

SUPER LAW GROUP, LLC

November 2, 2016

Via Certified Mail, Return Receipt Requested

Administrator Gina McCarthy
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, DC 20460

Re: Notice of Intent to File Suit under Safe Drinking Water Act § 1449(a)(2) for Failure to Perform Non-Discretionary Duties Pertaining to the Monitoring and Regulation of Contaminants in Drinking Water

Dear Administrator McCarthy:

We are writing on behalf of Waterkeeper Alliance, Inc. to notify you of its intent to file suit, sixty days after your receipt of this letter, against the United States Environmental Protection Agency (“EPA”) and you in your official capacity as EPA Administrator pursuant to section 1449(a)(2) of the Safe Drinking Water Act of 1974 (the “Act” or “SDWA”).¹ EPA has failed to perform at least ten non-discretionary duties arising under the Act’s National Primary Drinking Water Regulation program. EPA has missed mandatory statutory deadlines for regulation of six harmful contaminants in drinking water – strontium, tetrachloroethylene, trichloroethylene, acrylamide, epichlorohydrin, and chromium. EPA has also missed mandatory statutory deadlines for identifying other contaminants that may require monitoring and/or regulation; determining whether to regulate such contaminants; and reviewing and strengthening existing drinking water regulations.

Waterkeeper Alliance is a not-for-profit environmental organization headquartered in New York City which unites more than 300 Waterkeeper organizations and affiliates around the world and focuses citizen advocacy on the goal of swimmable, fishable, and drinkable waters. Waterkeeper has thousands of members nationwide, many of whom are harmed by EPA’s failure to comply with the Act.

The Safe Drinking Water Act is the principal federal law for protecting the quality of drinking water in the United States. Congress passed the Act in 1974 after nationwide studies revealed widespread drinking water quality problems and health risks. Congress overhauled the Act in 1996 after an outbreak of waterborne disease resulted in 104 deaths and more than 400,000 illnesses in Milwaukee in 1993.² As amended, the Act requires EPA to promulgate National Primary Drinking Water Regulations that establish enforceable standards, called Maximum Contaminant Levels, limiting the level of specified contaminants – such as chemicals, microorganisms, radionuclides and disinfectants – permitted in drinking water from public water

¹ 42 U.S.C. §§ 300f *et seq.*, 300j-8.

² Gary Lee, *House Easily Reauthorizes Safe Drinking Water Law*, The Wash. Post, Sept. 28, 1994, (available at <https://www.washingtonpost.com/archive/politics/1994/09/28/house-easily-reauthorizes-safe-drinking-water-law/56456907-bfb7-433d-9902-8c207c503186/>) (last visited October 27, 2016).

systems.³ The regulations apply to roughly 168,000 privately- and publicly-owned water systems nationwide that provide water for human consumption.⁴

For much of its history, EPA has moved at a slow pace in implementing this crucially important legislation. From 1974 until 1986, EPA regulated just one additional contaminant beyond the twenty-two standards previously developed by the U.S. Public Health Service.⁵ Frustrated with EPA's inaction, Congress amended the Act in 1986, requiring the agency to regulate eighty-three specified contaminants within three years and twenty-five more contaminants every three years thereafter.⁶ In the ensuing decade, from 1986 to 1996, EPA established limits on eighty new contaminants.⁷

In 1996, Congress made sweeping changes to the Safe Drinking Water Act. The 1996 amendments eliminated the requirement to regulate twenty-five contaminants every three years and put in place a new system that EPA must follow to protect drinking water quality and public health. As described in more detail below, the Act requires EPA, at five-year intervals to: (i) publish a list of previously unregulated contaminants that are candidates for regulation; (ii) publish a list of unregulated contaminants that should be monitored by public water systems; and (iii) determine whether at least five unregulated contaminants should be regulated. EPA's regulatory determinations must be based on three factors: the contaminants' frequency and level of occurrence in public water systems; adverse health effects; and meaningful opportunity for health risk reduction. The Act requires each new contaminant to be regulated within 51 months of EPA's determination to regulate it. And, every six years, EPA must review and, if appropriate, revise every National Primary Drinking Water Regulation.

