NO. _____

In the
Supreme Court of the United States

IN RE: METHYL TERTIARY BUTYL ETHER ("MTBE") PRODUCTS LIABILITY LITIGATION

EXXON MOBIL CORPORATION et al.,

Petitioners,

v.

THE CITY OF NEW YORK et al.,

Respondents.

On Petition for Writ of Certiorari to the United States Court of Appeals for the Second Circuit

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED

The Clean Air Act Amendments of 1990 required manufacturers to add an "oxygenate" to all gasoline sold in New York City and elsewhere. 42 U.S.C. § 7545(k) (2000). Tens of millions of people breathed cleaner air because of this federal program. Petitioners (collectively "Exxon") used the oxygenate methyl tertiary butyl ether ("MTBE") to comply with the oxygenate requirement because they had no safer, feasible alternative at the time. The decision below imposes a $104 million award based on possible future injuries flowing from Exxon's compliance with that federal mandate.

The Second Circuit below affirmed a state-law tort judgment against Exxon for the predicted future costs of treating predicted future MTBE contamination of unused groundwater wells in Jamaica, Queens. Predictions were central to the suit because Respondents (collectively "the City") have never served a drop of water from the wells at issue. Wholly apart from any MTBE concerns, the wells are already so heavily polluted from other sources that it is unlawful to use them without building a treatment plant—and the City has not broken ground. It has only a "good faith intent" to build the plant and begin using it within the next fifteen to twenty years. Even if the City were to build a plant, the predicted injury will never occur unless the City uses the wells enough that they pull in groundwater impacted by MTBE spills that are otherwise remote. The wells' pattern of use in turn depends on a host of unpredictable factors.

The questions presented are:

1. Whether a claim is ripe when it is predicated on a plaintiff's potential future injury and mere good faith intent to take steps in 15 to 20 years that could, depending on a chain of uncertain events, cause the plaintiff to suffer an actual injury some day in the future.

2. Whether the federal oxygenate mandate in the Clean Air Act Amendments of 1990, 42 U.S.C. § 7545 (2000), preempts a state-law tort award that imposes retroactive liability on a manufacturer for using the safest, feasible means available at the time for complying with that mandate.

PARTIES TO THE PROCEEDING

Exxon Mobil Corp., Exxon Mobil Oil Corp., and Mobil Corp. are petitioners here and were defendants-appellants-cross-appellees in the court of appeals. The City of New York, the New York City Water Board, and the New York City Municipal Water Finance Authority are respondents here and were plaintiffs-appellees-cross-appellants below.

CORPORATE DISCLOSURE STATEMENT

Exxon Mobil Corp. is a publicly held corporation, shares of which are traded on the New York Stock Exchange under the symbol XOM. Exxon Mobil Corp. has no parent corporation, and no entity owns more than 10% of its stock. Exxon Mobil Corp. wholly owns Mobil Corp., which wholly owns Exxon Mobil Oil Corp.

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The decision below forces Exxon to pay over $100 million to remedy an injury that has not yet occurred and, if it ever does, it will have been caused by Exxon using the safest, feasible means of complying with a federal mandate. This result conflicts with this Court's precedents, is wrong and unfair, and warrants this Court's review.

First, the Second Circuit's ripeness holding conflicts with *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992), *Clapper v. Amnesty International USA*, 133 S. Ct. 1138 (2013), and basic principles of Article III ripeness doctrine. *Lujan* and *Clapper* bar lawsuits based on predictions about a "speculative chain of possibilities" at least partially under a plaintiff's control that might culminate in an injury "in this lifetime" or "some day" in the indefinite future. *Clapper*, 133 S. Ct. at 1150 & n.5; *Lujan*, 504 U.S. at 564 n.2.

These precedents foreclose the City's suit. The City recovered $104 million for predicted future injuries that depend on a chain of speculative possibilities to overcome the reality that the City cannot currently use the wells at issue here because of preexisting contamination that has nothing whatsoever to do with Exxon. Indeed, the jury expressly imposed liability based on a finding that the City "is, *or will be*," injured. App. 33 (emphasis added). Further underscoring the ripeness problem, the jury predicted that contamination would peak *in the year 2033* and that, even then, MTBE concentrations would be so low that New York law

would not require any treatment. This ripeness question is also critically important. It was important enough for this Court to prevent premature adjudication of efforts to enjoin government programs in *Lujan* and *Clapper*. But if cash-strapped municipalities can obtain a nine-digit award for injuries not yet suffered and that are not imminent, federal courts will be inundated with premature claims.

Second, the preemption ruling warrants review, as preemption follows *a fortiori* from *Williamson v. Mazda Motor of America, Inc.*, 131 S. Ct. 1131 (2011), and *Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000). The Clean Air Act Amendments of 1990 required manufacturers to add an "oxygenate" to all gasoline sold in New York City. 42 U.S.C. § 7545(k) (2000). If MTBE were the only legally permissible oxygenate, preemption of a state-law judgment for using that oxygenate would be obvious. The result should be no different when MTBE was the safest practical option, and here the evidence and verdict establish just that. A state-law penalty for using the safest, feasible means of complying with a federal mandate is at least an obstacle to the full execution and fulfillment of that mandate. *E.g., Geier*, 529 U.S. at 899. This question is also important, as many pending state-law suits would impose retroactive liability on manufacturers for using MTBE to comply with the federal oxygenate mandate.

OPINIONS BELOW

The Second Circuit's opinion (App. 1) is published at 725 F.3d 65. The District Court's post-

trial opinion (App. 121) is published at 739 F. Supp. 2d 576.

JURISDICTION

The Court has jurisdiction under 28 U.S.C. § 1254(1). The court of appeals entered judgment on July 26, 2013. Exxon petitioned for rehearing and rehearing en banc, which was denied on October 15, 2013. App. 120.

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

Pertinent provisions of Article III of the U.S. Constitution and the Clean Air Act Amendments of 1990, 42 U.S.C. § 7545 (2000), are reproduced in the petition appendix.

STATEMENT OF THE CASE

A. Station Six and the Groundwater Supply in Queens

For the last century, New York City's famous upstate reservoirs have supplied drinking water to the vast majority of the City. App. 11. In pockets of southeastern Queens, however, the Jamaica Water Supply Company ("JWSC") served customers from groundwater wells until the mid-1990s.

Jamaica, Queens is no pristine wilderness. Among other sources of groundwater pollution, Jamaica is home to the West Side Corporation, formerly a dry cleaning facility and now a Superfund site, which spilled large quantities of perchloroethylene (PCE) into the ground. Exxon had nothing whatsoever to do with this contamination. The City purchased JWSC in 1996 "in response to

complaints about the quality of [the] water," and stopped serving water from its contaminated wells. App. 12, 110. The City did not purchase and does not own the water itself, however. Its interest is purely usufructuary. App. 73 & n.31*; see Sweet v. City of Syracuse*, 27 N.E. 1081, 1084 (N.Y. 1891) ("Neither sovereign nor subject can acquire anything more than a mere usufructuary right [in waters].").

This petition arises from a trial involving 5 of the 69 former JWSC wells. The five wells feed into "Station Six," an uncompleted facility in Jamaica, Queens, and are known as the "Station Six Wells." App. 123.[1] "At no point since acquiring them … has the City pumped water from any of the Station Six Wells into its drinking water distribution system." App. 12. Instead, the City supplies Jamaica with the same upstate water the rest of the City enjoys. Indeed, it would be unlawful for the City to serve Station Six water given the PCE contamination. App. 29 & n.6, 110. The Station Six treatment facility has been in planning stages for over a decade, but construction has still not begun. App. 12; *In re MTBE Prods. Liability Litig.*, No. 04-civ-3417, 2009 WL 2634749, *1 (S.D.N.Y. Aug. 25, 2009).

[1] The planned facility also includes a sixth well (Well 6C) that was not at issue. Unlike the other wells, which draw from the shallow Upper Glacial aquifer, Well 6C draws from the deepest aquifer in Queens and is not susceptible to MTBE contamination. *See* Malcolm Pirnie, Inc., MTBE Expert Report (Feb. 2009) ("Pirnie Report") at 1-3, 2-10 (JA869, 881).

B. The Clean Air Act Amendments of 1990 and MTBE's Widespread Use

In the Clean Air Act Amendments of 1990, Congress established the reformulated gas ("RFG") program. 42 U.S.C. § 7545(k) (2000). The RFG program mandated that all gasoline sold in the areas of the country with the worst smog, including New York City, have a minimum oxygen content of 2.0 percent. *See* § 7545(k)(2)(B) (setting 2.0 percent floor); § 7545(k)(5) (banning sale of non-RFG gasoline); 40 C.F.R. § 80.70(d) (applies to New York City). In New York City and other areas with high carbon monoxide pollution, Congress mandated a minimum wintertime oxygen content of 2.7 percent. *See* § 7545(m); *see also* Designation of Areas for Air Quality Planning Purposes, 56 Fed. Reg. 56,694, 56,702 (Nov. 6, 1991) (applies to New York City). To meet these mandates, manufacturers were required to add an oxygen-containing chemical—an "oxygenate"—to all gasoline sold in those areas. App. 9–10.

Congress imposed the oxygenate mandate to reduce harmful emissions "so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1). When gasoline evaporates or is combusted, it leads to emissions of carbon monoxide, ozone-forming volatile organic compounds and nitrous oxides, and toxic pollutants such as benzene, a known human carcinogen. *E.g.,* Northeast States for Coordinated Air Use Management, RFG/MTBE: Findings & Recommendations, Attach. I at 7 (1999) ("NESCAUM

Report"), http://bit.ly/1dwyf5V. An oxygenate reduces these health hazards by allowing more complete combustion, reducing smog, and displacing airborne toxics. *E.g., id*. Attach. III at 11; S. Rep. No. 106-426, at 4 (2000) ("Senate Report").

Although Congress mandated the use of an oxygenate, it did not specify a particular oxygenate. App. 10. Theoretical flexibility was, however, strictly limited in practice. The Environmental Protection Agency ("EPA") approved MTBE and ethanol for use under the program and recognized that they would be the "two major oxygenates." Regulation of Fuel & Fuel Additives, 57 Fed. Reg. 47,849, 47,852 (Oct. 20, 1992). Ethanol is an alcohol made from grain. MTBE is an ether derived from methanol and isobutylene, a byproduct of the refining process. App. 7.

EPA expected that MTBE would be the "most heavily used oxygenate," and stated that it reduces harmful emissions more effectively than ethanol. Standards for Reformulated and Conventional Gasoline, 57 Fed. Reg. 13,416, 13,424 (Apr. 16, 1992) (MTBE "result[s] in the greatest achievable reductions in toxic emissions"). "Combustion of ethanol-blend gasoline results in substantial (50 to 70 percent) increases of acetaldehyde emissions and ambient levels of acetaldehyde are presently far in excess of health-based risk standards in the Northeast." NESCAUM Report at 10. And "[u]nless all gasoline sold in the region contains ethanol, the blending or commingling of ethanol with non-ethanol gasoline blends in vehicle gas tanks [would] result in

a significant increase in [volatile organic compound] emissions due to increased fuel volatility." *Id*.

As EPA expected, MTBE's use "greatly expanded" due to the oxygenate mandate. Senate Report at 5; *see also* Advance Notice of Intent to Initiate Rulemaking, 65 Fed. Reg. 16,094, 16,097 (Mar. 24, 2000) ("less than 5%" of MTBE used for other reasons). The mandate also effectively advanced the federal goal of improving air quality. EPA found that "[a]bout 75 million people" breathed cleaner air due to Phase I of the RFG program. EPA, Office of Mobile Sources, Emissions Facts, Reformulated Gasoline 1 (Nov. 1999), http://1.usa.gov/Kysop8. The reduction in air pollution was equivalent to taking more than 10 million cars off the road, and reduced gasoline-related cancer risk by about 12%. *Id*. at 2. *See also* NESCAUM Report at 5 ("Tens of millions of northeast residents benefit from reduced exposure to mobile source air toxics…."); Senate Report at 2 ("Motor vehicle emissions of carbon monoxide, volatile organic compounds, and most notably toxics have been drastically reduced in RFG areas.").

C. MTBE Groundwater Contamination

Although MTBE's use in gasoline improves air quality, it can pose a risk to groundwater. "The [EPA] advises that MTBE is very soluble in water," "often travels farther than other gasoline constituents," and can be more difficult to remediate than gasoline releases that do not contain MTBE. App. 7 (quoting 65 Fed. Reg. at 16,097). EPA expressed groundwater concerns before it approved

MTBE's use. *E.g.,* Testing Consent Order on MTBE, 53 Fed. Reg. 10,391, 10,392 (Mar. 31, 1988) ("MTBE will probably contribute to an increase in incidents of contamination" in part because it is "relatively water soluble … compared to other gasoline components"); EPA, Office of Underground Storage Tanks, Cleanup of Releases from Petroleum USTs: Selected Technologies 10, 102 (Apr. 1988), http://1.usa.gov/1fdTBeV ("MTBE is extremely soluble in water" and can make remediation "considerably more expensive").

The EPA has found that MTBE concentrations in drinking water of 20 to 40 parts per billion or below provide a "large margin" of safety from any toxic effects. EPA, Office of Water, Drinking Water Advisory: Consumer Acceptability Advice & Health Effects Analysis on MTBE 1 (Dec. 1997), http://1.usa.gov/KOevnL.[2] New York law provides that drinking water is potable and safe for public consumption when MTBE levels are 10 parts per billion or lower. N.Y. Comp. Codes R. & Regs. Tit. 10, § 5-1.1(at); *see also* Tr. 3017 (JA3034) (City report stating it is "safe to drink" such water). The City asserted, however, that MTBE can cause taste and

[2] "MTBE has not been classified as a human carcinogen by either the EPA or the National Toxicology Program," and there was testimony below that "MTBE is at best a weak mutagen." App. 8. But, according to the Second Circuit, "some toxicological studies" show long-term consumption could "possibly lead to cancer." *Id.*; *see* App. 35 (discussing evidence of "potential health risks"). *See also* Cal. EPA, MTBE Briefing Paper 1 (Apr. 1997), http://bit.ly/1eI0Y9P ("This risk is very low in comparison to the substantial overall reduction in the estimated lifetime cancer risk" due to reduced air pollution).

odor problems even at or below 10 parts per billion. *See* App. 8–9.

In 2000, New York State responded to MTBE groundwater contamination by prospectively banning MTBE gasoline. N.Y. Agric. & Mkts. Law § 192-g (McKinney 2000). Recognizing the impossibility of complying with the federal mandate while immediately foreswearing MTBE, the law provided for a four-year transition period, giving manufacturers until January 1, 2004, to modify supply and distribution systems. In 2005, Congress repealed the oxygenate requirement. Energy Policy Act of 2005, Pub. L. 109-58, § 1504, 119 Stat. 594, 1076–80. MTBE gasoline has not been sold in New York for nearly a decade.

In 2000, during pilot testing of Station Six, the City detected MTBE in two of the PCE-contaminated wells. MTBE was detected in one well at 0.73 parts per billion and in another at 1.5 parts per billion. App. 12. In tests in 2003, MTBE was detected at 350 parts per billion in one well. *Id*. The City's expert concluded that the MTBE detected in 2000 and 2003 came from a Citgo service station, an Atlas station, and possibly also a BP Amoco station in Station Six's immediate vicinity. Tr. 2241–42 (JA2819–20); *see also* Pirnie Report at 7-31, 7-36 (JA938, 943).

While there is a clear link between those spills and the past contamination of the Station Six Wells, the possibility of future contamination from spills at other service stations (including Exxon stations) is speculative and complicated. MTBE spills from such stations will impact Station Six in the future only if

the wells' "capture zone" expands to reach the underground MTBE and the wells continue pumping long enough to draw MTBE into their outflow. A "capture zone" is the three-dimensional subterranean area of groundwater "that will be drawn into the Station 6 wells" if and when they begin operation. App. 18. "[T]he size and shape of the Station 6 capture zone depends heavily" on the predicted "pumping scenario," *i.e.*, "the location of the pumping wells, the pumping rates of the wells, and the schedule on which the wells would pump." App. 126. That "pumping scenario" in turn "could change over time" and depends on myriad factors, including the City's need to use the wells during planned and "presently unforeseen" infrastructure repairs elsewhere in the water system, and the pumping scenario at other wells that draw from the same aquifer. App. 20; App. 171–82; App. 189.

D. Procedural History

1. The City's Suit

In October 2003, the City sued Exxon and fifty-four other petroleum companies for MTBE contamination in the JWSC wells. The City alleged that the defendants "distributed, sold, manufactured, supplied, marketed, and designed MTBE … when they knew or reasonably should have known that MTBE … would cause damage to the groundwater" in and around Jamaica, Queens." App. 13.

The City raised state-law claims of defective design, public and private nuisance, negligence, trespass, and failure to warn, as well as a claim under the Toxic Substances Control Act, 15 U.S.C.

§ 2619. The case was removed to federal court and assigned to Judge Shira A. Scheindlin of the Southern District of New York as part of ongoing multi-district litigation concerning MTBE. After pretrial proceedings, the District Court slated the Station Six state-law claims for trial. All defendants except Exxon settled.

2. Trial

The District Court divided the trial into phases. In Phase 1, it asked the jury whether the City "intends, in good faith, to begin construction of the Station 6 [treatment] facility within the next fifteen (15) years," and "to use the water from the Station 6 wells, within the next fifteen (15) to twenty (20) years." App. 15. The jury answered in the affirmative. App. 18. The jury also found, however, that the City intended to use Station Six only as a periodic backup source of water, not continuously as a primary water supply. *Id.*

In Phase 2, the District Court asked the jury to make a series of predictions. It asked the jury to predict, assuming that the City fulfills its good faith intent to begin using Station Six within the next fifteen to twenty years, whether "MTBE will be in the groundwater of the capture zone of the Station 6 wells when they begin operation." App. 22. The District Court also asked the jury to predict "[a]t what peak level will MTBE be found in the combined outflow of the Station 6 wells, and when will that occur." App. 18. The "combined outflow" is "the combination of all the water from all the wells that goes into the treatment facility." *Id.* The jury

predicted that MTBE will be in the capture zone and that levels will peak at 10 parts per billion in the year 2033. App. 22.

In Phase 3, the District Court asked the jury to predict whether the City "is, or will be, injured by the MTBE that will be in the combined outflow of the Station 6 wells," given (1) its finding that "the city intends, in good faith, to use the water from the Station 6 wells within the next 15 to 20 years to serve as a backup source of drinking water"; and (2) its prediction in Phase 2 that "MTBE will peak at a level of 10 parts per billion in the combined outflow of the Station 6 wells in 2033." Tr. 7042 (JA4377). The jury answered in the affirmative. App. 33.

The jury also found that Exxon caused this predicted injury. First, the jury found that Exxon contributed to the injury based on its role as a "direct spiller" of MTBE gasoline—*i.e.*, because of spills or leaks from Exxon stations that have not yet contaminated Station Six's capture zone but may do so in the future. App. 22, 25–26, 33. Second, the jury found that Exxon contributed to all MTBE contamination drawn into Station Six, including from spills at non-Exxon stations, because of Exxon's role as a "manufacturer, refiner, supplier, or seller" of MTBE gasoline." *Id.*[3]

The jury ultimately rendered a mixed verdict. It rejected the City's design defect claim on the grounds

[3] The City "adduced testimony establishing that Exxon gasoline found its way into every underground storage tank in Queens," because "gasoline from different manufacturers was commingled before distribution." App. 87.

that the City had failed to prove that there was a "safer, feasible alternative" to MTBE at the time. App. 48. The jury also found that the City had failed to prove its private nuisance claim. App. 33. But the jury found Exxon liable for failure to warn, trespass, public nuisance, and negligence. *Id.* The jury found total damages of $250.5 million. *Id.* After offsets and attributing fault, the jury imposed $104.69 million in damages against Exxon. App. 33–34.

3. Post-Trial Rulings

Exxon moved for judgment as a matter of law and a new trial, renewing its arguments that, among other things, the City's suit was unripe and preempted, especially given the jury verdict on the lack of a safer, feasible alternative to MTBE. The District Court denied the motions.

First, the District Court held that the City's claims were ripe. The City "seeks past and future damages for a recurring injury that *has already* begun and that will recur in the future." App. 166 n.172. In such a case, "the plaintiff must show future damages only by a preponderance of the evidence and need not show that the harm is imminent." *Id.* It did not alter the outcome that the City had never used and could not use the Station Six Wells for many years. "[U]nder New York law, the City may recover for interference with use of [its] property provided that it actually intends, in good faith, to make such use of the property." *Id.* (quotation marks omitted).

The District Court did not square this holding, however, with the City's choice not to present a claim about past contamination or its causes. Reflecting

the City's choice to present a forward-looking suit, the instructions asked the jury "to provide numerical predictions in the liability phase of a trial." App. 168–69. They asked whether the city "is, or *will be*, injured by the MTBE that *will be* in the combined outflow of the Station 6 wells, given … that: (a) the city intends, in good faith, to use the water from the Station 6 wells *within the next 15 to 20 years* to serve as a back-up source of drinking water; and (b) MTBE *will peak* at a level of 10 parts per billion in the combined outflow of the Station 6 wells *in 2033*." Tr. 7042 (JA4377) (emphases added).

Second, the District Court held that the City's claims were not preempted. The District Court had previously held that preemption depended on a question of fact: whether another oxygenate would be "practicable" and "available." *In re MTBE Prods. Liab. Litig.*, 175 F. Supp. 2d 593, 616 (S.D.N.Y. 2001). Recognizing that it bore the burden of proving preemption, Exxon asked to instruct the jury on the factual question. Tr. 5512 (JA3961). The District Court refused, however, because it was asking a similar question about the City's design defect claim: The District Court was asking whether the City had proven that "there was a safer, feasible alternative design at the time [Exxon's] gasoline containing MTBE was marketed?" App. 48. The court explained that the jury's answer would resolve both questions. "If they said ethanol was a feasible alternative, you are finished, anyway, in conflict preemption. That is why I broke it out, so that we would know the answer, anyhow." Tr. 5510 (JA3960).

Accordingly, when the jury ruled in its favor on design defect, Exxon sought to use that finding to establish affirmatively that there was no safer, feasible alternative to MTBE. The District Court reversed course, however, holding that the verdict "does not alter" the result. App. 162. The court newly reasoned that, although the City bore the burden of proof on design defect, Exxon bore the burden on preemption, and thus the finding on the former did not establish a finding as to the latter. App. 159. Turning to the merits, the District Court held that, although it "may seem unfair" to impose a massive tort award against Exxon for complying with a federal mandate, "[t]he City's state tort claims simply provide a counterbalancing economic incentive … to decrease or eliminate the use of MTBE because of its severe environmental effects." App. 162.

4. The Second Circuit's Decision

The Second Circuit affirmed. First, it deemed the suit ripe. The panel characterized the City as seeking future damages for a past injury, holding that the City was injured in 2003 when it detected 350 parts per billion of MTBE in one of the Station Six Wells. App. 12, 75. "[T]he current disuse of the Station Six Wells and the future steps required to use them addresses the scope of the damages flowing from" the past contamination, the panel explained, "not whether there is an injury at all." App. 75.

This reasoning ignored the actual jury instructions, the reality that the MTBE detected in 2000 and 2003 came from non-Exxon stations, and

that the crux of the case against Exxon depended on speculation about what might happen if Station Six were turned on in the future. The panel also did not address Exxon's argument that a good-faith intent to act in fifteen years does not make a claim ripe. Rather, the panel simply noted that Exxon did not challenge the jury's finding that the City had such an intent. App. 76 n.32.

Second, the panel held that the City's claims were not preempted. App. 42–62. The panel was unmoved by the jury's finding as to the absence of a safer, feasible alternative to MTBE. *See* App. 48–51. The panel found that Exxon could not use the finding affirmatively because Exxon bore the burden on preemption, while the City bore the burden on its design defect claim. App. 48–49. The panel recognized that Exxon had requested a separate instruction precisely to avoid such a predicament. App. 51. But the panel held that the District Court did not err in refusing to give the instruction because Exxon "misstated the law." *Id*. On the merits, the panel held that the absence of a safer, feasible alternative would not establish that compliance with both state and federal law was impossible. *Id*. But it never explained why obstacle preemption is not triggered by the retroactive imposition of a state-law duty not to use MTBE when there was no safer, feasible alternative at the time. App. 52–60.

Finally, the panel held that, even if preemption were triggered, the judgment below would still stand because it was based on conduct above and beyond Exxon's mere use of MTBE. App. 60–62. "[A]ll of the

City's successful claims required the jury to find that Exxon both used MTBE and committed related tortious acts, such as failing to exercise reasonable care when storing gasoline that contained MTBE." App. 60.

REASONS FOR GRANTING CERTIORARI

This Court should grant certiorari for two basic reasons. First, the panel's ripeness holding conflicts with *Lujan* and *Clapper*, as the jury's verdict rests on a chain of contingent and speculative predictions about what might happen some day in the distant future, depending, among other things, on whether the City will fulfill its good-faith intent to build and use a treatment plant within the next fifteen to twenty years—and the unpredictable "pumping scenario" thereafter. Moreover, by giving a green light for plaintiffs to obtain massive current recoveries for merely potential future injuries, the decision below creates a significant incentive for litigants to bring contingent and speculative claims today.

Second, the panel's preemption ruling conflicts with *Geier* and *Williamson*. It is one thing to hold that a state-law suit is not preempted when a manufacturer has a true choice between different means for complying with a federal mandate. But here, the Second Circuit held that there was no preemption of a retroactive state-law duty barring the use of the safest, feasible option. That result is both manifestly wrong and important, as there are many state-law suits seeking to impose large

damages on manufacturers based on a retroactive duty not to use MTBE.

I. The Ripeness Holding Conflicts With *Lujan* And *Clapper* And Warrants This Court's Review

A. *Lujan* and *Clapper* Foreclose Suits Where a "Speculative Chain of Possibilities" Could Lead to an Injury "Some Day" in the Distant Future

"No principle is more fundamental to the judiciary's proper role in our system of government than the constitutional limitation of federal-court jurisdiction to actual cases or controversies." *Clapper*, 133 S. Ct. at 1146 (quoting *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 341 (2006)). To pass muster under Article III, a plaintiff must assert an injury that is "actual or imminent, not conjectural or hypothetical." *Lujan*, 504 U.S. at 560. "Although imminence is concededly a somewhat elastic concept, it cannot be stretched beyond its purpose, which is to ensure that the alleged injury is not too speculative for Article III purposes—that the injury is *certainly* impending." *Clapper*, 133 S. Ct. at 1147 (quoting *Lujan*, 504 U.S. at 565 n.2).

In *Lujan*, environmental groups sought to enjoin a regulation that lessened overseas protections under the Endangered Species Act, 16 U.S.C. § 1536. Although the groups had an obvious policy interest in protecting endangered species, to have standing under this Court's precedents a plaintiff must be "directly" affected apart from their "special interest in th[e] subject." *Sierra Club v. Morton*, 405 U.S.

727, 735, 739 (1972) (quotation marks omitted). The plaintiffs attempted to bootstrap standing by showing that members had traveled to see the endangered species in the past and merely "hope[d]" to do so again. *Lujan*, 504 U.S. at 563. This Court rejected the effort as too speculative. Imminence is particularly difficult to establish, this Court explained, where the claim is that an injury may occur "at some indefinite future time" and "the acts necessary to make the injury happen are at least partly within the plaintiff's own control." *Lujan*, 504 U.S. at 564 n.2. In such situations, courts require a "high degree of immediacy" to "reduce the possibility of deciding a case in which no injury would have occurred at all." *Id.* If the claim is merely that injury will occur "in this lifetime" or "some day" soon, it is premature. *Id.*

In *Clapper*, this Court emphasized two corollary principles in reversing the Second Circuit. First, this Court emphasized that a suit is not actionable if it is based on a "speculative chain of possibilities" that might lead to injury in the future. 133 S. Ct. at 1150; *id.* at n.5 (an "attenuated chain of inferences necessary to find harm" is insufficient). Second, a plaintiff "cannot manufacture standing [today] merely by inflicting harm on themselves based on their fears of hypothetical future harm that is not certainly impending." *Id.* at 1151. "If the law were otherwise, an enterprising plaintiff would be able to secure a lower standard for Article III standing simply by making an expenditure based on a nonparanoid fear." *Id.*

B. The Second Circuit Allowed the City To Recover $104 Million Based on a Speculative Chain of Possibilities Culminating in 2033

The Second Circuit's ripeness holding conflicts with these principles. The City obtained $104 million based on a "speculative chain of possibilities" that run into the distant future—literally decades from now—and are partially under the City's own control. Notably, the City does not own polluted land or water in fee simple. "Under New York law, the City does not actually own the water in Station Six; it simply owns the right to use that water." App. 73 n.31; *see Sweet*, 129 N.Y. at 335. The City thus can only be injured by MTBE if it infringes that "usufructuary" right to use. But the City has never used Station Six, and it "cannot be used" unless and until the City builds a facility to treat PCE, which has nothing to do with Exxon. App. 29 n.6, 73; *see also* App. 110 ("[I]t is undisputed that the PCE that is present at Station Six precludes the City from serving the water, even absent any MTBE contamination.").

Because the City's interest is only usufructuary and the preexisting PCE contamination prevents the City from using Station Six, the City made a choice not to focus on damages arising from the past detection of MTBE in the Wells in 2000 and 2003. Instead, the City's theory was far more ambitious: that the City would suffer an injury in the future if and when it actually builds the treatment plant, turns the wells on, and begins drawing otherwise remote groundwater into them. That ambitious

theory, however, has a glaring ripeness problem: It depends on a chain of contingent and factually-intensive predictions about the distant future.

This problem is self-evident in the jury instruction asking if the plaintiff "will be" injured—without any imminence requirement. App. 22. In an Article III court, the proper answer to such a question is not yes or no, but come back when the injury is ripe. *E.g., Lujan*, 504 U.S. at 560.[4]

Making the suit even more clearly premature, this future-tense instruction stacked speculation upon speculation. The jury speculated:

- whether the City will fulfill its good faith intention to start building a treatment plant in the next 15 years;
- whether, if as speculated the City actually builds a treatment facility, the City will use Station Six as a backup supply within 15 to 20 years;
- whether, if the City uses Station Six, the "pumping scenario" that it actually employs—*i.e.*, the frequency and extent of that speculated backup use, which in turn depends on unpredictable factors including "presently unforeseen infrastructure repairs" and the pumping scenario of other nearby wells—

[4] The instruction's use of the disjunctive, "is, or will be, injured" does not alter the analysis. Article III's case or controversy limitations are not optional; they are requirements. *Lujan*, 504 U.S. at 560.

causes the Station Six Wells' "capture zone" to encompass otherwise remote MTBE spills; and

- whether, depending on the size and shape of the speculated capture zone, enough otherwise remote MTBE will be drawn into the Station Six Wells so as even to require treatment.

See App. 15–16, 18–20; App. 22; 189. The District Court thus did not merely allow the jury to find a future injury sufficient, it asked the jury to make a string of predictions about what might (or might not) occur more than 15 years from now, depending on how the City uses wells that it cannot use unless and until it addresses PCE contamination. Indeed, the word "prediction" and its variants appear more than a dozen times in the District Court's opinion. App. 125, 126, 127, 136, 166, 167, 168, 169, 176, 177. And the jury's central finding on injury was that MTBE concentrations would peak at 10 parts per billion *in the year 2033*. App. 23. The consequence of all these predictions was that the City walked away with $104 million to redress an injury that has not yet occurred and may never occur.

The panel had no valid response. In a footnote, the panel stated that Exxon did not challenge the jury's finding that the City had a good faith intent to build and begin using a Station Six treatment plant within the next fifteen to twenty years. App. 76 n.32; *see also* App. 15–16. But that misses the point. The problem is not whether the City *has* a good faith intent; the problem is that a plaintiff's good faith intent *is not enough* to translate the possibility of future injury into the reality of a ripe injury. "The

City's 'good faith intent'" to treat and use the water in the next 15 to 20 years "does not suffice to render a claim ripe." Exxon Br. 23. The panel's conclusion that it was enough for the City to establish a "good faith intent" to embark on a path that might produce a future injury eviscerates Article III and merits this Court's review.[5]

The panel was just as off-base in describing this as a plain-vanilla lawsuit seeking future damages arising from a past injury, namely the 2003 detection of MTBE at 350 parts per billion in one of the Wells. App. 12, 75. Such a modest suit was not put to the jury and would not have produced a nine-digit award. Indeed, the City introduced little evidence about that past contamination, which came from spills at Citgo, Atlas, and BP Amoco service stations—not Exxon stations. Tr. 2241–42 (JA2819–20); *see also* Pirnie Report at 7-10, 7-17 to 7-20 (JA917, 924–27). The suit the City actually tried was a far more ambitious venture designed to recover today for future injuries it might suffer if and when it turns the wells on. The instructions made this clear: They asked whether the city "*is, or will be, injured* by the MTBE that *will be* in the combined outflow of the Station 6 wells, given … that: (a) the city intends, in good faith, to use the water from the Station 6 wells *within the next 15 to 20 years* to serve as a back-up source of drinking

[5] The panel also held that, if the City waited until its claims were ripe, it would suffer hardship because those claims would be untimely. App. 76. Not so. Exxon left no doubt that "[t]he statute of limitations … will not be a barrier" because the City has not been injured yet, so the clock has not started to tick. Exxon Br. 38; *see also* Oral Arg. at 10:45:09 a.m.

water; and (b) MTBE *will peak* at a level of 10 parts per billion in the combined outflow of the Station 6 wells *in 2033*." Tr. 7042 (JA4377) (emphases added). That is the epitome of an unripe, speculative claim that *Lujan* and *Clapper* foreclose.

C. The Ripeness Issue Is Important

The decision below opens up whole new arenas for abusive and speculative litigation. It is one thing to allow someone with a present injury to sue to recover future damages running from that injury. The present-injury requirement limits the universe of potential plaintiffs and gives judges and juries concrete targets for legal analysis. But allowing someone who has not yet suffered an actual or imminent injury to recover for injuries they might suffer in the future is no small innovation; it is completely foreign to Article III courts. As this case demonstrates, such an unchecked vision of ripeness presents ample opportunities for abuse. There is no guarantee the City will ever build or use Station Six, let alone that if it did so, the Wells' "capture zone" would morph in the way needed for MTBE contamination to reach the wells at injurious levels in the distant future. But it is guaranteed that, absent this Court's intervention, the City and its contingency-fee lawyers will walk away with a nine-figure damage award. And if the city puts that award to any use other than the enormously expensive treatment system the jury predicted would be necessary, the wells will remain contaminated with PCE and thus will never be turned on. In that

case, the future injury that the City recovered for will never occur.

If this Court allows this gambit to work, the lesson will not be lost on other cash-strapped governments. Why wait for mere risks to ripen into actual injuries when you can recover today and spend the money on current priorities? Indeed, given the potentially rich rewards and the willingness of plaintiffs' lawyers to help governments and others generate such "found money," there will be little constraint on these new-fangled future injury suits.

From this standpoint, the ripeness issue here is more consequential than in *Lujan* or *Clapper*. There, the ripeness doctrine prevented plaintiffs from manufacturing an injury as a basis for Article III review of government policies. Unripe suits in that context are problematic, but the incentives to enjoin government policies are limited and such disputes are often heavily if not purely legal. Here, by contrast, there are more than a hundred million reasons for the City and others to bring suits like this, and once the ripeness hurdle is cleared the questions are intensely factual. For such fact-intensive litigation, a concrete injury is indispensable. *Cf. Nat'l Park Hospitality Ass'n v. Dep't of Interior*, 538 U.S. 803, 812 (2003) (a case is generally not ripe when "further factual development would significantly advance [the] ability to deal with the legal issues presented.").

II. The Preemption Ruling Conflicts With *Williamson* And *Geier* And Warrants This Court's Review

1. The panel's holding that there is no preemption also conflicts with *Williamson* and *Geier*. Exxon has been saddled with a $104 million judgment for complying with a federal mandate to add an oxygenate to its gasoline, and Exxon had no safer, feasible alternative to MTBE.

Unless Congress dictates otherwise, a state law conflicts with federal law if (1) it is impossible to comply with both; or (2) state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." *Geier*, 529 U.S. at 899 (quotation marks omitted). *Geier* and *Williamson* establish that when federal law imposes a mandate but leaves private parties with a choice of how to comply, a state-law tort duty that would take one option off the table obstructs federal objectives when maintaining the choice is a "significant objective." *Williamson*, 131 S. Ct. at 1135–36; *Geier*, 529 U.S. at 875.

Preemption here follows *a fortiori* from *Williamson* and *Geier*. At the outset, if Congress or EPA expressly required use of MTBE, a state-law duty not to use MTBE would plainly be preempted. *E.g., Pliva, Inc. v. Mensing*, 131 S. Ct. 2567, 2577 (2011) ("It was not lawful under federal law for the Manufacturers to do what state law required of them.").

The fact that the law permitted use of other oxygenates means that conflict preemption principles

are also implicated, but does not change the result, particularly because MTBE was the safest, feasible means of complying. Congress "inten[ded] to preserve a role for the two major oxygenates—MTBE and ethanol—in the oxygenated gasoline program." 57 Fed. Reg. at 47,852. Furthermore, when New York and other States have legislated to address MTBE groundwater concerns, they have recognized that there would be a real-world conflict between an immediate ban on MTBE and the federal mandate: They adopted lengthy transition periods, phasing out MTBE over time.[6] *See also* Cal. Exec. Order No. D-52-02 (Mar. 14, 2002) (extending transition period to four years because three-year phase out was "not possible"); Cal. Energy Comm'n, Supply and Cost of Alternatives to MTBE in Gasoline 3 (Feb. 1999), http://bit.ly/JL31R8 ("If the use of MTBE were discontinued immediately, the consequences would be dire for consumers and catastrophic for California's economy."). Of course, a tort duty not to

[6] Ariz. Rev. Stat. § 41-2122 (235 days); Cal. Code Regs. tit. 13 § 2262.6 (extended to 1742 days); Col. Rev. Stat. § 25-7-139 (606 days); Conn. Gen. Stat. § 22a-45a (extended to 1292 days); Ill. Stat 415-122 (1096 days); Ind. Code § 16-44-2-8 (754 days); Iowa Code § 214A.18 (183 days); Kans. Stat. § 55-527 (1096 days); Ky. Rev. Stat. § 363.9053 (1266 days); Me. Rev. Stat. tit. 38, § 585-*l* (520 days); Mich. Comp. Laws § 290.643 (1070 days); Minn. Stat. § 239.761 (1899 days); Mo. Rev. Stat. 414.043 (1038 days); Mont. Code Ann. § 82-15-102 (251 days); Neb. Rev. Stat. § 66-1227 (93 days); N.H. Rev. Stat. § 146-G:12 (949 days); N.J. Rev. Stat. § 26:2C-8.24 (1232 days); N.C. Gen. Stat. § 119-26.3 (924 days); N.D. Cent. Code § 19-10-03.2 (123 days); Ohio Rev. Code § 3704.12 (1038 days); R.I. Gen. Laws § 31-37-7.1 (695 days); S.D. Codified Laws § 37-2-33 (123 days); Vt. Stat. tit. 10 § 577 (588 days); Wash. Rev. Code § 19-112-100 (967 days); Wisc. Stat. § 168.04 (356 days).

use MTBE is far more onerous than an immediate statutory ban: it is retroactive.

The Ninth Circuit has held that the bare existence of a choice under the RFG Program is sufficient to defeat preemption. *See Oxygenated Fuels Ass'n v. Davis*, 331 F.3d 665, 673 (9th Cir. 2003). But that is wrong. As the District Court initially recognized, preemption cannot be defeated without evaluating the real-world burdens of a duty not to use MTBE. *See* 175 F. Supp. 2d at 616. Another district court reached a similar conclusion, denying a preemption challenge to New York's MTBE ban because the record in that case showed that, with a *five-year* transition period, it would have only "[a] short-term or relatively small impact on prices and/or supply." *Oxygenated Fuels Ass'n v. Pataki*, 293 F. Supp. 2d 170, 180–81 (N.D.N.Y. 2003); *see also Oxygenated Fuels Ass'n v. Pataki*, 158 F. Supp. 2d 248, 256 (N.D.N.Y. 2001) (denying summary judgment because preemption turned on question of material fact).

