SUPERIOR COURT OF NEW JERSEY
APPELLATE DIVISION
DOCKET NOS. A-0307-20
A-0308-20

IN RE APPEAL OF THE
NEW JERSEY DEPARTMENT
OF ENVIRONMENTAL
PROTECTION'S JUNE 1, 2020,
ADOPTED AMENDMENTS:
N.J.A.C. 7:1E APPENDIX A,
N.J.A.C. 7:9C APPENDIX TABLE 1,
N.J.A.C. 7:9E-2.1, N.J.A.C. 7:10-5.2
and -12.30, and N.J.A.C. 7:14A-4
APPENDIX A and -7.9.

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Argued November 2, 2022 – Decided August 3, 2023

Before Judges Vernoia, Firko and Natali.

On appeal from the New Jersey Department of Environmental Protection.

Amie Kalac argued the cause for appellants Landis Sewerage Authority, Sussex County Municipal Utilities Authority, Commerce and Industry Association of New Jersey, New Jersey Business & Industry Association, and Chemistry Council of New Jersey (Cullen and Dykman, LLP, attorneys; Amie Kalac and Neil Yoskin, on the joint briefs)

Nessa Horewitch Coppinger (Beveridge & Diamond, PC) of the District of Columbia bar, admitted pro hac vice, argued the cause for appellant 3M Company (Bressler, Amery & Ross, PC, Nessa Horewitch Coppinger, and Ryan J. Carra (Beveridge & Diamond, PC) of the District of Columbia bar, admitted pro hac vice, attorneys; Donald J. Camerson, II, Benjamin J. DiLorenzo, Nessa Horewitch Coppinger, and Ryan J. Carra, on the joint briefs).

Kristen Heinzerling, Deputy Attorney General, argued the cause for respondent Department of Environmental Protection (Matthew J. Platkin, Attorney General, attorney; Melissa H. Raksa, Assistant Attorney General, of counsel; John P. Kuehne and Amy E. Stevens, Deputy Attorneys General, on the briefs).

PER CURIAM

Following its review of scientific studies and recommendations, a public hearing, and consideration of public comments, the New Jersey Department of Environmental Protection (DEP) adopted a series of rule amendments (the rule amendments) setting maximum contaminant levels (MCLs) for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in New Jersey drinking water and ground water.

In these two appeals we scheduled back-to-back and consolidated for the purpose of issuing a single opinion, appellants 3M Company, Landis Sewerage Authority, Sussex County Municipal Utilities Authority, New Jersey Business & Industry Association, Commerce and Industry Association of New Jersey, and

Chemistry Council of New Jersey assert procedural and substantive challenges to DEP's adoption of the rule amendments. Appellants are New Jersey businesses engaged in manufacturing; business associations whose member companies are involved in chemicals, pharmaceuticals, petroleum refining, and flavors and fragrances; and municipal wastewater treatment providers, all of which are subject to, and will be affected by, the rule amendments.

Based on our review of the record and the applicable legal principles, we are convinced DEP complied with the requirements of the Administrative Procedure Act (APA), N.J.S.A. 52:14B-1 to -31, in its proposal and adoption of the rule amendments, and DEP's decision to adopt the amendments is supported by substantial credible evidence and is not otherwise arbitrary, capricious, or unreasonable. We therefore affirm.

I.

Under the Safe Drinking Water Act (SDWA), N.J.S.A. 58:12A-1 to -37, DEP is responsible for ensuring New Jersey has safe drinking water. N.J.S.A. 58:12A-2; N.J.S.A. 58:12A-13. The numerous statutes enacted to accomplish that goal include: the Water Pollution Control Act, N.J.S.A. 58:10A-1 to -73; the Water Quality Planning Act, N.J.S.A 58:11A-1 to -16; the Spill Compensation and Control Act (Spill Act), N.J.S.A. 58:10-23.11 to -23.24; the

Brownfield and Contaminated Site Remediation Act (Brownfield Act), N.J.S.A. 58:10B-1 to -31; the Industrial Site Recovery Act (ISRA), N.J.S.A. 13:1K-6 to -42; and the Site Remediation Reform Act, N.J.S.A. 58:10C-1 to -29. N.J.A.C. 7:9C-1.1. Standards for ground water remediation are contained in N.J.A.C. 7:26D-2.2(a).

PFOA and PFOS are manmade chemicals used in industry that are extremely persistent in the environment, soluble, and mobile in water. PFOA and PFOS are fully fluorinated alkane compounds used as processing aids in developing fluoropolymers, which are high-performance plastics resistant to harsh chemicals and high temperatures. PFOA and PFOS belong to a larger class of manmade chemicals known as per- and polyfluoroalkyl substances (PFAS). 51 N.J.R. 437, 439-40 (Apr. 1, 2019).

According to DEP, PFAS bioaccumulate in the human body and have been detected in New Jersey's drinking water at levels posing serious health risks to New Jersey residents absent mitigation efforts. Numerous scientific studies have established that PFOA and PFOS, when absorbed by the human body, present significant health concerns. Contamination from PFOA and PFOS persists indefinitely unless removed.

N.J.S.A. 58:12A-13(b) provides that, for contaminants with known carcinogenic effects, an MCL should be based on an excess cancer risk of no greater than one in one million over a lifetime exposure period. For contaminants with non-carcinogenic effects, DEP is charged with eliminating all adverse health effects resulting from ingestion "within the limits of practicability and feasibility . . . ." N.J.S.A. 58:12A-13(b). PFOA and PFOS cause both carcinogenic and non-carcinogenic effects.

In 2012, the United States Environmental Protection Agency (EPA) began monitoring PFOA and PFOS in public water sources. 51 N.J.R. at 438-39. According to the EPA, PFOA is five times more likely to be found in New Jersey public water systems than elsewhere in the United States. Ibid. Also, 10% of New Jersey public water systems, compared to 2% of public water systems elsewhere in the United States, contained PFOA above a certain level. Ibid. High levels of PFOS were detected in 3.4% of New Jersey water, as opposed to 1.7% of water nationwide. Ibid. Private wells in New Jersey were also tested and found to have high levels of PFOA and PFOS. Ibid.

The New Jersey Drinking Water Quality Institute (DWQI), which operates within DEP's Division of Water Supply and Geoscience, is statutorily charged with the responsibility of developing MCLs and other standards to address and

control hazardous contaminants in our State's drinking water. N.J.S.A. 58:12A-20. DWQI is comprised of fifteen members, including representatives from DEP and the New Jersey Department of Health, and three representatives of water purveyors, three members from the academic scientific community, and three members having backgrounds in environmental health issues. N.J.S.A. 58:12A-20(a).

In 2014, DEP sought recommendations from DWQI regarding appropriate MCLs for PFOA and PFOS in drinking water. 51 N.J.R. at 438. To that end, DWQI established a health effects subcommittee, a testing subcommittee, and a treatment subcommittee. Id. at 438-41.

Gloria Post, a member of DWQI's health effects subcommittee, later explained the methodology used by DWQI in arriving at the recommended MCLs for PFOA and PFOS. DWQI used a formula that included a relative source contribution (RSC), a factor that accounts for non-drinking water sources of a contaminant including food, soil, air, water, and consumer products. In arriving at its recommendation, DWQI assumed a default value RSC of 20%,

meaning 20% of exposure to the contaminants came from drinking water, while 80% came from non-drinking water sources.[1]

Post further explained DWQI's formula for its recommended MCLs for PFOA and PFOS was based on a "reference dose," which is an amount of a contaminant based on body weight a human can ingest every day for a lifetime without any harmful non-carcinogenic effects. A reference dose is developed from data obtained when groups of animals are dosed with various levels of the contaminant.

Post explained that, according to EPA guidance, a reference dose should be developed by defining a point of departure (POD) and adjusting the POD by a series of uncertainty factors to account for limitations in the data evaluated. The EPA instructs that a POD "can be identified by determining a benchmark dose level (BMDL)[2] derived by using benchmark dose modeling (BMD)," or by

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[1] Post stated selection of an RSC is not necessarily dependent on actual exposure of individuals to PFOA and PFOS in drinking water, and that where, as was the case here, there is insufficient data permitting a determination of a chemical specific RSC, the EPA permits use of a default value of 20%. Post also explained DWQI selected the 20% RSC, which is the most stringent, because it protects infants and young children who are susceptible to the adverse health effects of contaminants and get most of their nutrition in liquid form from breast milk and formula.

[2] BMDL and BMD are sometimes used interchangeably.

simply using a No Observed Adverse Effect Level (NOAEL). Post explained NOAEL is not a modeled value but instead comes from the actual exposure levels in the animal studies. According to EPA guidance, NOAEL is the highest exposure level at which there is no significant increase in adverse effects, as compared to the control group. The EPA instructs that it is preferable to use BMD, but, when that is not possible, NOAEL may be used instead to determine the reference dose.

BMDL is determined by entering data into software provided by the EPA. In 2009, DWQI entered data regarding PFOS into the software to determine BMDL, but the software rejected the data. As a result, DWQI utilized NOAEL instead of BMD to calculate the MCL for PFOS. According to DEP, BMD was not appropriate for calculating an MCL based on the carcinogenic effects of PFOS. The software performed appropriately, however, when DWQI entered the data for PFOA and produced a BMDL for that contaminant.

According to Post, the software error consisted of entering the "standard error" into the software instead of the "standard deviation." However, as Post explained, the software utilized in 2009 was faulty such that, even if the correct data was entered, the software would still not have generated the appropriate

BMDL for PFOS. Post therefore concluded the NOAEL approach was appropriate in 2009, notwithstanding the data entry error.

