

**MARCELLUS SHALE ADVISORY COMMISSION**

**Work Group Recommendation Format**

1

**WORK GROUP:** Infrastructure

**SUBMITTED BY COMMISSION MEMBER(s):** Rob Powelson, Chairman of PA PUC

**NOTE:** Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

- Marcellus Shale Gas Safety Training Center

**RECOMMENDATION (including benefit, challenges to implementation, and timing):**

- There is only one site in the nation for gas safety training inspectors to be trained. It's based on Oklahoma City, OK.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

N/A

**POTENTIAL FISCAL IMPACT:**

- This facility is being proposed by EQT in collaboration with the Marcellus Shale Industry. The gas safety training facility will bring together all aspects of the industry.

**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

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**WORK GROUP: Infrastructure**

**SUBMITTED BY COMMISSION MEMBER(s): Chris Helms and Randy Smith**

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Opportunity

Four key opportunities for improving the permitting process for pipelines are seen:

- Improved coordination between state and federal agencies throughout the permitting process,
- Creation of a "One Stop" permit process for managing state permit requirements,
- Expand the use of General Permits to authorize routine activities
- The state should maintain primary approval authority for multi-county linear projects.

Improvements and enhanced coordination in the permitting process between the Federal and state regulatory agencies and improvements in state processes that would allow concurrent review of permit applications would reduce redundancies in the review processes, and enable pipeline operators to complete pipeline projects within certain and reasonable timeframes that allow the operator to meet market demands and to safely deliver Marcellus-produced gas to end users.

Challenge

The greatest challenge in continuing to operate the existing pipeline infrastructure and to expand its capacity will be primarily of a regulatory nature – the Commonwealth's ability to appropriately coordinate and/or synchronize state agency pipeline permitting to effectively manage a streamlined review and timely approval process.

As presented by El Paso Corporation during the Infrastructure Work Group session, an example was given on a Tennessee Gas Pipeline 112-mile looping project in Pennsylvania, where the Federal Energy Regulatory Commission (FERC) approval process took 18 months, construction took seven months, and the Pennsylvania state permitting took more than 30 months. This is consistent with the experience of similarly situated pipeline operators, and illustrative of how the lack of a coordinated state agency permitting process could be detrimental to the development of required infrastructure in the Commonwealth.

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The state permitting required for pipeline projects in Pennsylvania is critical to the execution of well-vetted, comprehensively planned infrastructure. Pipeline projects in Pennsylvania are currently subject to permitting by the Department of Environmental Protection, Fish and Boat Commission, Department of Conservation and Natural Resources and the Game Commission. A centralized permitting process for these agencies would reduce delays that are detrimental in pipelines meeting market demands on time and within budget. Such detriment can be harmful to an operator's willingness and ability to operate within the Commonwealth, which could ultimately result in delays or inability to move natural gas from the Marcellus production sites in Pennsylvania to the location of market demand.

**RECOMMENDATION:**

In an effort to ensure a well-organized and efficient process of infrastructure development, the Commission recommends improved state coordination with the FERC, who is responsible for issuing certificates of public necessity to approve interstate pipeline projects. The FERC has a pre-filing process that allows stakeholders (including a state) to provide input on all elements of a project, including routing, permitting requirements and scheduling. The FERC pre-filing process creates a public docket for the project, which is intended to avoid redundancy and sequential processing. The states must actively engage in this process to ensure its concerns are heard and addressed.

Additionally, the Commission recommends the development of a centralized "One Stop" oversight program that would coordinate all elements of the state permitting process by naming a lead state agency responsible for coordinating all notifications to other state agencies holding an interest in the permit application. This oversight would ensure the timely review, comment, and approval of permitting, and could also assess the various agencies to ensure that adequate state resources are available to work within the FERC deadlines and project schedule. To assist in meeting resource demands, the agencies could consider allowing applicant-funded third-party resources to work independently for the state.

The Commission recommends that, in an effort to streamline the permitting process, the DEP expands the use of their general permits to routine activities that currently require individual permitting. General permits can be granted for routine activities under a given threshold, though in the current system, the state still reviews work to be done within that threshold. Other agencies, such as the Army Corps of Engineers or the FERC, have general permits and blanket certificates, wherein if work is to be done within those pre-set limits, additional review is not required. Under the proposed approach, for all work proposed at or below the pre-set limits of the general permit, the operator must only submit notification of the work.

And finally, the Commission recommends that the state maintain primary approval authority on multi-county linear projects. When a project crosses multiple county lines, the state should seek input from the affected counties and coordinate a common response to the concerns raised by counties, however, the state should maintain ultimate approval authority for the project. Centralizing the permitting process with the state and not on the county level for linear projects would reduce such discrepancies and delays.

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**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (if yes, please summarize)**

Each recommendation can be implemented via Executive Order by the Governor.

**POTENTIAL FISCAL IMPACT:**

If properly implemented, the recommendation offered here are likely to result in a net savings to the state, counties and local governments as a result of improved coordination, less duplication of effort and more streamlined processes. Savings are also likely to result in quicker and more efficient permitting processes.

Where appropriate, the Commission recommends that the state allow applicant-funded third parties to coordinate the various elements of permitting, thereby reducing the number of state-funded resources required.