The preemption problem is sharper here. First, unlike *Pataki* or *Davis*, the state-law duty here has no transition period; it is retroactive. Second, the evidence and verdict here establish that Exxon had no safer, feasible alternative to MTBE at the time. It is one thing to allow a state to eliminate one option when it leaves private parties with other practical means of compliance. *Cf. Williamson*, 131 S. Ct. at 1134. But when there is no real-world choice—when a private party has no safer, feasible alternative for complying with a federal mandate—a

state-law duty retroactively foreclosing that "choice" is effectively a state-law penalty on complying with federal law.

Extensive record evidence showed that Exxon had no safer, feasible alternative to using MTBE. The only alternative to MTBE the City addressed was ethanol, and the City's own expert testified that the "obstacles were many" to its use. Tr. 4656 (JA3641).[7] Among others, ethanol-blended gasoline could not be shipped by pipeline, giving rise to a host of distribution problems. Tr. 4695–96, 4698–4700 (JA3659, 3660–61). Exxon could not unilaterally use ethanol in New York, because the State's distribution facilities were shared with other gasoline providers that used MTBE and ethanol could not be blended with MTBE gasoline in the summer. Tr. 4458–61 (JA3571–73); Tr. 5313 (JA3876); Tr. 5318–30 (JA3878–84); Tr. 5603–07 (JA4000–03). The ethanol industry was also heavily concentrated and economically dependent on subsidies, creating a supply-chain risk that did not exist for MTBE. Tr. 4672–73, 4689–93, 4702 (JA3648–49, 3656–58, 3662). And perhaps most importantly for purposes of the *Clean Air* Act and a frustration-of-purposes analysis, ethanol is less effective than MTBE at reducing harmful air pollution. Tr. 4661–65 (JA3643–45); *see also* NESCAUM Report at 10 ("It is

[7] The other approved oxygenates were "not considered viable alternatives." *E.g.,* NESCAUM Report, Attach. III at 14, 16. The City's experts echoed similar points. *E.g.,* Tr. 3343 (JA3148) ("not … likely to improve the situation vis-à-vis groundwater"); Tr. 5924 (JA4096) ("much more difficult to remove" from water).

likely … that an immediate ban on MTBE cannot be accomplished without substantial increases in gasoline prices, supply shortages, and a substantial increase in air toxic emissions.").

Faced with this evidence, the jury rejected the City's design defect claim because the City had not proven there was a safer, feasible alternative. App. 48. The Court of Appeals dismissed that verdict as inconsequential for preemption because the City bears the burden of proof on design defect, while Exxon bears the burden on preemption. App. 51. But on this record, the verdict should affirmatively establish preemption. Precisely to avoid any suggestion that the burden of proof mattered, Exxon requested a separate instruction for the jury to make an affirmative fact finding on preemption. *Id.* The District Court denied that request, essentially treating the design-defect instruction as a special interrogatory that would answer both questions. *See* Tr. 5510–15 (JA3960–63) (Exxon: "I think to preserve the defense for us, we need to have this remain in there." Court: "I am glad you think you need it, but I think if I do decide to break up the elements in the [design defect] claim … you will have at least preserved the factual finding of this jury, for what it is worth."). Yet after the jury found in Exxon's favor on design defect, the District Court reversed course and refused to use the verdict affirmatively for preemption. App. 159. This is palpably unfair.

In any event, the Court of Appeals affirmed the District Court's refusal to give Exxon its requested instruction by holding that Exxon "misstated the

law." App. 51. Whether that is true is the question posed by this petition.

In answering that question, the Court of Appeals only addressed half of the necessary analysis. The panel evaluated the instruction in light of impossibility, explaining that the design defect standard is "less demanding than … the standard for establishing impossibility preemption." App. 49. Even assuming the Court of Appeals was correct, at best this analysis only addresses impossibility. And when the panel analyzed obstacle preemption, it ignored the instruction entirely. *See* App. 55–60. It gave no explanation why state-law tort liability for using the safest, feasible means of complying with a federal mandate would not obstruct "the accomplishment and execution" of Congress' "full purposes and objectives" in imposing that mandate. *Geier*, 529 U.S. at 899. The silence is telling.[8]

2. The preemption issue is also important. MTBE was widely used to comply with Congress' mandate, and as a result there are numerous suits

[8] The District Court's response was no better. It held that there was no obstacle on the theory that the award merely "provide[d] a counterbalancing economic incentive … to decrease or eliminate the use of MTBE." App. 162. This pay-as-you-go theory of preemption conflicts with decades of this Court's precedents. For example, in *Mutual Pharmaceutical Co. v. Bartlett*, 133 S. Ct. 2466 (2013), this Court rejected the argument that a tort award does not trigger impossibility preemption because it "does not impose any actual legal obligation" but instead "merely create[s] an incentive" for manufacturers to change their behavior. *Id.* at 2479. *A fortiori*, paying-as-you-go does not eliminate an obstacle. *See also, e.g.*, *Geier*, 529 U.S. at 866; *Williamson*, 131 S. Ct. at 1136 (collecting cases).

pending that involve MTBE groundwater contamination. Indeed, the $104 million judgment here arises from a trial of only 5 of the 69 former JWSC wells; there are dozens of other wells that have not yet been tried. Moreover, numerous other suits are consolidated for pretrial purposes before the same District Court. *See Commonwealth of Puerto Rico v. Shell Oil Co.*, No. 07-cv-10470 (D.P.R. filed June 12, 2007); *N.J. Dep't of Envtl. Prot. v. Atlantic Richfield Co.*, No. 08-cv-00312 (N.J. Super. Ct. filed June 28, 2007); *Orange Cnty. Water Dist. v. Unocal Corp.*, No. 04-cv-4968 (Cal. Super. Ct. filed May 6, 2003); *City of Fresno v. Chevron U.S.A., Inc.*, No. 04-cv-4973 (Cal. Super. Ct. filed Oct. 22, 2003); *City of Manning v. Ashland Inc.*, No. 13-cv-3033 (N.D. Iowa June 27, 2013); *Town of Brewster v. Atl. Richfield Co.,* No. 13-cv-07247 (D. Mass. Filed July 15, 2013); *City of Portageville v. Ashland, Inc.,* No. 13-cv-07299 (E.D. Mo. filed June 27, 2013); *Town of Hinesburg v. Atl. Richfield Co.,* No. 13-cv-07271 (D. Vt. July 16, 2013). Still more MTBE-related suits are pending in state courts, including one in which a jury recently held Exxon liable for more than $236 million in damages. Order on Motion for Judgment Notwithstanding the Verdict at 1, *New Hampshire v. Hess Corp.*, No. 03-C-550 (N.H. Sup. Ct. Aug. 9, 2013), *appeal pending*, No. 2013-0591 (N.H. Sept. 10, 2013).

More broadly, the preemption ruling is unfair and obstructs the federal government's ability to implement policy decisions with real-world tradeoffs. The federal government made a judgment that

improvements to air quality brought primarily by using MTBE would benefit public health, notwithstanding EPA's belief that "MTBE will probably contribute to an increase in incidents of contamination." *E.g.,* 53 Fed. Reg. at 10,392. To achieve this air-quality improvement, the government mandated action by private parties. Those private parties are now being forced under state law to pay for the downsides of the federal policy choice—even though they had no safer, feasible alternative for complying with the federal mandate. This turns the Supremacy Clause on its head. The way to reconcile competing federal and state commands is not to have private companies pay for both. When state law frustrates the purpose of a federal regime, the Supremacy Clause makes clear that the state law must give way.

III. The Questions Are Squarely Presented

In its ruling below, the Second Circuit sought to avoid both the ripeness and preemption problems, but they cannot be avoided and instead are squarely presented for this Court's review.

First, the panel held that the City's suit was ripe only by framing it as a "*present* injury" case seeking damages arising from the past detection of MTBE in Station Six Wells. App. 75. As noted, that argument ignores the suit the City actually pursued and the actual instructions to the jury. In any event, a past injury claim would be preempted.

Those past detections were caused by leaks at Citgo, Atlas, and possibly BP Amoco stations. Tr. 2241–42 (JA2819–20). Alleged shortcomings in

Exxon's storage or handling of MTBE obviously did not cause this contamination—it did not come from Exxon stations. *See* App. 60. Instead, the City introduced evidence that, because Exxon manufactured, refined, and supplied MTBE gasoline, its MTBE gasoline "ended up" in every underground storage tank in Queens due to "commingling" of different manufacturers' gasoline during distribution, and Exxon thereby contributed to MTBE contamination even from non-Exxon stations. App. 87–88. But a state-law duty not to manufacture, refine, or supply MTBE gasoline is clearly preempted when Exxon had no safer, feasible alternative means for complying with the federal mandate.

Conversely, the panel held that the judgment would still stand even if a state tort duty not to use MTBE were preempted. *See* App. 60–61. The panel explained that "all of the City's successful claims required the jury to find that Exxon both used MTBE and committed related tortious acts, such as failing to exercise reasonable care when storing gasoline that contained MTBE." App. 60. Exxon has always agreed that "Congress did not give manufacturers a license to spill MTBE gasoline." Exxon Reply Br. 9–10. But to the extent there was evidence that Exxon committed "additional tortious conduct" that caused MTBE spills, that evidence focused on spills at the otherwise remote Exxon stations that were the centerpiece of the City's future-injury claim. Spills at those stations did not contribute to the past contamination the City has detected, and will not

cause the City an injury, if at all, for many years, depending on a long cascade of uncertain events.

The City's failure-to-warn claim also does not change the analysis as to the past non-Exxon spills. Again, the City chose not to put any past-injury claim to the jury. Reflecting that choice, the City did not identify any particular warning that Exxon allegedly should have given to the Atlas, Citgo, or BP Amoco station operators, much less one that Exxon had a legal duty to give. The City did not ask these station operators (or a warnings expert) how they would have responded to additional warnings, particularly given the common knowledge that spilling gasoline is harmful to the environment. And the City did not introduce evidence showing that these particular spills could have been avoided by Exxon giving any warning to anybody. *See* Pirnie Report at 7-19 to 7-31 (JA926–39) (discussing the fact of each spill but not the impact of warnings or other efforts at prevention or mitigation). Quite simply, the City's failure to warn claim looked to the future, not the past.

The future injury claim is thus unripe, and to the extent the City presented a "past injury" claim, it would be preempted. This case thus squarely presents the ripeness and preemption questions.

CONCLUSION

For the reasons set forth above, this Court should grant the petition for certiorari.

Respectfully submitted,

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January 13, 2014

APPENDIX

TABLE OF APPENDICES

Appendix A

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

Nos. 10-4135 (L), 10-4329 (XAP)

IN RE: METHYL TERTIARY BUTYL ETHER ("MTBE")
PRODUCTS LIABILITY LITIGATION

On Appeal from the United States District Court
for the Southern District of New York
No. 00-1898

Argued: May 23, 2012
Decided: July 26, 2013
Before: PARKER, HALL, and CARNEY, Circuit Judges

OPINION

After an eleven-week bellwether trial and years of related litigation, the District Court entered a $104.69 million judgment for the City of New York, the New York City Water Board, and the New York City Municipal Water Finance Authority (collectively, the "City") and against Exxon Mobil Corporation, Exxon Mobil Oil Corporation, and Mobil Corporation (collectively, "Exxon"). The jury found Exxon liable under New York tort law for contaminating City-owned wells in Queens by its release of the chemical methyl tertiary butyl ether ("MTBE"), which Exxon used as a gasoline additive from the mid-1980s through the mid-2000s, and

whose use New York State banned as of 2004. On appeal, Exxon challenges the verdict, arguing primarily that the City's common law claims are preempted by the federal Clean Air Act, which, from the mid-1990s through 2004, required use of gasoline oxygenates, such as MTBE, in New York City. Exxon also argues that because (among other reasons) the jury projected MTBE levels equal to the State's maximum contaminant level, the City's injury was not legally cognizable; that the City's action was not ripe for adjudication (or alternatively, that it was barred by the statute of limitations); that the City failed sufficiently to prove the elements of negligence, trespass, public nuisance, and failure-to-warn; and that the District Court erred in its handling of alleged jury misconduct. On cross-appeal, the City faults the District Court for instructing the jury to offset its damages award by the cost of remediating pre-existing contamination, and for its ruling that, as a matter of law, the City was not entitled to an award of punitive damages. For the reasons set forth below, we AFFIRM the decision of the District Court in its entirety.

SUSAN L. CARNEY, *Circuit Judge*:

Exxon Mobil Corporation, Exxon Mobil Oil Corporation, and Mobil Corporation (collectively, "Exxon") appeal from an amended judgment entered in favor of the City of New York, the New York City Water Board, and the New York City Municipal Water Finance Authority (collectively, "the City") on September 17, 2010, in the United States District Court for the Southern District of New York (Shira A.

Scheindlin, *Judge*), following an eleven-week jury trial and post-trial proceedings. The case was selected to serve as a bellwether trial in certain long-running multidistrict litigation, consolidated in the District Court, that concerns contamination of groundwater by the organic chemical compound methyl tertiary butyl ether ("MTBE").[1]

As described in greater detail below, this extended litigation arose from the intensive use of MTBE as a gasoline additive by Exxon and other gasoline companies in the New York area from the 1980s through the first half of the 2000s, when a state ban on MTBE brought the era to an end. Treatment with MTBE increased the oxygen content of gasoline and mitigated harm to air quality caused by automobile emissions, thereby furthering the goals of the Clean Air Act, 42 U.S.C. §§ 7401-7671q,

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[1] The path of this litigation is charted in a number of District Court opinions, as well as one opinion of our own Court. *See In re MTBE Prods. Liab. Litig.*, 175 F. Supp. 2d 593 (S.D.N.Y. 2001) (*MTBE I*); *In re MTBE Prods. Liab. Litig.*, 379 F. Supp. 2d 348 (S.D.N.Y. 2005) (*MTBE II*); *In re MTBE Prods. Liab. Litig.*, 457 F. Supp. 2d 324 (S.D.N.Y. 2006) (*MTBE III*); *In re MTBE Prods. Liab. Litig.*, 458 F. Supp. 2d 149 (S.D.N.Y. 2006) (*MTBE IV*); *In re MTBE Prods. Liab. Litig.*, 488 F.3d 112 (2d Cir. 2007) (*MTBE V*); *In re MTBE Prods. Liab. Litig.*, 2007 WL 1601491 (S.D.N.Y. June 4, 2007) (*MTBE VI*); *In re MTBE Prods. Liab. Litig.*, 644 F. Supp. 2d 310 (S.D.N.Y. 2009) (*MTBE VII*); *In re MTBE Prods. Liab. Litig.*, 643 F. Supp. 2d 446 (S.D.N.Y. 2009) (*MTBE VIII*); *In re MTBE Prods. Liab. Litig.*, 2009 WL 2634749 (S.D.N.Y. Aug. 25, 2009) (*MTBE IX*); *In re MTBE Prods. Liab. Litig.*, 2009 WL 3347214 (S.D.N.Y. Oct. 19, 2009) (MTBE X); *In re MTBE Prods. Liab. Litig.*, 2010 WL 1328249 (S.D.N.Y. Apr. 5, 2010) (*MTBE XI*); *In re MTBE Prods. Liab. Litig.*, 739 F. Supp. 2d 576 (S.D.N.Y. 2010) (*MTBE XII*).

as amended from time to time. Because of spillage and leakage from gasoline stored in underground tanks, however, MTBE-treated gasoline was released into the ground, contaminating groundwater supplies. MTBE causes water to assume a foul smell and taste, and has been identified as an animal carcinogen and a possible human carcinogen. In 1990, Congress identified MTBE as one of several additives that gasoline suppliers might use to satisfy new federal oxygenate requirements set forth in amendments to the Clean Air Act, calling for the creation of a "reformulated gasoline" program. In 2005, however, Congress ended that program.

In this suit, the City sought to recover from Exxon for harm caused by the company's introduction of gasoline containing MTBE into a system of water wells in Queens known as the Station Six Wells. Although not currently operative, the City alleged that the Station Six Wells are a significant component of its overall plan to deliver potable water to its residents without interruption over many years to come. Without significant treatment of the water drawn by those wells, the City would be unable to rely on their eventual use, and it alleged that this inability constituted a serious and compensable harm under various State tort law and other legal theories.

Because of the matter's complexity, the trial proceeded in several phases. Phase I of the trial addressed whether the City established that it intends in good faith to use the Station Six Wells as a source of drinking water in the future. The jury answered that question in the affirmative. In Phase

II, the jury was asked whether MTBE will be in the Station Six Wells when those wells begin operating, and at what peak level MTBE will be found. Again answering in the affirmative, the jury concluded that the concentration of MTBE will peak at 10 parts per billion ("ppb") in 2033.

Phase III addressed questions of liability and damages. In Phase III, the jury found Exxon liable to the City under New York law for negligence, trespass, public nuisance, and failure-to-warn; the jury found that Exxon was not liable, however, on the City's design-defect and private nuisance claims. The jury then calculated a gross compensatory award reflecting its assessment of the damage to the wells caused by MTBE contamination generally. It offset this award by amounts it attributed to the damage caused by the introduction of MTBE by companies other than Exxon and by preexisting contamination by other chemicals. The result was the jury's finding—and the court's imposition—of a damages award of $104.69 million, plus pre-judgment and post-judgment interest, for the City.

After ruling that, as a matter of law, Exxon's conduct provided an inadequate basis for assessing punitive damages in the City's favor, the District Court did not permit the City to proceed with a proposed Phase IV, in which the jury would have addressed that question. The District Court then entered judgment on the claims submitted to the jury pursuant to Federal Rule of Civil Procedure 54(b), holding in abeyance any proceedings on the City's additional claims under the Toxic Substances Control Act, 15 U.S.C. §§ 2601-2692 (creating liability for,

inter alia, failing to inform the EPA of known risks associated with the use of a chemical), and under New York State Navigation Law § 181(5) (creating liability for oil spillage).

On appeal, Exxon contends that: (1) the City's claims are preempted by the Clean Air Act; (2) the City has suffered no cognizable injury; (3) the City's claims are not ripe (or, in the alternative, are barred by the statute of limitations); (4) the City failed to prove injury or causation; (5) the City's claims fail as a matter of New York law; and (6) the District Court abused its discretion by failing to declare a mistrial as a result of alleged juror misconduct. In its cross-appeal, the City contends that the District Court erred by: (1) declining to allow a punitive damages phase to proceed; and (2) requiring the jury to offset its gross damages finding by an amount attributable to preexisting contamination.

For the reasons that follow, we AFFIRM the judgment of the District Court in its entirety.

I. BACKGROUND

We begin by setting forth in some detail the factual background and providing an account of the district court proceedings. We then turn to a discussion of the key legal issues raised by Exxon's appeal: primarily, preemption, legal cognizability of injury, ripeness, and sufficiency of the evidence with regard to injury and causation and as to specific elements of each of the City's New York state law tort claims. We next briefly address Exxon's juror misconduct claim. Finally, we discuss the City's arguments regarding the jury's calculation of its

damages and the District Court's denial of its claim for punitive damages.

Unless otherwise noted, the following facts are either undisputed or are viewed in the light most favorable to the City. *See Tepperwien v. Entergy Nuclear Operations, Inc.*, 663 F.3d 556, 561 n.1 (2d Cir. 2011).

A. MTBE and Its Effects

MTBE is an organic chemical compound derived from methanol and isobutylene. Until the mid-2000s, MTBE was widely used in certain regions of the United States, including in New York State, as a fuel oxygenate, *i.e.*, an additive that reduces harmful tailpipe emissions by increasing the octane level in gasoline. By virtue of its chemical properties, however, spilled MTBE spreads easily into groundwater supplies. The Environmental Protection Agency ("EPA") advises:

> MTBE is capable of traveling through soil rapidly, is very soluble in water . . . and is highly resistant to biodegradation. . . . MTBE that enters groundwater moves at nearly the same velocity as the groundwater itself. As a result, it often travels farther than other gasoline constituents, making it more likely to impact public and private drinking water wells. Due to its affinity for water and its tendency to form large contamination plumes in groundwater, and because MTBE is highly resistant to biodegradation and remediation, gasoline releases with MTBE can be substantially

> more difficult and costly to remediate than gasoline releases that do not contain MTBE.

Methyl Tertiary Butyl Ether (MTBE); Advance Notice of Intent to Initiate Rulemaking Under the Toxic Substances Control Act to Eliminate or Limit the Use of MTBE as a Fuel Additive in Gasoline, 65 Fed. Reg. 16094, 16097 (proposed Mar. 24, 2000) (to be codified at 40 C.F.R. Part 755).

Contamination of groundwater supplies by MTBE is undesirable because MTBE has a "very unpleasant turpentine-like taste and odor that at low levels of contamination can render drinking water unacceptable for consumption." *Id.* Further, although MTBE has not been classified as a human carcinogen by either the EPA or the National Toxicology Program, *see* Testimony of Sandra Mohr ("Mohr Testimony"), Trial Transcript ("Tr.") at 3055:7; *id.* at 3097:5-6, some toxicological studies "show [that MTBE] can cause [DNA] mutations," Testimony of Kenneth Rudo ("Rudo Testimony"), Tr. at 3262:18-19, which "can possibly lead to cancer," *id.* at 3267:22-23. *But see* Mohr Testimony, Tr. at 3104:20-21 (testifying that "MTBE is at best a weak mutagen and may not be particularly mutagenic at all").

New York law limits the concentration of contaminants permitted in drinking water. *See* N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.1 (ap). If the concentration of a particular contaminant exceeds the relevant "maximum contaminant level" ("MCL"), the water may not be served to the public. *See id.* § 5-1.30. From 1989 through December 23, 2003, the

MCL for MTBE was 50 ppb.[2] N.Y. Comp. Codes R. & Regs. tit. 10, § 5-1.52 (2002). Effective as of December 24, 2003, the MCL for MTBE was reduced to 10 ppb. *Id.* § 5-1.52 (2003).

Effective January 1, 2004, New York State banned the use of MTBE in gasoline. *See* N.Y. Agric. & Mkts. Law § 192-g (2000).

B. The Clean Air Act and the Reformulated Gasoline Program

The Clean Air Act, 42 U.S.C. §§ 7401-7671g, first passed in 1955 and amended in 1965 to impose nationwide emission standards for automobiles, establishes a comprehensive regulatory scheme to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare" and "encourage and assist the development and operation of regional air pollution prevention and control programs." 42 U.S.C. § 7401(b). *See generally Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. New York State Dep't of Envtl. Conservation*, 17 F.3d 521, 524-28 (2d Cir. 1994) (tracing development of Clean Air Act).

In 1990, Congress amended the Clean Air Act to establish the Reformulated Gasoline Program ("RFG Program"). *See* Pub. L. No. 101-549, § 219, 104 Stat. 2399, 2492-2500 (1990). The RFG Program mandated the use of "reformulated gasoline"—gasoline

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[2] New York's MCL is denominated in micrograms per liter; this measure is equivalent to parts per billion. *See, e.g.*, Zane Satterfield, *What Does ppm or ppb Mean?*, Nat'l Envtl. Servs. Ctr., W. Va. Univ., at 1 (2004), http://www.nesc.wvu.edu/ndwc/articles/ot/fa04/q&a.pdf.

enhanced with certain additives—in metropolitan areas with significant concentrations of ambient ozone. *See* 42 U.S.C. § 7545(k) (2000). Its goal was to obtain the "greatest reduction [achievable] in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year)." *Id.* § 7545(k)(1).

As relevant here, the RFG Program required that reformulated gasoline consist of at least two percent oxygen by weight. *Id.* § 7545(k)(2)(B). Refiners and suppliers met this requirement by adding oxygenates such as MTBE to their gasoline. The Clean Air Act did not mandate the use of any particular oxygenate. Rather, the EPA identified several additives, including MTBE, that refiners and suppliers could blend into reformulated gasoline and thereby satisfy the requirements of the RFG Program.[3] *See, e.g.*, 40 C.F.R. § 79.56(e)(4)(ii)(A)(1)(i) (2000); *id.* § 80.46(g)(9)(i).

Fifteen years later, in 2005, Congress altered its approach and again amended the Clean Air Act—this time, to eliminate the oxygenate requirement for reformulated gasoline. Energy Policy Act of 2005, § 1504, Pub. L. 109-58, 119 Stat. 594, 1076-77 (amending 42 U.S.C. § 7545).

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[3] The additives identified by the EPA included ethanol, MTBE, ethyl tertiary butyl ether, tertiary amyl methyl ether, and diisopropyl ether. *See, e.g.*, 40 C.F.R. § 79.56(e)(4)(ii)(A)(1)(i) (2000); *see also MTBE V*, 488 F.3d 112, 126 (2d Cir. 2007).

C. The City's Water-Supply System

The City's water-supply system provides drinking water to over eight million customers within City limits, and to one million customers in upstate New York. Phase III Joint Pretrial Order ("JPTO") Statement of Undisputed Facts ¶ 41. The City's system relies largely upon water that is drawn from three upland reservoir systems and then transported into the City through a network of aqueducts and tunnels. *Id.* ¶¶ 41-43. Major components of the City's system are aging and in need of maintenance and repair. *Id.* ¶ 44.

In the late 1980s, an intergovernmental task force organized by the City's Mayor (the "Task Force") assessed the City's long-term water supply needs and proposed ways for the City to meet those needs. *Id.* ¶ 26. Among other things, the Task Force recommended that the City investigate the feasibility of using groundwater from the Brooklyn-Queens Aquifer System—a thick layer of permeable soil and rock beneath Brooklyn and Queens through which groundwater moves—to supplement the City's existing surface-water system. *Id.* ¶ 27. The investigation led to a report issued in 1999, recommending that the City use local groundwater for "potable drinking water supply" and that the City treat the groundwater at several regional treatment facilities, or "well clusters." *Id.* ¶¶ 29-30.

One of those well clusters is in Jamaica, Queens, and is known as Station Six (the "Station Six Wells"). The quality of the water at those wells is the subject of this appeal. Purchased by the City in 1996, the Station Six Wells were formerly managed by the

Jamaica Water Supply Company. Most of the Station Six Wells draw from the shallowest aquifer beneath Queens. *Id.* ¶¶ 11, 15-16, 76, 93.

The City first detected MTBE in the Station Six Wells in April 2000, when readings from untreated water drawn from one well showed MTBE concentrations of 0.73 ppb and readings from another well showed MTBE concentrations of 1.5 ppb. *Id.* ¶¶ 108, 111. Testing conducted three years later, in January 2003, showed that MTBE levels had reached 350 ppb in one of the wells. *Id.* ¶ 109.

At no point since acquiring them in 1996 has the City pumped water from any of the Station Six Wells into its drinking water distribution system. *Id.* ¶ 79. A treatment facility there is in the planning stages, but construction has not begun.

D. The City's Claims

In October 2003, the City sued Exxon and twenty-eight other petroleum companies, complaining of injuries to its water supply from gasoline containing MTBE. Over the following year, the City amended its complaint to include twenty-six additional petroleum company defendants. All defendants except Exxon settled before trial. The City's Fourth Amended Complaint (the "Amended Complaint"), filed March 9, 2007, governed the claims against Exxon tried during the Station Six bellwether trial.

In the Amended Complaint, the City sought to recover "all costs and damages . . . that it has incurred, is incurring, and will incur from investigating, cleaning, detecting, monitoring, preventing, abating, containing, removing, and

remediating" the harm caused by MTBE "to the City's groundwater well system as a result of contamination of the soil and/or the aquifer from which these wells draw water." Am. Compl. ¶ 1. The City alleged that the petroleum company defendants "distributed, sold, manufactured, supplied, marketed, and designed MTBE . . . when they knew or reasonably should have known that MTBE . . . would cause damage to the groundwater" in and around Jamaica, Queens. *Id.* ¶ 3. In particular, the City asserted that the petroleum company defendants knew at relevant times that MTBE was highly soluble in groundwater, *see id.* ¶ 100, that MTBE was highly prone to spreading widely from a spill point, *see id.* ¶¶ 88-89, and that underground gasoline tanks in which reformulated gasoline was stored leaked regularly, *see id.* ¶¶ 92-94.

The City asserted the following ten causes of action:

- strict liability for defective design of the gasoline, based on the "unreasonably dangerous and foreseeable risk to groundwater" posed by MTBE, *id.* ¶ 131;
- strict liability for failure-to-warn, based on defendants' "strict duty to warn against latent dangers resulting from foreseeable uses of [MTBE] that [d]efendants knew or should have known about," *id.* ¶ 136;
- negligence, based on defendants' breach of their duty "not to place into the stream of commerce a product that was in a defective condition and . . . unreasonably dangerous to groundwater resources," *id.* ¶ 143;

- civil conspiracy, based on an "industry-wide conspiracy to suppress information regarding the threat that [MTBE] posed to groundwater resources," *id.* ¶ 150;
- public nuisance, based on "interfere[nce] with and . . . damage to a public or common resource that endangered public property, health, safety and comfort," *id.* ¶ 161;
- private nuisance, based on "contamination now interfering with the City's rights as property owner," *id.* ¶ 173;
- trespass, based on the "placement of . . . MTBE on and in property owned by the City without permission or right of entry," *id.* ¶ 177;
- violation of Section 181(5) of the New York State Navigation Law, which proscribes the "discharge [of] any kind or any form of petroleum, including wastes or byproducts of petroleum," *id.* ¶ 182;
- violation of Section 349 of the New York State General Business Law, based on defendants' "statements and representations that MTBE was environmentally safe, when in fact they knew or should have known that MTBE posed a substantial threat to groundwater resources," *id.* ¶ 188; and
- violation of the federal Toxic Substances Control Act, 15 U.S.C. § 2614(3)(B), based on defendants' failure to inform the EPA of the risks associated with MTBE, *id.* ¶¶ 196-202.

The City sought compensatory damages of $300 million and punitive damages in an amount to be determined at trial.

E. The Trial

The City's design-defect, failure-to-warn, negligence, public nuisance, private nuisance, and trespass claims were tried to a jury beginning in August 2009. The trial, which lasted for approximately eleven weeks, culminated in a jury verdict finding Exxon liable on four claims (failure-to-warn, negligence, public nuisance, and trespass), and acquitting Exxon of liability on two (design-defect and private nuisance). Portions of the trial proceedings relevant to this appeal are recounted below.

1. Phase I: Future Use of the Station Six Wells

Phase I addressed a threshold issue: because the City was not using the Station Six Wells as a source of drinking water at the time of trial (nor is it now), the jury was asked to determine whether the City intended to use those wells for that purpose in the future. The District Court's interrogatories to the jury instructed that, to recover on any theory, the City had to "prove[ ], by a fair preponderance of the credible evidence, that it intends, in good faith, to begin construction of the Station 6 facility within the next fifteen (15) years," and that the City "intends, in good faith, to use the water from the Station 6 wells, within the next fifteen (15) to twenty (20) years, either to supply drinking water to its residents or to serve as a back-up source of drinking water if needed

due to shortages in other sources of supply (or both)." Phase I Interrogatory Sheet.

The City's Phase I witnesses included James Roberts, the Deputy Commissioner of the New York City Bureau of Water and Sewer Operations of the New York City Department of Environmental Protection ("DEP"). Roberts testified that although the City was not then using the Station Six Wells, it had not abandoned them. Testimony of James Roberts ("Roberts Testimony"), Tr. at 339:3-4. To the contrary, Roberts explained, because the wells the City acquired from the Jamaica Water Supply Company are the "the so[le] source of water that lies within the [C]ity's bounds that [the City] controls . . . it's a no-brainer that [the City] would want to be able to utilize that resource when and if necessary." *Id.* at 340:24 to 341:2. Roberts testified further that the Commissioner of DEP had decided that a treatment facility would be built at Station Six, *id.* at 358:12-18, and that the City was in the early stages of designing the facility, *id.* at 357:2-13. According to Roberts, design and construction costs would total approximately $250 million. *Id.* at 357:16-19.

The jury also heard testimony from Kathryn Garcia, the Assistant Commissioner for Strategic Projects at DEP. Garcia described Station Six as "absolutely a priority matter" for the City. Testimony of Kathryn Garcia ("Garcia Testimony"), Tr. at 436:14. She testified that "Station 6 has always been a decision that has been made and to my knowledge has never been revisited," and that she had "never heard any conversation about . . . maybe we shouldn't do Station 6." *Id.* at 439:3-7. According to Garcia, the

City had yet to construct a treatment facility at Station Six because "[w]e have been struggling with our capital budget in terms of having enough money for all of our needs." *Id.* at 435:9-10. In 2008 and 2009, however, the Mayor and City Council approved budgets that included funding for the project. *Id.* at 440:5-24.

William Meakin, the former Chief of Dependability and Risk Assessment at DEP, also testified about the impact of budget issues on Station Six. Meakin reiterated that the City is "committed to designing and building Station 6." Testimony of William Meakin ("Meakin Testimony"), Tr. at 612:6-7. According to Meakin, the City had yet to do so for only one reason: "money, the funding." *Id.* at 612:10.

The City also presented the testimony of Steven Lawitts, the Acting Commissioner of DEP. Lawitts confirmed that he had approved the design and construction of a treatment facility at Station Six and that the Mayor and the City Council had ratified that decision by providing for a facility in the City's budget. Testimony of Steven Lawitts ("Lawitts Testimony"), Tr. at 680:3-11. Lawitts agreed that "if the City had the money for Station 6, . . . that project [would] go forward." *Id.* at 681:10-12; *see also id.* at 683:2-5 (answering "yes" to the question, "From your perspective as [C]ommissioner, is money the only reason Station 6 hasn't been built yet?"). When asked for his view about the importance of Station Six, Lawitts explained that:

> Station 6 will be a critical element in ensuring our ability to continue to deliver adequate quantities of water, because the

> Station 6 project will allow us to tap an additional source of water that we're not currently tapping, and provide an additional 10 million gallons per day of treated drinking water to be able to be distributed throughout the New York City water system.

Id. at 681:18-24. Lawitts explained that an additional 10 million gallons of water per day "would be enough water to supply on average about 80,000 people." *Id.* at 682:2-3.

At the conclusion of Phase I, the jury found that the City had proven its good faith intent to begin construction of the Station Six facility within the next fifteen years. The jury also found that the City intends to use the Station Six Wells within the next fifteen to twenty years as a back-up (rather than primary) source of drinking water.

2. Phase II: Peak MTBE Concentration in the Station Six Wells

In Phase II, the jury was asked whether the City had proven "that MTBE will be in the groundwater of the capture zone of the Station 6 wells when they begin operat[ing]" as a back-up source of drinking water, with "capture zone" defined as "the groundwater that will be drawn into the Station 6 wells when they begin operation." Phase II Interrogatory Sheet. It was also asked "[a]t what peak level will MTBE be found in the combined outflow of the Station 6 wells, and when that will occur," with "combined outflow" defined as "the combination of all the water from all the wells that goes into the treatment facility." *Id.*

The City's principal witness during Phase II was David Terry, a hydrogeologist who testified about two groundwater models he created to estimate future levels of MTBE contamination in the Station Six Wells. According to Terry, hydrogeologists use groundwater models "to understand the flow of groundwater and how contaminants move through the groundwater system." Testimony of David Terry ("Terry Testimony"), Tr. at 1890:18-20. Terry explained that, in developing a groundwater model,

> [y]ou have certain inputs that you use, pumping rates of wells, locations of contamination sites and inside the computer there's information sort of like a road network, but instead it tells about how groundwater flows under, where the aquifers are, which direction it's traveling, how fast it moves. Then [it] can run a certain set of situations we want to investigate and get out there, such as where the contamination will move to, what concentration it will be, how long it will last at a certain location.

Id. at 1891:6-14.

The first of Terry's two models was a "groundwater flow model." *Id.* at 1893:22-1895:15. Terry used this model, which was developed by the United States Geological Survey and shows "where the groundwater flows" and "how fast it moves," *id.* at 1893:23-24, to predict the likely size and shape of the Station Six capture zone, *id.* at 1895:21-1896:9. He did so by populating the model with a "proposed pumping scenario" provided by City planners. *Id.* at 1896:12-20. The "proposed pumping scenario"

included information about the location of various wells at and near Station Six, their anticipated activation dates, and the anticipated rates at which they would pump. *Id.* at 1901:14-20. Terry explained that in estimating the Station Six capture zone, "[w]e really can't look at Station 6 by itself because there are other wells near Station 6, and when those wells pump they affect the water flow direction at the wells near Station 6." *Id.* at 1896:16-19. His testimony also made clear that his prediction of the size and shape of the Station Six capture zone was based on the City's proposed pumping scenario, which could change over time. *Id.* at 1902-12; 2087:17-21; 2210:8-10.

The second of Terry's two models was a "transport model." Terry explained that a transport model

> really rides on top of the flow model. [The transport] model describes how contaminants move through the groundwater system. So the flow model is actually describing the flow of groundwater from place to place and the transport model is sort of describing on top of that how the contamination moves through the system.

Id. at 1894:17-23. Terry used the transport model to make "numerical projections" about "how high of a concentration of MTBE will occur at Station 6 in the future, and how long it will last." *Id.* at 2013:2-5. Like his flow model, Terry's transport model relied upon specific assumptions about proposed pumping scenarios that could change over time. *Id.* at 2013:17-21.

Terry used his flow and transport models to perform two different analyses. His "Analysis 1" was designed to ascertain "future peak concentrations at Station 6." *Id.* at 2016:9-10. Relying on actual ground water quality information gathered in 2004 for sample locations in the vicinity of Station Six, Analysis 1 predicted that the concentration of MTBE in the combined outflow of the Station Six Wells would peak at 35 ppb in 2024. *Id.* at 2067:17-19.

Terry's "Analysis 2" was designed to determine how long MTBE contamination at Station Six would last if well usage began in 2016. *Id.* at 1906:8-18; 2015:9-11. As part of this analysis, Terry identified twenty-two known gasoline release sites in the vicinity of Station Six and assumed different release volumes at each site. *Id.* at 2073:7-16; 2074:6-8. Analysis 2 predicted that if no more than 50 gallons of gasoline were released at each site, MTBE concentration in the combined outflow of the Station Six Wells would be undetectable. Pl. Ex. 1682. But if 500 gallons of gasoline were released at each site, MTBE concentration would peak at approximately 6 ppb and last through at least 2040. *Id.* And if 2,000 gallons of gasoline were released at each site, MTBE concentration would peak at approximately 23 ppb and also last through at least 2040. Pl. Ex. 14862. Terry opined that the 2,000-gallon release scenario was "relatively conservative," Terry Testimony, Tr. at 2075:19-20, but "probably the most realistic of [the] scenarios," *id.* at 2075:6-8.

Exxon had no affirmative burden to establish an alternative measure of MTBE contamination at Station Six, and it did not proffer a competing model.

It did, however, present the testimony of an expert who concluded that Terry's models were "fatal[lly] flaw[ed]," Testimony of Thomas Maguire ("Maguire Testimony"), Tr. at 2432:20-22, and that the methods Terry employed were "scientifically [in]valid," *id.* at 2444:2-5.

At the conclusion of Phase II, the jury found that the City had proven that "MTBE will be in the groundwater of the capture zone of the Station 6 wells when they begin operation." Phase II Interrogatory Sheet. The jury found further that the concentration of MTBE in the combined outflow of the Station Six Wells will peak at 10 ppb in 2033. *Id.*

3. Phase III: Liability and Statute of Limitations

Phase III dealt with liability and statute of limitations issues. As to liability, the jury was asked (1) whether the City "is, or will be, injured by the MTBE that will be in the combined outflow of the Station 6 wells"; (2) whether Exxon "was a cause of the City's injury" as either a "direct spiller" of MTBE gasoline or a "manufacturer, refiner, supplier, or seller" of MTBE gasoline; (3) whether Exxon was liable on the City's design-defect, failure-to-warn, trespass, private nuisance, public nuisance, and negligence claims; and (4) what amount of compensatory damages should be awarded to the City. Phase III Interrogatory Sheet. As to the statute of limitations, the jury was asked whether Exxon had proven "that the City did not bring its claims in a timely manner." *Id.*

a. Injury

The jury was instructed that, in determining whether the City is or will be injured by MTBE contamination at Station Six, the "question is whether the [C]ity has proven by a fair preponderance of the credible evidence that a reasonable water provider in the [C]ity's position would treat the water to reduce the levels or minimize the effects of the MTBE in the combined outflow of the Station 6 wells in order to use that water as a back-up source of drinking water." Tr. at 6604:5-10.

