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# The RT Review

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## SHELL SEES NEW ROLE FOR FORMER STEEL REGION: PLASTICS

The oil and gas company is returning to the polyethylene market, building a 386-acre plant on the site of a long-shuttered zinc smelter on the Ohio River.



Construction on a Shell chemical processing plant in Monaca, Pa., in February. The company is planning a return to polyethylene production. Credit Jared Wickerham for The New York Times.

**MONACA, PA** — The expansive Royal Dutch Shell chemical processing plant under construction on a big bend of the Ohio River in western Pennsylvania is one of the largest and most expensive projects ever to be built along the tributary.

It's not only the plant's mammoth scale that has attracted attention. Just as significant is the project's location: 30 miles northwest of Pittsburgh, on a river that for four decades has been a corridor of Rust Belt industrial ruin.

That era is over, Shell executives say. The sentiment is shared by the region's tradespeople, business executives and political leaders, who are eager to strengthen the economies of towns along the river.

For the first time in two generations, steel girders and worn tubing are not being dismantled along the banks of the upper Ohio and shipped away. Instead, new parts are being assembled by Bechtel, Shell's primary contractor, into a world-scale, state-of-the-art chemical processor to convert liquid natural gas into polyethylene, a

*(continued on page 4)*

## REVISED DEFINITION OF "WATERS OF THE UNITED STATES" (WOTUS)

As most people who stay abreast of significant environmental and regulatory developments are aware, the U.S. EPA and Army Corps of Engineers finalized a rule in August of 2015 that significantly expanded the definition of "waters of the United States (WOTUS)" under the Clean Water Act (CWA) of 1972. Many have claimed that (1) this Obama Administration Rule allowed the EPA to expand the scope of its authority beyond congressionally approved limits, and (2) the Rule completely ignored the concerns of stakeholders throughout the United States. The Rule basically eliminated any limitations that the term "navigable" previously imposed on the jurisdiction of EPA and the Corps, allowing them to regulate any or all waters within a state, no matter how small and regardless of whether they were connected to federal interests. Litigation challenging the rule immediately began in several states across the U.S.

Mr. Pruitt released a proposed rule in June of 2017 that would rescind the original Obama Administration rule. Publication of that plan was the first step in a lengthy legal process that must be followed to eventually enact a new regulation. The proposed rule was published in the Federal Register on July 27, 2017 and was open for public comment until August 28, 2017. On June 29, 2018, the agencies signed a supplemental notice of proposed rulemaking to the proposed Step One Repeal. This notice clarifies that the agencies are proposing to permanently repeal the 2015 Rule in its entirety. As part of the initial proposal, the EPA and the Army indicated their intent to recodify the pre-2015 regulations until the agencies finalize a new definition of WOTUS. The supplemental notice gave the public an opportunity to comment on additional considerations that support the proposed repeal. That additional public comment period closed on August 13, 2018.

On December 11, 2018, the EPA and Department of the Army signed a proposed rule revising the definition of "waters of the United States" to clarify federal authority

under the Clean Water Act in a clear and understandable way. The agencies' proposal is the second step in a two-step process to review and revise the definition of "waters of the United States" in light of the numerous Supreme Court Cases which have challenged the 2015 Rule and consistent with the February 2017 Presidential Executive Order entitled "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule." The proposed definition would replace the approach in the 2015 Rule and the pre-2015 regulations. It has been reported that the agencies received thousands of recommendations that they have considered in developing this proposal from a diverse array of stakeholders. A 60-day public comment period was opened and closed on April 15, 2019.

The main goal of the revised definition is to enable the public to clearly understand where the CWA applies and where it does not. It seems to be reasonable that traditional navigable waters, tributaries to those waters, certain lakes and ponds, impoundments of jurisdictional waters, and wetlands adjacent to jurisdictional waters are all subject to the CWA and federal regulation. However, and perhaps most importantly, the proposed definition specifically clarifies that "waters of the United States" do not include features that flow only in response to precipitation; groundwater, including groundwater drained through subsurface drainage systems; certain ditches; prior converted cropland; artificially irrigated areas that would revert to upland if artificial irrigation ceases; certain artificial lakes and ponds constructed in upland; water-filled depressions created in upland incidental to mining or construction activity; stormwater

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## REVISED DEFINITION OF "WATERS OF THE UNITED STATES" (WOTUS) (continued from page 1)

control features excavated or constructed in upland to convey, treat, infiltrate, or store stormwater run-off; wastewater recycling structures constructed in upland; and waste treatment systems. In addition, the agencies are proposing to clarify and define the terms "prior converted cropland" and "waste treatment system" to improve regulatory predictability and clarity.

The proposed rule as presented in the Federal Register indicates that the proposed definition revision is intended to strike a balance between Federal and State waters and would carry out Congress' overall objective to restore and maintain the integrity of the nation's waters in a manner that preserves the traditional sovereignty of States over their own land and water resources. The agencies believe the proposed definition would also ensure clarity and predictability for Federal agencies, States, Tribes, the regulated community, and the public. This proposed rule is intended to ensure that the agencies are operating within the scope of the Federal government's authority over navigable waters under the CWA and the Commerce Clause of the U.S. Constitution.

*"For the first time, we are clearly defining the difference between federally protected waterways and state protected waterways. Our simpler and clearer definition would help landowners understand whether a project on their property will require a federal permit or not, without spending thousands of dollars on engineering and legal professionals."*

-EPA Acting Administrator  
Andrew Wheeler

It has been reported that some states have expressed interest in participating in the federal jurisdictional determination process, and in response, the agencies are exploring

ways to work with their federal, state, and tribal partners to develop a data or mapping system that could provide a clearer understanding of the presence or absence of jurisdictional waters. The agencies report that this approach would not require state governments to establish these datasets, but rather it would make this process available to those agencies that would find it useful.

*We here at RT believe that the revised definition provides a great deal of clarity as to what are and are not considered WOTUS. We feel that this revision prevents the further expansion of the federal governments control over local land use decisions. This revised definition will also lead to less confusion and bureaucracy given that States already maintain their own authorities to regulate water bodies within their borders, despite whether they qualify as WOTUS. The number of public comment periods and feedback that has been received by EPA has allowed for this revised definition to be fairer and take into consideration the concerns of stakeholders throughout the U.S.*

-Justin R. Lauterbach, QEP  
Vice President

Additional fact sheets along with copies of the proposed rule and supporting analyses are available on EPA's website at :  
<https://www.epa.gov/wotus-rule>

#### Sources:

1. <https://www.epa.gov/wotus-rule>
2. Federal Register / Vol. 84, No. 31 / Thursday, February 14, 2019 / Proposed Rules

## PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION INCREASES NON-COAL MINING PROGRAM FEES

As a final step prior to promulgation, the Independent Regulatory Review Commission in March approved an increase in non-coal mining fees. Fees will take effect on January 1, 2020.

