



October 3, 2023

New Jersey Department of Environmental Protection  
New Jersey Spill Compensation Fund

Electronically submitted to: [solvaysettlement@dep.nj.gov](mailto:solvaysettlement@dep.nj.gov)

**Re: Comments on Proposed Judicial Consent Order And Modifications To The Direct Oversight Requirements in the Matter of NJDEP V. Solvay Specialty Polymers USA, LLC, DKT. NO. GLO-L-001239-20.**

Delaware Riverkeeper Network (DRN) submits these comments objecting to specific provisions in the subject proposed Judicial Consent Order, including the proposed Direct Oversight “adjustment”, on behalf of DRN’s more than 26,000 members. DRN does not consider the proposed settlement and “adjusted” direct oversight to be sufficient to accomplish the remediation that is required of Solvay to protect public health and the environment. There are fatal flaws in the approach to several issues that must be repaired to achieve the goal of successful remediation for the benefit of the communities that have been negatively impacted and the damage done to the environment, including natural ecosystems, species and habitats. DRN respectfully requests a revised approach in those areas outlined herein, and requests that additional actions be taken by DEP and additional funding be provided by Solvay to address the breadth of damage and contamination by toxic chemicals, including per- and polyfluoroalkyl substances (PFAS), that has been caused by Solvay’s operations, historically and ongoing in the present day.

We herein address the issues we consider in need of revision, not in priority order.

**Air Pathway:**

Delaware Riverkeeper Network (DRN) has an overarching concern that the settlement does not cover the air pathway. PFAS can travel in the air and remain in the environment forever, since most PFAS do not break down.<sup>1</sup> In a peer-reviewed research paper that presented the results of sampling of environmental media for PFAS compounds by NJDEP and USEPA scientists, it was reported that emerging PFAS compounds in this region that are not detected by standard analytical methods were discovered. It was also confirmed in this and another peer reviewed article that non-targeted analysis detected chloro perfluoro polyether carboxylate (CIPFECA) which has a molecular formula assigned to the major ions consistent with a compound

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<sup>1</sup> <https://www.atsdr.cdc.gov/pfas/health-effects/overview.html>

registered to Solvay Specialty Polymers.<sup>2</sup> As stated in the Science article: “Distinct chemical formulas and structures, as well as geographic distribution, suggest airborne transport from an industrial source. Lighter congeners dispersed more widely than heavier, with the most widely dispersed detected in an in-stock New Hampshire sample.”<sup>3</sup>

The proposed settlement includes assigning responsibility to Solvay for cleanup of “CIPFPECA congeners acknowledged by Solvay to be used in Solvay’s MFS products”<sup>4</sup>. However, the description of cleanup is targeted on an area centered and proximate to the West Deptford Township location of Solvay. This will not include all regions that have been contaminated by CIPFPECA, which is known to have traveled, most likely by air, beyond the area around West Deptford and as far as the northeastern region of New Jersey and as far as New Hampshire.<sup>5</sup>

DRN also is concerned that PFNA and other PFAS compounds including other “alternative PFAS” or “BFAS” or “MFS” (as defined in the proposed settlement) are not being included outside of the target area, considering that they may have traveled unexpected distances by air. If CIPFPECA traveled that far off site, why would it be assumed that PFNA and other PFAS compounds used and released by Solvay were not distributed by air to far locations? The absence of data is not a reason to assume that the air pathway has not been a major distribution method of any or all of the PFAS compounds that Solvay released into the environment. At the very least, Solvay should be required to test for and identify whether or not other PFAS compounds are present outside of the target area.

The proposed settlement seeks to locate all PFAS released by Solvay “wherever they came to be located”<sup>6</sup> but does not mention distribution by air, which limits the locations that can be identified. This charge is further muddled by the statement, “...Solvay agrees to undertake an evaluation, including without limitation the collection of data (to the extent reasonably feasible), of the continued presence and discharge (including emissions) of PFAS within and from its ongoing Site operations and report the results to the Department within 12 months of the Effective Date, after which Solvay and the Department will meet to discuss any additional measures...”<sup>7</sup> This time period and the lack of any discussion about air as a pathway would have the effect of severely limiting the detection of the contamination by Solvay. This is of great concern to DRN. Solvay should be held responsible to investigate if and where their compounds were carried by air in New Jersey and to clean up the impacted environmental media without a deadline of 12 months from the effective date.