**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

3

<b>WORK GROUP: Infrastructure</b>
<b>SUBMITTED BY COMMISSION MEMBER(s): Chris Helms</b>

*NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.*

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

An extensive network of distribution, midstream, intra- and interstate natural gas transmission pipelines exist in Pennsylvania, comprising a decades-old infrastructure that is currently delivering natural gas in, out and throughout the Commonwealth. With the burgeoning development of the prolific Marcellus Shale, Pennsylvania has the opportunity to become a gross exporter of natural gas, and to meet its own energy needs with natural gas produced within the Commonwealth. In this scenario, a comprehensive and expansive infrastructure of pipelines will be critical. With the proper infrastructure in place, and by building capacity to meet future needs, Pennsylvania will be posed to deliver Marcellus-produced natural gas throughout the Commonwealth and the entire region. In order to deliver the quantities of natural gas that will be produced in the coming years and to meet increasing market demands, an increase in pipeline capacity will be required.

Key to the ability of pipeline operators in the Commonwealth to continue to operate the existing pipeline infrastructure and to expand its capacity will be a robust regulatory framework for supporting pipeline safety initiatives. Operators must continue to work with state and federal regulators to ensure a safe and reliable pipeline network, and ensure that the public is not only safe but is confident in the condition of the infrastructure. The Pennsylvania legislature must pass pipeline safety legislation that is not redundant with existing federal regulations, but is complementary and works toward achieving common objectives of maintaining a safe system.

**RECOMMENDATION:**

Ensuring a comprehensive pipeline safety strategy is incumbent on the pipeline operator and on state and federal regulators. The two pipeline safety bills currently before the Pennsylvania legislature (SB 325 and HB 344) address these concerns, and in the case of both bills, the Pennsylvania Public Utility Commission would have general administrative authority to supervise and regulate pipeline operators within the Commonwealth in a manner consistent with Federal pipeline safety laws. This legislation makes several recommendations that would improve the public's comfort in the state of pipeline safety in Pennsylvania. SB 325, for

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example, requires reporting of Class I pipeline, which would ensure safety measures be taken on pipelines in less populated areas.

Much of the nation's pipeline infrastructure was put into service decades ago, and has been kept fit-for-service through regular maintenance and inspections. However, in the coming years, pipeline operators will replace extensive miles of their systems with new pipe. To enable operators to do so, the Commission recommends that state and federal regulatory entities allow a cost-recovery mechanism to incent pipeline replacement that will allow operators to make these upgrades without incurring cost that they cannot recover.

Additionally, the Commission recommends that the Commonwealth support the development of a Pennsylvania-based first responder training program. Essential to the workings of a sound pipeline operator is an effective relationship with emergency responders, who are trained to respond to specific natural gas-related emergencies, and who understand the properties of natural gas as well as the system on which they are working.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

The Commission recommends that in the area of pipeline safety measures, through the support of SB 325 and HB 344, the Pennsylvania PUC enforce the Federal pipeline safety laws, and enter into agreements with the US Department of Transportation to inspect facilities. Such a change in regulation would not be duplicative of existing regulation, and instead would transfer ownership of this process from the federal government to the state. Such a transfer of responsibility would increase public confidence in the state's execution of safety inspections.

From a regulatory perspective, the Commission recommends that utilities be allowed a cost-recovery mechanism, to enable the replacement and upgrade of existing infrastructure.

**POTENTIAL FISCAL IMPACT:**

Complementary to the recommendation that the PUC regulate interstate pipelines, additional state inspectors will be needed to manage this regulatory process. This cost will be covered as designed in the currently proposed pipeline safety bills, in that the PUC will determine an appropriate annual assessment based on intrastate transmission, regulated distribution and regulated onshore gathering of pipeline miles.

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**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

**WORK GROUP: Infrastructure Committee**

**SUBMITTED BY COMMISSION MEMBER(s): Barry Schoch**

*NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.*

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

The development of the Marcellus Shale Gas Play greatly increases the need for the transport of commodities. Sand, water, pipe, and water treatment have become commodities greatly in demand. On May 9, 2011, the SEDA-COG Joint Rail Authority provided a briefing to the Infrastructure Committee of the Marcellus Shale Advisory Commission. In that briefing, details were provided that showed dramatic increase in traffic density of short-line rail carloads because of the Marcellus development. Specifically, freight traffic was 16 times greater in 2010 than it was in 1986.

A Rail Freight Grant Program exists; however, historically this has been funded with general fund monies. The program is currently not funded.

If commodities cannot be transported on rail facilities, then they will be transported on an already exhausted system of highway and bridges that are in great need repair.

It is imperative that the Commonwealth capitalize on the Marcellus Shale opportunity.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

Identify a funding source that could be used to address a variety of transportation infrastructure needs. The transportation account should be flexible, so that resources could be used to best address the identified need. Funds should be able to be used to enhance safety or maintain roads or bridges, as well as improving rail facilities (getting trucks off the road).

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Legislation would be needed to identify the funding sources. Regulations would be necessary to establish how the funding would be utilized and/or distributed.

**POTENTIAL FISCAL IMPACT:**

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The Marcellus Shale Gas Play is creating opportunity throughout Pennsylvania. Along with this opportunity comes a tremendous impact to the Transportation system. Appropriate transportation investment will enhance our ability to meet the growing demands for commodity movement as well as maximize the economic implications of those decisions.



