



Memorandum

To: Pennsylvania House of Representatives Environmental Resources and Energy Committee
From: Tracy Carluccio, Deputy Director, Delaware Riverkeeper Network
Date: June 28, 2015
RE: SB875 – “Treated Mine Water Act”

Delaware Riverkeeper Network is strongly opposed to SB875 and requests that the Committee not approve the bill. Overwhelming legal and environmental problems are created by this bill, jeopardizing the public and the environment.

- **Regulatory Controls will be removed and limited.**

Mine drainage often contains high levels of aluminum and other metals (such as iron and manganese), high acidity or alkalinity, total dissolved solids (“TDS”), or sulfate and the level of contamination in this effluent, while better than untreated mine water, still can cause pollution. (<http://www.wvu.edu/~agexten/landrec/chemtrt.htm>; <http://www.techtransfer.osmre.gov/nttmainsite/Library/hbmanual/hbtechavoid/chapter1.pdf> 1488117.3/45047) The treatment requirements for mine drainage can include pH adjustment, and treatment for iron and manganese, and potentially other parameters. (See, e.g., 25 Pa. Code § 87.102 (surface coal mining); 25 Pa. Code § 89.52) (underground coal mining).

Consequently, even treated mine drainage could still contain elevated levels of TDS and other contaminants, which pose a threat to water and vegetation if spilled or handled improperly. The risk of spills and leaks will increase if the bill is enacted into law because of the on-loading and off-loading of the fluids, the transport by truck and/or overland pipeline and the storage of mine water mixed with freshwater in basins that are used by oil and gas companies to hold water for fracking. These basins are not regulated or designed as wastewater treatment basins but, nonetheless, are allowed to be used to hold AMD and treated mine water. Leaks or spills from these large basins have the potential to cause substantial pollution to groundwater, soils, vegetation and surface water.

Despite these pollution risks, the ability of the Department of Environmental Protection to regulate and control these new potential pollution sources will be reduced. This is because SB875 provides an exemption from requirements of the Solid Waste Management Act, leaving a significant regulatory gap that will expose the public to environmental and public health risks when there are spills or releases. Section 5.

Such an exemption from the solid waste requirements removes the regulatory floor from handling of treated mine water. For instance, under the Solid Waste Management Act, a company engaged in the transport of residual waste must: take immediate steps to contain and clean up spills or accidental discharges of such waste, and notify the department pursuant to department regulations, of all spills or accidental discharges which occur on public highways or public areas or which may enter the waters of the Commonwealth as defined by the . . . “The Clean Streams Law,” or any other spill which is governed by any notification requirements of the department. (35 P.S. § 6018.303(b) (2) (footnotes omitted)).

Removing these enforcement controls does not benefit the public or provide needed protection to source watersheds or to areas potentially exposed to pollution releases and the watersheds where the fluids will be stored and used in gas and oil development.

- **Pollution will be more likely.**

The bill will incentivize the use of treated coal mine water in gas and oil development. Treated mine water is treated to effluent standards but still contains pollutants that can pose environmental and public health problems. Typically the treated mine water is still acidic and can contain several pollutants, including significant levels of total dissolved solids (TDS), aluminum, heavy metals, and can contain radioactivity and bromide if gas drilling wastewater is present in the groundwater or untreated mine pool.

The presence of dangerously high levels of radioactive elements being discharged from a coal mine treatment system is a known problem, for instance, in the abandoned Clyde Mine in southwestern Pennsylvania. In this situation the Clyde Mine is discharging radioactive water containing high levels of bromide, a significant health threat. While mine water is not radioactive and does not contain bromide, shale gas wastewater has these characteristics. The source of the bromide-laden radioactive water is suspected to be illegal dumping of shale gas wastewater in the mine. There are other mines where this may also be occurring. Since the treatment of radioactive elements and bromides is not typically required to meet the effluent (National Pollution Discharge Elimination System – NPDES) permit requirements, this discharge has continued for some years without being tracked or monitored, significantly impairing the water quality of the receiving waterways and threatening public health and drinking water.