**Environmental Media:** DRN has a general concern that the environmental media named (groundwater; soil; surface water, sediment, and porewater within certain locations) are not inclusive of all potential environmental media. Studies have shown that PFAS have been found in crops<sup>8</sup>, food such as dairy

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<sup>2</sup> McCord et al. (2020). Emerging Chlorinated Polyfluorinated Polyether Compounds Impacting the Waters of Southwestern New Jersey Identified by Use of Nontargeted Analysis. *Environmental Science & Technology*.

<sup>3</sup> John W. Washington, et al, *Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils. Science*. 2020 Jun 5; 368(6495): 1103–1107. doi: [10.1126/science.aba7127](https://doi.org/10.1126/science.aba7127)

<sup>4</sup> <https://dep.nj.gov/wp-content/uploads/solvay/docs/proposed-jco.pdf> p.6.

<sup>5</sup> John W. Washington, et al, *Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils. Science*. 2020 Jun 5; 368(6495): 1103–1107. doi: [10.1126/science.aba7127](https://doi.org/10.1126/science.aba7127)

<sup>6</sup> <https://dep.nj.gov/wp-content/uploads/solvay/docs/proposed-jco.pdf> p.3.

<sup>7</sup> <https://dep.nj.gov/wp-content/uploads/solvay/docs/proposed-jco.pdf> p.46-47.

<sup>8</sup> [https://scholar.google.com/scholar?q=PFAS+in+crops&hl=en&as\\_sdt=0&as\\_vis=1&oi=scholar](https://scholar.google.com/scholar?q=PFAS+in+crops&hl=en&as_sdt=0&as_vis=1&oi=scholar) and Minnesota Dept. of Health at [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiY3fjR\\_K-](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiY3fjR_K-)

products<sup>9</sup>, fish<sup>10</sup> and other aquatic life<sup>11</sup>, wildlife<sup>12</sup>, dust including household dust<sup>13</sup>, and biosolids<sup>14</sup> drawn from sewage sludge from treatment facilities. Facilities such as the Gloucester County Utilities Authority Wastewater Treatment Plant and other treatment facilities in areas that could have been impacted by Solvay's releases are potential contaminated media where sludge needs to be sampled, particularly considering that sewage sludge has been used as biosolids in New Jersey and could be the explanation for the detection of PFAS on farm fields in South Jersey that have used Gloucester County biosolids but are not with the immediate area of the Solvay facility in West Deptford. Air is not included in the list of environmental media in the proposed settlement and must be since we know that PFAS compounds and Solvay's products in particular are transported by air. The combination of limited environmental media and limited geographies being sampled will allow contamination from Solvay's operation to go undetected and unremediated, further allowing it to continue to migrate into the environment and drinking water.

Under VI. Solvay's PFAS Remediation Obligations, it is unclear if the area to be delineated can change based on investigations by Solvay. For instance, under #13 on page 13 the delineation of groundwater detections "based upon a complete direct groundwater pathway from the Site" is required. DEP must more clearly explain the meaning of the complete direct groundwater pathway in regard to the delineation. DRN has a very real and justified concern that the area to be delineated for cleanup is being severely limited under these sections on page 13 and 14.

#### **Adjusted Oversight – LSRP:**

DRN is gravely concerned that this settlement gave up direct DEP oversight of the cleanup and has allowed adjusted oversight with an LSRP as described in X. Solvay has a history of refusing to comply with NJDEP directions to investigate contamination from the site and pay for the cleanup as noted by the NJDEP in its complaint against Solvay.<sup>15</sup> Therefore, DRN has concerns that Solvay will continue to hide information about its investigation and implementation. DRN advocates for direct oversight by the NJDEP to ensure that Solvay is being truthful and fully complying with the terms of the settlement.