Public notice of the non-coal mining program fees was issued on Saturday, February 3, 2018. For a link directly to the fees, click here :  
<https://www.pabulletin.com/secure/data/vol48/48-5/180.html>

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## IT'S LIVE! INDEPENDENCE SEAPORT MUSEUM UNVEILS LANDMARK RIVER ALIVE! EXHIBITION

By John Brady, President and CEO, Independence Seaport Museum

Independence Seaport Museum's new state-of-the-art exhibit, River Alive! is now open to visitors. This permanent 4,000-square-foot exhibition focuses on the wonders and challenges of the Delaware River Watershed, its place within that system, and the increasingly sophisticated science we use to understand the watershed's complexity.

River Alive! celebrates the museum's vision to deepen the understanding, appreciation and experience of the Philadelphia region's waterways through history, science, art and on-water programs. This exhibit is comprised of 17 interactive high-tech stations that address what is in, on and around the river.

The centerpiece of River Alive! is a 32-foot long river continuum wall, which has five of the exhibit's 17 interactive areas. Spin, roll, blow, or tap certain triggers, and animated content pops up onto tile display wall. The exhibit also features a map of the

Delaware River Watershed, where visitors can explore five different "watershed trails."

"Fifteen million people drink the water flowing through the Delaware Watershed," said John Brady, President and CEO of Independence Seaport Museum. "River Alive! highlights the importance of the Delaware River's health while showcasing its scenic beauty and tremendously varied wildlife. Our intention is to deepen our visitors' appreciation of any experience they have on the region's rivers and streams. We can't thank the William Penn Foundation enough for their support for these efforts."

River Alive! was made possible with more than \$4 million in grants from the William Penn Foundation and with the help of partners including Partnership for the Delaware Estuary (PDE). The Foundation grants supported four years of planning, design, development and construction. The exhibit aligns with The Foundation's goal to empower

those in the region to protect the shared watershed, a strategic vision accomplished through grants toward research, advocacy, communications, conservation and strong environmental education. "As a direct result of the federal Clean Water Act and other landmark laws intended to protect clean water, the health of our waterways dramatically improved over the past few decades and we're witnessing a major 'return to the river' Philadelphia and throughout the watershed," said Shawn McCaney, Executive Director of the William Penn Foundation. "Our work aims to harness and strengthen this momentum, and River Alive! is a wonderful new way for visitors to connect directly with the Delaware River and become inspired to learn more about and explore the Delaware and its tributaries.

(Estuary News – Winter 2019)

### RT STAFF AND PROJECT NEWS

We are pleased to update you on our many 2019 projects, as follows:

- Chris Blosenski has continued work on a number of mold projects, as mold projects increased throughout Pennsylvania and in New Jersey due to extreme wet weather. Gary Brown, RT's President is a Certified Microbial Consultant who oversees key projects where mold is of concern and his Professional Engineering experience allows fast focus on where water intrusion and/or humidity are problems causing mold.

- Justin Lauterbach and Danielle Pastorius continue work on a large asbestos project near Pittsburgh. Two large sections of a town are planned to go through a demolition and redevelopment project, and asbestos inspections are essential to an early start to move redevelopment forward.

- Chris Ward and Maria Scudder are taking on work at many sites in Southern New Jersey where either Phase I Environmental Site Assessments or Preliminary Assessments following state rules are underway. Because of the New Jersey LSRP Program, remediation and redevelopment projects are moving quickly forward at about twice the pace of similar

projects in other states. LSRPs in New Jersey can help coordinate permitting and NJDEP continues to issue new guidance and provides wide scale environmental permit training which helps move redevelopment projects along more quickly than in the past.

- Scott Bauman is completing work at a Southeast Pennsylvania project where capping was implemented at a former lead manufacturing plant redeveloped as a high volume commercial area, where there are now an auto supply store, convenience stores, restaurants and a pharmacy. Work to upgrade the cap is being completed under the Act 2 Land Recycling Program in Pennsylvania.

- Jen Berg and Julian Pozzi, with assistance from Adam Brinkman, are working on solar energy farm sites throughout New Jersey, early solar farms continue to be successful, and RT assists with construction oversight, remediation of former quarries and other contaminated site and biennial inspections after the solar farms go into service.

- Aaron Schneider and Craig Herr are continuing work on moving a remediation project toward closeout. This was New Jersey's first solvent remediation site,

where pump and treat was allowed to cease in favor of monitored natural attenuation and a Classification Exception Area. The site, in Morris County, has seen substantial redevelopment and reuse by a medical products facility, where manufacturing operations are successfully completed on a seven-day per week schedule.

- RT's LSRPs are also at work on remediation sites in Clifton, Kearny and Bayonne, as New Jersey's industrial sites where there were discharges of contaminants can be efficiently addressed while remediation continues underway concurrent with redevelopment. RT has three LSRPs ready to serve its New Jersey clients, where better economic conditions are helping to provide funds to remediate sites early on in the redevelopment process.

*RT continues to evaluate and implement successful projects throughout the Garden State of New Jersey. Our LSRPs have completed well over 35 projects, with another 60 projects underway. RT's total number of LSRP sites exceeds 125.*

*We appreciate the opportunity to be of service in 2019 and beyond.*

-Gary R. Brown, LSRP, P.E., UMR,  
CP, QEP, President,  
RT Environmental Services



## SHELL SEES NEW ROLE FOR FORMER STEEL REGION: PLASTICS

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common plastic.

The 386-acre plant replaces a long-shuttered zinc smelter. It is among the most expensive industrial production projects ever built along the 981-mile Ohio River and the first sizable new factory on the Ohio since North American Stainless opened its metal manufacturing operation in 1992, downriver in Ghent, Ky.



The site where a long-shuttered zinc smelter will be replaced by a chemical processing plant designed to convert liquid natural gas into polyethylene, a common plastic. Credit Jared Wickerham for The New York Times

"We repurposed a previous industrial area, and we created a place with new jobs to take the place of jobs at that old plant," said Hilary Mercer, Shell's vice president for Pennsylvania Chemicals, who is supervising the construction. "This was a huge steel area, and steel has largely disappeared. We are bringing a new industry to take its place."

Shell never discloses the cost of its projects, said Ms. Mercer, who has worked for Shell for 31 years and overseen projects to build liquid natural gas processing plants in 12 other countries. But an economic analysis prepared several years ago for Shell by Robert Morris University and submitted to the state projected that the cost would be \$6 billion.

Trey Hamblet, vice president for global research of Industrial Info Resources, a consulting firm in Texas that tracks plant construction around the world, said that price was inaccurate. Based on his firm's research and interviews, the Shell plant will cost at least \$10 billion, he said.

Shell ended its polyethylene production in 2005 in the face of increasing costs and growing competition, but it began evaluating a return in 2012. At the time, the colossal dimensions of the natural gas reserves bound up in shale formations deep beneath the rural upper Ohio River counties in Ohio, Pennsylvania and West Virginia were becoming clearer, and technology was making it easier to tap those reserves.

In 2005, the first wells were drilled in the region. Since then, some 17,000 more gas wells have been drilled and hydraulically fractured under high pressure to release a tor-

rent of "dry" methane for electrical generation and heating and "wet" gas liquids like ethane, pentane and propane.

During the same period, billions of dollars were spent on gas separation plants, pipelines, pumping stations, gas-fired electrical generating stations and shipping terminals. The investments turned the upper Ohio River Valley into the largest natural gas field in the United States. The region produced nine trillion cubic feet of fuel last year, a third of the national production.



