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# MAXIMUM CONTAMINANT LEVELS AND ENVIRONMENTAL INJURIES

James R. Wedeking\*

#### I. INTRODUCTION

Identifying injuries in a tort action is usually straightforward: a wrecked automobile; a broken leg; the loss of an investment. In toxic tort cases, injuries can be less obvious, and establishing their existence often requires expert testimony. These injuries may involve devalued real estate or serious illnesses with multiple potential causes. The associated questions of proof can be complex, but at least the *concept* of injury in these cases is simple: the plaintiff's property is worthless (or worth less) or the plaintiff is sick. Even the hybrid tort/remedy of medical monitoring involves an injury that is, theoretically, easy to define: an exposure to harmful compounds so significant as to warrant medical evaluations to detect any future illnesses caused by exposure to contaminants.<sup>2</sup>

However, there is a difference in some situations involving potentially contaminated drinking water. In these cases, all of the parties can agree on the same key facts—what contaminants are in the water and at what concentrations—but still dispute whether the plaintiff is, or ever could be, injured. This dilemma turns on what level of contamination constitutes proof of an injury. The question leads easily to a potential extreme: the proposition that a single molecule of contamination floating through an

<sup>\*</sup> Sidley Austin, LLP; J.D., The Catholic University of America, Columbus School of Law. The author represented one of the many defendants in the *In re* MTBE Products Liability Litigation multi-district litigation, but that client settled before trial. Subsequently, a jury reached a verdict in favor of the City of New York and against the only remaining defendant, ExxonMobil Corporation. City of New York v. ExxonMobil Corp., 04-cv-3417 (S.D.N.Y.). This case is currently on appeal before the U.S. Court of Appeals for the Second Circuit, 10-4329-cv, where the author represented two trade associations as amici curiae in support of ExxonMobil Corporation, although not regarding issues discussed in this article. The author would like to thank David T. Buente, Jr. and Karen K. Mongoven of Sidley Austin, LLP for their thoughts and contributions to this article.

<sup>1.</sup> Albert Lin, *Beyond Tort: Compensating Victims of Environmental Toxic Injury*, 78 S. CAL. L. REV. 1439 (2004) (discussing difficulties in proof of causation due to latency).

<sup>2.</sup> See In re Paoli R.R. Yard PCB Litig., 916 F.2d 829, 851 (3d Cir. 1990).

aquifer constitutes an injury to the plaintiff. This "single molecule" theory would be a simple, bright-line rule, but it collapses in the real world where no such thing as "pristine" water exists. Relatively recent laboratory advances reveal that public drinking water typically contains large numbers of contaminants in trace amounts.<sup>3</sup> All drinking water, from city tap water to San Pellegrino, is "contaminated" to some degree.<sup>4</sup> However, the mere existence of contaminants does not mean that potential plaintiffs, such as those who own the contaminated water source or those drinking the water, have been injured. The age-old tenet of toxicology is that "the dose makes the poison." This means that all substances are toxic when the dose is high enough.<sup>6</sup> Conversely, one can ingest a supposedly "toxic" substance at levels below which it will cause either acute or long-term effects—rebuking a "single molecule" approach to injury.

Determining the threshold level at which a substance must be present in drinking water before someone could suffer from either acute or long-term adverse effects is the purpose of a maximum contaminant level ("MCL"). MCLs are enforceable regulations establishing "the maximum permissible level of a contaminant in water which is delivered to any user of a public water system." State agencies and the Environmental Protection Agency

<sup>3.</sup> Pharmaceuticals in the Nation's Water: Assessing Potential Risks and Actions to Address the Issue: Hearing Before the Senate Subcomm. on Transp. Safety, Infrastructure Sec., and Water Quality, 110th Cong. (2008) (statement of Dr. Shane Snyder), http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\_id=f6376de2 -be60-4bcf-89b3-80a51ae1750e ("The fact that more pharmaceuticals are detected today is not due to greater contamination of our nation's water, but a reflection of the increasingly sensitive analytical technology that allows us to identify and quantify diminishingly minute concentrations of these chemicals in water.") [hereinafter Pharmaceuticals in the Nation's Water].

<sup>4.</sup> See, e.g., William Shotyk & Michael Krachler, Lead in Bottled Waters: Contamination from Glass and Comparison with Pristine Groundwater, 41 ENV'T SCI. TECH. 103508-13 (2007) (finding that lead levels in glass-bottled water was higher than lead levels in "pristine groundwater" but all detections were below maximum contaminant levels).

<sup>5.</sup> MELVIN D. JOESTEN ET AL., THE WORLD OF CHEMISTRY: ESSENTIALS 438 (Brooks/Cole eds., 4th ed. 2007).

<sup>6.</sup> MICHAEL A. KAMRIN, TOXICOLOGY: A PRIMER ON TOXICOLOGY PRINCIPLES AND APPLICATIONS 4 (Informa Healthcare 1988).

<sup>7. 40</sup> C.F.R. § 141.2 (2011).

("EPA" or "Agency") have established MCLs for a slew of different contaminants, from microorganisms to radionuclides, that are often found in drinking water. EPA sets an MCL under the Safe Water Drinking Act<sup>8</sup> by considering the highest level at which a contaminant shows no adverse effect in people and then considers modifying that level upward based on considerations such as the inability to detect the contaminant at very low concentrations, the availability of treatment technologies, or the potential for expensive treatment costs to outweigh marginal health benefits.<sup>9</sup>

Although MCLs are not perfect "no harm" indicators, using an MCL is the most practical method available to determine whether drinking water is contaminated to the point of establishing an injury. To paraphrase Winston Churchill, using MCLs to establish the presence or absence of an injury is the worst form of analysis except all the others that have been tried. Settling the question of how much contamination is required to constitute an injury with clear and easily applicable proof will become increasingly important as detection technology continues to improve and concern grows regarding minute amounts of pharmaceuticals and personal care products in drinking water. It

While the hypothetical "single molecule" approach discussed above has not yet been pursued seriously, a high-profile and potentially influential court opinion has come very close. In consolidated multi-district litigation actions, water districts from around the nation sued dozens of petroleum companies alleging that methyl tertiary butyl ether ("MTBE") contamination, often at barely detectable levels, required extensive (and expensive) investigation and remediation.<sup>12</sup> The Defendants moved for summary judgment on all claims by three New York State water providers relating to contamination below the established MCLs for MTBE as failing

<sup>8.</sup> Safe Water Drinking Act, 42 U.S.C. §§ 300f-300j-26 (2006).

<sup>9.</sup> See infra Part II.

<sup>10. 444</sup> PARL. DEB., H.C. (5th ser.) (1947) 207 (U.K.), available at http://hansard.millbanksystems.com/commons/1947/nov/11/parliament-bill.

<sup>11.</sup> See generally Pharmaceuticals in the Nation's Water, supra note 3; see also EPA, PHARMACEUTICALS AND PERSONAL CARE PRODUCTS, http://www.epa.gov/ppcp/faq.html (last visited Sept. 2, 2011).

<sup>12.</sup> See generally In re MTBE Prods. Liab. Litig., 175 F. Supp. 2d 593 (S.D.N.Y. 2001).

to establish standing due to lack of a cognizable injury. <sup>13</sup> The court denied the motion, holding that "[w]hile it may eventually be determined that some levels of contamination below the applicable MCLs do not injure plaintiffs' protected interests," the matter should be resolved by a jury. <sup>14</sup> This holding eschewed the MCLs as a clear and sensible threshold for potential injury and effectively discarded scientifically derived standards in favor of a case-bycase, expert witness-driven process that places a jury in the role of toxicologist.

This article endorses the use of MCLs as a bright-line rule to establish the existence or absence of an injury. Part II describes the process through which EPA and state agencies establish MCLs for drinking water contaminants. Part III describes the arguments presented to the MTBE court and the court's troubling holding on the injury prong of standing. Finally, Part IV discusses the implications of the MTBE opinion, such as providing potential plaintiffs with the ability to establish standing based on their own subjective beliefs and the mistaken view that MCLs govern standards of conduct instead of injury. Part IV also explains why the use of MCLs as a bright-line rule for determining potential injury is preferable to the MTBE court's holding that only a jury can determine whether low levels of a contaminant will harm a plaintiff.

#### II. MAXIMUM CONTAMINANT LEVELS

The Safe Drinking Water Act ("SDWA") requires the EPA Administrator to promulgate national primary drinking water regulations for public water systems. EPA issues these regulations, known as maximum contaminant levels, or MCLs, for contaminants that are known to be present in drinking water, believed to have an adverse effect on human health, and for which there is a "meaningful opportunity for health risk reduction." States may also set their own MCLs so long as they are at least as stringent as any existing federal MCLs. An MCL establishes the "maximum permissible"

<sup>13.</sup> *In re* MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 151 (S.D.N.Y. 2006) (appeal pending before the U.S. Court of Appeals for the Second Circuit).

<sup>14.</sup> Id. at 158.

<sup>15. 42</sup> U.S.C. § 300g-1(b)(1)(A) (2006).

<sup>16. 40</sup> C.F.R. § 141.2 (2012).

<sup>17. 42</sup> U.S.C. § 300g-1(b)(1)(A).

<sup>18.</sup> *Id.* § 300g-2(a)(1).

level of a contaminant in water which is delivered to any user of a public water system." <sup>19</sup> In other words, MCLs are "safe levels that are protective of public health." <sup>20</sup>

MCLs, whether they are established by EPA or a state agency, must be based on "the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices" derived from "data collected by accepted methods or best available methods."21 In setting an MCL, EPA begins with a maximum level contaminant goal ("MCLG").<sup>22</sup> This is the "maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety."<sup>23</sup> In setting MCLGs, EPA relies on reference doses and cancer classifications for each contaminant under review, including consideration of sensitive groups, such as children.<sup>24</sup> EPA derives a reference dose from the no-observed-adverse-effect level ("NOAEL") or lowest-observed-adverse-effect level ("LOAEL") established by animal and human studies.<sup>25</sup> The reference dose includes an uncertainty factor of 10, 100, or 1,000 depending on the amount of data available from human and animal studies.26 Where EPA has to use a LOAEL (instead of a NOAELmeaning the complete absence of observable health effects), the Agency

<sup>19. 40</sup> C.F.R. § 141.2.

<sup>20.</sup> National Primary Drinking Water Regulations—Synthetic Organic Chemicals; Monitoring for Unregulated Contaminants; Final Rule, 52 Fed. Reg. 25,690, 25,694 (July 8, 1987); *see also* National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, 55 Fed. Reg. 8666, 8750 (Mar. 8, 1990) (codified at 40 C.F.R. pt. 300) ("MCLs represent the level of water quality that EPA believes is acceptable for over 200 million Americans to consume every day from public drinking water supplies.").

<sup>21. 42</sup> U.S.C. § 300g-1(b)(3)(A).

<sup>22. 42</sup> U.S.C. § 300g-1(b)(1)(A).

<sup>23. 40</sup> C.F.R. § 141.2. MCLGs are a starting point in the MCL process; they are not enforceable standards on their own. *Id.* 

<sup>24.</sup> National Primary Drinking Water Regulations, 56 Fed. Reg. 3526, 3531-32 (Jan. 30, 1991) (codified at 40 C.F.R. pts. 141-43).

<sup>25.</sup> Id. at 3,532.