In the two decades since Congress established this process, EPA has been perpetually behind schedule in all phases. Since 1996, EPA has published only one final determination to regulate a new contaminant (perchlorate), but has not yet proposed or promulgated perchlorate regulations. The agency has made only one other preliminary positive regulatory determination (for strontium) but has not finalized that determination. EPA has missed many other deadlines and is presently in violation of a number of mandatory requirements under the primary drinking water regulation program. With health crises caused by contaminants in tap water in numerous communities on the minds of many Americans – for example, lead in Flint, Michigan, microcystin in Toledo, Ohio, and perfluorooctanoic acid (“PFOA”) in Hoosick Falls, New York – EPA's extensive delays with respect to regulating drinking water put the public at unnecessary risk.

³ “Primary” drinking water regulations are intended to protect public health. “Secondary” drinking water regulations pertain to the odor and appearance of drinking water. SDWA § 1401(1), (2); 42 U.S.C. § 300f(1), (2).

⁴ Congressional Research Service, *Safe Drinking Water Act (SDWA): A Summary of the Act and Its Major Requirements*, 7-5700, RL31243 (Feb. 5, 2014) (“CRS Report”) at 4.

⁵ CRS Report at 2. *See also* H.R. Rep. No. 104-632, pt. 1, at 7-8 (1996), *as reprinted in* 1996 U.S.C.C.A.N. 1366, 1370-71.

⁶ CRS Report at 2. *See also* S. Rep. No. 99-56, at 5 (1985), *as reprinted in* 1986 U.S.C.C.A.N. 1566, 1568.

⁷ H.R. Rep. 104-632, pt. 1, at 9, 1996 U.S.C.C.A.N. at 1372.

I.

**The Safe Drinking Water Act's National
Primary Drinking Water Regulation Program**

The Safe Drinking Water Act requires EPA to undertake a multi-step process for promulgating and revising drinking water regulations. EPA's actions during each step of the process are subject to mandatory statutory deadlines, many of which are tied to the date of enactment of the Safe Drinking Water Act amendments of 1996, which was August 6, 1996 (the "Enactment Date").⁸

1. Contaminant Candidate Lists ("CCLs"). The first step is to identify unregulated contaminants as candidates for regulation. The Act requires EPA to publish, every five years, a list of contaminants which are not subject to National Primary Drinking Water Regulations, but which are known or anticipated to occur in public water systems and which may require regulation.⁹ In choosing which contaminants to list, EPA must select contaminants that "present the greatest public health concern," taking into account factors including the contaminant's effects on subpopulations such as infants, children, pregnant women and the elderly.¹⁰ EPA has a statutory obligation to publish these lists, which EPA refers to as "Contaminant Candidate Lists" ("CCLs"), not later than 18 months after the Enactment Date and every five years thereafter.¹¹ Thus, the first CCL was due by February 6, 1998, the second CCL was due by February 6, 2003, the third CCL was due by February 6, 2008, and the fourth CCL was due by February 6, 2013.

Unfortunately, EPA missed the first of these deadlines by approximately one month and missed the second and third deadlines by more than 24 and 20 months, respectively. EPA published the first three CCLs on March 2, 1998 (CCL 1),¹² February 24, 2005 (CCL 2),¹³ and October 8, 2009 (CCL 3).¹⁴ Although EPA issued notice of a draft CCL 4 for public comment on February 4, 2015,¹⁵ the agency has not yet published a final CCL 4. Thus, EPA is currently in violation of its mandatory duty to publish, by February 6, 2013, a fourth list of unregulated contaminants for consideration. EPA is more than three-and-a-half years (and counting) past the

⁸ The Safe Drinking Water Act Amendments of 1996, Pub. L. No. 104-182, Aug. 6, 1996. *See, e.g.*, SDWA § 1412(b)(1)(B)(ii)(I); 42 U.S.C. § 300g-1(b)(1)(B)(ii)(I) ("Not later than the date of enactment . . .").

⁹ SDWA § 1412(b)(1)(B)(i); 42 U.S.C. § 300g-1(b)(1)(B)(i).

¹⁰ SDWA § 1412(b)(1)(C); 42 U.S.C. § 300g-1(b)(1)(C).

¹¹ SDWA § 1412(b)(1)(B)(i)(I); 42 U.S.C. § 300g-1(b)(1)(B)(i)(I).

¹² 63 Fed. Reg. 10,274 (Mar. 2, 1998).

¹³ 70 Fed. Reg. 9071 (Feb. 24, 1995). In CCL 2, EPA did not add any new contaminants for consideration, but merely carried forward the remaining 51 contaminants from CCL 1 that had not yet undergone a regulatory determination. *Id.*

¹⁴ 74 Fed. Reg. 51,850 (Oct. 8, 2009).