**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

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**WORK GROUP: Infrastructure Committee**

**SUBMITTED BY COMMISSION MEMBER(s): Scott Christie, Gary Slagel, Ray Walker**

*NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.*

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

**Scott Christie, Deputy Secretary for Highway Administration, PennDOT Summary:**

There are roads that are being damaged that are not posted and will likely not be posted. How does PennDOT recover costs for this damage. The current posted and bonded road program is working. However there are three areas that could use improvement.

1. The current process is undergoing daily change. Considering the current process – what comments would the industry have – so that PennDOT's performance is more timely?
2. Currently there are companies that do not keep up maintaining roads with major damage and almost none of the companies keep up maintaining roads with minor damage. What should PennDOT do to achieve better performance from the industry?
3. Here is where I would also include Matt's comment on the timing to implement BMP's for E and S.

**Gary Slagel, Consol Energy Summary:**

Can industry do the surveys, designs, checking of plans, inspections, etc.?

Concern over how the roads are evaluated prior to being impacted and whether an objective process can be used to establish those conditions. If it is a manpower issue within DOT hiring consultants may be a remedy – can industry help pay?

Confusion about the timing of repairs, particularly where multiple companies are using the same road and there is a question about the division of responsibility. May be a need for an industry MOU type document that all bonded users of the road sign on to.

Problems with bonded users getting deleted from the list of users even when they submit a request based on the fact that plans have changed and they have not and are not going to use the roadway they had bonded.

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**Ray Walker Summary:**

Better coordination with townships and PennDOT regarding road construction and maintenance.

**RECOMMENDATION (including benefit, challenges to implementation, and timing):**

**Scott Christie, Deputy Secretary for Highway Administration, PennDOT Recommendations:**

1. Funding repair of NON posted roads that are suffering damage
2. Allow for proactive implementation of E and S controls as roads are damaged
3. PennDOT/industry partnering to allow industry to perform work for the DOT - such as construction inspection/roadway inspection. This would free up PennDOT resources to complete work more timely.
4. Review the amount of additional fuel tax generated by the MShale industry activity
5. Improve timeliness of repair to all damaged roads
6. Funding of current resources PennDOT is expending managing the bonded road program
7. Continue to modify processes used to manage the bonded road program

**Ray Walker:**

Recommendation for industry to look at both state and township roads in advance of their operations and stabilize roads in advance as necessary so as not to create environmental issues or safety issues on the roads during operations.

The challenge to implementation on this recommendation is timing and planning for operators. It may take operators 12 months to get to the point where they are proactively planning road stabilization prior to initiating operations.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Much of this could be handled outside of regulatory change within guidance / policy documents.

**POTENTIAL FISCAL IMPACT:**

In cases of additional manpower or resources by the federal government, industry is expressing willingness to pay if it helps to expedite.

**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

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**WORK GROUP: Infrastructure Committee**

**SUBMITTED BY COMMISSION MEMBER(s): Christopher Masclantonio**

*NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.*

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Use of Blast Furnace Slag and Steel Slag for Well Pad and Well Roadway construction. Blast Furnace Slag and Steel Slag are byproducts of the iron and steelmaking process. As a major steel production state, Pennsylvania is home to a reliable supply of Blast Furnace and Steel Slag. Utilization of the Slag products will ensure high quality well pad and well roadway construction in a cost effective manner, while providing significant environmental benefits to the Commonwealth.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

Steel and Blast Furnace Slag are highly recyclable byproducts of the electric arc and integrated steelmaking processes. These materials are comparable to naturally occurring aggregate materials. Use of Blast furnace and Steel Slags for aggregate applications in place of naturally occurring materials saves on landfill space and the over mining of the state's natural aggregate resources. These materials are currently readily available in ample supply and there are no challenges to implement use of Slags other than recognition by the Marcellus shale producers that this is a low cost, high quality, highly recyclable material.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

No regulatory change is needed. The Pennsylvania Department of Environmental Protection endorses the use of Blast Furnace and Steel Slags for Well Pad and Well Roadway construction. These slag uses are currently covered by several PADEP General Permits for Beneficial Reuse. The Slag products have a long history of use as an aggregate for construction purposes in Pennsylvania and across the country.

**POTENTIAL FISCAL IMPACT:**

In geographic locations where Blast Furnace and Steel Slags are readily available, Slag costs can range from 5% to 25% less FOB than natural aggregates. Accordingly, there would be no financial impact on the Commonwealth, and likely a financial benefit for the construction of well pads and well roadways.

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**MARCELLUS SHALE ADVISORY COMMISSION**  
**Work Group Recommendation Format**

**WORK GROUP:**

**SUBMITTED BY COMMISSION MEMBER(s):**

Ray Walker

*NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to work group chair no later than XXXX in order to be considered by full commission for submission into final report.*

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Incentivize the use of natural gas for vehicles and for power generation.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

Recommendation for the incentivization of the use of natural gas in vehicles and for power generation.

The legislature will need to move with legislation for incentivizing the use of natural gas. Additionally, in some instances, permits may be required. The use of natural gas in different applications will be dependent upon how quickly these happen.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

While this will include some legislation to incentivize the use of natural gas, this can be performed in several ways, including:

- (1) Allowing for tax rebates for changing to natural gas
- (2) Allowing for tax credits for changing to natural gas
- (3) Expediting permitting for when a power plant would change from coal-fired electric generation to natural-gas fired electric generation.
- (4) Allowing for credits to be traded if incentivizing the use of natural gas through tax credits.