<sup>26.</sup> Id.

incorporates an additional safety factor ranging from 1 to  $10.^{27}$  A drinking water equivalent level results from a calculation considering uncertainty factors, including an assumed adult's body weight and daily water consumption. <sup>28</sup>

Carcinogenicity is assessed on a separate track, by evaluating the weight of evidence that a particular contaminant causes cancer in humans based on epidemiological and animal studies.<sup>29</sup> EPA draws on pre-existing research from a variety of entities both within and outside of the Agency, such as the National Toxicology Program, the EPA Science Advisory Board, the National Research Council, the World Health Organization, and the Agency for Toxic Substances and Disease Registry.<sup>30</sup> Based on these studies, individual contaminants are segregated into one of six groups, such as "[p]robable human carcinogen" or "[p]ossible human carcinogen." After considering any other information on carcinogenicity, EPA then classifies the contaminant as a Category I cancer risk (strong evidence of carcinogenicity), Category II (limited evidence of carcinogenicity), or Category III (inadequate or no animal evidence of carcinogenicity).<sup>32</sup> Category I carcinogens are automatically assigned an MCLG of zero.<sup>33</sup> EPA defended this policy by citing legislative history providing the EPA Administrator with the discretion to impose a zero MCL "if any adverse health effects can reasonably be anticipated, even though not proved to Category II carcinogen MCLGs are calculated through the reference dose process with yet another safety margin of up to 10 or a cancer

<sup>27.</sup> Id.

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

<sup>29.</sup> Id.

<sup>30.</sup> National Primary Drinking Water Regulations, 56 Fed. Reg. 3526, 3536 (Jan. 30, 1991) (codified at 40 C.F.R. pts. 141-43).

<sup>31.</sup> Id. at 3532.

<sup>32.</sup> Id.

<sup>33.</sup> *Id.* 

<sup>34.</sup> *Id.* at 3533 (citing H.R. REP. No. 1185); *see also* Natural Res. Def. Council, Inc. v. EPA, 824 F.2d 1211, 1213 (D.C. Cir. 1987) (upholding EPA's zero MCLG policy for carcinogens in drinking water).

risk range of 10<sup>-5</sup> to 10<sup>-6</sup> (a 1 in 100,000 to 1 in one million cancer risk).<sup>35</sup> Category III carcinogens go through the reference dose process without an added margin of safety.<sup>36</sup>

Of course, MCLGs are "aspirational, health-based goal[s]" and, standing alone, their enforcement is impractical because an MCLG of zero is "undetectable and unachievable." The enforceable standards—MCLs—are set "as close to the MCLG as is feasible." The term "feasible" is key to the The SDWA defines this as considering "the use of the best technology, treatment techniques and other means which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration)."40 EPA interpreted this requirement as allowing it to "project operating conditions for a specific contaminant using a field tested technology from laboratory or pilot systems data,"41 potentially expanding the universe of treatment technologies to include those that have never actually been used in practice. Under the SDWA's definition of feasibility, with EPA's liberal interpretation, the MCL may be higher than its corresponding MCLG only when no treatment technology exists to reduce a contaminant down to the MCLG, existing treatment techniques are exorbitantly expensive, or if field monitoring and analysis methods cannot detect contaminants at levels as low as the MCLG.

In evaluating treatment technologies, EPA performs an engineering assessment to find the control technologies with the highest removal rates that are compatible with other water treatment processes.<sup>42</sup> Based on the

<sup>35.</sup> National Primary Drinking Water Regulations, 56 Fed. Reg. at 3532-33.

<sup>36.</sup> Id. at 3532.

<sup>37.</sup> DANIEL STIENWAY ET. AL., ENVIRONMENTAL LAW HANDBOOK 477 (21st ed. 2011).

<sup>38.</sup> National Primary Drinking Water Regulations, 56 Fed. Reg. at 3534. Note also that MCLGs are not to be used as remedial cleanup goals under CERCLA due to the impracticality of attaining these levels. *Id. See also* National Oil and Hazardous Substances Pollution Contingency Plan, 55 Fed. Reg. 8666, 8750 (Mar. 8, 1990).

<sup>39. 42</sup> U.S.C. § 300g-1(b)(4)(B) (2006).

<sup>40. 42</sup> U.S.C. § 300g-1(b)(4)(D).

<sup>41.</sup> National Primary Drinking Water Regulations, 56 Fed. Reg. at 3547.

<sup>42.</sup> Id.

selected technologies' removal rates, "EPA calculates the level of each contaminant that is achievable by their application to large systems with relatively clean raw water sources.",43 With the technology and the removal rate in hand, EPA evaluates the "total national compliance costs for each contaminant considering the number of systems that will have to install treatment in order to comply with the MCL."44 Of course, if the MCL is very low, the number of water providers that will have to install treatment technology will increase, driving the costs higher and potentially requiring EPA to resort to a higher MCL in the name of feasibility.<sup>45</sup> To date, EPA has only increased the MCL due to prohibitive costs for three contaminants.46 EPA's feasibility analysis also considers practical quantitation levels, which determine whether laboratories can detect the contaminants at the MCL.<sup>47</sup> If EPA sets an MCL below non-detectable levels, there is no way to enforce compliance. This is why EPA cannot practically make any MCL equivalent to zero—"a number which by definition can be neither measured nor attained." Lastly, EPA re-evaluates the MCL to ensure that it adequately protects public health, especially with respect to carcinogens.<sup>49</sup> MCLs may not present more than a 10<sup>-4</sup> to 10<sup>-6</sup> excess individual cancer risk during a lifetime exposure to the contaminant.50

- 43. Id.
- 44. Id.
- 45. Id.

- 47. National Primary Drinking Water Regulations, 56 Fed. Reg. at 3547.
- 48. Id.
- 49. Id.
- 50. Id.

<sup>46.</sup> See National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule, 71 Fed. Reg. 388, 445 (Jan. 4, 2006) (codified at 40 C.F.R. pts. 9, 141, and 142) (rejecting lower MCLs for total trihalomethanes and haloacetic acid due to cost); National Primary Drinking Water Regulations; Radionuclides; Final Rule, 65 Fed. Reg. 76,708, 76,714 (Dec. 7, 2000) (codified at 40 C.F.R. pts. 9, 141, and 142) (raising MCL for radionuclides from the proposed 20  $\mu$ g/L to 30  $\mu$ g/L after a costs-benefit analysis).

MCLs are legally enforceable standards and whenever a water provider fails to comply with them, either the state agency or EPA may file an enforcement action.<sup>51</sup> Violations can result in civil penalties of up to \$37,500 per day and a court may issue whatever injunctive relief is necessary to protect public health.<sup>52</sup> Public water providers must also inform their customers whenever they fail to meet an MCL.<sup>53</sup> Where MCL violations raise the "potential to have [a] serious adverse effect[] on human health," these notices must be distributed to the public no more than 24 hours after the violation, providing a clear explanation of the potential health effects, how the water system will correct the problem, and a direction to find alternative water supplies.<sup>54</sup>

Although EPA established MCLs for 81 drinking water contaminants,<sup>55</sup> MTBE is not among them. Several states, including New York, filled this void by establishing their own MTBE MCLs. New York's MTBE MCL of 10 parts per billion ("ppb"),<sup>56</sup> the subject of the *MTBE* opinion, is the lowest in the country.<sup>57</sup> New York law does not specify standards for how its Department of Health ("NYDOH") establishes MCLs. However, the 2003 NYDOH proposed rulemaking to reduce the MTBE MCL from 50 ppb to 10 ppb showed that the State considered many of the same health factors as EPA does in its own MCL process.<sup>58</sup> In the proposed rulemaking's

<sup>51. 42</sup> U.S.C. § 300g-3(a)(1)(B) (2006).

<sup>52. 42</sup> U.S.C. § 300g-3(b); see also 40 C.F.R. § 19.4 (Table 1) (adjusting daily maximum civil penalties for violations of 42 U.S.C. § 300g-3(b) from \$25,000 per day to \$37,500 per day).

<sup>53. 42</sup> U.S.C. § 300g-3(c)(1)(A)(i) (2006).

<sup>54. 42</sup> U.S.C. § 300g-3(c)(2)(C) (2006).

<sup>55.</sup> See 40 C.F.R. § 141.61 (MCLs for organic contaminants); § 141.62 (MCLs for inorganic contaminants); § 141.63 (MCLs for microbiological contaminants); § 141.64 (MCLs for disinfection byproducts); §141.65 (MCLs for radionuclides).

<sup>56.</sup> N.Y. COMP. CODES R. & REGS. tit. 10, § 5-1.52, Table 3 (2012).

<sup>57.</sup> See EPA OFFICE OF GROUNDWATER AND DRINKING WATER, REGULATORY DETERMINATIONS SUPPORT DOCUMENT FOR CCL2 13-60 (2008), http://www.epa.gov/ogwdw/ccl/pdfs/reg\_determine2/report\_ccl2-reg2\_supportdocument\_ch14\_mtbe.pdf (note that table includes older New York MCL of 50 ppb, which was reduced to 10 ppb on December 24, 2003).

<sup>58. 36</sup> N.Y. REG., Rule Making Activities 12 (Sept. 10, 2003).

explanation of "Needs and Benefits," NYDOH stated that there was "sufficient toxicological data to raise concern over the potential human health risks of MTBE in drinking water," citing studies on both human and animal subjects. <sup>59</sup> NYDOH reviewed the new standard's cost and concluded that lowering the MTBE MCL to 10 ppb would not have "cost impacts on any regulated parties." <sup>60</sup>

Determining any level of chemical exposure deemed to be generally "safe" involves several unknowns, and there is always room for disagreement. However, the approach taken by state and federal regulators in establishing MCLs is generally cautious and conservative. Although there is always the chance that scientists may learn that a chemical is more harmful than previously believed, safety factors are employed at multiple stages to compensate for this possibility. Through these safety factors, MCLs can be set to as much as 10,000 times below the lowest observed adverse effect level. On the other side of the equation, off-setting these safety factors due to economic concerns is a rarity. In general, MCLs are credible, scientifically-based determinations of how much a person can be exposed to a chemical in drinking water without suffering harm.

#### III. THE MTBE OPINION

Beginning in the early 2000s, a group of plaintiffs' law firms organized over one hundred public water districts, private water providers, and municipalities around the nation to file suits against dozens of oil companies.<sup>64</sup> The chief allegation was that the oil companies introduced

<sup>59.</sup> Id. at 13.

<sup>60.</sup> Id.

<sup>61.</sup> For example, there are often questions of how well animal studies can be extrapolated to predict a chemical's impact on humans. See, e.g., Niall Shanks et al., Are Animal Models Predictive for Humans?, 4 PHIL. ETHICS & HUMAN. MED. 1747 (2009); see generally Lawrence H. Lash et al., Metabolism of Trichloroethylene, 108 ENVIL. HEALTH PERSP. supp. 2, 177 (2000).

<sup>62.</sup> See National Primary Drinking Water Regulations, 56 Fed. Reg. 3526, 3531-32 (Jan. 30, 1991) (codified at 40 C.F.R. pts. 141-43).

<sup>63.</sup> See National Primary Drinking Water Regulations; Radionuclides; Final Rule, 65 Fed. Reg. 76,708, 76,714 (Dec. 7, 2000).