¹⁵ 80 Fed. Reg. 6076 (Feb. 4, 2015).

statutory deadline. Waterkeeper is hereby giving notice of its intent to sue to compel performance of this non-discretionary duty.

2. Unregulated Contaminant Monitoring Rules (“UMCRs”). The next step in the sequence is to select unregulated contaminants to be monitored by public water systems and included in a contaminant database. The Act requires EPA to issue, every five years, a list of not more than 30 unregulated contaminants that must be monitored by public systems and added to the national drinking water occurrence data base (also known as the National Contaminant Occurrence Database (“NCOD”).¹⁶ EPA has a statutory obligation to publish these lists, which EPA refers to as the “Unregulated Contaminant Monitoring Rules” (“UCMR”), not later than three years after the Enactment Date and every five years thereafter.¹⁷ Thus, the first UCMR was due by August 6, 1999, the second by August 6, 2004, the third by August 6, 2009, and the fourth by August 6, 2014.

EPA has also been perpetually behind schedule in issuing UCMRs. EPA published the first list on September 17, 1999 (UCMR 1),¹⁸ the second on January 4, 2007 (UCMR 2),¹⁹ and the third on May 2, 2012 (UCMR 3).²⁰ These publications were approximately one month, 29 months, and 33 months late. Although EPA issued notice of a draft UCMR 4 for public comment on December 11, 2015,²¹ the agency has not yet published a final UCMR 4. Thus, EPA is currently in violation of its mandatory duty to issue, by August 6, 2014, a fourth list of unregulated contaminants to be monitored. EPA is currently more than 26 months (and counting) past the statutory deadline. Waterkeeper is hereby giving notice of its intent to sue to compel performance of this non-discretionary duty.

3. Regulatory Determinations. The next step in the sequence is to determine which contaminants to regulate. The Act requires EPA to make determinations, every five years, whether or not to regulate previously unregulated contaminants.²² These determinations must be based on three criteria: (i) the contaminant’s adverse health effects; (ii) the contaminant’s occurrence in public water systems; and (iii) whether regulation of such contaminant presents a meaningful opportunity for health risk reduction.²³ EPA has a statutory obligation to make final regulatory determinations with respect to at least five contaminants published on the Candidate Contaminant List (CCL) not later than five years after the Enactment Date and every five years

¹⁶ SDWA §§ 1445(a)(2)(B)(i), 1445(g); 42 U.S.C. §§ 300j-4(a)(2)(B)(i), 300j-4(g).

¹⁷ *Id.* EPA refers to the UCMRs as “rules” rather than “lists” because they impose monitoring obligations on public water systems.

¹⁸ 64 Fed. Reg. 50,556 (Sept. 17, 1999).

¹⁹ 72 Fed. Reg. 368 (Jan. 4, 2007).

²⁰ 77 Fed. Reg. 26,072 (May 2, 2012).

²¹ 80 Fed. Reg. 76,897 (Dec. 11, 2015).

²² SDWA § 1412(b)(1)(B)(ii)(I); 42 U.S.C. § 300g-1(b)(1)(B)(ii)(I).

²³ SDWA § 1412(b)(1)(B)(ii)(II); 42 U.S.C. § 300g-1(b)(1)(B)(ii)(II).

thereafter.²⁴ Thus, the first final regulatory determination was due by August 6, 2001, the second was due by August 6, 2006, the third was due by August 6, 2011, and the fourth was due by August 6, 2016.

EPA has also missed the deadlines for regulatory determinations. EPA published its first two final regulatory determinations on July 18, 2003²⁵ and July 30, 2008,²⁶ which were approximately 23 and 36 months late, respectively. Although EPA identified 20 contaminants from CCL 1 and CCL 2 for which the agency had sufficient data and information to make regulatory determinations, EPA determined not to regulate any of them.²⁷ (As discussed below, EPA later reconsidered its decision not to regulate perchlorate.) On October 20, 2014, EPA published notice of its preliminary third regulatory determination for public comment.²⁸ In that preliminary determination EPA considered five contaminants and determined to regulate one contaminant – strontium – based on EPA’s finding that strontium meets the three statutory criteria for regulation.²⁹ On January 4, 2016, EPA published a *partial* final regulatory determination in which the agency finally determined not to regulate the other four contaminants it considered.³⁰ However, EPA stated in its Federal Register notice that the agency “is *delaying* the final regulatory determination on strontium in order to consider additional data”³¹ Thus, EPA has not completed its third final regulatory determination, with respect to strontium, more than 62 months (and counting) after the August 6, 2011 deadline. Further, EPA has not published a fourth final regulatory determination, which was due no later than August 6, 2016. EPA is currently in violation of these two mandatory deadlines and Waterkeeper Alliance is hereby giving notice of its intent to sue to compel performance of these non-discretionary duties.