Post also explained the calculation of the MCL for PFOS would have been the same, regardless of the data entry error, because the correct approach was to use NOAEL, and that is what was done. Post further noted the data entry error pertained only to the calculation of MCLs based on non-carcinogenic effects of PFOS, but there was no error with the data used to calculate carcinogenic effects of PFOS. In any case, Post stated use of the NOAEL approach pursuant to the EPA guidance was a reasonable alternative to using BMD to calculate the BMDL for the non-carcinogenic effects of PFOS.

In June 2015, DWQI's treatment subcommittee issued a report recommending that filtration using granular activated carbon (GAC) was the most common and best available technology for the removal of PFOA and PFOS. The June 2015 report discussed an Oakdale, Minnesota GAC filtration system that cost $3 million to construct and a Penns Grove, New Jersey facility's GAC filtration system that cost $12.2 million.

In May 2016, the EPA issued advisories stating the concentration of PFOA and PFOS in drinking water should be lower than 70 nanograms per liter (ng/L), but the EPA did not establish enforceable federal standards for those

contaminants. The National Drinking Water Advisory Council (NDWAC), a federal advisory council created by Congress to provide the EPA with advice and recommendations, suggested that expenses for removing all contaminants from drinking water should not exceed 1% of median household income (MHI).[3] New Jersey agencies are not required to accept NDWAC recommendations. 5 U.S.C. § 1003(c); 42 U.S.C. § 300g-1(b)(1)(F).

DWQI's health effects subcommittee also analyzed the impact of PFOA and PFOS for both carcinogenic and non-carcinogenic effects. 51 N.J.R. at 439. DEP later summarized the health effects subcommittee report concerning PFOA as follows:

> PFOA accumulates in the human body. Continued exposure to relatively low concentrations of PFOA in drinking water substantially increases the concentration of the contaminant in human blood serum over time, particularly when compared to the blood serum levels in the general population, believed to result primarily from exposures through food and consumer products. Elevated blood serum levels from drinking water exposures persist for many years after exposure ends. Human exposure to PFOA has been associated with health effects including increased cholesterol, increased liver enzymes (an indication of liver damage), decreased vaccine response, decreased birth weight, and testicular and kidney cancer. PFOA is transferred to breast milk, and infants drink more fluid

[3] This recommendation was made in 2003.

(for example, breast milk or formula prepared with drinking water) on a body weight basis than older children and adults consuming contaminated drinking water from the same source. These higher exposures in infants are of concern because developmental effects from early life exposures to PFOA have been shown in animal toxicology studies to occur at lower exposures than other toxic effects of PFOA.

PFOA has also been demonstrated to cause liver, testicular, and pancreatic tumors in rats. Other toxicological effects in non-human primates and/or rodents include mortality, weight loss, and toxicity to the liver, immune system, kidney, and testes. Effects observed on the developing fetus and/or offspring include prenatal and neonatal mortality, decreased body weight, persistent liver toxicity, delays in reaching developmental milestones, such as eye opening, and persistent delays in the development of mammary glands.

The Health Effects Subcommittee developed its health-based level for PFOA based on both the non-carcinogenic and carcinogenic effects from exposure to the contaminant.

[51 N.J.R. at 439.]

DEP also summarized the health effects subcommittee report concerning PFOS:

Similar to PFOA, PFOS accumulates in the human body. Continued exposure to relatively low concentrations of PFOS in drinking water substantially increases concentrations in human blood serum, particularly when compared to the blood serum levels in the general population believed to result primarily

> from exposures through food and consumer products. Elevated blood serum levels from drinking water exposures persist for many years after exposure ends. Human exposure to PFOS has been associated with health effects including decreased vaccine response and increased cholesterol. PFOS is transferred to breast milk, and infants drink more fluid (for example, breast milk or formula prepared with drinking water) on a body weight basis than older children and adults consuming contaminated drinking water from the same source. These higher exposures are of concern because infants may be particularly susceptible to PFOS toxicity.
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> PFOS has also been demonstrated to cause liver tumors in rats. Other toxicological effects in non-human primates and/or rodents include liver, immune system, endocrine, metabolic, and neurobehavioral toxicity. Effects observed on the developing fetus and/or offspring include decreased birth weight, neonatal mortality, structural malformations, liver and immune system toxicity, and changes in hormone levels.
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> Both non-carcinogenic and carcinogenic effects were evaluated in health-based level development.
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> [Id. at 440.]

In February 2017, the health effects subcommittee published its findings concerning PFOA in drinking water and its responses to public comments. The following month, DWQI presented DEP its findings and recommendations concerning PFOA. DWQI recommended a MCL for PFOA of less than fourteen parts-per-trillion for both carcinogenic and non-carcinogenic effects. Ibid.

In November 2017, the health effects subcommittee presented its findings pertaining to PFOS, and on December 5, 2017, it requested public input. In June 2018, DWQI presented its findings and recommendations to DEP. DWQI recommended an MCL for PFOS of thirteen parts-per-trillion to prevent both carcinogenic and non-carcinogenic effects.

DEP adopted DWQI's recommendations. 51 N.J.R. at 437-39. On April 1, 2019, DEP proposed amendments to N.J.A.C. 7:1E Appendix A, N.J.A.C. 7:9C Appendix Table 1, N.J.A.C. 7:9E-2.1, N.J.A.C. 7:10-5.2 and -12.30, and N.J.A.C. 7:14A-4 Appendix A and -7.9 and requested public comment. 51 N.J.R. at 437(a), 438.

DEP issued an economic impact statement concerning the rule amendments. Id. at 445-47. DEP found, "the costs incurred as a result of the proposed amendments will be ultimately passed on to consumers." Ibid. DEP explained, however, that "prevention of the known negative effects on human health will create eventual savings in avoided medical costs and avoided losses to productivity associated with illness." Ibid.

DEP noted the costs of implementing the rule amendments fell into two categories: monitoring expenses to test drinking water for PFOA and PFOS; and expenses for treatment of the water. Ibid. DEP found that, in 2018, the cost

for testing was $300 per sample, and one sample could be used to test for PFOS and PFOA. DEP also noted it expected the cost to decrease. Ibid.

DEP further explained 506 public community water systems and 715 public nontransient noncommunity water systems required monitoring for PFOA and PFOS. Ibid. Monitoring was required only at the point of entry to a water distribution system, and the size and nature of the water system determined the number of points of entry. Ibid. In January 2019, there were approximately 1,126 entry points for public community water systems and 726 entry points for public nontransient noncommunity water systems. Ibid.

DEP further noted water systems would require initial monitoring, as well as additional monitoring after treatment. Ibid. When the water system reached compliance with the proposed MCLs, monitoring could be reduced to once every three years. Ibid. DEP estimated a "public water system will spend approximately $1,200 in the first year for quarterly sampling for the new MCLs at each point of entry" and, after reaching compliance, as little as $300 per point of entry every three years. Ibid.

In December 2018, thirty-nine of the 224 water systems sampled displayed detections for PFOA above the recommended MCL and nineteen had detections for PFOS above the recommended MCL. Ibid. DEP explained that,

if that rate of contamination was consistent throughout the State, an estimated 207 systems (or 17% of 1,221 total water systems) would be found to have detections of PFOA over the recommended MCL, and ninety-seven systems (or 8%) would have PFOS contamination above the recommended MCL. Ibid.

DEP accepted DWQI's treatment subcommittee's recommendation that GAC filtration is the best treatment option to address PFOA and PFOS contamination in water. Ibid. DEP estimated the cost of installing a GAC treatment system ranged from $500,000 to $1 million for a one million-gallon-per-day (MGD) treatment plant. Ibid. DEP estimated the operating cost of a GAC system is approximately $80,000 per year for one MGD plant. Ibid. DEP further found the costs of treatment would decrease over time. Ibid.

DEP also found that when a water system had PFOA and/or PFOS exceeding the proposed MCLs, it might be necessary to utilize an "alternate water source" while the water system was being treated. Ibid. DEP explained the costs of treatment, including the use of an alternate water source, could not be estimated with precision because "costs for construction, operation, and maintenance, [vary] based on the type of treatment selected, site conditions, initial concentration of the contaminant, the presence of other contaminants and

organic materials in the raw water, the need for pre-treatment, and the size of the water system." Ibid.

DEP also proposed that owners of private wells should test every five years or when a property was sold and estimated the cost of testing at $300 per sample. Id. at 442-43. The cost for remediating a site could not be estimated with specificity because it depended on factors such as

> the portion of the plume that must be remediated, the volume and characteristics of wastewater being discharged, the specific contaminants in the wastewater or ground water, the number of monitoring wells required[,] and the length of time needed for sampling, and the type of treatment currently being implemented for other contaminants.
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> [Id. at 446.]

In January 2019, Post co-authored a report regarding the health effects of PFOA. She noted New Jersey's high concentrations of PFOA and that sources of exposure included drinking water, food, fabrics, sprays, cosmetics, dust, and air. According to Post, the 2016 EPA advisories had been based upon an RSC factor of 20%. Post reported that California had adopted standards similar to those proposed by DEP, but Vermont and Minnesota had adopted less stringent requirements. Post also noted that although DWQI had not utilized BMDL for

determining the MCL for PFOS because of the software problem in 2009, it had succeeded in using it to calculate the MCL for PFOA.

On April 1, 2019, DEP notified the public of DWQI's recommendations regarding PFOA and PFOS and invited interested parties to submit comments regarding the proposed rule amendments. 51 N.J.R. at 437. During the sixty-day public comment period, DEP received comments from 578 commenters and responded to 228 comments from fifty-three people, including from representatives of appellants. 52 N.J.R. 1166-210 (June 1, 2020).

For example, comments 9, 10, 11, and 12 raised concerns about the economic impact of the proposed rules, including the fact DEP did not provide per capita costs and did not assess how lower income homes would be affected by the rule amendments. Id. at 1168.