DRN advocates that DEP reinstate Direct Oversight of the remediation of the Solvay so that a public participation plan be mandated. Solvay has not included the public in decisions regarding the cleanup of the Solvay site. The public will be directly impacted by how the Solvay facility remediation is conducted and must be included in the crucial decisionmaking process that will guide the cleanup of the contamination that has so personally and ruthlessly impacted peoples' health and quality of life. Under DEP's Direct Oversight, a public participation plan is mandated: "The public participation plan required for sites that are subject to Direct Oversight must be submitted to the New Jersey Department of Environmental Protection (NJDEP)

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<sup>9</sup> <https://news.bloomberglaw.com/environment-and-energy/cow-harming-forever-chemicals-strain-usdas-relief-resources>

<sup>10</sup> <https://dep.nj.gov/dsr/fish-advisories-studies/> and <https://setac.onlinelibrary.wiley.com/doi/abs/10.1002/ieam.4342>

<sup>11</sup> <https://www.mdpi.com/2673-4532/4/1/3>

<sup>12</sup> [https://scholar.google.com/scholar?q=PFAS+in+wildlife&hl=en&as\\_sdt=0&as\\_vis=1&oi=scholar](https://scholar.google.com/scholar?q=PFAS+in+wildlife&hl=en&as_sdt=0&as_vis=1&oi=scholar)

<sup>13</sup> <https://pubs.acs.org/doi/abs/10.1021/acs.est.0c04869>

<sup>14</sup> Lindstrom, A.B. Strynar, M.J., Delinsky, A.D., Nakayama, S.F., McMillan, L., Lieblo, E.L., Neill, M., & Thomas, L. (2011). Application of WWTP Biosolids and Resulting Perfluorinated Compound Contamination of Surface and Well Water in Decatur, Alabama, USA. *Environ. Sci. Technol.*, 2011, 45 (19), pp 8015–8021. Retrieved from <https://pubs.acs.org/doi/abs/10.1021/es1039425>

<sup>15</sup> <https://www.nj.gov/oag/newsreleases20/Solvay-Complaint.pdf>

for approval within 90 days of triggering Direct Oversight (N.J.A.C. 7:26C-14).”<sup>16</sup> Under the proposed adjusted oversight under an LSRP, a “revised” public participation plan is required within 60 days of the effective date but it is not clear how the guidance of DEP that would be mandatory under Direct Oversight would be enforced. DEP should understand that Solvay has lost the trust of the communities that have been adversely impacted by Solvay’s contamination and the outreach to the public thus far has been scant, insular, and ineffective. Both the public and the public’s trust in its government would benefit from the DEP regulatory framework that enforces Direct Oversight to ensure effective, transparent, and timely public inclusion by Solvay in the cleanup process. Additionally, the public has more access and ability to interface with DEP as a public agency, subject to public laws such as the Open Public Records Act and other public access opportunities than it does in interfacing with an LSRP-led remediation program. Considering its corporate culture of secretiveness, DRN does not see any evidence that Solvay will be fully engaged with the public under a Solvay-led public participation process.

DRN also has a specific concern that in Paragraph 39 and 41 of the settlement, it allows Solvay or its LSRP to miss three deadlines for the remediation work and document requests before action is taken. Why does the settlement allow for three missed deadlines? Solvay and its LSRP should be held responsible to timely report and comply fully on time with all deadlines to ensure that NJDEP is able to monitor Solvay’s investigation and cleanup process.

Additionally, under Adjusted Direct Oversight, Section 33(e) it states a “Revised Remedial Investigation Work Plan for potable wells pursuant to Paragraphs 15 and 16 within 90 days of the Effective Date” is required. DRN requests this work plan be made public. DRN had difficulty obtaining a copy of a prior Solvay work plan and once secured, DRN made comment on the Work Plan. The Work Plan should be subject to public notice; the public should have access to this document and the plan should be open to public comment allowing critical input into the decisionmaking process. DRN additionally questions if the 90-day requirement is reasonable considering that not all contaminated wells will have been sampled or mapped by that time. The accurate delineation of potable wells that have been impacted must not be compromised by an arbitrary time limit.