More than 6,000 tradespeople and laborers will be on the site during the peak summer construction period. Credit Jared Wickerham for The New York Times

The gas supply in the three-state region is enough to last at least half a century at current rates of consumption, according to the Energy Information Administration, the statistics unit of the Department of Energy. The national market demand for polyethylene is projected to increase to 60 million metric tons over the next two decades, up from 40 million metric tons last year.

The company's decision in June 2016 to build the plant opened the third stage of gas development: the production of ethane and polyethylene.

"One of Shell's growth aspirations is in chemicals," Ms. Mercer said. "If you look at chemical companies in the world, one of the largest growing sectors in chemicals is polyethylene. If you want to grow in chemicals, then logically you want to grow in polyethylene."

Almost every polyethylene factory in the United States is on the Gulf Coast. But more than 70 percent of the American plastics manufacturing sector is within 700 miles of Shell's plant, according to the findings of a 2017 IHS Markit study.

Proximity to markets, lower transportation costs and lower prices for ethane are competitive advantages that strengthened Shell's decision to proceed, Ms. Mercer said. Shell was also encouraged by a \$1.65 billion, 25-year tax reduction package offered by state lawmakers.

The Ohio River plant will subject ethane to high heat and pressure to "crack" the chain of carbon molecules to produce ethylene. When completed and operational in the

early 2020s, the Shell plant will turn 1.6 billion gallons of ethane into 3.3 billion pounds of little white polyethylene beads annually.

More than 6,000 tradespeople and laborers will be on the site during the peak summer construction period. Some 600 full-time workers will manage automated technology to operate the completed plant. A 97-mile pipeline from gas separation installations in Ohio and West Virginia will supply ethane; a 250-megawatt gas-fired electrical generating station will power the plant.

The Shell plant is already drawing attention from competitors. In December, Ohio issued air-emissions and water-discharge permits to PTT Global Chemical of Thailand and its partner, South Korea's Daelim Industrial, for a proposed polyethylene plant in Shadyside, about 80 miles downriver. That plant would be about the same size as Shell's. Ohio lawmakers are discussing tax incentives valued at more than \$1 billion. PTT Global's decision is expected this year.

China Energy Investment Corporation, the country's largest energy company, signed a memorandum of understanding with West Virginia in 2017 to invest \$83.7 billion in gas-related power, chemical and storage projects in the upper Ohio River Valley. The agreement was the largest among a number of deals that were announced during a summit meeting in Beijing between President Trump and President Xi Jinping of China.

All the activity has generated resistance from environmental and public health groups, which have expressed concern about the effects of the chemical corridor on air and water quality. Emissions of volatile organic chemicals into the air and discharges into the river will increase in an area that already has some of the nation's worst pollution.

"Industry calls it a game changer," said Dustin White, project coordinator for the Ohio Valley Environmental Coalition in Huntington, W.Va. "We see it as game over."



Charles J. Betters, a Pennsylvania real estate investor, said he welcomed the Shell plant. Credit Jared Wickerham for The New York Times

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## SHELL SEES NEW ROLE FOR FORMER STEEL REGION: PLASTICS

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Real estate developers, though, are enjoying a rebound in construction.

Charles J. Betters, chairman of C.J. Betters Enterprises, a real estate company in neighboring Aliquippa, said his company had built retail, office and residential projects across the East but none for years near his home. He said he was now building 200 residential units and undertaking a major hotel renovation in Beaver County.

"This is the best thing to happen in our region in 40-plus years," he said.

The leaders of the Community College of Beaver County, two miles from the plant,

also anticipate sharp growth in the market for skilled labor. The college is training students to complete a two-year associate degree in chemical-processing technology that will earn many of them \$60,000 a year in starting salaries at the plant.

Such job opportunities and wages are starting to break through the deep economic and psychic torpor that gripped the region, said Roger W. Davis, the college president.

"People were still mourning the steel mills that closed in 1985," Dr. Davis said. "We are moving into a new energy and manufacturing model."

By: Keith Schneider – New York Times,  
3-27-19

*RT has been pleased to work with Mr. Betters of CJ Betters Enterprises on many sites. He has been instrumental in redeveloping many closed industrial sites along the Ohio River northwest of Pittsburgh. Industrial site owners look to Mr. Betters for advice on redevelopment and how to turn large sites around to become productive again.*

- Gary R. Brown, P.E., President  
RT Environmental Services, Inc.

## WATERS OF THE UNITED STATES – PROPOSED RULEMAKING

The February 14, 2019 Federal Register contained the long-awaited EPA and Army Corps of Engineers proposed rule regarding the Waters of the United States (WOTUS). Note this 67-page proposal is in response to President Trump's February 28, 2017 Executive Order, which required a review of the WOTUS rule. This new WOTUS definition would replace the 2015 definition and significantly reduces the extent of jurisdiction under WOTUS. The stated goal for this proposed rulemaking is to establish category brightlines that are clear to the regulators and the regulated community and eliminate the case-by-case application of the significant nexus test.

This rule has a long and substantial regulatory and judicial history beginning in 1973, and this history is laid out on .pdf pages 4-9 of the above link. The actual proposed regulation for each regulatory section begins on .pdf page 50. The rest of the proposal lays out the explanations behind their thinking. In general, the proposal is more consistent with the Supreme Court's interpretation than the 2015 Rule. While this is a lengthy read, there is much information in here regarding what the Agencies considered in writing this version.

There are proposed definitions which are significantly different including the following:

- The proposal no longer includes a reference to waters with a 'significant nexus' to traditional navigable waters, but rather concentrates on whether the water has a surface connection. Ephemeral features would be excluded from jurisdiction.

- The term 'tributary' is proposed to be limited to naturally occurring surface water channels with intermittent or perennial flow in a typical year either directly or indirectly through other jurisdictional waters such as tribs, impoundments or adjacent wetlands, as long as those waters convey an intermit-

tent or perennial flow downstream. Excluded are references to defined beds, banks and ordinary high water marks.

- The 'adjacent wetland' definition is clarified and narrowed and does not require to be within a certain distance from an ordinary high water mark or within the 100-yr floodplain. Adjacent wetlands would not be jurisdictional unless they either:

- o have a direct hydrologic surface connection or
- o physically abut a WOTUS.

Both the 'tributary' and 'adjacent wetland' definitions are more consistent with the Supreme Court's interpretations than with the 2015 Rule.

- Previously, there were no definitions for 'waste treatment systems' even though they've been excluded since 1979 and will continue to be excluded. The proposed definition of waste treatment systems includes all system components including lagoons, treatment ponds, and settling or cooling ponds. Note the system must be properly constructed to be excluded.

- 'Prior converted cropland' continues to be excluded. Also excluded are artificial lakes and ponds constructed in upland, such as water storage reservoirs, farm and stock watering ponds, settling basins and log cleaning ponds, detention, retention and infiltration basins and ponds, and groundwater recharge basins.

- Ditches are generally proposed not to be WOTUS unless they function as traditional navigable waters, if they are constructed in a tributary and satisfy the proposed 'tributary' definition; or if they are constructed in an adjacent wetland and satisfy the proposed 'tributary' definition.

