

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

DELAWARE RIVERKEEPER
NETWORK
925 Canal Street
7th Floor, Suite 3701
Bristol, PA 19007,

Docket No:

MAYA VAN ROSSUM, THE
DELAWARE RIVERKEEPER
925 Canal Street
7th Floor, Suite 3701
Bristol, PA 19007

Petitioners,

V.

GOVERNOR CORBETT, in his
Official Capacity
225 Main Capitol Building
Harrisburg, PA 17120, and

COMMONWEALTH OF
PENNSYLVANIA
c/o Kathleen Kane, Attorney General of
Pennsylvania
16th Floor, Strawberry Square
Harrisburg, PA 17120,

PENNSYLVANIA DEPARTMENT OF
CONSERVATION AND NATURAL
RESOURCES
400 Market Street
Rachel Carson State Office Building
Harrisburg, PA 17105-8552

Respondents.

NOTICE TO PLEAD

To: Commonwealth of Pennsylvania
Governor Corbett
Pennsylvania Department of Conservation and Natural Resources

You are hereby notified to file a written response to the enclosed Petition For Review Seeking Declaratory Judgment And Injunctive Relief within twenty (20) days from service hereof or a judgment may be entered against you.

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By:



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Date: October 29, 2014

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Docket No:

PETITION FOR REVIEW SEEKING DECLARATORY JUDGMENT AND
INJUNCTIVE RELIEF

I. Introduction

1. Petitioners challenge the constitutionality of the Commonwealth's decision to attempt to balance the state budget by leasing state park and forest land for industrial shale gas development.

2. While the Commonwealth may have an obligation to balance the budget, it has concomitant constitutional obligations under Article I that restrict how it can exercise its authority and meet its other obligations.

3. The Commonwealth may not trample on constitutionally-protected rights to property, a healthy environment, and public trust resources in order to balance the budget.

4. And yet, this is what the Commonwealth has decided to do.

5. In balancing the budget by expanded leasing of state park and forest land (including subsurface rights) for industrial shale gas development, the Commonwealth has breached its fiduciary duties under Article I, Section 27 as the *trustee* of the people's public natural resources, including state parks and forests, and the myriad of public natural resources in them.

6. It has infringed on the people's rights under Article I, Section 27 to clean air, pure water, and the preservation of the natural, scenic, historic and esthetic values of the environment.

7. Likewise, the Commonwealth has infringed on citizens' rights to the use and enjoyment of their property, including the right of citizens who live near state park and forest land and could have never expected the onslaught of industrial gas development there, much less that their own government would affirmatively spur such development.

8. Further, if the Commonwealth had taken seriously its constitutional obligations and analyzed the state of the science on unconventional gas development; its out-of-date and incomplete regulations; and the industry's track record in the state, the result would have been clear.

9. If it had done this analysis, the Commonwealth would not be advancing such industrial development on or near state forest and park land.

II. Jurisdiction

10. The Commonwealth Court has original jurisdiction over this action pursuant to 42 Pa.C.S. § 761 because this action has been filed against the Commonwealth and officers thereof acting in their official capacities.

11. Petitioners also bring this action pursuant to the "Declaratory Judgments Act," 42 Pa.C.S. § 7531 et seq. and Pennsylvania Rules of Civil Procedure 1602 et seq.

III. Parties

12. The Delaware Riverkeeper Network (“DRN”) is a non-profit organization established in 1988 to protect and restore the Delaware River, its associated watershed, tributaries, and habitats.

13. To achieve these goals, DRN organizes and implements streambank restorations, a volunteer and scientific monitoring program, educational programs, environmental advocacy initiatives, recreational activities, and environmental law enforcement efforts throughout the entire Delaware River Basin watershed and beyond, including throughout the four states that comprise the watershed (New York, New Jersey, Pennsylvania, and Delaware) and at the federal level when litigation and/or advocacy has direct implications for the River, its tributaries, and watershed.

14. DRN also champions the rights of local communities to a Delaware River and tributary streams that are free-flowing, clean, healthy and abundant with a diversity of life.

15. DRN is a membership organization headquartered in Bristol, Pennsylvania, with more than 14,000 members with interests in the health and welfare of the Delaware River, its tributaries, and its watershed.

16. DRN members use and enjoy state parks and forests throughout the Commonwealth, including by camping, hiking, canoeing, fishing, birdwatching,

bicycling, taking photographs, and engaging in other activities involving recreation and scenic enjoyment of their state parks and forests.

17. Maya van Rossum is the Delaware Riverkeeper, a full-time, privately funded ombudsman who is responsible for the protection of the Delaware River Watershed.

18. The Delaware Riverkeeper, Maya van Rossum, advocates for the protection and restoration of the ecological, recreational, commercial and aesthetic qualities of the Delaware River, its tributaries and habitats.

19. She testifies before local, state and national governing bodies; organizes, educates and works with concerned peoples who live in, work in, benefit from or enjoy the Delaware River watershed and its ecological resources; she leads the organization's various river protection initiatives and is intimately involved in them, and she keeps a close watch on the Delaware River and the health of its tributary streams and the ecological resources of the watershed.

20. Often, van Rossum is out on the water herself, keeping an eye on the River and looking for signs of pollution and illegal activity. van Rossum frequently enjoys the ecological values of the Delaware River, its tributaries, and the watershed's ecology with her children and family.

21. She frequently visits state parks and forests in the Commonwealth both in and outside of the Delaware River Basin, including in and around the Susquehanna River basin where she owns property.

22. Both she and her family visit state parks, including Ricketts Glen State Park, frequently. She and her husband have also visited Loyalsock State Forest and plan to go back within the near future.

23. They have kayaked the Susquehanna River as a family and just a few months ago took a trip on the Hiawatha Paddlewheel Riverboat from Susquehanna State Park in Williamsport, Pennsylvania.

24. She is also a member of DRN.

25. The Delaware Riverkeeper and DRN also were integral to obtaining the recent Supreme Court ruling in Robinson Township, Delaware Riverkeeper Network, et al. v. Commonwealth, which reinvigorated Article I, Section 27 and reaffirmed that all citizens have a right to a clean and healthy environment that the Commonwealth and local governments may not unreasonably infringe upon.

26. In response to the Pennsylvania Supreme Court's ruling, the Delaware Riverkeeper and DRN established a new initiative, The Generations Project, to: 1) to ensure that the Pennsylvania Environmental Rights Amendment is further strengthened in the wake of the PA Supreme Court Decision; 2) to pursue and secure constitutional protection of environmental rights in states across the nation,

including other states of the Delaware River Basin; 3) to pursue and secure recognition of environmental rights at the federal level through constitutional amendment; and 4) to ensure governments at the local level, state level, and federal level honor the rights of all people to pure water, clean air and healthy environments in the laws they enact, the decisions they make, and the actions they pursue.

27. DRN brings this suit on behalf of itself and its members who use and enjoy state parks and forests throughout the Commonwealth, whose interests will be negatively impacted by further leasing and permitting of wells in, on, under, or through state parks and forests.

28. The Commonwealth of Pennsylvania has an address of c/o Kathleen Kane, Attorney General of Pennsylvania, 16th Floor, Strawberry Square, Harrisburg, PA 17120. The Attorney General is statutorily charged with defending the constitutionality of legislation on behalf of the Commonwealth. 71 P.S. § 732-204.

29. Governor Corbett has an address of 225 Main Capitol Building, Harrisburg, PA 17120. Governor Corbett signed Executive 2014-03, allowing further leasing of state forests, and new leases of state parks.

30. The Pennsylvania Department of Conservation and Natural Resources (“DCNR”) has an address of 400 Market Street, Rachel Carson State Office

Building, Harrisburg, PA 17105-8552. DCNR is the agency of the Commonwealth whose “primary mission . . . is to maintain, improve and preserve state parks; to manage state forest lands to assure their long-term health, sustainability and economic use; to provide information on Pennsylvanian’s ecological and geologic resources; and to administer grant and technical assistance programs that will benefit rivers conservation, trails and greenways, local recreation, regional heritage conservation and environmental education programs across Pennsylvania.”¹

DCNR is impacted by the new directives under the Fiscal Code (previously HB 278) and Executive Order 2014-03 regarding state forest and park leasing.

IV. Factual Background

31. This section provides an overview of: 1) Pennsylvania’s state park and forest system; 2) shale gas development, including shale gas development patterns, state of the science on shale gas development, and regulation of shale gas development in Pennsylvania; 3) “unconventional” gas leasing in the state forest and park system, including Executive Orders 2010-05 and 2014-03; and 4) the most recent Fiscal Code legislation, formerly HB 278.

¹ DCNR, “Our Mission,”

<http://www.dcnr.state.pa.us/discoverdcnr/ataglance/ourmission/index.htm>
1291190.8/48436

A. State Forests and Parks

32. Pennsylvania has 20 state forests that cover 2.2 million acres of the state, and 120 state parks that cover nearly 300,000 acres.² A portion of these state forests and parks lie within the boundaries of the Delaware River watershed, including the Delaware State Forest and Prompton State Park.

33. More than half of the state parks are underlain by the Marcellus formation.³

34. Approximately 68% (1.5 million acres) of Pennsylvania's state forests are underlain by the Marcellus formation, as well as other formations such as the Utica shale.⁴

35. DCNR states that of those acres, 700,000 acres (approximately 46%) are available for shale gas development.

36. Much of the state forest acreage over the Marcellus is concentrated in northcentral and northeastern Pennsylvania.

² DCNR, "State Forests," <http://www.dcnr.state.pa.us/forestry/stateforestmanagement/index.htm>; DCNR, "State Forest District Index," <http://www.dcnr.state.pa.us/forestry/stateforests/index.aspx>; DCNR, "Economic Impact of Pennsylvania State Parks," <http://www.dcnr.state.pa.us/stateparks/thingstoknow/economicimpact/index.htm> (all last accessed on October 15, 2014).

³ Associated Press, "Legal point could open state park land to gas drills," February 16, 2013, <http://www.timesleader.com/stories/Legal-point-could-open-state-park-land-to-gas-drills,135947>

⁴ DCNR, "Shale Gas Development and State Forests," January 2013, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_017270.pdf

37. Other acreage in state forests is open for shale gas development (including on the surface) because DCNR allows shale gas development on acreage leased for shallow drilling.⁵

38. Rural communities located around these areas, such as in the PA Wilds, thrive on the natural and wild atmosphere provided by state forests and parks, not just for their own quality of life, but also their livelihoods.

39. People visiting state parks to fish, hunt, camp, hike, birdwatch, and generally relax in the natural surroundings directly contribute millions of dollars to the Pennsylvania economy.⁶

40. People do not buy near to, or visit, state parks and forest areas to see or live next to a fracking operation, a compressor station, or a forest cut up by pipelines.

41. Allowing drilling of the subsurface of state parks and forests has significant impacts on the environmental and aesthetic qualities of these lands.

42. Leasing and/or permitting drilling of the subsurface draws wells toward these areas and industrializes communities around state parks and forests to the detriment of their quality of life and local economies.

⁵ DCNR, "Natural Gas Development and State Forests," June 2014, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029363.pdf

⁶ DCNR, "Economic Impact of Pennsylvania State Parks," <http://www.dcnr.state.pa.us/stateparks/thingstoknow/economicimpact/index.htm>

43. Often, those who have leased their land do not even live in the community, leaving very little revenue behind in local communities, and threatening existing economic resources and property values.

B. Shale Gas Development

i. Shale Gas Development Pattern

44. To understand how shale gas development impacts a landscape – both on the surface and underneath the ground – one must to consider the various components and methods used to extract the gas, transport it through the use of pipelines and compressor stations, and then transport it to processing facilities, and how those are different than so-called conventional drilling methods.

45. Conventional drilling⁷ consisted of finding a reservoir of oil or gas, sinking a vertical wellbore into the reservoir, and extracting the gas.

46. Conventional drilling wellpads might range from one (1) to two (2) acres in size.

⁷ Notably, the true nature of conventional drilling differs from the legal definition under Act 13 of 2012. Act 13 distinguishes conventional from unconventional based on the *formation* targeted, *not the technologies used*. This is problematic because so-called “conventional” formations (particularly shallower formations) are being targeted with unconventional technologies – that is, high-volume hydraulic fracturing in combination with multiple horizontal wellbores from a single wellpad. This situation has been worsened by the Fiscal Code, which substantially muddies the regulatory framework over both oil and gas wells drilled above the Elk Formation, including Upper Devonian shales that are already being targeted with unconventional technologies. Fiscal Code Section 1741.1-E.; <http://www.fractracker.org/2014/07/whats-in-pa-senate-bill-1378/> (discussing Senate Bill 1378, most of whose language is now Fiscal Code 1741.1-E); <http://www.fractracker.org/2014/05/conventional-non-vertical-wells-in-pa/>

47. When gas did not flow out of the well at a high pressure, relatively primitive (in the beginning) well stimulation methods were used.

48. Methods for stimulating additional gas flow from a well ranged over the years from gunpowder and nitroglycerin to low-scale hydraulic fracturing.⁸

49. Unlike the methods commonly used today for shale gas and other “tight” oil and gas formations, early forms of hydraulic fracturing typically “took 750 gallons of fluid (water, gelled crude oil, or gelled kerosene) and 400 lbm of sand,” which is a small fraction of the scale of most operations today.⁹

50. Operators sometimes used wellhead compressors to pressurize the gas and move it from the well.

51. In contrast, shale gas and other “unconventional” drilling in the current era usually consists of wellpads with multiple vertical and horizontal wellbores that can stretch outward for up to two (2) miles or even longer.