**POTENTIAL FISCAL IMPACT:**

**MARCELLUS SHALE ADVISORY COMMISSION**  
Work Group Recommendation Format

~~X~~ 8  
Refer to Department

<b>WORK GROUP:</b> Local Impact and Emergency Response
<b>SUBMITTED BY COMMISSION MEMBER(s):</b> George Greig, Secretary of Agriculture

**NOTE:** Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Transportation

The current and planned proliferation of state and local road weight limit posting, with attendant bonding, maintenance agreements and associated repair costs in the regions of the state where Marcellus gas work is underway; is subjecting the local loggers, sawmill and other wood and paper manufacturing facilities, as well as milk haulers, to unaffordable costs and unmanageable expenses; particularly when they will be or are co-bonded on a road that is bonded by a gas operator. In sum, loggers and milk truckers are co-bonding and posting with gas companies, and are suffering consequences. There were no reported problems from 2000 to 2009 with co bonding, but claims began in 2009 of the hardwoods industry pulling road bonds because of high costs. Some have walked away from timber bids due to unaffordable costs associated with road bonding.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

The challenge regarding transportation among agricultural industries such as hardwoods and dairy is of immediate concern, and a top priority of the Department. Small logging businesses are being forced to turn away from local communities in the Marcellus region due to the unaffordable costs now associated with co-bonding and posting with gas companies. We recommend considering a policy that takes these concerns into consideration and provides regulatory relief for those companies who are being negatively impacted.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

PennDOT has proposed emergency regulations in Title 67 of the PA Code, Chapter 189, related to the Hauling in Excess of Posted Weight Limits. There may be other potential statutory or regulatory changes required.

**POTENTIAL FISCAL IMPACT:**

Unknown at this time

**MARCELLUS SHALE ADVISORY COMMISSION**  
Work Group Recommendation Format

~~20~~ *Number to Infrastructure*

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<b>WORK GROUP:</b> Infrastructure
<b>SUBMITTED BY COMMISSION MEMBER(s):</b> David M. Sanko (PSATS)

**NOTE:** Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.

**SUMMARY OF CHALLENGE OR OPPORTUNITY:** Due to the explosive proliferation in gathering lines to support the rapid growth of the industry, there is a need for oversight by the PUC for the many new lines that will certainly be built to transport natural gas from the well site to interstate or intrastate transmission lines. While federal standards exist for gathering lines, there is no enforcement mechanism to ensure that these regulations are followed.

**RECOMMENDATION (including benefit, challenges to implementation, and timing):**  
PUC should be authorized and receive funding to oversee gathering lines within the commonwealth and to ensure that these lines are compliant with relevant federal requirements and best practices. In order to minimize potential danger from leaks and explosions, considerations should be given to burying lines at a depth sufficient to avoid damage from routine road maintenance activities. Legislation should require that local officials and emergency responders be provided with gathering line locations for planning and emergency response purposes.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (if yes, please summarize)**  
Legislation is needed to empower the PUC to take on this role and a funding mechanism will be needed to provide PUC with the resources to properly carry out these responsibilities. Legislation is currently moving in the General Assembly that would implement this recommendation.

**POTENTIAL FISCAL IMPACT:**  
Funding will be needed to provide PUC with the resources needed to carry out its responsibilities, which should be provided from an assessment mechanism on the owners of the gathering lines.

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**MARCELLUS SHALE ADVISORY COMMISSION**  
Work Group Recommendation Format

~~X~~ needs to be revised

<b>WORK GROUP:</b> Infrastructure
<b>SUBMITTED BY COMMISSION MEMBER(s):</b> David M. Sanko (PSATS)

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**NOTE:** Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Intensive heavy truck traffic, including the hauling of heavy drilling equipment, the transportation of water; and the removal of waste and other drilling byproducts, has an adverse impact on local roads, highways, and bridges. This negative situation is exacerbated by the fact that a significant portion of such hauling activity occurs on rural roadways that were not constructed for this type and amount of truck traffic. Adding to this the fact that these roads are exposed to extreme fluctuations in weather throughout the year, they will quickly deteriorate and require constant maintenance and upkeep.

PSATS encourages its members to post and bond their roads and to work closely with the industry to ensure that the entity damaging the road pays for this damage. However, the bonding rates, which are the insurance policy that the damage will be repaired, have not been increased since the early 1980s and do not reflect the current costs of paving a road, let alone rebuilding it. In addition, the regulations currently do not include a mechanism to recover all costs associated with hauling, including additional staff to constantly inspect road conditions and monitor repairs.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

Increase the maximum bonding amounts from \$12,500 per mile for a paved road and \$6,000 per mile for an unpaved road to better reflect today's cost to repair and reconstruct roads, which are upwards of \$80,000 per mile.

Amend regulations to specifically authorize excess maintenance agreements as a necessary tool to administer and enforce weight limits used by heavy haulers.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Amendment to existing statute or PennDOT regulations as necessary to implement this change.

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**POTENTIAL FISCAL IMPACT:**

Some impact on the entity damaging the roads from the higher bonding amounts. Decreased cost exposure for municipalities due to the ability to pull a bond that will actually repair the damages.