DEP responded to these comments as follows:

> As stated in the notice of proposal's Economic Impact statement, the impacts of the amendments depend on various factors, including the number of water systems that install treatment, the type of treatment being implemented, site conditions, existing treatment, background quality of the source water, the size of the installation, and the concentration of the target contaminant in source water. According to [DEP] records, the estimated cost of installing a GAC treatment system has ranged from $500,000 to $1 million for a one million-gallon-per-day (one MGD) treatment plant (serving about 10,000 people). Costs

will be project specific, ranging from simply replacing filter media in existing GAC vessels to full treatment plant construction and upgrades. For example, systems that require a new treatment plant will incur higher costs for design, building and infrastructure construction, labor, and treatment components such as pumps, chemical storage and feed systems, monitoring instruments, and holding tanks. Costs associated with the operation and maintenance of a GAC system, which include periodic regeneration or replacement of the carbon, vary depending on such factors as the background quality of the source water, the size of the installation, and the concentration of the target contaminant in the source water. Operating costs are estimated to be approximately $80,000 per year for a one MGD plant but can increase depending on the number of wells requiring treatment and the level of contamination, as carbon filters will need to be replaced more frequently in case of higher levels.

To offset costs, [DEP] also offers low interest loans to eligible water systems through the New Jersey Water Bank, as treatment of emerging contaminants such as [perfluorononanoic acid (PFNA)], PFOA, and PFOS is now a high priority for State funding. For example, the estimated average annual debt repayment for a typical publicly owned Drinking Water State Revolving Fund project ([50%] interest free and [50%] at AAA market rate) with $1 million financed over 30 years would be $43,039.63. For a 1 MGD treatment plant serving 10,000 people, that would be $4.30 per person annually, if all debt repayment costs are passed down to the customer. For a family of four, this would amount to $17.20 per year, or $1.43 per month. The true costs to customers will vary depending on factors such as system size and population served, existing treatment, water system rates and profits, availability and use of funding sources, and how the system ultimately

> determines costs that will be passed on to their customers. However, [DEP] does not believe that pass-through costs to the customer would be significant on an individual basis.
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> As a result of this rulemaking, up to 506 public community water systems and 715 public nontransient noncommunity water systems will be required to monitor for PFOA and PFOS. [DEP] estimates that of these systems, 207 may have detections of PFOA, and 97 systems may have detections of PFOS over their respective MCLs. If a public community or public nontransient noncommunity water system has PFOA and/or PFOS above the proposed MCLs, the system will be required to take action to reduce levels below the MCLs, which may include the utilization of an alternate water source or the installation of treatment.
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> [DEP] acknowledges that some costs may be passed on to consumers. However, these costs are necessitated by the statutory mandate at N.J.S.A. 58:12A-2 to ensure the provision of safe drinking water and to protect public health. The adopted amendments will reduce human exposure to these contaminants in drinking water and have a positive social and economic impact by protecting consumers from the health effects associated with PFOA and PFOS. Further, these amendments, which establish the information regarding these contaminants to be included in the CCR [consumer confidence report], will ensure that customers of public community water systems are informed on the quality of their water.
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> [Ibid.]

In its response to comments, DEP acknowledged that data generated by DWQI in its 2009 calculations regarding PFOS had contained a mathematical

error, given that DWQI had used the standard error instead of the standard deviation. Id. at 1195-96. DEP explained that, as a result, DWQI utilized the NOAEL approach and arrived at a determination that PFOS should not exceed .674 µg/L,[4] and that this was similar to the amount contained in the 2016 EPA advisories (i.e., .70 µg/L). Ibid. According to DEP, however, the 2009 calculation of the MCL for PFOS was correct given that DWQI had properly used the NOAEL approach and the mathematical error had not affected the calculation using that methodology. Ibid.

During the comment period, appellant 3M Company ran the data from 2009 using new software developed by the EPA that corrected the 2009 software issue. According to Post, using this new software, 3M Company concluded the BMDL should have been 830 ng/ml while the NOAEL used by DEP in 2009 was 674 ng/ml. A BMDL of 830 ng/ml would result in an MCL of sixteen parts-per-trillion instead of the MCL of thirteen parts-per-trillion recommend by DWQI.

On May 15, 2019, Filina Poonolly, a DEP environmental engineer, conducted a public hearing regarding the proposed rule amendments. Poonolly

[4] "Concentrations in water are normally expressed in terms of weight per unit volume, such as milligrams per liter (mg/L), micrograms per liter (µg/L), or nanograms per liter (ng/L)[,]" Sampling techniques-Water, Env. Sci. Deskbook § 3:17 (2023), and 674 ng/ml is equivalent to .674 µg/L, see id. at § 1:7 ("provid[ing] general guidance on units of measurements").

considered the testimony at the hearing, as well as written comments submitted by members of the public, and recommended DEP adopt the rule amendments.

On June 1, 2020, DEP Commissioner Catherine R. McCabe entered a final agency decision adopting the rule amendments. 52 N.J.R. at 1165(b). Commissioner McCabe accepted DWQI's recommendation to implement MCLs for drinking water and discharges-to-groundwater contaminant standards of .014 micrograms per liter for PFOA and .013 micrograms per liter for PFOS. 52 N.J.R. at 1165.

The adopted rule amendments included modifications to SDWA regulations governing groundwater quality standards (GWQS), N.J.A.C. 7:9C App. Table 1; primary drinking water regulations, N.J.A.C. 7:10-5.2; and water quality analysis and treatment standards, N.J.A.C. 7:10-12.30. The new rules also amended regulations under the Private Well Testing Act (PWTA), N.J.S.A. 58:12A-26 to -47, governing well water testing for PFOA, PFOS, and PFNA — another PFAS chemical — in private wells subject to sale or lease, N.J.A.C. 7:9E-2.1. The rules likewise amended the regulations governing the general application requirements for discharge-to-groundwater permits, N.J.A.C. 7:14A-7.9, and added PFOA and PFOS to the Permit Application Testing Requirements/Pollutants Listings applicable to New Jersey Pollutant Discharge

Elimination System (NJPDES) permits, N.J.A.C. 7:14A-4 App. A.

DEP further added PFOA and PFOS in their acid, anionic, salt, and ester forms, as well as PFNA in its anionic, salt, and ester forms, to the List of Hazardous Substances under the rules governing Discharges of Petroleum and Other Hazardous Substances (DPHS), N.J.A.C. 7:1E-1.1 to -10.4. N.J.A.C. 7:1E App. A. The rules also added PFOA and PFOS to the list of hazardous substances under the Spill Act, N.J.S.A. 58:10-23.11 to -23.24, and additionally requires owners and operators of industrial establishments subject to ISRA to remediate sites contaminated by PFOA or PFOS prior to the sale or transfer of, or upon cessation of business operations on, sites contaminated by PFOA and/or PFOS. The DPHS listing also adds PFOA and PFOS to the list of substances for which a party may be liable under the Brownfield Act, which requires the discharge of a hazardous substance to be remediated by, among other responsible parties, the discharger of a hazardous substance or any person in any way responsible for a discharge or threatened discharge of a hazardous substance on the DPHS list. N.J.S.A. 58:10B-1.3.

Appellants subsequently filed two notices of appeal from DEP's adoption of the rule amendments. DEP denied appellants' motion for a stay of its decision pending appeal. We denied subsequent motions for a stay pending appeal. As

noted, we scheduled the appeals back-to-back and consolidated them for the purpose of issuing a single decision.

II.

Appellants' challenges to the rule amendments are founded on two claims. They first contend the rule amendments are invalid because they were not adopted in accordance with the rulemaking requirements of the APA, N.J.S.A. 52:14B-4, and its implementing regulations. They also argue DEP's decision adopting the rule amendments should be reversed because it is arbitrary, capricious, and unreasonable.

We "presume agency regulations 'are both "valid and reasonable[.]"'" S.L.W. v N.J. Div. of Pensions & Benefits, 238 N.J. 385, 394 (2019) (quoting N.J. Ass'n of Sch. Adm'rs v. Schundler, 211 N.J. 535, 548 (2012)). Where, as here, the agency's action calls for the application of its inherent expertise, "an even stronger presumption of reasonableness exists." IFA Ins. Co. v. N.J. Dep't of Ins., 195 N.J. Super. 200, 208 (App. Div. 1984). A court's deference to administrative agency action is particularly appropriate "when the agency has been delegated discretion to determine the specialized and technical procedures for its tasks." In re Adoption of N.J.A.C. 7:26E-1.13, 377 N.J. Super. 78, 99 (App. Div. 2005) (quoting In re Adopted Amends. to N.J.S.A. 7:7A-2.4, 365

N.J. Super. 255, 264 (App. Div. 2003), aff'd, 186 N.J. 81 (2006)).

Our deference to administrative agencies "stems from the recognition that agencies have the specialized expertise necessary to enact regulations dealing with technical matters and are 'particularly well equipped to read and understand the massive documents and to evaluate the factual and technical issues that . . . rulemaking would invite.'" N.J. State League of Muns. v. Dep't of Cmty. Affs., 158 N.J. 211, 222 (1999) (alteration in original) (quoting Bergen Pines Cnty. Hosp. v. N.J. Dep't of Hum. Servs., 96 N.J. 456, 474 (1984)); accord In re Stormwater Mgmt. Rules, 384 N.J. Super. 451, 465 (App. Div. 2006). That deference "does not require abdication by the judiciary of its function to assure that agency rulemaking conforms with basic tenets of due process[] and provides standards to guide both the regulator and the regulated." N.J. Soc'y for Prevention of Cruelty to Animals v. N.J. Dep't of Agric., 196 N.J. 366, 386 (2008) (quoting Lower Main St. Assocs. v. N.J. Hous. & Mortg. Fin. Agency, 114 N.J. 226, 236 (1989)). Thus, in our assessment of a regulation's validity, we must also consider whether the administrative agency adopted the regulation "in substantial compliance with" the requirements of the APA and due process. N.J.S.A. 52:14B-4(d); see also In re Provision of Basic Generation Serv. for Period Beginning June 1, 2008, 205 N.J. 339, 347 (2011).