52. Unconventional wellpads are generally five (5) to (10) acres, or sometimes larger.

⁸ Fracking: A Look Back, <https://www.asme.org/engineering-topics/articles/fossil-power/fracking-a-look-back>; <http://www.spe.org/jpt/print/archives/2010/12/10Hydraulic.pdf>

⁹ Fracking: A Look Back, “Likewise, the hydraulic horsepower (hhp) needed to pump fracking material has risen from an average of about 75 hhp in the early days to an average of more than 1,500 hhp today, with big jobs requiring more than 10,000 hhp.” <https://www.asme.org/engineering-topics/articles/fossil-power/fracking-a-look-back>

53. The combination of horizontal wellbores and high-volume hydraulic fracturing, which are an integral part of unconventional drilling, has allowed recoverability of previously uneconomic formations. See Robinson Twp., Delaware Riverkeeper Network, et al. v. Com., 83 A.3d 901, 914, (Pa. 2013) (“The industry uses two techniques that enhance recovery of natural gas from these ‘unconventional’ gas wells: hydraulic fracturing or ‘fracking’ (usually slick-water fracking) and horizontal drilling. Both techniques inevitably do violence to the landscape.”).

54. The horizontal component of shale gas drilling is critical to allowing more of the formation to be exposed to the hydraulic fracturing process.

55. Unconventional gas development of the Marcellus formation¹⁰ consists of drilling a hole approximately a mile deep into the earth, and then turning the hole horizontally to drill out laterally at least a mile or longer.

56. The operator then cases the well, and begins the hydraulic fracturing process to inject chemicals, water, and silica sand into the well at high pressure.

¹⁰ Some operators are also targeting shallower oil and gas formations using unconventional technologies. “Horizontal drilling, fracking begins in old, shallow oil and gas fields”, Pittsburgh Post-Gazette, <http://www.post-gazette.com/business/businessnews/2013/09/22/Horizontal-drilling-fracking-begins-in-old-shallow-oil-and-gas-fields/stories/201309220115>; “Drillers explore ‘groundbreaking’ fracking technique,” Pittsburgh Tribune Review, <http://triblive.com/news/alleggheny/3239089-74/wells-fracking-shallow#axzz350MRNBcC> (“Traditional vertical drilling for gas and oil could lessen in favor of state-of-the-art horizontal drilling and hydraulic fracturing of rock layers, perhaps as shallow as 1,000 feet underground and not far from drinking water aquifers.”); “Conventional, Non-Vertical Wells in PA,” Fracktracker, <http://www.fracktracker.org/2014/05/conventional-non-vertical-wells-in-pa/>

57. The hydraulic fracturing process on a shale gas well requires explosive charges to perforate the well casing, and a mixture of millions of gallons of water, fine sand (or another type of “proppant”) to hold open the fractures, and large quantities of different chemicals, including many carcinogenic, toxic and hazardous substances.

58. The Pennsylvania Department of Environmental Protection does not receive full information regarding the chemicals used in unconventional oil and gas operations; not even the well operators themselves have full information.

59. One unconventional well can use several million gallons of water. Robinson Twp., Delaware Riverkeeper Network, et al. v. Com., 83 A.3d 901, 914 (Pa. 2013).

60. Wastewater impoundments, which are not necessary but nonetheless used by some companies, contain hazardous wastewater resulting from flowback and produced water.

61. These impoundments could be used for a decade or longer, are prone to leaks, and require twenty-four (24) hour a day truck traffic and operations, with some operators using trucks and water pipelines to move this hazardous material through communities.¹¹

¹¹ “DEP admits drilling probe error,” Pittsburgh Post-Gazette, <http://powersource.post-gazette.com/powersource/companies-powersource/2014/09/29/DEP-admits-drilling-probe-error/stories/201409280221>; “Range Resources’ John Day impoundment leak bigger than first 1291190.8/48436

62. The process also requires an extraordinarily large amount of hydraulic horsepower¹² in order to pump the fracturing mixture into the approximately mile-deep wellbore and out through the perforated casing at a pressure high enough to fracture the shale and to allow gas to flow into the wellbore.

63. A well can be fractured multiple times, and this process is then multiplied by the number of wells on a particular wellpad.

64. As a result, a single wellpad with multiple wellbores may require, over the entire development process, thousands of water trucks, hundreds of chemical storage trailers, numerous compressor engines, storage of explosives, sand-mixing trucks, monitoring equipment, cranes, staging areas, and other vehicles and equipment in order to execute the fracturing process and fully develop all the wells on the wellpad.

65. Depending on how many wells must be drilled and fracked, this process could take at least a year, if not two, to develop from start to finish. See,

thought,” Pittsburgh Post-Gazette, <http://www.post-gazette.com/business/2014/06/12/Range-Resources-John-Day-impoundment-leak-bigger-than-first-thought/stories/201406110179>

¹² Fracking: A Look Back, “Likewise, the hydraulic horsepower (hhp) needed to pump fracking material has risen from an average of about 75 hhp in the early days to an average of more than 1,500 hhp today, with big jobs requiring more than 10,000 hhp.” <https://www.asme.org/engineering-topics/articles/fossil-power/fracking-a-look-back> These greater horsepower requirements mean more emissions and noise per wellpad, given the compressor engines required for horsepower generation during the fracturing process.

e.g., Gorsline, et al. v. Bd. of Supervisors of Shaheen Twp., et al., Docket No. 14-000130, pp. 16-18 (Lycoming Cnty. Ct. Common Pleas, Aug. 29, 2014).

66. Once all the wells have been fractured and casing is completed, flaring typically will occur which will result in a very bright, open flame for up to several weeks around the clock, and typically a sound similar to a jet engine or a freight train.

67. Flaring is the practice of burning gas that is deemed uneconomical to collect and sell, and is also used to burn gases that would otherwise present a safety problem.¹³

68. To get trucks to and from the wellpad for development, an operator constructs an access road if the wellpad is not already located on an existing road.

69. In other cases, the operator may have to improve or widen an existing road or repair the road after development because many rural roads are not designed to handle such heavy truck traffic.

70. During active drilling, fracturing, and flaring operations, heavy truck traffic, noise, light, dust, and other disturbances occur round-the-clock.

71. State forests and adjoining state parks and private property are not exempt from these impacts.

¹³ Western Governors' Association, Oil And Gas Emission Inventories For The Western States, Dec. 27, 2005, http://www.wrapair.org/forums/ssjf/documents/eictts/OilGas/WRAP_Oil&Gas_Final_Report.122805.pdf.

72. Indeed, DCNR states on its “road advisories” page: “In recent years there has been a marked increase in natural gas activity in state forests in north central Pennsylvania. Visitor experiences and road usage can be impacted by this activity.”¹⁴

73. In keeping with the extensive state forest leasing that occurred in Lycoming County, both the Loyalsock State Forest and especially the Tiadaghton State Forest have frequent and extensive traffic advisories regarding gas development.

74. For instance, the DCNR Shale Gas Monitoring Report, released in April 2014, states that in the Tiadaghton:

There have been two roads with long-term closures. Moore Road has been closed for its entirety since 2009, and a quarter-mile section of Ramsey Road has been closed since 2010. Each of these road closures is anticipated to be opened when the wells along these roads go into the production stage (i.e., when drilling and hydraulic fracturing are completed).¹⁵

75. On July 7, 2014, the road advisories for the Tiadaghton were, with two exceptions, all natural gas development related:

¹⁴ State Forest Road and Trail Advisories, last accessed October 15, 2014, <http://www.dcnr.state.pa.us/forestry/stateforests/roadadvisories/index.htm>

¹⁵ DCNR, “Shale-Gas Monitoring Report,” April 2014, at p. 66, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029147.pdf; see also “On public land, a gas company takes private control,” StateImpactPA, <http://stateimpact.npr.org/pennsylvania/2014/08/11/on-public-land-a-gas-company-takes-private-control/>

Pond Road (a.k.a. Miller Road), west of Ravensburg State Park will be closed until road conditions improve and repairs can be completed.

Narrow Gauge Road: Heavy gas activity is to be expected. Drive with caution.

Francis Camp Road: Heavy gas activity is to be expected. Drive with caution.

Lebo Vista Road: Heavy gas activity is to be expected. Drive with caution.

Browns Run Road: Heavy gas activity is to be expected. Drive with caution.

Sinking Springs Road: Heavy gas activity is to be expected. Drive with caution.

Bull Run Road: Heavy gas activity is to be expected. Drive with caution.

Big Springs Road: Heavy gas activity is to be expected. Drive with caution.

Limbaugh Road: Heavy gas activity is to be expected. Drive with caution.

Parker Road: Heavy gas activity is to be expected. Drive with caution.

Ramsey Road: Heavy gas activity is to be expected. Drive with caution.

Okome Road: Heavy gas activity is to be expected. Drive with caution.

Armstrong Road on Bald Eagle Mountain east of South Williamsport and **U.S. Route 15** has been closed due to storm damage that has rendered the roadway impassable.

76. DCNR's Monitoring Report also notes,

In addition to road closures and traffic pattern reroutes, many users have experienced sign-in/sign-out procedures when accessing certain areas by vehicle. Manned security stations are located in some areas where all persons passing must stop and sign in/sign out. This is required so that, in the event of an accident at or near a well pad that is being developed, the company will have a roster of all persons and vehicles for which they need to account.

These security practices are common in all of the state forests that have active gas development activities during the drilling and hydraulic fracturing stages.¹⁶

77. Water pipelines used by some operators still do not decrease the truck traffic necessary to haul chemicals, compressors, tanks, explosives, trailers, and other equipment to and from the site for drilling, fracturing, and well completion.

78. Further, water pipelines are typically not insulated against the cold weather and lack shut-off valves; if used to transport wastewater or recycled water between well development sites, the risk of a significant leak is a problem.

79. As an industrial activity, gas development necessarily brings the risk of industrial accidents and explosions.¹⁷

80. In addition to this, DCNR has struggled with noisy compressor stations allowed in state forests and parks.¹⁸

¹⁶ DCNR, “Shale-Gas Monitoring Report,” April 2014, at pp. 65-66, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029147.pdf; see also “On public land, a gas company takes private control,” StateImpactPA, <http://stateimpact.npr.org/pennsylvania/2014/08/11/on-public-land-a-gas-company-takes-private-control/>.

¹⁷ Sean D. Hamill, “Trial and error approach leaves Marcellus Shale wounds,” Pittsburgh Post-Gazette, <http://powersource.post-gazette.com/powersource/policy-powersource/2014/09/22/Trial-and-error-approach-leaves-Marcellus-Shale-wounds/stories/201409220013> (“Patrick Creighton, spokesman for the Marcellus Shale Coalition, an advocacy group that represents nearly every major driller in the state, said in an email statement: ‘When incidents occur — *as they do in any industrial process*, and as rare as they may be — corrective action is taken to mitigate future events. Our member companies are doing just that.’”) (emphasis added); Molly Born and Sean D. Hamill, “Greene County shale well continues burning,” Pittsburgh Post-Gazette, <http://www.post-gazette.com/local/south/2014/02/11/Gas-well-explodes-in-southeastern-Greene-County/stories/201402110126>

81. Bringing more gas development to the state forest and parks regions would dramatically increase the headache of those trying to visit the people's forests and parks, which is already difficult in areas experiencing high levels of unconventional gas development.

82. This is especially the case by allowing more wells to be drilled on existing pads in the forests already, and on the wellpads not yet built on existing leases.

83. New wellbores could reach new formations, or extend existing wellbores further, such as into state parks that were previously off-limits to drilling.

84. Many state forests and parks are located adjacent to each other and in the case of the Tiadaghton, at least three parks are located in the heart of the forest.¹⁹

85. In addition to road development, an operator installs a gathering line to move the gas from the wellpad to a location (such as a gas-gathering compressor station) where it can be processed and pressurized for pipeline transport.

¹⁸ Marie Cusick, "DCNR grapples with noisy gas compressors in state forests," StateImpact PA, <http://stateimpact.npr.org/pennsylvania/2014/01/16/dcnr-grapples-with-noisy-gas-compressors-in-state-forests/>

¹⁹ DCNR, Map of Tiadaghton State Forest, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/D_000877.pdf

86. The location of the wellpad dictates where the gathering lines and access roads will be placed, and, in the case of access roads, whether they are even needed.

87. Thus, if a wellpad is placed in the middle of undeveloped forest, the gathering line and the access road will need to cut through the forest in order to get to the wellpad, which increases forest fragmentation and landscape disturbance.²⁰

88. Also, because the compressor station gathers gas from multiple wellpads, multiple gathering lines will run into (and out of) the station and impact the surrounding area accordingly.²¹

89. Thus, if the compressor station is located in the middle of a forest, significant forest fragmentation and destruction will occur both because of the station construction and the various pipelines running into and out of the station.

90. Operators have a continued ability to return to the well to frack it years later given the sharp decline of natural gas from unconventional gas wells.