### **Third Generation of PFAS Compounds and PFAS “Replacements”:**

DRN is concerned that chemicals that have been released and remain in the environment, that are being released now, and in the future by Solvay’s operations will contain contaminants that are not covered by this settlement. Our understanding is that Cl-PFPECAs will be covered in the remediation program for which Solvay is responsible. This is of great importance considering that Cl-PFPECAs are increasingly being found in environmental media.<sup>17</sup> A new report from the scientists who authored the original papers that broke the news about Cl-PFPECAs, a joint effort by USEPA and NJDEP, reported this year on the

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<sup>16</sup>[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiL5cvVh7CBAxWdkokEHbcrDU0QFnoECA8QAw&url=https%3A%2F%2Fwww.nj.gov%2Fdep%2Fsrp%2Fguidance%2Fsra%2Fdirect\\_oversight\\_pp\\_plan.pdf&usq=AOvVaw171KBUREP9JXr8r59IQSjf&opi=89978449](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiL5cvVh7CBAxWdkokEHbcrDU0QFnoECA8QAw&url=https%3A%2F%2Fwww.nj.gov%2Fdep%2Fsrp%2Fguidance%2Fsra%2Fdirect_oversight_pp_plan.pdf&usq=AOvVaw171KBUREP9JXr8r59IQSjf&opi=89978449)

<sup>17</sup> “Environmental Fate of Cl-PFPECAs: Predicting the Formation of PFAS Transformation Products in New Jersey Soils”, Marina G. Evich, Mary Davis, Eric J. Weber, Caroline Tebes-Stevens, Brad Acrey, William Matthew Henderson, Sandra Goodrow, Erica Bergman and John W. Washington. *Environ. Sci. Technol.* 2022, 56, 12, 7779–7788. Publication Date: May 26, 2022 Download at: <https://pubs.acs.org/doi/10.1021/acs.est.1c06126>. And McCord et al. (2020). Emerging Chlorinated Polyfluorinated Polyether Compounds Impacting the Waters of Southwestern New Jersey Identified by Use of Nontargeted Analysis. *Environmental Science & Technology*. And John W. Washington, et al, *Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils*. *Science*. 2020 Jun 5; 368(6495): 1103–1107. doi: [10.1126/science.aba7127](https://doi.org/10.1126/science.aba7127)

accumulation of Cl-PFPECA and perfluorocarboxylates (PFCAs) in vegetation and subsoils in New Jersey.<sup>18</sup> The research and reporting on various aspects of these toxic compounds will continue.

The media where Cl-PFPECA has been detected include drinking water that is in current use by residents. More sampling and identification of Cl-PFPECA and their breakdown products is required to assure that people are not being exposed to these highly toxic compounds – ironically more toxic than the original PFNA used and released by Solvay – through their drinking water or other media such as fish, food, vegetation, dust, air, and soil. Furthermore, if there is exposure, safe drinking water must be provided on an urgent basis to anyone exposed in New Jersey.

It is notable that many of the Lower Delaware River community residents and workers, particularly those in Gloucester County proximate to the Solvay facility, who were exposed to PFNA are also being exposed to Cl-PFPECA and other PFAS compounds released by Solvay. One of these communities, Paulsboro, is an environmental justice community, as identified by the state. New Jersey’s environmental justice law and policies are supposed to lessen the burdens from negative environmental impacts. As stated on the New Jersey Environmental Justice website: “Historically, New Jersey’s low-income communities and communities of color historically have been subjected to a disproportionately high number of environmental and public health stressors—including mobile sources of pollution, and numerous industrial, commercial, and governmental stationary sources of pollution. Further compounding this inequity, New Jersey’s overburdened communities (OBCs) often lack important environmental benefits, such as quality green and open spaces, sufficient tree canopy, or adequate stormwater management... New Jersey has and must continue the crucial work of furthering the promise of environmental justice.”<sup>19</sup>

It is unjust that these same communities, including Paulsboro, are being exposed to the toxic impacts of PFAS compounds repeatedly and it is incumbent upon DEP to assure that this settlement ends all toxic exposures to PFAS and PFAS-related compounds from Solvay that the contamination is fully remediated; and that a healthy, diverse, and life-supporting environment and drinking water is made available to those who have been exposed and all present and future members of the public.