<sup>64.</sup> The term "oil companies" is loosely defined to include the traditional verticallyintegrated oil companies, such as ExxonMobil and Chevron, to small regional refiners

MTBE into gasoline in the late 1970s to boost octane. 65 The Clean Air Act Amendments of 1990 included the reformulated gasoline ("RFG") program, requiring gasoline to contain at least 2% oxygen by weight in order to reduce ground level ozone in heavily polluted areas.66 The RFG program also required gasoline to contain at least 2.7% oxygenate during the winter for areas with unacceptably high carbon monoxide pollution.<sup>67</sup> Congress did not specify which oxygenates must be used, MTBE became the oxygenate of choice over the few potential alternatives, such as ethanol.<sup>68</sup> This led to a dramatic increase in the amount of MTBE blended into gasoline, where each gallon could contain up to 15% MTBE.<sup>69</sup> According to the Plaintiffs, however, the oil industry selected the wrong oxygenate to comply with federal mandates. 70 The Plaintiffs alleged that underground storage tanks at gas stations routinely leaked and released MTBE gasoline into groundwater. They alleged that, once in the environment, MTBE moves farther and faster through groundwater than gasoline and resists degradation.<sup>72</sup> Once in the water supply, the Plaintiffs' complaints alleged, MTBE causes cancer and imparts a foul taste and odor at

and some commodities traders. Generally, they were each alleged to play a role in the design, manufacture and distribution of MTBE gasoline. *In re* MTBE Prods. Liab. Litig., 379 F. Supp. 2d 348, 364 (S.D.N.Y. 2005).

- 65. Id. at 365.
- 66. *In re* MTBE Prods. Liab. Litig., 175 F. Supp. 2d 593, 600 (S.D.N.Y. 2001) (citing 42 U.S.C. § 7545(k) (2006)).
  - 67. *Id.* (citing 42 U.S.C. § 7545(m)).
- 68. *Id. See also* EPA, OXYGENATE TYPE ANALYSIS 1995 RFG SURVEY DATA, www.epa.gov/otaq/consumer/fuels/mtbe/oxy-type.pdf (showing dominant usage of MTBE over ethanol, ETBE and TAME).
  - 69. 175 F. Supp. 2d at 600.
- 70. *In re* MTBE Prods. Liab. Litig., 643 F. Supp. 2d 471, 474-75 (S.D.N.Y. 2009) (discussing testimony of plaintiffs' expert that defendants' could have used ethanol instead of MTBE).
  - 71. In re MTBE Prods. Liab. Litig., 379 F. Supp. 2d 348, 365 (S.D.N.Y. 2005).
  - 72. Id. at 364-365.

extremely low concentrations, <sup>73</sup> prompting claims of public nuisance, strict liability for design defect and/or defective product, failure to warn, negligence, private nuisance, trespass, and state statutory violations. <sup>74</sup>

Consolidated into a multi-district litigation docket, the assigned judge heard several arguments common to all of the cases and selected a handful of "focus cases" to proceed through discovery towards trial. In three of the focus cases, all involving New York water providers, the Defendants moved for summary judgment where evidence showed that the MTBE contamination alleged by the Plaintiffs was below the New York MCL.<sup>76</sup> They argued that because the Plaintiffs could still lawfully serve drinking water with MTBE concentrations below the 10 ppb MCL, they had no legally protected interest at stake and therefore lacked standing.<sup>77</sup> To aid in this argument, the Defendants adduced evidence that Plaintiffs routinely served water to their customers with a multitude of contaminants in trace amounts.<sup>78</sup> Plaintiffs publicly admitted to their customers that no drinking water, including bottled water, can be completely free of contaminants and that compliance with MCLs assured that the water was safe to drink.<sup>79</sup> To allow the Plaintiffs standing to recover for sub-MCL contamination, the Defendants argued, would be to determine that there is a legally protected

<sup>73.</sup> Id. at 365.

<sup>74.</sup> Id. at 424.

<sup>75.</sup> In re MTBE Prods. Liab. Litig., 510 F. Supp. 2d 299, 301 (S.D.N.Y. 2007).

<sup>76.</sup> In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 151-52 (S.D.N.Y. 2006).

<sup>77.</sup> Defendants' Memorandum of Law in Support of Their Motion for Summary Judgment on All Claims for Lack of Justiciability at 4-6, *In re* MTBE Prods. Liab. Litig., 379 F. Supp. 2d 348 (2006) (No. 00-cv-1898) [hereinafter Defs' MSJ] (on file with author).

<sup>78.</sup> *Id.* at 5-6; *see also* New York City Dep't of Envil. Prot., New York City 2010 Drinking Water Supply and Quality Report 10 (2010), www.nyc.gov/html/dep/pdf/wsstate10.pdf.

<sup>79.</sup> Defs' MSJ, supra note 77, at 2-4; see also New York City Dep't of Envil. Prot., supra note 78, at 10-11; Basic Information about Regulated Drinking Water Contaminants and Indicators, EPA, http://water.epa.gov/drink/contaminants/basicinformation (last visited Feb. 11, 2012) (stating that "[d]rinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants").

interest "in drinking water containing zero MTBE," the exact standard that Plaintiffs publicly declared to their customers could not be met. 80 As for Plaintiffs' claim that customers could taste or smell MTBE in drinking water even when concentrations were below the MCL, Defendants argued that Plaintiffs failed to produce any evidence that they had ever received such a complaint. 81

In response, the Plaintiffs denied that MCLs should play a role in the case, objecting that the court should not "replace traditional notions of standing and injury in tort cases with a state regulatory standard." They made an attack on MCLs a centerpiece in the defense of their claims, arguing that they were neither designed for, nor capable of, protecting public health. Deference to the MCL, they argued, would undermine the role of the judiciary and eliminate their right to "water that is free from environmental contamination." Additionally, the Plaintiffs argued that the MTBE MCL failed to consider aesthetic qualities, such as taste and odor. Instead of using the MCLs to determine the presence or absence of injury, the Plaintiffs contended that it was reasonable for them to make their own determination of injury based on general statutory requirements to investigate "deleterious changes in raw water quality" and to "exercise due care and diligence" in preventing water pollution. Plaintiffs argued that their standing should

<sup>80.</sup> Defs' MSJ, supra note 77, at 2.

<sup>81.</sup> Defendants' Reply Memorandum of Law in Support of Their Motion for Summary Judgment on All Claims for Lack of Justiciability at 2-3, *In re* MTBE Prods. Liab. Litig., 379 F. Supp. 2d 348 (2006) (No. 00-cv-1898) [hereinafter Defs' Reply] (on file with author).

<sup>82.</sup> Plaintiffs' Response to Defendants' Motion for Summary Judgment on All Claims for Lack of Justiciability at 1, *In re* MTBE Prods. Liab. Litig., 379 F. Supp. 2d 348 (2006) (No. 00-cv-1898) [hereinafter Pls' Resp.] (on file with author).

<sup>83.</sup> Id. at 8-12.

<sup>84.</sup> *Id.* at 11.

<sup>85.</sup> Id. at 2-3 (quotation omitted) (citing State v. Schenectady Chems., Inc., 459 N.Y.S.2d 971, 978 (1983)).

<sup>86.</sup> Id. at 12.

<sup>87.</sup> Id. at 17-18 (citing N.Y. COMP. CODES R. & REGS. tit. §§ 5-1.12, 71 (2012)).

turn exclusively on whether they decide to take some type of action in response to contamination, regardless of the MCL.<sup>88</sup>

The court sided with the Plaintiffs and denied the Defendants' motion for summary judgment.<sup>89</sup> Despite several other cases finding no injury for contamination below the MCL, the court relied on Plaintiffs' purported duty to "take action—be it testing, monitoring, or treating contaminated wells before that contamination reaches the applicable MCL."90 The court further found that MCLs govern the Plaintiffs' duties in supplying public water, not the Defendants' conduct in manufacturing or selling defective products, and characterized the Defendants' position as one of regulatory preemption of common law claims before rejecting that characterization. <sup>91</sup> In conclusion, the MTBE court found the MCL to be "a convenient guidepost in determining that a particular level of contamination has likely caused an injury" but that the question of injury, and thus standing, should be reserved for a jury. 92 The case did, in fact, proceed to trial. The jury determined that MTBE would, based on the Plaintiffs' groundwater modeling, reach New York City drinking water wells and that it should be remediated. It awarded approximately \$104 million in damages to the City. 93

## IV. PROBLEMS CREATED BY THE MTBE OPINION'S REJECTION OF MCLS AS A DETERMINANT OF INJURY

The MTBE court's consideration of whether and how MCLs are used to determine the existence of an injury is certainly the most in-depth of any opinion on the issue. Despite the court's extensive treatment of the subject, its decision to use MCLs as "convenient guidepost[s]," instead of defining an injury, contradicts principles of standing and fails to show an understanding of what MCLs actually are. In the process, the MTBE opinion not only deprives parties of a bright-line rule, but it also creates a standard that allows plaintiffs to define unilaterally their own injuries, despite

<sup>88.</sup> Pls' Resp., *supra* note 82, at 17-19.

<sup>89.</sup> In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 158-59 (S.D.N.Y. 2006).

<sup>90.</sup> Id. at 155.

<sup>91.</sup> Id.

<sup>92.</sup> Id. at 158.

<sup>93.</sup> In re MTBE Prods. Liab. Litig., 739 F. Supp. 2d 576 (S.D.N.Y. 2010).

objective evidence that they have not suffered any harm. The sections below review some of these problems.

#### A. Subjective Definition of Injury

Article III of the U.S. Constitution allows courts to hear only "cases and controversies." Although these are broad and ambiguous terms, the U.S. Supreme Court distilled these terms to require plaintiffs to prove "the irreducible constitutional minimum of standing." This is a three part test: (1) "the plaintiff must have suffered an 'injury in fact'—an invasion of a legally protected interest," (2) a "causal connection between the injury and the conduct complained of," and (3) proof that it is "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." A plaintiff's injury must be "concrete and particularized" and "actual or imminent, not conjectural or hypothetical." Establishing standing is no perfunctory matter; it is "an indispensable part of the plaintiff's case." At the summary judgment stage, a plaintiff must provide actual evidence of injury, and at the trial stage, the injury must be proved, i.e., supported by the evidence in accordance with the applicable standard of proof.

The MTBE opinion clashes with one of the most basic notions of standing: by the time a case reaches the summary judgment stage of litigation, the plaintiff must be able to proffer evidence that it suffered an actual injury that is not conjectural or hypothetical. Instead, the MTBE decision allowed the Plaintiffs' claims to continue based on their subjective beliefs that they were injured. The court's decision centered on two New York regulations. The first regulation defines the MTBE Plaintiffs' duty, as a matter of New York

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94. U.S. CONST., Art. III, § 2.
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<sup>95.</sup> Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992).

<sup>96.</sup> Id. at 560-61 (internal quotations omitted).

<sup>97.</sup> Id. (internal quotations omitted).

<sup>98.</sup> Id. at 561.

<sup>99.</sup> Id.

<sup>100.</sup> *Id.* (quoting Fed. R. Civ. P. 56(e)) (requiring "specific facts" establishing an injury).

law, to serve "a safe, adequate and aesthetically pleasing supply of water." Potable water is defined by state law as water that is "suitable for drinking, culinary or food processing purposes." The second regulation requires water providers to monitor and treat contamination "where there is 'any deleterious change in raw water quality." These regulations served as the basis for the MTBE Plaintiffs' legally protected interests for standing purposes. 104

According to the MTBE Plaintiffs, their legally protected interests in serving potable water are "not limited by the MCL." In fact, the MTBE Plaintiffs declared that "[t]he quality of water to which Plaintiffs are entitled is not just 'water contaminated below maximum concentration levels' (as Defendants suggest) but rather a 'water that is free from environmental contamination." Once the MTBE Plaintiffs were allowed to claim that potable water is equivalent to "water free from environmental contamination," the second regulation, establishing a general duty to monitor and treat "any deleterious change in raw water quality," made the MTBE Plaintiffs the sole arbiter of their own standing. They argued, and the MTBE court apparently agreed, that as water providers, they could claim any level of a contaminant to be "deleterious" and subsequently recover the costs of any monitoring or remediation activities they chose to undertake. In this case, the MTBE Plaintiffs adopted an internal policy to remediate MTBE

<sup>101.</sup> In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 154 n.28 (S.D.N.Y. 2006).