²⁰ Katie Colaneri, “Energy Development In PA Yields Glut Of Trees?,” StateImpact PA, <http://stateimpact.npr.org/pennsylvania/2013/09/23/energy-development-in-pa-yields-glut-of-trees/> (“Tree clearing for well pads, pipelines and power lines has also produced an excess of lumber, according to the Scranton Times-Tribune.”); E.T. Slonecker, et al., “Landscape Consequences of Natural Gas Extraction in Fayette and Lycoming Counties, Pennsylvania, 2004–2010,” United States Geological Survey, Open-File Report 2013–1119, <http://pubs.usgs.gov/of/2013/1119/OFR2013-1119.pdf>; Unconventional Drilling and Bird Habitat in PA (Map); <http://maps.fractracker.org/latest/?webmap=0210d113255f4991b68972c8af88dde6>

²¹ Noise and emissions from the stations also impact surrounding properties.

91. Further, an operator may decide to return several years later to drill a well deeper and engage in additional high-volume hydraulic fracturing to gather more gas from an already-drilled well, creating disruptions well into the future.

92. Notably, the Marcellus formation is not the only “unconventional” formation that may be developed on wellpads being constructed.

93. Other formations include Upper Devonian formations, which lie above the Marcellus;²² and the Utica shale, the Point Pleasant shale, and the Trenton/Black River formation, which lie underneath the Marcellus.²³

94. Little to no study has been done on the ability for high-volume hydraulic fracturing between formations to communicate with one another, and how conducting such operations in shallower formations impacts groundwater.

95. Multiplied by the number of laterals on a site, each in different formations, one wellpad consists of a long-term industrial operation far into the future.

²² “Horizontal drilling, fracking begins in old, shallow oil and gas fields”, Pittsburgh Post-Gazette, <http://www.post-gazette.com/business/businessnews/2013/09/22/Horizontal-drilling-fracking-begins-in-old-shallow-oil-and-gas-fields/stories/201309220115>; “Drillers explore 'groundbreaking' fracking technique,” Pittsburgh Tribune Review, <http://triblive.com/news/allegheeny/3239089-74/wells-fracking-shallow#axzz350MRNBcC> (“Traditional vertical drilling for gas and oil could lessen in favor of state-of-the-art horizontal drilling and hydraulic fracturing of rock layers, perhaps as shallow as 1,000 feet underground and not far from drinking water aquifers.”); “Conventional, Non-Vertical Wells in PA,” Fractracker, <http://www.fractracker.org/2014/05/conventional-non-vertical-wells-in-pa/>

²³ Range Resources Corporation Company Presentation, May 12 2014, pages 12-16.
1291190.8/48436

96. Emissions from gas development operations occur and vary throughout the process and depending on the source.

97. Although monitoring of operations has been minimal, as discussed below, the few studies and inventories done reflect significant adverse impacts.

98. Emissions sources during gas development include the following:

- a. trucks;
- b. drilling rigs;
- c. engines and generators used on the wellsite for well development, fracturing, and completion;
- d. cuttings and drill fluid pits;
- e. silica hoppers and other silica-loading and -moving equipment;
- f. impoundments;
- g. flaring;
- h. compressor stations and gas processing facilities (i.e. gas refineries);
- i. fugitive emissions from leaks and valves, such as on pipelines;
- j. condensate tanks;
- k. gas venting; and
- l. leaking gas wells.

99. These sources emit a variety of pollutants both known to be emitted, and unknown due to lack of consistent, independent monitoring.

100. Pollutants known to be emitted include, as examples, the following:

- m. volatile organic compounds (“VOCs”), including benzene, toluene, ethylbenzene, and xylene (“BTEX”); carbon disulfide (and its byproduct carbonyl sulfide); trichlorobenzenes; trimethylbenzenes; and methylene chloride;
- n. particulate matter, including diesel emission and dust kicked up by trucks;
- o. silica dust, which can cause silicosis;
- p. polyaromatic/polycyclic aromatic, and aliphatic hydrocarbons;
- q. hydrogen sulfide, sulfur dioxide, carbon monoxide, formaldehyde, acrolein, and methanol, hexane, ethane, propane, and butane;
- r. methane and carbon dioxide (which contribute to climate change); and
- s. nitrogen oxides, which react with VOCs in sunlight to produce ground-level ozone and peroxyacetyl nitrate (“PAN”).²⁴

²⁴ John L. Adgate, Bernard D. Goldstein, and Lisa M. McKenzie, “Potential Public Health Hazards, Exposures and Health Effects from Unconventional Natural Gas Development,” *Environ. Sci. Technol.*, <http://pubs.acs.org/doi/abs/10.1021/es404621d?journalCode=esthag>; Council of Canadian Academies Report; Forth Worth League of Neighborhoods, “Recommendations for Policy Changes for Gas Drilling Near Schools,” February 2011, <http://www.fwlina.org/documents/ISDReport.pdf>; Western Governors’ Association, Oil And Gas 1291190.8/48436

101. As an example, wastewater impoundments, store millions of gallons of fluids that include a mixture of chemicals, such as benzene, toluene, ethylbenzene, and xylene (“BTEX”); microbiocides; glycols; glycol ethers; and petroleum products, some of which are carcinogenic.²⁵

102. Flowback water, brought to the surface in the hydrofracking process, and formation or “produced” water, will contain these additives and other potential contaminants.

Emission Inventories For The Western States, Dec. 27, 2005, http://www.wrapair.org/forums/ssjf/documents/eictts/OilGas/WRAP_Oil&Gas_Final_Report.122805.pdf; Bar-Ilan, et al., “A Comprehensive Emissions Inventory of Upstream Oil and Gas Activities in the Rocky Mountain States,” <http://www.epa.gov/ttnchie1/conference/ei19/session8/barilan.pdf>; OSHA-NIOSH Hazard Alert, Worker Exposure to Silica during Hydraulic Fracturing, https://www.osha.gov/dts/hazardalerts/hydraulic_frac_hazard_alert.html; Brown, et al., “Understanding Exposure from Natural Gas Drilling Puts Current Air Standards to the Test,” *Reviews on Environmental Health*, March 2014 <http://www.degruyter.com/view/j/reveh.ahead-of-print/reveh-2014-0002/reveh-2014-0002.xml?format=INT>; DEP Marcellus Emissions Inventory, http://www.dep.state.pa.us/dep/deputate/airwaste/aq/emission/marcellus_inventory.html; http://dwb4.unl.edu/Chem/CHEM869J/CHEM869JLinks/royal.okanagan.bc.ca/mpidwirn/atmosp_hereandclimate/smog.html; Susan Phillips, “New study shows gas workers could be exposed to dangerous levels of benzene,” *StateImpact PA*, <http://stateimpact.npr.org/pennsylvania/2014/08/28/new-study-shows-gas-workers-could-be-exposed-to-dangerous-levels-of-benzene/>; Jon Baker, “Researchers find chemicals in the air in rural Carroll County [Ohio],” *Times Reporter*, <http://www.timesreporter.com/article/20141012/NEWS/141019810/?template=printart>; Colburn, et al., “An Exploratory Study of Air Quality Near Natural Gas Operations,” Peer-reviewed and accepted for publication by *Human and Ecological Risk Assessment* (November 9, 2012).

²⁵ New York State Dept. of Env’t Conservation, Revised Draft Supplemental Generic Environmental Impact Statement, Chapter 5, at 5-46 through 5-66, http://www.dec.ny.gov/docs/materials_minerals_pdf/rdsgeisch50911.pdf (“NY DEC Revised DSGEIS Ch. 5”).

103. These chemicals become more concentrated as water evaporates from an open impoundment, and open impoundments can release VOCs into the air.²⁶

104. Some of the pollutants emitted by gas development are known carcinogens.

105. One such pollutant is benzene, which is classified as a Group 1 carcinogen by the International Agency for Research on Cancer (“IARC”), the cancer research arm of the World Health Organization (“WHO”).²⁷

106. Such a classification means that, based on determinations by physicians around the world, through shared information, and human and animal studies, benzene causes cancer in human beings.²⁸

107. Benzene’s “health effects . . . include acute and chronic nonlymphocytic leukemia, acute myeloid leukemia, chronic lymphocytic leukemia, non-Hodgkins lymphoma, anemia and other blood disorders and immunological effects.”²⁹

²⁶ Michelle Bamberger & Robert E. Oswald, *Impacts of Gas Drilling on Human and Animal Health*, New Solutions, 2012, at 71.

²⁷ IARC Monograph for Benzene,
<http://monographs.iarc.fr/ENG/Monographs/vol100F/mono100F-24.pdf>

²⁸ Preamble - IARC Monographs on the Evaluation of Carcinogenic Risks to Humans,
<http://monographs.iarc.fr/ENG/Preamble/currentb6evalrationale0706.php>

²⁹ John L. Adgate, Bernard D. Goldstein, and Lisa M. McKenzie, “Potential Public Health Hazards, Exposures and Health Effects from Unconventional Natural Gas Development,” *Environ. Sci. Technol.*, at D. <http://pubs.acs.org/doi/abs/10.1021/es404621d?journalCode=esthag>

108. Other Group 1 carcinogens include formaldehyde, trichloroethylene, and diesel engine exhaust.

109. These emissions and resulting products – particularly sulfur dioxide, ozone, and PAN – can also damage plant life sensitive to pollution, such as certain species of pine, ash, maple, locust, oak, linden, elm, sycamore, and poplar trees; lichens; and certain types of flowers, fruit trees, and vegetables.³⁰

110. These operations also pose avoidable threats to wildlife.

111. Impoundments containing flowback water, produced water, and other constituents such as drilling mud and cuttings pose a serious health risk to animals (both livestock and wildlife), humans, and companion animals that come into contact with the water.

112. For instance, peer reviewed reports document that tears in wastewater impoundments have lead to soil contaminated with strontium, chloride, sulfate, and sodium and the loss of livestock.³¹

³⁰ <http://www.epa.gov/groundlevelozone/ecosystem.html>;
<http://mason.gmu.edu/~jlawrey/CUE/sensitivity>; <http://www.bartlett.com/resources/Air-Pollution-Injury-to-Landscape-Plants.pdf>; <http://www.air-quality.org.uk/19.php>;
http://na.fs.fed.us/spfo/pubs/misc/tree_care/aib372-e.htm;
<http://www.colostate.edu/Depts/CoopExt/4DMG/Trees/airpollu.htm>;
http://dwb4.unl.edu/Chem/CHEM869J/CHEM869JLinks/royal.okanagan.bc.ca/mpidwirn/atmosp_hereandclimate/smog.html; <http://www.unep.org/vitalforest/Report/VFG-19-Forests-suffer-from-air-pollution.pdf>; <http://pubs.ext.vt.edu/430/430-022/430-022.html>;
<http://www.aces.edu/pubs/docs/A/ANR-0913/ANR-0913.pdf>

³¹ Michelle Bamberger & Robert E. Oswald, Impacts of Gas Drilling on Human and Animal Health , New Solutions, 2012, at 64-66.

113. The water in many impoundment pits is highly salty, which attracts wildlife such as deer who can also slip into impoundments and tear the liners as they attempt to escape.

114. In situations in which DCNR is leasing a subsurface wellbore to an operator with a pad on private land, DCNR has no mechanism in place to prevent the operator from installing a wastewater impoundment next to state forest or park land.

ii. State of Science on Shale Gas Development

115. Given the relative new-ness of the technology used – high-volume hydraulic fracturing combined with horizontal wellbores -- there is significant long-term uncertainty about the impacts of shale gas development.³²

116. This is because, in many instances, neither studies nor the *data* necessary to scientific analysis exist.³³

³² Council of Canadian Academies, “Environmental Impacts of Shale Gas Extraction in Canada,” http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/Shale%20gas/ShaleGas_fullreportEN.pdf (Executive Summary, section “Limits to our knowledge and understanding”, at xvi-xvii). Hereinafter “Council of Canadian Academies Report”).

³³ See, e.g., John L. Adgate, Bernard D. Goldstein, and Lisa M. McKenzie, “Potential Public Health Hazards, Exposures and Health Effects from Unconventional Natural Gas Development,” *Environ. Sci. Technol.*, <http://pubs.acs.org/doi/abs/10.1021/es404621d?journalCode=esthag>

117. The Commonwealth cannot – and does not -- effectively manage risks when it has not meaningfully studied what those risks are and when it has not determined that such risks can be sufficiently minimized.

118. The absence of science does not mean that shale gas development is safe;³⁴ just like the absence of data on how a medicine functions does not mean it can be sold for medical treatment.

119. In particular, the subsurface impacts are highly uncertain because of the increased difficulty of observing those impacts.

120. Studies that do exist identify significant risks.

121. There is a heavy and unwise reliance on the distance between the hydraulic fracturing occurring underground and shallow groundwater sources to claim that no water contamination can or will occur.³⁵

122. Further, the Commonwealth allowed shale gas development in state parks and forests to proceed without baseline data, making it difficult for it to anticipate or identify impacts.³⁶

³⁴ See, e.g. Council on Canadian Academies Report, p.66-68.

³⁵ Id. at p.96 (“The burden of proof should not be on the public to show impacts, but on industry to verify that their claims of performance are accurate and reliable over the relevant scales in space and time. There is reason to believe that shale gas development poses a risk to water resources, but the extent of that risk, and whether substantial damage has already occurred, cannot be assessed because of a lack of scientific data and understanding.”); see also id. at p.7 (“Claims there are *no proven adverse effects* on groundwater from shale gas development lack credibility for the obvious reason that absence of evidence is not evidence of absence.”)