**MARCELLUS SHALE ADVISORY COMMISSION**

**Work Group Recommendation Format**

~~AT~~ review  
Kubas

<b>WORK GROUP: Local Impact and Emergency Response</b>
<b>SUBMITTED BY COMMISSION MEMBER(s): Jeff Wheeland</b>
MM

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Commercial service and general aviation airports throughout the Marcellus shale region are currently among the fastest growing airports in the nation. Gas companies have a strong need for air service as many companies and employees are based in southern and western states making travel by other modes undesirable. In addition, many gas companies have their own fleets of corporate aircraft that need adequate aviation facilities to store and service. (Note that one out of every three commercial passengers using the Williamsport Regional Airport is attributable to the gas industry and over 60% of corporate aircraft utilizing the airport is gas industry aircraft. Enplanements have increased at Williamsport airport 23% during the last six months.) Despite this sudden increase in air traffic, many airports lack adequate commercial air service choices and have aging and inefficient infrastructure. To mitigate these new business opportunities by the gas industry.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

The PA Bureau of Aviation, as part of its update to the State Aviation Plan and Economic Impact of Aviation Report, should undertake a detailed assessment of air service and infrastructure needs of airports to determine the overall air service needs and infrastructure upgrades to respond to new business opportunities stimulated by the gas industry. The Commonwealth should work closely with airport authorities, Counties, Chambers of Commerce to increase limited air service choices, especially at airports situated in the Marcellus region which will also stimulate competition among the airline industry and help lower fares at these smaller airports. The state should offer increased assistance in the airline recruitment process.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Ensure increased municipal compliance with State Airport Hazard Zoning Act.

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**POTENTIAL FISCAL IMPACT:**

Provide increases in State Aviation Development Grants to airports to upgrade infrastructure to adequately capture new business opportunities from gas industry at airports, including aircraft hanger expansion and repair, runway safety, terminal building expansions and improve intermodal connectivity as appropriate.

**MARCELLUS SHALE ADVISORY COMMISSION**

**Work Group Recommendation Format**

~~Refer~~  
Info  
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**WORK GROUP: ~~Local Impact and Emergency Response~~**

**SUBMITTED BY COMMISSION MEMBER(s): Jeff Wheeland**

MM

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Gas exploration relies heavily on ~~adequate rail road infrastructure~~. Railroads in the Marcellus Shale region have witnessed sharp increases in carload operations since the emergence of gas drilling by hauling frac sand, pipe, drilling equipment, chemicals etc.. As an example, the Lycoming Valley Railroad hauling activity attributable to Marcellus has jumped from 80 carloads in 2008 to over 6,000 carloads in 2010 and is forecast to double again in the next two years. With this sharp increase in rail freight, more local train crews are being hired with new revenues along with major expansion of the local rail system and restoration of unused rail sidings to serve warehouses and reused factory buildings. ~~Very little has moved truck from area roadways to increased volume in rail road infrastructure. The preservation and capacity expansion should be promoted as an intermodal strategy.~~ Already, we are seeing rail served industrial sites filling up throughout the Marcellus Shale region which will pose a major problem for accommodating new growth opportunities. It is noted the SEDA-COG Joint Rail Authority working in partnership with the County of Lycoming secured a \$ 10 million TIGER 2 federal grant for railroad infrastructure upgrades in 5 counties.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

The Commonwealth should work with railroad owners and operators to thoroughly evaluate railroad infrastructure preservation and new rail capacity needs to adequately respond to growing demand for rail service by the gas industry and forge partnerships with the industry as an intermodal approach. Better use of rail will also reduce the need for costly highway and bridge impacts but it will not eliminate these impacts since rail/truck transfer must occur to access numerous remote gas well location sites throughout a vast region.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Undertake a thorough review of the PA Rail Freight Assistance Program and PA Rail Capital Budget process to determine any changes needed to properly respond to substantial rail freight needs of the gas industry.

**POTENTIAL FISCAL IMPACT:**

12-B

The PA Rail Freight Assistance Program is substantially underfunded to address the emerging rail freight needs of the gas industry and should be increased in a way that promotes strong public and private partnerships and encourages greater contributions from the gas industry in return for higher state funding assistance to fund high priority projects.

**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

**X**  
see ref  
Inform's  
13

**WORK GROUP:** ~~Local Impact and Emergency Response~~ *Inform's*

**SUBMITTED BY COMMISSION MEMBER(s):** Jeff Wheeland

MM

**NOTE:** Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than **May 31, 2011**.

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Gas exploration is having impacts to local and state bridges. **PA has the highest percentage of structurally deficient bridges in the nation.** In fact, the number and condition of locally-owned bridges less than 20 feet are unknown because federal requirements do not require systematic inspection cycles for these smaller bridges. Many of these aging and weight restricted bridges are located in the Marcellus Shale region and are being impacted by sudden increases in heavy truck traffic that are accelerating deterioration and reducing bridge life cycles. **Bridge closures and long detours in many of the remote areas of the Marcellus region which is detrimental to the industry residents in a way that is not manageable by the state.**

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

All publicly owned bridges in the Commonwealth regardless of ownership and span length should be routinely inspected by qualified engineers to determine appropriate weight limits, necessary repairs and funding requirements to ensure bridges remain open and safe for public use.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

State legislation should be enacted to require an inventory and inspection of all publicly owned bridges, including smaller bridges of 8-20 feet span length and financial resources should be provided to the bridge owners to accomplish these inspections perhaps through the impact fee approach. Additional state funding should be approved for PennDOT to accelerate the repair and replacement of structurally deficient bridges in the Commonwealth.

**POTENTIAL FISCAL IMPACT:**

The County of Lycoming is the first county in PA to develop an inspection program for smaller locally owned bridge 8-20 ft. long. Typically, bridge inspections cost about \$ 1,000 - \$ 2,000 per structure.