The party challenging an administrative regulation has the burden of proving the regulation is either invalid because the agency failed to comply with the APA's rulemaking and due process procedures or is otherwise arbitrary, capricious, or unreasonable. N.J. State League of Muns., 158 N.J. at 222; Bergen Pines Cnty. Hosp., 96 N.J. at 477 ("The burden is on the plaintiff to overcome the[] presumptions" of "validity and reasonableness."); Matter of Producer Assignment Program, 261 N.J. Super. 292, 303 (App. Div. 1993) ("A heavy burden is . . . imposed on the[] challengers to prove" rules promulgated by administrative agencies "fail to comport with the legislative will" enshrined in the APA and the agency's enabling legislation). Appellants failed to sustain their burden here.

A.

Appellants argue DEP's public notice of the proposed rule amendments fails to include a sufficient "description of the expected socio-economic impact of the rule" amendments as required under N.J.S.A. 52:14B-4(a)(2). Appellants contend DEP's notice was deficient because it did not include an estimate of the specific and precise costs that will be incurred by a drinking water purveyor — an entity that supplies drinking water to the public — when it is compelled under the rule amendments to acquire an alternate water source because it fails to

remove PFOA and PFOS in its water supply below the newly established MCLs for PFOA and PFOS using GAC filtration.[5] 51 N.J.R. at 446.

We reject appellants' argument because we are satisfied DEP substantially complied with the requirement that it provide a description of the socio-economic impact of the rule amendments. N.J.S.A. 52:14B-4(a)(2). In its notice, DEP identified the numerous and diverse entities and individuals that will be affected by the rule amendments, including water systems, well owners, consumers, local health agencies, and parties engaged in site remediation. 51 N.J.R. at 445-46. DEP further explained the costs associated with the rule amendments would be passed on to consumers, but there will be financial savings from the MCLs through reduced medical costs.

DEP also provided specific estimates of certain costs associated with the requirements of the rule amendments — including, for example, anticipated costs for PFOA and PFOS testing, installation of GAC systems, and operation and maintenance of GAC systems. 51 N.J.R. at 445-46. DEP's notice also addressed the specific costs associated with wells and site remediation. 51 N.J.R. at 445-46.

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[5] Appellants also argue DEP failed to respond to a Resource Science Coalition comment regarding costs, but the comment to which appellants refer did not address costs related to alternate water sources.

DEP further explained that the actual costs associated with the treatment of water exceeding the new MCLs for PFOA and PFOS, including by obtaining alternate water sources in the event doing so became a necessity under the rule amendments, "var[y] based on . . . site conditions, initial concentration of the contaminant, the presence of other contaminants and organic material in the raw water, the need for pre-treatment, and the size of the water system." 51 N.J.R. at 445-46. That is, DEP explained it could not precisely define all the costs associated with the implementation of the new MCLs due to the varied conditions and circumstances existing at the numerous locations at which treatment might be required under the rule amendments.

The regulation implementing the APA's notice requirement provides that a socio-economic impact statement under N.J.S.A. 52:14B-4(a)(2) must "describe[] the expected costs, revenues, and other economic impact upon governmental bodies of the State, and particularly any segments of the public proposed to be regulated[.]" N.J.A.C. 1:30-5.1(c)(3). However, neither the statute, N.J.S.A. 52:14B-4(a)(2), nor the regulation, N.J.A.C. 1:30-5.1(c)(3), requires an agency provide with mathematical precision every cost associated with the proposed rules, most notably where the costs "will vary" among the affected entities based on unique and varied circumstances of each and the

manner in which an affected entity opts to comply with the requirement to obtain an alternate water source. Cf. In re Adoption of N.J.A.C. 5:96 and 5:97, 416 N.J. Super. 462, 507 (App. Div. 2010).

In Adoption of N.J.A.C. 5:96 and 5:97, we determined a socio-economic impact statement included in a Council on Affordable Housing (COAH) notice of proposed regulations substantially complied with the requirements of N.J.S.A. 52:14B-4(a)(2), even though it did not include a statement of the specific costs associated with the particular means by which a municipality might choose to comply with the proposed regulations. Ibid.

We explained "[t]he essential purpose of the socio-economic impact statement mandated by N.J.S.A. 52:14B-4(a)(2) is to provide interested parties with notice of the impacts anticipated by the agency proposing the rule." Id. at 506-07 (emphasis added). We also found COAH's notice of the proposed regulations was such that "[t]here [was] nothing secret about the fact that compliance with affordable housing obligations may result in substantial costs to some municipalities." Id. at 507. Despite the absence of a specific calculation of the estimated costs of compliance with the proposed regulations, we concluded the socio-economic impact statement fulfilled the APA's requirements because "it is exceedingly difficult to predict" the costs associated

with the implementation of the regulations, and the costs "will vary from municipality to municipality depending not only on the magnitude of a municipality's affordable housing obligations but also whether the municipality chooses to comply with those obligations by means of inclusionary zoning, municipally subsidized affordable housing, or other means." Ibid.

The reasoning and conclusion in Adoption of N.J.A.C. 5:96 and 5:97 apply here with syllogistic precision. DEP's notice of the proposed rule amendments specifically detailed numerous costs associated with the implementation of the rule amendments and provided notice water purveyors may be compelled to find alternate water sources if they are unable to reduce PFOA and PFOS contamination below the new MCLs.

Based on DEP's notice of the proposed rule amendments, there was "nothing secret" about the fact the rule amendments require New Jersey water purveyors to find alternate water sources under certain circumstances. Id. at 507. Further, as DEP explained, those costs will vary depending on factors unique to each water purveyor, including the means chosen to obtain alternate water sources, and the water purveyors "are in a better position than [DEP] to estimate what those costs will be." Ibid. Under these circumstances, we find DEP's socio-economic statement "provided adequate notice to" water purveyors

of the economic impact DEP anticipates water purveyors will incur to comply with the rule amendments, ibid., and we reject appellants' arguments to the contrary.

We are also not persuaded by appellants' claim In re Coastal Permit Program Rules, 354 N.J. Super. 293 (App. Div. 2002), requires that DEP should have provided estimates of even unanticipated costs associated with the rule amendments under the APA. In Coastal Permit Program Rules, we explained, "[t]he purpose of [N.J.S.A. 52:14B-4(a)(2)'s notice] procedure is to give those affected by the proposed rule an opportunity to participate in the rule-making process not just as a matter of fairness but also as a means of informing regulators of possibly unanticipated dimensions of a contemplated rule." Id. at 365 (emphasis added) (citations and internal quotations omitted). That purpose was well served here.

As we have explained, DEP's notice advised affected entities of the anticipated costs of compliance with the rule amendments with respect to GAC treatment and also provided affected entities an opportunity to inform DEP through the public comment process of any "possibly unanticipated dimensions of [its] contemplated rule," including costs associated with utilizing alternate

water sources should GAC treatment fail to mitigate PFOA and/or PFOS contamination. Ibid.; accord 51 N.J.R. at 446.

In fact, each appellant submitted comments during the public comment period. 52 N.J.R. at 1166. Because the mainstay — indeed, "[t]he purpose" — of the APA's notice requirement is "to give those affected by the proposed rule an opportunity to participate in the rule-making process[,]" DEP's economic impact statement fulfilled that purpose and therefore substantially complied with the APA's notice requirements given that every appellant, and 228 commenters in total, submitted views on DEP's proposed rules in this case, and the notice explained that water purveyors might, under certain circumstances, be required to use alternate water sources if the new MCLs were not met. See Coastal Permit Program Rules, 354 N.J. Super. at 365 (quoting Fed. Pac. Elec. Co. v. N.J. Dep't of Env't Prot., 334 N.J. Super. 323, 340-41 (App. Div. 2000)).

Additionally, in Coastal Permit Program Rules, we deemed the DEP's economic impact statement sufficient "because it set forth the impact . . . DEP 'anticipated' or expected from the proposed regulations" and "N.J.S.A. 52:14B-4(a)(2) does not require a more convincing socio-economic impact analysis." Ibid. Providing notice under N.J.S.A. 52:14B-4(a)(2) of the expected economic impact of proposed rules therefore does not require an agency provide a dollar-

figure estimate for every conceivable cost associated with compliance, nor does it require an agency predict every cost associated with unanticipated dimensions of its rule. Rather, the APA requires the agency provide adequate notice to affected entities to serve as a means of affording those entities an opportunity to participate in the rulemaking process via public comment and in doing so give those entities a chance "to inform" the agency of any potentially unanticipated consequences of the proposed rule. Ibid. That is precisely what occurred here.

DEP anticipated and gave notice of the economic impact associated with installing and maintaining GAC treatment, which DEP recognized in its proposal notice as "the best available technology for the removal of PFAS . . . ." 51 N.J.R. at 446. DEP informed affected water purveyors of the possibility of utilizing alternate water sources should GAC treatment fail, which satisfied N.J.S.A. 52:14B-4(a)(2)'s notice requirements because DEP identified GAC treatment as the best means available to eliminate PFAS in water, and provided dollar-figure estimates to implement what it anticipated as the best means of decontaminating water containing PFOA and PFOS exceedances, while also recognizing the need to utilize alternate water sources was ancillary to, and contingent on choices independent of, the cost of utilizing GAC treatment. See Coastal Permit Program Rules, 354 N.J. Super. at 365. The APA "does not

require a more convincing socio-economic impact analysis." Ibid.