Cl-PFPECA has been released by Solvay in other locations as well, including Italy<sup>20</sup>, Belgium<sup>21</sup>, and other U.S. states. In the past 3 years, collaborative research has been ongoing studying the content and behavior of Cl-PFPECA. The Lower Delaware River, including the region around Solvay, has been undergoing investigation by several scientists, notably and most recently Dr. Anna R. Robuck and Izak Hill of the United States Environmental Protection Agency (US EPA) Office of Research and Development, the University of Rhode Island, the Delaware River Basin Commission<sup>22</sup> and others.

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<sup>18</sup> “Environmental Fate of Cl-PFPECA: Accumulation of Novel and Legacy Perfluoroalkyl Compounds in Real-World Vegetation and Subsoils”, Mary J. B. Davis, Marina G. Evich, Sandra M. Goodrow, and John W. Washington. *Environmental Science & Technology* 2023 57 (24), 8994-9004. June 8, 2023. Download at: <https://pubs.acs.org/doi/10.1021/acs.est.3c00665>

<sup>19</sup> <https://experience.arcgis.com/experience/548632a2351b41b8a0443cfc3a9f4ef6>

<sup>20</sup> <https://www.icij.org/investigations/pandora-papers/solvay-italy-new-jersey-chemical-plants-offshore/>

<sup>21</sup> Belgian Univ. hospital report: <https://bit.ly/3ZLC72V>; Belgian laboratory report: <https://bit.ly/3ZCPgew>

<sup>22</sup> [https://www.nj.gov/drbc/about/advisory/TAC\\_june2023.html](https://www.nj.gov/drbc/about/advisory/TAC_june2023.html)



While sampling environmental media, including surface water, in the lower Delaware River, EPA scientists found more PFPECA homologs than the 15 originally identified and reported.<sup>23</sup> Up to 31 homologs have been discovered. These novel compounds and legacy PFAS add up to significant surface water concentrations, according to the scientists. The highest concentrations of the novel Cl-PFPECA and Cl-PFPECA ether acids were found near the West Deptford location where Solvay's facility is located.

Distribution of these compounds were discovered as far downstream as Elsinboro Township in Salem County, New Jersey on the Delaware River. X-PFPECA were also seen in surface water in areas that seem unconnected to the river, perhaps dispersed there by air—including the Schuylkill River, Wisahickon Creek, and Brandywine Creek. The ethers that were found varied; there were chlorinated, fluorinated, and hydrogenated. These findings verify the enormity of the contamination of the region by Solvay; the more investigation, the more evidence of this enormity is being found.

The Delaware River Basin Commission has a long-running sampling program that was among the first to discover PFAS in river surface water and fish flesh. DRBC toxicologist Ronald MacGillivray published a paper on their findings in 2020.<sup>24</sup> Their ongoing research (2021, 2022, and 2023 is the current study period) includes robust PFAS investigations<sup>25</sup> and their Toxics Advisory Committee (TAC) hosts scientific reporting on PFAS and Cl-PFPECA. Delaware Riverkeeper Network serves on the DRBC TAC. At the June 14, 2023 TAC, which DRN attended, information was presented by scientists from US EPA on Cl-PFPECA and Polymeric PVDF Byproducts.

We understand that today Solvay's manufacturing process is said to be "free of PFAS". However, sampling by these scientists studying Cl-PFPECA have detected what they believe to be a Third Generation of PFAS generated by Solvay's new process. These are identified as Polymeric PVDF Byproducts and were detected in surface water in the main stem Delaware River near the Solvay facility in West Deptford Twp. More research is being done into their presence and distribution and into the properties of these compounds. This is a shocking discovery here.