123. In addition, “[s]ome of the possible environmental and health effects of shale gas development may take decades to become apparent. These include the creation of subsurface pathways between the shale horizons being fractured and fresh groundwater, gas seepage along abandoned wells, and cumulative effects on the land and communities.”³⁷

124. Although the Commonwealth has an obligation to protect future generations from these impacts, it has undertaken no analysis to do so.³⁸

125. Well cementing is a highly risky process, as microfractures formed along the sides of the wellbore can combine with poor cementing to create pathways for gas migration.³⁹

126. As described by the Council on Canadian Academies:

Poor well construction affects the oil and gas industry as a whole and is not unique to shale gas. *However, the problems are amplified by the potentially high number of wells associated with large-scale shale gas development and the chemical additives in fracturing fluids. This is a long-standing engineering challenge* (see Jackson *et al.*, 2013b for a discussion of the history of well integrity) identified by the oil and gas industry as early as the 1970s (e.g., Cooke Jr., 1979) and

³⁶ See Council of Canadian Academies Report, Executive Summary.

³⁷ Council of Canadian Academies Report, Executive Summary, at xvi-xvii.

³⁸ *Id.*

³⁹ *Id.* at pp. 56-57.

demonstrated in relatively recent shale gas wells in British Columbia and Alberta as surface casing gas venting from the production zone and the Intermediate Zone (see Muehlenbachs, 2012a).⁴⁰

127. These problems increase given that unconventional wells turn horizontally, creating cementing challenges.⁴¹

128. Well barrier failure and well integrity failure⁴² are persistent and well-known problems for the oil and gas industry, and are one of the causes of water contamination and methane leakage from gas wells.

129. A recent study identifies a higher rate of casing problems in northeastern Pennsylvania than in other areas of the state due to geological differences.⁴³

⁴⁰ Id. (emphasis added).

⁴¹ Id. at pp. 56-57 (“Achieving high-quality casing cementation is universally acknowledged as more challenging for inclined casing (e.g., a horizontal well) than for vertical casing, and particularly in that part of the well that has a sharp radius of curvature as it transitions from vertical to horizontal over several hundred metres. During the cement placement, it is difficult to keep the casing properly centralized in the borehole, despite using numerous downhole centralizing devices, and consequently uncemented space can result.”)

⁴² Davies, R.J., et al., Oil and gas wells and their integrity: Implications for shale and unconventional resource exploitation, Marine and Petroleum Geology (2014), <http://dx.doi.org/10.1016/j.marpetgeo.2014.03.001> (“The terms ‘well barrier failure’ and ‘well integrity failure’ were differentiated by King and King (2013). They used ‘well integrity failure’ for cases where all well barriers fail, establishing a pathway that enables leakage into the surrounding environment (e.g. groundwater, surface water, underground rock layers, soil, atmosphere). ‘Well barrier failure’ was used to refer to the failure of individual or multiple well barriers (e.g. production tubing, casing, cement) that has not resulted in a detectable leak into the surrounding environment. The same terminology is used in this paper: ‘well integrity failure’ includes cases when gas or fluids are reported to have leaked into soils, rock strata or the atmosphere, and ‘well barrier failure’ includes cases where a barrier failure has occurred but there is no information that indicates that fluids have leaked out of the well.”)

130. Some wells leak immediately or within a few years; eventually, due to casing degradation, most wells can leak.⁴⁴

131. The problems associated with well casing, particularly as casing ages, is amplified by the lack of knowledge about what chemicals are injected; how they react with each other; and lack of state agency knowledge about the site-specific geologic characteristics of where the wellbores are placed.

132. Further, given that groundwater movement in deeper formations is slow, “it can take decades or longer for contamination by recalcitrant chemicals to become a recognized problem.”⁴⁵

133. Contamination in the future is a concern because “[i]n some areas the intensity of groundwater use may not peak until long after shale gas development has occurred. In most, but not all areas, shale gas development is too recent to produce clearly attributable contamination.”⁴⁶

134. Further, groundwater provides base flow for streams, posing the risk that migration in the long-term could impact that base flow.

⁴³ Ingraffea, et al., Assessment and risk analysis of casing and cement impairment in oil and gas wells in Pennsylvania, 2000–2012, <http://www.pnas.org/content/111/30/10955.abstract>

⁴⁴ *Id.*; <http://www2.epa.gov/sites/production/files/documents/ingraffea.pdf>;

⁴⁵ Council of Canadian Academies Report, at p.64.

⁴⁶ *Id.* at p.63.

135. Despite the potential long-term and cumulative impacts, the Commonwealth is not doing analysis and monitoring to collect information needed to project potential impacts, analyze cumulative impacts, and understand what impacts have occurred already.

136. The Commonwealth does not even examine the underground geology to understand if there are faults and fractures, or manmade conduits (e.g. abandoned oil and gas wells) for contamination.

137. In sum, the science on the long-term and cumulative impacts of shale gas development is highly uncertain right now, especially because there are many aspects of the process that have not been studied, projected, modeled, and/or analyzed.

138. Those studies that do exist point to risks that require caution, especially in regard to state park and forest areas and the communities that rely on them.

139. In particular, given that most well casings leak eventually (in other words, concrete and metal do not last forever), the Commonwealth's lack of knowledge and therefore limited ability to predict long-term impacts to groundwater is directly in conflict with its obligations under Section 27.

140. In the face of such uncertainty, further gas development -- particularly development that could severely impact public trust resources, public health, and

the quality of life of present and future generations – is unreasonable and a breach of the Commonwealth’s trustee obligations.

iii. Regulation of Shale Gas Development in Pennsylvania

141. Although Pennsylvania has regulations governing certain aspects of shale gas development, those regulations do not govern all aspects of the process, are out of date, and/or out of line with recent research on public health and environmental impacts.

142. This is despite the fact that the little science available, which is of more recent vintage, points to risks to those who live in close proximity to operations, large data gaps in our knowledge of shale gas development, and the potential for significant impacts both now and in the future where data is available to review.

143. As examples only, neither the Pennsylvania Department of Environmental Protection nor the Pennsylvania Department of Health examine the following:

- a. The underground geology (including fractures, faults, and carbonate geology) in the path of the proposed vertical and horizontal wellbores;
- b. How that geology impacts the potential for gas or fluid migration into groundwater, both on a short-term and long-term basis;

- c. How soil characteristics impact the rate at which the concrete and/or steel casing corrodes;
- d. What the wellbores might intersect with, such as abandoned oil and gas wells (of which Pennsylvania has estimates ranging from 180,000 to 500,000, and probably more)⁴⁷ and what impacts might result from such intersection;
- e. The toxicity of the chemicals being injected into the ground; how those chemicals interact with each other; and how those chemicals interact with materials encountered underground, including heavy metals and naturally-occurring radioactive material;⁴⁸
- f. Potential long-term and cumulative impacts, such as impacts on wildlife and scenic resources, the transport of chemicals in

⁴⁷ Davies, R.J., et al., Oil and gas wells and their integrity: Implications for shale and unconventional resource exploitation, Marine and Petroleum Geology (2014), <http://dx.doi.org/10.1016/j.marpetgeo.2014.03.001> (Pennsylvania has the highest number of such wells amongst states reporting over 1000 orphaned wells; in fact, approximately 56.2% of the abandoned wells across states in the data set are in Pennsylvania.); Kang, Mary, Dissertation, “CO₂, Methane, and Brine Leakage Through Subsurface Pathways: Exploring Modeling, Measurement, and Policy Options,” at p.76 http://dataspace.princeton.edu/jspui/bitstream/88435/dsp019s1616326/1/Kang_princeton_0181D_10969.pdf

⁴⁸ “Marcellus Waste Radioactivity In Water Leaching From Landfills”, <http://www.publicnewsservice.org/2014-04-21/environment/marcellus-waste-radioactivity-in-water-leaching-from-landfills/a38864-1> (“CHARLESTON, W.Va. - Tests show that wastewater from gas field landfills contains radioactivity. That is raising concerns about the disposal of Marcellus Shale drill cuttings. . . . ‘We are putting radioactive waste in a bunch of landfills in large quantities, and we don't yet know the long-term danger of doing this,’ Hughes said.”).

groundwater over time as groundwater moves, and air quality impacts;

- g. Meteorological assessments and ambient air quality modeling to determine who may be the most impacted from a proposed gas development site;
- h. Human health exposure and risk assessments; and
- i. Ecological risk assessments.

144. Indeed, the Pennsylvania Department of Health has been completely removed from discussion, regulation, and monitoring of shale gas development.⁴⁹

145. Equally, these agencies do not require, as examples:

- a. Tracers in injected fluid, which would more easily identify fluid that has migrated;
- b. Comprehensive baseline testing of air, water, noise, and soil prior to operations, let alone prior to the beginning of shale gas development in Pennsylvania;

⁴⁹ Katie Colaneri, "Former state health employees say they were silenced on drilling," StateImpact PA, <http://stateimpact.npr.org/pennsylvania/2014/06/19/former-state-health-employees-say-they-were-silenced-on-drilling/>; Marie Cusick, "Former health secretary: Pa. failed to address fracking concerns," StateImpact PA, <http://stateimpact.npr.org/pennsylvania/2014/07/13/former-health-secretary-pa-failed-to-address-fracking-concerns/>

Act 13 of 2012 provided no impact fee money to the Pennsylvania Department of Health. Impact fee money did go other agencies such as the DEP, as well as for grants for natural gas vehicles via a "Natural Gas Energy Development Program." 58 Pa.C.S. §§ 2314(c.2), 2703.

- c. Buffers around operations that are grounded in science and public health knowledge on impacts from operations;
- d. Real-time air, water, and casing monitoring of wellsites, including after well plugging to monitor well integrity over time;⁵⁰ and
- e. Public health monitoring and analysis, including indoor air quality monitoring.

146. Most wellsites also do not trigger the requirements for air quality permits; aggregation of wellsites in a particular area usually does not occur either.

147. As a result, various wellsites in one area may together emit emissions that, if considered as one facility, would require a permit.

148. Further, there is no consideration of the cumulative degradation of local air quality in an area due to the proliferation of wellsites – as an example, if six new wellsites are located within a Township, and each emits 2.7 tons per year of volatile organic compounds (“VOCs”), that equates to a cumulative degradation of 16.2 tons per year from the existing air quality.

⁵⁰ Kang, Mary, Dissertation “CO₂, Methane, and Brine Leakage Through Subsurface Pathways: Exploring Modeling, Measurement, and Policy Options,” at p. 96 http://dataspace.princeton.edu/jspui/bitstream/88435/dsp019s1616326/1/Kang_princeton_0181D_10969.pdf (“Furthermore, integrity of the plug and well bore degrades over time due to geologic conditions and events, other oil and gas production activities, and presence and chemistry of fluids that are in contact with the plug and well bore. However, there are no regulations that require monitoring of plugged wells for leakage of methane and other gases.”)

149. There is no consideration of how that degradation impacts those who live in the area, and whether the degradation is unreasonable given the existing air quality (e.g. no wellsites or 14 existing wellsites and a factory) and the proximity to the operations.

150. In addition, Pennsylvania lacks any regulations on the following:

- a. the length of time that flaring may occur;⁵¹
- b. seismic testing-specific regulations,⁵² such as plugging of shot holes and setbacks (compare 16 Tex. Adm. Code § 3.100, Ark. Oil and Gas Comm'n Rule B-42);
- c. handling and disposal of, and worker exposure to, naturally occurring radioactive material ("NORM"), (compare 16 Tex. Adm. Code §§ 4.601-4.635); and
- d. monitoring of casing during hydraulic fracturing operations for potential loss of wellbore integrity (compare Ark. Oil and Gas Comm'n Rule B-19(h)).

⁵¹ Compare Railroad Commission of Texas, "Flaring Regulation," <http://www.rrc.state.tx.us/about-us/resource-center/faqs/oil-gas-faqs/faq-flaring-regulation/>; Barclay Nicholson "Survey of Flaring Regs for Arkansas, Colorado, Louisiana, North Dakota, Pennsylvania, Texas and Wyoming," May 30, 2012, <http://fracking.nortonrosefulbright.com/2012/05/survey-of-flaring-regs-for-arkansas.html>

⁵² Pennsylvania's regulations on explosives are designed more for blasting on mining sites. See 25 Pa. Code Chapter 211.

151. DCNR does not conduct its own air quality monitoring of ongoing gas development, and currently does not have sufficient data collected to determine impacts on plant life.

152. DCNR's monitoring report still lacks sufficient data – as the agency acknowledged – to determine the impacts of unconventional gas development on state forest and park lands.

153. In addition, both DCNR and DEP have suffered from repeated budget cuts that have left both agencies understaffed, underfunded, and overworked.

C. “Unconventional” Gas Leasing, State Forests and Parks, and the Executive Orders

154. Under former Governor Rendell, approximately 138,866 acres of state forest land were specifically leased for shale gas development,⁵³ which disproportionately impacted counties in Northcentral and Northeastern Pennsylvania, particularly Lycoming County and Tioga County.⁵⁴

155. Previously, no state park land was leased.

⁵³ DCNR, “Natural Gas Development and State Forests,” June 2014, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029363.pdf

⁵⁴ DCNR, Index to Existing Oil and Gas Leases on Pennsylvania State Forest Lands, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029754.pdf In addition to state forests, the Pennsylvania Game Commission has leased properties for shale gas development.

156. After several rounds of leasing at the behest of plugging holes in the budget, then-Governor Rendell issued a moratorium on further state forest leasing via Executive Order 2010-05.

157. Issued on October 26, 2010, the Executive Order stated a number of concerns on which the moratorium was based, including (among others):

- a. the increase in gas development on state forest and park lands (both from leases, and split-estate lands), including wellpads, pipelines, and other infrastructure;
- b. “the impact of the five-fold increase in the acreage of state forest and state park land that will be used for gas development as a result of activity in the Marcellus shale formation cannot be fully understood or predicted;”
- c. “changes to surface and groundwater hydrology;” and
- d. forest fragmentation.