This is an example that illustrates the danger of the provision in SB875 that frees from liability the oil or gas company that treats the mine water under Section 4(b) and gives the company an “out” under Section 4(c) (regarding no limitation of liability under other laws). To the extent a company has been engaged in illegal dumping into abandoned mines, if that company were to use treated mine water, there is a risk inherent in SB875’s wording that the company could seek to shield itself from cleaning up the mess it created.

- **No scientific support for safety of this use of treated mine water.**

Peer-reviewed science does not support the General Assembly’s claims that treated coal mine water is “an acceptable source of water” and can be “effectively substituted for fresh water” for use in oil and gas well development. In fact, very little research is available on how mine water reacts with fracking chemicals and information that is available exposes

several problems that can result from the use of mine water – problems that responsible parties could be shielded from if this bill is enacted. It is wrong to allow this use without scientific analysis that provides evidence that this mixing can be done safely. In fact, the General Assembly, like every other branch of state government, is bound by Article I of the Pennsylvania Constitution to respect the inherent rights of Pennsylvania citizens. Among those inherent rights are the right to a healthy community in which to live – the right to “clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.” Government officials, including legislators, are required to support Article I, Section 27 of the Pennsylvania Constitution in carrying out duties such as writing and adopting laws. SB875 does not provide any scientific justification regarding the safety of the activities it will incentivize.

- **Unjustly burdens coal mine impacted communities and their watersheds.**

SB875 is unjust for communities that are already stressed by the burden of coal mining activity through the degradation of waterways and groundwater by coal mining pollution, such as Acid Mine Drainage. Unjust harm will result to streams and rivers by the removal of treated mine water without its return to the source watershed. The depletion of flow, even if only marginally higher in quality, will prevent the stream from achieving restored quality and habitats and can diminish water supplies for those who rely on these watersheds for drinking water.

Communities are struggling to bring these damaged streams back to life but this bill will work against those goals by encouraging the removal of treated water from the source watershed’s flow, permanently unbalancing the hydrology of these impaired streams, which can make it impossible for these streams to be restored to a healthy condition. This is nothing short of a violation of community members’ inherent rights under Article I, Section 27 of the Pennsylvania Constitution. Restoring streams is a way for these communities to at least partly recover from legacy coal impacts. SB875 robs these communities of a valuable resource simply to benefit locations that have not been impacted as significantly by past mining activities.

- **Water depletion by oil and gas development will remain the same.**

SB875 claims that the industry needs reliable sources of water but what about the people in coalfield communities who need reliable sources of water for drinking water, to water their livestock and crops, to run their businesses, and to sustain life in streams which they use and enjoy? Without comprehensive hydrologic study of any watershed where interbasin/interwatershed transfers of water are proposed, the specific impact of taking water out of a particular watershed or subwatershed will be unknown, jeopardizing source watersheds and those who live there. We note that 37 counties in Pennsylvania are currently in drought watch and that our water sources have limits.

The depletion of water from our streams and aquifers is a significant impact that accompanies oil and gas development. The cumulative toll this depletion is taking is not being studied or analyzed across the Commonwealth, yet the permanent impacts are undeniable and substantial, especially with the build-out here of gas and oil extraction wells

that require water for high volume hydraulic fracturing. SB875 does not provide any remedy for that depletion; it simply shifts the target watersheds to already impacted coal mining regions, which is ineffective in terms of reducing the volume of water used and unjust to the targeted communities.

Finally, we are steadfastly opposed to SB875 for all the reasons stated above and ask the Committee not to approve the bill. The bill does not do what it purports to do (provide an acceptable source of water that can be effectively used in place of freshwater), it risks greater pollution through lack of adequate regulation and oversight, it exposes the public to liabilities that responsible parties will be shielded from, it is not based on scientific evidence that the activities can be performed safely and without harm to the public and the environment, and it unjustly burdens coal mining impacted communities substantially in the near and long term.

Thank you for considering our input on SB875.