The proposed categories to be included as "waters of the United States" include:

- traditional navigable waters and territorial seas;
- impoundments of jurisdictional waters;

- tributaries that contribute intermittent or perennial flow to traditional navigable waters;

- ditches that are:
  - o traditional navigable waters,
  - o constructed in a tributary,
  - o relocate or modify a tributary to be a tributary, or
  - o constructed in an adjacent wetland and meet the definition of tributary;

- lakes and ponds that are:
  - o traditional navigable waters,
  - o contribute perennial or intermittent flow to a traditional navigable water in a typical year directly or indirectly through a jurisdictional water, or

- o are flooded by jurisdictional waters in a typical year;

- wetlands adjacent to jurisdictional waters.

All waters that do not fit into the above six categories are not a WOTUS. The proposed rule also excludes groundwater, including groundwater drained through subsurface drainage systems. It excludes ephemeral surface features and diffuse stormwater runoff such as directional sheet flow over upland. It excludes all ditches except those that function as traditional navigable waters, if they are constructed in a tributary and satisfy the proposed 'tributary' definition; or if they are constructed in an adjacent wetland and satisfy the proposed 'tributary' definition.

There is a 60-day public comment period, which ends April 15, 2019. The Agencies are interested in all comments and their specific questions are at the end of each category discussion.

By: Josie Gaskey, Director  
of Environmental Safety and Health  
PAAggregates & Concrete Association



## TECHNOLOGY UPDATES

### NEW DOCUMENTS

#### EPA Office of Research and Development Journal Article: Geochemical Monitoring of In-Situ Remediation

Long-term data on the performance of in-situ remediation technologies for groundwater cleanup are needed to improve system designs and to guide selection of remedial measures that best match site-specific hydrogeochemical conditions. The study examined a twenty-two-year history of trichloroethylene (TCE) treatment by zero-valent iron in a Permeable Reactive Barrier (PRB). Degradation products included cis-dichloroethene (cis-DCE), vinyl chloride (VC), ethene, ethane, >C4 compounds, and possibly CO<sub>2</sub>(aq) and methane. Abiotic patterns of TCE degradation were indicated by the distribution of degradation products and by compound-specific stable isotope data. <sup>13</sup>C values of methane within and down-gradient of the PRB varied widely and covered most of the isotopic range encountered in natural methanogenic systems. Methanogenesis is a sink for inorganic carbon in zero-valent iron PRBs that competes with carbonate mineralization and this process is important for understanding pore-space clogging and longevity of iron-based PRBs. This study provides the longest available record of treatment performance of chlorinated compounds by iron metal. View at:

[https://cfpub.epa.gov/si/si\\_public\\_record\\_report.cfm?dirEntryId=343800](https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=343800).

#### Technology Innovation News Survey Corner.

The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at <https://clu-in.org/products/tins/>. The following resources were included in recent issues:

- Development and Characterization of Small-Scale Washing Systems for Removal of Depleted Uranium Oxides
- Comprehensive Approach for Monitoring and Remediating Petroleum-Derived Contaminants in the Arctic: Case Study of the Former NARL Site Near Utqiagvik, Alaska (Formerly Barrow)
- State of Michigan: Sampling Guidance for Per- and Polyfluoroalkyl Substances (PFASs)
- Preliminary Closeout Report: Solvents Recovery Service of New England, Inc.
- Development of Environmental Health Criteria for Insensitive Munitions (IMX-101-104)
- Aqueous Film-Forming Foam [Fact Sheet]
- TPH Risk Evaluation at Petroleum-Contaminated Sites

### NEW DOCUMENTS

#### EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan.

This Action Plan describes EPA's approach to identifying and understanding PFASs, addressing current PFAS contamination, preventing

future contamination, and effectively communicating with the public about PFASs. The Action Plan describes broad actions underway to address challenges with PFASs in the environment as well as other short- and long-term actions currently being implemented. View at <http://www.epa.gov/pfas/epas-pfas-action-plan>.

#### Superfund Research Program Research Brief 290: Promising Membrane Technology Reduces Chlorobenzene in Groundwater.

A new Superfund Research Program (SRP) collaboration has developed a promising groundwater cleanup technology that provides an efficient, low-maintenance method of removing chlorobenzene and other compounds from water. The method integrates electrochemical oxidation, which uses electricity to transform contaminants into non-toxic substances, and membranes containing palladium (Pd), a metal used as a catalyst in many industrial chemical synthesis applications and groundwater treatment. For more information, see [https://tools.niehs.nih.gov/srp/research-briefs/view.cfm?Brief\\_ID=290](https://tools.niehs.nih.gov/srp/research-briefs/view.cfm?Brief_ID=290). To get monthly updates on research advances from the SRP you can subscribe to their Research Brief mailing list at:

<https://list.nih.gov/cgi-bin/wa.exe?SUBED1=SRP-BRIEF&A=1>.

#### SERDP ETSCP Projects on Treatment Demonstrations in Fractured Bedrock

Management and remediation of fractured bedrock aquifers impacted with chlorinated solvents, such as tetrachloroethene (PCE) and trichloroethene (TCE), remain a significant environmental challenge for the Department of Defense (DoD). These challenges are due to a combination of the complex fracture flow field, uncertainties associated with contaminant distribution among fractures, microfractures, and the rock matrix, and ultimately the difficulties with understanding these complexities as they relate to remedial impacts on both short and long-term groundwater quality. The costs associated with drilling, testing, and monitoring in these fractured bedrock systems are also a great challenge for site management. SERDP and ESTCP projects addressing contamination in fractured rock have studied bioaugmentation as a cost-effective treatment for dense non-aqueous phase liquid (DNAPL) sources present in the fracture zones. They have also developed and evaluated a novel push-push remedial assessment technique, coupled with compound specific isotope analysis (CSIA), for use as a rapid and cost-effective means to assess the limits of in situ remediation in fractured bedrock systems. View more information at <https://serdp-estcp.org/News-and-Events/Blog/Treatment-Demonstrations-in-Fractured-Bedrock>.

#### Technology Innovation News Survey Corner

The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete

### TECHNOLOGY UPDATES

- EPA PFA Action Plan, pg. 6
- Treatment of Fractured Bedrock, pg. 6
- Garages and Indoor Air, pg. 6
- Spring Flooding and the Gulf of Mexico, pg. 7

archives, and subscription information is available at <https://clu-in.org/products/tins/>. The following resources were included in recent issues:

- Development of a Passive Flux Meter Approach to Quantifying 1,4-Dioxane Mass Flux
- Data Review and Validation Guidelines for Perfluoroalkyl Substances (PFASs) Analyzed Using EPA Method 537
- Rod and Wire Mill Interim Measures Progress Report, August 2018, Tradeport Atlantic, Sparrows Point, Maryland
- Sewers and Utility Tunnels as Preferential Pathways for Volatile Organic Compound Migration into Buildings: Risk Factors and Investigation Protocol
- Evaluating the Efficacy of Bioaugmentation for In-Situ Treatment of PCB Impacted Sediments
- Evaluation of Perched Water Post-Extraction Remedy Technologies: Interim Status Report
- Applied Studies & Technology Variation in Groundwater Aquifers: Results of Phase II Field Investigations and Final Summary Report
- Mercury Remediation Technology Development for Lower East Fork Poplar Creek: FY2018 Update
- Technical Measurement Guidance for LNAPL Natural Source Zone Depletion
- Alternatives for the Demilitarization of Conventional Munitions
- 2018 EPA International Decontamination Research and Development Conference
- Superfund and Bankruptcy: Summary of Impacts, Issues and Risks Associated with PRP Bankruptcy
- Aquatox (Release 3.2): Modeling Environmental Fate and Ecological Effects in Aquatic Ecosystems
- A Practical Approach for Modeling Matrix Diffusion Effects in REMChlor
- How to Assess Potential Biological Effects of Subaqueous Disposal of Mine Tailings: Literature Review and Recommended Tools and Methodologies
- Global Cover System Design: Technical Guidance Document
- Engaging Stakeholders in Natural Resource Decision-Making

#### HOMEOWNERS AND TENANTS WITH ATTACHED GARAGES IN CALIFORNIA ADVISED OF POTENTIAL AIRBORNE HAZARDS THAT COULD ENTER THEIR HOME

California's population of some 39 million people reside in approximately 13 million households. For many, whether buying or renting a home, having an attached garage is high on the list of desired amenities. Due to this fact,



## TECHNOLOGY UPDATES (continued)

millions of homes have an attached garage, but the benefits they provide can also come with some health and safety concerns.

For example, an attached garage can be a source of indoor air quality (IAQ) issues. A major reason for this is any gases, vapors, fumes and particulates that are airborne in the garage can in some circumstances enter the home. One of the major concerns is carbon monoxide (CO). This odorless, colorless gas can cause sudden illness and death. It is produced any time a fossil fuel is burned so a vehicle running or a clothes dryer, hot water heater or furnace in the garage that is powered by natural gas or propane and is not properly vented could create unhealthy levels of carbon monoxide.

Another issue is the storage and use of various fuels, paints, cleaning compounds, fertilizers, pesticides and other chemicals. These materials can off-gas volatile organic compounds (VOCs) and other chemicals into the air that could make their way into the home while they are being used or if they are not properly stored. A garage that suffers from leaks or elevated humidity levels can even be the source of mold growth.

"An attached garage that is positively pressured, as compared to the house, will increase the chance that garage air will make its way into the home," said Michael Chapman, Laboratory Manager of LA Testing's Huntington Beach facility. "This can occur if there is an improperly sealed door leading into the home, through the (heating, ventilation and air conditioning) HVAC system if it is located in the garage or if there are vents or leaking duct work in the area. It can also occur if there are unsealed, cracked or damaged garage walls and ceilings. Even simply opening the door to the garage can allow pollutants to enter."

(WebWire – 2/6/19)

### NEED A BREATH OF FRESH AIR? – HOTELS TO THE RESCUE

More hotels are adding air purifiers and filters to their guest rooms, either because the outside air is prone to smoke or pollution, or because guests demand them for health reasons.

Forget free wine hours and on-demand workout videos. An increasing number of hotels around the world are now providing guests the option to book rooms with filtration and purification systems that minimize threats of air pollution and offer cleaner air.

"Interior air quality can be abysmal," said Beth McGroarty, research director for The Global Wellness Institute, a nonprofit organization for the wellness industry. "Hotels are combating this by installing high-tech systems in some of their rooms that improve the air their guests are breathing." The quest for clean air is part of the growing interest in wellness travel, Ms. McGroarty said.

Outside conditions could certainly be a larger factor. According to data released last year by the World Health Organization, nine of 10 people globally breathe polluted air. Many top urban destinations, particularly in developing nations, have been recognized for unhealthy smog conditions. Wildfires are becoming more

frequent, affecting the air quality of hundreds of miles. And travelers with respiratory conditions or allergies may especially benefit from breathing cleaner air.

Most hotel properties generally charge a higher nightly rate for their clean air rooms, compared with their standard rooms, and while the amount varies depending on the hotel, a stay can be 5 percent to 7 percent more expensive.

### After wildfires in California, a new partnership

In January, the 556-room InterContinental San Francisco installed Molekule air purifiers in 30 of its rooms as part of a pilot project. According to Molekule's chief executive, Dilip Goswami, the two-foot tall, cylindrical devices plug into a power outlet and eliminate mold, bacteria, chemicals, allergens and viruses through the company's patented air purification technology.

Harry Hobbs, an area director of engineering for InterContinental Hotels, said that indoor air quality is more important to the hotel following the wildfires that occurred last year in Paradise, Calif., about a three-hour drive away. "Even though the wildfires weren't near the city, they affected the air quality, and many of our guests asked us for masks and filters because they had breathing difficulties. Our staff was also uncomfortable," he said. "After this initial trial, I want to offer cleaner air in more rooms and more hotels."

### Clean air that starts with deep cleaning

The hotel wellness company Pure Wellness has designed "Pure Rooms," available in 300 hotels globally and spanning several companies including Marriott, Hampton Inn, Embassy Suites and Hyatt.

Pure Rooms are guest rooms that have been deep cleaned with plant-based and microbial-resistant cleaners, developed to prevent the growth of fungus, bacteria and mold on surfaces. The rooms are also equipped with portable air purifiers.

Travelers can find a room with these air-filtration systems on the company's website. Vinny Lobdell Jr., the company's president, said that the company will add more rooms in another 200 hotels this year, and Pure Rooms usually comprise between 3 percent to 5 percent of a hotel's total room inventory.

### In-room purifiers, worldwide

The wellness technology company Delos is behind the "Stay Well" designation of more than 1,000 hotel rooms found globally, including those in Wyndham, Marriott and MGM Grand hotels.

One of their key features is a wall-mounted air-purification filter that aims to reduce allergens and microbes. For Wyndham's 50 hotels in North America, the rooms are now a brand standard: According to Danica Boyd, the company's vice president of brand operations, all of its properties will have at least some Stay Well rooms by the end of this year.

### Clean air where it's needed most

When The Oberoi in New Delhi reopened last year following a renovation, air purifiers were installed throughout the hotel, including

in all the rooms, to combat the worsening issue of Delhi's polluted air. More than 40 of the new purifiers filter exterior air as it enters the building; the hotel also measures the quality of the interior air twice a day.

(New York Times – By Shivani Vora – 2-12-19)

### SPRING FLOODING COULD LEAD TO LARGE GULF OF MEXICO 'DEAD ZONE' THIS SUMMER

- NOAA predicts an above-average to large "dead zone" in the northern Gulf of Mexico this summer.

- This is an area that forms each summer, with oxygen levels too low to support marine life.

- The high risk of flooding in the central U.S. this spring is the main indicator.

- Discharges of nutrients and freshwater from the Mississippi-Atchafalaya River Basin fuel the dead zone.

The Gulf of Mexico "dead zone" could be large this summer after spring flooding produces higher-than-average discharges of nutrients and freshwater from the Mississippi River, NOAA warned in its National Hydrologic Assessment.

More historic, widespread flooding is expected in the central United States this spring, according to NOAA's outlook, and this is anticipated to create conditions "highly conducive to hypoxia development and lead to an above-average to large hypoxic zone in the northern Gulf of Mexico this summer."