<sup>102.</sup> N.Y. COMP. CODES R. & REGS. tit. 10, § 170.3 (2012).

<sup>103. 458</sup> F. Supp. 2d at 155 n.35 (quoting N.Y. COMP. CODES R. & REGS. tit. 10, § 5-1.12). California plaintiffs relied on a similar statute. *Id.* (citing CAL. WATER CODE, app. § 40-8(b)).

<sup>104.</sup> Id. at 158.

<sup>105.</sup> Id. at 154.

<sup>106.</sup> Pls' Resp., *supra* note 82, at 2-3 (quoting *In re* MTBE Prods. Liab. Litig., 175 F. Supp. 2d 593, 629 (S.D.N.Y. 2001) and State v. Schenectady Chems., Inc., 459 N.Y.S.2d 971, 978 (1983) (emphasis added)).

<sup>107.</sup> Id. at 17.

<sup>108.</sup> Id. at 18 (citing N.Y. COMP. CODES R. & REGS tit. 10, § 5-1.12, 71 (2012)).

<sup>109.</sup> Id. at 19-20.

contamination down to non-detect levels whenever it reached 1 ppb and averred that whenever they act on this internal policy, they become injured. 110 This reasoning allows plaintiffs to define subjectively their own injury by substituting their own internal policies or personal preferences regarding de minimis contamination for a scientifically derived regulatory definition of when someone is exposed to harm. Indeed, the MTBE Plaintiffs even cited a study showing that water consumers subjectively (and incorrectly) believe that exposure to even trace amounts of chemicals will harm them as a rationale for pursuing their purported sub-MCL injuries. 111 In practice, allowing a water supplier to establish an injury through its own decision to institute monitoring or remediation creates an injury that is completely out of the defendant's control. If a water supplier believes that trace amounts of contaminants in a water supply are not worrisome and decides not to continue testing or pursue remediation, then no injury occurs. However, if it makes the opposite decision and chooses to remediate the contaminant to levels even further below the MCL, then the water supplier, not the defendant, creates the injury.

Despite the MTBE decision's analysis of New York regulations on water quality, there is no reason to believe that the court's reasoning will be limited to New York water suppliers, as its renunciation of MCLs was clear and unequivocal. Thus, the MTBE Plaintiffs' theory of standing endorsed in the MTBE opinion effectively makes everyone his or her own personal regulator, where each of us determines what amount of contamination we will tolerate in what we eat or drink (or serve to others to eat or drink). At first blush, this does not sound so bad. There is much to be said for a person deciding that he or she does not want even small concentrations of chemicals in his or her water or food. Whether that person believes that future research may show harm from contaminants at lower levels or distrusts the

<sup>110.</sup> Defs' MSJ, supra note 77, at 17.

<sup>111.</sup> Pls' Resp., supra note 82, at 16 (citing N. Kraus et al., Intuitive Toxicology: Expert and Lay Judgments of Chemical Risks, 12 RISK ANALYSIS 228 (1992)).

<sup>112.</sup> Although the court appeared to nod, at first, towards New York regulations as making the difference between the MTBE Plaintiffs and private parties, In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 155-56 (S.D.N.Y. 2006), it ultimately rejected the use of MCLs in total. "More importantly, none of these decisions [cited by the defendants] provide a persuasive reason why the MCL should establish the scope of the protected interest or define, as a matter of law, what is and what is not an injury . . . Defendants do not argue—and this Court does not hold—that an MCL displaces common law tort liability resulting from groundwater contamination." Id. at 156-57 (emphasis added).

competency or honesty of EPA (or the industry-reported data that EPA may rely upon), this excess of caution is not beyond the bounds of reason. Some companies market their products as exceeding some type of regulatory standard or being free of legal but unpopular ingredients, understanding that many people prefer such a cautious approach.

The problem comes when one files a tort suit alleging that the defendant violated these policies or personal preferences. Any person or company that manufactures, distributes, or uses a product containing the contaminant at issue could be subject, not just to a multitude of varying personal standards, but a "single molecule" standard of injury. Virtually all of these standards, of course, would be undisclosed to the potential defendants before the suit. Discarding MCLs in favor of a subjective policy or personal preference for lower contaminant levels effectively gives plaintiffs sole authority in defining their own injury up until trial, where a jury would have the final word. No objective facts could alter this trajectory. The plaintiffs need only state that they find contamination at levels below the MCL to be unacceptable in order to prevent summary judgment against them, regardless of the reasons for adopting that policy. Juries would then be asked to either ratify or reject the plaintiff's personal policy. Over time, of course, the emergence of differing jury verdicts results in an ad hoc set of incoherent standards for the same contaminant in the same jurisdiction.

Some courts have rejected such a "personal regulator" approach to standing. For example, in *Koronthaly v. L'Oreal USA, Inc.*, <sup>113</sup> the U.S. Court of Appeals for the Third Circuit affirmed dismissal of a class action complaint alleging fraud, breach of implied warranty, strict liability, and negligence related to the undisclosed lead content of the defendant's lipstick. <sup>114</sup> The class representative averred that she did not know the lipstick contained lead when she purchased it and would never have bought the lipstick had she known, because she believed that lead was unsafe. <sup>115</sup> Although the Food and Drug Administration ("FDA") did not regulate lead in lipstick, the plaintiff alleged that L'Oreal's lipstick "contains lead in far greater amounts than permitted in candy by the FDA." <sup>116</sup> The Third Circuit, however, had no difficulty in affirming that the plaintiff failed to establish an

<sup>113.</sup> Koronthaly v. L'Oreal USA, Inc., No. 08-4625, slip op. at 1 (3d Cir. March 26, 2010).

<sup>114.</sup> *Id*.

<sup>115.</sup> Id.

<sup>116.</sup> Id.

injury. First, the plaintiff's subjective belief that the lipstick was unsafe was "belied by the FDA's report finding that the lead levels in the Defendant's lipsticks were not dangerous and therefore did not require warnings." Second, the plaintiff admitted to having suffered "no adverse health effects from using the lipsticks." Thus, the court held that the plaintiff lacked standing because she could not press claims of injury based on what levels of lead were subjectively unacceptable to her. Instead, the court deferred to the FDA's findings on safety and affirmed the trial court's dismissal. 119

Usually, even where courts recognize a cause of action for fear of future harm, plaintiffs must provide some objectively verifiable evidence in order to establish standing. For example, the California Supreme Court held that a plaintiff could sustain a negligence action and recover damages for fear of contracting cancer even when the plaintiff has no present physical injury or illness. But that plaintiff must "prove . . . that the fear stems from a knowledge, corroborated by reliable medical and scientific opinion, that it is more likely than not that the feared cancer will develop in the future due to

119. Koronthaly, No. 08-4625, slip op. at 1. In a more general sense, courts have rejected standing when plaintiffs subjectively believed there to be a risk of future hazard presented by products. For example, in Niagara Mohawk Power Corp. v. Ferranti-Packard Transformers, Inc., 201 A.D.2d 902, 903 (N.Y. App. Div. 1994), the court dismissed plaintiffs' claim for the replacement of eleven transformers it purchased from the defendant based on lack of standing. Although three of the fourteen transformers plaintiffs purchased failed, resulting in fires, plaintiffs could not pursue damages for the other eleven functioning transformers simply because they were afraid that they might prove defective in the future. See also Beck Development Co. v. S. Pac. Transp. Co., 44 Cal. App. 4th 1160, 1213 (Cal. Ct. App. 1996) ("In order for a private party to enjoin an alleged public nuisance on the ground of fear of future injury, it must, at a minimum, establish facts to prove that the apprehension of injury is well founded . . . to establish a nuisance the plaintiff must demonstrate an actual and unnecessary hazard.") (citation omitted).

120. Potter v. Firestone Tire & Rubber Co., 6 Cal. 4th 965 (1993); see also Mauro v. Owens-Corning Fiberglass Corp., 542 A.2d 16, 20-21 (N.J. Super. Ct. App. Div. 1988) (rejecting medical monitoring claim where risk of future injury could not be predicted with a degree of medical certainty and quantified); In re Hawaii Fed. Asbestos Cases, 734 F. Supp. 1563, 1569 (D. Hawaii 1990) (even though plaintiffs can recover for mental anguish without a physical injury, self-serving declarations about fear of contracting cancer in the future are insufficient proof).

<sup>117.</sup> Id.

<sup>118.</sup> *Id*.

the toxic exposure." This general principle that plaintiffs must proffer objective evidence of an injury is not special to the field of toxic torts. For instance, in *Poe v. Ullman*, the U.S. Supreme Court held that plaintiffs challenging Connecticut laws against the use of contraceptives lacked standing because those laws were never enforced. The Court held that the plaintiffs' standing must be "grounded in a *realistic* fear of prosecution," refusing to accept as an injury-in-fact the plaintiffs' "personal sensitiveness" or a "chimerical . . . fear of enforcement" that could not be objectively weighed. 123

The MTBE Plaintiffs adopted a similar approach to the one that failed in Koronthaly, arguing that they are "entitled" to "water that is free from environmental contamination." They buttressed their theory of standing with testimony from New York environmental officials that water suppliers should take action before contaminants reach the MCL. Les back of the Plaintiffs alleged injuries from acting on its own internal policy to remediate MTBE contamination whenever it reached 1 ppb; specifically, monitoring and testing costs, taking wells out of service, and having to replace granulated activated carbon filters more frequently even though they were installed to treat other pre-existing contaminants. This is no different than Koronthaly's insufficient theory that trace amounts of lead in lipstick were generally unsafe and created an injury.

Like the Koronthaly plaintiff, the MTBE Plaintiffs lacked the legally protected interest required under Lujan.<sup>127</sup> Instead, they tried to create one through the adoption of their internal policy to remediate MTBE whenever sampling showed concentrations in excess of 1 ppb.<sup>128</sup> Of course, nothing

- 121. Potter, 6 Cal. 4th at 974.
- 122. Poe v. Ullman, 367 U.S. 497, 508 (1961).
- 123. Id. (emphasis added).
- 124. Pls' Resp., *supra* note 82, at 2-3 (quotations omitted).
- 125. Id. at 18-19.
- 126. Id. at 20-25.

<sup>127.</sup> Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992) (an injury-in-fact is a "legally protected interest" that is both "concrete and particularized" and "actual or imminent, not conjectural or hypothetical.") (internal quotations omitted).

<sup>128.</sup> Defs' MSJ, *supra* note 77, at 17.

about their theory would prevent them from adopting a single molecule standard of contamination, so long as that single molecule could be detected. Legally protected interests that give rise to standing are conferred by statute, contract, or the common law. Plaintiffs should be required to show more than subjective beliefs of possible future harm, and a plaintiff cannot imbue itself with a legally protected interest by simply drafting an internal policy. 131

Unfortunately, the MTBE decision never acknowledged the Plaintiffs' 1 ppb MTBE policy and its integral role in their theory of standing. If the MTBE decision is followed as a broad rule elsewhere, then a plaintiff need only state a subjective desire that its drinking water (or foods or consumer products or even the ambient air) has pollutant levels lower than regulatory standards, and its alleged injury will be impossible to dispose of before the case reaches trial. This use of subjective and personal assertions of injury is incompatible with standing as it has been traditionally recognized by our legal system.

<sup>129.</sup> See id. at 2 ("In effect, plaintiffs demand that this Court create a 'legally protected interest' in drinking water that contains zero MTBE.").

<sup>130.</sup> See, e.g., Sierra Club v. Morton, 405 U.S. 727, 736 n.9 (1972) (discussing legally protected interest in environmental resources as "an interest created by statutes."); Mennonite Bd. of Missions v. Adams, 462 U.S. 791, 798 (1983) (discussing legally protected property interest conferred by a mortgage); Wimberly v. Ettenberg, 570 P.2d 535, 539 (Colo. 1977) ("The proper inquiry on standing is whether the plaintiff has suffered an injury in fact to a legally protected interest as contemplated by statutory or constitutional provisions.").

