



*Passionate about addressing issues through fact-based, bipartisan dialogue that informs legislative policy*

## **AT ISSUE: Environmental Protection in Pennsylvania**

### **WHY THIS MATTERS:**

Environmental stewardship is among the most important legacies we can leave for future generations. We deserve and are entitled to clean air to breathe and water to drink. Threats like climate change must be addressed and rectified. Maintaining the pristine nature of our State's waterways and lakes is necessary not only for safe drinking water, but quality of life, with such recreational pursuits as fishing, boating and swimming, long into the future. Section 27 of Article 1 of the Pennsylvania Constitution states "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people".

### **A BETTER WAY:**

Philip Block has long worked to protect and remediate our water, land and air. With a doctorate in chemistry and a bachelor of science in chemical engineering, he is the Director of Technology for Water Treatment for a Philadelphia-based chemical company.

- 15+ years researching, developing and marketing technologies to clean up contaminated soil and groundwater, remove smog-causing agents from power plant smokestack emissions, and disinfect and treat wastewater and drinking water.
- 10 patents involved in remediating millions of tons of contaminated soil and groundwater and disinfecting hundreds of millions of gallons of wastewater:
  - Seven involve environmental treatments (five describe methods to eliminate organic contaminants in soil and groundwater<sup>1</sup>, one targets reduction of arsenic in soil<sup>2</sup>, one to reduce nitrous oxides in smokestack emissions<sup>3</sup>).
  - Plus four pending patents describe environmentally friendly methods to disinfect wastewater and reduce "pollutants of concern" in drinking water.
- A recognized expert in using oxidants (a reactive class of chemistries) to remediate groundwater contamination and disinfect wastewater.
- Presented to regulatory agencies, academia and industry around the world.
- Written scholarly articles on environmental subjects<sup>4</sup>.

Philip Block is active in promoting a healthy environment:

- Member of the Water Environment Federation<sup>5</sup>, in which he is a Technical Practice Leader for Water Disinfection and participates on the Disinfection and Public Health Committee.
- Participated on the Industrial Water Reuse project advisory board for the WaterReuse Foundation<sup>6</sup>
- Past member of the American Environmental Health Scientists and the American Waterworks Association.
- Past member of the US EPA's National Groundwater Combined Remedy Panel and the Interstate Technology Regulatory Council's remediation working group.



Philip Block supports these Pennsylvania initiatives:

- Inclusion of Pennsylvania in the Regional Greenhouse Gas Initiative and the US Climate Alliance
- Drive for Net Carbon Neutrality
  - o Increased alternative energy sources in electrical production
  - o Provide homeowner rebates for installation of solar power
  - o Support advanced power management technologies (Smart Grid) to reduce power consumption
- Protect the Clean Water Act and Clean Air Act in Pennsylvania
- Capture and mitigate fugitive methane emissions at drilling sites and along methane distribution networks
- Strengthen the Department of Environmental Protection (DEP) and its oversight functions
  - o Tighten air and water standards
  - o Insure enforcement of regulations
  - o Reduce the role of politics in permitting
- Keep regulatory permitting of new fracking sites under DEP jurisdiction, not outsourced to third parties.
- Prevent coal slag and other coal-based pollutants from being dumped in our waterways
- Save open space and reduce encroachment on our State Parks
- Form an Expert Panel/Action Team to develop long-range strategies on energy and the environment to make Pennsylvania the leader in next-generation energy production and reduction of carbon emissions

**LEARN MORE:**

Visit: [www.pennenvironment.org](http://www.pennenvironment.org)  
[www.stateimpact.npr.org/pennsylvania](http://www.stateimpact.npr.org/pennsylvania)  
[www.pecpa.org](http://www.pecpa.org)

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<sup>1</sup> US 9,821,353; US 7,785,038; US 7,576,254; US 7,524,141; US 7,473,372

<sup>2</sup> US 9,656,890

<sup>3</sup> US 9,114,357

<sup>4</sup> Editor: "Disinfection Forum," PeroxyChem's bi-monthly publication on peracetic acid based wastewater disinfection, 2014 - current  
Editor: "Peroxygen Talk," FMC's bi-monthly publication on soil and groundwater remediation, 2006 - 2010

"The Decomposition Kinetics of Peracetic Acid and Hydrogen Peroxide in Municipal Wastewaters," P.A. Block. Proceedings of Water Environmental Federation, 2016.

"Peracetic Acid Wastewater Disinfection to Eliminate Formation of Disinfection Byproducts at U.S. Naval Mayport Station Wastewater Treatment Facility: Permitting, Trialing and Full Scale Implementation," K. Au, P. Block, P. Oller, S. McPherson, Proceedings of Water Environmental Federation, 2016.

"Control Strategies for PAA Wastewater Disinfection Process with Variable Effluent Quality," P.A. Block, K. Bell, S. Stewart, S. Morgan. Proceedings of Water Environmental Federation, 2015.

"Use of Peracetic Acid as a Wastewater Disinfectant to Eliminate the Formation of Chlorinated Disinfection By-products and Inhibit the Activity of Endocrine Disrupting Compounds," P.A. Block, W. Reimers, Y. Xu. Proceedings of Water Environmental Federation, 2015.

"Enhanced Non-catalytic Reduction of NO to Nitrogen in Stationary Sources Using Ammonia and Urea in Combination with Hydrogen Peroxide," P.A. Block, E. Pisanova, T. Holtz and R. Crynack. Proceedings of Air Quality IX, 2013.

Contributing author: "Technical and Regulatory Guidance for In Situ Chemical Oxidation of Contaminated Soil and Groundwater," 2 ed., Interstate Technology and Regulatory Council, January, 2005.

"Degradation of Volatile Organic Compounds with Thermally Activated Persulfate Oxidation," K.C. Huang, Z. Zhao, G.E. Hoag, A. Dahmani and P.A. Block, Chemosphere, 61, p. 551-560 (2005).

<sup>5</sup> [www.wef.org](http://www.wef.org)

<sup>6</sup> [www.watereuse.org](http://www.watereuse.org)