

## New Jersey Highlands Council

## CommentPro

## New Jersey Highlands Council Letter 71

## Attributes

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Response Type: 1 - Letter  
 Delivery Type: W - Web-based submission  
 IP Address: [REDACTED]  
 Form Letter:

## Web Response

"The Highlands Act emphasizes the protection, enhancement, and restoration of water resources throughout the Highlands Region, including the ground and surface waters that support aquatic ecosystem sustainability and provide necessary water supplies for the State." (NJ Highlands RMP 2008, p. 80) The probability of an oil pipeline spill is high, and the consequences of contaminated ground water or degraded surface water is serious. In the case of hazardous oil pipeline, the only method to achieve this goal is to prohibit this land use. Justification: A report prepared for The Center for Biological Diversity demonstrates that over the lifespan of the pipeline, there is a high probability that a significant incident will occur. The report includes a video that shows pipeline incidents from 1986 to 2013, relying on publicly available data from the federal Pipeline and Hazardous Materials Safety Administration (PHMSA). Only incidents classified as "significant" by the agency are shown in the video. "Significant" incidents include those in which a person was hospitalized or killed, damages amounted to more than \$50,000, more than 5 barrels of highly volatile substances or 50 barrels of other liquid were released, or where the liquid exploded or burned. According to the data, since 1986 there have been nearly 8,000 incidents (nearly 300 per year on average). These incidents resulted in more than 500 deaths, more than 2,300 injuries, and nearly \$7 billion in damage. This is equivalent to 200 barrels every day. There's no way to get around the fact that oil pipelines are dangerous and have exacted a devastating toll on people and wildlife. The reason for the pipeline spills is primarily excavation operations incidents (24%) with the remainder metal failure, improper operation and corrosion.

([http://www.biologicaldiversity.org/campaigns/americas\\_dangerous\\_pipelines/index.html#video](http://www.biologicaldiversity.org/campaigns/americas_dangerous_pipelines/index.html#video)) We have a false sense of security thinking that pipelines are monitored and protected, often they are not. The responsibility for ensuring safe transportation of hazardous liquids rests Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). The United States has over 2.6 million miles of pipeline with only 135 PHMSA inspectors. That's an average of 19,259 miles for each inspector. Only 1/5 of U.S. pipeline systems have been inspected by PHMSA or its state partners in the past eight years. The understaffed agency cannot adequately do its job. It relies on the diligence of the pipeline operators to monitor the pipelines and on their integrity to take quick and effective action to stop and report leaks. Specific detection systems are only required in certain environmentally sensitive or populated areas, not along entire pipeline routes. Since 2010 fewer than 20% of pipeline oil spills that have monitoring systems are discovered by those monitoring systems; the rest are found by people along the pipeline. ("High-Tech Monitors Often Miss Oil Pipeline Leaks" By Alison Sider Wall Street Journal Jan. 20, 2014.) PHMSA "Leak Detection Study – DTPH56-11-D-000001" dated December 10, 2012 reports "The most used leak detection technique, Pressure/Flow monitoring was acknowledged by all operators not to be generally a sensitive method. It is only effective for large ruptures, and even then not consistently so." The study addresses various impediments (expense, retrofit, training, et. al.) and technology gaps to improve monitoring stems. Not many of the operators interviewed for the study had substantial leak detection systems improvement plans. ("Leak Detection Study – DTPH56-11-D-000001" [www.phmsa.dot.gov/.../Leak\\_Detection\\_Study.pdf](http://www.phmsa.dot.gov/.../Leak_Detection_Study.pdf). The discussion of "Operator and Developer Opinions and Current Practice" begins on page 4-42). Monitoring systems are not working sufficiently to detect moderate and small leaks. Monitoring pipelines has limited value. According to data from the Pipeline Hazardous Materials and Safety Administration, 44% of pipeline leaks are due to non-technical issues such as excavation, operation error, and forces of nature. In the case of Enbridge pipeline break in Michigan, the defect that led to the 6 and a half foot gash in the side of Line 6B was detected at least three times before the incident. Neither Enbridge nor the federal regulator felt the damage required repair. (<http://www.documentcloud.org/documents/351569-enbridge-cong-testhtml#document/p18/a61044>) Detection of problems does not equate to correction of the problems. Damage from pipeline leaks is never fully remediated. "Three weeks after the Poplar Pipeline spewed 40,000 gallons of oil into the Yellowstone River in eastern Montana, cleanup efforts have been called off due to dangerous ice conditions.... During the abbreviated cleanup, a total of 1,200 gallons of oil was allegedly recovered from the river. At the peak of the cleanup effort, a spokesman for the company that operates the Poplar Pipeline said that oil was being recovered at the rate of one teaspoon every ten minutes. At that pace, it would have taken 1,753 years to remove all the oil from the river." (<http://www.americanrivers.org/blog/yellowstone-oilspill-proving-difficult-to-clean-up/>). Despite cleanup efforts of an oil spill that polluted a Minnesota aquifer in 1979, the water remains contaminated because of levels of benzene, toluene, and methylbenzene and xylenes exceed EPA standards. (<http://mn.water.usgs.gov/projects/bemidji/results/fact-sheet.pdf>) Volatile organic compounds are toxic, carcinogenic and mutagenic which cannot be removed from water. A recent study of the same aquifer finds arsenic levels rose from below 10 micrograms per liter to over 230 micrograms per liter years after the spill. When bacteria break down petroleum underground, the chemical process can release naturally occurring arsenic. ([http://www.usgs.gov/newsroom/article.asp?ID=4110&from=rss\\_home#.VQWhX5VFDmQ](http://www.usgs.gov/newsroom/article.asp?ID=4110&from=rss_home#.VQWhX5VFDmQ)). The Highlands sole source aquifers, once contaminated may require millions of dollars and decades to restore these vital water sources.

## Respondent

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 Created On: 4/9/2015 8:57:00 AM