<sup>131.</sup> See Defs' MSJ, supra note 77, at 16 (plaintiffs are "free to adopt these standards as internal business practices, but [they] cannot impose them on defendants by demanding—under the guise of common law tort and statutory claims—that defendants can be held liable for the costs [plaintiffs] incur[] to comply with such practices.").

<sup>132.</sup> The MTBE court's opinion was not a complete outlier in that there have been a few other cases that have determined that any increases in pollutants constitute an injury, regardless of whether the plaintiffs present any evidence that those increases were harmful. In LaFleur v. Whitman, 300 F.3d 256, 269-70 (2d Cir. 2002), a plaintiff opposing a proposed plant that would convert waste into ethanol claimed that increases in sulfur dioxide emissions would injure her. Even though it was uncontested that the increased emissions would still leave the ambient air well below national health standards for sulfur dioxide, the court found that any "identifiable trifle" was enough to convey standing. *Id.* at 270 (quoting Conservation Council of N.C. v. Costanzo, 505 F.2d 498, 501 (4th Cir. 1974)).

If courts allowed standing pursuant to Plaintiffs' own subjective, internal, and publicly undisclosed standards, then water suppliers could impose liability on virtually any industrial defendant. This theory would also allow consumer plaintiffs to manufacture their own standing against bottled water companies and water providers (like the Plaintiffs in the MTBE cases) by demanding preferences for zero-contaminant water. 133 Although the Defendants proffered facts that could allow a jury to doubt the sincerity of the Plaintiffs' newly adopted MTBE policy, 134 an evaluation of whether a plaintiff genuinely demands contaminant levels below an MCL cannot be resolved through a motion to dismiss or motion for summary judgment. The biggest practical problem with the MTBE court's theory of standing is that the issue must always go to a jury. That jury will almost certainly be comprised of people who drink water with the same contaminants, making them susceptible to scary-sounding, yet often baseless, assertions about cancer and birth defects. This can put enormous pressure on defendants to settle lawsuits that lack any objective showing of actual injury.

#### B. The Conduct Fallacy

A critical aspect of the MTBE opinion was the court's inability to figure out what it should do with MCLs. The court incorrectly interpreted MCLs as a standard of conduct with which water providers must comply, similar to the duty to avoid negligent or reckless conduct. The court's failure to see the MCLs as health-based standards determining whether water was safe or unsafe to drink led to the errant conclusion that they are merely "convenient guideposts" to determining injury. In other words, by misinterpreting the

<sup>133.</sup> In their motion, the defendants noted that the National Association of Water Companies, a national trade association representing water providers, was lobbying Congress to prohibit lawsuits based on sub-MCL contamination similar to the one brought by the plaintiffs in this case. Defs' MSJ, *supra* note 77, at 2.

<sup>134.</sup> The defendants pointed out that the evidence showed that plaintiffs only adopted the 1 ppb policy for MTBE. No other contaminant was supposed to be remediated before it reached the MCL. Defs' MSJ, *supra* note 77, at 17. Furthermore, the *MTBE* plaintiffs only adopted their 1 ppb policy for MTBE on the advice of their litigation counsel after they filed suit against the defendants. *Id.* Prior to litigation, the plaintiffs served water with trace amounts of MTBE and many other chemicals for years (and continued to do so during the course of the litigation), always telling their customers that the water was safe because it met the applicable MCLs. *Id.* at 4-5.

<sup>135.</sup> In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 157 (S.D.N.Y. 2006).

<sup>136.</sup> Id. at 158.

purpose of the MCLs, the court concluded that the MTBE Plaintiffs were injured even though they were serving perfectly safe drinking water that required no remediation.

This error originated from the MTBE Plaintiffs' briefing on the issue. They argued against the use of the MTBE MCL as an objective measurement of injury by characterizing it as merely a duty governing the water providers' own conduct, not a regulatory determination related to protecting public health. Plaintiffs argued that "Defendants do not even claim that they should not be liable because they themselves complied with a regulatory standard; they ask, incredibly, that the Court find that they cannot be liable based on Plaintiffs' compliance with a regulatory standard." The Plaintiffs' compliance with the law, they argued, "has no bearing on whether Defendants were negligent in manufacturing and selling a defective product" or "whether or not Defendants contaminated public water supplies." Of course, whether Defendants were negligent or manufactured and sold a defective product was not the issue at hand.

The Defendants argued that the Plaintiffs had sustained no injury. <sup>140</sup> Despite clearly confusing these two very different legal concepts, the

140. The authorities relied upon by the MTBE plaintiffs are notable in that the only contested question was whether the defendants' actions caused an injury, not the injury's existence. Id. at 4. For example, the MTBE plaintiffs cited Hamilton v. Accu-tek, 935 F. Supp. 1307, 1320-21 (E.D.N.Y. 1996), for the proposition that "a regulation is not automatically adopted by New York courts as a standard of due care in negligence litigation." Id. That statement is perfectly accurate yet irrelevant. In Hamilton, a suit against handgun manufacturers, plaintiffs were "representatives of people who were shot and killed by individuals who illegally obtained handguns." Hamilton, 935 F. Supp. at 1313. The defendants in *Hamilton* did not argue that some government regulation called into question the existence of the alleged injury (i.e., that dead people were actually alive). Instead, they asserted that compliance with government regulations rendered them not negligent as a matter of law. Id. at 1320. The court's refusal to accept this principle on a motion for summary judgment is far less controversial than the MTBE plaintiffs' claims about the existence of their purported injuries. Several of the MTBE plaintiffs' other cases stand for the same or similar propositions and without any dispute about the existence of an injury. See Pls' Resp., supra note 82, at 4-6 (citing Rudd v. Electrolux Corp., 982 F. Supp. 355, 366 (M.D.N.C. 1997); Sch. Dist. of City of Independence v. U.S. Gypsum Co., 750 S.W.2d 442, 454-55 (Mo. App. 1988); Rucker v. Norfolk & Western Ry. Co., 77 Ill.2d 434, 440 (1979)). Other cases cited by the MTBE plaintiffs for

<sup>137.</sup> Pls' Resp., *supra* note 82, at 4-8.

<sup>138.</sup> Id. at 6.

<sup>139.</sup> Id.

Plaintiffs plowed ahead, arguing that the Defendants' negligence and introduction of a defective product (MTBE) into the groundwater must have injured the Plaintiffs, regardless of whether the Plaintiffs could meet their regulatory obligations. <sup>141</sup>

Unfortunately, the *MTBE* court resolved that standards of care serve double-duty in both defining conduct and defining the existence of an injury. This is simply wrong; accusations that a defendant violated some standard of care does not spawn an injury out of thin air. This confuses the *actions* of one party with the *injury* of another. For example, a company can negligently package food so that it spoils while on grocery store shelves. If nobody buys or eats that food, however, then no consumer has an injury to complain of even though the company most likely violated both regulatory and common law standards of care. To put it even more simply, one may stand in a shopping mall and flail away with a baseball bat, but despite this reckless behavior, unless he hits someone or something, there is no injury. The court's conflation of conduct with injury in the *MTBE* case allows a plaintiff to satisfy injury requirements at the summary judgment stage by simply reiterating its allegations that a defendant failed to meet standards of conduct.

#### C. MCLs as a Health Protection Standard

Use of the MCLs to define injury is both a credible and convenient bright-line rule that would declare that, unless the plaintiff's drinking water source contains a contaminant above the secondary MCL, no injury exists. This rule would provide certainty to all parties while avoiding the cost of litigating cases involving no palpable injuries (for example, if public water suppliers were not required to treat their water to remove the contaminant and nobody has actually gotten sick from drinking the water). Additionally, it leaves the issues regarding the concentrations at which contaminants harm people, the probability of that harm occurring, and the feasibility of treating those contaminants with the EPA or a state environmental agency. The alternative, as found in the MTBE case, would leave these questions to a jury of laypeople that must suffer through days, or even weeks, of conflicting

support show that there was a question of fact as to whether contaminants were above a regulatory threshold. *See id.* at 5 (citing German v. Fed. Home Loan Mortg. Corp., 885 F. Supp. 537, 558-59 (S.D.N.Y. 1995)).

<sup>141.</sup> Pls' Resp., supra note 82, at 12-25.

<sup>142.</sup> In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 157 (S.D.N.Y. 2006).

expert witness testimony. Relying on MCLs prevents the definition of an injury from varying from jury verdict to jury verdict.

While the benefits of using the MCL as the definition of injury are borne out in more detail through a comparison with the alternative, discussed *infra*, there are immediate concerns about such a standard that should be addressed. First, one may object to the notion that there can ever be a "safe" amount of contamination. Second, there may be concern with how accurate MCLs are as a predictor of harm. MCLs, by definition, are compromised to some degree by considerations of technical feasibility and cost. <sup>143</sup> Even further, some distrust EPA to establish accurate MCLs in the face of political pressure, industry influence, built-in regulatory biases, or simple error. Lastly, there could be some concern that the use of a bright-line regulatory rule grants to defendants a "license to contaminate up to the MCL." Each of these potential objections is explored below.

#### 1. There is No "Safe" Concentration of Chemicals

The notion that there are no "safe" concentrations of chemicals that can be ingested by humans without ill effects has been proposed with varying degrees of sophistication. At one end is the neo-luddite belief that virtually all chemicals encountered in daily life are "toxic" in that they cause unspecified adverse health effects at any non-zero concentration. At the opposite end is the very real fact that human variability makes judgments of what is "safe" difficult to make with absolute accuracy. As one toxicologist phrased this concern: determining "the exact level at which a chemical changes from a nontoxic to a toxic chemical . . . is not a scientifically realistic goal." Due to human variability, "what is 'safe' for one person may not be 'safe' for another." Where the former view adopts a stance that nobody is safe from chemical exposure at any level, the latter adopts a view that, at some point large majorities of people can be safe but that

<sup>143. 42</sup> U.S.C. § 300g-1(b)(4)(D) (2006).

<sup>144.</sup> See Pls' Resp., supra note 82, at 6.

<sup>145.</sup> See, e.g., RICK SMITH & BRUCE LOURIE, SLOW DEATH BY RUBBER DUCK: HOW THE TOXIC CHEMISTRY OF EVERYDAY LIFE AFFECTS OUR HEALTH (Counterpoint 2009).

<sup>146.</sup> KAMRIN, supra note 6 at 4.