B.

Appellants next argue DEP's socio-economic impact statement did not adequately include an assessment of the costs attendant to the rule amendments' addition of PFOA and PFOS to the Spill Act's Appendix A list of hazardous substances. Appellants claim that "[b]y failing to analyze the[] costs [of remediation, litigation, and discharger liability associated with a hazardous substance listing], DEP blunted the public discourse on the [r]ules[] and undercut the purpose of the APA." We disagree.

DEP's notice of the proposed rule amendments generally described the potential financial impact and associated costs of adding PFOA and PFOS to the Spill Act's list of hazardous substances. DEP noted:

> The addition of PFOA and PFOS to the DPHS [Discharge of Petroleum and other Hazardous Substances] Appendix A List of Hazardous Substances will, in accordance with the Spill Act, enable an eligible public water system or person who has incurred damages because of a PFOA or PFOS discharge to seek reimbursement for, among other things, the cost of remediating the PFOA or PFOS contamination, provided the person is not the responsible party. Listing PFOA and PFOS will also enable [DEP] to require the discharger of a hazardous substance or a person in any way responsible for a discharge of PFOA or PFOS to remediate the discharge and use hazardous substance-based funding sources, as available and

> necessary, to conduct remediation, and to undertake cost recovery actions against the responsible party or parties. It will also require owners and operators of industrial establishments who are liable under ISRA to, among other things, investigate their industrial establishment and remediate any discharges of PFOA or PFOS that are discovered prior to their sale or transfer or upon cessation of business operations.
>
> Any existing facility that is deemed a major facility under the DPHS rules that uses or stores the acidic and anionic forms of PFOA or PFOS or their salts and esters will potentially incur the costs relating to preparing and submitting discharge prevention, containment and countermeasure plans, and discharge cleanup and removal plans; secondary containment for storage tanks, pipes, and process areas; and related requirements with respect to the use or storage of PFOA and PFOS.
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> [51 N.J.R. at 446.]

DEP further explained the addition of PFOA and PFOS to the list of hazardous substances impacted:

> (i) rules establishing reporting, design, operational, and maintenance requirements applicable to major facilities (facilities and vessels having storage capacity for hazardous substances at or above certain defined thresholds) in the DPHS rules at N.J.A.C. 7:1E, and a notification requirement for any person responsible for a discharge to notify [DEP] if they know of or should reasonably know of a hazardous substance discharge; (ii) rules regarding the processing of claims under the Spill Act for damages from the discharge or threatened discharge of a hazardous substance in the Processing of Damage Claims Pursuant to the [Spill Act] rules at

> N.J.A.C. 7:1J; (iii) rules for the remediation of discharges in the Administrative Requirements for the Remediation of Contaminated Sites at N.J.A.C. 7:26C; and (iv) rules governing the technical requirements for the remediation or discharges in the Technical Requirements for Site Remediation at N.J.A.C. 7:26E.
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> [51 N.J.R. at 444.]

By designating the various regulations affected by the addition of PFOA and PFOS to the Spill Act's hazardous substances list, DEP broadly provided notice of the expected costs associated with Spill Act liability. For example, the designated "rules regarding the processing of claims under the Spill Act for damages from the discharge or threatened discharge of a hazardous substance in the Processing of Damage Claims Pursuant to the [Spill Act] rules at N.J.A.C. 7:1J" explain the claims for damages concerning hazardous substances under the Spill Act must be "reasonable in relation to the damages which the claimant has sustained." N.J.A.C. 7:1J-2.3; accord 51 N.J.R. at 444.

Since both the amount of the claim as well as the damages which the claimant has sustained are "highly dependent" on who brings the claim, where the discharge of a hazardous substance occurs, and the magnitude of the discharge, DEP's omission of specific cost estimates related to Spill Act liability for PFOA and PFOS is not inconsistent with the APA's notice requirements. Cf. Adoption of N.J.A.C. 5:96 and 5:97, 416 N.J. Super. at 507. In other words, the

costs incurred by entities liable under the Spill Act for discharges or threatened discharges of PFOA and PFOS will inevitably "vary" according to the nature and extent of the particular Spill Act claim. Ibid. Therefore, costs associated with such claims are "exceedingly difficult [for DEP] to predict[,]" and the potentially affected entities "are in a better position . . . to estimate what th[o]se costs will be." Ibid. As DEP correctly argues, "[i]dentifying all potentially liable parties and estimating the potential cost impacts for each party . . . is beyond what the APA requires."

Thus, in our view, DEP substantially complied with N.J.S.A 52:14B-4(a)(2) by specifying the rules applicable to claimants whose burden it is to calculate site-specific remediation, litigation, and discharger liability costs arising under the Spill Act, and by providing potentially affected entities with notice of the potential for such costs, such that they could address the issue with the DEP during the public comment period. Adoption of N.J.A.C. 5:96 and 5:97, 416 N.J. Super. at 507. The APA requires no more. Coastal Permit Program Rules, 354 N.J. Super. at 365.

C.

Appellants also argue DEP did not substantially comply with the APA because it allegedly failed to provide information regarding annual per capita

costs of compliance with the rule amendments and ignored NDWAC's recommendations to the EPA that households should not be required to contribute more than 1% of MHI for the increased expense of removing contaminants. We reject the argument because appellants do not point to any requirement that DEP provide a per capita breakdown of costs.[6] And our review of the SDWA reveals no such requirement. The SDWA requires only that DEP "eliminate within the limits of practicability and feasibility all adverse physiological effects which may result from ingestion" of contaminants, N.J.S.A. 58:12A-13(b) (emphasis added), and N.J.S.A. 52:14B-19(c) requires only that DEP provide an "estimate of the initial capital costs and an estimate of the annual cost of complying with the rule" which, as a matter of fact, DEP provided.[7]

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[6] Appellants' reliance on NDWAC's recommendation for a per capita cost projection is misplaced. The NDWAC was created pursuant to the Federal Advisory Committee Act, 5 U.S.C. §§ 1001 – 1014, and it makes recommendations to the EPA, 42 U.S.C. § 300j-5(b). Appellants do not cite to any authority supporting their implicit claim DEP is obligated to follow an NDWAC recommendation.

[7] For example, in its notice of the proposed rule amendments, DEP advised that "the costs to public community and public nontransient noncommunity water systems as a result of the proposed amendments fall into two categories: monitoring expenses" and "expenses related to the installation and maintenance of adequate treatment to meet the new MCLs[;]" that "the average cost of the

In addition, following the comment period, DEP provided an estimated per capita cost in its notice of adoption of the rule amendments. The notice stated the per capita cost is $17.20 per year for a family of four or $1.43 per month to cover financing for the construction of treatment facilities to remove PFOS and PFOA.[8] 52 N.J.R. at 1168. In our view, the per capita cost of $17.20

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analysis . . . for the group of PFAS that includes PFOA[, PFNA,] and PFOS was approximately $300[] per sample[;]" that "[m]onitoring includes initial monitoring, which is the minimum monitoring required for all public community and public nontransient noncommunity water systems, regardless of whether there is a detection, and monitoring associated with installed treatment[;]" that "[w]ater systems with sample results that comply with the proposed MCLs are permitted to reduce monitoring frequency to as low as once every three years[;]" and that, accordingly, "a public water system will spend approximately $1200 in the first year for quarterly sampling for the new MCLs at each point of entry" to its water supplies and "will spend as little as $300[] per point of entry every three years" should a water purveyor choose to monitor MCLs at a reduced frequency rate. 51 N.J.R. at 444-45. N.J.S.A. 52:14B-19(c) requires no more. Cf. Tall Timbers Prop. Owners Ass'n, Inc. v. N.J. Dep't of Cmty. Affs., 413 N.J. Super. 54, 69 (App. Div. 2010).

[8] In its notice of adoption of the rule amendments, DEP addressed the per capita costs in response to comments 9, 10, 11, and 12, stating:

> [DEP] also offers low interest loans to eligible water systems through the New Jersey Water Bank, as treatment of emerging contaminants such as PFNA, PFOA, and PFOS is now a high priority for State funding. For example, the estimated average annual debt repayment for a typical publicly owned Drink Water State Revolving Fund project ([50%] interest free and [50%] at AAA market rate) with $1 million

per year per household is de minimis and well within the range of practicability and feasibility. N.J.S.A. 58:12A-13(b).

Appellants argue DEP's post-comment-period provision of the per capita costs in the notice of adoption violated the APA because they were deprived of an opportunity to provide comments concerning the costs. Under N.J.A.C. 1:30-6.3(a) and (b), however, an agency is required to provide only "public consideration of and comment on" substantial changes to a proposed rule following the public comment period. A change is not substantial if it does "not significantly enlarge or curtail the scope of the rule and its burden, enlarge or curtail who or what will be affected by the rule[,] or change what is being

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> financed over 30 years would be $43,039.63. For a 1 MGD treatment plant serving 10,000 people, that would be $4.30 per person annually, if all debt repayment costs are passed down to the customer. For a family of four, this would amount to $17.20 per year, or $1.43 per month. The true costs to customers will vary depending on factors such as system size and population served, existing treatment, water system rates and profits, availability and use of funding sources, and how the system ultimately determines costs that will be passed on to their customers. However, [DEP] does not believe that pass-through costs to the customer would be significant on an individual basis.
>
> [52 N.J.R. at 1168.]

prescribed, proscribed, or mandated by the rule." In re Adoption of N.J.A.C. 9A:10-7.8(b), 327 N.J. Super. 149, 155 (App. Div. 2000) (citing In re Reguls. Governing Volatile Organic Substances in Consumer Prod., 239 N.J. Super. 407, 413-14 (App. Div. 1990)).