In support of its claim that a reasonable water provider in its position would treat the water in the Station Six Wells, the City presented a number of witnesses, including Dr. Kathleen Burns, who testified about the toxicological characteristics of MTBE. In Dr. Burns's opinion, MTBE "is an animal carcinogen," "a probable human carcinogen," and "a probable human mutagen." Testimony of Kathleen Burns ("Burns Testimony"), Tr. at 2809:10-22. Describing mutagenicity, Dr. Burns advised, "It only takes one molecule . . . of MTBE interacting with DNA[ ] to start to initiate the sequence that will give us an abnormal reproducing cell line and ultimately lead to cancer." *Id.* at 2829:12-14.

Similarly, Dr. Kenneth Rudo, a toxicologist, testified that MTBE is both "mutagenic" and a "probable human carcinogen." Testimony of Kenneth Rudo ("Rudo Testimony"), Tr. at 3265:23-3266:2. As a mutagen, MTBE can change the way human DNA is expressed. *Id.* at 3266:3-18. According to Dr. Rudo, at even the lowest levels of exposure in drinking water,

MTBE can cause mutations that lead to cancer. *Id.* at 3267:21-24.

The City also presented expert testimony about the taste and odor characteristics of MTBE. Harry Lawless, a professor in Cornell University's food science department, testified about his review of the scientific literature regarding the proportion of the population that is sensitive to the taste and smell of MTBE in drinking water at various concentration levels. Testimony of Harry Lawless ("Lawless Testimony"), Tr. at 2888:20-25. Based on his review, Lawless opined that 50 percent of the population would detect MTBE in drinking water at 14 to 15 ppb; 25 percent of the population would detect MTBE in drinking water at 3 to 4 ppb; and 10 percent of the population would detect MTBE in drinking water at 1 to 2 ppb. *Id.* at 2889:18-22. Lawless also testified that "if [he] was in a consumer products company and 10 percent of the population noticed a change in the product, that would be a problem." *Id.* at 2890:3-5.

In addition, the City called Steven Schindler, Director of Water Quality for the City's Bureau of Water Supply, whose responsibilities include monitoring the City's water supply for quality issues and investigating consumer complaints relating to water quality. Testimony of Steven Schindler ("Schindler Testimony"), Tr. at 2927:19-22; *id.* at 2938:17-20. Schindler testified that consumers "expect[ ] their water to be relatively free of taste and odor" and that "there is a very close link between how the water tastes and smells [and] public confidence." *Id.* at 2942:13-19. According to Schindler, if "10

percent of the population . . . detect[ed] taste and odor in their water. . . that's going to undermine ultimately the public con[fidence] in our water supply." *Id.* at 2943:9-13.

For its part, Exxon presented the testimony of Dr. Sandra Mohr, who disputed Drs. Burns's and Rudo's account of MTBE's effects on human health. Dr. Mohr testified that neither the EPA nor the National Toxicology Program has classified MTBE as a human carcinogen. Mohr Testimony, Tr. at 3055:7; *id.* at 3097:5-6. According to Dr. Mohr, "[t]here is no human data that MTBE is a carcinogen, and there is very limited animal data." *Id.* at 3055:14-15. Indeed, in Dr. Mohr's opinion, "MTBE is not carcinogenic in humans." *Id.* at 3087:1; *see also id.* at 3056:3 ("I don't think that it's a carcinogen at all."). As for MTBE's mutagenic properties, Dr. Mohr testified that the scientific literature shows "that MTBE is at best a weak mutagen and may not be particularly mutagenic at all." *Id.* at 3104:20-21.

b. Causation

The City advanced three theories of causation, each of which was tied to its theories of liability. First, it alleged that Exxon caused damage to the City as a "direct spiller" of gasoline containing MTBE. In this vein, the City asserted that Exxon owned or controlled underground storage tank systems at six gasoline stations in Queens, and that MTBE leaked from these tanks into the groundwater. Tr. at 6605:1-8. The jury was instructed that it should find that Exxon was a cause of the City's injury as a "direct spiller" if the City showed by a preponderance of the evidence that (1) "[a]t the time

that [Exxon] owned or controlled some or all of these underground storage systems, they leaked gasoline containing MTBE" and (2) "these leaks caused or will cause an injury to the [C]ity's Station 6 wells." *Id.* at 6605:8-15. The jury was also instructed that "[a]n act or omission is regarded as a cause of an injury if it is a substantial factor in bringing about the injury; that is, if it has such an effect in producing the injury that reasonable people would regard it as a cause of the injury." *Id.*

Second, the City alleged that Exxon caused damage to the Station Six water supply as a "manufacturer, refiner, supplier, or seller" of gasoline containing MTBE. Under this theory, Exxon could be held liable for manufacturing, refining, supplying, or selling MTBE-treated gasoline that leaked or spilled from service stations *not* owned or controlled by Exxon. Thus, the jury was instructed that it should find that Exxon was a cause of the City's injury as a "manufacturer, refiner, supplier or seller" of MTBE gasoline if the City showed by a preponderance of the evidence that Exxon's "conduct in manufacturing, refining, supplying or selling gasoline containing MTBE was a substantial factor in causing the [C]ity's injury."[4] *Id.* at 6606:2-11. The jury was further instructed that, "[i]n making this decision, you should consider how much, if any, of the gasoline containing MTBE that was delivered to the locations

[4] None of the parties have objected to this formulation, which varied from time to time in the district court proceedings, but which we take to address Exxon's liability as wholesale "seller" of MTBE-treated gasoline, as distinct from its liability for direct spills occurring as a retail "seller."

that are the sources of the MTBE that injured or will injure the Station 6 wells came from gasoline containing MTBE that was manufactured, refined, supplied or sold by [Exxon]." *Id.* at 6606:12-17. And it was informed that, in deciding whether Exxon's conduct was a significant factor in bringing about the City's injury, it could "consider as circumstantial evidence [Exxon's] percentage share of the retail and/or supply market for gasoline containing MTBE in Queens or [in] any other region that [it] determine[d] is relevant." *Id.* at 6606:17-20.

Third, the City alleged that Exxon could be liable as a "contributor" to the City's injury pursuant to an alternative theory—known as the "commingled product theory" or "manufacturer or refiner contribution"—developed by the District Court for purposes of the underlying MDL. Pursuant to this theory, which the jury would consider only if it rejected the City's other two theories of liability:

> when a plaintiff can prove that certain gaseous or liquid products (e.g., gasoline, liquid propane, alcohol) of many refiners and manufacturers were present in a completely commingled or blended state at the time and place that the harm or risk of harm occurred, and the commingled product caused plaintiff's injury, each refiner or manufacturer is deemed to have caused the harm. A defendant [can] exculpate itself by proving that its product was not present at the relevant time or in the relevant place,

> and therefore could not be part of the commingled or blended product.[5]

Thus, the District Court instructed that jury that it "will find that [Exxon] contributed to the [C]ity's injury in its capacity as a manufacturer or refiner" if the City showed by a preponderance of the evidence that:

> [1] the MTBE that injured or will injure the [C]ity comes from many refiners and manufacturers, whether because the gasoline from any source is co-mingled at the source and includes [Exxon] MTBE product, or because the MTBE product in the ground came from multiple sources[ ] [o]ne of which is an [Exxon] source and is now co-mingled in the groundwater; [2] that the combined co-mingled MTBE product of many refiners and manufacturers injured or will injure the [C]ity; and [3] that when the co-mingled MTBE product injured or will injure the [C]ity, it included or will include some MTBE from gasoline containing MTBE that was manufactured or refined by [Exxon].

Id. at 6607:15-6608:6.

c. Damages

The jury was instructed that if it found Exxon liable on any of the City's causes of action, "then [it] must award the [C]ity sufficient damages to compensate the [C]ity for losses caused by [Exxon's]

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[5] *MTBE VII*, 644 F. Supp. 2d at 314 (internal quotation marks omitted).

conduct." Tr. at 6634:20-22. This damages determination took place in four stages. First, the jury was instructed to determine the "sum of money that compensates [the City] for all actual losses the [C]ity proves, by a fair preponderance of the credible evidence, that it has sustained, or will sustain in the future, as a result of MTBE in the Station 6 wells." *Id.* at 6635:8-13. Next, in view of Exxon's contention that the water in the Station Six capture zone was also polluted with non-MTBE contaminants such as perchloroethylene,[6] the jury was instructed to reduce the City's damage award by any amount attributable to the "cost of treating [the] other contaminants [at Station Six] in isolation." *Id.* at 6637:11-15. Next, the jury was provided a list of the petroleum companies that had settled with the City prior to trial and instructed to "decide the percentage of the total fault borne by these other companies as compared to [Exxon's] fault."[7] *Id.* at 6638:1-4. Finally, the jury was asked to determine whether "the [C]ity was negligent in its use of gasoline containing MTBE and, if so, whether the [C]ity's negligent conduct was a substantial factor in causing its own injury." *Id.* at

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[6] Perchloroethylene (also known as "PCE," "perc," or tetrachloroethylene) is a solvent used in the dry cleaning and textile processing industries. When the City purchased the Station Six Wells, they were contaminated with PCE. Historically, the concentration of PCE in the Station Six Wells has exceeded the MCL for PCE, rendering the water non-potable.

[7] It appears as though, in proving the percentage of fault attributable to the settling defendants, Exxon relied principally on evidence of each defendant's share of the New York gasoline market during the relevant period.

6638:17-20. If the jury found that the City's negligence was a substantial factor in causing its own injury, then it was instructed to "apportion the fault between the [C]ity, [Exxon], and any other companies [it found] liable." *Id.* at 6639:7-10.

In an effort to quantify its damages, the City called Marnie Bell, a groundwater treatment expert who testified about the cost of treating the MTBE at Station Six. Bell explained that it is "standard engineering practice to design a treatment system to treat the water to below an MCL" because "[d]esigning a treatment system to treat the water to just below an MCL would place a water utility at risk for violating the MCL and possibly delivering contaminated water to its customers." Testimony of Marnie Bell ("Bell Testimony"), Tr. at 5881:14-18. In addition, Bell explained, New York State "require[s] that treatment systems for the removal of organic contamination [such as MTBE] be designed to remove the contaminant to the lowest practical level." *Id.* at 5881:19-22.

Bell identified two "proven and reliable technologies" for removing MTBE from groundwater: granular-activated carbon ("GAC") and air-stripping.[8] *Id.* at 5861:5-7. She estimated that, assuming the concentration of MTBE at Station Six peaked at 10 ppb, as the jury concluded during Phase II, building and operating a GAC facility would cost approximately $250 million in 2009 dollars, *id.* at

[8] GAC is a type of charcoal the "extreme[ ] poro[sity]" of which "allows it to remove certain types of contaminants from water." *Id.* at 5861:15-19. Air-stripping is a process that uses blowing air to remove contaminants from water. *Id.* at 5921:21-22.

5886:9-10, while building and operating an air-stripping facility would cost approximately $127 million in 2009 dollars, *id.* at 5896:5-8. According to Bell, however, "[t]here are a number of factors that may make [air-stripping] less desirable," including noise and the size of the necessary equipment. *Id.* at 6044:4-9.

In arriving at her estimates, Bell projected the costs of a treatment facility over a forty-year timeframe because "Terry's modeling . . . showed MTBE concentration sustaining at significant levels out to 2040. And we projected those trends outwards to try and identify the entire timeframe in which Station 6 would need to provide MTBE treatment." *Id.* at 5885:16-20. In addition, Bell testified that, although she understood Station Six would be used as a back-up source of drinking water (as the jury concluded during Phase I), the "only reasonable assumption to make [in projecting the cost of a treatment facility] was that the facility would need to operate continuously." *Id.* at 5886:21-22. As Bell explained, "[t]he [C]ity has a number of planned repairs on its tunnels and aqueducts. There is the potential for a failure of that supply. And when the system needs to operate, it needs to operate continuously for as long as it is needed."[9] *Id.* at 5886:22-5887:1.

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[9] Bell also testified that if one of the less-contaminated wells at Station Six were taken offline, the concentration of MTBE in the combined outflow of the remaining wells would reach 15 ppb. Bell Testimony, Tr. at 5860:10-20.

d. Statute of Limitations

The jury was also asked to consider Exxon's contention that the City had failed to bring its claims within the applicable three-year statute of limitations.[10] As to this issue, the jury was instructed that Exxon bore the burden of showing by a preponderance of the evidence that, at some time before October 31, 2000, *i.e.*, more than three years before the City filed suit, (1) "there was a sufficient level of MTBE in the capture zone of the Station 6 wells such that if the wells were turned on, the level of MTBE in the combined outflow of the Station 6 wells would have injured the [C]ity at that time," and (2) "the [C]ity knew at that time or reasonably should have known that there was a sufficient level of MTBE in the capture zone of the Station 6 wells . . . to cause an injury." Tr. at 6631:16-6632:2.

In support of its contention that the City's claims were time-barred, Exxon relied principally on the testimony of William Yulinsky, the Director of Environmental Health and Safety in DEP's Bureau of Waste Water Treatment. Yulinsky testified that, as early as September 1999, he received a memorandum from a City consultant who noted that, "considering that numerous potential sources of MTBE exist within [one] mile of Station 6, the need to treat for MTBE should be anticipated, particularly in conjunction with the high concentrations of PCE reported nearby." Testimony of William Yulinsky ("Yulinsky Testimony"), Tr. at 5781:24-5782:8.

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[10] New York law imposes a three-year statute of limitations for toxic tort actions. N.Y. C.P.L.R. 214-c(2).

Yulinsky also testified that by August 2000, the City was "looking at station modifications for Station 6 to treat a variety of things," including MTBE. *Id.* at 5768:1-9. Yulinsky explained, however, that in 1999 and 2000 "it was way too soon to determine what we were going to need to treat for." *Id.* at 5772:6-8.

e. Phase III Jury Verdict

At the close of Phase III, the jury found that the City "is, or will be injured" by the MTBE that will be in the combined outflow of the Station Six Wells. Phase III Interrogatory Sheet. It also found that Exxon was a cause of the City's injury as both a direct spiller of gasoline containing MTBE and as a manufacturer, refiner, or seller of such gasoline. *Id.* In view of these findings, it did not consider whether Exxon could be held liable as a "contributor" to the City's injury pursuant to a "commingled product theory" of liability. *Id.* As for the City's substantive claims, the jury found that the City had proven Exxon's liability for failure-to-warn, trespass, public nuisance, and negligence, but not design-defect or private nuisance. *Id.*

After concluding that Exxon had failed to prove that the City's claims were untimely, the jury turned to the question of damages. *Id.* First, the jury concluded that the City would be fairly and reasonably compensated by an award of $250.5 million. *Id.* Next, it determined that the cost associated with reducing levels of non-MTBE contaminants in the Station Six Wells was $70 million. *Id.* Finally, it attributed 42 percent of the fault for the City's injury to petroleum companies

other than Exxon. *Id.* The jury's final award to the City was therefore $104.69 million.

F. Punitive Damages

As previously noted, the City also sought punitive damages based on Exxon's allegedly reckless disregard of the risks and dangers inherent in supplying gasoline containing MTBE. In support of its claim for punitive damages, the City pointed to certain evidence it had adduced during Phase III, as well as other evidence it proffered and intended to adduce during a punitive-damages phase of the trial. The City's evidence fell into six general categories.[11]

The first category of evidence pertained to Exxon's knowledge of the effect of MTBE on the taste and odor of drinking water. The City argued that its evidence raised an inference that Exxon knew, as early as the mid-1980s, that the presence of MTBE might render water undrinkable. For example, Robert Scala, former director of the Research and Environmental Health Division at Exxon, testified that in 1984 he drafted a paper for Exxon and the American Petroleum Institute in which he raised concerns about the taste and odor of MTBE and other gasoline-eassociated compounds, and that others at Exxon shared his concerns. Testimony of Robert Scala ("Scala Testimony"), Tr. at 3239:11-3239:20. The City also pointed to an internal memorandum

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[11] The summary provided here is drawn from the District Court's discussion of the evidence presented during Phase III and proffered for the punitive phase, *see MTBE X*, 2009 WL 3347214, at *1-3, as well as from the City's letter brief in support of a punitive phase, *see* Letter of Victor M. Sher, Oct. 8, 2009.

prepared by Exxon employee Barbara Mickelson in 1984, in which Mickelson concluded that "low, non-hazardous, analytically non-detectable levels of MTBE continue to be a source of odor and taste complaints in affected drinking water." Pl. Ex. 272. In addition, the City cited a memorandum prepared by Exxon employee Jack Spell in 1984, in which Spell described to his Exxon supervisors a Shell Oil report concluding that "approximately 5 parts per billion (in water) is the lower level of detectability" for MTBE. Pl. Ex. 5506.

The second category of evidence pertained to Exxon's knowledge of the health effects of MTBE. Although the parties disagree about the impact of MTBE on human health, the City presented evidence that, construed in its favor, raised an inference that as early as the 1980s, Exxon knew that MTBE posed potential health risks. For example, the City cited a memorandum Spell forwarded to his Exxon supervisors in early 1987, which advised that "MTBE has been identified as a health concern at the state and federal level when it is a contaminate [sic] in either ground water or air." Pl. Ex. 5506. The City also highlighted a slideshow prepared by Exxon in 1995, in which Exxon stated that its strategy was to "continue to monitor data on MTBE in groundwater" and to participate in ongoing studies of MTBE's toxicity. Pl. Ex. 477. In addition, the City introduced a 1999 Exxon study that observed, "With uncertain human health and environmental potential effects, public concerns about the need for control or elimination of MTBE in gasoline has accelerated." Pl. Ex. 580.

The third category of evidence pertained to Exxon's knowledge of the difficulties of remediating MTBE spills. For example, in the same 1984 memorandum in which she remarked upon MTBE's taste and odor characteristics, Barbara Mickelson also noted that "MTBE, when dissolved in ground water, will migrate farther than BTX [another petrochemical] before soil attenuation processes stop the migration." Pl. Ex. 272. In a memorandum prepared the following year, Mickelson explained that "the inclusion of MTBE in Exxon gasoline is of concern as an incremental environmental risk" in part because "MTBE has a much higher aqueous solubility than other soluble gasoline components," "MTBE has a higher differential transport rate than other soluble gasoline components," and "MTBE . . . cannot be removed from solution to below detectable levels by carbon adsorption and must be treated by more complicated and expensive air stripping columns." Pl. Ex. 292. Based on these considerations, in the 1985 memorandum Mickelson "recommend[ed] that from an environmental risk point of view[,] MTBE not be considered as an additive to Exxon gasolines on a blanket basis throughout the United States." *Id.*

The fourth category of evidence pertained to Exxon's knowledge that its own underground storage tanks leaked gasoline. For example, in a 1984 memorandum to his supervisors, Jack Spell identified a series of "ethical and environmental concerns that are not too well defined at this point," including the "possible leakage of SS [service station] tanks into underground water systems of a gasoline component that is soluble in water to a much greater

extent." Pl. Ex. 247. Similarly, Barbara Mickelson noted in another 1984 memorandum that Exxon had "62 ground water clean up activities underway." Pl. Ex. 271. The following year, in a memorandum in which she "reviewed the environmental risks from retail service station underground storage systems associated with the addition of MTBE," Mickelson noted that MTBE's elevated aqueous solubility "can be a factor in instances where underground storage tanks develop a leak which ultimately may find its way to the underground aquifer." Pl. Ex. 283. For his part, Robert Scala testified that he was aware by the 1980s that Exxon had begun to replace underground storage tanks "[p]resumably because they either leaked or had a potential to leak." Scala Testimony, Tr. at 3229:5-8; *see also* Pl. Ex. 228 (Underground Tank Failure Report 1982 Year-End Summary); Pl. Ex. 782 (Underground Tank Program). These tank problems extended well into the 1990s. In March 1998, for example, Exxon prepared a slide show in which it noted that "268 UST [underground storage tank] system releases occurred between 1993-1996." Pl. Ex. 1026. The slides reflect both Exxon's belief that future MTBE releases were likely through tank failure, and that the company had plans and training in place to minimize the risk of releases.

The fifth category of evidence pertained to Exxon's knowledge of MTBE contamination in New York. On this score, the City offered a 1998 survey, completed by Exxon employee Mike Meola, of MTBE contamination levels at potable and monitor wells near 98 retail sites in the state. Pl. Ex. 3074. The survey showed average MTBE concentrations of 50,000 to 100,000 ppb, with peak concentrations

reaching 1,000,000 ppb in some monitor wells. *Id.* The survey did not suggest, however, that Exxon understood precisely how MTBE contamination would affect groundwater located some distance away from a leaking tank. Indeed, a 1987 Exxon memorandum introduced by the City suggests that at that time Exxon theorized that MTBE's "apparent faster migration . . . is mitigated by the rapid dilution of the material and its faster disappearance from a site." Pl. Ex. 2636. Nor did the City present evidence suggesting that, before 1998, Exxon knew that MTBE contamination in New York State occurred at significant levels.

The final category of evidence pertained to Exxon's candor about its knowledge regarding MTBE. The City presented disputed evidence that, construed in the City's favor, suggested Exxon hid its knowledge of MTBE's deleterious characteristics from regulators, gas station owners and operators, and others. For example, when asked in deposition whether Exxon informed independent station owners that its gasoline contained MTBE, Robert Larkins, the Exxon executive who approved MTBE's use in the mid-1980s, responded that Exxon "didn't *uninform* them." Deposition of Robert P. Larkins, 467:23-468:04, Mar. 6, 2008 (emphasis added). The City also offered evidence suggesting that Exxon minimized MTBE's dangers in public statements. For example, in 1987, the Oxygenated Fuels Association's MTBE Committee, acting on behalf of Exxon and others, told the EPA that "there is no evidence that MTBE poses any significant risk of harm to health or the environment." Pl. Ex. 5507.

At the close of Phase III of the trial, Exxon moved to preclude the jury from considering an award of punitive damages, arguing that the City's evidence was insufficient as a matter of law to establish the requisite degree of malice, recklessness, or wantonness. The District Court granted Exxon's motion, reasoning that the City had not shown that Exxon's conduct "created either significant actual harm or a substantial risk of severe harm to the Station Six wells."[12]

G. Juror Misconduct

During the jury's Phase III deliberations, the District Court received a telephone call from Juror No. 2, who reported that Juror No. 1 had "cursed," "insulted," and threatened to "cut" her. Tr. at 6994:10-13. Juror No. 2 also reported that "[e]verybody is afraid of" Juror No. 1 and "[n]obody is willing to stand up to her." Id. at 6995:1-2. The next day, Exxon moved to excuse Juror No. 1 from further service, and requested that the District Court ask the remaining jurors whether, in Juror No. 1's absence, they felt "they [could] reach a decision based on their own views, own conscientious views, rather than on threats, coercion or duress." *Id.* at 6992:11-22.

After observing that Juror No. 1 "has been a worrisome juror for a long time" and suggesting that "she is the juror whose voice we can hear through the doors as being loud and being abusive," the District Court proceeded to ask each juror individually whether he or she felt able to deliberate without fear of duress or threat. *Id.* at 6993:1-7. After several

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[12] *See MTBE X*, 2009 WL 3347214, at *8.

jurors denied feeling threatened and responded unequivocally that they could reach their own verdicts, the District Court stated that it had "occurred" to the court "that Juror No. 2 is very fragile and that rather than excusing Juror No. 1, it might be Juror No. 2 has an overblown view of what's occurring," recalling a prior occasion when Juror No. 2 had cried in court. *Id.* at 7007:13-24. The District Court then questioned Juror No. 2, who stated, "I can't make my own decision." *Id.* at 7011:2.

After completing the interviews, the District Court concluded that it was "absolutely confident that nobody feels threatened other than Juror No. 2, [who] says she no longer feels she can reach her own verdict[,] [s]o it strikes me that she ought to be excused." *Id.* at 7013:2-5. Counsel for Exxon agreed that "if [Juror No. 2] cannot go forward, then she needs to be excused," *id.* at 7013:24-25, but moved for the dismissal of Juror No. 1 "for threatening [Juror No. 2] with physical violence," *id.* at 7014:3-4. The District Court denied the motion, expressing its view that the "violence"

> may partly be in [Juror No. 2's] mind. There were ten people deliberating and nobody felt threatened at all. I watched their demeanor. They seemed calm. They seemed reasonable. They really thought it was, you know, just almost surprising that I was talking to them. I sensed no concern on any other juror's part.

Id. at 7014:5-10; *see also id.* at 7015:15-17 ("If there had been a threat of violence, somebody else would have reported it. Nobody did.").

At defense counsel's request, the District Court then agreed to re-interview Juror No. 2 so that the contents of the previous night's telephone call could be placed on the record. During this second interview, Juror No. 2 recounted that the previous day the other members of the jury "said I was stupid, I can't form my own opinion because it doesn't match the rest of them. And I feel—I feel that I'm not safe." *Id.* at 7017:9-12. She also stated that she had been "threatened to be cut" earlier in the week, and "threatened with a fork" one to two weeks earlier. *Id.* at 7017:17-7018:21.

After formally dismissing Juror No. 2, the District Court summoned the other jurors for a "talk about civility" during which it instructed them to "[m]ake every attempt . . . to reach a verdict, and to do so without . . . shouting, without cursing, without any threatening, if that has happened, and I can't know that, I wasn't there." *Id.* at 7020:11-7022:9. After the jury resumed its deliberations, counsel for Exxon moved for a mistrial "based on the further developing facts that in fact there wasn't a threat of violence but an actual instrument was used in the jury room, at least in the mind of [Juror No. 2]." *Id.* at 7022:14-17. The District Court denied the motion. Defense counsel then observed that the court had never asked Juror No. 1 if she had in fact threatened violence, to which the District Court responded, "That's true. [Juror No. 1] is going to deny that. People usually don't admit to crimes." *Id.* at 7023:2-3.

H. Post-Trial Motions

Following the conclusion of Phase III, Exxon moved for judgment as a matter of law and in the

alternative for a new trial or remittitur. The District Court denied the motion.[13] As relevant here, the District Court held that the City's claims were not preempted and were ripe for adjudication; that the City's claimed injury was legally cognizable; that the jury's verdicts as to injury and damages were supported by sufficient evidence; that it was not unreasonable for the jury to reject Exxon's statute of limitations defense; and that the incident of alleged juror misconduct did not warrant a new trial. Exxon renews these arguments on appeal, and we turn to them now.

II. DISCUSSION

A. Preemption

Exxon contends that, in light of the jury's verdict in its favor with regard to the City's design-defect claim, the City's remaining state law tort claims conflict with and are therefore preempted by the Reformulated Gasoline Program established by the Clean Air Act Amendments of 1990 (the "RFG Program" or the "1990 Amendments"). Its argument proceeds in three main parts. First, Exxon emphasizes that federal law required it to add an oxygenate to its gasoline. Second, Exxon proposes that the jury's rejection of the City's strict liability, design-defect claim amounts to an affirmative finding that no safer, feasible alternative to MTBE existed as a means to comply with the RFG Program. Finally, because adding MTBE to its gasoline was, Exxon argues, the "safest feasible means" of complying with the federal oxygenate requirement, the jury's $104.6

[13] *See MTBE XII,* 739 F. Supp. 2d at 614.

million verdict impermissibly penalized the company for merely following federal law, and runs contrary to the Congressional purpose and objective of the 1990 Amendments to improve air quality while remaining sensitive to costs.

We are not persuaded. In the Clean Air Act Amendments of 1990, Congress did not require Exxon to use MTBE in its gasoline. The jury's rejection of the City's design-defect claim in this litigation is not equivalent to an affirmative finding that MTBE was the safest feasible oxygenate—much less that MTBE was the only available oxygenate. But even if Exxon had no safer, feasible alternative to MTBE as a means of complying with the RFG Program's oxygenate requirement, the jury did not impose liability solely because of Exxon's use of MTBE in its gasoline. Rather, to hold Exxon liable on every claim other than design-defect, the jury was required to find not only that the company used MTBE, but that it engaged in additional tortious conduct, such as failing to exercise ordinary care in preventing and cleaning up gasoline spills. For these reasons, and as detailed further below, we reject Exxon's argument that the jury's verdict conflicts with and is therefore preempted by the Clean Air Act Amendments of 1990.

1. Federal Preemption of State Law

We review a district court's preemption analysis *de novo*. *N.Y. SMSA Ltd. P'ship v. Town of Clarkstown*, 612 F.3d 97, 103 (2d Cir. 2010).

The Supremacy Clause of the United States Constitution provides that federal law "shall be the supreme Law of the Land; and the Judges in every

State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." U.S. Const. art. VI, cl. 2. From this constitutional principle, it follows that "Congress has the power to preempt state law." *Arizona v. United States*, 132 S. Ct. 2492, 2500 (2012). In every preemption case, accordingly, we ask whether Congress intended to exercise this important and sensitive power: "the purpose of Congress is the ultimate touchstone." *Wyeth v. Levine*, 555 U.S. 555, 565 (2009) (internal quotation marks omitted).

The Supremacy Clause and our federal system contemplate, of course, a vital underlying system of state law, notwithstanding the periodic superposition of federal statutory law. Thus, as the Supreme Court has repeatedly instructed, "in all pre-emption cases . . . we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress." *Id.* (internal quotation marks and alterations omitted). In light of this assumption, the party asserting that federal law preempts state law bears the burden of establishing preemption. *See id.* at 569; *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 255 (1984). Imposing state tort law liability for negligence, trespass, public nuisance, and failure-to-warn—as the jury did here—falls well within the state's historic powers to protect the health, safety, and property rights of its citizens. In this case, therefore, the presumption that Congress did not intend to preempt state law tort verdicts is particularly strong. *See, e.g.*, *U.S. Smokeless Tobacco Mfg. Co. v. City of N.Y.*, 708 F.3d 428, 432-33 (2d Cir. 2013).

The Supreme Court has recognized three typical settings in which courts will find that Congress intended to preempt state law. First, when Congress expressly provides that a federal statute overrides state law, courts will find state law preempted if, applying standard tools of statutory construction, the challenged state law falls within the scope of Congress's intent to preempt. *See, e.g.*, *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 484 (1996). Second, when Congress legislates so comprehensively in one area as to "occupy the field," we may infer from the federal legislation that Congress intended to preempt state law in that entire subject area. *Crosby v. Nat'l Foreign Trade Council*, 530 U.S. 363, 372 (2000) (internal quotation marks omitted). Third, when neither of the first two categories applies but state law directly conflicts with the structure and purpose of a federal statute, we may conclude that Congress intended to preempt the state law. In the latter case, we will find a conflict with preemptive effect only in two circumstances: first, when "compliance with both federal and state regulations is a physical impossibility," and second, when the state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." *Arizona*, 132 S. Ct. at 2501 (internal quotation marks omitted).

The parties agree that the Clean Air Act and its 1990 Amendments contain no explicit preemption directive expressing a Congressional intent to override state tort law, and Exxon does not argue that Congress intended to occupy any field relevant

here.[14] Rather, Exxon relies on the third form of preemption analysis—conflict preemption—to sustain its preemption argument. Accordingly, we address the two branches of conflict preemption in turn.

2. Conflict Preemption: the Impossibility Branch

The Supreme Court has adopted various formulations of the "impossibility" branch of conflict preemption. In an early expression of the doctrine, the Court endorsed a narrow view: that federal law will preempt state law on this theory only when "compliance with both federal and state regulations is a physical impossibility." *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43 (1963). In recent years, the Court has applied a more expansive analysis and found "impossibility" when "state law penalizes what federal law requires," *Geier v. American Honda Motor Co.*, 529 U.S. 861, 873 (2000), or when state law claims "directly conflict" with federal law, *American Telephone & Telegraph Co. v. Central Office Telephone, Inc.*, 524 U.S. 214, 227 (1998) ("*AT&T*"). *See generally* Wyeth, 555 U.S. at 589-90 (Thomas, J., concurring) (tracing the Court's

[14] The Clean Air Act (apart from the now-repealed 1990 Amendments) does speak to related state law in one subsection, which provides (with certain exceptions) that "no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine." 42 U.S.C. § 7545(c)(4)(A). Exxon does not argue that this provision has any bearing on this case; nor do we see it as relevant to our analysis.

use of the impossibility doctrine). Even understood expansively, "[i]mpossibility preemption is a demanding defense," *Wyeth*, 555 U.S. at 573, and we will not easily find a conflict that overcomes the presumption against preemption.

Exxon argues that the 1990 Amendments effectively required it to use MTBE, yet the jury's verdict in effect prohibits the use of MTBE and consequently subjects Exxon to requirements with which it is impossible to comply. This argument is unavailing. State law here neither "penalizes what federal law requires" nor "directly conflicts" with federal law.

As an initial matter, the 1990 Amendments did not require, either expressly or implicitly, that Exxon use MTBE. Although the 1990 Amendments required that gasoline in certain geographic areas contain a minimum level of oxygen, *see* 42 U.S.C. § 7545(k)(2)(B) (2000), they did not prescribe a means by which manufacturers were to comply with this requirement. The EPA identified MTBE as one additive that could be used to "certify" gasoline, *see MTBE V*, 488 F.3d at 114, but certification of a fuel meant only that it satisfied certain conditions in reducing air pollution, *see* 42 U.S.C. § 7545(k)(4)(B). Neither the statute nor the regulations required Exxon to use MTBE, rather than other oxygenates, such as ethanol, in its gasoline.[15]

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[15] This case is therefore distinguishable from *Geier*, 529 U.S. at 865, on which Exxon relies. In *Geier*, the Court concluded that federal motor vehicle safety standards preempted a tort suit against a car manufacturer based on the car's lack of a driver's side airbag. The federal regulation there at issue

Conceding, as it must, that federal law did not explicitly mandate its use of MTBE, Exxon contends that, as a practical matter, it had no choice but to use MTBE to comply with the federal oxygenate requirement, because MTBE was in fact the "safest, feasible" oxygenate available to satisfy its federal obligation. Appellants' Br. at 27. In support, it relies on the jury's rejection of the City's design-defect claim.

a. The Import of the Jury's Finding on the City's Design-Defect Claim

As noted above, the City's design-defect theory was that Exxon bore strict liability for the City's damages because of the "unreasonably dangerous and foreseeable risk to groundwater" posed by Exxon's treatment of its gasoline with MTBE. Am. Compl. ¶ 131. Thus, the jury was asked the following on a special verdict form: "Has the City proven, by a fair preponderance of the credible evidence, that there was a safer, feasible alternative design at the time [Exxon's] gasoline containing MTBE was marketed?" Phase III Interrogatory Sheet. The jury responded by checking the box labeled, "No." *Id.* Exxon would have us construe this finding as an affirmative determination that the company could

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"deliberately provided the manufacturer with a range of choices among different passive restraint devices." *Id.* at 875. Here, the choice of oxygenate options is a means towards improving air quality, and the existence of the choice itself is not critical to furthering that goal. *See Williamson v. Mazda Motor of America, Inc.*, 131 S. Ct. 1131, 1137 (2011) ("[U]nlike *Geier*, we do not believe here that choice is a significant regulatory objective.").

not comply with federal law without using MTBE. This argument is flawed for two reasons.

First, Exxon commits a logical fallacy in assuming that the jury's rejection of the City's design-defect claim amounted to an affirmative finding that MTBE was the safest, feasible oxygenate. To prevail on its design-defect claim, the City bore the burden of proving, by a preponderance of the evidence, the existence of a safer, feasible alternative to MTBE. In rejecting the City's claim, the jury found only that the evidence was not sufficient to meet the City's burden. It did not also find, affirmatively, that MTBE was the safest feasible oxygenate available to satisfy the federal oxygenate requirement.[16]

Second, the standard for establishing the absence of a "safer, feasible design" and thereby defeating strict liability in tort is different from, and less demanding than, the standard for establishing impossibility preemption. The District Court instructed the jury that in evaluating the City's design-defect claim, it was to consider "the risks, usefulness, and costs of the alternative design as compared to the product the defendant did market." Tr. at 6611:23-6612:2. This instruction correctly

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[16] Indeed, had neither party introduced *any* evidence regarding oxygenates other than MTBE, the jury would have had no choice but to arrive at the same verdict. Carried to its logical conclusion, Exxon's argument implies that even in such a case—that is, even in the total absence of evidence one way or the other—a jury verdict against the City on this count would be equivalent to an affirmative finding that in fact there was no safer, feasible alternative to MTBE. This cannot be so. The jury's verdict simply does not stretch that far.

stated New York law, which requires jurors to consider the costs of alternative designs when assessing a products liability claim. *See, e.g.*, *Cover v. Cohen*, 61 N.Y.2d 261, 266-67 (1984) (holding that liability in a design-defect case requires a balancing of "the product's risks against its utility and costs and against the risks, utility and cost of the alternatives"); *Lancaster Silo & Block Co. v. Northern Propane Gas Co.*, 427 N.Y.S.2d 1009, 1014 (4th Dep't 1980) ("In a design defect case the court is concerned with the balancing of the alternative designs available against the existing risk while taking into account the cost of the proposed alternative.").

The standard for establishing impossibility preemption is different. *See Wyeth*, 555 U.S. at 573. The party urging preemption must do more than show that state law precludes its use of the *most* cost-effective and practical means of complying with federal law—it must show that federal and state laws "directly conflict." *AT&T*, 524 U.S. at 227. If there was *any* available alternative for complying with both federal and state law—even if that alternative was not the *most* practical and cost-effective—there is no impossibility preemption. Thus, the District Court correctly held that "[i]mpossibility does not depend on whether events in the physical world would have made it difficult to comply with both standards, but on whether the two standards are expressly incompatible."[17] The jury's rejection of the City's design-defect claim, without more, does not satisfy the impossibility standard for conflict preemption.

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[17] *MTBE III*, 457 F. Supp. 2d at 335.

Exxon responds that it could have met the heightened impossibility standard had the jury been properly instructed. The company sought the following instruction: "If you find that [Exxon] has shown, by a preponderance of the credible evidence, that ethanol was not a safer or feasible alternative to MTBE at the time that [Exxon] was deciding what oxygenate to use to comply with the federal Clean Air Act Amendments, then you will find that the City's defective design product liability claim is preempted by federal law and that the City cannot recover on that claim against [Exxon]." Supp. App. 82. The District Court declined to give this instruction, citing its concerns about explaining the concept of preemption to the jury. The court also noted that preemption was partially a legal issue, and concluded that the design-defect interrogatory—which asked whether the City had proven the existence of a safer, feasible alternative—would resolve any relevant factual questions.

Exxon was not entitled to its proposed instruction because that instruction misstated the law. *See PRL USA Holdings, Inc. v. U.S. Polo Ass'n, Inc.*, 520 F.3d 109, 117 (2d Cir. 2008). The proposed instruction borrowed the "safer or feasible alternative" language from the design-defect instruction. But, as we have explained, the design-defect standard—which required the jury to balance the costs and utility of alternative designs as they compared to MTBE—is different from the standard for impossibility preemption.[18]

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[18] Exxon also argues that the District Court "flip-flop[ped]," by initially agreeing that preemption was a question of fact, but

b. Considering Ethanol as a Possible Alternative to MTBE

To meet its burden with respect to the impossibility branch of conflict preemption, Exxon needed to demonstrate that it *could not* comply with the federal oxygenate requirement by using a compound other than MTBE. At trial, the City argued that Exxon could have used ethanol to comply with federal law. On appeal, Exxon offers three reasons to support its position that it could not have used ethanol in its gasoline: the supply of ethanol was insufficient; suppliers could not ship ethanol through pipelines; and ethanol-containing gasoline could not be mixed with other manufacturers' MTBE-containing gasoline. Even when viewed in the light most favorable to Exxon, however, the evidence adduced at trial was insufficient to support these proffered reasons for finding impossibility preemption.