In the northern Gulf of Mexico, a large hypoxic area – an area which features such low oxygen levels that it's unable to support marine life – forms each summer and often exceeds 5,000 square miles.

This hypoxic area is often called the dead zone and is highly influenced by rainfall patterns in the Mississippi-Atchafalaya River Basin, which drains more than 41 percent of the Lower 48 states.

The more rain that falls over that basin, the more nutrients and freshwater deposited into the Gulf of Mexico, leading to the development of hypoxia. Therefore, the spring flooding risk in the Mississippi-Atchafalaya River Basin is a good indicator of the potential size of the dead zone in the upcoming summer.

The U.S. Geological Survey will measure discharge amounts and corresponding nutrient concentrations from those rivers in early June, and these data will be used by NOAA and other outlets to release dead-zone forecasts for the Gulf of Mexico.

The actual size of the dead zone will be measured this summer and compared with the forecasts, NOAA said.

The largest Gulf of Mexico dead zone since mapping began there in 1985 was 8,776 square miles in July 2017. That's about the size of New Jersey.

It should be noted, however, tropical storms and hurricanes can locally disrupt dead-zone formation and maintenance, so an active early hurricane season could cause the dead zone to be much smaller than predicted.

(By Brian Donegan, The Weather Channel – 3-26-19).

## NJ UPDATES

### NJ DEP PROPOSES RECLASSIFYING 749 MILES OF WATERWAYS TO CATEGORY ONE STATUS, FIRST SIGNIFICANT UPGRADE IN MORE THAN A DECADE

Department of Environmental Protection Commissioner Catherine R. McCabe in early March announced the filing of rule amendments that will designate 749 miles of rivers and streams as Category One waterways, marking the first time in more than a decade that the state has designated waterways to this high level of protection.

"Category One waterways provide drinking water and sustain important fish and aquatic resources," Commissioner McCabe said. "In addition, the actions the state takes to preserve water quality for these waterways help protect ecosystems that provide important wildlife habitats and improve our quality of life."

Any wastewater or other regulated discharges impacting these waterways will need to meet stringent water quality standards. These areas also will be afforded 300-foot development buffers under the Flood Hazard Area Control Act, better protecting water quality as well as lives and property.

The DEP filed the proposed classification changes in the New Jersey Register as amendments to its Surface Water Quality Standards Rule. Upon adoption, these will be the first additions of Category 1, or C-1, waterways since 2008, when the state designated 686 miles of rivers and streams to this high level of protection.

Specifically, the DEP proposes to upgrade 734 waterway miles for their exceptional ecological value and another 53 miles for their exceptional fishery resources. Thirty-eight miles overlap both categories.

These waters flow through 67 municipalities within the Upper Delaware, Lower Delaware, Northwest, Raritan and Atlantic Coastal regions. Among the waterways to be classified are portions of the Pequest River in Warren County, the Salem River in Salem County, the South Branch of the Raritan River in Somerset and Hunterdon counties, the Lamington River in Hunterdon and Somerset counties, and the Ramapo River in Bergen County.

The state uses a three-tiered system to designate waterways, with the top tier being those designated as Outstanding Natural Resource Waters that are to be set aside in their natural state for posterity. Many of these are in the Pinelands National Reserve.

Some 6,800 miles of waterways are currently designated as Category 1 and are protected for their exceptional ecological, water supply, recreation, and/or fisheries values. All other waterways are designated Category

2. Those Category 2 waterways not meeting water quality criteria must be improved to meet these criteria.

The DEP's proposed upgrades for exceptional ecological value are based on stringent scientific criteria, including verifications by the New Jersey Division of Fish and Wildlife of suitable habitat for threatened and endangered species such as bog turtles and mussels, species that depend on high water quality. Similarly, the DEP based its reclassifications for exceptional fishery resources on trout sampling data over the course of multiple seasons.

For a copy of the public notice and rule proposal, visit <https://www.nj.gov/dep/rules/notices.html>

For more information on the DEP's waterway-protection classification system, visit [www.nj.gov/dep/wms/bears/docs/swqsfact-sheet2-antideg.pdf](http://www.nj.gov/dep/wms/bears/docs/swqsfact-sheet2-antideg.pdf)

### CHROMATE WASTE SITE BOUNDARY LAYER AVAILABLE

The New Jersey Department of Environmental Protection (NJDEP) announces the availability of a Chromate Waste Site Boundary GIS layer. This new GIS layer is available via NJ GeoWeb and includes sites in Hudson and Essex Counties where contamination associated with chromate chemical production waste has been identified. The GIS layer includes chromate chemical production waste sites where remediation is required but not yet initiated; currently under way; has been completed and addressed through an institutional control(s); or all chromate waste contamination had been remediated and the case has been closed. The GIS layer also includes those properties that were originally deemed a chromate chemical production waste site but further investigation determined that chromate production waste was not present. These have been identified in the legend as "Not a Chromate Waste Site."

Where soil delineation for chromate chemical production waste has been completed, the polygon representing the chromate chemical production waste site boundary has been refined to reflect the extent of the chromate chemical production waste impacted soils and/or sediments at the site. In all other instances, the chromate chemical production waste site boundary represents the historic and/or current parcel boundaries or impacted areas identified through documentation associated with the site. This GIS layer will be updated on an annual basis.

The Chromate Waste Site Boundary layer can be accessed under the Site Remediation

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- New Jersey Rain Tax and Stormwater Utilities, pg. 8

Profile in NJ GeoWeb by:

1) Launching NJ GeoWeb via the web (<https://www.nj.gov/dep/gis/geoweb-splash.htm>) and clicking Site Remediation Program under profiles on the left side of the screen;

2) Clicking the following link to open the SRP Profile directly:

<https://njwebmap.state.nj.us/NJGeoWeb/UrlHandler.ashx?MAPTABID=8;>

3) If you are already working in the general version of NJ GeoWeb, you can switch to the SRP Profile by clicking the down arrow next to Maps on the upper left side of the webpage then selection SRP Site Remediation Profile from the dropdown; or

4) A link to open the SRP Profile directly is available on the SRP Chrome Site webpage <https://www.nj.gov/dep/srp/siteinfo/chrome/>

### NEW JERSEY'S NEW 'RAIN TAX' LAW OKs STORMWATER UTILITIES

Local authorities in New Jersey now have a new tool to manage stormwater and flooding.

Some of the state's Republicans and others, meanwhile, have a new political term to criticize Democratic lawmakers.

Governor Phil Murphy signed into law the Clean Stormwater and Flood Reduction Act, which authorizes municipalities, counties and certain authorities in the state to establish stormwater utilities.

The goal of the move is to help local authorities prevent future flooding, and manage sources of runoff pollution. But opponents of the measure have long derided the effort as little more than a "rain tax."

Stormwater utilities, which already exist in more than 40 other states and the District of Columbia, are meant to manage the rain and snow from storms. Even minor rain events can wash trash and contaminants off of roads and paved surfaces and into the surrounding ecosystem. Runoff pollution is a major concern for the state.