Although this is new information here, the same type of breakdown product of Polymeric PVDF has been detected previously and reported in an EPA scientific paper published in 2017. The compound was formed from the monomer used by Solvay in Decatur, Alabama at their facility there. As reported in the Environmental Science and Technology paper: "Further investigation revealed that one particular manufacturing site in the Decatur area had registered 1,1-difluoroethene in the Toxic Substances and Control Act (TSCA) registry".<sup>26</sup> The novel compounds were analyzed by Dr. James McCord using mass defect plots and showed they were PVDF byproducts, the same chemical structure as the compounds discovered here and reported at the DRBC TAC meeting by Dr. Anna R. Robuck.

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<sup>23</sup> Environmental Fate of Cl-PFPECA: Predicting the Formation of PFAS Transformation Products in New Jersey Soils, Marina G. Evich, Mary Davis, Eric J. Weber, Caroline Tebes-Stevens, Brad Acrey, William Matthew Henderson, Sandra Goodrow, Erica Bergman and John W. Washington. Environ. Sci. Technol. 2022, 56, 12, 7779–7788. Publication Date: May 26, 2022 <https://doi.org/10.1021/acs.est.1c06126> Copyright © 2022 American Chemical Society. Download at: <https://pubs.acs.org/doi/10.1021/acs.est.1c06126>.

<sup>24</sup> <https://setac.onlinelibrary.wiley.com/doi/abs/10.1002/ieam.4342>

<sup>25</sup> [https://www.nj.gov/drbc/library/documents/TAC/061423/DRBC\\_PFAS\\_ProjectUpdates\\_conkle.pdf](https://www.nj.gov/drbc/library/documents/TAC/061423/DRBC_PFAS_ProjectUpdates_conkle.pdf)

<sup>26</sup> Seth Newton, National Exposure Research Laboratory, U.S.EPA, et al, "Novel Polyfluorinated Compounds Identified Using High Resolution Mass Spectrometry Downstream of Manufacturing Facilities near Decatur, Alabama." Environmental Science and Technology, January 13, 2017. Doi:10,1021/acs.est.6b05330.

The important point here is that there are PFAS byproducts of the chemical being detected in the environment that are being used by Solvay today, despite claims that the process is “PFAS-free”. DRN’s exigent concern is that this will not be included in the cleanup and remediation settlement. DRN is also concerned that other currently undetected PFAS and PFAS-related chemicals will be discovered after the period of time that this settlement covers.

DRN advocates that there must be a requirement that any and all PFAS or PFAS related chemicals that are discovered going forward and are known to be released into the environment by Solvay must be included in the company’s remediation and restoration responsibilities in this settlement. From experience we have learned that chemicals that were supposed to replace PFNA, one of the most highly toxic PFAS, turned out to be more toxic than the chemical they were supposed to replace (in fact, Solvay was using CI-PFPECAs long before 2010, without the public’s knowledge, before they ceased using PFNA, as DEP is now well aware). This unfortunate experience is a lesson that Solvay must be held accountable for all these “forever chemicals” that they are releasing into the environment because we cannot assume the processes they are using are truly “PFAS-free”.

Needless to say, this should increase the amount of the settlement payment and expands the responsibilities of Solvay regarding cleanup, remediation, and restoration.

**PFNA & PFOA Remediation Standard:**

DRN has concerns about the remediation standards for cleanup in the settlement which requires investigation and treatment of water with concentrations of PFOA above 14 ppt and PFNA above 13 ppt. DRN advocates for a stricter remediation standard that is in line with the proposed maximum contaminant levels (MCLS) in the EPA’s proposed National Primary Drinking Water Regulation.<sup>27</sup> The US EPA has proposed a MCL of 4 ppt for PFOA and a Hazard Index of 1.0 as the MCL for PFHxs, HFPO-DA, PFNA, PFBS and any mixture of these four PFAs.<sup>28</sup> The HI is calculated by dividing the measured level of each of the four PFAs in drinking water by a health reference value for that particular PFAs (10 ppt for PFNA).