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then reversing course once the jury found in Exxon's favor on the design-defect claim. We do not read the transcript of the charging conference in this way. Nowhere did the District Court suggest that a jury finding of "no safer, feasible alternative" would establish preemption. Quite the contrary: the court was justifiably skeptical that "feasibility" was the appropriate standard to establish a conflict sufficient to find that state law was preempted. Similarly, the District Court reasonably questioned the significance (for preemption purposes) of a jury finding that Exxon had "no safer, feasible alternative." *See* Tr. at 5513:7-9 (explaining that, by asking the jury whether the City has proven the existence of a safer, feasible alternative, Exxon "will have at least preserved the factual finding of this jury, for what it is worth"); *id.* at 5515:9-11 ("[M]y leaning is to have the fact issue preserved, not the legal issue, so to speak.").

First, Exxon's expert conceded that the supply of ethanol could adjust to meet increased demand. O'Brien Testimony, Tr. at 4467:4-13, 4484:7-10. Second, he testified that ethanol could be transported using trains, trucks, or barges, and that, at the time of trial, producers were using trains to ship ethanol across the country. *Id.* at 4458:19-24, 4484:22-25. Another Exxon witness testified that in early 1995, the company began using ethanol to meet its Clean Air Act obligations at gas stations in the Midwest; until that time, the company had been using MTBE in that region.[19] Testimony of Raymond McGraw ("McGraw Testimony"), Tr. at 4799:14-23. Finally, although Exxon points to no part of the record in which it offered evidence quantifying the costs of using ethanol, the City introduced evidence regarding a 1993 study performed by an industry trade group, at the behest of the federal government, to determine the cost of using ethanol as an oxygenate. The study concluded that using ethanol instead of MTBE during the relevant time period would increase the cost of manufacturing gasoline by 6.2 cents per gallon; a similar study by the EPA put the cost at 1.9 cents per gallon, and the City's expert estimated the cost as 3.5 cents per gallon.[20] Tallett Testimony, Tr. at 4274:13-18; *id.* at 4275:15-4276:2; *id.* at 4276:16-4277:3.

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[19] In addition, since New York banned MTBE in 2004, Exxon has used ethanol rather than MTBE in the state. Eizemberg Testimony, Tr. at 5624:16-5625:24.

[20] The City's expert also testified that the "national average cost of the type of gasoline which was supplied into the Northeast in 1995" was $1.22 per gallon. Tallett Testimony, Tr. at 4274.

One can imagine a case in which a state law imposes such enormous costs on a party that compliance with a related federal mandate is effectively impossible. But this is not such a case. At most, the evidence adduced at trial showed that using ethanol instead of MTBE would have increased Exxon's production costs to an extent that was far from prohibitive.[21] Exxon has not shown that economic and logistical hurdles rendered compliance with the federal mandate by using ethanol instead of MTBE impossible for the purposes of preemption analysis.[22]

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[21] The Supreme Court's recent decision in *Mutual Pharmaceutical Co. v. Bartlett*, 133 S. Ct. 2466 (2013), is therefore distinguishable. In that case, the Court held that the plaintiff's New Hampshire-law design-defect claim against a drug manufacturer was preempted by federal laws that prohibited the manufacturer from modifying the chemical composition or labeling of the allegedly defective drug. In so holding, the Court rejected the notion that the drug manufacturer could avoid the impossibility of complying with both federal and state law "by simply leaving the market" for the drug at issue. *Id.* at 2478. In this case, by contrast, we specifically conclude that Exxon could have used compounds other than MTBE to oxygenate its gasoline in compliance with federal law. Exxon thus was not required to leave the relevant market in order to comply with both federal and state law.

[22] Of course, as we have already noted and as we explain further in the text, Exxon incurred tort liability not for the mere use of MTBE, but because it engaged in additional tortious conduct, such as failing to exercise reasonable care in storing gasoline at service stations it owned or controlled. The jury's verdict is not equivalent to a state law prohibition on the use of MTBE.

3. Conflict Preemption: the Obstacle Branch

The second branch of conflict preemption—the obstacle analysis—is in play when state law is asserted to "stand[ ] as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." *Arizona v. United States*, 132 S. Ct. 2492, 2505 (2012) (internal quotation marks omitted).

Obstacle analysis—which appears to us only an intermediate step down the road to impossibility preemption—precludes state law that poses an "actual conflict" with the overriding federal purpose and objective. *Mary Jo C. v. N.Y. State & Local Ret. Sys.*, 707 F.3d 144, 162 (2d Cir. 2013). Obstacle analysis has been utilized when federal and state laws said to conflict are products of unrelated statutory regimes. What constitutes a "sufficient obstacle" is "a matter of judgment, to be informed by examining the federal statute as a whole and identifying its purpose and intended effects." *Id.* (internal quotation marks omitted). As with the impossibility branch of conflict preemption, "the purpose of Congress is the ultimate touchstone," *Wyeth*, 555 U.S. at 565 (internal quotation marks omitted), and "the conflict between state law and federal policy must be a sharp one," *Marsh v. Rosenbloom*, 499 F.3d 165, 178 (2d Cir. 2007) (internal quotation marks omitted). A showing that the federal and state laws serve different purposes cuts against a finding of obstacle preemption. *See id.* at 180 ("On a fundamental level, [the federal law]

and [state law] serve different purposes, reinforcing our conclusion that they do not actually conflict.").

The burden of establishing obstacle preemption, like that of impossibility preemption, is heavy: "[t]he mere fact of 'tension' between federal and state law is generally not enough to establish an obstacle supporting preemption, particularly when the state law involves the exercise of traditional police power." *Madeira v. Affordable Hous. Found., Inc.*, 469 F.3d 219, 241 (2d Cir. 2006). Indeed, federal law does not preempt state law under obstacle preemption analysis unless "the repugnance or conflict is so direct and positive that the two acts *cannot be reconciled* or consistently stand together." *Id.* (internal quotation marks omitted and emphasis added).

To determine whether a state law (or tort judgment) poses an obstacle to accomplishing a Congressional objective, we must first ascertain those objectives as they relate to the federal law at issue. The Supreme Court's decision in *Wyeth* is instructive in this regard. In holding that FDA approval of a prescription drug's label did not preempt a failure-to-warn claim asserted under state law, the Court relied in large part on the legislative history of the relevant federal law. The Court noted, for instance, that Congress declined to enact an express preemption provision for prescription drugs, although it had enacted such a provision for medical devices in the same statute. The Court also explained that it was appropriate to give "some weight to an agency's views about the impact of tort law on federal objectives when the subject matter is technical and the relevant

history and background are complex and extensive." 555 U.S. at 576 (internal quotation marks and alteration omitted).

The purpose of the 1990 Amendments was to achieve a "significant reduction in carbon monoxide levels." S. Rep. No. 101-228, at 3503 (1989). Exxon agrees but asserts that "Congress made clear that feasibility mattered," and that the 1990 Amendments sought to reduce air pollution without imposing economic burdens on gasoline manufacturers. Appellants' Br. at 29. Through its verdict, Exxon argues, the jury effectively concluded that Exxon should have used ethanol rather than MTBE.[23] But ethanol was costly. By—in effect—mandating its use retrospectively, the State (speaking through the jury's verdict) has imposed substantial financial burdens on Exxon, a result that conflicts with Congress's purpose in passing the Amendments. Ergo, the jury's verdict under state tort law is preempted by the 1990 Amendments to the Clean Air Act.

In support of its argument, Exxon cites two statutory provisions reflective of Congressional concern about the costs of complying with the Amendments. First, Exxon emphasizes that, in the statute, Congress instructed the EPA to take "into consideration the cost of achieving . . . emissions reductions" when drafting regulations under the

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[23] The record does not appear to demonstrate why Exxon could not have used any of the other additives identified in the RFG Program Amendments, but the parties do not dispute that ethanol was the primary available alternative to MTBE as an oxygenate.

Clean Air Act Amendments at issue in this case. 42 U.S.C. § 7545(k)(1) (2000). Immediately following this language, however, Congress also instructed the EPA to consider "any nonair-quality and other air-quality related health and environmental impacts." *Id.* At the heart of the City's suit is the claim that Exxon's use of MTBE caused adverse "health and environmental impacts" on the City. That Congress instructed the EPA to take into account "nonair-quality" effects on the environment suggests a Congressional intent to permit—not preempt—suits like this one.

Second, Exxon cites a provision of the Amendments that authorized the EPA to waive the oxygenate requirement if the Administrator determined it would be "technically infeasible" to manufacture gasoline that also met the emission standard for a different pollutant, oxides of nitrogen, or "NO_x."[24] 42 U.S.C. § 7545(k)(2)(A) (2000). But, as

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[24] The provision to which Exxon cites reads in full as follows:

> (A) NO_x emissions
>
> The emissions of oxides of nitrogen (NO_x) from baseline vehicles when using the reformulated gasoline shall be no greater than the level of such emissions from such vehicles when using baseline gasoline. *If the Administrator determines that compliance with the limitation on emissions of oxides of nitrogen under the preceding sentence is technically infeasible*, considering the other requirements applicable under this subsection to such gasoline, the Administrator may, as appropriate to ensure compliance with this subparagraph, adjust (or waive entirely), any other requirements of this paragraph *(including the oxygen content requirement contained*

already described, Exxon has not shown that use of an oxygenate other than MTBE would have been "technically infeasible" as opposed to simply somewhat more expensive. And in any event, Exxon offers nothing to suggest that by using the phrase "technically infeasible," Congress really meant "more expensive."

We also note that in 1999, the EPA concluded that a Nevada proposal effectively banning MTBE did not conflict with the Clean Air Act. *See* EPA, Approval and Promulgation of Implementation Plans; Nevada State Implementation Plan Revision, Clark County, 64 Fed. Reg. 29573, 29578-79 (June 2, 1999). Additionally, in the Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594 (codified at 42 U.S.C. § 13389), Congress considered including a safe harbor provision that would have immunized MTBE producers and distributors from state tort liability, but ultimately chose not to do so. *See* 149 Cong. Rec. S15212 (daily ed. Nov. 20, 2003) (statement of Sen. Dianne Feinstein); 151 Cong. Rec. H6949 (daily ed. July 28, 2005) (statement of Rep. Bart Stupak) ("I am happy that the 'safe harbor' provisions for manufacturers of MTBE that were in the House bill were dropped."). Of course, neither of these actions necessarily reflects the intent of Congress as a whole when it amended the Clean Air Act in 1990. But this evidence provides further circumstantial support for our conclusion that Exxon has not established Congressional objectives sufficiently at odds with

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in subparagraph (B)) or any requirements applicable under paragraph (3)(A).

42 U.S.C. § 7545(k)(2)(A) (2000) (emphases added).

state law to require that state law be set aside under the doctrine of conflict preemption. *See Wyeth*, 555 U.S. at 567, 576-77 (considering subsequent federal legislative history, as well as the relevant agency's views, in analyzing whether state law was subject to conflict preemption). In sum, although these legislative materials demonstrate that Congress was sensitive to the magnitude of the economic burdens it might be imposing by virtue of the Reformulated Gasoline Program and perhaps sought to limit them, they hardly establish that Congress had a "clear and manifest intent" to preempt state tort judgments that might be premised on the use of one approved oxygenate over a slightly more expensive one. *Madeira*, 469 F.3d at 249 (internal quotation marks omitted).

4. Tortious Conduct Beyond Mere Use of MTBE

Even were we to accept Exxon's argument that the 1990 Amendments preclude imposition of a post hoc state law penalty based on its use of MTBE, the judgment of the District Court would not be preempted because the jury's verdict did not rest solely on the company's use of MTBE in its gasoline. Rather, all of the City's successful claims required the jury to find that Exxon *both* used MTBE *and* committed related tortious acts, such as failing to exercise reasonable care when storing gasoline that contained MTBE. We agree with the City that "Exxon could have complied with federal and state law by using MTBE without engaging in tortious acts." Appellees' Br. at 38.

As we have observed, the jury considered six claims: direct-spiller negligence, failure-to-warn, trespass, public nuisance, private nuisance, and design-defect. Five of these claims (all but design-defect) required the jury to find that Exxon engaged in additional tortious conduct; as to these claims, the mere use of MTBE would not have caused the company to incur liability. *See* Tr. at 6629:18-20 (direct-spiller negligence); *id.* at 6615:18-24 (failure-to-warn); *id.* at 6618:7-11 (trespass); *id.* at 6628:5-9 (public nuisance); *id.* at 6621:5-6 (private nuisance).[25]

Tellingly, Exxon adopted this view earlier in the litigation. Indeed, the company's proposed jury instructions stated that if the jury found that "ethanol was not a safer or feasible alternative to MTBE," then it "will find that the City's *defective design* product liability claim is preempted by federal law and that the City cannot recover on that claim against [Exxon]." Deferred Joint Supp. App. at 82 (emphasis added). And Exxon initially argued to the District Court that "Congress and EPA preempted only in the narrow area of fuel design, while preserving participation in the federal administrative process and state remedies against those who spill gasoline."[26] Although Exxon has since reversed course, we think the company had it right the first time.

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[25] Only on the remaining claim, design-defect, could Exxon have been held liable solely for its use of MTBE. But the jury found that Exxon was not liable under a design-defect theory.

[26] *MTBE V*, 488 F.3d at 135 (quoting Opp'n to Remand 29).

For these reasons, we affirm the District Court's determination that the claims on which the jury returned a verdict for the City are not preempted by federal law.

B. Legal Cognizability of Injury

Exxon contends that, as a matter of law, the presence of MTBE at levels below the MCL cannot constitute cognizable injury. According to Exxon, because the jury found at the conclusion of Phase II that MTBE concentrations in the Station Six outflows will peak at 10 ppb—a level equal to the current MCL—the City has not been injured.[27] It is not entirely clear whether Exxon's argument is that the City therefore lacks standing or that the City therefore fails to state a claim under New York law. Framed either way, however, we find the argument unpersuasive.

To pursue a claim in federal court, a plaintiff must satisfy the requirements of constitutional standing, a principle established by the "case or controversy" requirement of Article III of our Constitution. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992). Constitutional standing makes three demands: First, "the plaintiff must have suffered an 'injury in fact.'" *Id.* Second, "there must be a causal connection between the injury and the conduct" of which the plaintiff complains. *Id.* And third, "it must be likely, as opposed to merely

[27] The jury's 10 ppb finding in Phase II informed its conclusion in Phase III that a reasonable water provider in the City's position would remediate the MTBE contamination at Station Six.

speculative, that the injury will be redressed by a favorable decision." *Id.* at 561 (internal quotation marks omitted). These demands "function[ ] to ensure, among other things, that the scarce resources of the federal courts are devoted to those disputes in which the parties have a concrete stake." *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 191 (2000).

The injury-in-fact requirement is satisfied when the plaintiff has suffered "an invasion of a legally protected interest, which is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical." *Lujan*, 504 U.S. at 560 (internal footnote, citations, and quotation marks omitted). As our prior opinions have explained, however, "[t]he injury-in-fact necessary for standing need not be large[;] an identifiable trifle will suffice." *LaFleur v. Whitman*, 300 F.3d 256, 270 (2d Cir. 2002) (internal quotation marks omitted).

Standing is "the threshold question in every federal case." *Disability Advocates, Inc. v. N.Y. Coalition for Quality Assisted Living, Inc.*, 675 F.3d 149, 156 (2d Cir. 2012) (internal quotation marks omitted). Once this threshold is crossed, a plaintiff must still establish the elements of its causes of action to proceed with its case. *Cf. Denney v. Deutsche Bank AG*, 443 F.3d 253, 264 (2d Cir. 2006) ("[A]n injury-in-fact need not be capable of sustaining a valid cause of action under applicable tort law."). To prevail on most of its claims, the City was required to show that it suffered an injury actionable under New York law. *See Atkins v. Glens Falls City Sch. Dist.*, 53 N.Y.2d 325, 333 (1981) (noting that injury is an

element of a negligence claim); *Copart Indus. v. Consolidated Edison Co. of N.Y.*, 41 N.Y.2d 564, 568-70 (1977) (same as to public nuisance claim); *Howard v. Poseidon Pools, Inc.*, 72 N.Y.2d 972, 974 (1988) (same as to failure-to-warn claim); *cf. Hill v. Raziano*, 880 N.Y.S.2d 173, 175 (2d Dep't 2009) (noting that "nominal damages are presumed from a trespass even where the property owner has suffered no actual injury").

Whether a plaintiff has standing to sue is a question of law, and accordingly we review the District Court's ruling *de novo*. *Disability Advocates*, 675 F.3d at 156. Whether contamination at levels below the applicable MCL is actionable under New York law also presents a question of law accorded *de novo* review. *See Ins. Co. of N. America v. Pub. Serv. Mut. Ins. Co.*, 609 F.3d 122, 127 (2d Cir. 2010).

1. Standing

Before trial, the District Court concluded that the City had standing to bring its claims even if the alleged contamination did not exceed the MCL. The court reasoned that, "while the MCL may serve as a convenient guidepost in determining that a particular level of contamination has likely caused an injury, the MCL does not define *whether* an injury has occurred."[28]

We agree with the District Court that, for standing purposes, the MCL does not define whether injury has occurred. It strikes us as illogical to conclude that a water provider suffers no injury-in-fact—and therefore cannot bring suit—until pollution

[28] *MTBE IV*, 458 F. Supp. 2d at 158.

becomes "so severe that it would be *illegal* to serve the water to the public." Appellees' Br. at 54. This is especially so in view of a New York water provider's statutory duty and commonsense obligation to protect or remediate groundwater *before* contamination reaches the applicable MCL. *See* 10 N.Y. Comp. Codes R. & Regs. tit. 10 § 5-1.12(a) (requiring water suppliers to take certain remedial actions after determining that one or more MCLs "are *or may be* exceeded" or that "*any* deleterious changes in raw water quality have occurred" (emphases added)); *see also id.* at § 5-1.71(a) (requiring water suppliers to exercise "due care and diligence in the maintenance and supervision of all sources of the public water systems to prevent, so far as possible, their pollution and depletion"). We decline to hold that the MCL constitutes a bar beneath which a water provider can never suffer injury-in-fact.

That the MCL does not define whether a water provider has suffered injury for standing purposes is confirmed by the City's identification of several specific, deleterious effects of MTBE at below-MCL levels. For example, the City offered testimony from a toxicologist, who opined that "even at the lowest levels of exposure . . . in drinking water," MTBE is a mutagen "that can cause a mutation which can possibly lead to cancer." Rudo Testimony, Tr. at 3267:21-24. It also offered testimony from a taste and odor expert, who opined that "25 percent of the population would detect [MTBE] at 3 to 4 parts per billion, and that 10 percent of the population would detect it down at 1 or 2 parts per billion." Lawless Testimony, Tr. at 2889:20-22. And it presented

testimony from the City's Director of Water Quality, who noted that "the public [is] accustomed to receiving water that is . . . free of taste," and that, if it served water at MTBE levels as low as 1 or 2 ppb, the City would be adversely affected by consumer complaints from the "10 percent of the population that can detect taste and odor in their water" at those levels, thereby undermining public confidence in the City's water supply. Schindler Testimony, Tr. at 2943:9-13.

Our conclusion as to the proper lens through which to view the MCL as it relates to the question of standing finds further support in *LaFleur v. Whitman*, 300 F.3d 256 (2d Cir. 2002), where we held that a plaintiff may suffer injury-in-fact from air pollution that falls below federal regulatory pollution thresholds. In *LaFleur*, a private plaintiff brought suit under the Clean Air Act, seeking review of the EPA's decision not to object to the state's issuance of an operating permit to a facility that converted municipal waste and sewage sludge into ethanol and carbon dioxide. *Id.* at 259. The facility operator challenged plaintiff's standing on the ground that "the ambient level of the regulated air pollutant to be released by the facility . . . would be well below" the applicable regulatory standards. *Id.* at 269. We rejected the challenge, concluding that the plaintiff, who worked in an adjacent shopping center and was likely to be exposed to the facility's emissions, had sufficiently alleged an injury-in-fact. *Id.* at 270. This was so, we held, "even if the ambient level of air pollution does not exceed" the relevant regulatory standards. *Id.* at 271.

The standing cases cited by Exxon neither bind nor persuade us. For example, Exxon cites *City of Greenville, Ill. v. Syngenta Crop Protection, Inc.*, 756 F. Supp. 2d 1001 (S.D. Ill. 2010), for the proposition that "the city's claimed remediation costs did not establish standing because they were unnecessary to meet the city's statutory obligation to provide clean water." Appellants' Br. at 44. But Exxon's gloss on *City of Greenville* is inaccurate. In fact, the *City of Greenville* court held that "a water provider may demonstrate an injury in fact even if its finished water does not exceed an MCL if its use of the water to meet its statutory obligations to the public [to provide clean water] becomes more costly because of a defendant's conduct." 756 F. Supp. 2d at 1007 (expressing "agree[ment]" with *MTBE IV*). As the *City of Greenville* court aptly explained, "it seems an extremely bad rule to require a public water supplier to provide overly contaminated water to the public before it can seek redress from one responsible for the contamination." *Id.* Although the court later mused that it might be difficult to establish injury where the cost to remediate drinking water is not tied to a "specific, imminent threat of [contamination] in excess of the MCL," it did not establish the bar that Exxon urges us to adopt. *Id.* at 1008.

Exxon's reliance on *Iberville Parish Waterworks District No. 3 v. Novartis Crop Protection, Inc.*, 45 F. Supp. 2d 934 (S.D. Ala. 1999), is also unavailing. In *Iberville*, two public water providers sued a producer of herbicide for contamination allegedly caused by the herbicide's chemical component, atrazine. *Id.* at 936. In finding that the public water providers lacked constitutional standing, the *Iberville* court asserted

that "[b]ecause both [water providers] are in compliance with [the applicable] drinking water standards, it cannot be said that either has suffered any actual invasion of a legally protected interest." *Id.* at 941-42. But this conclusion was unsupported by any discussion or analysis, so we find it unpersuasive. Indeed, it is doubly unpersuasive in view of the factual differences between that case and this one. Although the plaintiffs in *Iberville* sought recovery for costs associated with monitoring and remediating atrazine contamination, the evidence showed that a significant proportion of those costs were unrelated to the alleged contamination. *Id.* at 939-42. For example, one of the plaintiffs had installed a filtration system, not to remove atrazine, but rather "to improve the taste and clarity of [the] water and, in [so] doing, to maintain [its] competitive edge over bottled water manufacturers." *Id.* at 941. Here, by contrast, the costs incurred and projected by the City to treat the water at Station Six are directly related to MTBE contamination.

2. Injury As a Matter of New York Law

Of course, to recover on most of its state-law claims, the City was required to do more than establish standing—it was required to show, among other things, that it suffered actual injury as a matter of New York tort law. *See Atkins*, 53 N.Y.2d at 333 (negligence); *Copart Indus.*, 41 N.Y.2d at 568-70 (public nuisance); *Howard*, 72 N.Y.2d at 974 (failure-to-warn); *cf. Hill*, 880 N.Y.S.2d at 174 (no injury requirement for trespass claim). To the extent Exxon argues that New York law (as distinguished from the doctrine of constitutional standing) bars

recovery where the alleged contamination does not exceed the MCL, that argument, too, fails.

We agree with the District Court that, in determining whether the City had established injury as a matter of New York law, the relevant question for the jury was whether "a reasonable water provider in the [C]ity's position would treat the water to reduce the levels or minimize the effects of the MTBE in the combined outflow of the Station 6 wells in order to use that water as a back-up source of drinking water." Tr. at 6604:5-10. This standard strikes a proper balance. On the one hand, it recognizes that "even clear, good-tasting water contains dozens of contaminants at low levels," and therefore demands more than *de minimis* contamination before a water provider may establish injury.[29] The standard requires that plaintiffs adduce evidence demonstrating that the contamination rose to a level requiring treatment for various reasons pertaining both to the City's general water supply needs and the specific water well in question. On the other hand, it recognizes that, as the City showed at trial, a public water provider may be injured by contamination at levels below the applicable MCL.

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[29] *MTBE VI*, 2007 WL 1601491, at *6 ("On its journey through the water cycle as rain, surface water, and groundwater in an aquifer, water collects many contaminants of various types: bacteria, parasites, heavy metals, organic compounds (including MTBE), inorganic compounds, and even radioactive substances. This water is eventually pumped from a well to a treatment facility, where many of these contaminants are removed or reduced in concentration before the water is pumped to a consumer's home.").

Several New York state-court decisions in the lead-paint context support this conclusion by holding that whether a plaintiff has suffered injury from contamination at levels below an applicable regulatory threshold is a question of fact for the jury. In *Cunningham v. Spitz*, 630 N.Y.S.2d 341, 341 (2d Dep't 1995), for example, the court found "triable issues of fact as to whether the plaintiff . . . was injured as a result of his exposure to lead, notwithstanding the fact that his blood-lead level did not fall within scientifically accepted definitions of lead poisoning." Likewise, in *Singer v. Morris Avenue Equities*, 895 N.Y.S.2d 629, 631 (N.Y. Sup. Ct. Jan. 5, 2010), the court rejected the contention that the plaintiff had not been injured as a matter of law where her blood-lead level was lower than the level defined by the New York City Health Code as constituting lead poisoning.[30] *See also Peri v. City of New York*, 798 N.Y.S.2d 332, 339-40 (N.Y. Sup. Ct. Mar. 28, 2005) (same), *aff'd*, 843 N.Y.S.2d 618 (1st Dep't 2007), *aff'd*, 11 N.Y.3d 756 (2008). Here, too, it was for the jury to determine whether for New York

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[30] We reject Exxon's suggestion that *Cunningham* and its progeny are no longer good law in New York. The two cases upon which Exxon relies for this proposition—*Santiago v. New York City Board of Health*, 779 N.Y.S.2d 474 (1st Dep't 2004), and *Arce v. New York City Housing Authority*, 696 N.Y.S.2d 67 (2d Dep't 1999)—do not overrule *Cunningham*. The *Santiago* court never dealt with the merits of the claim presented there, and instead dismissed it on *res judicata* grounds. 779 N.Y.S.2d at 476. And in *Arce*, the court set aside a verdict where the record contained no reliable evidence showing that plaintiff's blood-lead level was actually elevated at all. 696 N.Y.S.2d at 68-69.

law purposes the City had been injured by MTBE contamination.

The state-law injury cases to which Exxon cites do not alter our conclusion. For example, in *City of Moses Lake v. United States*, 430 F. Supp. 2d 1164 (E.D. Wash. 2006), the court granted summary judgment to defendants on tort claims arising out of their alleged contamination of Moses Lake's drinking wells with the chemical trichloroethylene. *Id.* at 1167. In holding that, under Washington law, Moses Lake had not been injured, the court observed that the contamination giving rise to suit fell below the applicable MCL. *Id.* at 1185. But in *Moses Lake*, the MCL served as simply one factor in the court's analysis. The court also noted that the level of trichloroethylene in the affected aquifers was "imperceptible to human senses" and that Moses Lake "continue[d] to supply drinking water via its [allegedly affected] wells." *Id.* at 1184. In addition, Moses Lake failed to adduce "any evidence of an actual existing danger" posed by the contamination. *Id.* Here, by contrast, the City presented extensive evidence showing that a reasonable water provider in the City's position would treat the Station Six Wells before using them as a back-up water supply.

Exxon's reliance on *Rhodes v. E.I. du Pont de Nemours & Co.*, 636 F.3d 88 (4th Cir. 2011), is similarly infirm. In *Rhodes*, private plaintiffs sought recovery for du Pont's alleged contamination of the municipal water supply with perfluorooctanoic acid and "the resulting presence of [the chemical] in their blood." *Id.* at 93. In affirming the district court's grant of summary judgment to du Pont on plaintiffs'

negligence claim, the Fourth Circuit held that "[t]he presence of [the chemical] in the public water supply or in the plaintiffs' blood does not, standing alone, establish harm or injury for purposes of proving a negligence claim under West Virginia law." *Id.* at 95. "In such situations," according to the Fourth Circuit, "a plaintiff also must produce evidence of a detrimental effect to the plaintiffs' health that actually has occurred or is reasonably certain to occur due to a present harm." *Id.* Here, by contrast, the City *has* adduced evidence showing the specific injuries it suffered as a result of MTBE contamination at Station Six: that MTBE is a probable human carcinogen, that it can be detected at 1-2 ppb by ten percent of the population, and that even if only ten percent of the population taste it, the confidence of the public in the water supply would be undermined. And, based on this evidence, a jury could easily determine that a reasonable water provider in the City's position would treat the water in the Station Six Wells to reduce the levels or minimize the effects of MTBE in order to use the water as a back-up source of drinking water.

In sum, we reject Exxon's contention that the New York MCL for MTBE determines whether the City has been injured either for standing purposes or for purposes of establishing injury as a matter of New York tort law. We decline Exxon's invitation to adopt a bright-line rule that would prevent a water provider from either bringing suit or prevailing at trial until its water is so contaminated that it may not be served to the public. The MCL does not convey a license to pollute up to that threshold.

C. Ripeness and Statute of Limitations

Exxon contends that the City's claims are unripe because "it is deeply uncertain whether the City's usufructuary interest in Station 6 will ever suffer an injury."[31] Appellants' Br. at 34. Exxon points out that Station Six is not currently being used, and in fact cannot be used until the City builds a facility to treat preexisting PCE contamination. According to Exxon, the City's case "thus requires proof of a series of contingent and factually intensive predictions about the distant future" that render the City's injury unripe for resolution. *Id.* We disagree, principally because Exxon's argument conflates the City's injury with its damages.

"'Ripeness' is a term that has been used to describe two overlapping threshold criteria for the exercise of a federal court's jurisdiction." *Simmonds v. INS*, 326 F.3d 351, 356-57 (2d Cir. 2003). The first such requirement—which we refer to as "constitutional ripeness"—is drawn from Article III limitations on judicial power. *Id.* at 357; *see also Reno v. Catholic Social Servs., Inc.*, 509 U.S. 43, 57 n.18 (1993). The second such requirement—which we refer to as "prudential ripeness"—is drawn from prudential reasons for refusing to exercise jurisdiction. *Simmonds*, 326 F.3d at 357; *see also Reno*, 509 U.S. at 43 n.18. Both constitutional ripeness and prudential ripeness "are concerned with

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[31] Under New York law, the City does not actually own the water in Station Six; it simply owns the right to use that water. *See Sweet v. City of Syracuse*, 129 N.Y. 316, 335 (1891). This is referred to as a "usufructuary" interest. *Id.*

whether a case has been brought prematurely." *Simmonds*, 326 F.3d at 357.

The doctrine of constitutional ripeness "prevents a federal court from entangling itself in abstract disagreements over matters that are premature for review because the injury is merely speculative and may never occur." *Ross v. Bank of America, N.A. (USA)*, 524 F.3d 217, 226 (2d Cir. 2008) (internal quotation marks omitted). This aspect of the ripeness doctrine overlaps with the standing doctrine, "most notably in the shared requirement that the plaintiff's injury be imminent rather than conjectural or hypothetical." *Id.* (internal quotation marks and alterations omitted). In most cases, that a plaintiff has Article III standing is enough to render its claim constitutionally ripe. *See Simmonds*, 326 F.3d at 358; *Ross*, 524 F.3d at 226. Here, our determination above that the City has satisfied the requirements of Article III standing leads us easily to conclude that its claims are constitutionally ripe; we therefore focus only on prudential ripeness. *Ross*, 524 F.3d at 226.

The doctrine of prudential ripeness "constitutes an important exception to the usual rule that where jurisdiction exists a federal court must exercise it," and allows a court to determine "that the case will be better decided later." *Simmonds*, 326 F.3d at 357 (emphasis omitted). Prudential ripeness is "a tool that courts may use to enhance the accuracy of their decisions and to avoid becoming embroiled in adjudications that may later turn out to be unnecessary." *Id.* In determining whether a claim is prudentially ripe, we ask "whether [the claim] is fit for judicial resolution" and "whether and to what

extent the parties will endure hardship if decision is withheld." *Id.* at 359; s*ee also Thomas v. Union Carbide Agric. Prods. Co.*, 473 U.S. 568, 581 (1985). A district court's "ripeness determination is . . . a legal determination subject to *de novo* review." *Conn. v. Duncan*, 612 F.3d 107, 112 (2d Cir. 2010).

According to Exxon, the District Court effectively "asked the jury to peer into a crystal ball and make myriad predictions about what might or might not occur decades from now depending on how the [City] uses a facility that it has not yet started to build and that it might never complete." Appellants' Br. at 35. The speculative nature of the jury's task demonstrates, Exxon says, that the claims are prudentially unripe for adjudication. As we observed above, however, this argument mistakenly conflates the nature of the City's claimed damages with its injury.

The City's theory of its legal injury is that, by contaminating the water in the Station Six Wells with MTBE, Exxon interfered with the City's right to use that water. Exxon's extensive discussion of the current disuse of the Station Six Wells and the future steps required to use them addresses the scope of the *damages* flowing from the injury, not whether there is an injury at all. The City's claims are prudentially ripe. It brought suit only after testing showed the presence of MTBE in the Station Six Wells. The Amended Complaint therefore alleged a *present* injury—namely, that Station Six had *already* been contaminated with MTBE. As we have explained, whether that injury was significant enough for the

City to prevail on its claims under New York law was a question for the jury.

In addition, although in bringing suit the City sought to recover past, present, and future damages flowing from Exxon's conduct, there is nothing unusual about such a claim. *See, e.g.*, *Davis v. Blige*, 505 F.3d 90, 103 (2d Cir. 2007) ("When [an] injury occurs, the injured party has the right to bring suit for all of the damages, past, present and future, caused by the defendant's acts." (internal quotation marks omitted)). Nor is the City's claim rendered prudentially unripe by the possibility that its damages may prove too speculative to support recovery.[32] Whether a particular damages model is supported by competent evidence sufficient to render it non-speculative is analytically distinct from whether the underlying claim is ripe for adjudication.

We also note that dismissing the City's claims as unripe would work a "palpable and considerable hardship." *Thomas*, 473 U.S. at 581 (internal quotation marks omitted). Under New York law, a plaintiff asserting a toxic-tort claim must bring suit within three years of discovery (or constructive discovery) of its injury. *See* N.Y. C.P.L.R. 214-c(2). In *Jensen v. General Electric Co.*, 82 N.Y.2d 77 (1993), the New York Court of Appeals held that the common

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[32] To the extent Exxon argues that the City's claims are unripe because the City has yet to use the Station Six Wells, we note the jury's finding in Phase I that the City has a good faith intent to use those wells within the next fifteen to twenty years. Phase I Interrogatory Sheet. Exxon, which had ample opportunity to convince the jury otherwise, does not challenge this finding on appeal.

law "continuing-wrong" doctrine—pursuant to which a recurring injury is treated as "a series of invasions, each one giving rise to a new claim or cause of action"—does not reset the statute of limitations in the toxic-tort context. *Id.* at 85 (internal quotation marks omitted). As the District Court observed, "the City brings a traditional recurring injury claim" in the sense that its injury is continuing: MTBE is in the Station Six Wells and will be for the foreseeable future.[33] Under *Jensen*, the statute of limitations began to run as to all of the City's claims arising out of its continuing injury—past, present, and future—when the City *first* discovered that it had been injured. *Id.* at 82-83. In light of this single trigger for the statute of limitations, dismissing the City's claims as unripe would effectively foreclose the possibility of relief—a hardship and inequity of the highest order.

Exxon responds that even if the City's claims are ripe, they are barred by the statute of limitations because the City first discovered that it had been injured more than three years before bringing suit. *See* N.Y. C.P.L.R. 214-c(2). As we have explained, the City contends that it was injured when the concentration of MTBE at Station Six rose to a level at which a reasonable water provider would have treated the water. At trial, Exxon bore the burden of establishing that the City knew or should have known before October 31, 2000—*i.e.*, three years before the City filed suit—that it had been injured. *See id.*; *Bano v. Union Carbide Corp.,* 361 F.3d 696, 709-10 (2d Cir. 2004). Ultimately, the jury rejected

[33] *MTBE IX*, 2009 WL 2634749, at *4.

Exxon's statute-of-limitations argument, concluding at the end of Phase III that Exxon failed to prove "that the City did not bring its claims in a timely manner." Phase III Interrogatory Sheet. On appeal, we understand Exxon to contend that no reasonable juror could have reached such a conclusion.

In support of this contention, Exxon draws our attention to two pieces of evidence which, it says, establish that the City's suit was time-barred. The first piece of evidence came from William Yulinsky, Director of Environmental Health and Safety in DEP's Bureau of Waste Water Treatment, who testified that as early as 1999 the City recognized that because "numerous potential sources of MTBE exist[ed] within [one] mile of Station 6, the need to treat for MTBE should be anticipated." Yulinsky Testimony, Tr. at 5781:17-5782:15. But Yulinsky's testimony that the City anticipated a future need to remediate MTBE does not prove that the City knew in 1999 that Station Six had already been contaminated or that the contamination was significant enough to justify an immediate or specific remediation effort.

The second piece of evidence to which Exxon points is the City's April 2000 discovery that one of the Station Six Wells had experienced "some exposure" to MTBE. Specifically, the City conceded that "MTBE was first detected in raw water drawn from Well 6D on April 18, 2000 at a concentration of 1.5 [ppb]" and that "MTBE was first detected in raw water drawn from Well 33 on April 18, 2000 at a concentration of 0.73 [ppb]." Phase III JPTO, Statement of Undisputed Facts ¶¶ 108, 111. But

Exxon has not identified sufficient evidence to establish that, in a case such as this involving a core municipal function and implicating an unusually compelling public interest, a reasonable juror was required to find that a reasonable water provider would have treated groundwater containing MTBE at these concentrations. We therefore conclude that a reasonable juror could have found that Exxon failed to show that the City learned of its injury before October 31, 2000.

D. Sufficiency of the Evidence as to Injury and Causation

We turn now to Exxon's challenge to the sufficiency of the evidence underlying the jury's verdict as to injury and causation. Exxon argues that the jury's peak MTBE finding and its damages calculation are based on speculation, and that the District Court erred in permitting the jury to consider "market share evidence" as circumstantial proof of Exxon's role in causing the City's injury. For these reasons, according to Exxon, the District Court should have granted its motion for judgment as a matter of law. As discussed below, we reject these challenges.

"We review a district court's denial of a motion for judgment as a matter of law *de novo*." *Manganiello v. City of New York*, 612 F.3d 149, 161 (2d Cir. 2010). "In so doing, we apply the same standards that are required of the district court." *Id.* (internal quotation marks and brackets omitted). A court may grant a motion for judgment as a matter of law "only if it can conclude that, with credibility assessments made against the moving party and all

inferences drawn against the moving party, a reasonable juror would have been compelled to accept the view of the moving party."[34] *Piesco v. Koch*, 12 F.3d 332, 343 (2d Cir. 1993).

1. The Jury's 10 ppb MTBE Peak Concentration Finding

The only expert witness to quantify the amount of MTBE that will be in the Station Six outflow was hydrogeologist David Terry, who employed multiple analyses to do so, as described above. Using one analysis—Analysis 1—Terry opined that MTBE concentration would peak at 35 ppb in 2024. Using a different analysis—Analysis 2—Terry opined that, depending on spill volume, the peak concentration could range from *de minimis* levels to approximately 23 ppb, and could last through at least 2040. For its

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[34] Exxon also moved in the District Court for a new trial or remittur. The District Court denied the motions, and we review its decision for abuse of discretion. *See Leibovitz v. New York City Transit Auth.*, 252 F.3d 179, 184 (2d Cir. 2001) (new trial); *Cross v. New York City Transit Auth.*, 417 F.3d 241, 258 (2d Cir. 2005) (remittitur). A district court "ordinarily should not grant a new trial unless it is convinced that the jury has reached a seriously erroneous result or that the verdict is a miscarriage of justice." *Hygh v. Jacobs*, 961 F.2d 359, 365 (2d Cir. 1992) (internal quotation marks omitted). As for remittitur, where, as here, the damages at issue are awarded in connection with state law claims, the district court is "obliged to review the award under [state] law." *Cross*, 417 F.3d at 258. Under New York law, a damages award must be reduced if it "deviates materially from what would be reasonable compensation." N.Y. C.P.L.R. § 5501(c); *see also Cross*, 417 F.3d at 258. As we explain in the text, we reject Exxon's challenge to the sufficiency of the evidence underlying the jury's verdict. For the same reasons, we also reject Exxon's new-trial and remittitur arguments.

part, the jury concluded in Phase II that the concentration of MTBE at Station Six will peak at 10 ppb in 2033.