<sup>147.</sup> *Id*.

outliers of human physiology leave the "single molecule" maxim alive, at least in theory. 148

One other clear difference between the two approaches to the absence of "safe" concentrations is the practicality of regulating chemicals. Adherents of the first approach favor banning (at least) synthetic chemicals. The second approach realizes our waters are already saturated with chemicals, and because of the "difficulty in detoxifying them" they cannot be realistically eliminated. Thus, we must accept some level of these substances in our environment and, if we want to have an enforceable regulation, this level must be a definite non-zero number. Living in a world with only "safe" concentrations of contaminants in drinking water is simply not possible. Very few would be willing to forego all of the beneficial uses of chemicals, from pharmaceuticals to plastics, in order to eliminate trace amounts of chemicals from our drinking water supplies. Even if society chose to do so today, existing contamination is ubiquitous and will exist at levels below our ability to remove it for decades or more. 152

- 150. KAMRIN, supra note 6, at 4-5.
- 151. *Id.* at 19 (noting that genetic variability causes some humans to be more sensitive to chemical exposure at the same dosage than others).
- 152. See, e.g. Christian G. Daughton, Non-regulated water contaminants: emerging research, 24 ENVTL. IMPACT ASSESSMENT REV. 711, 713 (2004) ("Countless galaxies of chemical classes have continual presence in waters—regardless of the water's purity."); Id. at 724 ("Conventional municipal sewage treatment facilities were never designed to remove exotic anthropogenic chemicals . . . ."); EPA OFFICE OF RESEARCH AND DEVELOPMENT, PUMP-AND-TREAT GROUND-WATER REMEDIATION: A GUIDE FOR DECISION MAKERS AND PRACTITIONERS 10-12 (1996) (discussing "realistic" groundwater

<sup>148.</sup> MCLs can be used as a bright-line determination of what level of contaminants are realistically "safe" for the population in general and whether contamination necessitates treatment of drinking water sources by drinking water providers. Of course, where there is medical evidence that an individual plaintiff suffered an illness caused by ingestion of drinking water containing contaminants below the MCL, then the MCL should not pose a bar to recovery. This is consistent with the long-standing "eggshell skull" rule in tort law. See, e.g., Stoleson v. United States, 708 F.2d 1217, 1221 (7th Cir. 1983).

<sup>149.</sup> See, e.g., Petition for a Ban on Triclosan; Notice of Availability, 75 Fed. Reg. 76,461, 76,461 (Dec. 8, 2010) (a notice of petition to ban the anti-microbial triclosan); Lead in Ammunition and Fishing Sinkers; Disposition of TSCA, 75 Fed. Reg. 58,377, 58,377 (Sept. 24, 2010) (a notice of petition to ban the use of lead in fishing sinkers and firearms ammunition).

The only alternative is to tolerate contamination at some level that will avoid harming the vast majority of the population. MCLs fill the role of determining these levels to a reasonable extent of scientific possibility.

#### 2. MCLs as an Accurate Predictor of Harm

The question of whether courts may rely upon MCLs to reflect accurately an injury has two sub-parts. The first issue to address is whether considerations of non-health factors, such as economic or technical feasibility, diminish the scientific integrity of the MCL. The second issue is that MCLs are based on scientific evidence that may become outdated. Later evidence may require the MCL to be revised downward. Together, one might protest that MCLs are inaccurate and should not be used to determine injury. Each of these questions regarding accuracy is addressed below.

#### a. Non-health factors diminish the scientific integrity of MCLs

Plaintiffs in the *MTBE* litigation stringently argued that MCLs are not actually created to protect the public health. They claimed that MCLGs are the levels that actually protect the public and that considerations of "feasibility" (*i.e.*, economic considerations and the availability of treatment technologies) diminish the integrity of MCLs as public health standards. According to the Plaintiffs, MCLs are tainted because they result from "a political decision susceptible to political interference" and because "[p]ublic comments opposing views, data, and argument may be submitted by anyone—including the very polluters or industries whose products eventually contaminate drinking water." Thus, according to the Plaintiffs, courts should disregard MCLs because they are "subjective standards that are motivated by concerns other than the health, safety, and potability" of drinking water.

remediation goals due to technical infeasibility); NATIONAL RESEARCH COUNCIL, ALTERNATIVES FOR GROUND WATER CLEANUP 29 (Nat'l Acad. Press 1994) (common pump-and-treat groundwater remediation techniques do "not guarantee that all of the contaminants have been removed from beneath the [contaminated] site").

<sup>153.</sup> Pls' Resp., *supra* note 82, at 9.

<sup>154.</sup> Id. at 10.

<sup>155.</sup> *Id.* at 11.

According to the MTBE Plaintiffs, the "concerns other than . . . health, safety, and potability" <sup>156</sup> are (1) the economics of treatment below the MCL; (2) the technological ability of treatment below the MCL; and (3) "politics." In other words, the MTBE Plaintiffs stated that MCLGs are more suited for use as a determination of injury because they are the point at which there are no known or anticipated health effects. Theoretically, an MCLG may be a better standard to determine injury in some cases but, for a number of reasons, those cases will be few. First, a contaminant may not have an MCLG. In this case, neither EPA nor New York established an MCLG for MTBE. Second, a contaminant's MCLG may not be lower than its MCL. For many chemicals, the MCL and the MCLG are the same. 159 Third, where the MCLG is lower than the MCL due to the technical feasibility of treatment, plaintiffs would be burdened with showing that EPA's determination of the best available technology for treating the particular contaminant is incorrect. 160 As a matter of administrative law, this may be prohibited as an impermissible collateral attack on an EPA rulemaking. 161 As a matter of standing, however, if the plaintiffs fail to show that treating contamination down to the MCLG is technologically feasible, then their claims are not redressable even if they can establish an injury. Contrary to the MTBE Plaintiffs' emphasis on cost considerations, 162 MCLs are not routinely revised upward due to economic "feasibility," as EPA has only done this on three occasions. 163 Lastly, the MTBE Plaintiffs'

<sup>156.</sup> Id.

<sup>157.</sup> *Id.* at 8-11.

<sup>158.</sup> *Id.* at 9 (citing 42 U.S.C. § 300g-1(b)(4) (2006)); see also 40 C.F.R. § 141.2 (2012).

<sup>159.</sup> Compare 40 C.F.R. §§141.50-55 (regarding MCLGs) with 40 C.F.R. §§ 141.61-66 (regarding MCLs).

<sup>160.</sup> See, e.g., 40 C.F.R. § 141.62(c) (ascribing best available technology standards to meet MCLs for various inorganic chemicals).

<sup>161.</sup> See 42 U.S.C. § 300j-7(a) (requiring challenges to MCLs to be filed in U.S. Court of Appeals within 45 days of promulgation).

<sup>162.</sup> Pls' Resp., supra note 82, at 9.

<sup>163.</sup> See National Primary Drinking Water Regulations; Radionuclides; Final Rule, 65 Fed. Reg. 76,708, 76,714 (Dec. 7, 2000).

claim that politics taints the MCL process is not realistic either as a matter of law or science. Nobody could credibly argue that the scientific integrity of MCLs would actually be *improved* if they were issued by fiat through a closed process that excluded relevant data and the opportunity for review and comment by outside parties. What the *MTBE* Plaintiffs believed to be political interference, others call the Administrative Procedure Act (or its state law analog).

#### b. Scientific evidence is not definitive

An additional possible protest against using MCLs is that they are based on the scientific evidence known at the time and that interpretations of this evidence will vary. When a health-based standard is revised downward, as sometimes happens, shouldn't this be interpreted as an admission that the prior standard did not adequately protect people?<sup>164</sup> And what faith may we have in a state MCL when another state uses a lower MCL for that same contaminant? There is a legitimate concern that we could discover tomorrow that using the MCLs of today divested plaintiffs of claims involving future harm. Likewise, there is a legitimate concern that a plaintiff may lose its tort claims in one state, because of its higher MCL, but could proceed in the other state with a lower MCL. These problems, however, are common in tort law and similar situations are routinely tolerated as unavoidable byproducts of both advances in knowledge and the diversity of state tort law.

Although an MCL may be revised in the future based on evidence currently unknown (or known but unappreciated), the lag between medical research and tort law is a problem that cuts both ways and does not inherently inure to the benefit of plaintiffs. For example, nine of the twenty-one cases that went to trial in the 1980s alleging that the drug Bendectin caused birth defects resulted in awards for the plaintiffs. Subsequent medical studies, however, have concluded that Bendectin is not terotogenic. The staleness of scientific evidence, or at least the inability

<sup>164.</sup> See KAMRIN, supra note 6, at 4 (stating that "[i]t is not unusual for standards to be adjusted as scientific evidence changes. Vulnerability to change should be the first clue that the certainty of a 'safe' level is not as definite as it appears.").

<sup>165.</sup> Joseph Sanders, Facts and Issues of the Bendectin Litigation, 9 KAN. J.L. & PUB. PoL'Y 106, 108-09 (2000).

<sup>166.</sup> See Robert L. Brent, Bendectin: Review of the Medical Literature of a Comprehensively Studied Human Nonteratogen and the Most Prevalent Tortogen-litigen, 4 REPROD. TOXIC. REV. 337 (1995); Jeffrey S. Kutcher et al. Bendectin and birth defects II: Ecological analyses, 2 BIRTH DEFECTS RES. 67, 88-97 (2003).

to know what findings research will yield in the future, is already an issue in tort law. Using the MCLs to define an injury does not create a new problem but it is at least consistent with an existing one. The potential reliance upon stale scientific evidence that may be contradicted sometime in the future is present in any tort case involving expert testimony or scientific issues in general. At least MCLs are subject to a more thorough and objective review of the evidence than what is typically done at a trial. Although scientific consensus is not a guarantee of accuracy, at least errors and fringe theories receive the critical scrutiny that they require.

Disparity in how evidence is interpreted is also an unavoidable facet of science. To the *MTBE* Plaintiffs, however, the fact that state MCLs for MTBE could vary widely (10 ppb for New York but 240 ppb for Texas) could only be the product of corruption and collusion. Even if such a cynical view, which discounts the possibility of good-faith disagreement in how scientific evidence is interpreted, were correct in any one specific case, tort law discrepancies between states are nothing new. Contrary to the *MTBE* Plaintiffs' assertions, there is nothing inequitable or unseemly about two states adopting different MCLs. Variability in state standards, regulations, and tort law is a fact of life that has come to be widely accepted. For example, state treatment of medical monitoring claims vary widely. And some states are more tolerant than others of alternative liability theories when plaintiffs cannot make a traditional showing of causation. It has

<sup>167.</sup> See 42 U.S.C. § 300g-1(b)(3)(A) (2006) (requiring the use of "the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices" and "data collected by accepted methods or best available methods" in setting MCLs).

<sup>168.</sup> Pls' Resp., supra note 82, at 10-11.

<sup>169.</sup> See, e.g., Adam Joffe, The Medical Monitoring Remedy: Ongoing Controversy and a Proposed Solution, 84 CHI.-KENT L. REV. 663, 669-672 (2010).

<sup>170.</sup> See, e.g., Sindell v. Abbott Labs, 607 P.2d 924 (Cal. 1980) (creating market share liability by holding all defendants liable for damages based on their market share at the time of the injury unless individual defendants can prove they did not cause the injury); In re MTBE Prods. Liab. Litig., 379 F. Supp. 2d 348, 375 (S.D.N.Y. 2005) (noting that five states adopted Sindell to allow for market share liability in certain types of cases); Thomas ex rel. Gramling v. Mallett, 701 N.W.2d 523 (Wis. 2005) (recognizing "risk-contribution rule" which shifted burden of proof to defendants even when plaintiff had available claims against other parties that did not require alternative liability theories), but see Gibson v. Am. Cyanamid Co., 719 F. Supp. 2d 1031 (E.D. Wis. 2010) (ruling that risk contribution rule violates Due Process Clause).

long been a fact of American tort law that plaintiffs and defendants receive differing treatment and burdens depending on the location of the lawsuit.<sup>171</sup> In other words, living with your state's MCL is no different than living with any other aspect of its tort law.

## 3. Requiring More than De Minimis Injury Is Not a "License to Pollute"

The use of MCLs, even if they fall short of "aspirational goals," is perfectly compatible with defining an injury under existing tort law. Courts generally recognize that there is some *de minimis* level below which contamination will not give rise to a tort claim. The *MTBE* Plaintiffs characterized this as a "license to contaminate up to the MCL," however, requiring some *de minimis* injury is in accordance with long-standing rules that invasions of protected interests must be of some substance before an injury accrues.