Although DEP had no obligation to provide per capita costs, its notice of adoption of the rule amendments nonetheless addressed and detailed anticipated per capita costs. Because the provision of the information did not constitute a substantial change in the proposed rule amendments, DEP did not violate the APA by failing to permit further comment concerning the per capita costs following the notice of adoption. See Tall Timbers, 413 N.J. Super. at 69 (explaining an "[agency's] responses to the various comments submitted in response to the rule proposals show that [the agency] did in fact consider those alleged costs and rejected objections to the proposed rules on those grounds"). Again, appellants failed to demonstrate DEP did not substantially comply with the APA. See Bergen Pines Cnty. Hosp., 96 N.J. at 477.

D.

Appellants contend DEP's socio-economic statement failed to set forth the per capita costs of treatment for PFOA and PFOS at wastewater treatment facilities and did not account for whether the treatment costs subject to the

amended NJPDES rules would be passed through to consumers. Appellants assert DEP "speculated" that wastewater treatment facilities will incur similar costs to drinking water facilities but never assessed the per capita impact to the public. They conclude the proposed amendments therefore failed at the proposal stage because DEP provided "misleading and counterfactual information." The arguments are unavailing.

As we have explained, DEP is not required to set forth per capita costs as long as the costs incurred as a result of the rule amendments are practicable and feasible. N.J.S.A. 58:12A-13(b). Further, in its notice of adoption of the rule amendments, DEP evaluated costs for both drinking water and wastewater treatment facilities, stating "[p]otable water and wastewater treatment plants have similar considerations and engineering challenges." 52 N.J.R. at 1171. DEP also explained it "based its assessment of costs and treatment at wastewater treatment facilities on the cost of treatment per gallon of water processed" and "did not calculate the cost to treat for PFNA, PFOA, and PFOS for each individual potable water or wastewater treatment facility, because individual costs are site-specific." 52 N.J.R. at 1171. We are satisfied DEP's omission of pass-through costs specific to costs incurred by wastewater treatment facilities is nonetheless substantially compliant with the APA because DEP otherwise

provided cost analyses specific to potable water treatment facilities, and elsewhere recognized potable and wastewater treatment facilities "have similar considerations and engineering challenges." Ibid.; cf. Tall Timbers, 413 N.J. Super. at 69.

DEP further recognized the costs of compliance with the new MCLs that would be incurred by water purveyors and wastewater treatment facilities are "site-specific." See 52 N.J.R. at 1171. The APA does not require a calculation of the precise costs that will be incurred by each purveyor and treatment facility under such circumstances. Adoption of N.J.A.C. 5:96 and 5:97, 416 N.J. Super. at 507. We thus find DEP substantially complied with the APA's rulemaking procedures in its proposal and adoption notices concerning the anticipated cost impacts associated with compliance with the rule amendments. Tall Timbers, 413 N.J. Super. at 69.

E.

Next, appellants assert DEP violated the APA by failing to provide an adequate federal standards statement in its notice of the proposed rule amendments. Appellants argue DEP's statement addressing whether the rule amendments exceed federal requirements "does not include a single cost figure" and therefore does not comply with the APA. We have recognized, however,

that the "goal" of the APA's rulemaking procedure is "to afford effective notice, to the end that public comment be encouraged and given a meaningful role in the process of rule adoption." In re N.J.A.C. 12:235-3.11, 235-3.23, 244 N.J. Super. 683, 687 (App. Div. 1990). DEP met that goal here.

Where DEP's proposed standards exceed those required by federal law, the APA requires a federal standards statement describing the "policy reasons and a cost-benefit analysis that supports the agency's decision." N.J.S.A. 52:14B-23. "The analysis shall apply to any new, readopted, or amended rule(s) under the authority of or in order to implement, comply with, or participate in any program established under Federal Law or under a State statute that incorporates or refers to Federal Law, standards, or requirements." N.J.A.C. 1:30-5.1(c)(4). N.J.A.C. 1:30-5.1(c)(4)(iii)(2) additionally requires the agency provide "[a] cost-benefit analysis that supports the agency's decision to impose standards or requirements that exceed those required by Federal law[,]" unless the agency determines its rules are not subject to any federal standards or requirements and do not exceed or are the same as federal standards or requirements. N.J.A.C. 1:30-5.1(c)(4)(i), -5.1(c)(4)(ii).

In N.J.A.C. 12:235-3.11, 235-3.23, we held an agency that did "no more than inform [affected parties] 'verbally' . . . of the lengthy and technical

proposed new regulation" did not adopt the regulation "in substantial compliance with the [APA]." 244 N.J. Super. at 687. The agency did not provide the public "effective notice" and "a meaningful role in" submitting public comments as required to achieve the overarching goal of the APA. Ibid.

In contrast, here, DEP stated in its notice of the proposed rule amendments that its "SDWA rules at N.J.A.C. 7:10 incorporate by reference the National Regulations at 41 CFR 141[,]" a consequence of which is "[DEP's] SDWA rules are, therefore, the Federal standards, except with respect to those areas for which [DEP] has determined, as authorized by the SDWA and allowed by National Regulations, to establish New Jersey-specific requirements." 51 N.J.R. at 447. DEP further specified "[t]he development of New Jersey-specific MCLs for PFOA and PFOS is necessary to protect public health" pursuant to its statutory mandate at N.J.S.A. 58:12A-2 to ensure the provision of safe drinking water and to protect public health. 51 N.J.R. at 447.

DEP also highlighted that "[t]he PWTA rules, N.J.A.C. 7:9E, are not promulgated under the authority of, or in order to implement, comply with, or participate in any program established under Federal law or under a State statute that incorporates or refers to federal law, Federal standards, or Federal requirements[;]" the GWQS rules "do not exceed any Federal standards or

requirements" and have "no Federal counterpart[;]" the NJPDES rules "are governed by State statutes," which also "ha[ve] no Federal counterpart" and "do not exceed Federal underground injection control mandates[;]" and PFOA and PFOS, at the time of proposal, "[were] not among the substances to which" the Federal Water Pollution Control Act, 33 U.S.C. §§ 1151-1389, and the rules implemented pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 40 C.F.R. §§ 307.10-307.42, which, according to DEP, "are generally analogous to the DPHS rules[,]" apply. 51 N.J.R. at 447-48.

Where, as here, there were no federal standards for MCLs for PFOA and PFOS when DEP proposed and adopted the rule amendments, the APA required no federal standards analysis. N.J.A.C. 1:30-5.1(c)(4) requires a federal standards statement only when proposed regulations refer to a federal law or are adopted pursuant to a state statute that incorporates or refers to federal law, standards, or requirements. However, when there are no federal standards, or when the state standards are commensurate with or do not exceed federal standards, the rule proposals need only include a statement that a federal standards analysis is not applicable. Fed. Pac. Elec. Co., 334 N.J. Super. at 344.

That occurred here. At the time of the proposal notice's publication, the EPA had not yet issued federal standards regulating PFOA and PFOS; rather, the EPA had issued only non-binding guidance in the form of health advisories regarding PFOA and PFOS. Thus, the APA did not require DEP to provide a federal standards analysis regarding the MCLs implemented by the rule amendments. Because substantial compliance with N.J.A.C. 1:30-5.1(4)(i), -5.1(4)(ii) does not require the agency to analyze costs where, as is the case here, no binding federal standards exist, Fed. Pac. Elec. Co., 334 N.J. Super. at 344, we find DEP's federal standards statement, 51 N.J.R. at 447-48, substantially complied with the APA, N.J.S.A. 52:14B-4(d).

Appellants also contend DEP failed to substantially comply with the APA because it did not substantively address a March 10, 2020, EPA health advisory suggesting regulation of PFOA and PFOS at MCLs higher than those established by the rule amendments. The EPA health advisories, however, do not constitute "standards or requirements imposed by Federal law" under N.J.A.C. 1:30-5.1(c)(4). See Elena H. Humphreys, Cong. Rsch. Serv., IF11219, Regulating Drinking Water Contaminants: EPA PFAS Actions 1 (2022); see also 42 U.S.C. § 300g-1(b)(1)(F) (emphasis added) (stating "[t]he [EPA] Administrator may publish health advisories (which are not regulations) or take other appropriate

actions for contaminants not subject to any national primary drinking water regulation."). DEP was under no obligation to address them in its federal standards statement. N.J.A.C. 1:30-5.1(c)(4).

We further observe that, in accordance with N.J.A.C. 1:30-5.1(c)(4), DEP explained the rule amendments do not exceed federal standards, are not promulgated under the authority of, or to implement, comply with, or participate in, any federal program, and were not proposed under a state statute that incorporates or exceeds federal standards or requirements. 51 N.J.R. at 447-48. We therefore find appellants' claim DEP failed to address in its proposal notice the "uniform national approach to the issue" is misplaced because, at the time of DEP's proposal notice's issuance, no uniform national standards existed. Ibid. Again, contrary to appellants' contentions, DEP substantially complied with its obligations under N.J.A.C. 1:30-5.1(c)(4), even though it did not substantively analyze or address the EPA's health advisories regarding PFOA and PFOS.[9] Fed. Pac. Elec. Co., 334 N.J. Super. at 344.

[9] For the same reasons, we reject appellants' claim DEP violated the APA by not addressing the median household income inquiry "suggested by" the EPA's NDWAC for calculating per capita costs as a percentage of median income. Appellants do not point to any legal authority requiring an analysis of federal guidance or suggestions under the APA. As noted, N.J.A.C. 1:30-5.1(c)(4) requires an agency address only "whether the rule(s) in the proposal notice

F.