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**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

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<b>WORK GROUP:</b> Local Impact and Emergency Response <i>Infrastructure</i>
<b>SUBMITTED BY COMMISSION MEMBER(s):</b> Jeff Wheeland
MM

**NOTE:** Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

State and local roadways are being impacted from sudden increases in truck traffic from Marcellus Shale gas exploration. Many state-owned secondary and local roadways have already been posted for weight limits and gas companies are bonded to perform needed repairs in a timely fashion. It is acknowledged that gas companies are spending millions to undertake road repairs and in some cases the road is actually an improvement over its earlier condition. However, many major traffic routes are not posted and bonded and the added truck traffic will reduce pavement life cycle and burden taxpayers with added expense toward more frequent pavement maintenance and restoration. Also, additional truck traffic in smaller communities is causing congestion, public safety and quality of life concerns. Certain roadways and intersections are not designed to accommodate large increases in truck traffic and PennDOT/local municipalities do not have adequate financial resources to correct these problems in a timely manner.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

A comprehensive database should be established to monitor traffic volumes on state and local roadways to compare increases in traffic (especially truck traffic) on roadways in the Marcellus Shale region since gas exploration has occurred to establish a baseline and factually assess impacts. Accelerated pavement life cycle deterioration analysis (especially on non-posted/bonded roads) should be undertaken to determine future maintenance costs and funding needs due to significant increases in truck traffic from the industry.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

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A thorough review of the PA Motor Vehicle Code needs to be performed as it relates to the permitting process for road and bridge posting and bonding, routing of oversized and overweight vehicles, highway occupancy permitting, hazardous materials transport, truck safety inspections, traffic control devices etc... The PA Impact Fee Law should also be reviewed as the mobile nature of gas exploration activity creates issues with a municipality's ability to utilize this legislation to recover costs for off-site improvements necessitated by this industry.

**POTENTIAL FISCAL IMPACT:**

The Commonwealth and its counties and municipalities must know the true fiscal impact of gas exploration on our entire roadway system and not just limit cost recovery from the industry on posted and bonded roads. It is likely that current gas taxes and fees paid by the industry are not sufficient to cover increased costs of maintaining non-posted and bonded roads experiencing greatly accelerated life cycle deterioration from heavy truck traffic and a fiscal analysis should be undertaken by the state in this regard. Included in this fiscal analysis should be a review of PA Motor Liquid Fuels Tax receipts to understand why counties and local municipalities are not receiving additional funds from the State at a time when large increases in fuel sales generated by the gas industry are occurring. Even the current high price of gas with potential reduced overall travel and use of more fuel efficient vehicles should not offset the large amount of revenue derived from the gas industry and it is unlikely they are purchasing much of their fuel out of state.

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**MARCELLUS SHALE ADVISORY COMMISSION**  
Work Group Recommendation Format

<b>WORK GROUP: Infrastructure Committee</b>
<b>SUBMITTED BY COMMISSION MEMBER(s): Christopher Masciantonio</b>

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

The development of the Marcellus Shale provides an opportunity to promote the use of domestic-based tubular steel products in the drilling and construction of natural gas wells. Section 212(a) of the Oil and Gas Act, 58 P.S. § 601.212(a), requires well operators to file annual reports with the Department of Environmental Protection ("DEP") specifying the amount of well production and the status of each well. This section could be amended by legislation to require well operators to report the country of origin and manufacture of the steel products used to drill or maintain the well during the reporting period. Reporting will allow the DEP and the General Assembly to determine whether domestic tubular steel products are being used in the construction and maintenance of natural gas wells in Pennsylvania. Requiring disclosure of the country of origin and manufacture of steel products used in gas production will provide greater transparency as to the origins of the steel and the quality tests that the steel was subject to in the countries of origin and manufacture. Collection and disclosure of this information will allow the DEP and General Assembly to determine whether additional legislation is required concerning the use of foreign steel in the construction of these facilities.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

Section 212(a) of the Oil and Gas Act, 58 P.S. § 601.212(a), could be amended to add the following subsection:

- (1) The report shall also specify the country of origin and manufacture of any steel products used in the maintenance or construction of the well in the reporting period. This information shall not be considered confidential.

The amendment would direct well producers to include this information in its annual well production report to the DEP and the legislation would require the DEP to report this information on an annual basis to the General Assembly. Reporting this information to the DEP



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and General Assembly will permit a determination of the amount of domestic steel being used for these facilities and whether there is any issue concerning the quality and safety of steel being used for these important facilities.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Yes. The proposed legislation identified above would have to be amended and the amended legislation enacted by the General Assembly and signed by the Governor. The DEP would have to promulgate regulations for the implementation of the proposed legislation.

**POTENTIAL FISCAL IMPACT:**

The financial impact on the well operators to report the country of origin and manufacture of the steel products used in their facilities should not be significant. The documentation produced with the purchase of steel pipe usually identifies its country of origin and manufacture and the pipe itself frequently is labeled with information identifying its country of origin and manufacture.