In toxic tort cases, it is not enough for plaintiffs to show the existence of some contamination. They must also allege some type of palpable injury as well. For example, in many trespass actions involving "imperceptible" contamination, plaintiffs must generally show some type of "substantial damage . . . to the *res* upon which the trespass occurs" to the point where it

<sup>171.</sup> Actions for medical monitoring are a good example of how state tort law treats plaintiffs differently depending upon the jurisdiction. For instance, while some states allow medical monitoring actions, see, e.g., Ayers v. Jason Twp., 525 A.2d 287 (N.J. 1987), others do not recognize the claim. See e.g., Henry v. Dow Chem. Co., 701 N.W.2d 684 (Mich. 2005) (rejecting claim for medical monitoring without physical manifestation of injury). Even where jurisdictions recognize medical monitoring, plaintiffs can be treated differently. Compare Potter v. Firestone Tire & Rubber Co., 863 P.2d 795, 801, 824 (Cal. 1993) (stating that medical monitoring is a form of damages available only after "liability is established under traditional tort theories of recovery"), with Redland Soccer v. Dep't of Army, 696 A.2d 137 (Pa. 1997) (recognizing medical monitoring as a separate cause of action).

<sup>172.</sup> National Primary Drinking Water Regulations; Final Rule, 56 Fed. Reg. 3526, 3534 (Jan. 30, 1991).

<sup>173.</sup> An exception being claims of trespass, where common law may allow a finding of liability regardless of whether there is any injury to property. Damages in these types of cases, however, are nominal. Carey v. Piphus, 435 U.S. 247, 266 (1978) ("Commonlaw courts traditionally have vindicated deprivations of certain 'absolute' rights that are not shown to have caused actual injury through the award of a nominal sum of money.").

<sup>174.</sup> Pls' Resp., supra note 82, at 6.

interferes with the exclusive possession of the property. The for nuisance claims, plaintiffs must show that contamination rises to a level that interferes with the use and enjoyment of that property. <sup>176</sup> In Bradley v. American Smelting & Refining Co., for instance, plaintiffs sued in trespass and nuisance alleging nothing more than that trace amounts of cadmium and lead particles had settled on their property over the years as a result of the defendants' activities. 177 It was undisputed that "the presence of these materials has had no demonstrable effect on plaintiffs' property." The court held that, without this "demonstrable effect," the plaintiffs lacked an injury.<sup>179</sup> Similarly, a plaintiff alleging negligence must show that a present iniury has either already manifested itself or that "future effects of a present injury . . . are reasonably certain to occur." But a plaintiff has no injury simply because a contaminant is present in the water supply (in the case of a water supplier, like the MTBE Plaintiffs) or in a person's body (in the case of a supplier's customer). 181 The MCL allows a court to define such a "demonstrable effect" in a way that is more consistent, objective, and scientific than resorting to expert testimony on a case-by-case basis.

The majority of courts that have heard the issue have accepted MCLs as a dividing line for establishing injuries. A Florida case presented very similar factual circumstances to the MTBE litigation and came to the opposite conclusion. In Emerald Coast Utilities Authority v. 3M Co., the plaintiff

<sup>175.</sup> Bradley v. Am. Smelting & Refining Co., 635 F. Supp. 1154, 1156 (W.D. Wash. 1986) (adopting rule of Borland v. Sanders Lead Co., 369 So.2d 523, 529 (Ala. 1979)); see also Rhodes v. E.I. Du Pont de Nemours & Co., 636 F.3d 88, 96 (4th Cir. 2011) (under West Virginia law plaintiffs must show that contamination "damaged or interfered with the plaintiffs" possession and use of their property").

<sup>176.</sup> Bradley, 635 F. Supp. at 1157-58.

<sup>177.</sup> Id. at 1155-56.

<sup>178.</sup> Id. at 1157.

<sup>179.</sup> Id.

<sup>180.</sup> Rhodes, 636 F.3d at 94 (citing Cook v. Cook, 607 S.E.2d 459, 464 (W. Va. 2004)).

<sup>181.</sup> See City of Moses Lake v. United States, 430 F. Supp. 2d 1164, 1184-85 (E.D. Wash. 2006) (relying on *Bradley* to hold that the presence of trace contamination in an aquifer alone does not constitute an injury and dismissing the plaintiff's trespass and nuisance claims).

water provider filed a tort and products liability action against three companies, claiming that minute amounts of perfluorooctanoic acid ("PFOA") and perfluorooctane sulfonate ("PFOS") contaminated drinking water wells. The defendants moved for summary judgment on the ground that plaintiff lacked a cognizable injury to support Article III standing, arguing that the PFOA and PFOS contamination was below state and federal standards. The opposition of Emerald Coast Utilities Authority ("ECUA") closely resembled that of the *MTBE* Plaintiffs, arguing that the contaminants were "an unwelcome impurity in the ECUA water supply" and that expert testimony would demonstrate that they were potentially harmful. Again, as with the *MTBE* Plaintiffs, ECUA argued that low levels of contamination would require testing, monitoring, and remediation. 185

The court granted defendants summary judgment, explicitly rejecting the MTBE decision, <sup>186</sup> finding that ECUA would not be injured until it was "compelled to monitor the chemicals" or remediate contamination pursuant to the direction of the EPA or Florida Department of Environmental Protection. <sup>187</sup> The court rejected the ECUA's expert testimony that there is no safe level of exposure to PFOA and PFOS. Instead, it relied upon an EPA Provisional Health Advisory for PFOA and PFOS which lacks the legal enforceability of an MCL. <sup>188</sup> Citing these, the court concluded that it is not enough for chemicals to be "unwelcome;" these claims "must be accompanied by some evidence of a concrete and particularized harm to ECUA as a result of the chemicals' presence in its water supply." The ECUA case departs from the MTBE decision in that it relied upon an EPA Provisional Health Advisory ("PHA") described by EPA as "reflect[ing]

<sup>182.</sup> Emerald Coast Utils. Auth. v. 3M Co., 746 F. Supp. 2d 1216, 1219 (N.D. Fla. 2010).

<sup>183.</sup> Id. at 1218.

<sup>184.</sup> Id. at 1222-23 (internal quotes omitted).

<sup>185.</sup> Id. at 1228.

<sup>186.</sup> Id. at 1228.

<sup>187.</sup> *Id.* at 1231-32.

<sup>188.</sup> Emerald Coast Utils. Auth., 746 F. Supp. 2d at 1230.

<sup>189.</sup> Id. at 1232.

reasonable health-based hazard concentrations above which action should be taken to reduce exposure to unregulated contaminants in drinking water." Although a non-enforceable PHA is less stringent than an MCL, and one court has rejected its use, <sup>191</sup> ECUA is one of several cases that has accepted health-based regulatory standards as defining the amount of contamination necessary to constitute an injury. <sup>192</sup>

In breaking with this principle, the *MTBE* court allowed the Plaintiffs to take their amorphous claims of injury from *de minimis* MTBE contamination to a jury. The court did not require any showing of a "detrimental effect" to survive a motion for summary judgment. This creates obvious problems. Treating the presence of even *de minimis* amounts of contamination as a

<sup>190.</sup> EPA, PROVISIONAL HEALTHIER ADVISORIES FOR PERFLUOROOCTANOIC ACID (PFOA) AND PERFLUOROOCTANE SULFONATE (PFOS) 1 n.1 (2009), http://water.epa.gov/action/advisories/drinking/upload/2009\_01\_15\_criteria\_drinking\_ph a-PFOA\_PFOS.pdf.

<sup>191.</sup> See Rhodes v. E.I. Du Pont De Nemours & Co., 657 F. Supp. 2d 751, 764-65 (S.D.W. Va. 2009).

<sup>192.</sup> See In re Wildewood Litig., 52 F.3d 499, 503 (4th Cir. 1995) (TCE levels below "the level of toxicological concern" as defined by the MCL, did not unreasonably interfere with the plaintiffs' use and enjoyment of their property); Brooks v. E.I. Du Pont de Nemours & Co., 944 F. Supp. 448, 449 (E.D.N.C. 1996) (contamination below the MCL does not constitute an injury because the "General Assembly has apparently determined that levels of contaminants which fall below the maximum allowable concentration do not pose a threat; rather, such levels pose an acceptable risk"); Cereghino v. Boeing Co., 873 F. Supp. 398, 403 (D. Or. 1994) (plaintiffs were not injured where trichloroethane concentrations were below the MCL; rejected plaintiffs' claim that such a holding constitutes a "pollution easement" in favor of the defendants); Gleason v. Town of Bolton, 2002 WL 1555320 (Mass. Super. 2002) (MTBE contamination below the MCL does not constitute an injury); Rose v. Union Oil Co., 1999 U.S. Dist. LEXIS 967 (N.D. Cal. 1999) (petroleum constituent contamination below the MCL does not present a risk to health or unreasonable interference with the plaintiffs' use of the land).

<sup>193.</sup> It should be noted that the MTBE plaintiffs alleged that the presence of MTBE at extremely low levels could result in a foul taste and odor in drinking water and presented expert testimony to that effect. In re MTBE Prods. Liab. Litig., 458 F. Supp. 2d 149, 154-55 (S.D.N.Y. 2006). It was undisputed, however, that the plaintiffs had never received a taste or odor complaint from a customer that the plaintiffs could attribute to MTBE, despite having served drinking water with low levels of MTBE to their customers for years. Id. at 159.

potential injury, even without any detrimental effect, would put defendants at the mercy of improving detection technology. For example, if a manufacturer's chemical is not detected in drinking water at a 4 parts per billion detection limit, then there is no injury. When technology improves, however, and the chemical is now detected at 4 parts per trillion, an injury suddenly appears—even though the people who drank this water are still as healthy as they were before. Not only does this drive the definition of an injury away from the traditional standing inquiry, but no potential defendant would suffer worse than water providers. The City of New York's annual drinking water report, for example, shows trace amounts of dozens of contaminants ranging from barium to lead in drinking water. 194 The City, however, maintains that "tap water is safe to drink" because the contaminants are below the MCLs. 195 Yet, if held to its own argument, all of its customers could successfully plead injuries from consuming the water without alleging that these contaminants caused any detrimental effect to their health. When detection technology improves even further, a myriad Water providers, like the MTBE of new contaminants would appear. Plaintiffs, could be dogged with never-ending rounds of litigation as each of the water provider's annual reports would admit to another year of serving trace amounts of chemicals to its customers. These water providers could sink under the financial burden of litigation, yet none of their customers would ever have to allege that the water made them sick.

Claiming a right to contaminant-free water has no basis in law and obtaining it is simply not possible in real life. <sup>197</sup> An earlier *MTBE* decision, however, claimed to find one, boldly stating that "[i]t is beyond cavil that the public has a right to soil and water that is free from environmental contamination." This opinion affirmed that private property owners who

<sup>194.</sup> New York City Dep't of Envil. Prot., New York City 2010 Drinking Water Supply and Quality Report 10-11 (2010), www.nyc.gov/html/dep/pdf/wsstate10.pdf.

<sup>195.</sup> Id. at 2.

<sup>196.</sup> This was apparently not lost on the *MTBE* plaintiffs as the defendants pointed out that the *MTBE* plaintiffs are lobbying to shield themselves from the potential of similar lawsuits filed by their customers. Defs' MSJ, *supra* note 77, at 5.

<sup>197.</sup> See Pharmaceuticals in the Nation's Water, supra note 3; see also Shotyk & Krachler, supra note 4.