Appellants last contend DEP violated the APA by failing to fully consider and address comments it received during the public comment period. Appellants argue DEP "routinely dismissed or provided cursory responses to detailed and specific comments regarding deficiencies within the [p]roposed [r]ules." In our view, the argument ignores the record and lacks sufficient merit to warrant detailed discussion in a written opinion. R. 2:11-3(e)(1)(E). We therefore offer only the following brief comments.

Appellants search for examples of what they contend represent DEP's failure to respond to public comments. For example, they contend DEP ignored comments about the mathematical error in DWQI's calculations, and dismissed comments about facility costs estimates, including the need for "field blanks," an expense appellants allege was known to DEP as early as 2017. According to appellants, DEP also dismissed these comments by stating those costs would be site-specific and could not be ascertained at the rule proposal stage.

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contain standards or requirements that exceed standards or requirements imposed by Federal law[,]" and N.J.A.C. 1:30-5.1(c)(3) requires a statement that describes only "the expected costs, revenues, and other economic impact" of the proposed rule. Since neither the regulations nor the statute requires an analysis of non-binding federal guidance, DEP's failure to address NDWAC's suggestions did not constitute a violation of the APA. Cf. Fed. Pac. Elec. Co., 334 N.J. Super. at 344.

Our review of the record reveals DEP did not ignore public comments about the mathematical error in DWQI's calculations. To the contrary, DEP expressly addressed the error in its detailed and thorough "RESPONSE TO COMMENTS 139 THROUGH 143" in its notice of adoption of the rule amendments. 52 N.J.R. at 1195-96.

DEP further provided a direct response to comments asserting the need for the testing of field blanks at each point of entry to a water system. DEP agreed field blanks were necessary and responded as follows:

> RESPONSE: Costs associated with analysis of a field blank will be site-specific and will depend on whether detections are determined above or below the minimum reporting level. If detections are above the minimum reporting level, the field blank is necessary to verify that contaminants have not been inadvertently introduced into the compliance sample. A field blank is a water sample prepared in the field that is exposed to the same environmental conditions as [a] water sample used by the laboratory for compliance. A field blank ensures that contaminants were not inadvertently introduced into the compliance sample. Without the field blank analysis to confirm the detection, the water system may take unnecessary actions, such as installing treatment.
>
> [52 N.J.R. at 1169.]

Appellants also claim certain of DEP's responses to submitted comments were inadequate because they were "cursory or dismissive." We find no evidence supporting this claim.

In Exxon Corp. v. Hunt, we vacated rules on the grounds of APA non-compliance when the agency informed a commenter its comment "need not be considered[.]" 190 N.J. Super. 131, 133 (App. Div. 1983). In contrast, in Animal Prot. League of N.J. v. N.J. Dep't of Env't Prot., we found "[n]o dismissive rejection of appellants' comments occurred" where DEP's "responses were characterized by a thorough and careful analysis of each comment submitted." 423 N.J. Super. 549, 573 (App. Div. 2011). Here, DEP received and responded to 228 comments, and no responses are dismissive in the manner we have held constitutes noncompliance with the APA. See Exxon, 190 N.J. Super. at 133. Rather, we find DEP's responses to comments were "thorough" and provided "careful analysis of each comment submitted." Animal Prot. League, 423 N.J. Super. at 573.

In Animal Prot. League, we also found that "[d]isagreement with a reasoned, supported agency determination does not give rise to an APA violation." Id. at 574. Under the APA, comments received during the public comment period do not require DEP to adjust its position according to

commenters' preferences or views. Id. at 573. Rather, the APA requires only that an agency "give those affected by the proposed rule an opportunity to participate in the rule-making process . . . ." In re Comm'r's Failure to Adopt 861 CPT Codes, 358 N.J. Super. 135, 142-43 (App. Div. 2003) (emphasis added) (citations and internal quotations omitted). Otherwise, the agency "shall consider fully all written and oral submissions respecting the proposed rule[.]" N.J.S.A. 52:14B-4(a)(3); accord N.J.S.A. 52:14B-4(a)(4). Disagreement with the scientific bases underpinning an agency's responses to comments does not constitute non-compliance with the APA's mandates. United Hunters Ass'n of N.J., Inc. v. Adams, 36 N.J. 288, 292 (1962); Animal Prot. League, 423 N.J. Super. at 574.

Here, DEP substantially complied with the APA's requirement it fully consider all comments received and likewise made available to public viewing a summary of the comments received and its responses submitted in reply. N.J.S.A. 52:14B-4(a)(3), -4(a)(4). DEP's summary of comments received, and its responses thereto, span forty-two pages. 52 N.J.R. at 1167-1209. DEP dismissed none, Exxon, 190 N.J. Super. at 133, indicated it fully considered comments received, N.J.S.A. 52:14B-4(a)(3), and otherwise provided thorough, well-reasoned responses to each, Animal Prot. League, 423 N.J. Super. at 573.

Appellants' argument DEP gave cursory or dismissive replies to comments received is belied by DEP's actual responses contained and summarized in its notice adopting the rule amendments. 52 N.J.R. at 1167-1209.

Appellants also argue DEP improperly side-stepped its obligation to respond to comments seeking precise estimates for certain costs that will be incurred as a result of the rule amendments by stating the costs could not be determined because they were site-specific. We disagree.

An agency violates the APA by affirmatively dismissing a comment, but that is not what occurred here. Exxon, 190 N.J. Super. at 134; Animal Prot. League, 423 N.J. Super. at 573. Where commenters' questions sought information concerning certain costs that were site-specific, DEP simply indicated that it could not calculate with precision the costs specifically for that reason. An agency does not violate the APA by explaining that anticipated costs cannot be precisely assessed and calculated because they are dependent on numerous, varied, and unique site-specific circumstances. See Adoption of N.J.A.C. 5:96 and 5:97, 416 N.J. Super. at 507.

In sum, we find no evidence supporting appellants' claim DEP failed to fully consider and respond to public comments. See 52 N.J.R. at 1167-1209. We reject appellants' contentions to the contrary.

III.

Appellants also challenge DEP's adoption of the rule amendments on substantive grounds. As we explain, appellants argue that, for various reasons, DEP's adoption of the amendments was arbitrary, capricious, or unreasonable. Prior to addressing their particular assertions, we review the principles governing our review of their arguments.

As we have explained, an "agency's factual findings enjoy a presumption of correctness as long as they are supported by 'sufficient credible evidence in the record as a whole.'" In re Adoption of Amends. & New Reguls. at N.J.A.C. 7:27-27.1, 392 N.J. Super. 117, 136 (App. Div. 2007) (quoting Bd. of Educ. of Englewood Cliffs v. Bd. of Educ. of Englewood, 257 N.J. Super. 413, 456-57 (App. Div. 1992)); see also S.L.W., 238 N.J. at 394. "In determining whether an agency's exercise of rulemaking was arbitrary or unreasonable," we assess "whether there is substantial evidence in the record to support the findings upon which the agency based" its decision to adopt the rule amendments at issue in this case. N.J.A.C. 7:27-27.1, 392 N.J. Super. at 135. The agency must have a "'scientific justification' for its choice, as opposed to relying on 'no more than a regulatory guess.'" Id. at 136 (quoting Coastal Permit Program Rules, 354 N.J. Super. at 348-49).

The party challenging the regulations bears the heavy burden of also overcoming the presumption of reasonableness that inheres in agency regulations and proving the regulation should be set aside. In re Amend. of N.J.A.C. 8:31B-3.31 and N.J.A.C. 8:31B-3.51, 119 N.J. 531, 543-44 (1990). "A successful challenge to the regulations implementing the agency's chosen course . . . require[s] more than just a showing 'that compliance with the regulations may be expensive.'" N.J.A.C. 7:27-27.1, 392 N.J. Super. at 136 (quoting In re Adoption of Amends. to N.J.A.C. 7:27-16, 244 N.J. Super. 334, 344-45 (App. Div. 1990)).

In making a determination of whether an agency regulation is arbitrary, capricious, or unreasonable, a reviewing court must consider:

> (1) whether the agency's action violates the enabling act's express or implied legislative policies; (2) whether there is substantial evidence in the record to support the findings on which the agency based its action; and (3) whether in applying the legislative policies to the facts the agency clearly erred by reaching a conclusion that could not reasonably have been made upon a showing of the relevant factors.
>
> [S.L.W., 238 N.J. at 394 (quoting N.J. Ass'n of Sch. Adm'rs, 211 N.J. at 548).]

In other words, "a regulation can . . . be set aside [only] if it is proved to be arbitrary or capricious, plainly transgresses the statute it purports to effectuate,

or alters the terms of the statute and frustrates the policy embodied in it." In re Adopted Amends. to N.J.S.A. 7:7A-2.4, 365 N.J. Super. at 265.

As we have noted, reviewing courts give deference to "an agency's interpretation and application of its own regulations, particularly on technical matters within the agency's special expertise." Pinelands Pres. All. v. State, Dep't of Env't Prot., 436 N.J. Super. 510, 524 (App. Div. 2014). "An appellate court applies these standards in order to avoid substituting its own judgment for the agency's exercise of expertise."[10] N.J.A.C. 7:27-27.1, 392 N.J. Super. at 135. In addition, the Court has observed mere disagreement with an agency's conclusions does not support a determination the agency action was arbitrary, capricious, or unreasonable. United Hunters Ass'n, 36 N.J. at 292. We apply these standards here.

A.