"The lack of regulation and management of stormwater has caused extensive problems for New Jersey," state Assemblyman John McKeon, D-Essex, a primary sponsor of the new law, said Monday. "Rainwater runoff carries with it debris, bacteria, and chemicals which can lead to pollution of our waters and drinking water sources. Without regulation, we will continue to see a rise in pollution,



## NJ UPDATES (continued)

flooding and property damage. This law enables towns and counties to take the next step in stemming the problems caused by stormwater.”

If a town decides to create a stormwater utility, that utility would bill property owners based on the amount of impermeable surfaces like roofs and parking lots on their land. The goal of that fee system is to ensure that property owners are being charged proportionally based on their contribution to stormwater runoff. Because of the potential for new utility fees, opponents of the new law, mostly Republicans, have labeled the measure a “rain tax.”

“This law adds yet another tax on our already overburdened residents and business-

es, though there is no language to define how much people will be charged, how the funds will be collected or how the funds generated by it will actually address stormwater issues,” said Ray Cantor, the vice president of government affairs for the New Jersey Business and Industry Association.

But environmentalists and public infrastructure advocates applauded the new law.

“Governor Murphy’s signing of the Flood Defense Act to give municipalities the option to establish stormwater utilities is a monumental step toward cleaner, healthier communities,” said Chris Sturm managing director of policy water for New Jersey Future. “Towns and cities across the state struggle to manage flooding from stormwater

and maintain clean waterways, but now they will have another tool to combat these issues.”

It is unclear how much these new utilities, if created, would cost for property owners.

According to Jersey Water Works, a group dedicated to the improvement of the state’s water systems, New Jersey’s existing stormwater management infrastructure is unable to handle the amount of rain brought on by increasingly frequent severe storms.

Because of this, the group says, New Jersey is more at risk of flooding than ever.

(By Michael Sol Warren – South Jersey Times – 3-19-19)

## FEDERAL REGULATORY UPDATES

### COURT ORDERS DISCLOSURE OF CHEMICAL ACCIDENT EMISSIONS

A federal judge has ruled that communities have a right to know what chemicals are released by industrial accidents in their midst, according to the opinion issued in a lawsuit filed by Public Employees for Environmental Responsibility (PEER) and community groups. The Clean Air Act requires the U.S. Chemical Safety and Hazard Investigation Board (CSB), charged with investigating chemical fires, explosions, leaks, and other accidents, to determine and disclose what air pollutants are accidentally emitted by any industry within the Board’s jurisdiction.

Despite a 1990 statutory mandate that the CSB “establish by regulation requirements binding on persons for reporting accidental releases into the ambient air,” the CSB has neglected to adopt any such rule. Yesterday, Judge Amit Mehta of the U.S. District Court for the District of Columbia, found this nearly 30-year dereliction to constitute “unreasonable delay” and ordered the CSB to promulgate a final

accidental chemical release reporting regulation within 12 months.

(Environmental Resource Center – 2-11-19)

### METHYLENE CHLORIDE PAINT REMOVERS BANNED BY EPA

On March 15, the EPA issued a final rule to prohibit the manufacture (including import), processing, and distribution of methylene chloride in all paint removers for consumer use. EPA is required to take this action under the Frank R. Lautenberg Chemical Safety for the 21st Century Act because of the acute fatalities that have resulted from exposure to the chemical.

“After analyzing the health impacts and listening to affected families, EPA is taking action to stop the use of this chemical in paint removers intended for consumers,” said EPA Administrator Andrew Wheeler. “The decision reflects EPA’s commitment to ensure that chemicals in the retail marketplace are safe for the American public.”

“This rule answers calls from many affected families to effectively remove these products from retail shelves and retail

### FEDERAL UPDATES

- Chemical Accident Emissions, pg. 9
- Methylene Chloride Paint Removers Banned by EPA, pg. 9

distribution channels, providing protection for the American public,” said Assistant Administrator for Chemical Safety Alexandra Dunn.

In the final rule, EPA found risks to consumers to be unreasonable. Acute (short-term) exposures to methylene chloride fumes can rapidly cause dizziness, loss of consciousness, and death due to nervous system depression. People have died after being incapacitated during paint and coating removal with methylene chloride. A variety of effective, less harmful substitutes are readily available for paint removal.

Paint removal products containing methylene chloride will not be able to be sold at any retail or distribution establishments that have consumer sales, including e-commerce sales. Those prohibitions start 180 days after the effective date, May 28, 2019.

(Environmental Resource Center – 3-18-19)

## What Is the Environment?

The environment is something you are very familiar with. It’s everything that makes up our surroundings and affects our ability to live on the earth - the air we breathe, the water that covers most of the earth’s surface, the plants and animals around us, and much more.

In recent years, scientists have been carefully examining the ways that people affect the environment. They have found that we are causing air pollution, deforestation, acid rain, and other problems that are dangerous both to the earth and to ourselves. These days, when you hear people talk about “the environment”, they are often referring to the overall condition of our planet, or how healthy it is.

**FEDERAL REGISTER NOTICES**<http://www.federalregister.gov>

EPA Proposed Rule - Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings. The proposed rule published on January 19, 2017 (82 FR 7400 (/citation/82-FR-7400)), entitled "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings", is withdrawn as of October 30, 2018 (Federal Register - 10-30-18)

EPA Rule – National Emission Standards for Hazardous Air Pollutants and New Source Performance Standards: Petroleum Refinery Sector Amendments (Federal Register – 11-26-18)

EPA Rule – Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements ... a realistic physical and chemical environment and a correspondingly realistic model...to human health or the 2015 ozone NAAQS... (Federal Register – 12-6-18)

EPA Rule – Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan requirements. This Rule is final and effective on 2-4-19.

The Environmental Protection Agency (EPA) is finalizing nonattainment area and ozone transport region (OTR) implementation requirements for the 2015 ozone national ambient air quality standards (NAAQS) (2015 ozone NAAQS) that were promulgated on October 1, 2015. This final rule is largely an update to the implementing regulations previously promulgated for the 2008 ozone NAAQS, and we are retaining without significant revision the majority of those provisions to implement the 2015 ozone NAAQS. This final rule addresses a range of nonattainment area and OTR state implementation plan (SIP) requirements for the 2015 ozone NAAQS, including attainment demonstrations, reasonable further progress (RFP) and associated milestone demonstrations, reasonably available control technology (RACT), reasonably available control measures (RACM), major nonattainment new source review, emissions inventories, the timing of required SIP submissions and compliance with emission control measures in the SIP. (Federal Register – 12-6-18)

EPA Proposed Rule – Review of Standards of Performance for Greenhouse gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (Federal Register – 12-20-18)

EPA Notice – Aquatic Life Ambient Water Quality Criteria for Aluminum in Freshwater (Federal Register – 12-21-18)

EPA Rule – Testing Regulations for Air Emission Sources (Federal Register – 11-14-18)

EPA Final Rule – National Pollutant Discharge Elimination System (NPDES) The Environmental Protection Agency (EPA) is finalizing certain revisions to the National Pollutant Discharge Elimination System permitting regulations proposed on May 18, 2016. The final regulatory changes are minor and will improve and clarify the regulations in the following major categories: Regulatory definitions ("new discharger" and two definitions related to the discharge of pesticides from pesticides application); permit applications; and public notice. This final rule also updates the EPA contact information and web addresses for electronic databases, updates outdated references to best management practices guidance documents, and deletes a provision relating to best practicable waste treatment technology for publicly owned treatment works that is no longer applicable. The final revisions modernize the NPDES regulations, promote submission of complete permit applications, and clarify regulatory requirements to allow more timely development of NPDES permits that protect human health and the environment. This final rule is effective on June 12, 2019.