**MARCELLUS SHALE ADVISORY COMMISSION**

**Work Group Recommendation Format**

<b>WORK GROUP: Infrastructure Committee</b>
<b>SUBMITTED BY COMMISSION MEMBER(s): Christopher Masciantonio</b>

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

The development of the Marcellus Shale provides an opportunity to promote the use of domestic-based tubular steel products in the construction of gathering lines and utility pipelines. Proposed legislation currently before the General Assembly can be amended to require public utilities and pipeline operators to report the country of origin and manufacture of the steel products used in their facilities. Reporting will allow the Public Utility Commission and the General Assembly to determine whether domestic tubular steel products are being used in the construction of public utility facilities and pipeline projects in Pennsylvania. Requiring disclosure of the country of production and manufacture of steel products used in gathering pipelines and public utility pipelines will provide greater transparency as to the origins of the steel and the quality tests that the steel was subject to in the countries of origin and manufacture. Collection and disclosure of this information will allow the Commission and General Assembly to determine whether additional legislation is required concerning the use of foreign steel in the construction of these facilities.

**RECOMMENDATION (Including benefit, challenges to implementation, and timing):**

The General Assembly is currently considering proposed legislation amending the Public Utility Code to accelerate the recovery of capital costs for public utility facilities constructed by fixed utilities or city natural gas distribution operations (House Bill No. 1294) and also the expansion of Public Utility Commission ("Commission") jurisdiction over pipelines and pipeline operators that are not public utilities (House Bill No. 344 and Senate Bill No. 325). The proposed legislation can be amended to require public utilities and pipeline operators to report the country of origin and manufacture of the steel products used in their facilities. Reporting this information to the Commission and General Assembly will permit a determination of the amount of domestic steel being used for these facilities and whether there is any issue concerning the quality of steel being used for these important facilities. The specific revisions to each bill would be the following:

House Bill No. 1294

House Bill No. 1294 includes a procedure for public utilities to request recovery of reasonable and prudently-incurred costs for capital projects outside of a base rate proceeding. The following subsection could be added to proposed Section 1329(b)(1).

(l) If the incurred costs proposed for recovery by the fixed utility or city natural gas distribution operation include the cost of installing new facilities or replacing existing facilities, the utility or distribution company shall identify as part of its request the country of origin and manufacture of the steel products used in constructing the facilities.

House Bill No. 344 and Senate Bill No. 325

These bills are similar and confirm the Commission's jurisdiction over pipeline safety and pipeline operators which are not public utilities. Both bills require pipeline operators to register their pipelines with the Commission. The similar registration provisions in Senate Bill No. 325 (Section 301(b)) and House Bill No. 344 (Section 3204(b)) could be amended to add the following language.

(b) Application. The commission may develop an application for registration under subsection (a) and may charge a reasonable registration fee and annual renewal fee.

(1) The application shall require each pipeline operator to identify the country of origin and manufacture of the steel products used in constructing the pipeline.

The Legislation should also be amended to require the Public Utility Commission to report this information to the General Assembly on an annual Basis.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Yes. The proposed legislation identified above would have to be amended and the amended legislation enacted by the General Assembly and signed by the Governor. The Public Utility Commission would have to promulgate regulations for the implementation of the proposed legislation.

**POTENTIAL FISCAL IMPACT:**

The financial impact on the public utilities and the pipeline operators to report the country of origin and manufacture of the steel products used in their facilities should not be significant. The documentation produced with the purchase of steel pipe usually identifies its country of origin and the pipe itself frequently is labeled with information identifying its country of origin and manufacture.

(revised)

**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

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**WORK GROUP: Infrastructure**

**SUBMITTED BY COMMISSION MEMBER(s): Chris Helms**

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Municipal authorities are not provided adequate notification of the commencement of pipeline, especially gathering line, construction. Currently, no regulations exist to mandate such a notification process.

**RECOMMENDATION:**

Through the newly designated centralized state permitting agency (see previous recommendation), this designated state agency would be responsible for reporting pipeline projects to the affected municipalities.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Implementation of a centralized state permitting agency that includes notification provisions requiring the state notify local municipalities of planned natural gas facilities.

**POTENTIAL FISCAL IMPACT:**

As noted in the permitting recommendation, state should consider applicant-funded third-party reviewers to work for the state in the permitting review process.

(revised)

**MARCELLUS SHALE ADVISORY COMMISSION**

Work Group Recommendation Format

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**WORK GROUP: Infrastructure**

**SUBMITTED BY COMMISSION MEMBER(s): Chris Helms**

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

A comprehensive and expansive infrastructure of pipelines will be critical to Pennsylvania's future. With the proper infrastructure in place, and by building capacity to meet future needs, Pennsylvania will be posed to deliver Marcellus-produced natural gas throughout the Commonwealth and the region.

The Commonwealth must have a robust regulatory framework for supporting pipeline safety initiatives. Operators must work with state and federal regulators to ensure a safe and reliable pipeline network, and ensure that the public is not only safe but is confident in the condition of the infrastructure.

**RECOMMENDATION:**

**1) Enact pipeline safety legislation**

In both SB 325 and HB 344, the PUC would have general administrative authority to supervise and regulate pipeline operators within the Commonwealth in a manner consistent with Federal pipeline safety laws. This legislation makes several recommendations that would improve the public's comfort in the state of pipeline safety in Pennsylvania. SB 325, for example, requires reporting of Class I pipeline. No pipeline safety regulations shall exceed the level of federal requirements.

**2) Fitness-for-service requirements**

Require pipeline operators to establish fitness-for-service criteria consistent with PHMSA regulations, including an obligation to inspect facilities on a recurring frequency.