158. On May 23, 2014, Governor Corbett issued Executive Order 2014-03, rescinding Executive Order 2010-05.

159. The Executive Order allows more leasing of state forest lands, and opens up state parks to inevitable damage.

160. It does so under the guise of “no additional surface disturbance.”

161. The Order in fact exacerbates the prior, potentially unconstitutional⁵⁵ leases of state forest land in part by inserting more industrial development in and around state forests and parks and local communities nearby that have already borne the brunt of shale gas development.

162. This is despite the fact that DCNR has previously recommended against further leasing, and has not recommended any more leasing.⁵⁶

163. Further, no “additional surface disturbance” does *not* apply to already-leased state forest land. Executive Order 2014-03.⁵⁷

164. In addition, Executive Order 2014-03 does not prevent drilling below the surface of state forests and parks for purposes of gas extraction, thereby inviting and encouraging leasing of lands immediately adjacent to, and nearby, state parks and forests, in order to extract the gas.

165. Further, the addition of new subsurface gas being made available for extraction adjacent to already-leased tracts will lead operators to build new

⁵⁵ These leases are potentially unconstitutional for the same reasons set forth in this petition for review.

⁵⁶ Donald Gilliland, “Corbett's own witness lukewarm to more gas leasing in state forests and parks,” PennLive.com, http://www.pennlive.com/midstate/index.ssf/2014/06/drilling_state_forests_state_p.html

⁵⁷ Marie Cusick, “Do not disturb: what can drillers do with new forest leases?,” StateImpact PA, <http://stateimpact.npr.org/pennsylvania/2014/06/16/do-not-disturb-what-can-drillers-do-with-new-forest-leases/>
1291190.8/48436

wellpads on already-leased tracts, increasing surface damage to the forests and surrounding lands.

166. The leasing activity on the state forest lands has already adversely impacted the experience of those visiting state parks embedded in the state forests.

167. Further, state parks have already been negatively impacted by unconventional gas operations on private lands.

168. Impacts include: noise and air pollution from wellsite development and compressor stations; light pollution from nighttime operations and flaring; extensive truck traffic resulting in delays and road backups, road damage and dust from heavy truck traffic; and pollution of streams from chemical spills, site construction and activity, and runoff.

169. Also, development in these areas increases forest fragmentation, harming wildlife that relies on core forest, including increasing the amount of deer who prefer edge forest, which harms forest ecology and health.

170. These impacts would only continue with further leasing and development activity on private and on state lands.

D. Fiscal Code Legislation

171. Against this background, the General Assembly enacted HB 278, which amends the Fiscal Code and requires that there be more leasing of state

forest land *and* the addition of leasing for state park land in order to raise \$95 million for the General Fund.

172. More leasing of state park and forest land harms public natural resources like air, water, and wildlife and infringes on constitutionally-protected rights to use and enjoyment of property, and to clean air, pure water, and the preservation of the natural, scenic, historic and esthetic values of the environment.

173. HB 278 pays mere lip service to protection of public natural resources, and ignores the DCNR's limited ability to control gas development on private lands, and the impacts of prior leasing. 72 P.S. § 1601.1–E.

174. Indeed, HB 278 lacks any consideration of the fact that renewed leasing of state forest land and allowance of leases under state park land will *spur more surface development of already-leased state forest tracts*. 72 P.S. § 1601.1–E.

175. Operators who have not fully built-out existing state forest leases are now incentivized to build new wellpads on those *existing* leases in order to get to newly-leased state parcels.

176. New wellpads on *existing* leases – even if caused by new subsurface leases – are not considered “surface disturbance” by the DCNR.

177. Likewise, HB 278 lacks any consideration of the impact of allowing more leasing on surrounding communities.

178. HB 278 lacks any analysis of the short-term, long-term, or cumulative impacts of this industrialization of communities and of state forest and park lands. 72 P.S. § 1601.1–E.

V. Introduction to Counts

179. The Commonwealth has violated the Pennsylvania Constitution in several ways.

180. Further leasing of state park and forest land would cause unreasonable degradation of public trust resources in violation of Article I, Section 27 of the Pennsylvania Constitution.

181. The Commonwealth – all branches, agencies, and levels of government – have a constitutional fiduciary duty to “conserve and maintain” Pennsylvania’s public natural resources for the benefit of present and future generations of Pennsylvanians. Pa. Const. Art. I, Sec. 27; Robinson Twp., Delaware Riverkeeper Network, et al. v. Com., 83 A.3d 901 (Pa. 2013); National Wood Preservers, Inc. v. Com., Dept. of Env’tl Res., 489 Pa. 221, 229 414 A.2d 37, 41 (1980); Payne v. Kassab, 468 Pa. 226, 245-47, 361 A.2d 263, 272-73 (1976).⁵⁸

⁵⁸ See also John C. Dernbach, “Taking the Pennsylvania Constitution Seriously When It Protects the Environment: Part I – An Interpretative Framework for Article I, Section 27,” 103 Dickinson L.R. 693, 700-04 (1992); Franklin L. Kury, “The Environmental Amendment to the 1291190.8/48436

182. Section 27's trustee obligation restricts the authority of the Commonwealth to, in this case, lease state forest and park land for oil and gas development in a number of different ways.

183. Broadly speaking:

As trustee, the Commonwealth is a fiduciary obligated to comply with the terms of the trust and with standards governing a fiduciary's conduct. The explicit terms of the trust require the government to "conserve and maintain" the corpus of the trust. *See* Pa. Const. art. I, § 27. The plain meaning of the terms conserve and maintain implicates a duty to prevent and remedy the degradation, diminution, or depletion of our public natural resources. As a fiduciary, the Commonwealth has a duty to act toward the corpus of the trust—the public natural resources—with prudence, loyalty, and impartiality.

Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 957 (plurality).

184. The Commonwealth's breaches of its fiduciary duties under Section 27 are numerous in this case, and include breaches of the Commonwealth's 1) obligation to refrain from unreasonably permitting or encouraging the degradation, diminution, or depletion of public trust resources; 2) duty of impartiality; 3) duty to provide an accounting; and 4) duty of prudence.

Pennsylvania Constitution: Twenty Years Later and Largely Untested," 1 Vill. Envtl. L.J. 123, 124 (1991); Robert Broughton, "The Proposed Pennsylvania Declaration of Environmental Rights, Analysis of HB 958," 41 Pa.Bar Assoc.Quarterly 421 (1970).

185. Further leasing also would cause unreasonable infringement on individual environmental rights, in violation of Article I, Section 27 of the Pennsylvania Constitution.

186. Lastly, further leasing would result in a public nuisance.

Count I – Breach of Obligation to Refrain from Permitting or Encouraging the Degradation, Diminution, or Depletion of Public Trust Resources

187. All other averments are incorporated herein as if fully set forth.

188. In enacting the Fiscal Code, the budget, the Executive Order, and approving further leasing, the Commonwealth has breached the most basic directive of Section 27, which is to conserve and maintain the people's public natural resources – our state forests and parks, including our groundwater and surface water resources; fresh and clean air; scenic, natural, and aesthetic resources; and wildlife.

189. Under Section 27:

As trustee, the Commonwealth is a fiduciary obligated to comply with the terms of the trust and with standards governing a fiduciary's conduct. The explicit terms of the trust require the government to "conserve and maintain" the corpus of the trust. *See* Pa. Const. art. I, § 27. The plain meaning of the terms conserve and maintain implicates a duty to prevent and remedy the degradation, diminution, or depletion of our public natural resources.

...

[T]he Commonwealth has an obligation to refrain from performing its trustee duties respecting the environment

unreasonably, including via legislative enactments or executive action. As trustee, the Commonwealth has a duty to refrain from permitting or encouraging the degradation, diminution, or depletion of public natural resources, whether such degradation, diminution, or depletion would occur through direct state action or indirectly, *e.g.*, because of the state's failure to restrain the actions of private parties.

Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 957 (plurality).⁵⁹

190. The very dictionary meaning of “conserve and maintain” states that the Commonwealth must “avoid the wasteful or destructive use of” the people’s public natural resources; must “sustain against opposition or danger;” “uphold and defend;” and “preserve from failure or decline.”⁶⁰

191. Despite this fact, the further leasing spurs more development of already-leased tracts that have not been fully-developed and have saved state forest and park areas from the detrimental impacts of unconventional gas development.

192. The Commonwealth, rather than preventing degradation, is *encouraging degradation* of public trust resources by its course of action.

⁵⁹ “In this sense, the third clause of the Environmental Rights Amendment is complete because it establishes broad but concrete substantive parameters within which the Commonwealth may act. *Compare* Pa. Const. art. I, § 27 *with, e.g.*, Pa. Const. art. I, § 28. This Court perceives no impediment to citizen beneficiaries enforcing the constitutional prohibition in accordance with established principles of judicial review.” *Id.* at 957 (plurality).

⁶⁰ Definition of “conserve,” Merriam-Webster’s Collegiate Dictionary, Eleventh Edition, <http://www.merriam-webster.com/dictionary/conserve>; definition of “maintain,” Merriam-Webster’s Collegiate Dictionary, Eleventh Edition, <http://www.merriam-webster.com/dictionary/maintain>

193. In addition, the Commonwealth has little control over the operations that occur on private lands.

194. Further, the minimal setbacks the Commonwealth requires in its leases may be waived and are insufficient to protect state lands from contamination.

195. In other words, air and water are fluid, and a few hundred feet of separation between an operation and a stream does not prevent spilled or leaked chemicals from migrating through groundwater flow to the nearby stream.

196. A few hundred feet of separation from a hiking trail still exposes hikers and other recreating visitors to extensive air pollution.

197. In addition, the Commonwealth has completely failed to study the little science available on the long-term subsurface impacts, including gas and fluid migration due to degraded or failing casing, faults and fractures, and other contaminant pathways.

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:

- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;

- b. A declaratory judgment that further leasing of state forest and park land (including subsurface rights) violates Article I, Section 27 of the Pennsylvania Constitution;
- c. An injunction prohibiting further leasing of state forest and park land (including subsurface rights); and
- d. An injunction prohibiting further permitting of wells using the technologies of high-volume hydraulic fracturing and directional drilling – whether “unconventional” or “conventional” – on, in, under, or through state forests and parks.
- e. And such other relief as the Court deems proper.

Count II – Breach of Duty of Impartiality to Present and Future Generations

198. All other averments are incorporated herein as if fully set forth.

199. In enacting the Fiscal Code, the budget, the Executive Order, and approving further leasing, the Commonwealth has breached its fiduciary duties of impartiality to present and future generations.

200. The Commonwealth, as trustee, must abide by the duty of impartiality, meaning that the trustee “must treat the beneficiaries equitably in light of the purposes of the trust.” 20 Pa. C.S. § 7773. As interpreted by our Pennsylvania Supreme Court, Section 27 directs:

Within the public trust paradigm of Section 27, the beneficiaries of the trust are “all the people” of Pennsylvania, including generations yet to come. The trust’s beneficiary designation has two obvious implications: first, the trustee has an obligation to deal impartially with all beneficiaries and, second, the trustee has an obligation to balance the interests of present and future beneficiaries. *See In re Hamill's Estate*, 487 Pa. 592, 410 A.2d 770, 773 (1980) (citing Restatement (Second) of Trusts § 232). Dealing impartially with all beneficiaries means that the trustee must treat all equitably in light of the purposes of the trust. *Accord* 20 Pa.C.S. § 7773.

Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 959 (plurality).

201. The Court noted that this duty of impartiality under Section 27 requires that the trustee – the Commonwealth – treat the beneficiaries equitably across geography, and across time.

202. Across geography, “the duty of impartiality implicates questions of access to and distribution of public natural resources, including consumable resources such as water, fish, and game.” *Id.* at 959.

203. In striking down Section 3304 of Act 13, the Court specifically cited this aspect of the trustee’s duty of impartiality as having been breached because of the unequal and unconstitutional burdens that different citizens would bear:

A second difficulty arising from Section 3304’s requirement that local government permit industrial uses in all zoning districts is that *some properties and communities will carry much heavier environmental and habitability burdens than others*. *Accord* Agencies’ Brief (as appellees), at 5–9 (admitting that uniform

provisions of Act 13, including Section 3304, have “potentially different impacts on differently situated communities and property owners”). ***This disparate effect is irreconcilable with the express command that the trustee will manage the corpus of the trust for the benefit of “all the people.” Pa. Const. art. I, § 27. A trustee must treat all beneficiaries equitably in light of the purposes of the trust.*** See *Hamill's Estate*, 410 A.2d at 773; 20 Pa.C.S. § 7773. Again, we do not quarrel with the fact that competing constitutional commands may exist, that sustainable development may require some degradation of the corpus of the trust, and that the distribution of valuable resources may mean that reasonable distinctions are appropriate. But, Act 13’s blunt approach fails to account for this constitutional command at all

Id. at 980 (plurality) (emphasis added).

204. The Court found similar constitutional infirmities in Section 3215(b) and (d). Id. at 984 (plurality).

205. The Commonwealth has again breached this duty of impartiality by treating differently those who, by accident of geography and geology, happen to live, work, enjoy, and recreate in around state parks and forests that are underlain by natural gas and oil resources than those citizens who do not.

