
- If PA1Call is agreeable to being designated as the repository agency, the General Assembly will need to provide authorization.
- GIS format requirement should be referred to the PA Geospatial Coordination Board (Act 178)

Challenges to achieving recommendation:

Additional supporting material:
1. Mapping/GIS

    a. PA1Call or another designated Commonwealth Agency should serve as the repository and distributor of as- built pipeline mapping. In lieu of a centralized Commonwealth repository; every operator of pipelines in PA will need to provide as built GIS data as soon as reasonably possible to the both the Commonwealth and the counties in which their pipelines are located.
        i. Real Time – It is imperative that 911 Centers throughout the Commonwealth be provided with near real time data.
        ii. The central repository shall provide daily downloads to the county 911 centers (PSAPs).
        iii. Timely information shall be available for county and municipal planning purposes.

    b. GIS/GPS – data as provided must include GPS coordinates expressed in decimal degrees to 6 decimal points. In order to standardize GIS data, all GIS data for new construction must meet a minimum horizontal accuracy of +/- 6.67 feet.

    c. All mapping of pipelines and related facilities should be as a minimum in a format compatible with the OGC data sharing standards. As the GIS data model and formats evolve, all agencies should be prepared to remain compatible with the current standards.

    d. Additional data concerning pipeline features may be included in the GIS data layers with the understanding that it is restricted to Public Safety and related government entities and not available as a public data.

- http://www.pabulletin.com/secure/data/vol43/43-4/132.html
  PA Code Chapter 25, Subchapter C – Environmental Protection Performance Standards, §78.55(e)(3)(ii).

- PAMAP
  http://www.dcnr.state.pa.us/topogeo/pamap/index.aspx

Issues to address (such as cost, environmental impacts):
- If PA1Call or another agency is designated, funding will need to be secured.
- If a centralized agency is not designated, that will require the operators to provide the information to both the Commonwealth and each county in which they are operating.

Pipeline Safety and Integrity Workgroup Recommendation #10

Enhance Public Awareness via Mapping/GIS

Full recommendation:
The establishment of a Best Practice associated with a Public Awareness Program in regards to public accessible mapping/GIS. The Awareness Program should focus on increased transparency. The gathering fields should have the transparency of public awareness, public input and public involvement that is commonly seen among FERC transmission projects in all class locations. The purpose of this recommendation is to increase the public's knowledge and awareness regarding gathering line operator's practices through the use of mapping pipeline location. This recommendation recognizes that there must be a balance between providing information to the public and protecting critical infrastructure.

Mapping/GIS
   a. It is recommended that a Public Pipeline Portal be developed. This portal should provide access to all pipeline information available through the applicable Pennsylvania's Right to Know Law and the Public Utility Confidential Security Information Disclosure Protection Act. The portal should include links to the operator's appropriate webpage and include links to each county websites where they exist and if the county deems it appropriate.

   b. The Pennsylvania Geospatial Coordinating Board should make a recommendation to Office of Administration and the Legislature on the ideal agency to host the Public Pipeline Portal or to recommend other options in regards to hosting the Portal. Act 178 provides for the following:

Section 432.1. State Geospatial Coordinating Board.--(a) There is established a State Geospatial Coordinating Board within the Governor's Office of Administration. The board is established to provide advice and recommendations to the Governor and the citizens of this Commonwealth on geospatial issues and provide uniform data standards, coordination and efficiency in geospatial policy and technology issues among Federal, State and local government agencies, academic institutions and the private sector.

In as much as the State Geospatial Coordinating Board is charged with the following:

(3) Define and prioritize strategic opportunities where maps and spatial analysis activities could enhance the business of government and provide more cost-effective services to citizens. This paragraph may include recommendations of specific geospatial technology investments in this Commonwealth.

It is appropriate that this Coordinating Board be engaged in the process of establishing a Public Pipeline Portal.

A model template for this portal may be found by referring to the the Pennsylvania Pipeline Mapping System (PPMS) similar to the PHMSA <u>National Pipeline Mapping System</u> and Chester County created PNP/PIC which adopt protocols for mapping capabilities that promote and achieve specific, measurable, attainable, risk informed, and timely information gathering, maintenance and distribution of pipeline infrastructure specific mapping in order to ensure vertical team integration of decision makers and promote statewide access to pipeline infrastructure location that promotes pipeline safety.

    c. If PA1Call is designated as the repository agency for pipeline mapping, a daily download of updates should be provided to the Public Pipeline Portal (PPP). The PPP will be made available on the various state agencies websites which have involvement with pipelines across the Commonwealth.

Should the Commonwealth be unable to fully develop and sufficiently maintain the PPP, then mapping becomes the responsibility of each gathering line operator within the Commonwealth. The following is an example of such a web portal: http://www.marathonpipeline.com/Where_We_Operate/

Relevant Agencies:
PUC
PA1Call
Pipeline Operators
County Commissioners Association of Pennsylvania (CCAP)
Office of Administration
PA Geospatial Coordinating Board

Justification:
The public's need for basic information about basic pipeline data is a matter of public interest and safety. When the public is more aware of pipelines around them, they are more apt to avoid encroachment and activities that may create certain unsafe situations. This information also satisfies disclosure for those purchasing property to have awareness there is a pipeline in the vicinity and by accessing the county link or ordinance may discover what local restrictions may be placed near the pipeline of interest. This assists in avoiding any confusion regarding future development.

Actions that would be required to achieve recommendation:
A Commonwealth Agency would need to develop and maintain the PPP. This may require legislative or executive action to accomplish the task. Alternatively, Pipeline Operators would need to create their own public viewer available on their website if a Commonwealth Portal is not established.

Challenges to achieving recommendation:
- There may be problems creating the interworking between PA1Call and the hosting agency to develop the protocol.
- The hosting agency may need legislative guidance regarding adequate public disclosure.

- With gathering lines frequently changing ownership, the Pipeline Operators public viewers may have issues during mergers and acquisitions.

Additional supporting material:
Act 178
http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=178

Enterprise Products Pipeline Viewer Presentation, 2012 Pipeline Safety Trust Annual Conference

2013 GAO Pipeline Permitting: Interstate and Intrastate Natural Gas Permitting Processes Include Multiple Steps and Time Frames Vary

Chester County Pipeline Notification Protocol and Pipeline Information Center as adapted from PHMSA's PIPA.

Issues to address (such as cost, environmental impacts):
- Clarification of Pennsylvania's Right to Know Law and the Public Utility Confidential Security Information Disclosure Protection Act in regards to pipelines as critical infrastructure.
- Cost: To meet this recommendation, either the hosting agency of PPP or the industry is going to require designated funds. An option is for all Pipeline Operators to participate and provide a stipend relevant to their pipeline miles.