On appeal, Exxon challenges the jury's conclusion on two grounds. First, it notes that, notwithstanding the jury's Phase I finding that the City will use Station Six as a *back-up* source of drinking water, Terry based his models on the assumption that Station Six will operate on a *continuous* basis. According to Exxon, this allegedly erroneous assumption renders Terry's models fatally flawed and the jury's verdict without any evidentiary basis. Second, Exxon argues that because Terry's expert opinion and the jury's verdict differ, the latter must have been based on impermissible speculation.

As for Exxon's first argument, it is true that the jury concluded during Phase I that the City would use the water from the Station Six Wells "as a back-up source of drinking water if needed due to shortages in other sources of supply." It is also true that Terry's analyses assumed that Station Six would run on a continuous basis for twenty-four years. Terry Testimony, Tr. at 2155-:11-25; *id.* at 2212:22-2213:13. But that assumption is not necessarily inconsistent with the jury's backup source finding. Indeed, several City witnesses testified that, given the unpredictability of water emergencies and the need to repair existing infrastructure periodically, water providers customarily plan, as a matter of prudent practice, for continuous use of back-up water facilities. For example, Terry himself testified that it is the "normal[ ]" practice to assume continuous use when planning for back-up wells "because no one

really knows at the outside how they're going to use the well. They might think it's a standby well or something and something happens and they need to use the well, so in that case you want to have enough treatment for that scenario." *Id.* at 2213:8-13. Steven Schindler, Director of Water Quality for the City's Bureau of Water Supply, testified that "[y]ou never know how long a backup supply is going to be needed," especially given the City's plans to "tak[e] components of [its] system off line for long periods of time, meaning years." Schindler Testimony, Tr. at 2945:7-19. And Marnie Bell, called by the City to describe the costs of designing a treatment facility at Station Six, testified that the "[p]lanned replacement of tunnels, aqueducts, emergencies, [and] failure of these facilities" required the City "to plan for the worst case in designing and costing a treatment plant." Bell Testimony, Tr. at 6017:16-6018:4. Given this evidence, a rational juror could conclude that Terry's analyses were probative of peak-MTBE concentrations at Station Six—even though the analyses assumed a continuous-pumping scenario.[35]

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[35] For the same reason, we reject Exxon's contention that the City's proof of its damages was somehow faulty because, in calculating the cost of a treatment facility, Bell assumed that Station Six would operate continuously. The jury was entitled to credit Bell's testimony that in designing and building such a facility, a prudent water provider would assume continuous use, even if Station Six is to serve as a back-up source of drinking water. Bell Testimony, Tr. at 6017:16-6018:4. Further, the jury's measure of damages—$250.5 million, before the offsets for proportional liability for other tortfeasors and damage attributable to preexisting contamination—was consistent with the City's evidence that the net present value of maintaining and operating a treatment system at Station Six to remove

Exxon's second argument is that the jury's peak-MTBE verdict was "irrational," and must be set aside, because it did not mirror Terry's peak-MTBE prediction. Appellants' Br. at 55. We disagree. The role of an expert is not to displace the jury but rather to "provid[e] the groundwork . . . to enable the jury to make its own informed determination." *United States v. Duncan*, 42 F.3d 97, 101 (2d Cir. 1994). Accordingly, the jury is "free to accept or reject expert testimony, and [is] free to draw [its] own conclusion." *Berger v. Iron Workers Reinforced Rodmen, Local 201*, 170 F.3d 1111, 1121 (D.C. Cir. 1999); *see also Schroeder v. The Tug Montauk*, 358 F.2d 485, 488 (2d Cir. 1966) ("[I]t was within the province of the [trier of fact] to weigh [conflicting expert evidence] and accept or reject the whole or a part of each [expert's] testimony."). And we have consistently held that expert testimony that "usurps . . . the role of the jury in applying [the] law to the facts before it" by "undertak[ing] to tell the jury what result to reach" or "attempt[ing] to substitute the expert's judgment for the jury's" is inadmissible. *Nimely v. City of New York*, 414 F.3d 381, 397 (2d Cir. 2005) (internal quotation marks and alteration omitted).

As an initial matter, we note, as did the District Court, that the jury's peak-MTBE finding fell within the range of possible outcomes predicted by Terry's analyses. Terry testified that because he lacked

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MTBE present at 10 ppb was approximately $250 million. *See, e.g., id.* at 5886:9-10 ("For the 10 ppb [scenario], the total cost would be approximately $250 million."). The District Court therefore did not abuse its discretion in denying Exxon's motion for a new trial on damages or, in the alternative, remittitur.

perfect information about the amount of gasoline spilled in the vicinity of Station Six, he based his analyses on a range of variables. For example, in Analysis 1, Terry predicted future MTBE concentrations using groundwater quality information taken in 2004 for sample locations near Station Six. And in Analysis 2, he predicted future MTBE concentrations and the duration of such concentrations by identifying known spill sites and assuming spill volumes of 50 gallons, 500 gallons, and 2,000 gallons. Analysis 1 suggested peak MTBE concentrations of 35 ppb, while Analysis 2 suggested peak MTBE concentrations ranging from *de minimis* levels (assuming spill volumes of 50 gallons) to approximately 23 ppb (assuming spill volumes of 2,000 gallons).[36] The jury's finding that the concentration of MTBE at Station Six would peak at 10 ppb falls squarely within Terry's range. This strikes us as highly persuasive evidence that the jury's finding was not irrational. *Cf. Robinson v. Shapiro*, 646 F.2d 734, 744 (2d Cir. 1981) (upholding damage award greater than figure calculated by plaintiff's expert).

Further, Terry's models only *predicted* future MTBE concentrations at Station Six. These predictions were based on a set of assumptions about a number of factors, including spill volume, timing, and the uses to which Station Six would be put. The

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[36] Although Terry explained that the principal purpose of Analysis 2 was to estimate "how long the MTBE concentrations will be present [at Station Six] in the future," Terry Testimony, Tr. at 2015:14-15, nothing in his testimony suggests that he meant for the jury to disregard Analysis 2's peak-MTBE figures.

jury evidently accepted some of Terry's assumptions and rejected others, which it was entitled to do. Exxon's contrary argument would threaten to "denigrate[ ] the historic and practical abilities of the jury," *Medcom Holding Co. v. Baxter Travenol Laboratories, Inc.*, 106 F.3d 1388, 1398 (7th Cir. 1997), by forcing upon it a binary choice: either accept Terry's testimony in whole or reject it in whole. This is not the law. *See Berger*, 170 F.3d at 1121; *Schroeder*, 358 F.2d at 488.

For these reasons, we reject Exxon's contention that the jury's peak MTBE finding was based on impermissible speculation.

2. The Jury's Consideration of Market Share Evidence

According to Exxon, the jury's Phase III verdict as to Exxon's liability as a manufacturer, refiner, supplier, or seller of gasoline containing MTBE must also be reversed because it was impermissibly based on a market-share theory of liability.[37]

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[37] As explained above, the jury ultimately considered two theories of causation. Under the first theory—which the District Court called "direct spiller causation"—the jury was asked to consider whether Exxon-owned underground storage tanks located in the vicinity of Station Six leaked gasoline containing MTBE and, if so, whether these leaks injured the City. Under the second theory—which the District Court called "manufacturer, refiner, supplier, or seller causation"—the jury was asked to consider whether MTBE from gasoline that was manufactured, refined, supplied, or sold by Exxon was a cause of the City's injury. The jury found that the City had proven by a fair preponderance of the evidence that Exxon was a cause of the City's injury as a direct spiller *and* as a manufacturer, refiner, supplier, or seller. Phase III Interrogatory Sheet.

"Market share liability provides an exception to the general rule that in common-law negligence actions, a plaintiff must prove that the defendant's conduct was a cause-in-fact of the injury." *Hamilton v. Beretta U.S.A. Corp.*, 96 N.Y.2d 222, 240 (2001). Where the theory of proof called market-share liability is permitted, a defendant may be held liable absent any showing that it caused or contributed to the plaintiff's injury; instead, a defendant may be presumed liable to the extent of its share of the relevant product market. *Hymowitz v. Eli Lilly & Co.*, 73 N.Y.2d 487, 511-12 (1989).

According to Exxon, the District Court permitted the imposition of market-share liability in contravention of New York law when it instructed the jury that in evaluating whether Exxon's conduct in manufacturing, refining, supplying or selling gasoline containing MTBE was a substantial factor in causing the City's injury, the jury could "consider as circumstantial evidence [Exxon's] percentage share of the retail and/or supply market for gasoline containing MTBE in Queens or [in] any other region that you determine is relevant." Tr. at 6606:17-20. We disagree with Exxon and conclude that the instruction appropriately applied New York law. The District Court did not impose market-share liability upon Exxon; it simply permitted the jury to draw upon market-share data as one piece of circumstantial evidence that Exxon caused the City's injury.

As an initial matter, we note that the City *did not* rely on a market-share theory of liability. To the contrary, it identified the "exact defendant whose

product injured" it—Exxon. *Cf. Hymowitz*, 73 N.Y.2d at 504 (allowing recovery notwithstanding plaintiffs' inability to identify the manufacturer of injurious product). Indeed, as explained below, the City adduced testimony establishing that Exxon gasoline found its way into every underground storage tank in Queens during the relevant period. This is a case in which a defendant faces liability because of evidence linking its own product to the plaintiff's injury.

Under New York law, an act or omission is regarded as a legal cause of an injury "if it was a substantial factor in bringing about the injury." *Schneider v. Diallo*, 788 N.Y.S.2d 366, 367 (1st Dep't 2005). The word "substantial" means that the act or omission "had such an effect in producing the injury that reasonable people would regard it as a cause of the injury." *Rojas v. City of New York*, 617 N.Y.S.2d 302, 305 (1st Dep't 1994) (internal quotation marks omitted). In endeavoring to prove that Exxon's conduct as a manufacturer, refiner, supplier, or seller of gasoline was a "substantial factor" in bringing about its injury, the City adduced three principal pieces of evidence. First, the City presented expert testimony that, because gasoline from different manufacturers was commingled before distribution, Exxon gasoline "ended up in each of the retail gas stations in Queens and in their underground storage tanks" between 1985 and 2003. Testimony of Bruce Burke ("Burke Testimony"), Tr. at 4103:7-10. As a result, when "there were leaks from those tanks and MTBE gasoline came through those leaks . . . there was some Exxon MTBE gasoline in the tanks [that] presumably went into the leaks." *Id.* at 4104:14-20. Second, the City presented expert testimony that

Exxon supplied approximately twenty-five percent of the gasoline sold in Queens between 1986 and 2003. Testimony of Martin Tallett, Tr. at 4278:9-10; *id.* at 4281:8-11. And third, the City presented expert testimony that "[l]eaks happen at gas stations . . . on a fairly routine basis." Testimony of Marcel Moreau ("Moreau Testimony"), Tr. at 1115:15-16.

Viewed in context, the market share data adduced by the City served merely as some proof that sufficient quantities of Exxon gasoline were delivered to gas stations in the vicinity of Station Six to make it more likely than not that Exxon gasoline played a substantial role in bringing about the City's injury. Like the District Court, we perceive a difference between employing market-share data in this fashion and imposing liability based solely on a defendant's share of the market for a dangerous product, absent any evidence that the defendant's own product directly caused some of the harm alleged. Here, the City did not use market share data as a substitute for showing that Exxon contributed to the contamination of Station Six. *Cf. Hymowitz*, 73 N.Y.2d at 504. Instead, it used such data to help quantify the scope of that contribution.[38]

The cases upon which Exxon relies are distinguishable. In *Tidler v. Eli Lilly & Co.*, 851 F.2d 418 (D.C. Cir. 1988), the D.C. Circuit declined to allow plaintiffs to employ a market-share theory of liability in connection with their state-law claims for DES exposure where the relevant state courts had

[38] For its part, *Exxon* appears to have relied on market share evidence to prove the percentage of fault attributable to other tortfeasors.

not squarely addressed the availability of market-share liability. *Id.* at 425. In *City of St. Louis v. Benjamin Moore & Co.*, 226 S.W.3d 110, 115-16 (Mo. 2007), the Supreme Court of Missouri held that, under Missouri law, a plaintiff may not employ a market-share theory of liability in lieu of identifying the precise defendant whose product injured it. And in *Martinez v. Skirmish, U.S.A., Inc.*, No. 07-5003, 2009 WL 1437624 (E.D. Pa. May 21, 2009), the court reached a similar result under Pennsylvania law. *Id.* at *4. Neither *Tidler*, *City of St. Louis*, nor *Martinez* deal with the different question presented here: whether market-share data can serve as part of the mosaic of circumstantial evidence that helps the jury determine the scope of the defendant's contribution to the plaintiff's injury.

Under the circumstances of this case, we find that the District Court's instruction was not improper. We also find that, based on the evidence described above, a reasonable jury could conclude that Exxon's conduct as a manufacturer, refiner, supplier, or seller of gasoline containing MTBE was indeed a substantial factor in bringing about the City's injury.[39]

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[39] We need not address Exxon's challenge to what it describes as the District Court's "novel 'commingled product 'alternative liability theory." Appellants' Br. at 61. That independent, alternative theory dispensed with the substantial-factor requirement and would have permitted the City to establish causation based on evidence that Exxon manufactured or refined any amount of commingled MTBE gasoline contaminating Station Six. *See, e.g., MTBE XII*, 739 F. Supp. 2d at 608-09; *MTBE VII*, 644 F. Supp. 2d at 314-15, 318-19; *MTBE II*, 379 F. Supp. 2d at 377-79. Because the jury never rendered a

E. New York Law Claims

Exxon contends that even if we reject its arguments as to preemption, legal cognizability, and ripeness, and its challenge to the sufficiency of the evidence of injury and causation, the judgment below must be reversed because the jury's verdicts as to the City's claims of negligence, trespass, nuisance, and failure-to-warn are unsupported by the evidence. We disagree and conclude that, viewed in the light most favorable to the City, the evidence supported the jury's verdict. *See Chin v. Port Auth. of N.Y. & N.J.*, 685 F.3d 135, 150-51 (2d Cir. 2012) ("In reviewing the sufficiency of the evidence in support of a jury's verdict, we examine the evidence in the light most favorable to the party in whose favor the jury decided, drawing all reasonable inferences in the winning party's favor." (internal quotation marks omitted)).

1. Negligence

To prevail on a negligence claim under New York law, a plaintiff must show "[1] a duty on the part of the defendant; [2] a breach of that duty by conduct involving an unreasonable risk of harm; [3] damages suffered by the plaintiff; and [4] causation, both in fact and proximate, between the breach and the plaintiff's harm." *McCarthy v. Olin Corp.*, 119 F.3d 148, 161 (2d Cir. 1997) (internal quotation marks and citations omitted).

At trial, the City argued that Exxon was negligent as a "direct spiller" of gasoline containing

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verdict on the commingled product theory, it is not at issue here.

MTBE because Exxon failed to ensure that such gasoline was properly stored and dispensed at service stations it owned or controlled. According to the City, gasoline leaked from Exxon's underground storage tanks, causing MTBE to enter the soil, the groundwater, and the Station Six Wells. Exxon argues that the evidence was insufficient to show that it breached its duty of care. In Exxon's view, the evidence showed that the technology it used to prevent leaks and contain spills was consistent with measures that other station owners used. Additionally, Exxon asserts, gasoline stations inevitably spill gasoline into the surrounding environment, even when employees exercise great care. Because the City failed to distinguish between negligent and non-negligent spills, Exxon argues, the jury's verdict is unsupported by the evidence.

Viewed in the light most favorable to the City, the evidence supported the jury's negligence verdict. The record provided ample evidence of gasoline spills and leaks at Exxon-controlled stations, and the jury could have concluded that these releases were negligent. For example, the jury heard testimony about a series of gasoline releases from an Exxon service station located at 113-21 Merrick Boulevard in Queens, within the "capture zone" of the Station Six Wells. In 1996, an inexperienced employee caused a gasoline leak when changing filters on a gasoline dispenser. Three years later, one of the station's tanks failed a "vacuum" test, meaning that the tank was leaking and required repairs. And in 2001, employees encountered gasoline-contaminated soil when working on the station's piping system; upon further exploration, they discovered six 550-

gallon storage tanks buried under the station—tanks that were unregistered, and that the station owner did not know existed. An earlier test of the groundwater underneath the station revealed an MTBE concentration of 1,500 ppb—thirty times the then-current MCL.

The jury also heard testimony about steps Exxon could have taken to prevent, or at least mitigate the damage from, these contamination incidents. Marcel Moreau, the City's expert on underground gasoline storage, explained that Exxon could have implemented "vapor monitoring," which would have permitted station operators to detect leaks more quickly. Moreau Testimony, Tr. at 3378:22. He also explained that Exxon could have installed remediation systems at its stations, which would have permitted station operators to begin the clean-up process as soon they detected a gasoline leak. *Id.* at 3379:3-10. Moreau testified that, to his knowledge, Exxon did not implement either of these measures at its stations. *Id.* at 3380:15-17. In addition, according to Moreau, after the 1996 leak at the Merrick Boulevard station from an improperly-installed filter, Exxon employees did not perform a "chemical analysis or anything else to determine what was contaminated and what was not. They just went by nose." *Id.* at 1270:16-19.

The jury was entitled to credit this testimony and conclude that the exercise of reasonable care required Exxon to implement the measures identified by Moreau. Contrary to Exxon's argument, these devices were not simply a "wish list." Moreau testified that vapor detection technology was

available in the 1980s, and that, in a 1986 paper recognized by at least one petroleum trade group, he and others warned about the dangers of MTBE and emphasized the importance of effective leak-detection systems. *Id.* at 3345:2-14. An internal Exxon memorandum from 1984 explained that MTBE migrated farther in groundwater than other contaminants and had lower "odor and taste thresholds." Pl. Ex. 272. A memorandum dated two years later observed that federal and state authorities had identified MTBE as a health concern. Pl. Ex. 5506. Evidence of Exxon's timely knowledge of the particular dangers of MTBE, combined with evidence about remedial measures available as early as the 1980s, was sufficient to allow the jury to determine that Exxon breached the standard of ordinary care.

2. Trespass

To prevail on a trespass claim under New York law, a plaintiff must show an "interference with [its] right to possession of real property either by an unlawful act or a lawful act performed in an unlawful manner." *New York State Nat'l Org. for Women v. Terry*, 886 F.2d 1339, 1361 (2d Cir. 1989) (citing *Ivancic v. Olmstead*, 66 N.Y.2d 349, 352 (1985)). "[W]hile the trespasser, to be liable, need not intend or expect the damaging consequence of his intrusion, he must intend the act which amounts to or produces the unlawful invasion, and the intrusion must at least be the immediate or inevitable consequence of what he willfully does, or [what] he does so negligently as to amount to willfulness." *Phillips v. Sun Oil Co.*, 307 N.Y. 328, 331 (1954). In a trespass

case involving the "underground movement of noxious fluids," a plaintiff must show that the defendant "had good reason to know or expect that subterranean and other conditions were such that there would be passage [of the pollutant] from defendant's to plaintiff's land." *Id.*

Exxon asserts that the City failed to establish the first element of trespass—an interference with its water rights. We address this assertion only briefly because it simply repackages two arguments we have already rejected. First, Exxon contends that an interference has not occurred because, according to the jury, the peak MTBE concentration in the Station Six Wells will not exceed 10 ppb. But as already explained, New York courts have held that a plaintiff may suffer injury from contamination at levels below an applicable regulatory threshold. *See Cunningham v. Spitz*, 630 N.Y.S.2d 341, 341 (2d Dep't 1995); *Peri v. City of New York*, 798 N.Y.S.2d 332, 339-40 (N.Y. Sup. Ct. Mar. 28, 2005), *aff'd*, 843 N.Y.S.2d 618 (1st Dep't 2007), *aff'd*, 11 N.Y.3d 756 (2008). Here, the jury found that a reasonable water provider would have treated the MTBE-contaminated water at Station Six. And the record contains sufficient evidence to support this conclusion.

Second, Exxon contends that it did not interfere with the City's water rights because the City has never actually used Station Six. Again, however, Exxon conflates the City's injury with its damages. The City alleged, and proved to the jury's satisfaction, that the City intends to use the Station Six Wells, that MTBE will be within the capture zone of those wells when they begin operation, and that a

reasonable water provider would treat the water to remove the MTBE. An interference has occurred. Whether the City actually uses Station Six goes to the calculation of its damages. *Cf. Hill v. Raziano*, 880 N.Y.S.2d 173, 175 (2d Dep't 2009) ("[N]ominal damages are presumed from a trespass even where the property owner has suffered no actual injury to his or her possessory interest.").

Exxon also contends that the District Court erred by failing to instruct the jury that a defendant is liable for trespass only if it "'had good reason to know or expect that subterranean and other conditions were such that there would be passage [of the pollutant] from defendant's to plaintiff's land.'" Appellees' Br. at 73 (quoting *Phillips*, 307 N.Y. at 331) (alteration in original). In fact, the District Court's instruction conveyed this element of trespass. The relevant portion of the that instruction, which is set out in the margin,[40] required the jury to find that

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[40] After explaining the element of causation and then defining "intent," the District Court gave the following instruction:

> In this case, if you find that [Exxon] did not know that the gasoline containing MTBE that it manufactured, refined, sold and/or supplied would be spilled, and that the property of MTBE would cause it to spread widely and rapidly in groundwater, or that although [Exxon] knew these things, these things did not make it substantially certain that its gasoline containing MTBE would leak from the gasoline distribution system and enter groundwater, including the groundwater in the capture zone of the Station 6 wells, then [Exxon] did not commit a trespass.
>
> If you find, however, that [Exxon] acted with the requisite intent; namely, [Exxon] knew that its conduct made it substantially certain that MTBE

Exxon knew (1) "the gasoline containing MTBE that it manufactured, refined, sold and/or supplied would be spilled," (2) "the propert[ies] of MTBE would cause it to spread widely and rapidly in groundwater," and (3) as a result, it was "substantially certain that [Exxon's] gasoline containing MTBE would leak from the gasoline distribution system and enter groundwater, including the groundwater in the capture zone of the Station 6 wells." Tr. at 6620:1-15. These instructions, particularly the third requirement, satisfy *Phillips*.

Finally, we reject Exxon's argument that its actions as a "mere refiner and supplier" of gasoline were "too remote from any actual spills or leaks to be deemed an 'immediate or inevitable' cause of any trespass." Appellants' Br. at 73-74 (quoting *Phillips*, 307 N.Y. at 331). In *State v. Fermenta ASC Corp.*, 656 N.Y.S. 2d 342 (2d Dep't 1997), plaintiff Suffolk County Water Authority determined that several of its wells had been contaminated by a chemical known as TCPA, a natural byproduct of a widely-used herbicide called Dacthal. The water authority sued the exclusive manufacturer and distributor of Dacthal on several legal theories, including trespass. In affirming the trial court's denial of summary judgment to the manufacturer on the trespass claim, the Second Department explained that "it is enough that the defendants' actions in directing consumers to apply Dacthal to the soil [were] substantially

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> would enter the groundwater, including the groundwater in the capture zone of the Station 6 wells, then [Exxon] did commit a trespass.

Tr. at 6620:1-15.

certain to result in the entry of TCPA into [Suffolk County Water Authority] wells." *Id.* at 346.

Fermenta is squarely on point. Just as the manufacturer in *Fermenta* knew that consumers would apply its product to the soil, here the jury concluded that Exxon "knew that the gasoline containing MTBE that it manufactured, refined, sold and/or supplied would be spilled." Tr. at 6620:2-3. And just as the actions of the manufacturer in *Fermenta* were substantially certain to cause contamination, here the jury concluded that it was "substantially certain that [Exxon's] gasoline containing MTBE would leak from the gasoline distribution system and enter groundwater, including the groundwater in the capture zone of the Station 6 wells."[41] *Id.* at 6620:7-9.

3. Public Nuisance

A public nuisance "is an offense against the State and is subject to abatement or prosecution on application of the proper governmental agency." *Copart Indus. v. Consolidated Edison Co. of N.Y.*, 41

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[41] Exxon cites *Abbatiello v. Monsanto Co.*, 522 F. Supp. 2d 524, 542 (S.D.N.Y. 2007), which summarily dismissed a trespass claim against a manufacturer of products containing harmful chemicals, even though the complaint alleged that the manufacturer knew its products would enter plaintiffs' land. Relying on *Phillips*, the court in *Abbatiello* concluded without explanation that the contamination was not the "immediate or inevitable consequence" of the manufacturer's actions. *Id.* (quoting *Phillips*, 307 N.Y. at 331). Here, as we have already explained, the jury's finding that Exxon was "substantially certain that its gasoline containing MTBE would leak from the gasoline distribution system and enter groundwater," Tr. at 6620:6-8, satisfied the requirements set forth in *Phillips*.

N.Y.2d 564, 568 (1977). To prevail on a public nuisance claim under New York law, a plaintiff must show that the defendant's conduct "amounts to a substantial interference with the exercise of a common right of the public," thereby "endangering or injuring the property, health, safety or comfort of a considerable number of persons." *532 Madison Ave. Gourmet Foods v. Finlandia Ctr.*, 96 N.Y.2d 280, 292 (2001).

Exxon argues that the jury's rejection of the City's design-defect claim forecloses the City's public-nuisance claim because it establishes that Exxon acted in the safest feasible way, and that Exxon therefore did not "substantially" interfere with a public right.[42] Again, however, Exxon overreads the jury's design-defect verdict. The jury concluded that the City failed to establish that a safer, feasible alternative design existed—a determination, which, as we have explained, required the jury to balance the costs of using MTBE against the alternatives. Exxon overreaches insofar as it construes this verdict as an affirmative finding that MTBE was the safest available oxygenate.

We also reject Exxon's contention that its conduct as a supplier of gasoline was too "remote from Station 6" to support the jury's public nuisance verdict. Appellants' Br. at 74. Under New York law,

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[42] Exxon also argues that the jury's finding that MTBE concentrations in Station Six will never exceed the MCL establishes as a matter of law that Exxon's "interference" was not "substantial." Here, Exxon simply reiterates its earlier argument about the legal significance of the MCL. We are unpersuaded for the reasons already discussed.

"[e]very one who creates a nuisance or participates in the creation or maintenance thereof is liable for it." *Penn Cent. Transp. Co. v. Singer Warehouse & Trucking Corp.*, 447 N.Y.S.2d 265, 267 (1st Dep't 1982) (internal quotation marks omitted); *see also* Restatement (Second) of Torts § 834 ("One is subject to liability for a nuisance caused by an activity, not only when he carries on the activity but also when he participates to a substantial extent in carrying it on."). As we have explained, the City adduced evidence showing that Exxon manufactured gasoline containing MTBE and supplied that gasoline to service stations in Queens. In addition, the City offered testimony that Exxon knew station owners would store this gasoline in underground tanks that leaked, and introduced evidence that Exxon knew specifically that tanks in the New York City area leaked. The record also shows that Exxon was aware of MTBE's tendency to spread quickly once released into groundwater. In sum, the evidence supports a finding that Exxon knew that MTBE gasoline it manufactured would make its way into Queens, where it was likely to be spilled, and once spilled, would likely infiltrate the property of others.

Despite this evidence, Exxon argues that the City failed to show that Exxon's operations occurred "near the relative geographic areas of the plaintiffs' wells." Appellants' Br. at 74 (internal quotation marks omitted). In support of this position, Exxon relies on *In re Nassau County Consolidated MTBE (Methyl Tertiary Butyl Ether) Products Liability Litigation*, 918 N.Y.S.2d 399, 2010 WL 4400075 (N.Y. Sup. Ct. Nassau County 2010) (unpublished table decision) ("*Nassau County*"), a decision also

addressing MTBE contamination in public water supplies by various gasoline suppliers. In *Nassau County*, the trial court concluded that to be liable for a public nuisance, the defendant (or its agent) must have participated in the nuisance-causing activity while on land that was "neighboring or contiguous" with the plaintiff's property. *Id.* at *9. The court therefore held that only those defendants who "conduct[ed] . . . operations near the relative geographic areas of the plaintiffs' wells" could be liable for public nuisance and dismissed public nuisance claims against defendants whose "operations terminate before reaching Nassau County or Suffolk County (where the alleged contamination has taken place), and [whose] link to the plaintiffs' injury is that they supplied most of the gasoline that was eventually transported near the plaintiffs' wells." *Id.* at *8, 10.

Nassau County has not been subjected to the scrutiny of any higher state court, and we question whether, on further review, New York law will be found to support liability for public nuisance only if the defendant engaged in the nuisance-causing conduct from land that directly adjoins the plaintiff's land.[43] But even assuming the trial court's

[43] Our sister Circuits have reached differing conclusions when presented with common law nuisance claims against a manufacturer who was not in geographic proximity to the plaintiff. *Compare Tioga Pub. School Dist. No. 15 v. U.S. Gypsum Co.*, 984 F.2d 915, 920 (8th Cir. 1993) (holding that, under North Dakota law, "nuisance . . . does not afford a remedy against the manufacturer of an asbestos-containing product to an owner whose building has been contaminated by asbestos following the installation of the product in the building"), *and*

interpretation of public nuisance doctrine is correct, *Nassau County* does not undermine the jury's verdict.

We note, as an initial matter, that the City sought to hold Exxon liable as both a direct spiller of MTBE gasoline and as a manufacturer, refiner, supplier, and seller of MTBE gasoline, and that the jury's verdict on public nuisance did not distinguish between these theories of causation. *Nassau County*'s discussion of geographic proximity is relevant only to the extent that the jury held Exxon liable for public

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City of Bloomington, Ind. v. Westinghouse Elec. Corp., 891 F.2d 611, 614 (7th Cir. 1989) (holding that, under Indiana law, a manufacturer of electrical equipment was not liable for nuisance when third parties disposed of its products incorrectly, causing contamination); *with Team Enters., LLC v. W. Inv. Real Estate Trust*, 647 F.3d 901, 912 (9th Cir. 2011) ("A defendant may be liable [under California law] for assisting in the creation of a nuisance if he either (1) affirmatively instructs the polluting entity to dispose of hazardous substances in an improper or unlawful manner, or (2) manufactures or installs the disposal system." (citations omitted)). These cases turn in large part, however, not on the geographic proximity of the defendant to the nuisance but on whether the defendant knew that its product would endanger public health, and whether the defendant took steps to mitigate the risks associated with its product. *See City of Bloomington*, 891 F.2d at 614 ("The uncontested record shows that when alerted to the risks associated with PCBs, [the defendant] made every effort to have [the third party] dispose of the chemicals safely."); *cf. Tioga*, 984 F.2d at 920 ("[L]iability for damage caused by a nuisance thus turns on whether the defendant is in control of the instrumentality alleged to constitute a nuisance, since without control a defendant cannot abate the nuisance."). As we have explained, in this case the jury could have concluded (and evidently did conclude) that Exxon knew of the dangers of MTBE and failed to take actions to mitigate MTBE contamination.

nuisance as a manufacturer of MTBE gasoline; *Nassau County* permitted claims to go forward against direct-spiller defendants, *i.e.*, defendants who "had gasoline discharges near the plaintiff[']s wells." *Id.* at *10.

But even if we assume the jury held Exxon liable only as a manufacturer of MTBE, *Nassau County* is distinguishable. Here, unlike in *Nassau County*, the evidence showed that Exxon conducted "operations near the relative geographic areas" of the Station Six Wells. Exxon owned or controlled multiple service stations near Station Six; Exxon's gasoline "ended up in each of the retail gas stations in Queens and in their underground storage tanks" between 1985 and 2003, Burke Testimony, Tr. at 4103:7-10; and, based on that activity alone, the jury could have found that Exxon marketed gasoline to retail customers in Queens. Exxon's extensive involvement in the Queens gasoline market belies any claim that its conduct was too geographically remote to sustain liability for public nuisance.

4. Failure to Warn

Under New York law, a plaintiff may recover in strict products liability "when a manufacturer fails to provide adequate warnings regarding the use of its product." *Rastelli v. Goodyear Tire & Rubber Co.*, 79 N.Y.2d 289, 297 (1992). This is because a manufacturer "has a duty to warn against latent dangers resulting from foreseeable uses of its products of which it knew or should have known." *Id.* The duty to warn extends "to third persons exposed to a foreseeable and unreasonable risk of harm by the

failure to warn." *McLaughlin v. Mine Safety Appliances Co.*, 11 N.Y.2d 62, 68-69 (1962).

Exxon argues that the District Court erred when it "instructed the jury that [Exxon] had a duty to warn, *inter alia*, 'the city water providers and the public' of dangers arising from the addition of MTBE into gasoline."[44] Appellants' Br. at 67-68. We reject Exxon's suggestion that, as a categorical matter, neither the City nor the public are reasonably foreseeable users of gasoline containing MTBE, and therefore that Exxon owed the City and the gasoline-using public no duty to advise them of the hazards of use. *Cf.* Moreau Testimony, Tr. at 3380:3-17 (testifying that "a public education campaign," informing "everybody who was pumping gas" about the dangers of MTBE, was necessary to reduce MTBE contamination).

In any event, the focus of the City's evidence on its failure-to-warn claim pertained not to warnings

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[44] We note that Exxon mischaracterizes the District Court's instruction. The District Court did not instruct the jury that Exxon owed a duty to warn; it merely noted that "[t]he [C]ity . . . *contends* that" Exxon failed to warn "distributors, customers, station owners, its employees, gasoline truck drivers, and the city water providers and the public" of the dangers of gasoline containing MTBE. Tr. at 6613:24-14:3 (emphasis added). In more general instructions on the duty to warn, the District Court properly instructed the jury that the "manufacturer of a product that is reasonably certain to be harmful if used in a way that the manufacturer should reasonably foresee, is under a duty to use reasonable care to give adequate warnings to foreseeable users of the product of any danger known to it or which in the use of reasonable care it should have known and which the reasonable user of the product ordinarily would not discover." Tr. at 6615:4-10.

Exxon gave the City or the general public but rather to warnings it gave to gas station operators. Although Exxon disputes whether a warning to station operators would have reduced MTBE contamination, a contention we address below, nowhere does Exxon argue that it lacked a duty to warn station operators of the special dangers of its product. And the evidence showed that although operators were warned generally about the risks of spilling gasoline, they were not warned about the special risks associated with gasoline containing MTBE. For example, Michael J. Roman, an Exxon employee at the time of his testimony, said that Exxon did not advise its customers to test for the presence of MTBE when they discovered gasoline contamination at a spill site; nor did Exxon provide any information to operators about the environmental problems associated with MTBE in particular. Testimony of Michael J. Roman ("Roman Testimony"), Tr. at 3496:17-3497:3. Roman explained that Exxon "did not want to confuse our customers" and that "the real issue is gasoline, that we do not want it leaking or spilled into the ground." *Id.* at 3494:16-3495:20.

We are also unpersuaded by Exxon's argument that it had no duty to warn anyone because the dangers of spilling gasoline are common knowledge. The City's claim is not that it was injured by spilled gasoline but rather that it was injured by spilled gasoline *containing MTBE*. The evidence at trial showed that MTBE has an unusual propensity to spread widely in groundwater if spilled, and that it is especially difficult to clean up. The harmful effects of spilling gasoline containing MTBE are therefore

different (and more severe) than the effects of spilling untreated gasoline. Given the unique properties of MTBE, we reject the suggestion that a gasoline supplier complies with its duty to warn of the dangers of gasoline containing MTBE by complying with its duty to warn of the dangers of gasoline that does not contain MTBE. *See Liriano v. Hobart Corp.*, 92 N.Y.2d 232, 242 (1998) ("[T]he open and obvious defense generally should not apply when there are aspects of the hazard which are concealed or not reasonably apparent to the user.").[45]

Finally, Exxon argues that the jury's failure-to-warn verdict must be rejected because the City did not establish that gas station operators and other foreseeable users would have changed their behavior had they been warned of the dangers of MTBE. To the contrary, the record contains ample evidence from which the jury could have concluded that warnings about MTBE would have reduced contamination in the Station Six Wells. For example, the jury heard testimony that gas stations chose not to replace leaky underground storage systems in the 1980s and 1990s because they believed that doing so would be more costly than paying for the consequences of continued leakage. We think the jury could have inferred that station owners would have acted differently had they been warned specifically

[45] We also reject Exxon's argument that it had no duty to warn the City about the dangers of MTBE because, by 1997, the City was aware of these dangers. Exxon began using MTBE in its gasoline long before 1997, and the City's eventual knowledge did not relieve Exxon of its duty to provide adequate warnings before 1997 (to say nothing of its continuing duty to warn gas station owners).

about the dangers of MTBE. As one City expert testified: "Without MTBE, a-gallon-a-day leak most of the time isn't going to get you in very big trouble. But a-gallon-a-day leak with MTBE is a whole different animal; it changes the game. You are now in a whole different ballpark. You need to pay attention to those kinds of releases, and no one was really paying attention on that scale in the 1980s and through most of the 1990s."[46] Moreau Testimony, Tr. at 3350:22-51:3. It is not surprising that the jury credited this evidence; indeed, the testimony accords with common sense.

F. Juror Misconduct

Finally, Exxon argues that it is entitled to a new trial because the District Court failed to dismiss Juror No. 1. According to Exxon, after the District Court dismissed the threatened juror (Juror No. 2), it was "incumbent" upon it "to dismiss the threatener" or, at a minimum, to ask Juror No. 1 whether she had actually threatened Juror No. 2. Appellants' Br.

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[46] The court in *In re Nassau County*, 2010 WL 4400075, at *16, dismissed the plaintiffs' failure-to-warn claim after concluding that (1) the defendants "did not manufacture the product or have any superior knowledge regarding the risk of harm," (2) "there is no duty to warn generally of public dangers or a duty to warn public officials," and (3) "it is unlikely that additional warnings to end-users regarding the specific characteristics of MTBE would have been effectual in preventing injury to the plaintiff water districts." Here, the evidence was sufficient for the jury to find that Exxon manufactured the gasoline, that Exxon had superior knowledge regarding the risk of harm, and that additional warnings would have been effective in preventing harm. To the extent that *In re Nassau County* suggests a different conclusion, we find its reasoning unpersuasive.

at 75-76. The District Court's failure to dismiss Juror No. 1 was prejudicial, Exxon contends, because Juror No. 2 was, it alleges, "a holdout juror and it is inconceivable that another juror would dare disagree with Juror [No.] 1 after seeing the fate of Juror [No.] 2." *Id.* at 75.

We "review a trial judge's handling of alleged jury misconduct for abuse of discretion." *United States v. Gaskin*, 364 F.3d 438, 463 (2d Cir. 2004). In so doing, we bear in mind that "[c]ourts face a delicate and complex task whenever they undertake to investigate reports of juror misconduct . . . during the course of a trial." *United States v. Thomas*, 116 F.3d 606, 618 (2d Cir. 1997). A trial judge enjoys especially "broad flexibility" when the allegations of misconduct "relate to statements made by the jurors themselves, rather than to outside influences." *United States v. Sabhnani*, 599 F.3d 215, 250 (2d Cir. 2010) (internal quotation marks omitted). Even if a party moving for a mistrial shows that the court abused its discretion, however, it must also demonstrate that "actual prejudice" resulted. *United States v. Abrams*, 137 F.3d 704, 709 (2d Cir. 1998) (per curiam).

We see no abuse of discretion in the District Court's decision to dismiss Juror No. 2 and not Juror No. 1, and certainly no prejudice. After diligently and exhaustively inquiring of each juror individually whether he or she felt under any threat, pressure, or coercion to render a verdict in either party's favor, the District Court, relying on its observations of the jurors' demeanors as well as their responses to its careful questioning, concluded with "absolute[ ]

confiden[ce] that nobody feels threatened other than Juror No. 2." Tr. at 7013:2-3. The record amply supports that conclusion, and there is no cause for us to second-guess it. Moreover, given the District Court's dismissal—with the agreement of both sides—of Juror No. 2, its decision not to ask Juror No. 1 whether she actually threatened Juror No. 2 was reasonable. After all, the court had not only ensured that each remaining juror felt capable of rendering an independent decision, but also had instructed each to vote his or her own conscience. In any event, the District Court's conclusion that none of the remaining jurors felt he or she was deliberating under threat, pressure, or coercion is fatal to Exxon's argument that "it is inconceivable that another juror would dare disagree with Juror [No.] 1 after seeing the fate of [holdout] Juror [No.] 2"—and, with it, Exxon's theory of prejudice. Appellants' Br. at 75. With this established, we easily conclude that the relief Exxon sought—removal of Juror No. 1—would have done nothing to change the outcome of the case; it would simply have left an eight- rather than nine-person verdict. For these reasons, we affirm the judgment of the District Court denying Exxon's motion for a mistrial.