206. Those who live adjacent to or nearby state parks and forests, and who use and enjoy these resources, underlain by shale gas will be adversely impacted by the state fostering increased industrial development of shale gas beneath state parks and forests.

207. In particular, those citizens living and visiting areas in Northcentral and Northeastern Pennsylvania (such as Lycoming and Tioga Counties) that have already seen extensive leasing and development of state forests will only experience added burdens due to the new directives.

208. Likewise, citizens in southwestern Pennsylvania who rely on state parks and forests for a respite from the extensive gas *and* coal development in the region will see further industrialization interfere with their attempt to finally get away from the noise, dust, smells, spills, constant truck traffic and delays, emissions, and general anxiety about what they are being exposed to daily.⁶¹

209. The Commonwealth has again impermissibly burdened the constitutionally-protected rights of those who live in or near communities with state parks and forests by forcing them to “bear much heavier environmental and habitability burdens than” citizens in non-Marcellus areas who live near state parks and forests, and doing so solely for economic gain. *Id.* at 980 (plurality).⁶²

⁶¹ Laura Legere, “DCNR defines what drilling activities will be allowed at public lands”, Pittsburgh Post-Gazette, <http://powersource.post-gazette.com/powersource/policy-powersource/2014/07/30/DCNR-defines-what/stories/201407300193> (“Companies have not yet officially nominated parcels for lease, Mr. Devlin said, but they have expressed informal interest in drilling beneath public lands in southwestern Pennsylvania and, to a lesser extent, north-central Pennsylvania. He would not name particular parks and forests at this point, but said DCNR will release the information before leases are executed. ‘There is interest in the southwest, where we haven’t traditionally had it,’ he said. ‘They are interested in the wet gas down in the southwest.’”).

⁶² Donald Gilliland, “Corbett’s own witness lukewarm to more gas leasing in state forests and parks,” PennLive.com, http://www.pennlive.com/midstate/index.ssf/2014/06/drilling_state_forests_state_p.html (“Under 1291190.8/48436

210. Rather than seeking to diminish and heal those wounds by not leasing more land, the Commonwealth has exacerbated them by lengthening development on already-leased tracts (including those with not-yet-built wellpads), by inciting development on adjacent lands to allow access to shale gas beneath state forests and parks, and by drawing more industrial activity to these areas.

211. Indeed, the Commonwealth has impermissibly and unconstitutionally placed the burden of the State budget on those whose right to enjoyment of public trust lands has already been severely diminished.

212. By accidents of geography and geology, those who live near state parks and forests in Marcellus regions suffer more than those people in non-gas/oilfield zones.

213. Those who invested in and moved near state lands to get away from gas and other industrial activity such as coal and coalbed methane development now find that activity drawn directly toward them.

214. Likewise, those who want to enjoy the state parks and forests in Marcellus regions – such as Northcentral and Southwestern Pennsylvania – are unequally treated compared to those who visit or live in other areas of the state.

cross examination, when asked what he thought the value was to the public resource to lease more, Devlin replied: ‘It really isn’t beneficial from an ecological standpoint, but I guess it’s beneficial maybe from an economic standpoint.’”).

215. In addition, the Commonwealth has breached the duty to treat beneficiaries equitably *across time*. Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 959 (plurality).

216. This duty is commanded by the fact that *both* present *and* future generations have a constitutional right to enjoy and benefit from the people's public natural resources. Id.

217. Our children, grandchildren, great-grandchildren, and other generations yet to come have the same constitutional right to enjoy the people's public natural resources as we do, regardless of where they live in the Commonwealth of Pennsylvania. Id.

218. As the Court stated in Robinson Township,

The second, cross-generational dimension of Section 27 reinforces the conservation imperative: ***future generations are among the beneficiaries entitled to equal access and distribution of the resources, thus, the trustee cannot be shortsighted.*** Accord 1970 Pa. Legislative Journal–House at 2273 (“[s]ince the public trust doctrine would implicitly preclude the wasting of resources, the explicit inclusion of future generations as part of the relevant public might be considered superfluous,” although situations may arise where such inclusion may prove wise). Moreover, this aspect of Section 27 recognizes the practical reality that environmental changes, whether positive or negative, have the potential to be incremental, have a compounding effect, and develop over generations. ***The Environmental Rights Amendment offers protection equally against actions with immediate severe impact on public natural resources and against actions with minimal or***

insignificant present consequences that are actually or likely to have significant or irreversible effects in the short or long term. See id.

Id.

219. Further,

In undertaking its constitutional cross-generational analysis, the Commonwealth trustee *should be aware of and attempt to compensate for the inevitable bias toward present consumption of public resources by the current generation, reinforced by a political process characterized by limited terms of office.* See Barton H. Thompson Jr., *Environmental Policy and State Constitutions: The Potential Role of Substantive Guidance*, 27 Rutgers L.J. 863, 900–01 (1996); see, e.g., *Fox*, 342 A.2d at 482 (“The only environmental result from which any serious injury might result is the possible future loss of current open space to future residential and commercial development, which may be a remote consequence of the installation of the sewer lines. This, however, is not the type of harm which would justify the [Department of Environmental Protection] in now refusing a sewer construction permit, and, as to current pollution, of course, the [Environmental Hearing Board] has clearly found that such would be kept to a minimum.”).

Id. at 959 n. 46 (emphasis added).

220. Shale gas development has exploded at a pace that has far outstripped current scientific knowledge.⁶³

⁶³ Council of Canadian Academies Report, at xii-xiii, xvi-xvii, 216-219.

221. Further, the Commonwealth is simply not requiring or engaging in the regulation and monitoring that could give us more information about the process.

222. Further leasing and permitting of operations on, in, and through state forests and parks is a breach of the trustee's obligation to protect the interests of future generations of Pennsylvanians.

223. The Commonwealth, as a trustee, has violated its fiduciary obligations by allowing unconventional oil and gas operations without full information on the operations and the natural resources being impacted. Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 958, 983 n.60 (plurality).

224. The Commonwealth cannot even judge the impact of these operations – even in the short-term, much less the long-term and cumulative impacts – because it lacks full baseline information collected *before development, including leasing of state lands, began*.

225. The Commonwealth does not know what chemicals are being injected into the ground, much less the geologic characteristics of the areas where those chemicals are being injected.

226. Further, the patterns described above that breach the duty to present generations – lack of access to their public natural resources – would be perpetuated against future generations just as the costs of the coal industry

continue to bear most heavily on only certain regions of our Commonwealth. See Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 963 (plurality).

227. Those who live in areas scarred by the coal industry continue to suffer a lack of access to public trust resources – clean streams, uncontaminated land, healthy and edible fish – that will only be exacerbated by the shale gas development now occurring in the very same areas.⁶⁴

228. The Commonwealth clearly recognized that it has obligations under the Pennsylvania Constitution to protect public trust resources, but did no analysis to determine whether it would violate the Pennsylvania Constitution by allowing further leasing. Section 1601.1-E.(8) of the Fiscal Code.

229. It likewise did not direct that any analysis be done *prior* to making a decision that further land should actually be leased.

⁶⁴ Washington County, PA – Longwall Mining and Oil and Gas Drilling (2012) - <http://coalfieldjustice.org/wp-content/uploads/Washington-County-Wall-Map-FINAL-COPY-LOGO.pdf>; Greene County, PA – Longwall Mining and Oil and Gas Drilling (2012) - <http://coalfieldjustice.org/wp-content/uploads/Greene-County-Wall-Map-FINAL-COPY-LOGO.pdf>; <http://www.mtwatershed.com/coal/>, <http://www.mtwatershed.com/shalegas/>; <http://www.amrclearinghouse.org/Sub/SCARLIFTRReports/YoughioghenyRiverBasin/YoughioghenyRiverBasin.htm>; <http://www.amrclearinghouse.org/Sub/SCARLIFTRReports/Loyalsock/Loyalsock.htm>; <http://www.amrclearinghouse.org/Sub/SCARLIFTRReports/BlacklickCreek/BlacklickCreek.htm>; Radiation in Pennsylvania Creek Seen as Legacy of Fracking, <http://www.bloomberg.com/news/2013-10-02/radiation-in-pennsylvania-creek-seen-as-legacy-of-frackin.html> (“Sediment in Blacklick Creek contained radium in concentrations 200 times above normal, or background levels, according to the study, published today in the journal Environmental Science and Technology. The radium, along with salts such as bromide, came from the Josephine Brine Treatment Facility about 45 miles (72 kilometers) east of Pittsburgh, a plant that treats wastewater from oil and gas drilling.”); <http://www.delawareriverkeeper.org/resources/Letters/EPCAMRSB411VoteNOHonorableSenatorNEW.pdf>

230. It paid mere lip service to the obligation, and by its own words fails to grasp what it means to be a *trustee* who must conserve and maintain those resources for present and future generations, not a proprietor of public natural resources who merely maximizes profit whenever it has hard budget decisions to make. Robinson Twp., Washington Cnty. v. Com., 83 A.3d 901, 956 (Pa. 2013); Section 1601.1-E.(8), (9)(ii) of the Fiscal Code.

231. A trustee cannot simply shirk its obligations to study the science and risks and take appropriate action, and instead choose to gift our children, grandchildren, and great-grandchildren the same costs that we still bear from our ancestors' mistakes regarding the coal industry. See Robinson Twp., Delaware Riverkeeper Network, et al. v. Com., 83 A.3d at 960-963 (plurality); 1970 Pa. Legislative Journal-House 2270-71; Robert Broughton, "The Proposed Pennsylvania Declaration of Environmental Rights, Analysis of HB 958," 41 Pa.Bar Assoc.Quarterly 421, 422 (1970) (quoting statement by Franklin L. Kury, chief sponsor of HB 958).

232. Further, gas development in and around state forests and parks is already having a negative impact not just on the public trust resources themselves, but also, if not already, will have a negative impact on surrounding communities and local economies.

233. In such a situation, further leasing without any objective study is a clear breach of the trustee's obligations to present and future generations.

234. Indeed, further *permitting* of unconventional wells on state forest and park land or on adjacent lands in order to allow access to shale gas beneath state forests and parks, is likewise imprudent and exacerbates the trustee's failure to collect and analyze data and impacts prior to acting, including on the character of the Pennsylvania Wilds region and other communities that rely on state parks and forests for economic activity.

235. The Commonwealth has continued to allow the train to run without the brakes on and without enough monitoring on the tracks ahead to know whether there are serious problems ahead for future generations of Pennsylvanians, let alone those living right now.

236. The Commonwealth's approach has been to allow development even of state forest and park land without considering what it is actually doing, fostering and favoring development and degradation over conservation and maintenance. See Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 973 ("In each instance, development and disturbance of the environment is preferred over the natural state, along the same statutory approach articulated in Section 3215(b). The citizens do not assert separate claims premised upon either subsection (a) or (f)

of Section 3215; nevertheless, in light of our present decision, enforcement of these provisions obviously is constitutionally suspect.”); *id.* at 983 n.60.⁶⁵

237. This is inconsistent with Section 27’s mandate that the Commonwealth conserve and maintain our public natural resources – the resources that belong to us, our children, grandchildren, and many future generations of Pennsylvanians yet to come.

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:

- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;
- b. A declaratory judgment that further leasing of state forest and park land (including subsurface rights) violates Article I, Section 27 of the Pennsylvania Constitution;

⁶⁵ (“It is worth noting that the Commonwealth does not specify whether any independent scientific study has been commissioned or what data will be used to assess the impact on any or all of the public natural resources that the Board is to consider in promulgating regulations. In addition to strengthening the citizens’ claims that the statutory scheme offers no clear standards for determining permit applications, the absence of data also suggests that the Commonwealth has failed to discharge its trustee duty of gathering and making available to the beneficiaries complete and accurate information as to the nature and amount of the trust property. *In re Rosenblum’s Estate*, 459 Pa. 201, 328 A.2d 158, 164–65 (1974) (citing Restatement (Second) of Trusts § 173) (right of access to trust records is essential part of beneficiary’s right to complete information concerning administration of trust; right of inspection has independent source in beneficiary’s property interest in trust estate); *see also* Restatement (Second) of Trusts § 173 cmt. c (“[B]eneficiary is always entitled to such information as is reasonably necessary to enable him to enforce his rights under the trust or to prevent or redress a breach of trust.”))

- c. An injunction prohibiting further leasing of state forest and park land (including subsurface rights); and
- d. An injunction prohibiting further permitting of wells using the technologies of high-volume hydraulic fracturing and directional drilling – whether “unconventional” or “conventional” – on, in, under, or through state forests and parks.
- e. And such other relief as the Court deems proper.

Count III – Breach of the Duty to Provide an Accounting

238. The Commonwealth has also breached its duty to provide an accounting of the public natural resources that will be impacted by the leasing proposal.

239. In addition to a lack of a full study, it has gone so far as to deny repeated requests for this information on what parks and forests are under consideration for leasing, in a clear breach of its obligation as trustee to turn over records on the trust.

240. First, like any other trustee, the Commonwealth must keep accurate records of trust property and its administration of the trust.