(Federal Register – 2-12-19)

Army Corps of Engineers and EPA Proposed Rule – Revised Definition of "Waters of the United States" (Federal Register – 12-14-19)

EPA Rule – National Emission Standards for Hazardous Air Pollutants: Wet-Formed Fiberglass Mat Production Residual Risk and Technology Review. (Federal Register – 2-28-19)

EPA Rule – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products Residual Risk and Technology Review (Federal Register – 3-4-19)

EPA Rule – Emissions Monitoring Provisions in State Implementation Plans Required Under the NOX. (Federal Register – 3-8-19)

EPA Rule – Review of the Primary National Ambient Air Quality Standards for Sulfur Oxides (Federal Register – 3-18-19)

EPA Notice – Initiation of Prioritization Under the Toxic Substance Control Act (TSCA) (Federal Register – 3-21-19)

**NJDEP ISSUES GUIDANCE OF CAPPING OF VOLATILE ORGANICS  
RELATED TO THE IMPACT TO GROUNDWATER PATHWAY**

In early February, NJDEP issued updated guidance for the capping of volatile organic contaminants for the Impact to Groundwater Pathway. Changes include:

- This updated document includes additional language stating that all exposure pathways, including the vapor intrusion pathway, must be addressed in all cases.

- An additional FAQ has been added and Section 5.0 (Capping with Existing Volatile Organic Contamination in the Vadose Zone and Ground Water) has been rewritten and corresponding Figure 1 modified.

This document can be found at [www.nj.gov/dep/srp/guidance/rs/](http://www.nj.gov/dep/srp/guidance/rs/).

## PENNSYLVANIA BULLETIN NOTICES

11-10-18 – The Department of Environmental Protection published notice of a proposed rulemaking-omitted providing for the electronic submission of Air Quality General Plan Approval and General Operating Permit application.

11-10-18 – The Department of Environmental Protection published notice inviting comments on proposed revisions to its Management of Fill Policy (DEP ID: 258-2182-773). Comments were submitted on January 8, 2019.

11-17-18 – The Department of Environmental Protection published notice of proposed changes to 2 technical guidance documents in the Drinking Water Program.

11-17-18 – Lead and Copper – A Working Guide to the Lead and Copper Rule (DEP ID: 393-0300-001). Public Comments were due January 2, 2019. Questions should be directed to: Deborah Rotz, 717-772-5970 or send email to [drotz@pa.gov](mailto:drotz@pa.gov)

11/24/18 – The Department of Environmental Protection proposed redesignating the Lebanon County Nonattainment Area as being in compliance with the federal fine particulate standard with the implementation of a 10 year maintenance plan.

12-8-18 – The Fish and Boat Commission published notice of a proposed regulation for comment adding the pugnose minnow and blacknose shiner and removing the banded sunfish and gravel chub from the endangered species list; and removing the central mudminnow and the eastern mudminnow from the state's candidate species that could achieve endangered or threatened status in the December 8 PA Bulletin. Comments were due January 7, 2019.

12-8-18 – The Department of Environmental Protection published notice that the final Revised Total Coliform Rule Guidance is now available.

12-15-18 – The Fish and Boat Commission published a number of final-form regulations in relating to – Reptiles and Amphibians, Administrative Provisions, Boating, and Commission Property.

12-29-18 – The Department of Environmental Protection published notice rescinding technical guidance on coordinating the review of surface mining permit applications with the Fish and Boat Commission as redundant (560-0700-302).

1-5-19 – The Department of Environmental Protection invited comments on a new proposed Soil Erosion and Sedimentation Control Manual for Agricultural Operations.

Chapter 102 of DEP regulations require all agricultural operations to minimize accelerated erosion and sedimentation to the waters of this Commonwealth by implementing appropriate Best Management Practices.

Those operations that plow or till 5,000 or more square feet, including no-till, or that have Animal Heavy Use Areas that are 5,000 or more square feet in total, are required to have a written Agricultural Erosion and Sedimentation Control Plan.

The purpose of this guidance is to further explain the requirements of an Ag E&S Plan and it has several elements--

- What: what is an Ag E&S Plan, and what are the required
- Who: to whom does it apply?
- Why: attempted to focus on the benefits to the farmer as well as regulatory compliance
- When: when would it need to be developed, updated, implemented, etc.
- How: how should it be developed (i.e. how to identify and address resource concerns)
- Includes reference to tools and resources (i.e. NRCS, PAOneStop, Conservation District planning assistance)

A DEP presentation on the new manual (DEP ID: 383-4200-002).

Comments were due March 6 and can be submitted online through DEP's eComment webpage, by email to: [ecomment@pa.gov](mailto:ecomment@pa.gov) or in writing to: Technical Guidance Coordinator, Department of Environmental Protection, Policy Office, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 17105-2063.

A copy of the proposed manual is posted on DEP's eComment webpage. Questions regarding this TGD should be directed to Jill Whitcomb by email to: [jiwhitcomb@pa.gov](mailto:jiwhitcomb@pa.gov) or by calling 717-783-5205.

1-19-19 – The Department of Environmental Protection published notice announcing the availability of the final Land Recycling Program Technical Guidance Manual and the rescission of the Total Coliform Rule Guidance as obsolete.

2-2-19 – The Department of Environmental Protection published notice of the calculation of bond amounts for noncoal mining operations.

2-9-19 – The Department of Environmental Protection published notice it rescinded the Policy for Sampling and Determination of Compliance with Low RVP Gasoline Requirements in the Pittsburgh region as unneeded.

2-16-19 – The Fish and Boat Commission published notices on final action on additions to list of Class A Wild Trout Waters and additions, revisions and removals from the list of Wild Trout Streams.

3-16-19 – The Environmental Quality Board published notice of proposed regulations for comment on control of fine particulate matter in nonattainment new source review program.

3-16-19 – The Fish and Boat Commission published notice formally adopting changes to the endangered and candidate species related fish.

3-16-19 – The Department of Environmental Protection published notice rescinding the Medial Z-ray Procedures Operator Training Guide technical guidance as unneeded.

3-16-19 – The PA Infrastructure Investment Authority and DEP published notice of environmental assessments for projects being considered for funding. The projects are located in Beaver, Bedford, Cambria, Erie and Monroe Counties.

3-23-19 – The Environmental Quality Board published notice of proposed changes to Class A Stream Redesignations in Berks, Cambria, Cameron, Carbon, Centre, Clearfield, Columbia, Crawford, Elk, Erie, Indiana, Lackawanna, McKeen, Potter, Schuylkill, Somerset, Susquehanna, Tioga and Wayne counties. A public hearing is scheduled for April 26 in Harrisburg.

3-23-19 – The Game Commission published notice of final threatened and endangered species listing for the Peregrine Falcon, Piping Plover, Red Knot, Northern long-eared bat, Little brown bat and Tri-colored bat.





### KEY HIGHLIGHTS

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