DRN advocates for this stricter remediation standard for PFNA and PFOA levels because even small amounts of exposure to PFAS can result in adverse health effects. The US EPA has found that PFOA is likely to cause kidney and liver cancer, and there is no amount of this chemical that is considered safe.<sup>29</sup> Furthermore, exposure to PFNA can lead to adverse health effects on development, reproduction, immune function, and the liver.<sup>30</sup> The most vulnerable populations are at risk due to the exposure of the fetus, infants, and children to PFAS that are linked to developmental impacts; PFAS pass through the mother to the fetus; pass through breast milk from the mother to the infant; children have a higher total body water percentage than adults and consume more fluids in relation to their body weight, amplifying exposure to contaminants in water, increasing risk of adverse health effects. PFAS have the potential to negatively affect growth, learning, and behavior in infants and older children.<sup>31</sup>

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<sup>27</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2022-0114-0027>

<sup>28</sup> *Id.* at 18638.

<sup>29</sup> *Id.* at 18639.

<sup>30</sup> *Id.* at 18646.

<sup>31</sup> <https://www.mottchildren.org/posts/your-child/pfas-contamination>

The Agency for Toxic Substances and Disease Registry (ATSDR) has also developed a minimal risk level (MRLs), which is “an estimate of the amount of a chemical a person can eat, drink, or breathe each day without a detectable risk to health” for both PFNA and PFOA of 3 ppt.<sup>32</sup> While DRN supports the provision in this settlement for Solvay to comply with any new stricter standards adopted by the state or US EPA, the adverse health effects of PFAS are clear and established and the NJDEP has the ability to implement stricter standards in this settlement. Solvay has discharged and dumped tens of thousands of pounds of PFAS compounds into New Jersey’s air and waters for decades, exposing the communities in West Deptford, Gloucester County and the surrounding region to hazardous, persistent, and cancerous substances – including “forever chemicals”. It is important that the communities who have been severely impacted by Solvay’s actions are protected to the greatest extent possible in this settlement agreement.

### **Expanded Area Thresholds:**

In the definitions section, the agreement defines one of the circumstances for “Expanded Area Thresholds” as when “PFOA is detected above 14 ppt but only if that detection is also accompanied by a detection of PFNA above 6.5 ppt.” In footnote one, the agreement explains that 6.5 ppt represents half of the value of the State drinking water standard for PFNA. DRN questions why the NJDEP decided to use half of the value of the State standard for PFNA in this definition. How did they determine to use this measure? Is it based on environmental science? DRN advocates that the threshold should be the detection of any PFAS compound, particularly because PFNA and other PFAS are known to be linked to adverse health effects at any detectable concentration.

### **Little Mantua Creek and Main Ditch:**

In the definitions section, the definitions of “Little Mantua Creek” and “Main Ditch” specifically excludes any part of the Delaware River. DRN finds this to be an artificial delineation since both bodies of water flow into the Delaware River and also are connected by groundwater flows. The hydrologic connection of the groundwater and shallow surface waters of these tributaries and the geographic region around Solvay’s West Deptford plant are connected as one environmental system and cannot be unconnected by a bureaucratic or legal document.

### **“Expanded Area Thresholds”:**

In the definitions section “Expanded Area Thresholds” states under (iv) “PFOA is detected above 14 ppt but only if that detection is also accompanied by a detection of PFNA above 6.5 ppt<sup>1</sup> or by a detection of MFS and/or BFS above detection limits”. DEP presents no evidence to justify this threshold. If Solvay is responsible for PFOA contamination it should not be allowed to escape remediation if it is not found with PFNA at the stated amount. DRN is concerned that this allows Solvay to avoid remediating contamination that its operations has caused.

### **Delineation of Soil for Alternative PFAS:**

In the PFAS Remediation Obligations Section, the settlement states that “Solvay shall have no obligation to delineate soil for Alternative PFAS until soil remediation standards for MFS and BFS are established.” DRN questions: why does NJDEP not use the MFS Groundwater Standard and BFS Groundwater Standard for soil remediation in the interim until soil remediation standards are established? There is no reason to

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<sup>32</sup> <https://www.atsdr.cdc.gov/mrls/index.html>



delay the delineation of soil contamination. DRN advocates that this delineation begin immediately using the groundwater standards.