241. As explained by the Pennsylvania Supreme Court in regards to Section 27:

It is worth noting that the Commonwealth *does not specify whether any independent scientific study has been commissioned or what data will be used to assess the impact* on any or all of the public natural resources that the Board is to consider in promulgating regulations. In addition to strengthening the citizens' claims that the statutory scheme offers no clear standards for determining permit applications, *the absence of data also suggests that the Commonwealth has failed to discharge its trustee duty of gathering and making available to the beneficiaries complete and accurate information as to the nature and amount of the trust property.* In *re Rosenblum's Estate*, 459 Pa. 201, 328 A.2d 158, 164–65 (1974) (citing Restatement (Second) of Trusts § 173) (right of access to trust records is essential part of beneficiary's right to complete information concerning administration of trust; right of inspection has independent source in beneficiary's property interest in trust estate); *see also* Restatement (Second) of Trusts § 173 cmt. c (“[B]eneficiary is always entitled to such information as is reasonably necessary to enable him to enforce his rights under the trust or to prevent or redress a breach of trust.”).

Robinson Twp., Delaware Riverkeeper Network, et al. v. Com., 83 A.3d at 983

n.60 (plurality)(emphasis added); see also 20 Pa. C.S. § 7780(a)(“A trustee shall keep adequate records of the administration of the trust.”).

242. As explained further in the next section, the Commonwealth has failed to keep such records, hindering the beneficiaries' (the people of Pennsylvania) ability to protect their interests and forcing the beneficiaries to bear the cost of gathering information on trust property (e.g. water quality, air quality, etc.).

243. Further, like any other trustee, the Commonwealth has an obligation to provide information on the corpus of the trust (in this case, public natural resources) to beneficiaries.

244. As discussed in a case recently cited in Robinson Township:

But unlike an ordinary party to an adversary judicial proceeding, a trust beneficiary is not obliged to show that the requirements of rules 4007 and 4009 have been satisfied in order to obtain access to records in the possession of his trustee. The right of access to trust records is an essential part of a beneficiary's right to complete information concerning the administration of the trust. This right is recognized in section 173 of the Restatement (Second) of Trusts (1959):

'The trustee is under a duty to the beneficiary to give him upon his request at reasonable times complete and accurate information as to the nature and amount of the trust property, and to permit him or a person duly authorized by him to inspect the subject matter of the trust and the accounts and vouchers and other documents relating to the trust.'

This section is declaratory of the common law of Pennsylvania.⁶ It places cestuis que trustent on a different footing from other litigants who seek discovery of documents under our Rules of Civil Procedure. *A beneficiary's right of inspection has an independent source in his property interest in the trust estate, and the right may be exercised irrespective of the pendency of an action or proceeding in court.* Tripp Estate, 17 Lack.Jur. 270 (Orphans' Ct. Lack. County 1916); Strauss v. Superior Court, 36 Cal.2d 396, 224 Pa.2d 726 (1951); See generally Annot., 118 A.L.R. 269 (1939); II A. Scott,

The Law of Trusts, s 173 (3d ed. 1967); Compare *Cole v. Wells*, 406 Pa. 81, 177 A.2d 77 (1962).

In re Rosenblum's Estate, 328 A.2d 158, 164-65 (Pa. 1974) (emphasis added); see also 20 Pa. C.S. § 7780.3(a).

245. Despite the fact that the Commonwealth, as a trustee under Section 27, has a fiduciary duty to keep accurate records *and to make them available to beneficiaries, particularly on request by beneficiaries*, the Commonwealth has abjectly failed to do so.

246. In fact, despite repeated requests for information on which state forests and parks will be subject to further leasing, the Commonwealth has steadfastly refused to hand over the information and has even appealed a decision of the Office of Open Records that would have required it to hand over the information.

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:

- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;
- b. A declaratory judgment that further leasing of state forest and park land (including subsurface rights) violates Article I, Section 27 of the Pennsylvania Constitution;

- c. An injunction prohibiting further leasing of state forest and park land (including subsurface rights); and
- d. An injunction prohibiting further permitting of wells using the technologies of high-volume hydraulic fracturing and directional drilling – whether “unconventional” or “conventional” – on, in, under, or through state forests and parks.
- e. And such other relief as the Court deems proper.

Count IV – Breach of the Duty of Prudence, Including by Acting Without a Pre-Action Analysis

247. In addition to the duty of impartiality, the Commonwealth, as trustee, must abide by the fiduciary duty of prudence. Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 957.

248. As already alluded to above, the Commonwealth has seriously breached this duty.

249. “A trustee shall administer the trust as a prudent person would, by considering the purposes, provisions, distributional requirements and other circumstances of the trust and by exercising reasonable care, skill and caution.” 20 Pa. C.S. § 7774; see also Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 959 n.45 (“Although the Environmental Rights Amendment creates an express trust that is presumptively subject to the Uniform Trust Act . . . the

‘ultimate power and authority to interpret’ the constitutional command regarding the purposes and obligations of the public trust created by Section 27 ‘rests with the Judiciary, and in particular with this Court.’”) (internal citations omitted).

250. A trustee may also “incur only costs that are reasonable in relation to the trust property, the purposes of the trust and the skills of the trustee.” 20 Pa. C.S. § 7775.

251. Considering that the future costs of unconventional gas development are unknown at this time, and the current costs not fully examined, the trustee breaches its obligations by continuing to pursue unconventional gas development that impacts public trust resources since it is incurring costs to the trust without knowing if those costs are reasonable.⁶⁶

252. Further, Section 27 prevents the Commonwealth as a trustee from ignoring the value of its public trust portfolio *as a whole* in order to pursue an investment or management strategy that is wholly detrimental to that value. 20 Pa.C.S. § 7203 (describing the prudent investor rule);⁶⁷ see also 20 Pa. C.S. § 7212

⁶⁶ In other words, this is effectively like gambling without knowing how much you’ve put on the table, how much you’ve lost already, or your odds, and just focusing on what you might win. In this case, the trustee is gambling away the state’s public natural resources by simply focusing on what it might win in the short-term, and not examining the entire picture of losses to gains and the costs it might incur on both present and future Pennsylvania citizens.

⁶⁷ See, e.g., 20 Pa.C.S. § 7203(a) (“A fiduciary shall invest and manage property held in a trust as a prudent investor would, by considering the purposes, terms and other circumstances of the trust and by pursuing an overall investment strategy *reasonably suited to the trust*.”) (emphasis added); § 7203(c)(5) & (c)(6) (“In making investment and management decisions, a fiduciary

1291190.8/48436

(“A fiduciary who represents that he has special investment skills shall exercise those skills.”).

253. For example, the Commonwealth cannot exploit one public natural resource (timber, oil and gas) in such a way that it degrades the value of the public trust portfolio *as a whole* due to air, water, fish, forest, and wildlife impacts.

254. Such actions directly violate Section 27’s duty to “conserve and maintain” public natural resources.

255. Indeed, as a trustee, the Commonwealth deals with Pennsylvania citizens “as a fiduciary, measuring its successes by the benefits it bestows upon all citizens in their utilization of natural resources under law,” *not* by being a proprietor and “measuring its gains by the balance sheet profits and appreciation it realizes from its resources operations.” Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 956 (Pa. 2013) (quoting and discussing 1970 Pa. Legislative Journal–House at 2273).

shall consider, among other things, to the extent relevant to the decision or action: . . . the role that each investment or course of action plays in the overall investment strategy; [and] an asset’s special relationship or special value, if any, to the purposes of the trust or to one or more of the beneficiaries, including, in the case of a charitable trust, *the special relationship of the asset and its economic impact as a principal business enterprise on the community in which the beneficiary of the trust is located and the special value of the integration of the beneficiary’s activities with the community where that asset is located . . .*”) (emphasis added).

256. The Commonwealth has already admitted that further leasing has been deemed not to have any positive ecological value, but to have merely economic value for budgetary reasons.⁶⁸

257. Further exploitation of oil and gas *now*, rather than waiting until the science has developed further on the impacts of unconventional gas development, is imprudent and inconsistent with managing public trust resources *either* as a trustee *or* a proprietor.

258. Waiting to allow the science to develop further on the impacts of development would allow the extraction technology to improve such that the industry could have *fewer* impacts with *greater recoverability* of the shale resources.

259. Thus, moving ahead now violates trust principles, when the Commonwealth is exposing the value of its public trust portfolio to substantial risk and unknown costs for minimal benefit.

260. The minimal setbacks the Commonwealth requires in its leases may be waived and are insufficient to protect state lands from contamination.

⁶⁸ Donald Gilliland, "Corbett's own witness lukewarm to more gas leasing in state forests and parks," PennLive.com, http://www.pennlive.com/midstate/index.ssf/2014/06/drilling_state_forests_state_p.html ("Under cross examination, when asked what he thought the value was to the public resource to lease more, Devlin replied: 'It really isn't beneficial from an ecological standpoint, but I guess it's beneficial maybe from an economic standpoint.'").

261. Air and water are fluid, and a few hundred feet of separation between an operation and a stream does not prevent spilled or leaked chemicals from migrating through groundwater flow to the nearby stream.

262. There can be no dispute that unconventional gas development operations – drilling and fracking; compressor stations; truck traffic; and other associated operations – generate air pollutants that “are known to cause human health effects that can be irreversible, chronic, and at times fatal.”⁶⁹

263. Setbacks of a mere few hundred feet from picnic areas, cabins, hiking trails, and other recreational amenities do little to protect visitors and DCNR employees from exposure to emissions.⁷⁰

264. In addition, the Commonwealth has completely failed to study the little science available on the long-term subsurface impacts, including gas and fluid migration due to degraded or failing casing, faults and fractures, and other contaminant pathways.⁷¹

⁶⁹ Md. Inst. for Applied Env'tl. Health, Sch. of Pub. Health, Univ. of Md., Potential Public Health Impacts of Natural Gas Development and Production in the Marcellus Shale in Western Maryland, at p. 40 (July 2014), http://www.marcellushealth.org/uploads/2/4/0/8/24086586/final_report_08.15.2014.pdf

⁷⁰ *Id.* at pp.36-37, 39-40; Colborn, et al., An Exploratory Study of Air Quality Near Natural Gas Operations. *Hum Ecol Risk Assess An Int J* 20:86–105. doi: 10.1080/10807039.2012.749447

⁷¹ Council of Canadian Academies Report, at p.7 (“Claims there are *no proven adverse effects* on groundwater from shale gas development lack credibility for the obvious reason that absence of evidence is not evidence of absence.”)(emphasis in original); p.65-76, 78-82, 96-97.

265. That science shows the potential for serious long-term risks due to migration of chemicals and gas, including many chemicals that the Commonwealth simply does not know about because companies do not disclose it.

266. Without knowledge of the chemicals being used, the Commonwealth cannot even begin to assess whether migration of chemicals through groundwater over time will overwhelm the groundwater's assimilative capacity and result in widespread contamination of not just drinking water in and around state parks and forests, but also streams that rely on groundwater.⁷²

267. In addition, no state agency has conducted air monitoring and analysis of air pollution impacts on state park and forest wildlife and plant life.

268. Equally, no state agency has conducted human health risk assessments of air pollution impacts on park and forest visitors and workers.

269. The Commonwealth (which includes all branches and levels of government, including the Governor, the General Assembly, and the DCNR) must analyze the trade-off on public trust resources of further leasing and expanded industrialization surrounding state parks and forests, and the impact of that activity on the forests/parks, the people's public natural resources, and the rights of present and future beneficiaries. Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 957, 959 & n.46 (plurality); see also id. at 958 (discussing Nat'l Audubon

⁷² Council of Canadian Academies Report, at 82-83.
1291190.8/48436

Soc’y, 658 P.2d at 727-29 as to considering effects of acting in advance); 20 Pa.C.S. § 7203(c)(5); In re Scheidmantel, 868 A.2d 464, 492 (Pa. Super. Ct. 2005) (“[T]he trustee’s action must represent an actual and honest exercise of judgment predicated on a genuine consideration of existing conditions.”).

270. This the Commonwealth has not done.

271. DCNR’s monitoring report frequently notes that there are aspects of unconventional gas development that DCNR has not yet analyzed due to insufficient or lack of data.⁷³

272. For example, DCNR lacks data or analysis on the impact of unconventional gas operations in and around state forest and park land on vegetation.

273. DCNR has not engaged or commissioned any air monitoring of well development on leased tracts; instead, it has relied on DEP short-term (not long term) air studies that do not necessarily represent the impacts of the leased land operations on state forest and park land.

274. Also, the DEP’s short-term air studies have been shown to be inaccurate, incomplete, and/or improperly conducted;⁷⁴ and the Department itself

⁷³ See, e.g., DCNR, “Shale-Gas Monitoring Report,” April 2014, at pp. 9, 87, http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20029147.pdf

⁷⁴ Group Against Smog and Pollution (“GASP”), “What We Can Learn from Pennsylvania DEP’s Marcellus Air Monitoring Studies,” February 8, 2011, <http://gasp-pgh.org/wp-content/uploads/2011/02/GASP-on-PADEP-Marcellus-Air-Studies.pdf> (explaining Southwest 1291190.8/48436

has admitted that they are inaccurate, were improperly conducted, or stated improper conclusions, including conclusions on acute health effects made by people unqualified to make them.⁷⁵

275. There are also other aspects of the DCNR's Shale Gas Monitoring Report that are only just being implemented, and the report appropriately notes that monitoring and data collection and analysis require time to pass before long-term trends can be seen.