G. The City's Cross-Appeals for Further Damages

We turn now to the City's arguments on cross-appeal. The City first argues that the jury should not have been instructed to reduce its compensatory damages award to account for the cost to the City of treating pre-existing contamination at Station Six. It further contends that the court erred in ruling that,

as a matter of law, the City was not entitled to recover punitive damages from Exxon.

1. Compensatory Damages Offset

At trial, Exxon argued that any compensatory damages awarded to the City should be reduced by the necessary cost of remediating the other contaminants, such as PCE, present in the Station Six capture zone. The District Court agreed, and instructed the jury:

> [i]f you find that [Exxon] has shown, by a fair preponderance of the credible evidence, that the costs of treating the other contaminants in isolation can be fairly estimated, then you must reduce the [C]ity's damage award for treating MTBE by the cost of treating these other contaminants in isolation.

Tr. at 6637:11-15. The jury found that the cost of removing pre-existing contamination—namely, PCE—was $70 million, and reduced its $250.5 million compensatory damages award accordingly.

The City argues that the District Court's instruction to the jury to reduce any compensatory damages award to account for the pre-existing PCE contamination was a legal error that "unfairly rewarded Exxon and penalized the City for a mere fortuity."[47] Appellees' Br. at 90. Because the wells in

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[47] "We review jury instructions *de novo* to determine whether the jury was misled about the correct legal standard or was otherwise inadequately informed of controlling law." *Crigger v. Fahnestock & Co., Inc.*, 443 F.3d 230, 235 (2d Cir. 2006) (internal quotation marks omitted).

which Exxon caused MTBE contamination happened also to be contaminated with PCE, the City asserts, the $70 million damages reduction results in a windfall for Exxon which, as the tortfeasor, should bear the entire cost of decontamination as a matter of principle. Moreover, the City argues, no offset should be available because the MTBE treatment costs are costs to "remedy a trespass," and permitting an offset "sanctions continuation of the trespass." *Id.* at 93.

We disagree. The City's argument misapprehends the nature of compensatory damages, which are designed not to punish the wrongdoer, but to compensate the victim for injuries actually suffered or expected to be suffered. *See McDougald v. Garber*, 73 N.Y.2d 246, 253-54 (1989) ("The goal is to restore the injured party, to the extent possible, to the position that would have been occupied had the wrong not occurred."). Here, it is undisputed that the PCE that is present at Station Six precludes the City from serving the water, even absent any MTBE contamination. Indeed, the City purchased the Station Six Wells from the Jamaica Water Supply Company in response to complaints about the quality of Company-supplied water, intending to use the wells as a back-up water supply. The preexisting contamination of that source *required* the City to build a treatment plant before it could effectuate its purpose in purchasing the wells—*i.e.*, serving potable water in the future. Thus, the City expected to incur the cost of PCE decontamination.[48] The jury fixed

[48] Indeed, were drinking water wells purchased in fully efficient markets, one would expect the price at which the City purchased the wells to be discounted by the cost a reasonable

that cost at $70 million. Awarding $250.5 million in "compensatory" damages to the City (before apportioning liability to other parties responsible for the MTBE contamination) would therefore result in a windfall to *the City*, not to Exxon. On these facts, we have little trouble concluding that the District Court's instruction to the jury to reduce the City's damages award by the cost of treating other pre-existing contaminants was correct.

2. Punitive Damages

We review *de novo* a district court's determination that the evidence is insufficient to permit a reasonable jury to consider awarding punitive damages. *Farias v. Instructional Sys., Inc.*, 259 F.3d 91, 101 (2d Cir. 2001). We will uphold that determination if, drawing all inferences in the plaintiff's favor, there is no genuine issue of material fact and the defendant is entitled to judgment foreclosing a punitive damages award as a matter of law. *See Schonfeld v. Hilliard*, 218 F.3d 164, 172 (2d Cir. 2000).

"Punitive damages, in contrast to compensatory damages, are awarded to punish a defendant for wanton and reckless or malicious acts and to protect society against similar acts." *Rivera v. City of New York*, 836 N.Y.S.2d 108, 117 (1st Dep't 2007). In New York, the standard for conduct warranting an award of punitive damages "has been variously described but, essentially, it is conduct having a high degree of moral culpability which manifests a conscious

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water supplier could expect to incur when later decontaminating the water.

disregard of the rights of others or conduct so reckless as to amount to such disregard." *Home Ins. Co. v. American Home Prods. Corp.*, 75 N.Y.2d 196, 203 (1990) (internal quotation marks and citations omitted). Such conduct "need not be intentionally harmful but may consist of actions which constitute wilful or wanton negligence or recklessness." *Id.* at 204. Punitive damages are appropriate where the defendant "acted with actual malice involving an intentional wrongdoing" or where such conduct amounted to a "wanton, willful or reckless disregard of plaintiffs' rights." *Ligo v. Gerould*, 665 N.Y.S.2d 223, 224 (4th Dep't 1997).[49]

Our Court has observed that "the recklessness that will give rise to punitive damages [under New York law] must be close to criminality." *Roginsky v. Richardson-Merrell, Inc.*, 378 F.2d 832, 843 (2d Cir. 1967) (Friendly, J.); *accord Home Ins. Co.*, 75 N.Y.2d at 203 (referring to punitive damages as "a sort of hybrid between a display of ethical indignation and the imposition of a criminal fine" (internal quotation marks omitted)). Such recklessness may be found where the defendant "is aware of and consciously disregards a substantial and unjustifiable risk that

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[49] The Appellate Divisions in New York are divided over whether punitive damages must be shown by clear and convincing evidence or a preponderance of the evidence. *Compare Randi A. J. v. Long Island Surgi-Ctr.*, 842 N.Y.S.2d 558, 568 (2d Dep't 2007), *and Munoz v. Puretz*, 753 N.Y.S.2d 463, 466 (1st Dep't 2003) (requiring clear and convincing evidence), *with In re Seventh Judicial Dist. Asbestos Litig.*, 593 N.Y.S.2d 685, 686-87 (4th Dep't 1993) (requiring preponderance of the evidence). The standard of proof does not affect our disposition of the City's cross-appeal.

such result will occur or that such circumstance exists." *Roginsky*, 378 F.2d at 843 (internal quotation marks omitted). We focus on the "nature and degree" of the risk and ask whether "disregard thereof constitutes a gross deviation from the standard of conduct that a reasonable person would observe in the situation." *Id.* (internal quotation marks omitted).

A punitive damages award cannot be sustained under New York law unless "the very high threshold of moral culpability is satisfied," *Giblin v. Murphy*, 73 N.Y.2d 769, 772 (1988), because punitive damages are "a social exemplary remedy, not a private compensatory remedy," *Garrity v. Lyle Stuart, Inc.*, 40 N.Y.2d 354, 358 (1976) (internal quotation marks omitted). *See also State Farm Mut. Auto. Ins. Co. v. Campbell*, 538 U.S. 408, 416 (2003) (observing that punitive damages "are aimed at deterrence and retribution"). Accordingly, to warrant imposing punitive damages, the reckless conduct at issue must be "sufficiently blameworthy" that punishing it "advance[s] a strong public policy of the State." *Randi A. J. v. Long Island Surgi-Ctr.*, 842 N.Y.S.2d 558, 564 (2d Dep't 2007) (internal quotation marks omitted). To analyze "the egregiousness of a tortfeasor's conduct, and the corresponding need for deterrence," courts must "take into account the importance of the underlying right or public policy jeopardized by the tortfeasor's conduct." *Id.* at 565. "[T]he more important the right at issue, the greater the need to deter its violation." *Id.*

At the close of Phase III of the trial, Exxon moved to preclude the jury from considering an

award of punitive damages, arguing that the City's evidence was insufficient as a matter of law to establish the requisite degree of malice, recklessness, or wantonness. The District Court granted the motion, concluding that the City had not shown that Exxon's conduct created either severe actual harm or a severe risk of potential harm to the Station Six Wells. Throughout its analysis, the court discounted the City's evidence of Exxon's "general awareness of the dangers of MTBE" because "the narrow question presented by this motion is whether the City has produced or proffered sufficient evidence to allow a reasonable jury to conclude that [Exxon's] conduct *with respect to Station Six*" warranted the imposition of punitive damages.[50] The court observed that "the vast majority of the conduct that produced the City's injury led to persistent levels of MTBE in the capture zone of Station Six that are well below the MCL in place at the time the conduct occurred."[51] This fact was relevant because, although a reasonable jury could conclude that the City was injured by MTBE levels below the MCL, "punishing [Exxon] for its contribution to this injury would not advance a strong public policy of the State or protect against a severe risk to the public."[52] The District Court also noted the lack of "credible evidence from which a jury could conclude that the risk of harm to the City, resulting from [Exxon's] conduct, significantly

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[50] *MTBE X*, 2009 WL 3347214, at *5.

[51] *Id.* at *6.

[52] *Id.*

outstripped the actual harm caused by that conduct."[53]

The City offers a number of reasons in support of its contention that the District Court erred in ruling on its punitive damages claim as a matter of law instead of submitting it to the jury. The City contends that "[t]he fact that Exxon's conduct also had nationwide effects does not eliminate its status as conduct 'with respect to Station Six'" and that the court was wrong "to consider only the ultimate *outcome* of Exxon's conduct" given that the jury "clearly could have viewed Exxon's *conduct* as meriting punishment and deterrence." Appellees' Br. at 87-88. The City further argues that the jury's finding that the combined outflow of the wells will not exceed the MCL is irrelevant because that "outcome" was "fortuitous," and the inactivity of the Station Six Wells "does nothing to mitigate Exxon's harmful *conduct*." *Id.* at 88-89 (emphasis added). Finally, the City contends that whether a jury could conclude that the risk of harm significantly exceeded the actual harm caused was irrelevant because "the *actual* harm that Exxon caused was severe." *Id.* at 89.

In response, Exxon argues that punitive damages must be precluded because, at all relevant times, its use of MTBE in gasoline was authorized by law; the jury found that there was no "safer, feasible alternative" to MTBE (an assertion we have already rejected); and, in any event, the City offered no evidence that any member of the public has ever been

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[53] *Id.* at *7.

harmed by MTBE in the Station Six Wells. Exxon observes that there is no "genuine dispute" that the presence of MTBE in Station Six's capture zone was well below the 50 ppb MCL in place until December 2003, and that "New York's public policy, as expressed in its regulations, permits the presence of MTBE in drinking water at the level found by the jury." Appellants' Reply Br. at 54. Exxon further argues that there is no need to deter further conduct specifically relating to the use of MTBE in New York because New York banned MTBE in 2004 and Congress repealed the oxygenate requirement in 2005. Finally, in response to the City's evidence of Exxon's "general awareness that exposure to high concentrations of MTBE over long periods of time could cause injury," Exxon argues that such general awareness "cannot prove that [Exxon] knew years earlier, when it was making the decision to use MTBE, that its MTBE gasoline would cause some still-future injury to Station 6." Appellants' Reply Br. at 56.

We believe that Exxon has the better of this argument and that the District Court properly held that no reasonable jury could conclude, by at least a preponderance of the evidence, that Exxon was "*aware of* and *consciously disregard[ed]* a substantial and unjustifiable risk" that a reasonable water provider would, as a result of *Exxon's* manufacture and supply of MTBE-containing gasoline in New York, be forced to treat its water supply for MTBE contamination. *Roginsky*, 378 F.2d at 843 (internal quotation marks omitted) (emphasis added). Exxon was required by law to use an oxygenate in the gasoline it manufactured and supplied. The vast

majority of the evidence marshaled by the City related to Exxon's knowledge of the potential effects of MTBE on the odor and taste of water and on the health of those consuming it, as well as MTBE's tendency to spread quickly upon leakage through underground storage tanks or spills. But there is no evidence demonstrating that Exxon understood precisely how MTBE contamination at spill sites—including the contamination it discovered in New York in 1998—would affect groundwater located some distance away from those sites. In fact, the City's evidence suggests that Exxon originally believed MTBE would dissipate to extremely low contaminant levels in groundwater. On these facts, no reasonable jury could conclude that Exxon recklessly disregarded a known risk that its conduct in the vicinity of Station Six, taken alone, would result in contaminant levels exceeding those that a reasonable water provider would tolerate—the relevant risk to be considered in determining whether Exxon's conduct constituted "a gross deviation from the standard of conduct that a reasonable person would observe in the situation." *Id.*

What is especially telling on this issue is the jury's projection that the concentration of MTBE at Station Six would *peak* at 10 ppb in 2033. This projection speaks not only to the "ultimate *outcome* of Exxon's conduct," Appellees' Br. at 89, but also to the substantiality of the risk, inherent in supplying and distributing MTBE-containing gasoline, that a reasonable water provider would one day be required to decontaminate its water of MTBE. In light of this projection, we do not believe that a reasonable jury

could also find that Exxon's conduct created a substantial and unjustifiable risk that the persistent levels of MTBE in Station Six would exceed a reasonable water provider's tolerable MCL, thereby risking substantial injury to the interest of New York residents in potable drinking water. This is particularly so in the context of Congress's mandate to use an oxygenate and the City's tolerance of a 50-ppb concentration of MTBE in its drinking water during the time when most of Exxon's allegedly reckless conduct occurred.[54] For these reasons, we affirm the District Court's determination that the evidence was insufficient as a matter of law to permit the jury to consider an award of punitive damages.

III. CONCLUSION

To summarize: We conclude that the state law tort verdict against Exxon is not preempted by the federal Clean Air Act. We conclude that the jury's finding that the MTBE levels in Station Six Wells will peak at 10 ppb in 2033—the MCL for MTBE since 2004—is not inconsistent with a conclusion that the City has been injured. We conclude that the City's suit was ripe because the City demonstrated a present injury, and that the City's suit was not barred by the statute of limitations. We conclude that

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[54] We express no view on and do not consider the propriety of penalizing Exxon for its conduct at other sites in other states, for a New York jury may punish only the acts giving rise to *plaintiff's* injury. *Frankson*, 886 N.Y.S.2d at 721-22. Nor does our conclusion as to the availability of punitive damages in this bellwether case on this particular record foreclose the availability of punitive damages in other MTBE cases before the District Court.

the jury's verdict finding Exxon liable under state tort law theories is not precluded by the jury's concurrent conclusion that the City had not carried its burden, in the design-defect context, of demonstrating a feasible, cost-reasonable alternative to MTBE available to satisfy the standards of the now-repealed Reformulated Gasoline Program. We conclude that Exxon's demand for a retrial because of an incident of juror misconduct is unavailing. And we conclude that the jury properly offset the gross damages award by amounts it reasonably attributed to cleanup of contaminants other than MTBE, and that the City was not entitled to a jury determination of Exxon's liability for punitive damages.

For the foregoing reasons, we AFFIRM the judgment of the District Court in its entirety.

Appendix B

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

Nos. 10-4135 (L), 10-4329 (XAP)

IN RE: METHYL TERTIARY BUTYL ETHER ("MTBE")
PRODUCTS LIABILITY LITIGATION

On Appeal from the United States District Court
for the Southern District of New York
No. 00-1898

Filed: October 15, 2013

ORDER

Appellants-Cross-Appellees Mobil Oil Corporation and Exxon Mobil Corporation filed a petition for panel rehearing, or, in the alternative, for rehearing *en banc*. The panel that determined the appeal has considered the request for panel rehearing, and the active members of the Court have considered the request for rehearing *en banc*.

IT IS HEREBY ORDERED that the petition is denied.

FOR THE COURT:
Catherine O'Hagan Wolfe, Clerk
s/

Appendix C

UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

No. 00-1898 (SAS)

IN RE: METHYL TERTIARY BUTYL ETHER ("MTBE") PRODUCTS LIABILITY LITIGATION

No. 04-3417 (SAS)

CITY OF NEW YORK, *et al.*,

Plaintiffs,

v.

EXXON MOBIL CORPORATION, *et al.*,

Defendants.

Filed: September 7, 2010

OPINION & ORDER

SHIRA A. SCHEINDLIN, District Judge:

I. INTRODUCTION

In this consolidated multi-district litigation ("MDL"), plaintiffs seek relief from contamination, or threatened contamination, of groundwater from various defendants' use of the gasoline additive methyl tertiary butyl ether ("MTBE") and/or tertiary butyl alcohol, which is a product formed by the natural degradation of MTBE in water. Plaintiff, the

City of New York ("City"),[1] filed an action against various defendants—including the only defendants remaining in this case, ExxonMobil Corporation, ExxonMobil Oil Corporation, and Mobil Corporation (collectively, "ExxonMobil")—in 2003. Because of the size and complexity of this case, five of the dozens of wells at issue were selected for a "bellwether" trial. On October 19, 2009, after an eleven week trial, a jury awarded the City approximately one hundred and four million dollars. ExxonMobil has now renewed its motion for judgment as a matter of law on the City's claims and moved, in the alternative, for a new trial and/or remittitur.

II. BACKGROUND

The City asserts both state law tort claims and a federal law claim under the Toxic Substances Control Act ("TSCA") against ExxonMobil. However, because the TSCA claim is not specific to the five focus wells at issue in this case, only the state claims were tried. Although the trial was originally divided into four phases, because I dismissed the City's punitive damages claim as a matter of law,[2] only three phases were tried.

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[1] In July 2009, the New York City Water Board and the New York City Municipal Water Finance Authority were ordered to join this action as plaintiffs pursuant to Fed. R. Civ. P. 19(a)(2). *See* 7/6/09 Order. I will refer to the three plaintiffs collectively as the "City."

[2] *See generally In re MTBE Prods. Liab. Litig.,* No. 00 MDL 1898, 2009 WL 3347214 (S.D.N.Y. Oct. 19, 2009).

A. Phase I

All five focus wells are located within an uncompleted facility in Jamaica, Queens known as "Station 6" that is not presently, and has never been, used to distribute water to New York City residents. Because the City is not presently using the Station 6 wells, the jury was asked in Phase I to determine whether the City intended to use Station 6 in the future. Specifically, the jury was asked (1) "whether the City has proven by a preponderance of the evidence that it intends in good faith to begin construction of the Station 6 facility within the next 15 years"[3] and (2) "whether the City has proven by a preponderance of the evidence that it intends in good faith to use the water from the Station 6 wells within the next 15 to 20 years, either to supply drinking water to its residents or to serve as a backup source of drinking water in case of shortage of supply."[4] The jury answered "yes" to both questions, but determined that the City only intends to use the Station 6 wells *as a backup source* of drinking water.[5]

B. Phase II

In Phase II, the jury was asked to make several findings relating to whether there will be any MTBE in the Station 6 wells if and when the City begins to use them as a backup source of water. These interrogatories were modeled around a series of rulings I made prior to trial. *First,* the City is not injured by the mere presence of MTBE in the

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[3] 8/9/09 Trial Transcript ("Tr.") at 915:7–10.

[4] *Id.* at 917:3–8.

[5] *See* 8/12/09 Tr. at 1049:7–1050:1.

groundwater. Instead, "the City is injured by a concentration of MTBE in the groundwater [only] if a reasonable water provider would take action to monitor, test and/or treat groundwater containing that level of MTBE."[6] New York state has set a Maximum Contaminant Level ("MCL") for MTBE in drinking water of ten parts per billion ("ppb").[7] As such, the City is injured as a matter of law when the contamination in the combined outflow of the Station 6 wells exceeds ten ppb. If, however, the concentration level in the combined outflow of the Station 6 wells is at or below ten ppb, whether the City has suffered an injury is a question of fact properly decided by the jury.[8]

Second, although the sufficiency of the City's injury is *measured* by the amount of MTBE in the combined outflow of the Station 6 wells, the *location* of that injury is the groundwater that will be drawn into the Station 6 wells when they begin operation.[9] This area is known as the "capture zone" of the Station 6 wells. Thus, "[if] the City can show that its

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[6] *In re MTBE Prods. Liab. Litig.,* No. 00 MDL 1898, 2009 WL 2634749, at *3 (S.D.N.Y. Aug. 25, 2009).

[7] *See* 10 N.Y. Comp. Codes R. & Regs. § 5–1.1(al) (2006) ("MCL means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system."); *id.* at § 5–1.52, Table 3 (setting the MCL at ten ppb).

[8] *See In re MTBE Prods. Liab. Litig.,* 458 F. Supp. 2d 149, 159 (S.D.N.Y.2006).

[9] *See In re MTBE Prods. Liab. Litig.,* 591 F. Supp. 2d 259, 275 (S.D.N.Y.2008) ("[T]he place the harm or risk of harm occurred is the capture zone of each well, where the MTBE now contaminating the well must have first contaminated the groundwater."); *In re MTBE,* 2009 WL 2634749, at *2 n. 21.

wells will become injured immediately upon turning them on," *i.e.,* that MTBE is within the Station 6 capture zone, "it need not go through the curious exercise of turning the wells on to injure itself."[10]

The jury was asked two questions corresponding to these holdings. It was first asked "whether the City has proven, by a fair preponderance of the credible evidence, that MTBE will be in the groundwater of the capture zone of the Station 6 wells when they being operating as a backup source of drinking water."[11] It was then asked "at what peak level MTBE will be found in the combined outflow of the Station 6 wells and when that will occur."[12] In answering the latter question, the jury was directed to select one of several concentration ranges: less than one ppb; one to three ppb; three to five ppb; five to ten ppb; or more than ten ppb.[13]

The City introduced the testimony of its hydrogeology expert, David Terry, to aid the jury in answering these questions. Terry explained to the jury that he had created two groundwater models designed to evaluate how MTBE will impact Station 6. He created a flow model, which shows "where the groundwater flows" and "how fast it moves,"[14] to predict the likely size and shape of the Station 6 capture zone. This model relied on the "proposed

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[10] *In re MTBE Prods. Liab. Litig.,* 643 F. Supp. 2d 446, 458 n. 77 (S.D.N.Y.2009).

[11] 8/24/09 Tr. at 2613:11–15.

[12] *Id.* at 2614:9–12.

[13] *See id.* at 2614:15–18.

[14] 8/18/09 Tr. at 1893:23–1894:15.

pumping scenario"—*e.g.,* the location of the pumping wells, the pumping rates of the wells, and the schedule on which the wells would pump—provided by New York City planners for both the Station 6 wells and other surrounding wells.[15] As Terry explained, the size and shape of the Station 6 capture zone depends heavily on the assumed pumping scenario.[16]

Terry then described a transport model he had created to show "how [MTBE will] move through the groundwater system."[17] The transport model, which "rides on top of the flow model,"[18] is used to make "numerical predictions" regarding the amount of MTBE that will enter the Station 6 wells.[19] As with the flow model, the transport model relies on specific assumptions—*e.g.,* the locations of MTBE discharges

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[15] *Id.* at 1896:12–21 ("Well, I got a schedule of how wells [are] planned to be pumped, from consultants that are water planners for the City of New York. So they gave me what was the proposed pumping scenario for all these wells in the Queens area. . . . We really can't look at Station 6 by itself because there are other wells near Station 6, and when those wells pump they affect the water flow direction at the wells near Station 6 also. So rather than looking at just how Station 6 will operate, you also have to look at how the other wells will operate."); 8/19/09 Tr. at 1984:5–7 ("[A]s the Station 6 wells continue to pump into time, water will be drawn from further and further away from the Station 6 wells.").

[16] *See id.* at 1902–1912.

[17] *Id.* at 1894:17–23.

[18] *Id.* at 1894:18.

[19] 8/19/09 Tr. at 2012:24–2013:5.

and the levels of those discharges—that can greatly affect the model's results.[20]

Terry ran two different transport models based on varying assumptions. He ran an "Analysis 1" model—which used recorded MTBE concentrations from groundwater samples taken in 2004—to determine the peak concentration of MTBE in the Station 6 wells and the date of that peak concentration.[21] On the basis of this analysis, he predicted that the maximum MTBE concentration in the combined outflow of the Station 6 wells would be thirty-five ppb in 2024.[22]

Terry also ran an "Analysis 2" model using the same transport and flow models but with different assumptions about the amount of MTBE present in the groundwater. As Terry explained, the purpose of Analysis 2 was to see how long MTBE contamination will last at Station 6.[23] To do so, Terry input three separate scenarios which assumed that the amount of MTBE gasoline spilled at each of twenty-two known release sites was on average fifty gallons, five

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[20] *See id.* at 2013:24–2014:6.

[21] *See id.* at 2015:6–8.

[22] *See id.* at 2067:17–19; 8/18/09 Tr. at 1895:7–11.

[23] *See* 8/19/09 Tr. at 2015:9–15 ("Then I did a second analysis I called Analysis 2, and that used sort of a different approach, a more average approach and that was looking to see how long will it last. My first analysis also gives me information about that, but I kind of wanted to test, because I had uncertain information, I wanted to test and see whether Station 6, how long the MTBE concentration will be present there in the future.").

hundred gallons or two thousand gallons.[24] The peak concentration values predicted by Analysis 2 ranged from non-detect (fifty gallons per release) to six ppb (five hundred gallons per release) to seventeen to twenty-three ppb (two thousand gallons per release).[25] Terry concluded that both the two thousand gallon and five hundred gallon scenarios would result in an "impact to Station 6."[26]

After deliberating for two days at the close of Phase II, the jury informed the Court that it was unable to come to a unanimous decision on the second question—the level and timing of MTBE's peak concentration.[27] Because the jury was instructed that it should only reach the second question if it answered the first question affirmatively, I inquired as to whether the jury had reached a verdict on the first question. The jury informed me that it had reached a unanimous verdict on that question[28] and that it had found that MTBE would be present in the Station 6 capture zone when the City began to operate those wells.[29] After taking the jury's partial verdict, I then gave the jury an *Allen* charge on the second question.[30] In summing up that charge, the jury was instructed:

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[24] *See id.* at 2074:6–2075:2.

[25] *See* Pl. Ex. 1682.

[26] 8/19/09 Tr. at 2085:3–9.

[27] *See* 8/26/09 Tr. at 2675:2–15.

[28] *See id.* at 2682:5–10.

[29] *See id.* at 2682:15–2683:4.

[30] *See id.* at 2683:5–2686:21.

> Do not hesitate to reexamine your own views and to change your opinion if you are convinced you were wrong, but do not surrender your honest belief as to the weight and effect of the evidence solely because of the opinion of your fellow jurors or for the mere purpose of returning a verdict.[31]

Shortly afterward, the jury submitted another note to the Court—querying, *inter alia,* whether the second question could be restructured or rephrased.[32] In response, I instructed the jury that it did not need to select one of the concentration ranges provided by the Court and that it could choose any concentration level that it was able to agree upon unanimously.[33] After further deliberation, the jury reached a verdict. It did not settle on any of the suggested ranges—finding instead that the concentration of MTBE in the combined outflow of the Station 6 wells will peak at ten ppb in 2033.[34]

C. Phase III

In Phase III, the jury answered specific interrogatories relating to: (1) whether the City is, or will be, injured by the MTBE that will be in the combined outflow of the Station 6 wells when the City begins to use them as a backup source of water; (2) whether ExxonMobil was a cause of that injury (if it exists) as either a direct spiller of MTBE gasoline or as a manufacturer, refiner, supplier or seller of

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[31] *Id.* at 2686:4–8.

[32] *See id.* at 2688:2–7.

[33] *See id.* at 2698:3–11.

[34] *See id.* at 2711:4–22.

MTBE gasoline; (3) whether ExxonMobil was liable under the various state law causes of action asserted by the City; and (4) if ExxonMobil was liable, the amount of compensatory damages that should be awarded to the City.

1. Injury

In Phase III, the jury determined that the City had "proven, by a fair preponderance of the credible evidence, that it is, or will be, injured by the MTBE that will be in the combined outflow of the Station 6 wells."[35] In making this determination, the jury was instructed that "the question is whether the [C]ity has proven by a fair preponderance of the credible evidence that a reasonable water provider in the [C]ity's position would treat the water to reduce the levels or minimize the effects of the MTBE in the combined outflow of the Station 6 wells in order to use the water as a back-up source of drinking water."[36] I also informed the jury that I had previously ruled that the concentration of MTBE need not exceed New York's MCL to constitute an injury,[37] but that it was up to the jury "to determine whether the level of MTBE [it] ha[d] found will be in the Station 6 wells in the future will constitute an injury to the [C]ity."[38]

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[35] 10/19/09 Tr. at 7042:10–13.

[36] 10/7/09 Tr. at 6604:5–10.

[37] *See id.* at 6604:16–22.

[38] *Id.* at 6604:22–24.

2. Causation

The City asserted three separate theories of causation at trial—direct spiller causation, manufacturer/refiner/supplier/seller causation, and a commingled product theory of causation. As I explain in more detail below,[39] the commingled product theory of causation has been developed during the course of this MDL as an alternative to traditional theories of toxic tort causation.[40] The jury found that the City proved, by a fair preponderance of the credible evidence that ExxonMobil was a cause of the City's injuries both as a direct spiller of gasoline containing MTBE and as a manufacturer, refiner, supplier or seller of gasoline containing MTBE.[41] Because the jury found that the City met its burden under these traditional theories of causation, it did not determine whether the City met its burden under the commingled product theory of causation.[42]

a. Direct Spiller Causation

The jury was instructed that ExxonMobil was the owner or controller of underground storage tank ("UST") systems located in specific stations in Queens County, New York and that ExxonMobil was liable as direct spiller if it found:(a) that "[a]t any time that [ExxonMobil] owned or controlled some or all of these underground storage systems, they leaked gasoline containing MTBE"; and (b) "[t]hat

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[39] *See infra* Part IV.C.

[40] *See, e.g., In re MTBE Prods. Liab. Litg.,* 379 F. Supp. 2d 348, 377–79 (S.D.N.Y.2005).

[41] *See* 10/19/09 Tr. at 7042:22–7043:4.

[42] *See id.* at 7043:6–7.

these leaks caused or will cause an injury to the [C]ity's Station 6 wells."[43] The jury was also instructed that "[a]n act or omission is regarded as a cause of an injury if it is a substantial factor in bringing about the injury; that is, if it has such an effect in producing the injury that reasonable people would regard it as a cause of the injury."[44]

b. Manufacturer/Refiner/Supplier/ Seller Causation

The jury was instructed that ExxonMobil was a cause of the City's injury *in its capacity* as a manufacturer, refiner, supplier or seller if its "conduct in [these capacities] was a substantial factor in causing the [C]ity's injuries."[45] As before, a substantial factor was defined as having "such an effect in producing the injury that reasonable people would regard it as a cause of the injury."[46] In making this decision, the jury was told that it "should consider how much, if any, of the gasoline containing MTBE that was delivered to the locations that are the sources of the MTBE that injured or will injure the Station 6 wells came from gasoline containing MTBE that was manufactured, refined, supplied, or sold by [ExxonMobil]."[47]

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[43] 10/7/09 Tr. at 6605:10–15.

[44] *Id.* at 6605:19–22.

[45] *Id.* at 6606:6–11 (emphasis added).

[46] *Id.* at 6606:23–24.

[47] *Id.* at 6606:12–17.

3. State Law Causes of Action

Relying on its injury and causation findings, the jury found ExxonMobil liable under the City's public nuisance,[48] trespass,[49] direct spiller negligence[50] and failure to warn (product liability)[51] claims. However, it found that ExxonMobil was not liable under the City's defective design (product liability)[52] and private nuisance[53] claims. With respect to the City' design defect claim, the jury was instructed that the City must prove three elements by a fair preponderance of the credible evidence: (1) that "gasoline containing MTBE was not reasonably safe for its intended or reasonably foreseeable purpose or in light of the reasonably foreseeable harms caused by its use;"[54] (2) that "there was a safer feasible alternative design at the time it was marketed;"[55] and (3) that "the defective design was a substantial factor in causing the City's injury."[56] Although the jury determined that the design was not reasonably safe,[57] it found that there was no safer, feasible alternative design to MTBE.[58] Accordingly, it did not

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[48] *See* 10/19/09 Tr. at 7044:17–20.

[49] *See id.* at 7044:9–11

[50] *See id.* at 7044:23–7045:1.

[51] *See id.* at 7043:22–7044:6.

[52] *See id.* at 7043:9–21.

[53] *See id.* at 7044:13–15.

[54] 10/7/09 Tr. at 6610:7–9.

[55] *Id.* at 6610:10–11.

[56] *Id.* at 6610:12–13.

[57] *See* 10/19/09 Tr. at 7043:9–14.

[58] *See id.* at 7043:15–19.

reach the causation question.[59] The jury was not asked to answer specific interrogatories relating to the City's private nuisance claim.

4. Affirmative Defense: Statute of Limitations

The jury also considered one affirmative defense—whether the City had brought its claims in a timely manner—asserted by ExxonMobil. To succeed on this defense, ExxonMobil was required to show by a fair preponderance of the credible evidence that, prior to October 31, 2000, (1) "ther was a sufficient level of MTBE in the capture zone of the Station 6 wells such that if the wells were turned on, the level of MTBE in the combined outflow of the Station 6 wells would have injured the City at that time,"[60] and (2) "the [C]ity knew at the time or reasonably should have known that there was a sufficient level of MTBE in the capture zone of the Station 6 wells prior to October 31, 2000 to cause an injury."[61] The jury was again instructed that the "[C]ity's water was not injured, or otherwise harmed, merely because it has been contaminated by a small amount of MTBE,"[62] but that "ExxonMobil need not necessarily prove that the [C]ity's water was contaminated at that time by a concentration of MTBE that exceeded the maximum contaminant levels set by regulatory authorities."[63] The jury

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[59] *See id.* at 7043:20–21.

[60] 10/7/09 Tr. at 6631:19–22.

[61] *Id.* at 6631:23–6632:2.

[62] *Id.* at 6632:31–23.

[63] *Id.* at 6633:1–3.

determined that ExxonMobil had failed to prove that the City brought its claims in an untimely manner.[64]

5. Damages

The jury was instructed that if it found ExxonMobil liable under any of the City's causes of action, it was required to award the City compensatory damages sufficient to compensate the City for losses caused by ExxonMobil.[65] The jury made its damages determination in four stages. *First,* it was asked what sum of money will compensate the City for the actual losses it has sustained, or will sustain in the future, as a result of contamination at Station 6.[66] In making this determination, the jury was given the following guidance:

> Generally, the measure of damages to property is based upon the value of the property at the time of the injury. When, as in this case, the property damaged has no reasonable market value, plaintiff may recover the difference in money between the value to plaintiff of the property before and after the damage. In determining the amount of such loss, you must consider the evidence presented with respect to its utility, its general condition at the time of its damages, whether it may be treated, and, if so, the expense of treating it, the likelihood that it will be treated if the money is available to do so, and its value as so treated

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[64] *See* 10/19/09 Tr. at 7045:3–6.

[65] *See* 10/7/09 Tr. at 6634:20–22.

[66] *See id.* at 6635:8–13.

> as compared to the value before its damage, together with all other evidence presented to establish its value to the City and the extent of the City's damage.[67]

The jury found that the City will be fairly and reasonably compensated by an award of $250,500,000. In doing so, the jury evidently adopted the opinion of Marnie Bell, the City's damages expert—who testified that, assuming contamination at ten ppb, it will cost the City $250,450,000 to remove MTBE from the Station 6 wells.[68] This estimate was based on three components: (1) $59,990,000 in initial capital to construct the Station 6 treatment plant; (2) $48,870,000 in equipment replacement costs; and (3) $141,590,000 in operation and maintenance costs.[69] The operation and maintenance costs were based on the "worst case scenario" that the Station 6 wells will have to be operated continuously for forty years (which is the approximate amount of time that MTBE contamination at the Station 6 wells is predicted to endure).[70]

Second, ExxonMobil contended at trial that the groundwater in the Station 6 capture zone is polluted by other contaminants and that these other

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[67] *Id.* at 6635:10–6636:8.

[68] *See* City's Demonstrative Slides for Marnie Bell ("Bell's Demonstrative Slides"), Ex. G to Declaration of Lauren Handel, counsel for ExxonMobil, at 1; 9/24/09 Tr. 5996:5–10.

[69] *See* Bell's Demonstrative Slides at 1.

[70] 9/30/09 Tr. at 6018:13–6019:2. *Accord* Bell's Demonstrative Slides at 1; 9/24/09 Tr. at 5885:6–23.

contaminants will require the City to treat the Station 6 wells regardless of whether there is MTBE contamination.[71] Accordingly the jury was instructed:

> If you find that ExxonMobil has shown, by a fair preponderance of the credible evidence, that the costs of treating the other contaminants in isolation can be fairly estimated, then you must reduce the City's damage award for treating MTBE by the cost of treating these other contaminants in isolation.[72]

The jury found that the City's award should be reduced by seventy million dollars due to the pre-existing contamination.

Third, the jury was asked whether other companies (defendants that were voluntarily dismissed pursuant to settlement agreements) were also at fault in producing the City's injury.[73] The jury was given a list of these companies and was required to "decide the percentage of the total fault borne by these other companies as compared to ExxonMobil's fault."[74] In total, the jury found that forty-two percent of the fault for the City's injury should be apportioned to these other companies.

Fourth, and finally, the jury was asked to determine whether the City was negligent as a spiller of MTBE gasoline and, if so, whether the

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[71] *See* 10/7/09 Tr. at 6636:21–6637:5.

[72] *Id.* at 6637:10–15.

[73] *See id.* at 6637:20–6638:1.

[74] *Id.* at 6638:1–4.

City's negligent conduct was a substantial factor in causing its own injury.[75] The jury found that the City had no responsibility for causing its own injury.

In sum, the jury determined that the City's actual damages, taking into account the amount the City will have to pay to remediate pre-existing contamination in the groundwater, are $180,500,000 and that ExxonMobil was responsible for fifty-eight percent of those damages. Pursuant to these findings, ExxonMobil is liable to the City in the amount of $104,690,000.

6. Juror Misconduct

Two issues of juror misconduct arose during the jury's Phase III deliberations. The first was the revelation that one juror had conducted Internet research during the Phase III deliberations. He was subsequently excused from the jury. The second was an apparent instance of uncivil behavior during the Phase III deliberations—which again resulted in the dismissal of a juror.

a. Internet Research

On October 9, 2009, shortly after the jury was charged in Phase III, I received a note from the jury foreperson that one of the jurors had conducted research about the case on the Internet. That note stated: "Juror No. 8 . . . has admitted to researching on the Internet. He proclaimed that the information he found strengthened his opinion. We feel that he will be biased in our deliberations. This information

[75] *See id.* at 6638:17–6639:16.

was brought to our attention on Wednesday, October 7th, and we are concerned."[76]

Shortly after receiving the note, and conferring with counsel, I conducted a voir dire of Juror No. 8. He informed the Court that his children had performed Internet research relating to this case and shown him the results.[77] Specifically, Juror No. 8 admitted to viewing reports relating to the jury's verdicts in Phase I and Phase II,[78] a prior opinion of this Court describing the commingled product theory of causation,[79] and some information about one of the City's lawyers, Victor Sher. When I conducted a second voir dire of Juror No. 8, he opined that the other jurors did not want him on the jury anymore because he was "usually the last hold out on all the questions."[80] However, he made clear that he was not indicating the substance of the jury's deliberations, and I informed him that he should not do so.[81]

Although Juror No. 8 initially stated that "everybody" had performed Internet research and that some jurors had driven to Station 6,[82] after being pressed by the Court on this claim, he clarified that he did not know of any jurors who had performed Internet research and that he only knew of one juror who had tried to travel to Station 6 (but had not

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[76] 10/9/09 Tr. at 6753:15–20.

[77] *See id.* at 6762:9–14.

[78] *See id.* at 6762:19–6763:6.

[79] *See id.* at 6764:3–6765:15.

[80] *Id.* at 6835:18–25.

[81] *See id.* 6836:5–7.