**Classification Exception Area:**

The settlement requires the establishment of a Classification Exception Area using monitoring wells to establish a boundary of where PFNA exceeds 13 ppt, PFOA exceeds 14 ppt, MFS exceeds the MFS Groundwater Standard, and/or BFS exceeds the BFS Groundwater Standard. Is this allowing Solvay to just monitor a highly polluted area instead of actively remediating the groundwater? Solvay must be held responsible to actively remediate ALL contaminated groundwater their manufacturing facility and associated infrastructure/operations have contaminated.

**PFNA, PFOA, Alternative PFAS & cC6O4 Remediation Standards:**

DRN supports the provision that Solvay shall be required to remediate consistent with new and/or more stringent standards set by the state or US EPA, but DRN advocates that Solvay should have to comply with new standards for at least twelve years, which is customary in similar settlements, instead of six years. As demonstrated above, the research into the adverse effects is complex and ongoing, and since regulations frequently take years to propose and enact, Solvay should comply with any and all stricter standards for at least the customary next twelve years. In fact, the fair measure would be for Solvay to be required to remediate consistent with more stringent standards in perpetuity. DRN advocates that Solvay be required to remediate consistent with newly adopted and more stringent standards in perpetuity.

DRN advocates that analytical methods be developed for compounds that do not have analytical methods and that Solvay be required to provide all information needed by agencies to develop those standards.

Additionally, DRN questions why after the proposed six-year period, Solvay is only required to remediate to any new standard if it is at least 10 times more stringent than the standard at the time the six-year period expires. Why does it have to be ten times more stringent? How was this amount calculated? Who is this amount meant to protect? If the state adopts a standard that is only one time more stringent due to new research about the dangers to human health after six years, why would Solvay not be responsible to follow this new standard to protect the public health? DRN can find no scientific or logical justification for this arbitrary provision.

**Delaware River Claims:**

DRN has concerns regarding the Delaware River Claims for Natural Resource Damages terms in the Reservations and Future Litigation section. The settlement states that the Department will not bring any future lawsuit for Delaware River Claims for Natural Resource Damages against Solvay until a Natural Resources Damages Assessment (“NRDA”) has been completed. DRN questions if any of the applicable trustees has plans to and will conduct the NRDA and whether a lawsuit will ever be filed for Delaware River Claims. DRN has concerns that if there are no current plans to file Delaware River Claims, Solvay may never be held responsible for the damage it caused to the Delaware River. There is no question as to whether the Delaware River has been contaminated by PFAS<sup>33</sup>. Solvay must be required to delineate the extent of its contamination of the river and the river basin by releases from its facility in West Deptford. The exclusion of the Delaware River until a NRDA suit is completed without any planned or pending action

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<sup>33</sup> <https://www.nj.gov/drbc/programs/quality/pfas.html>

under NRDA is an unjust and irresponsible benefit being awarded to Solvay by DEP and harms the Delaware River and its Watershed. DRN strenuously objects to this exclusion in the absence of any NRDA action. Needless to say, including Delaware River claims in this settlement would require robust analysis and enormous sums that are not in any manner included in this proposed settlement.


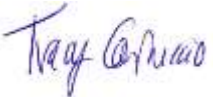
**Contribution Protection:**

DRN has concerns regarding Solvay's liability for claims for contribution for Natural Resources Damages in the Contribution Protection section. The agreement states that Solvay shall not be liable to the fullest extent permitted under law. By not holding Solvay fully liable, Solvay is being excused from facing full accountability for the damage it has caused to natural resources. DRN advocates that Solvay should be liable for claims for contribution for Natural Resource Damages to the fullest extent permitted under law.

**Conclusion**

In conclusion, DRN objects to specific provisions in the subject proposed Judicial Consent Order, including the proposed Direct Oversight "adjustment". DRN concludes that a revised approach is needed in the specific areas identified in this comment to accomplish effective remediation and requests additional actions by DEP to address the breadth of damage and contamination by toxic chemicals, including per- and polyfluoroalkyl substances (PFAS), that has been caused by Solvay's operations historically, today, and going forward.

Respectfully submitted,

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|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
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| Maya van Rossum<br>the Delaware Riverkeeper                                        | Tracy Carluccio<br>Deputy Director                                                 |