276. Despite this, the Commonwealth has approved further leasing.

277. Given the extensive gaps of data or knowledge, the new leases cannot be "highly protective of the ecological integrity of State forest lands and carefully crafted to minimize impacts," Section 1601.1-E.(2) of the Fiscal Code (72 P.S. § 1601.1-E.(2)), because the Commonwealth cannot adequately protect against

Study's limitations, including technology used, short-term view of exposure, *minimum detection limits that were well above the short-term health standard*, and ability of operators to know when DEP was testing); Brown, et al., "Understanding Exposure from Natural Gas Drilling Puts Current Air Standards to the Test," Reviews on Environmental Health, March 2014 <http://www.degruyter.com/view/j/reveh.ahead-of-print/reveh-2014-0002/reveh-2014-0002.xml?format=INT>

⁷⁵ Plaintiffs' Response to Range Resources' Motion to Compel Entry Upon Land, Haney, et al., v. Range Resources – Appalachia, LLC et al. (Case No. 2012-3534) & Haney, et al. v. Solmax International, Inc. (Case No. 2012-7402), Washington County Court of Common Pleas, pp. 11-18 (describing Department documents and depositions of Department officials that show that the Department's Southwest Air Study was based on incomplete data and assessments, failures to make assessments, lack of any data or analysis on long-term exposure, and purported conclusions about health effects made by a person not qualified to make such assessments); Don Hopey, "Pa. studies on shale-site air emissions incomplete, according to court documents," Pittsburgh Post-Gazette, <http://powersource.post-gazette.com/powersource/policy-powersource/2014/10/20/State-studies-on-shale-site-air-emissions/stories/201410170097>

impacts on which it has acknowledged it has no data and has failed to study or model.

278. In other words, the Commonwealth cannot properly manage a risk that it has failed to inform itself about, much less a risk it does not even know about because it has failed to study the situation.

279. The Marcellus Shale Advisory Commission Report, cited by Executive Order 2014-03, simply lacks any rigorous scientific literature review, independent testing or modeling of present and future impacts, or public health analysis.

280. Indeed, it pales in comparison to the extensive analysis that New York has been undertaking, which still contains certain gaps pertaining to future impacts.

281. The Commission's report also cites the DEP's faulty air studies.

282. The Commission's Report is also out of date, having been issued in July 2011.

283. As a result, the Commission's alleged "recommendation" that subsurface leasing could proceed is meaningless.

284. In fact, there is almost no analysis or data to support the recommendation, which was offered for approval solely by the then-Secretary

Richard Allan and voted against by all four (4) environmental groups represented on the Commission.⁷⁶

285. Given the known risks, the great long-term and cumulative uncertainties involved, and the current limitations on technology in understanding risks better, Section 27 restrains the Commonwealth from proceeding.

286. Section 27 “offers protection equally against actions with immediate severe impact on public natural resources and against actions with minimal or insignificant present consequences that are actually or likely to have significant or irreversible effects in the short or long term.” Robinson Twp., Delaware Riverkeeper Network, et al., 83 A.3d at 959 (plurality).

287. The available data lacks clarity on certain future effects, and the Commonwealth has not even done an analysis on the available data, thereby failing to inform itself of whether the costs it is incurring are reasonable.

288. Even more, waiting till such data is available would also allow for technological developments that could bring in *more* royalties to the Commonwealth if the Commonwealth is indeed interested in receiving as much money as possible.

⁷⁶ Draft Recommendations for the category Public Health, Safety, and Environmental Protection, http://files.dep.state.pa.us/PublicParticipation/MarcellusShaleAdvisoryCommission/MarcellusShaleAdvisoryPortalFiles/Public_Health_Safety_Environmental_Protection.pdf, at p. 71.; Marcellus Shale Advisory Commission Final Report, http://files.dep.state.pa.us/PublicParticipation/MarcellusShaleAdvisoryCommission/MarcellusShaleAdvisoryPortalFiles/MSAC_Final_Report.pdf, at p.129 (Appendix C) (showing record of vote on Recommendation 9.2.36 regarding leasing).
1291190.8/48436

289. In the face of all this, proceeding with further leasing is a clear breach of the Commonwealth's fiduciary duty of prudence to the people of Pennsylvania, and a violation of Article I, Section 27 of the Pennsylvania Constitution.

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:

- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;
- b. A declaratory judgment that further leasing of state forest and park land (including subsurface rights) violates Article I, Section 27 of the Pennsylvania Constitution;
- c. An injunction prohibiting further leasing of state forest and park land (including subsurface rights); and
- d. An injunction prohibiting further permitting of wells using the technologies of high-volume hydraulic fracturing and directional drilling – whether “unconventional” or “conventional” – on, in, under, or through state forests and parks.
- e. And such other relief as the Court deems proper.

Count V—Further Leasing Would Cause Unreasonable Infringement on Individual Environmental Rights, in Violation of Article I, Section 27.

290. Further leasing unreasonably infringes on the individual environmental rights of those Pennsylvania citizens who live in communities where state forests and parks are located or who frequently visit these areas.

291. These parks and forests exist in communities, and particularly in rural communities whose lives and livelihoods are inextricably connected to them via fishing, hunting, tourism, art, birdwatching, hiking, and scenic enjoyment.

292. These parks and forests not only enhance quality of life, but also property values.⁷⁷

293. Communities that are going to bear the brunt of this effort are communities around state parks because it prolongs and multiplies the industrial activity in areas where, presumably, many people moved to be closer to scenic resources.

294. Further leasing encourages industrial activity in communities whose location near state parks and forests should be an asset, not a burden.

295. Leasing encourages this incongruous activity, rather than land uses that complement state parks and forests; conserve the values of these parks and forests; and conserve the quality of life and livelihoods of rural communities whose prime community and economic assets include these parks and forests.

⁷⁷ Cf. <http://www.nj.gov/dep/dsr/economics/parks-report.pdf>
1291190.8/48436

296. As already noted, further leasing does not to have any positive ecological value, but merely economic value for budgetary reasons.

297. This directly contradicts any claim that the Commonwealth properly balanced the needs and interests of the Commonwealth in a way that respects the Article I limitations on its authority.

298. The Commonwealth has impermissibly and unconstitutionally burdened the constitutionally-protected rights of those who live in communities with state parks and forests to clean air, pure water, and the preservation of the natural, scenic, historic, and esthetic values of the environment.

299. The Commonwealth has done so by forcing these citizens to bear the negative impacts of budgetary problems by curtailing the environment of quality in their communities via state forest and park leasing.

300. Leasing encourages more industrial activity (as already detailed above) in their communities and on nearby properties, which degrades not just air quality, but also the natural, scenic, and aesthetic surroundings that people live in and enjoy, or enjoy when they visit the area.

301. This includes DRN members who use and enjoy state parks and forests throughout the Commonwealth, including Ms. van Rossum, who visits state parks and forests such as Ricketts Glen and the Loyalsock State Forest in areas

subject to unconventional gas development including wellpads, pipelines, and compressor stations.

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:

- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;
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- e. And such other relief as the Court deems proper.

Count VI – Further Leasing Would Cause a Public Nuisance, Which Must Be Enjoined In Advance.

302. A “public nuisance” is an “unreasonable interference with a right common to the general public,” such as clean water. Section 821B, Restatement Second of Torts; Article I, Section 27; Machipongo Land & Coal Co., Inc., 799 A.2d 751, 774 (Pa. 2002).⁷⁸

303. In an anticipatory nuisance action focused on a public nuisance, to establish a nuisance *per se*, a plaintiff must show “a high potential” or a “significant potential” that pollution would result from the proposed operations. Machipongo Land & Coal Co., Inc., 799 A.2d 751, 775 (Pa. 2002).

304. In Machipongo, the Pennsylvania Supreme Court confirmed that pollution of public waterways is a nuisance *per se*. Machipongo, 799 A.2d at 774 (“However, although mining is not a nuisance *per se*, pollution of public waterways is. The key to protecting our water is to prevent pollution from occurring.”).

305. Shale gas development – whether on the surface of state forests and parks or underneath – has a high or significant potential to cause a nuisance *per se* in the form of pollution of public waterways, of groundwater, of soil, and of the air.

306. It poses a public nuisance because, *inter alia*,

⁷⁸ In contrast, a “private nuisance” occurs when a neighbor’s use of his property unreasonably interferes with the plaintiff’s private right to the use and enjoyment of her property. See Butts v. Southwestern Energy Prod. Co., 3:12-cv-01330-RDM-MM (M.D. Pa.).
1291190.8/48436

- a. unconventional gas development and operations – including drilling and fracking; compressor stations; truck traffic; and other associated operations – generate air pollutants that “are known to cause human health effects that can be irreversible, chronic, and at times fatal;”⁷⁹
- b. unconventional gas development and operations – drilling, fracking, associated land disturbance, deforestation, and intentional or unintentional injection of chemicals and contaminated fluids into or on the ground causes water pollution known to be damaging to the environment as well as public health and safety;
- c. the Commonwealth has insufficient manpower and regulations to lessen the impact of operations and catch problems before they become a major issue, including inter alia by setbacks of mere hundreds of feet from waterways and other sensitive natural resources that do not lessen the risk of contamination;

⁷⁹ Md. Inst. for Applied Envtl. Health, Sch. of Pub. Health, Univ. of Md., Potential Public Health Impacts of Natural Gas Development and Production in the Marcellus Shale in Western Maryland, at p. 40 (July 2014), http://www.marcellushealth.org/uploads/2/4/0/8/24086586/final_report_08.15.2014.pdf

- d. the high or significant potential of the long-term subsurface impacts, including gas and fluid migration due to degraded or failing casing, faults and fractures, and other contaminant pathways;⁸⁰
- e. lack of knowledge on chemicals used; and
- f. destruction of habitat.

307. DRN members' constitutionally-protected rights under Section 27 are injured by these public nuisances caused by further leasing of state parks and forests, including by degradation of air and water quality and scenic views, and impacts to recreational enjoyment.

308. Injuries to constitutional rights are sufficient to allow DRN members to seek redress via a public nuisance action. Robinson Township, Delaware Riverkeeper Network, et al. v. Commonwealth, 83 A.3d at 953-54 (environmental rights on par with all other rights in Article I and enforceable to same extent); see also id. at 974 (discussing citizen rights to enforce public trust obligations); see also Pennsylvania Soc. for Prevention of Cruelty to Animals v. Bravo Enterprises, Inc., 237 A.2d 342, 348 (1968); Kuhns v. City of Allentown, 636 F.Supp.2d 418,

⁸⁰ Council of Canadian Academies Report, at p.7 ("Claims there are *no proven adverse effects* on groundwater from shale gas development lack credibility for the obvious reason that absence of evidence is not evidence of absence.") (emphasis in original); p.65-76, 78-82, 96-97; Davies, R.J., et al., Oil and gas wells and their integrity: Implications for shale and unconventional resource exploitation, Marine and Petroleum Geology (2014), <http://dx.doi.org/10.1016/j.marpetgeo.2014.03.001>; Ingraffea, et al., Assessment and risk analysis of casing and cement impairment in oil and gas wells in Pennsylvania, 2000–2012, <http://www.pnas.org/content/111/30/10955.abstract>
1291190.8/48436

438 (E.D. Pa. 2009); see also Everett v. Harron, 110 A.2d 383 (1955) (all demonstrating that private citizens may bring public nuisance actions when the public nuisance implicates injuries to civil rights).

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:

- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;
- b. A declaratory judgment that further leasing of state forest and park land (including subsurface rights) violates Article I, Section 27 of the Pennsylvania Constitution;
- c. An injunction prohibiting further leasing of state forest and park land (including subsurface rights); and
- d. An injunction prohibiting further permitting of wells using the technologies of high-volume hydraulic fracturing and directional drilling – whether “unconventional” or “conventional” – on, in, under, or through state forests and parks.
- e. And such other relief as the Court deems proper.

VI. Conclusion

WHEREFORE, Petitioners respectfully request that the Court grant judgment in their favor and against Respondents and issue the following relief:


- a. A declaratory judgment that Executive Order 2014-03 and Section 1601.1-E. of the Fiscal Code violate Article I, Section 27 of the Pennsylvania Constitution;
- b. A declaratory judgment that further leasing of state forest and park land (including subsurface rights) violates Article I, Section 27 of the Pennsylvania Constitution;
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- d. An injunction prohibiting further permitting of wells using the technologies of high-volume hydraulic fracturing and directional drilling – whether “unconventional” or “conventional” – on, in, under, or through state forests and parks.
- e. And such other relief as the Court deems proper.

Respectfully submitted,

CURTIN & HEEFNER LLP

By:

Date: October 29, 2014



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VERIFICATION

I verify that the foregoing is true and correct to the best of my knowledge, information and belief; and that I understand that any false statements made are subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

A handwritten signature in black ink that reads "Maya K. van Rossum". The signature is written in a cursive style with a long horizontal line extending from the end.

Date: 10/29/14

Maya van Rossum, the Delaware Riverkeeper
Delaware Riverkeeper Network

IN THE COMMONWEALTH COURT OF PENNSYLVANIA

DELAWARE RIVERKEEPER
NETWORK, and MAYA VAN
ROSSUM, THE DELAWARE
RIVERKEEPER

Petitioners,

V.

GOVERNOR CORBETT, in his
Official Capacity, COMMONWEALTH
OF PENNSYLVANIA, and the
PENNSYLVANIA DEPARTMENT OF
CONSERVATION AND NATURAL
RESOURCES

Respondents.

CERTIFICATE OF SERVICE

I hereby certify that I have, on this date, served a true and correct copy of the foregoing via Certified Mail, Return Receipt Requested, to the following:

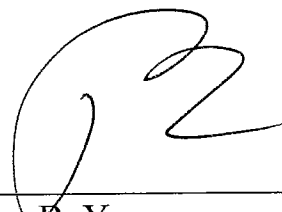
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Date: October 29, 2014



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