[82] *See id.* at 6761:14–15.

found it).[83] Nevertheless, to determine what information the jury had been exposed to, I conducted a voir dire of the remaining jurors.[84] Each juror was asked individually if he or she had performed any outside research or learned any information from another juror who had performed outside research.[85]

In the course of this investigation, several of the jurors admitted that they had been exposed to some limited outside information relating to the case. *First,* Juror No. 4 indicated that he had tried to drive over to Station 6 but that he could not find it.[86] *Second,* Juror No. 5 stated that Juror No. 8 informed him that he had found out "that Exxon was the last oil company to kind of hold out and wasn't settling out of court"[87] and that the City had received about one million dollars from each company.[88] Juror No. 5 asserted that he had not performed any outside research himself.[89] *Third,* Juror No. 6 conducted some research about me on Wikipedia and read an article in the New York Times about water contamination caused by the coal industry.[90] She also stated that Juror No. 8 had told her that plaintiffs in other cases had received money, but that "he didn't

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[83] *See id.* at 6766:4–22, 6827:22–6828:1.

[84] *See id.* at 6775:17–6824:9

[85] *See, e.g., id.* at 6776:7–8, 6777:7–10.

[86] *See id.* at 6776:9–20.

[87] *Id.* at 6814:11–12.

[88] *See id.* at 6814:22–6815:1.

[89] *See id.* at 6813:11–17.

[90] *See id.* at 6795:11–12, 6796:9–14.

really say the details of the rulings."[91] *Fourth,* and finally, Juror No. 11 stated that Juror No. 8 had informed him that the trial was going to have a fourth phase[92] and that Juror No. 8 had learned that by conducting Internet research.[93]

After conducting this investigation, I excused Juror No. 8 from the jury. However, because I did not believe that the rest of the jury had been prejudiced by its exposure to extra-record information, I did not excuse any of the other jurors and denied ExxonMobil's motion for a mistrial.

b. Uncivil Behavior

On the evening of October 15, 2009, I received a phone call from Juror No. 2—who, clearly shaken by the experience, informed the Court that Juror No. 1 had insulted her and threatened to "cut" her during deliberations.[94] In response to that allegation, on October 16, 2009, I questioned every juror individually about the alleged incident and the general level of civility in the jury room. While a few jurors noted that discussions among jurors had become heated,[95] no other juror claimed that he or

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[91] *Id.* at 6798:16–21.

[92] *See id.* at 6808:4–6 ("Oh, actually, he was saying something to the effect about the Phase IV and something about some other penalty part that is just going to be Phase IV.").

[93] *See id.* at 6809:4–6.

[94] 10/16/09 Tr. at 6994:5–13.

[95] *See, e.g., id.* at 7003:14–15 (Juror No. 9) ("Yeah, no, it's fine. It just gets a little animated every once in a while."). I note that the trial lasted for eleven weeks and the Phase III deliberations continued for nine days.

she felt threatened or was unable to continue deliberating.[96] When Juror No. 2 was questioned individually, however, she continued to assert that she felt threatened and felt as though she could not freely make her own decisions.[97]

Because Juror No. 2 continued to assert that she felt threatened, I subsequently excused her from the jury. I did not, however, find it necessary to excuse any of the other jurors. As I stated to counsel:

> So, as you hear, by voir diring each juror one by one, I am confident that every juror, other than Juror No. 2, feels he or she has not been threatened, that it is just a natural part of deliberations, that people discuss things and do so in a vigorous way. But I am absolutely confident nobody feels threatened other than Juror No. 2, and she says she no longer feels she can reach her own verdict. So it strikes me that she ought to be excused . . . .[98]

Both ExxonMobil and the City agreed that Juror No. 2 should be excused.[99]

In addition, ExxonMobil moved that Juror No. 1 "be excused for threatening a juror with physical violence,"[100] and requested that I question Juror No. 2 again to determine whether she had actually been

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[96] *See id.* at 7000:4–7012:20

[97] *See id.* at 7010:16–7011:2.

[98] *Id.* at 7012:23–7013:5.

[99] *See id.* at 7013:24–25; 7016:1–3.

[100] *Id.* at 7014:3–4.

threatened with physical violence.[101] Although I doubted that Juror No. 1 should be dismissed, I acceded to ExxonMobil's request in order to create a record for appeal. When questioned for a second time, Juror No. 2 asserted again that she had been mistreated: "I was called names yesterday. I was called—at the end of the day, they said I was stupid, I can't form my own opinion because it doesn't match the rest of them. And I feel—I feel that I am not safe."[102] When prodded to explain further why she felt unsafe, she explained that Juror No. 1 had "threatened to . . . cut [her] and . . . threatened [her] with a fork."[103]

ExxonMobil subsequently moved for a mistrial "based on the further developing . . . fact [that] . . . an actual instrument was used in the jury room. . . ."[104] I denied ExxonMobil's motion—noting that none of the other jurors had expressed discomfort or indicated that Juror No. 1 had brandished a fork in a threatening manner.[105] Given these facts, I deemed it

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[101] *See id.* at 7014:15–19.

[102] *Id.* at 7017:8–12.

[103] *Id.* at 7017:17–23.

[104] *Id.* at 7022:15–17.

[105] *See id.* at 7022:18–24. Although I do not believe Juror No. 2 fabricated this story, oftentimes two people may interpret an identical situation in wholly divergent ways. Accordingly, although it is impossible to know the truth in a he-said/she-said situation, there was little indication that Juror No. 1's actions (while most likely overly aggressive) warranted dismissal from the jury. Most importantly, all of the remaining jurors affirmed that they in no way felt threatened or unable to freely deliberate.

permissible for the jury to continue deliberating—albeit after I instructed them on the importance of civility and asked them to refrain from "shouting," "cursing" or engaging in any "threatening behavior."[106]

III. LEGAL STANDARD

A. Motion for Judgment as a Matter of Law Under Rule 50 and Motion for a New Trial Under Rule 59

A court may render judgment as a matter of law when "a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue."[107] The standard for granting judgment as a matter of law "mirrors" the standard for granting summary judgment.[108] Accordingly, in ruling on such a motion, the trial court is required to

> consider the evidence in the light most favorable to the party against whom the motion was made and to give that party the benefit of all reasonable inferences that the jury might have drawn in his favor from the evidence. The court cannot assess the weight of conflicting evidence, pass on the

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[106] *Id.* at 7021:5–7022:10.

[107] Fed. R. Civ. P. 50(a)(1).

[108] *See Reeves v. Sanderson Plumbing Prods., Inc.,* 530 U.S. 133, 150, 120 S. Ct. 2097, 147 L.Ed.2d 105 (2000) (quotation marks and citations omitted); *Kerman v. City of New York,* 374 F.3d 93, 118 (2d Cir. 2004).

> credibility of the witnesses, or substitute its judgment for that of the jury.[109]

A jury verdict cannot be set aside lightly. A court may not grant judgment as a matter of law unless (1) there is such a "complete absence of evidence supporting the verdict that the jury's findings could only have been the result of sheer surmise and conjecture" or (2) there is "such an overwhelming amount of evidence in favor of the movant that reasonable and fair minded [persons] could not arrive at a verdict against [it]."[110]

A "court may, on motion, grant a new trial on all or some of the issues . . . after a jury trial, for any reason for which a new trial has heretofore been granted in an action at law in federal court."[111] The legal test for granting a new trial is less stringent than for granting judgment as a matter of law. "Unlike a motion for judgment as a matter of law, a motion for a new trial may be granted even if there is substantial evidence to support the jury's verdict."[112] Nevertheless, in practice courts do not grant new trials as freely as the language suggests. " 'A motion for a new trial ordinarily should not be granted unless the trial court is convinced that the jury has

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[109] *Tolbert v. Queens Coll.,* 242 F.3d 58, 70 (2d Cir. 2001) (quotation marks and citation omitted).

[110] *United States v. Space Hunters, Inc.,* 429 F.3d 416, 429 (2d Cir. 2005) (quotation marks and citation omitted). *Accord Doctor's Assocs. v. Weible,* 92 F.3d 108, 111–12 (2d Cir. 1996).

[111] Fed. R. Civ. P. 59(a)(1)(A).

[112] *See Caruolo v. John Crane, Inc.,* 226 F.3d 46, 54 (2d Cir. 2000) (quotation marks and citation omitted).

reached a seriously erroneous result or that the verdict is a miscarriage of justice.' "[113]

Under Federal Rule of Civil Procedure 50(b), "[n]o later than 28 days after the entry of judgment . . . the movant may file a renewed judgment as a matter of law and may include an alternative or joint request for a new trial under Rule 59." "In ruling on the renewed motion, the court may: (1) allow judgment on the verdict, if the jury returned a verdict; (2) order a new trial; or (3) direct entry of judgment as a matter of law."

B. Motion for a New Trial on Damages or Remittur

"If a district court finds that a verdict is excessive, it may order a new trial, a new trial limited to damages, or, under the practice of remittitur, may condition a denial of a motion for a new trial on the plaintiff's accepting damages in a reduced amount."[114] A district court must apply New York law to evaluate whether awards in cases decided under New York law are excessive.[115] Pursuant to Section 5501(c) of the New York Civil Practice Law and Rules ("CPLR"), a court should reduce an award when it "deviates materially" from

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[113] *Tesser v. Board of Educ.,* 370 F.3d 314, 320 (2d Cir. 2004) (quoting *Hugo Boss Fashions, Inc. v. Federal Ins. Co.,* 252 F.3d 608, 623–24 (2d Cir. 2001)).

[114] *Tingley Sys., Inc. v. Norse Sys., Inc.,* 49 F.3d 93, 96 (2d Cir. 1995) (citations omitted).

[115] *See Gasperini v. Center for Humanities, Inc.,* 518 U.S. 415, 437, 116 S. Ct. 2211, 135 L.Ed.2d 659 (1996); *Brady v. Wal–Mart Stores, Inc.,* 531 F.3d 127, 137 (2d Cir. 2008).

"reasonable compensation."[116] "[The New York] standard is less deferential to the jury and thus more favorable to the party challenging the award than is the federal 'shocks the conscience' [standard]."[117]

IV. SUBSTANTIVE LAW

A. Federal Preemption

The doctrine of federal preemption is rooted in the Supremacy Clause of the United States Constitution, which provides that federal law made pursuant to authority granted by the Constitution "shall be the supreme Law of the Land."[118] "[This Court's] inquiry into the scope of a statute's pre-emptive effect is guided by the rule that '[t]he purpose of Congress is the ultimate touchstone' in every pre-emption case.' "[119] "The Supreme Court has identified three situations that show congressional intent to preempt state law: (1) where Congress expressly states its intent to preempt [express preemption]; (2) where Congress's scheme of federal

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[116] N.Y. C.P.L.R. § 5501(c). *See Patterson v. Balsamico,* 440 F.3d 104, 119 (2d Cir. 2006) (holding that although Section 5501 directs the appellate division to review whether a jury's award is excessive, under federal law, which controls the role of trial and appellate courts in the federal system, "primary responsibility for application of § 5501(c)'s deviates materially check is lodge[d] in the district court, not the court of appeals" (quotation marks and citations omitted)).

[117] *Gasperini v. Center for Humanities, Inc.,* 149 F.3d 137, 140 (2d Cir. 1998).

[118] U.S. Const. art. VI, cl. 2.

[119] *Altria Group, Inc. v. Good,* 555 U.S. 70, 129 S.Ct. 538, 543, 172 L.Ed.2d 398 (2008) (quoting *Medtronic, Inc. v. Lohr,* 518 U.S. 470, 486, 116 S.Ct. 2240, 135 L.Ed.2d 700 (1996)).

regulation is sufficiently comprehensive to give rise to a reasonable inference that it leaves no room for the state to act [field preemption]; and (3) where state law actually conflicts with federal law [conflict preemption]."[120]

Conflict preemption, which is at issue in this case, occurs "where it is *impossible* for a private party to comply with both state and federal requirements, or where state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[121] "Absent clear congressional intent to the contrary, federal preemption of state law is not favored, especially in areas of law traditionally occupied by the states."[122] Impossibility requires "physical impossibility"[123]—*e.g.,* if federal law says do X, and a state law says *do not* do X. Although the "obstacle preemption" prong is arguably broader than the "physical impossibility" prong, it is by no means easy to satisfy. It requires clear evidence of congressional intent and "a sharp conflict between state law and federal policy."[124]

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[120] *Marsh v. Rosenbloom,* 499 F.3d 165, 177 (2d Cir. 2007) (citing *California Fed. Sav. & Loan Ass'n v. Guerra,* 479 U.S. 272, 280, 107 S.Ct. 683, 93 L.Ed.2d 613 (1987)).

[121] *Freightliner Corp. v. Myrick,* 514 U.S. 280, 287, 115 S. Ct. 1483, 131 L.Ed.2d 385 (1995) (emphasis added).

[122] *Marsh,* 499 F.3d at 177–78.

[123] *Florida Lime & Avocado Growers, Inc. v. Paul,* 373 U.S. 132, 142–43, 83 S. Ct. 1210, 10 L.Ed.2d 248 (1963).

[124] *Marsh,* 499 F.3d at 179.

B. Statute of Limitations

"The statute of limitations is normally an affirmative defense on which the defendant has the burden of proof."[125] The common law property tort claims for which the City seeks damages are governed by the three year limitations period of section 214(4) of the CPLR. This provision, however, is altered by the discovery rule of section 214–c(2), which modifies the date on which the three year limitation period begins to run:

> Notwithstanding the provisions of section 214, the three year period within which an action to recover damages for . . . injury to property caused by the latent effects of exposure to any substance or combination of substances, in any form, upon or within . . . property must be commenced shall be computed from the date of discovery of the injury by the plaintiff or from the date when through the exercise of reasonable diligence such injury should have been discovered by the plaintiff, whichever is earlier.

In interpreting New York's discovery rule in prior rulings, I have explained that the City's state law claims "accrue when it first knows of both (1) the presence of MTBE at a level sufficient to constitute

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[125] *Bano v. Union Carbide Corp.,* 361 F.3d 696, 710 (2d Cir. 2004) (citation omitted) (applying New York law).

an injury and (2) the harmful impact of MTBE on drinking water."[126]

C. Causation

As a general rule, the plaintiff in a tort action must prove by a preponderance of the evidence that the defendant's conduct was the factual and proximate (or legal) cause of its injury. This principle has raised an astonishing number of issues in this MDL, and I have spent a great deal of time and effort determining the applicability of both traditional and alternative theories of causation. Although the jury in this case was only charged on New York's traditional rules of causation and the commingled product theory of causation, I also describe the concurrent wrongdoing theory of liability and the market share theory of liability as they are important to understanding the arguments asserted in these post-trial motions.

1. Traditional Causation

a. Factual and Proximate Cause

As stated, tort liability usually depends upon proof that a defendant's conduct was the legal cause of a plaintiff's injury.[127] The substantial factor standard for causation, adopted in New York, requires that the plaintiff prove by a preponderance of the evidence that the defendant's conduct was *a*

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[126] *In re MTBE Prods. Liab. Litig.,* No. 00 Civ. 1898, 2007 WL 1601491, at *7 (S.D.N.Y. June 4, 2007). *Accord In re MTBE,* 2009 WL 2634749, at *2.

[127] *See* Restatement (Second) of Torts § 430.

substantial factor in producing plaintiff's injury.[128] The Second Restatement of Torts outlines three considerations that are important in determining whether defendant's conduct was a substantial factor in bringing about a harm: (1) "the number of other factors which contribute in producing the harm and the extent of the effect which they have in producing it;" (2) "whether the actor's conduct has created a force or series of forces which are in continuous and active operation up to the time of the harm, or has created a situation harmless unless acted upon by other forces for which the actor is not responsible;" and (3) the "lapse of time" between the conduct and the injury.[129]

b. Identification of Injurious Product

In addition, and of relevance to this case, New York generally requires "identification of the exact defendant whose product injured the plaintiff."[130] "The identity of the manufacturer of a defective product may be established by circumstantial

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[128] *See Mortensen v. Memorial Hospital,* 105 A.D.2d 151, 483 N.Y.S.2d 264, 269 (1st Dep't 1984) ("To carry the burden of proving a prima facie case, the plaintiff must generally show that the defendant's negligence was a substantial cause of the events which produced the injury."). In strict products liability, it is the product defect or the failure to warn, rather than the defendant's conduct, that must be shown to be a substantial cause of the plaintiff's injuries. *See Voss v. Black & Decker Mfg. Co.,* 59 N.Y.2d 102, 106, 463 N.Y.S.2d 398, 450 N.E.2d 204 (1983).

[129] Restatement (Second) of Torts § 433.

[130] *Hymowitz v. Eli Lilly & Co.,* 73 N.Y.2d 487, 504, 541 N.Y.S.2d 941, 539 N.E.2d 1069 (1989).

evidence."[131] However, such evidence cannot be "speculative or conjectural."[132] "The circumstantial evidence . . . must establish that it is reasonably probable, not merely possible or evenly balanced, that the defendant was the source of the offending product."[133]

2. Alternative Theories of Liability

In limited circumstances, courts permit alternative theories of liability where traditional principles of causation do not establish liability in order to protect the interests of plaintiffs and properly apportion liability among defendants. *First,* under the concurrent wrongdoing theory of liability, "[w]hen two or more tortfeasors act concurrently or in concert to produce a single injury, they may be held jointly and severally liable."[134] Significantly, in concurrent wrongdoing cases, plaintiffs need not prove that each defendant's conduct, taken alone, would have injured the plaintiff.[135] Instead, "each

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[131] *Healey v. Firestone Tire & Rubber Co.,* 87 N.Y.2d 596, 601, 640 N.Y.S.2d 860, 663 N.E.2d 901 (1996).

[132] *Id.* at 602, 640 N.Y.S.2d 860, 663 N.E.2d 901.

[133] *Id.* at 601–02, 640 N.Y.S.2d 860, 663 N.E.2d 901.

[134] *Ravo v. Rogatnick,* 70 N.Y.2d 305, 311–12, 520 N.Y.S.2d 533, 514 N.E.2d 1104 (1987) (upholding the application of joint and several liability where "the evidence established that plaintiff's brain damage was a single indivisible injury, and defendant failed to submit any evidence upon which the jury could base an apportionment of damage").

[135] *See In re MTBE Prods. Liab. Litig.,* 644 F. Supp. 2d 310, 313 (S.D.N.Y.2009).

tortfeasor is responsible for the entire result, even though [its] act alone might not have caused it."[136]

Second, New York has on occasion permitted plaintiffs to proceed on a market share theory of liability. This theory of liability was first adopted by the New York Court of Appeals in *Hymowitz v. Eli Lilly & Co.* to determine liability and apportion damages in diethylstilbestrol ("DES") cases.[137] DES is a synthetic substance taken by women during pregnancy for the purpose of preventing miscarriages.[138] It was banned in 1971 by the Federal Drug Administration when studies established a link between women who took the drug and harmful latent effects in their offspring.[139] For various reasons, including the long latency period of DES injuries, women who used DES generally did not know which company had manufactured the DES pills they ingested. To protect the interest of those injured by DES, the Court of Appeals determined that liability may be apportioned according to defendants' national market share in cases in which identification of the manufacturer of the drug that injured the plaintiff is impossible.[140] Thus, the market-share theory "provides an exception to the general rule that a plaintiff must prove that the

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[136] *Hill v. Edmonds,* 270 N.Y.S.2d 1020, 1021, 26 A.D.2d 554 (2d Dep't 1966).

[137] *See Hymowitz,* 73 N.Y.2d at 502, 541 N.Y.S.2d 941, 539 N.E.2d 1069.

[138] *See id.*

[139] *See id.* at 502–03, 541 N.Y.S.2d 941, 539 N.E.2d 1069.

[140] *See id.* at 509–13, 541 N.Y.S.2d 941, 539 N.E.2d 1069.

defendant's conduct was a cause-in-fact of the injury."[141] A defendant may be held partially liable under the market-share theory without any showing that the defendant caused, or contributed to, the injury.[142]

Third, in order to protect the interests of plaintiffs in this MDL while fairly apportioning liability, I have developed the commingled product theory of liability. "[U]nder the 'commingled product theory' of market share liability, when a plaintiff can prove that certain gaseous or liquid products (*e.g.,* gasoline, liquid propane, alcohol) of many refiners and manufacturers were present in a completely commingled or blended state at the time and place that the harm or risk of harm occurred, and the commingled product caused plaintiff's injury, each refiner or manufacturer is deemed to have caused the harm."[143] Each defendant is then given the opportunity to exculpate itself by proving that "its product was not present at the relevant time or in the relevant place, and therefore could not be part of the commingled or blended product."[144]

This hybrid theory has similarities to both market share liability and concurrent wrongdoing

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[141] *In re MTBE Prods. Liab. Litig.,* 447 F. Supp. 2d 289, 299 (S.D.N.Y.2006).

[142] Indeed, the New York Court of Appeals held that "there should be no exculpation of a defendant who, although a member of the market . . ., appears not to have caused a particular plaintiff's injury." *Hymowitz,* 73 N.Y.2d at 512, 541 N.Y.S.2d 941, 539 N.E.2d 1069.

[143] *In re MTBE,* 447 F. Supp. 2d at 301.

[144] *Id.*

liability. Like market share liability, damages are apportioned according to each defendant's share of the market at the time of injury, and thus, liability is several, rather than joint and several.[145] Unlike market share liability, however, a plaintiff must prove by a preponderance of the evidence that the defendant contributed-in-fact to the injury by showing that each defendant's product was part of the commingled mass that injured the plaintiff.[146] In this respect, commingled product liability is similar to concurrent wrongdoing liability. It requires the plaintiff to prove that each defendant's gasoline was part of the commingled product, but relieves the plaintiff of the duty to prove that each individual defendant's contribution to that product, *taken by itself,* was sufficient to have caused an injury.[147] "Rather, to establish liability against a particular defendant with respect to an individual well, [the plaintiff] must show that (a) the defendant's MTBE was present in a commingled product and (b) 'the *commingled product* [rather than defendant's product *alone*] caused plaintiff's injury.' "[148]

V. DISCUSSION

ExxonMobil has made a plethora of arguments in its post-trial motions. These can be summarized as follows: (1) it proved its affirmative defenses at trial;

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[145] *See In re MTBE Prods. Liab. Litig.,* 643 F. Supp. 2d 461, 468–69 (S.D.N.Y.2009).

[146] *See In re MTBE,* 644 F. Supp. 2d at 318.

[147] *See id.* at 319.

[148] *Id.* (quoting *In re MTBE,* 447 F. Supp. 2d at 301) (emphasis in original).

(2) the City failed to prove two essential elements of its state law causes of action—injury and causation; (3) several of the City's causes of action should be dismissed as a matter of law; (4) the Court made erroneous evidentiary rulings; (5) a certain juror should have been excused; (6) a mistrial should have been granted because a juror impermissibly conducted research on the Internet; and (7) the jury's damages award is excessive.

A. Affirmative Defense: Federal Preemption

In 1990, Congress enacted amendments to the Clean Air Act ("CAA") that, *inter alia,* created the Reformulated Gasoline Program ("RFG Program").[149] The RFG Program required gasoline used in specific geographic areas to have a minimum oxygen content—achieved by the addition of oxygenates such as MTBE and ethanol.[150] After the passage of the CAA amendments, the Environmental Protection Agency ("EPA") certified various blends of gasoline for use in the RFG Program, including gasoline containing MTBE, but did not mandate the use of any one oxygenate.[151] Congress repealed the oxygenate requirement in 2005.[152]

ExxonMobil previously sought summary judgment on the ground that the City's state tort claims—by imposing a duty not to use MTBE—are

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[149] *See* 42 U.S.C. § 7545.

[150] *See id.* §§ 7545(k)(2)(B) & (m)(2).

[151] *See id.* § 7545(k)(1)(A).

[152] *See* Energy Policy Act of 2005, Pub. L. No. 109–58, § 1504(a), 119 Stat. 594 (codified in various sections of 16 U.S.C. and 42 U.S.C.) (2005).

preempted by the CAA amendments.[153] Although I rejected that motion, ExxonMobil argues that the jury's determination (in the context of the City's design defect claim) that there was no safer, feasible alternative to MTBE shows that ExxonMobil proved its affirmative defense of conflict preemption at trial. ExxonMobil urges this theory under both prongs of the conflict preemption test—physical impossibility and obstacle preemption.

1. Physical Impossibility

Because the RFG Program did not expressly require the use of MTBE over other oxygenates, ExxonMobil does not maintain that the amendments to the CAA and the City's state tort claims are incompatible on their face. Instead, it argues that due to the specific factual circumstances of this case (*i.e.,* that there was no safer, feasible alternative to MTBE), it was impossible for ExxonMobil to comply with federal requirements without using MTBE.[154] This argument is problematic for two reasons.

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[153] *See generally In re MTBE Prods. Liab. Litig.,* 457 F. Supp. 2d 324 (S.D.N.Y.2006) (citations omitted). ExxonMobil's motion was part of a single summary judgment motion filed by the MDL defendants on federal preemption grounds.

[154] *See* ExxonMobil's Memorandum of Law in Support of Their Renewed Motion for Judgment as a Matter of Law, Or, in the Alternative, for a New Trial And/Or Remittitur ("ExxonMobil Mem.") at 5 ("In short: the evidence at trial proved—and the jury's verdict confirms—that 'it would be impossible for the defendants to comply with both the state law sought to be imposed and the federal requirements because alternatives (*i.e.,* ethanol) were not 'available to the defendants for their use in the RFG Program.' " (quoting *In re MTBE Prods. Liab. Litig.,* 175 F. Supp. 2d 593, 614, 616 (S.D.N.Y.2001)).

First, the "safer, feasible alternative design" products liability standard is not equivalent to the "physical impossibility" preemption standard. In evaluating the feasibility of an alternative design, the finder of fact weighs the costs and benefits of the marketed product against the costs and benefits of proposed alternatives.[155] This Court is unaware, and ExxonMobil has not cited, any judicial opinion suggesting that physical impossibility in the federal preemption context entails this sort of utilitarian analysis. "That it may have been *more convenient or*

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[155] *See Cover v. Cohen,* 61 N.Y.2d 261, 266–67, 473 N.Y.S.2d 378, 461 N.E.2d 864 (1984) ("In a strict products liability action based upon design defect, whether the product as marketed was reasonably safe for its intended use is determined by whether a reasonable person with knowledge of the potential for injury of the product and of the available alternatives, balancing the product's *risks against its utility and costs* and against the *risks, utility and cost of the alternatives,* would have concluded that it should not have been marketed in the condition that it was." (emphasis added)); *Cuntan v. Hitachi KOKI USA, Ltd.,* No. 06 Civ. 3898, 2009 WL 3334364, at *5 (E.D.N.Y. Oct. 15, 2009) ("[A] plaintiff must establish not only that a different design would have led to improved safety, but also that adopting such a design would be 'economically and technically feasible.' ") (quoting *Ruthosky v. John Deere Co.,* 235 A.D.2d 620, 651 N.Y.S.2d 717, 719 (3d Dep't 1997)); 63A Am.Jur.2d Prods. Liab. § 999 ("The essential inquiry is whether the design chosen was a reasonable one from among the feasible choices of which the defendant was aware or should have been aware. This feasibility is a relative, rather than an absolute, concept; the more scientifically and economically feasible the alternative is, the more likely it is that the product will be found to be defectively designed." (citations omitted)). Indeed, the jury was instructed that it should consider "the usefulness and costs of the alternative design as compared to the product the defendant did market." *See* 10/7/09 Tr. at 6611:24–6612:2.

less expensive for the [ExxonMobil] to use MTBE does not mean it would have been *impossible* for [it] to use other, less-polluting additives."[156] Accordingly, the jury's feasibility determination does not establish impossibility.

Second, the burden of proof in the design defect context is inconsistent with the burden of proof in the federal preemption context. To prove its design defect claim, the City had the burden of showing that there were no safer, feasible alternative to MTBE.[157] By contrast, because federal preemption is an affirmative defense, the burden of proof is on the defendant, ExxonMobil.[158] Thus, the jury's finding that the City *failed to prove* there was a safer, feasible alternative cannot substitute for a finding that ExxonMobil *proved* that MTBE was the only oxygenate it could have used to satisfy the RFG requirements.

In addition, regardless of the jury's verdict, ExxonMobil did not submit evidence at trial sufficient to demonstrate that it was *impossible* to use another oxygenate. At most, as is consistent with

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[156] *In re MTBE Prods. Liab. Litig.,* 488 F.3d 112 (2d Cir. 2007) (emphasis added). *Cf. In re MTBE,* 457 F. Supp. 2d at 335 ("Impossibility does not depend on whether events in the physical world would have made it difficult to comply with both standards, but on whether the two standards are expressly compatible.").

[157] *See* 10/7/09 Tr. 6610:7–13.

[158] *See Village of DePue, Ill. v. Exxon Mobil Corp.,* 537 F.3d 775, 786 (7th Cir. 2008) ("Federal preemption is an affirmative defense upon which the defendants bear the burden of proof. . . .").

the jury's feasibility finding, ExxonMobil showed that it would have been more difficult for it to produce reformulated gasoline containing ethanol (the most likely alternative to MTBE).[159] It did not establish that it would have been impossible to do so.

2. Obstacle Preemption

ExxonMobil also contends that permitting the verdict to stand will frustrate Congress's intent "to promote the use of MTBE, and other oxygenates."[160] Defendants raised an essentially identical argument in seeking summary judgment[161]—which I denied. Because I do not find that the evidence submitted at trial alters that analysis, I decline to revisit that decision.

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[159] *See* ExxonMobil Mem. at 5 (highlighting testimony that "Exxon's analysis of available oxygenates concluded that the [domestic] supply of both MTBE and ethanol combined would be substantially short of industry-wide demand under [RFG Program] requirements"; that "[g]asoline blended with ethanol could not be transported by pipeline—the principal mode for distributing gasoline from refineries in the U.S."; that "[r]efiners who shared common distribution systems all had to use either MTBE or ethanol in areas served by those systems"; and that "[t]he commercial viability of ethanol depended, in part, on refiners being able to obtain a waiver from the EPA from volatility rules, which was denied" (citations omitted)).

[160] ExxonMobil Reply Memorandum of Law in Further Support of Their Renewed Motion for Judgment as a Matter of Law or, in the Alternative, for a New Trial or Remittitur ("ExxonMobil Reply") at 2.

[161] *See In re MTBE,* 457 F. Supp. 2d at 339 ("Defendants also contend that Congress intended to maximize the improvement of the air quality achievable under the RFG Program, and that a duty not to use MTBE would be an obstacle to this goal.").

Although it is indisputable that Congress intended to promote the use of oxygenates in creating the RFG Program, there is no "indication that Congress or the EPA 'struck a particular' balance between water pollution and the ability of the [RFG Program] to expand"[162] or that "Congress or the EPA intended to protect the 'market share of MTBE even if it prove[d] to be inferior to other oxygenates due to environmental considerations other than motor vehicle emissions.' "[163] Accordingly, I found that allowing plaintiffs to recover damages for "inordinate environmental effects" caused by the use of MTBE does not conflict with federal policy.[164] Congress, in fact, considered including a safe harbor provision immunizing MTBE producers and distributors from state tort liability in the Energy Policy Act of 2005, but ultimately chose not to do so.[165] While this

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[162] *Id.* at 340–41 (quoting *Hillsborough County, Fla. v. Automated Med. Labs., Inc.,* 471 U.S. 707, 716, 105 S. Ct. 2371, 85 L.Ed.2d 714 (1985)).

[163] *Id.* at 339 (quoting *Oxygenated Fuels Ass'n, Inc. v. Pataki,* 158 F. Supp. 2d 248, 257 n. 4 (N.D.N.Y.2001)).

[164] *Id.* at 340.

[165] *See* 149 Cong. Rec. S15212 (daily ed. Nov. 20, 2003) (statement of Sen. Dianne Feinstein) ("Let me take up MTBE. In this bill, there is a liability waiver so nobody can sue for the fact that MTBE has been found to be defective by a court of law. Not only that, it is a retroactive liability protection for MTBE producers. This provision offers them immunity from claims that the additive is defective in design or manufacture. It makes this liability protection retroactive to September 5 of this year thereby wiping out hundreds of lawsuits brought by local jurisdictions all across America. This retroactive immunity is a perverse incentive to those who pollute because it says to them, OK, you have done all of this damage; nonetheless, it does not

decision does not provide direct evidence of Congress's intent *at the time* it passed the amendments to the CAA, it bolsters the inference that permitting the City's state tort claims will not impede Congressional objectives.

The jury's finding that the City failed to prove that there was a safer, feasible alternative to MTBE does not alter that determination. ExxonMobil submitted evidence at trial showing that using ethanol would have been more costly than using other oxygenates. The City's state tort claims simply provide a counterbalancing economic incentive for ExxonMobil to decrease or eliminate the use of MTBE because of its severe environmental effects. As discussed, Congress did not intend to prohibit states from influencing the decision-making process of gasoline companies choosing among oxygenates. Thus, the evidence submitted at trial does not show that state tort claims will frustrate the objectives of Congress.[166]

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really matter. You do not really have any liability. All these suits will be wiped out."); 151 Cong. Rec. H6949 (daily ed. July 28, 2005) (statement of Rep. Bart Stupak) ("I am happy that the 'safe harbor' provisions for manufacturers of MTBE that were in the House bill were dropped. Instead, there is a provision allowing lawsuits to be sent to Federal court if a defendant wants to make a request to do so.").

[166] *Compare Geier v. American Honda Motor Co., Inc.,* 529 U.S. 861, 881, 120 S. Ct. 1913, 146 L.Ed.2d 914 (2000) (finding that state tort claims were preempted when they would frustrate Congress's intent that car manufacturers have a choice among passive restraints) *with In re MTBE,* 457 F. Supp. 2d at 336–37 ("The CAA itself contains no language mandating that defendants have a choice among oxygenates. Congress intended the states to have flexibility in setting emissions

Permitting the City's state tort claims to proceed may seem unfair—as ExxonMobil is being forced to compensate the City for doing something that it arguably would not have done in the absence of federal regulation. However, the touchstone of the doctrine of federal preemption is not fairness to the parties; it is Congressional intent. Without clear evidence that federal policy and state law are in sharp conflict, or that it would have been physically impossible to comply with federal and state requirements, a finding of preemption is inappropriate.

B. Affirmative Defense: Statute of Limitations

The City's claims are time barred if, prior to October 31, 2000, (1) there was a sufficient amount of MTBE in the groundwater within Station 6's capture zone to cause a reasonable water provider to remediate that contamination and (2) the City knew of that level of contamination. These were questions of fact on which ExxonMobil had the burden of proof. Accordingly, for ExxonMobil to be entitled to judgment as a matter of law, it must have been unreasonable for the jury to find that ExxonMobil failed to prove both that the City was injured and that the City was aware of that injury.

At trial, ExxonMobil relied on two pieces of evidence to show that the City's claims are time barred. Neither of these is sufficient to establish that

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standards as long as the state met the minimum threshold set by the RFG program. The most that can be shown from the text of the Act is that Congress intended to create a fuel neutral program." (citations omitted)).

ExxonMobil is entitled to judgment as a matter of law. *First,* William Yulinksy, the Director of Environmental Health and Safety for the Bureau of Wastewater Treatment, testified that the City anticipated a need to build a treatment plant at Station 6 as early as September 1999.[167] However, as I explained in deciding ExxonMobil's pre-trial motions, "[t]he design and construction costs of the Station 6 treatment plan is not the City's injury. The *injury* is the contamination of the City's groundwater. . . . [T]he design and construction costs are damages the City seeks to recover in remediating the *injury*."[168] "Thus, in determining the timeliness of the City's recurring injury claim, the question is not, as [ExxonMobil] suggests, when the City first knew of its future damages, but rather when the City was first injured by MTBE contamination in its water and first knew that it was so injured."[169] The fact that the City anticipated a *future need* to build a remediation facility is not conclusive evidence that the City's groundwater was *already* contaminated at a level sufficient to injure the City or that the City knew of that level of contamination.

Second, City employees circulated internal memos in 1995 and 1997 suggesting that MTBE contamination was a growing concern as a potential groundwater contaminant.[170] This evidence is equally

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[167] *See* 9/23/09 Tr. at 5781:24–5781:24–5782:15, 5772:25–5773:15, 5776:25–5777:4.

[168] *In re MTBE,* 2009 WL 2634749, at *3 (emphasis added).

[169] *Id.* at *4.

[170] *See* 9/23/09 Tr. at 5752:23–5753:2, 5754:7–15, 5756:3–21, 5761:1–9 (Edward Kunsch).

inconclusive. A generalized concern that MTBE contamination may pose problems for the City's water supply does not show that MTBE contamination in the groundwater of Station 6 had reached levels that would cause the City, as a reasonable water provider, to remediate that contamination.

To succeed on its statute of limitations, ExxonMobil was required to prove by a preponderance of the evidence that the City was injured and that it knew of that injury. Given the evidence introduced at trial, it was not unreasonable for the jury to determine that ExxonMobil failed to meet that burden.

C. Injury

New York law requires the City to show that it suffered an actual injury to recover damages under most of its asserted causes of action.[171] ExxonMobil raises numerous issues relating to whether the City's injury is legally cognizable and whether the jury's finding that the City suffered an injury is supported by the evidence introduced at trial. I have already considered and rejected many of these arguments in

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[171] *See Akins v. Glens Falls City Sch. Dist.,* 53 N.Y.2d 325, 333, 441 N.Y.S.2d 644, 424 N.E.2d 531 (1981) (negligence); *Copart Indus. v. Consolidated Edison Co.,* 41 N.Y.2d 564, 568–70, 394 N.Y.S.2d 169, 362 N.E.2d 968 (1977) (nuisance); *Howard v. Poseidon Pools, Inc.,* 72 N.Y.2d 972, 974, 534 N.Y.S.2d 360, 530 N.E.2d 1280 (1988) (failure to warn). Nominal damages may be awarded for trespass in the absence of proof of actual injury. *See Kronos Inc. v. AVX Corp.,* 81 N.Y.2d 90, 95, 595 N.Y.S.2d 931, 612 N.E.2d 289 (1993).

deciding ExxonMobil's pre-trial motions.[172] Because they are not affected by the evidence submitted at trial, I do not revisit those determinations. However, I do consider three other issues raised by ExxonMobil. *First,* ExxonMobil argues that the jury's finding that the MTBE concentration in the combined outflow of the Station 6 wells will peak at ten ppb lacked any evidentiary basis.[173] *Second,* ExxonMobil argues that the evidence submitted at trial is insufficient to support the jury's finding that the City will be injured by the predicted level of contamination.[174] *Third,* and finally, ExxonMobil

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[172] *See In re MTBE,* 2009 WL 2634749, at *4 ("[T]he City brings a traditional recurring injury claim, which seeks past and future damages for a recurring injury that has *already begun* and that will recur in the future. . . . [W]hen the plaintiff brings a traditional recurring injury claim that seeks future damages for a recurring injury that has *already begun,* the plaintiff must show future damages only by a preponderance of the evidence and need not show that the harm is imminent.") (citing *In re MTBE Prods. Liab. Litig.,* 643 F. Supp. 2d 446, 456–59 (S.D.N.Y.2009)); *In re MTBE,* 643 F. Supp. 2d at 457–59(holding that the City's Station 6 claim is ripe and that the City has standing to assert it); *id.* at 459 (holding that, under New York law, the City "may recover for interference with use of [its] property provided that it actually intends, in good faith, to make such use of the property." (quotation marks and citation omitted)); 8/11/09 Tr. at 1018:2–1024:2 (denying ExxonMobil's motion to exclude the proposed expert testimony relating to a capture zone model for Station 6); *In re MTBE,* 458 F. Supp. 2d at 158–59 (holding that whether the presence of MTBE in groundwater at or below MCL is a legally cognizable injury is a question of fact for the jury).

[173] *See* ExxonMobil Mem. at 17–19; ExxonMobil Reply at 11–12.