**3) Cost-recovery mechanism**

State and federal regulatory entities allow a cost-recovery mechanism to incent pipeline replacement that will allow operators to conduct infrastructure upgrades without incurring cost that they cannot recover.

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

18-13

Passage of SB 325 or HB 344, resulting in the PUC enforcing Federal pipeline safety laws and entering into agreements with the US Department of Transportation to inspect facilities.

The Commission recommends that utilities be allowed a cost-recovery mechanism, to enable the replacement and upgrade of existing infrastructure.

**POTENTIAL FISCAL IMPACT:**

The PUC can determine an appropriate annual assessment based on intrastate transmission, regulated distribution and regulated onshore gathering of pipeline miles.

**MARCELLUS SHALE ADVISORY COMMISSION**  
Work Group Recommendation Format

(revised)  
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<b>WORK GROUP: Infrastructure</b>
<b>SUBMITTED BY COMMISSION MEMBER(s): Chris Helms and Randy Smith</b>

**NOTE: Each recommendation should be brief with a 2 page maximum upon completion. All recommendations are due to Chris Gray (chrgray@state.pa.us) no later than May 31, 2011.**

**SUMMARY OF CHALLENGE OR OPPORTUNITY:**

Opportunity

Four key opportunities for improving the permitting process for pipelines:

- 1) Improved coordination between state and federal agencies throughout the permitting process
- 2) Creation of a "One Stop" permit process for managing state permit requirements and for delivery of project notifications
- 3) Expanded use of General Permits to authorize routine activities
- 4) State-maintained primary approval authority for multi-county linear projects

Challenge

As presented by El Paso Corporation during an Infrastructure Work Group session, an example was given on a Tennessee Gas Pipeline 112-mile looping project in Pennsylvania, where the Federal Energy Regulatory Commission (FERC) approval process took 18 months, construction took seven months, and the Pennsylvania state permitting took more than 30 months. This is consistent with the experience of similarly situated pipeline operators, and illustrative of how the lack of a coordinated state agency permitting process could be detrimental to the development of required infrastructure in the Commonwealth.

The state permitting required for pipeline projects in Pennsylvania is critical to the execution of well-vetted, comprehensively planned infrastructure. Pipeline projects in Pennsylvania are currently subject to permitting by the Department of Environmental Protection, Fish and Boat Commission, Department of Conservation and Natural Resources and the Game Commission. A centralized permitting process for these agencies would reduce delays that are detrimental in pipelines meeting market demands on time and within budget. Such detriment can be harmful to an operator's willingness and ability to operate within the Commonwealth, which could ultimately result in delays or inability to move natural gas from the Marcellus production sites in Pennsylvania to the location of market demand.

**RECOMMENDATION:**

### **1) Improved coordination between state and federal agencies throughout the permitting process**

The Commission recommends improved state coordination with the FERC, who is responsible for issuing certificates of public necessity to approve interstate pipeline projects. The FERC has a pre-filing process that allows stakeholders (including a state) to provide input on all elements of a project, including routing, permitting requirements and scheduling. The FERC pre-filing process creates a public docket for the project, which is intended to avoid redundancy and sequential processing. The states must actively engage in this process to ensure its concerns are heard and addressed.

### **2) Creation of a "One Stop" permit process for managing state permit requirements**

The Commission recommends the development of a centralized "One Stop" oversight program that would coordinate all elements of the state permitting process by naming a lead state agency responsible for coordinating all notifications to other state and local agencies holding an interest in the permit application. This oversight would ensure the timely review, comment, and approval of permitting, and could also assess the various agencies to ensure that adequate state resources are available to work within the FERC deadlines, when applicable, and project schedule. The One Stop process would apply to all areas of production, midstream and transmission that require state permitting.

Upon centralizing all permitting required for a project, the One Stop agency would issue a notification to affected local municipalities to notify them of the work.

To assist in meeting resource demands, the agencies could consider allowing applicant-funded third-party resources to work independently for the state.

### **3) Expand the use of General Permits to authorize routine activities**

The Commission recommends that, in an effort to streamline the permitting process, the DEP expands the use of their general permits to routine activities that currently require individual permitting. General permits can be granted for routine activities under a given threshold, though in the current system, the state still reviews work to be done within that threshold. Other agencies, such as the Army Corps of Engineers or the FERC, have general permits and blanket certificates, wherein if work is to be done within those pre-set limits, additional review is not required. Under the proposed approach, for all work proposed at or below the pre-set limits of the general permit, the operator must only submit notification of the work.

### **4) The state should maintain primary approval authority for multi-county linear projects**

And finally, the Commission recommends that the state maintain primary approval authority on multi-county linear projects. When a project crosses multiple county lines, the state should seek input from the affected counties and coordinate a common response to the concerns raised by counties, however, the state should maintain ultimate approval authority for the project. Centralizing the permitting process with the state and not on the county level for linear projects would reduce such discrepancies and delays.



19-C

**LEGISLATION AND/OR REGULATORY CHANGE NEEDED? (If yes, please summarize)**

Each recommendation can be implemented via Executive Order by the Governor.

**POTENTIAL FISCAL IMPACT:**

If properly implemented, the recommendation offered here are likely to result in a net savings to the state, counties and local governments as a result of improved coordination, less duplication of effort and more streamlined processes. Savings are also likely to result in quicker and more efficient permitting processes.

Where appropriate, the Commission recommends that the state allow applicant-funded third parties to coordinate the various elements of permitting, thereby reducing the number of state-funded resources required.