Appellants argue there are no approved methods for quantifying the levels of PFOA and PFOS in wastewater and therefore any testing for either under the

[10] We have previously deferred to DEP's expertise in its adoption of regulations concerning water quality control and public health. See Adoption of N.J.A.C. 7:26E-1.13, 377 N.J. Super. at 101-02 (upholding DEP's regulations on ground water remediation standards); see also In re NJPDES Permit No. NJ 0055247, 216 N.J. Super. 1, 11 (App. Div. 1987) (upholding DEP's decision to use a particular data set in calculating a fee because doing so is "peculiarly a matter for administrative competence").

rule amendments will unreasonably vary according to the laboratory used. Appellants contend that, as such, the regulated community cannot readily assess compliance with the MCLs for PFOA and PFOS, and DEP's choice of testing method constitutes arbitrary and capricious agency action.

DEP contends it is permitted to prescribe more than one approved testing method for contaminants in the absence of national standards. It further asserts that because the EPA has not approved testing methods or standards for PFOA or PFOS, DEP must ensure that its laboratories meet data quality requirements "with regard to accuracy, precision, completeness, comparability, and representativeness." N.J.A.C. 7:18-1.3(b). DEP argues it did just that in this case, and we agree.

DEP's Office of Quality Assurance (OQA) is responsible for overseeing alternative testing procedures (ATP) utilized for the testing of contaminants when the EPA has not issued official testing guidelines, such as for PFOA and PFOS. N.J.A.C. 7:18-1.1; N.J.A.C. 7:18-2.20. To be approved, an ATP must achieve "precision, accuracy, and method detection limits or quantitation limits as appropriate, that are sufficient to meet the data quality requirements of the regulatory program for which the ATP is to be used[.]" N.J.A.C. 7:18-2.20(a)(2).

Here, the OQA's approval of ATPs for PFOA and PFOS in the absence of established federal law or regulations establishing a testing standard is in accord with State regulations. N.J.A.C. 7:18-1.1; N.J.A.C. 7:18-2.20. Contrary to appellants' contentions, the fact that multiple testing procedures are approved by OQA does not render DEP's reliance on the test results as establishing the benchmark by which PFOA and PFOS will be measured arbitrary, capricious, or unreasonable. To gain approval, an ATP method must be shown to "achieve precision, accuracy, and method detection limits or quantitation limits as appropriate, that are sufficient to meet the data quality requirements of the regulatory program for which the ATP is to be used[,]" to the satisfaction of the OQA. N.J.A.C. 7:18-2.20(a)(2).

We find nothing arbitrary, capricious, or unreasonable about the DEP's reliance on the OQA to approve various ATPs for PFOA and PFOS in wastewater that satisfy the regulatory requirements for approval of such testing methods. See S.L.W., 238 N.J. at 394. Appellants have not sustained their burden of demonstrating otherwise. See In re Amend. of N.J.A.C. 8:31B-3.31 and N.J.A.C. 8:31B-3.51, 119 N.J. at 540.

B.

Appellants also contend DEP's use of an RSC of 20% in its calculation of

the PFOA and PFOS MCLs is arbitrary and capricious because it is lacks "scientific support." DEP used the RSC value in developing the MCLs to estimate the fraction of total exposure to a substance or chemical allocated to drinking water for the general population. 52 N.J.R. at 1176-77. Appellants charge DEP's RSC value of 20% is arbitrary because DEP stated in its notice adopting the rule amendments DWQI had insufficient data available to develop a chemical-specific RSC factor for PFOS. 52 N.J.R. at 1176.

Appellants also argue DEP failed to adequately address or respond to commenters who cited to studies in other states establishing an RSC of 50% for PFOA and PFOS. In addition, appellants assert the allegedly faulty RSC values and the concomitantly erroneous MCLs that result adversely affect the groundwater remediation standards under the Brownfield Act, and are inconsistent with the Brownfield Act's requirement that applicable regulations must be based on standards that incorporate "generally accepted and peer reviewed scientific evidence or methodologies," N.J.S.A. 58:10B-12(b)(1), are "reasonable assumptions of exposure scenarios as to amounts of contaminants to which humans or other receptors will be exposed," N.J.S.A. 58:10B-12(b)(2), and "avoid the use of redundant and conservative assumptions[,]" N.J.S.A. 58:10B-12(b)(3).

DEP explained its use of the 20% RSC value. DEP found that where sufficient data does not exist, as DWQI identified for PFOA and PFOS, the EPA guidelines recommend a default RSC value of 20%. 52 N.J.R. at 1176. Thus, DEP relied on the EPA's scientific guidance in its determination of the RSC value. As we have noted, appellants elsewhere complain DEP did not follow EPA guidance on issues related to the determination of the MCLs. Thus, appellants cannot logically contend DEP's acceptance of EPA guidance on the RSC value is arbitrary, capricious, unreasonable, or is not well grounded in accepted science.

Additionally, DEP also based its adoption of the RSC value on the need "to at least partially account for the higher PFOA and PFOS exposures in infants," whose "exposures are higher than in older individuals." 52 N.J.R. at 1176-77. DEP also explained it adopted the RSC value because "exposures to infants, both breastfed and consuming formula prepared with contaminated drinking water, are several-fold higher than in older individuals." Ibid. DEP considered exposure in determining what appellants characterize as a conservative RSC value "because toxicological effects of concern occur from short-term exposures relevant to elevated exposures in infancy, including when exposure occurs only through lactation." Ibid.

DEP also found the RSC value accounted for the fact New Jersey residents were exposed to "heavy contamination from non-drinking water sources result[ing] in widespread contamination from contaminated soils, house dust[,] and other environmental media."

Appellants also contend DEP's responses to public comments regarding its choice to adopt an RSC value of 20% was "brief, unsupported, and speculative . . . ." Again, the record shows otherwise. DEP provided a specific and detailed response to the comments related to the RSC value. 52 N.J.R. at 1176-77.

In sum, we find the bases employed by DEP in adopting an RSC value of 20% is "peculiarly a matter for [its] administrative competence." NJPDES Permit No. NJ 0055247, 216 N.J. Super. at 11. DEP's determination of the RSC value, and its reliance of guidance from the EPA as recommended by DWQI, requires our deference because it turned on an analysis of complex technical matters. In re Adoption of N.J.A.C. 7:26E-1.13, 377 N.J. Super. at 101.

We consider appellants' contention DEP should have adopted an RSC value of 50% as employed by Minnesota and New Hampshire as a mere disagreement with the scientific bases underlying DEP's adoption of DWQI's recommendation. Cf. United Hunters Ass'n, 36 N.J. at 292. It is not our role to

independently assess the substantial credible evidence in the record on which DWQI and DEP based their determination of the RSC value incorporated into its calculation of the MCLs. State v. Locurto, 157 N.J. 463, 471 (1999).

We defer to DEP's expertise in determining the RSC value as part of its statutory charge to "safeguard the health and welfare of the people of the State[.]" N.J.S.A. 58:12A-2. Here, we are required to assess new MCL standards "that concern[] highly specialized and technical matters that have been submitted in broad terms to the expertise of the enforcing agency." In re Adoption of N.J.A.C. 7:26E-1.13, 377 N.J. Super. at 101. Under such circumstances, even where appellants may present arguments that may be "plausible, plausibility is not enough to carry the day." Ibid. Appellants have not carried their burden of establishing the rule amendments are arbitrary, capricious, or unreasonable. See In re Amend. of N.J.A.C. 8:31B-3.31 and N.J.A.C. 8:31B-3.51, 119 N.J. at 540.

C.

We are also unpersuaded by appellants' contention DEP's adoption of the MCLs for PFOA and PFOS based on DWQI's recommendations is arbitrary and capricious because DEP knew DWQI's recommendation was based on a 2009 mathematical error in its calculations. According to appellants, the MCL for

PFOS would have been five times higher — sixty-four parts-per-trillion as opposed to the thirteen parts-per-trillion MCL for PFOS adopted by DEP — without the mathematical error.

We first observe the 2009 computer error to which appellants refer is unrelated to DWQI's recommendation of the MCL for PFOA. It therefore provides no basis to challenge DEP's adoption of the MCL for PFOA.

Appellants' reliance on the mathematical error therefore pertains solely to their challenge to DEP's adoption of the MCL for PFOS. As we previously explained, there was a computer error in a 2009 calculation of the MCL for PFOS because, as Post explained, the software incorrectly required entry of a "standard error" instead of a "standard deviation." However, as Post also explained, the software utilized in 2009 was otherwise faulty in that, even if the correct data had been entered, the software would not have generated the appropriate BMDL for the MCL for PFOS.

Nonetheless, Post explained the calculation of the MCL for PFOS would have been the same, regardless of the data entry error, because the correct approach under the circumstances was to use NOAEL, and that is what was done. Post further noted the data entry error pertained only to the calculation of an MCL based on non-carcinogenic effects of PFOS, but there was no error with

the data used to calculate the BMDL using data based on carcinogenic effects of PFOS. In any event, Post stated use of the NOAEL approach pursuant to the EPA guidance was a reasonable alternative to using BMD to calculate the BMDL for the non-carcinogenic effects of PFOS. Thus, the MCL for PFOS was not based on any data resulting from the error.

Post's statements provide substantial credible evidence supporting DWQI's recommendation of the MCL for PFOS and DEP's subsequent adoption of it. We therefore defer to DEP's determination and reject appellants' claims the mathematical error, which played no role in DWQI's determination of the MCL under the NOAEL approach, resulted in an arbitrary, capricious, or unreasonable adoption of the MCL for PFOS by DEP. See In re Amend. of N.J.A.C. 8:31B-3.31 and N.J.A.C. 8:31B-3.51, 119 N.J. at 540.

To the extent we have not specifically addressed any of the arguments presented by appellants, we find they are without sufficient merit to warrant discussion in a written opinion. R. 2:11-3(e)(1)(E).

Affirmed.