[174] *See* ExxonMobil Mem. at 19–20; ExxonMobil Reply at 12–13.

argues that the City failed to show that it has a "good-faith intent to begin construction of Station 6 within the next [fifteen] years."[175]

1. Jury's Determination that MTBE Concentration in the Combined Outflow of Station 6 Wells Will Be Ten PPB

The jury, in finding that the concentration of MTBE in the combined outflow of the Station 6 wells will peak at ten ppb, did not adopt the conclusions of Terry—the only expert witness *to quantify* the amount of MTBE that will be in the Station 6 wells. While Terry opined that the concentration of MTBE would peak at thirty-five ppb in 2024, the jury found that the concentration of MTBE would peak at ten ppb in 2033. According to ExxonMobil, this disparity demonstrates that the jury "ignored the only evidence quantifying the concentration and timing of MTBE impacts to the Station 6 wells, and substituted sheer speculation in its place."[176] Because the jury was entitled to rely on Terry's testimony without adopting his ultimate conclusions, I disagree.

As Terry explained to the jury, "[a] groundwater model is a tool" used to *estimate* the amount of contaminant that will travel to a particular water source on the basis of certain assumptions that are entered into that model.[177] He informed the jury that he was basing his prediction in Analysis 1 on specific assumptions and that he "did not have perfect information" about MTBE contamination in the

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[175] ExxonMobil Mem. at 21.

[176] *Id.* at 19.

[177] 8/18/09 Tr. at 1892:17–18.

geographic area surrounding Station 6.[178] In addition, Terry's Analysis 2 model showed a range of other possible peak concentrations on the basis of different assumptions about the amount of MTBE gasoline that has been spilled within the Station 6 capture zone. For example, if each recorded gasoline spill released five hundred gallons of gasoline on average, the level of MTBE concentration would peak at six ppb. While it is true that the jury did not select any one of Terry's specific predictions, it did select from *within the range* of possible outcomes suggested by Terry.

The parties disagree as to whether the jury could rely upon Terry's model without adopting his specific conclusions as to the likely peak MTBE concentration. In general, a jury is not required to choose between adopting or rejecting an expert's testimony wholesale; it is free to accept or reject the expert's opinions in whole or in part and to draw its own conclusions from it.[179] Because juries are rarely asked to provide numerical predictions in the liability

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[178] 8/19/09 Tr. at 2014:7–9.

[179] *See Berger v. Iron Workers Reinforced Rodmen, Local 201,* 170 F.3d 1111, 1121 (D.C. Cir. 1999) ("[The] trier of fact was free to accept or reject expert testimony, and was free to draw his own conclusion."); *Schroeder v. The Tug Montauk,* 358 F.2d 485, 488 (2d Cir. 1966) ("[T]he expert evidence was conflicting and it was within the province of the trial judge to weigh it and accept or reject the whole or a part of it."); *Mejia v. JMM Audubon, Inc.,* 1 A.D.3d 261, 767 N.Y.S.2d 427, 428 (1st Dep't 2003) ("In considering the conflicting testimony of the parties' respective expert witnesses, the jury was not required to accept one expert's testimony over that of the other, but was entitled to accept or reject either expert's position in whole or in part.").

phase of a trial, no court that either the parties or I have found has dealt with the precise issue raised in this case. However, triers of fact are routinely asked to make numerical assessments on the basis of expert testimony in the damages phase. In that context, juries have been given significant latitude to alter the amount of damages proposed by experts while still relying on the models developed by those experts.[180] While a jury's task in the liability and damages phases do have significant differences, the principle that expert evidence "is to be treated in the same manner as other evidence in the case" applies whether the jury is determining damages or predicting the amount of future contamination.[181] The role of an expert is to assist the jury by "providing the groundwork . . . to enable the jury to make its own informed decision."[182] It is not to usurp or invade the jury's decision-making function.

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[180] *See Robinson v. Shapiro,* 646 F.2d 734, 744 (2d Cir. 1981) (affirming a district court's refusal to grant a new trial when the jury awarded damages greater than that calculated by plaintiff's expert "[b]ased on the [Second Circuit's] review of the record and the cogent reasons set forth by the [trial] court in explaining how the jury could reasonably have arrived at a larger figure than the plaintiff's expert"); *Medcom Holding Co. v. Baxter Travenol Labs.,* 106 F.3d 1388, 1398 (7th Cir. 1997) (stating that a district court's finding that the jury was unable to revise an expert's model to downwardly adjust the amount of damages awarded "denigrates the historic and practical abilities of the jury.").

[181] *Merrill v. United Air Lines, Inc.,* 177 F. Supp. 704, 705 (S.D.N.Y.1959).

[182] *United States v. Duncan,* 42 F.3d 97, 101 (2d Cir. 1994).

The jury was given the difficult task of predicting how much MTBE will be in the combined outflow of the Station 6 wells many years into the future and it was not expected to return an answer reflecting scientific precision. In fact, the jury was permitted to choose among several possible *ranges* of MTBE contamination rather than choosing an exact concentration level. Moreover, as discussed, Terry made clear that even his conclusion as to the likely peak concentration at Station 6 was an estimate based upon imperfect knowledge about real world facts. The jury scrutinized Terry's testimony, and, most likely finding that several of his express assumptions were inaccurate, selected a lower peak concentration than that suggested by Terry. This does not amount to impermissible conjecture or surmise, but a reasonable approach to a difficult question.

2. Injury at Ten PPB

I have already held in prior decisions that whether contamination at or below the MCL injures the City is a question of fact for the jury. At trial, the City introduced several pieces of evidence to support the inference that a reasonable water provider in the City's position would treat the water in the Station 6 wells. For example, the City introduced testimony that twenty-five percent of the population can detect MTBE at three to four parts per billion,[183] that ten percent of the population can detect MTBE at one to two parts per billion,[184] that MTBE may be

[183] *See* 8/31/09 Tr. at 2889:18–22 (Harry Lawless).

[184] *See id.*

carcinogenic at low levels of exposure in drinking water,[185] and that if one or more of the Station 6 wells is taken offline for any reason the concentration of MTBE in the combined outflow of the remaining wells could spike to fifteen ppb or higher (a violation of the MCL).[186] There is nothing unreasonable about the jury determining, on the basis of this evidence, that a reasonable water provider in the City's position would treat the water in the Station 6 wells.

3. Good Faith Intent

ExxonMobil also argues that the jury did not have sufficient evidence to find that the City has a good faith intent to begin construction of the Station 6 facility within the next fifteen years.[187] I disagree. Kathryn Garcia, an Assistant Commissioner for Strategic Projects at the New York City Department for Environmental Protection, testified that the Station 6 wells would be used as a backup source of water if other pieces of infrastructure, such as

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[185] *See, e.g.,* 9/2/09 Tr. at 3267:18–3267:24 (Kenneth Rudo).

[186] *See* 9/24/09 Tr. at 5869:10–5861:20 (Marnie Bell).

[187] *See* ExxonMobil Mem. at 21. ExxonMobil also argues that because the City's claims are for the threat of injury, rather than an injury that has already occurred, the City must prove "that the threat is imminent and certainly impending." *Id.* at 20 (citing *In re MTBE,* 175 F. Supp. 2d at 610). However, as discussed, the City is injured when the *groundwater* within the Station 6 wells becomes contaminated with MTBE, not when that MTBE actually enters the Station 6 wells. Thus, because the MTBE is already in the groundwater, the City has suffered an injury even though it has not yet turned on the Station 6 wells.

aqueducts currently in use, suffered an outage.[188] Graham Fogg, a hydrogeology professor at the University of California, Davis, testified that plumes of MTBE will remain in the geographic vicinity of Station 6 for decades into the future.[189] This testimony, which the jury apparently credited, provides a sufficient basis for the jury to infer that the City intends to use the Station 6 wells as a backup water source and that it intends to build a treatment facility to ensure that it is able to use water from those wells if and when needed.

D. Causation

The jury found ExxonMobil liable as both a manufacturer, refiner, supplier and seller of gasoline containing MTBE and as a direct spiller of gasoline containing MTBE. ExxonMobil argues that the evidence introduced at trial does not support that determination and that the jury was confused as to the traditional principles of causation due to the Court's description of the commingled product theory of causation in the jury charge.

1. Insufficiency of the Evidence

At trial, the City relied on Terry's capture zone model to establish causation. As I explain below, combined with the other evidence submitted at trial, this capture zone model provided a sufficient basis for the jury to determine that ExxonMobil's conduct

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[188] *See* 8/5/09 Tr. at 420:9–421:19. *See also* 8/6/09 Tr. 666:1–668:18 (William Meakin) (testifying that the City will use Station 6 to supply the public with water in drought situations and during infrastructure repairs).

[189] *See* 8/17/09 Tr. at 1561:18–1562:14.

both as a manufacturer, refiner, supplier and seller of MTBE gasoline *and* as a direct spiller of MTBE gasoline was a substantial factor in causing the City's injury.

a. Manufacturer, Refiner, Spiller and Supplier

At trial, the City produced three pieces of evidence to show that ExxonMobil's conduct as a manufacturer, refiner, supplier and seller of gasoline containing MTBE was a substantial factor in injuring the City: (1) expert testimony that, due to the commingled nature of the gasoline distribution network, ExxonMobil gasoline would be present in nearly every UST within the Station 6 capture zone;[190] (2) expert testimony that ExxonMobil supplied approximately twenty-five percent of the gasoline sold in Queens; [191] and (3) testimony that,

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[190] *See* 9/9/09 Tr. at 4103:6–4105:20 (Bruce Burke).

[191] *See* 9/14/09 Tr. at 4281:8–11 (Martin Tallett). This testimony was based on data reflecting the supply of gasoline into New York state, as opposed to data reflecting the supply of gasoline into Queens county. However, the City's expert testified that there "are few reliable data available at the county level," *see id.* at 4281:19–20, and that the state data is the "best proxy," *see id.* at 4281:21, for determining ExxonMobil's market share in Queens because most of the gasoline that comes into New York state is "supplied into . . . New York City and the surrounding counties, . . . [including Queens]," *see id.* at 4282:1–4. While the New York state data is not a perfect substitute for data specific to Queens, it was reasonable for the jury to determine that if ExxonMobil was supplying approximately twenty-five percent of the gasoline to New York state, it was supplying a substantial percentage of the gasoline entering Queens.

over time, all USTs leak.[192] ExxonMobil's objection to the sufficiency of this evidence focuses on the City's use of market share data.

First, ExxonMobil argues that the City should not have been permitted to use market share data because it disclaimed reliance on the market share theory of liability.[193] This argument conflates application of the market share *theory of liability* with using market share *data* as circumstantial evidence of causation. Under the market share theory, liability is apportioned according to a defendant's national market share even though it is assumed that the vast majority of defendants in any one case did not injure the plaintiff. The City, on the other hand, sought to use market share data to show that "ExxonMobil . . . represented such a substantial fraction of the total gasoline sold in the Queens area, that . . . it was not only present, but present in such quantity at leaking stations" that it was more likely than not a cause of the City's injury.[194] While New York has severely limited the circumstances in which the market share theory of liability may be applied,[195] it has never suggested that market share data cannot

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[192] *See* 8/12/09 Tr. at 1117:4–23 (Marcel Moreau); 8/13/09 Tr. at 1335:1–21 (same); 8/14/09 Tr. at 1389:4–11, 1451:8–1452:2 (same).

[193] *See* ExxonMobil Mem. at 8–9.

[194] City's Memorandum in Opposition to ExxonMobil's Renewed Motion for Judgment as a Matter of Law, or, in the Alternative, for a New Trial And/Or Remittitur ("City Opp.") at 12.

[195] *See Hamilton v. Beretta U.S.A. Corp.,* 96 N.Y.2d 222, 241–42, 727 N.Y.S.2d 7, 750 N.E.2d 1055 (2001).

be used to prove traditional causation, and I find nothing unreasonable about the jury relying on that data to find ExxonMobil liable.

Second, ExxonMobil argues that even if the use of this market share data is permissible, a twenty-five percent market share cannot make it more than twenty-five percent likely that ExxonMobil was a cause of the City's injury, and thus, reliance on the market share data does not satisfy the preponderance of the evidence standard.[196] This argument is incorrect. Given the commingled state of gasoline entering Queens, ExxonMobil's twenty-five percent market share can support the inference that ExxonMobil's conduct was *more likely than not* to have caused twenty-five percent of the contamination in the Station 6 wells. The jury was entitled to find that, by causing this significant portion of contamination in the Station 6 wells, ExxonMobil's MTBE-containing gasoline was a substantial factor in producing the City's injury.

b. Direct Spiller

To succeed on its direct spiller claims, the City was required to show that MTBE gasoline released from ExxonMobil-controlled stations was a cause of the City's injury at Station 6. However, "[t]hat showing need not be made with absolute certitude nor exclude every other possible cause of injury."[197]

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[196] *See* ExxonMobil Mem. at 9–10.

[197] *Koester v. State,* 90 A.D.2d 357, 457 N.Y.S.2d 655, 658 (4th Dep't 1982) (citations omitted) (holding that the New York Court of Claims erred in holding that the absence of a curve sign on a ramp was not the proximate cause of driver's accident although the "claimant was aware of the general course of the

Instead, the City was only required to prove "facts and circumstances . . . from which causation may reasonably be inferred."[198]

The City attempted to meet that burden at trial by introducing evidence of multiple spills at ExxonMobil-controlled stations within Terry's predicted capture zone and evidence that MTBE has escaped remediation efforts at many of those sites.[199] ExxonMobil argues that Terry's capture zone model does not provide an adequate basis for proving direct spiller causation because it was based on the assumption that the Station 6 wells will pump water continuously from 2016[200] until 2040.[201] According to ExxonMobil, that assumption conflicts with the jury's finding that "Station 6 will be used only as a backup source"[202] and is unsupported by the evidence.[203]

Regardless of this discrepancy, however, the jury could still reasonably have found that MTBE from ExxonMobil-controlled stations would impact Station

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ramp and the existence of the curve from having traveled over it on prior occasions during daylight hours, it was a dark night and he had just left a lighted highway and entered on the unlighted ramp").

[198] *Id.* (citations omitted).

[199] *See* 8/13/09 Tr. at 1230:7–1267:1, 1267:1–1288:24, 1289:9–1301:1, 1308:2–25; 8/18/09 Tr. at 1756:7–24; 1781:1–6, 1806:14–1807:12, 1821:22–1822:16; 9/21/09 Tr. at 5229:11–5236:23; 5244:19–5244:20, 5253:19–5254:1.

[200] *See* 8/18/09 Tr. at 1906:8–10.

[201] *See* 8/19/09 Tr. at 2155:11–2156:1.

[202] ExxonMobil's Supplemental Brief in Response to the Court's Questions on Defendants' Post–Trial Motion at 18.

[203] *See* ExxonMobil Mem. at 7; ExxonMobil Reply at 5.

6. At trial, a series of demonstrative maps depicting the evolution of Terry's predicted capture zone over time were shown to the jury.[204] These maps, which were based on exhibits introduced at trial,[205] indicate that ExxonMobil-controlled stations are situated in nearly every direction from Station 6. Moreover, several of these stations are close enough to Station 6 to be well within the borders of Terry's predicted capture zone at every stage of its evolution *(i.e.,* even in the earliest stages of the assumed pumping schedule). The City, for example, introduced evidence that significant amounts of MTBE gasoline were spilled[206] at an ExxonMobil-controlled station, 113–21 Merrick Boulevard, located within a half-mile of Station Six.[207] In conjunction with Terry's (allegedly imperfect) capture zone model, this sort of evidence—*i.e.,* the existence of several ExxonMobil-controlled stations in close proximity to, and positioned radially in multiple directions from, Station 6—provides a sufficient basis for the jury to reasonably infer that ExxonMobil's conduct as a direct spiller was a cause of the City's injury.

2. Jury Confusion

ExxonMobil seeks a new trial on the ground that "[e]ven though the jury did not render a verdict on the commingled product theory . . . the erroneous commingled product theory so permeated the trial as

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[204] *See* 9/23/09 Tr. at 5678:13–5681:13.

[205] *See* Pl.Ex. 14845A–X; Pl.Ex. 14844A–C; Pl.Ex. 3167; Pl.Ex. 5582; Pl.Ex. 5583; Pl.Ex. 5584.

[206] *See* 9/21/09 Tr. at 5253:19–5254:1 (Thomas Maguire).

[207] *See* 8/19/09 Tr. at 1977:4–6.

to make it impossible for the jury to comprehend traditional causation."[208] Specifically, ExxonMobil suggests that the Court's instruction on the commingled product theory "impermissibly relieved the City of its burden to identify the defendant who caused its harm."[209] This argument is without merit.

First, as discussed, the commingled product theory of liability, unlike the market share theory of liability, does not allow for the imposition of liability against a defendant in the absence of a finding that the particular defendant's product contributed to harming the plaintiff. The market share theory assumes that the vast majority of defendants did not actually contribute to the harm incurred by a particular plaintiff (*i.e.,* all defendants supplying DES used to treat women during pregnancy are held liable even if only one defendant manufactured the DES pills that were ingested by the plaintiff). The commingled product theory, in contrast, requires a finding that the product of each and every defendant held liable contributed to plaintiff's injury (*i.e.,* a defendant cannot be held liable unless its gasoline was present in the commingled product that contaminated plaintiff's groundwater).[210]

Second, the jury was clearly instructed that the commingled product theory is distinct from the traditional theory of causation and informed as to the

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[208] ExxonMobil Mem. at 10–11.

[209] *Id.* at 11 (citing *Hymowitz,* 73 N.Y.2d at 504, 541 N.Y.S.2d 941, 539 N.E.2d 1069 ("In a products liability action, identification of the exact defendant whose product injured the plaintiff is, of course, generally required.")).

[210] *See In re MTBE,* 644 F. Supp. 2d at 319.

nature of that difference. For example, in describing the commingled product theory, I instructed the jury:

> What sets [the commingled product theory] apart from manufacturer, refiner, supplier or seller causation is that to prove [causation under the commingled product theory], the [C]ity need not show that [ExxonMobil's] contribution taken alone would have injured the [C]ity.[211]

There is no indication that the jury did not understand this instruction.[212]

Third, the jury was entitled to consider testimony that the gasoline supplied to Queens was commingled in determining whether ExxonMobil's gasoline injured the City under traditional principles of causation. The fact that ExxonMobil gasoline was spread throughout the gasoline distribution network in Queens increases the probability that ExxonMobil gasoline was in the USTs that leaked gasoline into the Station 6 capture zone.[213] Evidence of commingling was therefore relevant even if the jury

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[211] 10/7/09 Tr. at 6608:19–23.

[212] *See United States v. Whitten,* 610 F.3d 168, 191 (2d Cir. 2010) ("We presume that juries follow instructions . . . .") (citing *Richardson v. Marsh,* 481 U.S. 200, 206, 107 S. Ct. 1702, 95 L.Ed.2d 176 (1987) (juries are presumed to follow instructions)).

[213] *See O'Brien v. National Gypsum Co.,* 944 F.2d 69, 72–73 (2d Cir. 1991) ("Given testimony that asbestos products were used interchangeably on virtually all of the warships under construction in the Navy Yard, [plaintiff's] disease might reasonably be attributed in part to exposure to [defendant's] products." (emphasis added)).

did not ultimately reach the commingled product theory of causation.

E. Juror Misconduct: Extra–Record Information

During the jury's Phase III deliberations, I learned that a member of the jury had performed limited Internet research relating to this case. ExxonMobil argues that I erred in not declaring a mistrial on the basis of this juror's misconduct.[214] Search engines have indeed created significant new dangers for the judicial system. It is all too easy for a juror to find out more than he or she should by typing a few carefully chosen words into a search engine.[215]

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[214] *See* ExxonMobil Mem. at 27–29.

[215] This has become a recurring problem. *See, e.g.,* Christina Hall, Facebook Juror Gets Homework Assignment, The Detroit Free Press, Sept. 2, 2010 (reporting that a Michigan juror who posted on Facebook that a defendant was guilty before the completion of trial was dismissed from the jury, held in contempt of court, ordered to pay a $250 fine and required to write a five page essay on the defendant's Sixth Amendment right to a jury trial); Noeleen G. Walter, Access to Internet, Social Media by Jurors Pose Challenges for Bench, N.Y. L.J., Mar. 3, 2010 (reporting that a state trial court in the Bronx determined that a woman breached her obligations as a juror by sending a Facebook "friend" request to a government witness but rejected the defense's argument that this act had tainted the jury's guilty verdict); Andrea F. Siegel, Judges Confounded by Jury's Access to Cyberspace: Panelists Can Do Own Research on Web, Confer Outside of Courthouse, The Balt. Sun, Dec. 13, 2009 (discussing the increasing trend in Maryland courts of defendants seeking a mistrial on the ground that one or more of the jurors conducted Internet research about the defendant's case while the trial was ongoing); Debra C. Weiss, Juror Whose Revelation Forced a Mistrial Will Pay $1,200, A.B.A. J., Oct. 13, 2009 (reporting that a New Hampshire juror charged with

contempt of court for revealing during deliberations that the defendant was a convicted child molester pleaded guilty to a reduced charge and agreed to pay $1,200 to reimburse the county for expenses related to two days of deliberations); Daniel A. Ross, Juror Abuse of the Internet, N.Y. L. J., Sept. 8, 2009 (examining the problem of "Internet-tainted" juries across the United States and abroad); John Schwartz, As Jurors Turn to Web, Mistrials Are Popping Up, N.Y. Times, Mar. 18, 2009 ("It might be called a Google mistrial. The use of BlackBerry's and iPhones by jurors gathering and sending out information about cases is wreaking havoc on trials around the country, upending deliberations and infuriating judges."). In response to this problem, the Judicial Conference Committee on Court Administration and Case Management has recently recommended the following charge:

Before Trial:

> You, as jurors, must decide this case based solely on the evidence presented here within the four walls of this courtroom. This means that during the trial you must not conduct any independent research about this case, the matters in the case, and the individuals or corporations involved in the case. In other words, you should not consult dictionaries or reference materials, search the Internet, websites, blogs, or use any other electronic tools to obtain information about this case or to help you decide the case. Please do not try to find out information from any source outside the confines of this courtroom.
>
> Until you retire to deliberate, you may not discuss this case with anyone, even your fellow jurors. After you retire to deliberate, you may begin discussing the case with your fellow jurors, but you cannot discuss the case with anyone else until you have returned a verdict and the case is at an end. I hope that for all of you this case is interesting and noteworthy. I know that many of you use cell phones, Blackberries, the Internet and other tools of technology. You also must not talk to anyone about this case or use these tools to communicate electronically with anyone about the

Nevertheless, in this instance, the jury was not too polluted by the receipt of extra-judicial information such as to prevent it from rendering a fair verdict based on the evidence introduced at trial.

It is axiomatic that juries are required to decide cases on the evidence introduced at trial. However, a new trial is not required solely because the jury was *exposed* to extrinsic information.[216] " 'The issue, as Judge [Henry] Friendly observed, is 'not the mere fact of [jury] infiltration . . . but the nature of what

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> case. This includes your family and friends. You may not communicate with anyone about the case on your cell phone, through e-mail, Blackberry, iPhone, text messaging, or on Twitter, through any blog or website, through any Internet chat room, or by way of any other social networking websites, including Facebook, My Space, LinkedIn, and YouTube.
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> At the Close of the Case:
>
> > During your deliberations, you must not communicate with or provide any information to anyone by any means about this case. You may not use any electronic device or media, such as a telephone, cell phone, smart phone, iPhone, Blackberry or computer; the Internet, any Internet service, or any text or instant messaging service; or any Internet chat room, blog, or website such as Facebook, My Space, LinkedIn, YouTube or Twitter, to communicate to anyone any information about this case or to conduct any research about this case until I accept your verdict.

Judicial Conference Committee on Court Administration and Case Management, Proposed Model Jury Instructions: The Use of Electronic Technology to Conduct Research on or Communicate about a Case (December 2009).

[216] *See Manley v. AmBase Corp.,* 337 F.3d 237, 252 (2d Cir. 2003).

has been infiltrated and the probability of prejudice.' "[217] While a court may question a jury about what they learned in making this determination, after deliberations have begun, it is inappropriate for a "court [to] inquire into the degree upon which the extra-record information [is being] used in deliberations and the impression which jurors actually ha[ve] about it."[218] "Rather, courts must apply an objective test focusing on two factors: (1) the nature of the information or contact at issue, and (2) its probable effect on a hypothetical average jury."[219]

Because the jury was not exposed to evidence that would prejudice the average juror, it was not error to deny ExxonMobil's motion for a mistrial. Juror No. 8, who clearly obtained improper information during Phase III deliberations was immediately excused after the Court learned of his misconduct. The jury brought this fact to my attention soon after they became aware of it and the remaining jurors appeared candid and forthcoming in answering my questions about the information they had learned. Although Juror No. 8 initially painted a picture of a jury that was engaging in rampant outside research, his assertion that 'everybody was doing it' was nothing more than the defensive tactic of a juror looking for cover after he had been caught

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[217] *Id.* (quoting *United States ex rel. Owen v. McMann,* 435 F.2d 813, 818 (2d Cir. 1970)).

[218] *United States v. Greer,* 285 F.3d 158, 173 (2d Cir. 2002) (quotation marks and citations omitted).

[219] *Manley,* 337 F.3d at 252 (quotation marks and citations omitted).

with his hand in the proverbial cookie jar. When he and the other jurors were questioned further, it became apparent that the limited information Juror No. 8 had communicated to them was decidedly vague.

Juror No. 11 learned that there was going to be a fourth phase of the trial—which he described as "some other penalty part."[220] Although the punitive damages phase is often separated from the liability phase because plaintiffs are permitted to introduce evidence in the punitive damages phase that is irrelevant in the liability phase,[221] mere knowledge of a possible penalty phase is insufficient to create prejudice. Indeed, when the jury was charged on Phase III of this trial, it was given detailed instructions on how to calculate compensatory damages. If such instructions (which are commonly given) are not deemed to prejudice the jury's deliberations, then neither should a juror's vague knowledge that there may be a further penalty phase.

Juror No. 5 learned that ExxonMobil was the only remaining defendant in this case and that many of the other defendants had settled for approximately

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[220] 10/9/09 Tr. at 6808:4–6.

[221] *Compare DiSorbo v. Hoy,* 343 F.3d 172, 189 n. 9 (2d Cir. 2003) (stating that evidence of a defendant's financial situation should be admitted in the punitive damages phase of a trial because one of the purposes of punitive damages is deterrence) *with Tesser v. Board of Educ. of City School Dist. of City of N.Y.,* 370 F.3d 314, 318 (2d Cir. 2004) (stating that evidence of a defendant's wealth is generally inadmissible in cases not involving punitive damages).

one million dollars each. The jury, however, was already well aware from the evidence introduced at trial, as well as from this Court's instruction that it must apportion liability among all responsible oil companies operating in the area surrounding Station 6, that other oil companies had caused contamination at Station 6. As such, a juror could easily make the connection that these other defendants had settled without being informed that this was the case by another juror who claimed to have obtained information from the Internet. Moreover, Juror No. 5's knowledge of these supposed settlements was so limited and vague that it would be highly unlikely to have prejudiced the average juror's deliberative process.[222]

In addition, two other jurors performed some limited outside research on their own. Juror No. 4 tried to drive over to Station 6, but failed to find it. Juror No. 6 looked me up on Wikipedia and read an article about water contamination caused by coal companies. As with the information shared by Juror No. 8, the jury's exposure to this information does not warrant a mistrial. Although it was inappropriate for Juror No. 4 to attempt to find Station 6, his failure to actually find that site prohibits any inference of prejudice. As for Juror No. 6—the information which she uncovered had only a tangential relationship to this case. Jurors do not enter the courtroom as blank slates and the addition of this limited information to

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[222] Juror No. 6 also recalled Juror No. 8 making some equally vague comments about plaintiffs receiving money in other MTBE cases.

Juror No. 6's mix of knowledge cannot reasonably be deemed prejudicial.

F. Dismissal of Alleged Holdout Juror

ExxonMobil argues that a new trial is warranted because the "Court erred in dismissing Juror [No.] 2, rather than declaring a mistrial, when it was revealed that she was threatened for being a holdout."[223] ExxonMobil did not object to the removal of Juror No. 2 at any point until it filed its post-trial motions. In fact, at the time of removal, ExxonMobil agreed that the Court should excuse Juror No. 2.[224] Because it would be patently unfair to allow ExxonMobil to object to a decision by this Court (the dismissal of Juror No. 2) that it previously endorsed only after it received an adverse verdict, ExxonMobil has waived its right to make this objection.[225] If ExxonMobil believed that Juror No. 2 was being

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[223] ExxonMobil Mem. at 29.

[224] Although ExxonMobil did subsequently move for a mistrial, it did so on entirely different grounds *i.e.,* when it discovered that "an actual instrument [*i.e.,* the fork] was used in the jury room . . . ." 10/16/09 Tr. at 7022:14–17. ExxonMobil never suggested that it viewed Juror No. 2 as a holdout juror or intimate the view that Juror No. 2 should not be dismissed.

[225] *See U.S. v. Desir,* 273 F.3d 39, 43 (1st Cir. 2001) ("[A] defendant who has knowledge of juror misconduct or bias at the time of trial waives such a claim by failing to raise it until after trial."); *Dunn v. Denk,* 54 F.3d 248, 251 (5th Cir. 1995) (holding that a defendant waived an objection when he knew of juror misconduct "but chose to remain to silent until the return of an adverse verdict"); *U.S. v. Breit,* 712 F.2d 81, 83 (4th Cir. 1983) ("A defendant who remains silent about known juror misconduct—who, in effect, takes out an insurance policy against an unfavorable verdict—is toying with the court.").

forced off of the jury because she was a holdout, it should have objected to her removal when the evidence allegedly supporting that inference arose.

G. Remaining Liability Issues

ExxonMobil has also raised a series of issues relating to: (1) the jury's findings of liability on the City's failure to warn,[226] negligence,[227] public nuisance,[228] and trespass claims[229]; and (2) several evidentiary rulings.[230] Having reviewed the record thoroughly, and considered all of ExxonMobil's submissions, I find that these arguments—many of which have previously been considered by this Court—are without merit.

H. Damages

ExxonMobil argues that the jury's damages award warrants a new trial on damages, or, in the alternative, remittitur.[231] ExxonMobil points to three purported errors in Bell's testimony[232]—which provided the basis for the jury's award.[233] None of

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[226] *See* ExxonMobil Mem. at 12–13.

[227] *See id.* at 21–23.

[228] *See id.* at 23–24.

[229] *See id.* at 24–27.

[230] *See id.* at 31–37.

[231] *See id.* at 37–45.

[232] *See id.* at 42–43.

[233] *See Trademark Research Corp. v. Maxwell Online, Inc.,* 995 F.2d 326, 337 (2d Cir. 1993) ("We have found remittitur appropriate in at least two distinct kinds of cases: (1) *where the court can identify an error that caused the jury to include in the verdict a quantifiable amount that should be stricken, . . .* and (2) more generally, where the award is 'intrinsically excessive'

these alleged errors are sufficient to warrant a new trial on damages or remittitur.[234]

First, ExxonMobil argues that Bell's capital cost estimate of $59,990,000 was unreasonable given that she had estimated that cost at $9.9 million in 2004.[235] However, Bell was cross-examined on this point at trial and testified that she had altered the estimate for a number of reasons—including inflation, the escalation of prices of certain raw materials and a change in design.[236] The jury was entitled to accept that explanation.

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in the sense of being greater than the amount a reasonable jury could have awarded, although the surplus cannot be ascribed to a particular, quantifiable error." (quotation marks and citations omitted) (emphasis added)).

[234] Although courts generally look to damages awards in other similar cases to determine if an award is excessive, due to the factual uniqueness of this case, the parties have not uncovered any verdicts that can act as an appropriate benchmarks. For comparison's sake, ExxonMobil notes that "the City previously addressed MTBE contamination in five wells, readied for use in a drought emergency, by installing [remediation] units at a total cost of [$3,160,000], or approximately $632,000 per well." ExxonMobil Mem. at 42 (citing 9/24/09 Tr. 5962:4–6 (Marnie Bell)). The City, in contrast, points out that three gasoline companies in a California case agreed, for purposes of settlement, that the cost of constructing and operating a water treatment facility serving five contaminated wells will cost approximately $220,050,000. *See* City Opp. at 42. As the parties agree, because these cost figures were not adopted by juries after a civil trial, they provide limited guidance as to the appropriate award in this case.

[235] *See* ExxonMobil Mem. at 39, 43.

[236] *See, e.g.,* 9/30/09 Tr. at 6036:17–20, 6044:20–23, 6045:1–7, 6045:15–19.

Second, "the jury implausibly credited [ ] Bell's dubious testimony that certain equipment will require replacement every 20 years, regardless of whether that equipment is used or for how long."[237] Bell opined at trial that the equipment used at Station 6 will likely deteriorate even if it lays fallow.[238] As anyone who has left a piece of machinery, such as an automobile, idle for a long period of time is aware, there is nothing unreasonable about the inference that such equipment can become corroded and require replacement parts. Accordingly, I cannot find that the jury acted in error by crediting Bell's testimony that equipment at Station 6 will have to be replaced twice over the forty year period it will be in use.

Third, ExxonMobil argues that "the jury inappropriately awarded $141 million for [operating and maintenance] costs based on nothing more than the *ipse dixit* statements of [ ] Bell and her speculative assumption that Station 6 will operate continuously for 40 years."[239] The City introduced evidence at trial that the Station 6 wells will also be used to fulfill the public's water needs in emergency drought situations or if presently unforeseen infrastructure repairs become necessary.[240] Because

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[237] ExxonMobil Mem. at 43.

[238] *See* 9/30/09 Tr. at 6023:16–18.

[239] ExxonMobil Mem. at 42–43.

[240] However, the only *planned* infrastructure project requiring use of the Station 6 wells is the repair of an aqueduct (the Rondout–West Branch tunnel) used to supply the City with drinking water—which will take approximately four years. *See* 8/6/09 Tr. 701:9–15 (Steven Lawitts).

there is no sure way to estimate how likely these emergencies are to occur, and thus, how often the City will need to use the Station 6 wells, it was not unreasonable for Bell, in assessing damages, to assume that the wells will operate continuously. Indeed, it is appropriate that the wrongdoer (ExxonMobil) rather than the innocent party (the City) should bear the risk that these emergencies will occur frequently. As Bell explained, she assumed the wells would run continuously for forty years because, for planning purposes, the City needs to presume the "worst-case scenario."[241] The jury did not act unreasonably in accepting this explanation and adopting Bell's operating and maintenance costs.

Accordingly, because I conclude that the jury's damages award did not contain specific, quantifiable errors, I reject ExxonMobil's request for a new trial on damages, or in the alternative, remittitur.

VI. CONCLUSION

For the aforementioned reasons, ExxonMobil's post-trial motion is denied. The Clerk of Court is directed to close this motion (Docket No. 610).

SO ORDERED:

s/
Shira A. Scheindlin
U.S.D.J.

Dated: New York, New York
September 7, 2010

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[241] 9/30/09 Tr. at 6019:1 –2. *Accord id.* at 6017:20–22 ("Again, for the purposes of designing costing, the only reasonable assumption to make was to assume it would operate continuously.").

U.S. Const. art. III, § 2, cl. 1

The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority; — to all Cases affecting Ambassadors, other public Ministers and Consuls; — to all Cases of admiralty and maritime Jurisdiction; — to Controversies to which the United States shall be a Party; — to Controversies between two or more States; — between a State and Citizens of another State; — between Citizens of different States; — between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

Relevant Statutory Provisions

42 U.S.C. § 7401(b)

(b) Declaration

The purposes of this subchapter are—

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

42 U.S.C. § 7545 (2000)

* * *

(k) Reformulated gasoline for conventional vehicles

(1) EPA regulations

Within 1 year after November 15, 1990, the Administrator shall promulgate regulations under this section establishing requirements for reformulated gasoline to be used in gasoline-fueled vehicles in specified nonattainment areas. Such regulations shall require the greatest reduction in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year) achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements.

(2) General requirements

The regulations referred to in paragraph (1) shall require that reformulated gasoline comply with paragraph (3) and with each of the following requirements (subject to paragraph (7)):

* * *

(B) Oxygen content

The oxygen content of the gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by

the Administrator) except as otherwise required by this chapter. The Administrator may waive, in whole or in part, the application of this subparagraph for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard.

* * *

(3) More stringent of formula or performance standards

* * *

(A) Formula

* * *

(v) Oxygen content

The oxygen content of the reformulated gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter.

* * *

(5) Prohibition

Effective beginning January 1, 1995, each of the following shall be a violation of this subsection:

(A) The sale or dispensing by any person of conventional gasoline to ultimate consumers in any covered area.

(B) The sale or dispensing by any refiner, blender, importer, or marketer of conventional gasoline for resale in any covered area, without (i) segregating such gasoline from reformulated gasoline, and (ii) clearly marking such conventional gasoline as "conventional gasoline, not for sale to ultimate consumer in a covered area".

Any refiner, blender, importer or marketer who purchases property segregated and marked conventional gasoline, and thereafter labels, represents, or wholesales such gasoline as reformulated gasoline shall also be in violation of this subsection. The Administrator may impose sampling, testing, and recordkeeping requirements upon any refiner, blender, importer, or marketer to prevent violations of this section.

* * *

(10) Definitions

For purposes of this subsection—

* * *

(D) Covered area

The 9 ozone nonattainment areas having a 1980 population in excess of 250,000 and having the highest ozone design value during the period 1987 through 1989 shall be "covered areas" for purposes of this subsection. Effective one year after the reclassification of any ozone nonattainment area as a Severe ozone nonattainment area under section 7511(b) of this title, such

Severe area shall also be a "covered area" for purposes of this subsection.

(E) Reformulated gasoline

The term "reformulated gasoline" means any gasoline which is certified by the Administrator under this section as complying with this subsection.

* * *

(m) Oxygenated fuels

(1) Plan revisions for CO nonattainment areas

(A) Each State in which there is located all or part of an area which is designated under subchapter I of this chapter as a nonattainment area for carbon monoxide and which has a carbon monoxide design value of 9.5 parts per million (ppm) or above based on data for the 2-year period of 1988 and 1989 and calculated according to the most recent interpretation methodology issued by the Administrator prior to November 15, 1990, shall submit to the Administrator a State implementation plan revision under section 7410 of this title and part D of subchapter I of this chapter for such area which shall contain the provisions specified under this subsection regarding oxygenated gasoline.

(B) A plan revision which contains such provisions shall also be submitted by each State in which there is located any area which, for any 2-year period after 1989 has a carbon monoxide design value of 9.5 ppm or

above. The revision shall be submitted within 18 months after such 2-year period.

(2) Oxygenated gasoline in CO nonattainment areas

Each plan revision under this subsection shall contain provisions to require that any gasoline sold, or dispensed, to the ultimate consumer in the carbon monoxide nonattainment area or sold or dispensed directly or indirectly by fuel refiners or marketers to persons who sell or dispense to ultimate consumers, in the larger of—

(A) the Consolidated Metropolitan Statistical Area (CMSA) in which the area is located, or

(B) if the area is not located in a CMSA, the Metropolitan Statistical Area in which the area is located,

be blended, during the portion of the year in which the area is prone to high ambient concentrations of carbon monoxide to contain not less than 2.7 percent oxygen by weight (subject to a testing tolerance established by the Administrator). The portion of the year in which the area is prone to high ambient concentrations of carbon monoxide shall be as determined by the Administrator, but shall not be less than 4 months. At the request of a State with respect to any area designated as nonattainment for carbon monoxide, the Administrator may reduce the period specified in the preceding sentence if the State can demonstrate that because of meteorological conditions, a reduced period will

assure that there will be no exceedances of the carbon monoxide standard outside of such reduced period. For areas with a carbon monoxide design value of 9.5 ppm or more of 2 November 15, 1990, the revision shall provide that such requirement shall take effect no later than November 1, 1992 (or at such other date during 1992 as the Administrator establishes under the preceding provisions of this paragraph). For other areas, the revision shall provide that such requirement shall take effect no later than November 1 of the third year after the last year of the applicable 2-year period referred to in paragraph (1) (or at such other date during such third year as the Administrator establishes under the preceding provisions of this paragraph) and shall include a program for implementation and enforcement of the requirement consistent with guidance to be issued by the Administrator.

* * *

(4) Fuel dispensing systems

Any person selling oxygenated gasoline at retail pursuant to this subsection shall be required under regulations promulgated by the Administrator to label the fuel dispensing system with a notice that the gasoline is oxygenated and will reduce the carbon monoxide emissions from the motor vehicle.