<sup>198.</sup> *In re* MTBE Prods. Liab. Litig., 175 F. Supp. 2d 593, 629 (S.D.N.Y. 2001) (citing State v. Schenectady Chems., Inc., 117 Misc. 2d 960, 968 (N.Y. Sup. Ct. 1983).

relied on their wells for drinking water properly pled a nuisance claim by alleging that MTBE contamination interfered with the use and enjoyment of their property. The court never engaged the question of whether contamination below the MCL constituted an injury. What is worse is that the case relied upon for the uncompromising claim that "the public has a right to soil and water that is free from environmental contamination"; State v. Schenectady Chemicals, Inc., said nothing of the sort. Schenectady Chemicals only held that, by the public trust doctrine, the State of New York generally had standing to pursue claims for the pollution of waters of the state. Taking the MTBE court's 2001 decision seriously is an untenable proposition. In practice, the law can no more guarantee "soil and water that is free from environmental contamination" than it can guarantee a life free from risk or unhappiness.

Contrary to what the MTBE Plaintiffs alleged, drawing a line somewhere is clearly warranted. The question is whether this line should be drawn by regulatory agencies in the form of an MCL and applied throughout the state or by juries, in the form of a verdict, on a case-by-case basis. The MCL acts as a regulatory demarcation of when the contamination of drinking water crosses the traditional tort law boundary from de minimis presence to constituting a "detrimental effect." Despite the MTBE Plaintiffs' protests that such a scheme would grant a defendant a "license to pollute up to the MCL," it is far more consistent with traditional tort law standing than the alternative accepted by the MTBE court.

#### D. Reliance on MCLs is Preferable to Reliance on Juries

Defining an injury through a jury verdict, as the MTBE court ordered, has several obvious downsides. First, it is inconsistent. The presence of a particular contaminant at 9 ppb may not constitute an injury to one jury, but its presence at 2 ppb could constitute an injury for another jury, even when both are sitting in the same state and working with the same jury instructions. Such results are virtually arbitrary. Second, there is no prior notice given to defendants. Although this may be less important to industrial defendants, for water providers the distinction is vital. No drinking water is free of contaminants regardless of whether it flows from a tap or is sold in a bottle. This means that water providers may be committing a tort during every day of their operation, yet this could never be determined until a particular jury reached its verdict. No advanced notice to potential defendants is possible under the MTBE court's opinion.

<sup>199.</sup> Id. at 599, 629.

<sup>200.</sup> Schenectady Chems., 117 Misc. 2d at 968.

These two consequences, however, have the same cause: the existence of injury is based on a review of scientific evidence presented in a litigation setting, instead of in a regulatory setting. Jurors will hear competing expert testimony and then determine whether the particular contaminant(s) at issue are harmful or require remediation at the levels present (or in the MTBE case, levels that may be present in the future based on groundwater modeling and predictions of contaminant breakdown). One need not take as cynical a view as Peter Huber<sup>201</sup> to believe that the presentation of scientific findings and opinions in a courtroom is less than optimal. Plaintiffs' attorneys can be especially prone to calling experts that advocate fringe theories that have not (often for good reason) been vetted by other scientists working in their field.<sup>202</sup> However, even where the scientific theories at issue are above the derided "junk science" level, the number of witnesses that will be called in a particular case present a miniscule percentage of those professionals working in the relevant field. Although experts may rely upon peerreviewed and generally accepted studies (or they may not), the work they do for the litigation is typically not subject to peer review. 203 The result is that experts can pitch theories to juries that they would never proffer to their peers.

Even where all expert witnesses operate at the highest levels of competence and honesty, determining when trace levels of contaminants have or will cause an injury remains problematic. Few jurors may be familiar with the scientific concepts on display at trial—ranging from biodegradation to toxicology to groundwater modeling—and those that are may be excluded from the jury panel. Although many people freely absorb

<sup>201.</sup> See generally Peter Huber, Galileo's Revenge: Junk Science in the Courtroom (Basic Books 1991) (severely criticizing the use of scientific experts in litigation).

<sup>202.</sup> See, e.g., Farina v. Nokia Inc., 625 F.3d 97 (3d Cir. 2010) (plaintiffs' expert claimed low level radio frequency radiation from cellular phones cause various brain injuries and cancer); Hazlehurst v. Sec'y of Health and Human Servs., 604 F.3d 1343 (Fed. Cir. 2010) (involving claims that the measles, mumps, and rubella vaccine causes autism); Oklahoma v. Tyson Foods, Inc., 565 F.3d 769, 781 (10th Cir. 2009) (forwarding theory that bacteria in waterbodies could be traced back to the land application of poultry litter).

<sup>203.</sup> See, e.g., In re Air Crash Disaster at New Orleans, 795 F.2d 1230, 1234 (5th Cir. 1986) ("We know from our judicial experience that many such [experts] present studies and express opinions that they might not be willing to express in an article submitted to a refereed journal of their discipline or in other contexts subject to peer review.").

popular science,<sup>204</sup> it may be difficult for even committed and attentive jurors to understand a one-time oral presentation (with, at best, a slide show) on very complex scientific matters. Of course, for those jurors that are disinterested, undisciplined, or already convinced that the subject matter is beyond their understanding, expert witnesses are essentially testifying for the record. The result is that jurors are often left to make a scientific determination based on a morality play centering on attorneys' accusations about paid experts, junk science, supposedly excessive corporate profits, and/or other alleged misdeeds.

Reliance on the MCL is a more preferable means of defining an injury than throwing the matter over to the jury. Despite being derided by the MTBE Plaintiffs as "politically driven," the MCL process surely has more scientific credibility than defining injuries through litigation. Agencies set MCLs based on the work of a large body of generally unbiased experts and work through that information over the course of several months or years. By contrast, the MTBE opinion leaves the question to panels of biased experts that duel for a few days before a slate of jurors with generally no scientific background and varied (but undisclosed) biases, intelligence levels, and attention spans. To describe this process as less than optimal is being charitable.

<sup>204.</sup> For example, Stephen Hawking's book, A Brief History of Time, has sold over 10 million copies, making him an international celebrity, or at least popular enough to warrant multiple guest appearances on The Simpsons. See Natalie Paris, Hawking to experience zero gravity, LONDON TELEGRAPH (Apr. 26, 2007), http://www.telegraph.co.uk/news/worldnews/1549770/Hawking-to-experience-zero-gravity.html; see also The Simpsons: They Saved Lisa's Brain (Fox television broadcast May 9, 1999); The Simpsons: Don't Fear the Roofer (Fox television broadcast May 1, 2005); The Simpsons: Elementary School Musical (Fox television broadcast Sept. 26, 2010).

<sup>205.</sup> Pls' Resp., *supra* note 82, at 11.

<sup>206.</sup> To take just one example, the MCL for asbestos was based on what EPA deemed to be "sufficient health and occurrence data" and animal studies showing that oral administration of asbestos can cause benign polyps. National Primary Drinking Water Regulations; Final Rule, 56 Fed. Reg. 3526, 3535 (Jan. 30, 1991). When commenters challenged EPA's finding that ingested asbestos was a "Group C" carcinogen (limited evidence of carcinogenicity), the Agency pushed back with the support of studies by the National Toxicology Program on animals, the findings of the EPA Science Advisory Board, and a study by the National Research Council on occupational exposure. *Id.* at 3535-36.

## E. Deference to Administrative Agencies Will Benefit Litigation and Avoid Disrupting the MCL Program

Given the qualitative differences in the two alternatives, courts should defer to administrative agencies, consistent with the doctrine of primary jurisdiction, instead of tendering scientific questions of injury to juries. <sup>207</sup> The doctrine of primary jurisdiction holds that, on highly technical regulatory matters, coordination between the judiciary and administrative agencies is necessary. <sup>208</sup> The purpose is to avoid a ruling which "might disturb or disrupt the regulatory regime of the agency in question" and allow for "uniformity in the interpretation and application of a . . . regulatory regime." <sup>209</sup> The U.S. Supreme Court has particularly stressed that the doctrine is best invoked for questions requiring "the expert and specialized knowledge of the agencies," <sup>210</sup> for "cases raising issues of fact not within the conventional experience of judges or cases requiring the exercise of administrative discretion." <sup>2211</sup>

Such reasoning is particularly apt for questions surrounding when a particular contaminant may cause harm to human health or whether property or an aquifer requires remediation. The ultimate question of injury turns on

<sup>207.</sup> The primary jurisdiction doctrine usually requires courts to retain jurisdiction over a case while it refers a regulatory question to an agency for an administrative ruling. Reiter v. Cooper, 507 U.S. 258, 268 (1993); United States v. W. Pac. R.R. Co., 352 U.S. 59, 64 (1956). In cases such as the *MTBE* litigation, however, the agency has already made its administrative ruling. This leaves the judge only with the task of applying the agency's standard to the case.

<sup>208.</sup> Port of Boston Marine Terminal Ass'n v. Rederiaktiebolaget Transatlantic, 400 U.S. 62, 69 (1970); see also W. Pac. R.R. Co., 352 U.S. at 64.

<sup>209.</sup> Am. Auto. Mfrs. Ass'n v. Mass. Dep't of Envtl. Prot., 163 F.3d 74, 81 (1st Cir. 1998) (citing 2 DAVIS & PIERCE, ADMIN. LAW TREATISE § 14.1 272 (3d ed. 1994)). The *American Auto* court referenced the need for "national uniformity in the interpretation and application of a federal regulatory regime," *id.*, however, the doctrine of primary jurisdiction is just as useful in allowing uniform application of state MCLs. As discussed *supra*, under the *MTBE* court's decision, juries could arrive at differing determinations of what constitutes an injury for the same contaminant within the same state.

<sup>210.</sup> W. Pac. R.R. Co., 352 U.S. at 64.

<sup>211.</sup> Far East Conference v. United States, 342 U.S. 570, 574-75 (1952).

whether exposure to a chemical has or will cause harm to persons.<sup>212</sup> Answering this question involves the type of "expert and specialized knowledge" maintained by state and federal environmental agencies. It is through the application of this expertise and specialized knowledge that the MCLs were issued to begin with. Sending the question of injury to a jury is essentially re-doing the work of the expert agency but without the expertise.

The second rationale for the primary jurisdiction doctrine, avoiding the disruption of a regulatory regime, is equally applicable to this situation. Arbitrary and inconsistent jury findings as to what level of a particular contaminant is injurious, creates the potential for varying results within the United States (for federal MCLs) or even within the same state (for state MCLs). This destroys the uniformity of regulations that is one of the primary jurisdiction doctrine's key foundations. Further, it seems to render the purpose of the MCL meaningless. Why set standards for drinking water only to have judges and juries ignore them? Water providers may avoid penalties from EPA or state agencies by meeting the MCL, but they would still be exposed to liability through a separate (case-by-case) standard to be established by a jury in the future. The purpose of having primary and secondary MCLs-to define a level where drinking water is deemed to be safe and aesthetically acceptable—disappears through the fear of large damage awards. Where a state or federal agency has issued an MCL through a scientific review process, judges should consider the matter settled and refrain from re-opening the question of injury over and over again with each trial.

#### V. CONCLUSION

The MTBE court's dismissal of MCLs as merely "convenient guidepost[s]" is an unfortunate license for arbitrary standing decisions. If the court's reasoning is followed en masse, any party accused of fouling drinking water sources, or serving drinking water with any measurable level of contaminants, must resign their fate to the whims of juries. No objective, uncontroverted facts could cut short suits by plaintiffs claiming a right to water without even a single molecule of contamination—a commodity that does not exist. Any defendant, facing the expensive prospect of a suit that must, as a matter of law, endure until trial, where it then faces the potential for exorbitant damage awards, will face nearly insurmountable pressure to

<sup>212.</sup> Even if the plaintiff is a water provider seeking damages for remediation, as in the *MTBE* litigation, the issue of whether a drinking water source requires remediation, and if so, to what levels returns to the question of whether the contaminant concentrations are high enough to harm their customers.

settle even meritless cases. None of this is necessary if courts afford MCLs the weight that they are due.