4. National Primary Drinking Water Regulations. The next step is to actually regulate the contaminants that EPA has determined to regulate. If EPA finds that the three criteria are met (health effects, occurrence and meaningful health reduction), then EPA *must* publish a Maximum Contaminant Level Goal and promulgate, by rule, a National Primary Drinking Water Regulation for that contaminant.³² The Maximum Contaminant Level Goal is to be set at a level at which no known or anticipated adverse health effects occur with an adequate margin of safety.³³ The National Primary Drinking Water Regulation must then specify an

²⁴ SDWA § 1412(b)(1)(B)(ii)(I); 42 U.S.C. § 300g-1(b)(1)(B)(ii)(I). Using the same three criteria, EPA may also determine to regulate contaminants that do not appear on a CCL. SDWA § 1412(b)(1)(B)(ii)(III); 42 U.S.C. § 300g-1(b)(1)(B)(ii)(III).

²⁵ 68 Fed. Reg. 42,898 (July 18, 2003).

²⁶ 73 Fed. Reg. 44,251 (July 30, 2008).

²⁷ *Id.* at 44,251-52.

²⁸ 79 Fed. Reg. 62,715 (Oct. 20, 2014).

²⁹ *Id.* at 62,737-39.

³⁰ 81 Fed. Reg. 13 (Jan. 4, 2016).

³¹ *Id.* (emphasis added).

³² SDWA § 1412(b)(1)(E); 42 U.S.C. § 300g-1(b)(1)(E).

³³ SDWA § 1412(b)(4)(A); 42 U.S.C. § 300g-1(b)(4)(A).

enforceable Maximum Contaminant Level that is as close to Maximum Contaminant Level Goal as feasible.³⁴ EPA's statutory obligations are to propose the goal and regulation not later than 24 months after its final determination to regulate and to publish the goal and promulgate the regulation within 18 months after the proposal.³⁵

In the two decades since the 1996 amendments to the Act, EPA has made a final determination to regulate only one contaminant, perchlorate. After first determining in 2008 not to regulate perchlorate, EPA reconsidered that decision and determined on February 11, 2011, that all three statutory criteria were met.³⁶ That triggered a mandatory duty for EPA to propose perchlorate regulations by February 11, 2013, and to finalize those regulations by August 11, 2014, with a possible extension to May 11, 2015. EPA missed those deadlines and was sued in federal court by the Natural Resources Defense Council.³⁷ On October 18, 2016, the court entered a consent decree requiring EPA to propose and promulgate the required perchlorate regulations by specific dates agreed to by the parties and found by the court to be in the public interest.³⁸

5. Review and Revision of Regulations. The final step is to review and revise the existing regulations. The Act requires EPA, every six years, to review and revise, as appropriate, each National Primary Drinking Water Regulation.³⁹ Each revision must maintain or provide for greater protection of public health than the existing regulation.⁴⁰ EPA's statutory obligation is to perform this review and potential revision "not less often than every 6 years."⁴¹

On July 18, 2003, EPA completed its first "Six-Year Review" (Six-Year Review 1), in which the agency determined that it was appropriate to revise only one of the 69 National Primary Drinking Water Regulations it reviewed – the Total Coliform Rule.⁴² The approach EPA followed in Six-Year Review 1 was to publish the results of its review and its proposed (or "preliminary") decision on which regulations, if any, "should be revised"⁴³ and then, after considering public comment, to announce the "completion" of its six-year review and its final

³⁴ SDWA § 1412(b)(4)(B); 42 U.S.C. § 300g-1(b)(4)(B).

³⁵ SDWA § 1412(b)(1)(E); 42 U.S.C. § 300g-1(b)(1)(E). The statute allows a nine-month extension for the promulgation, if EPA gives notice of the extension in the Federal Register. *Id.*

³⁶ 76 Fed. Reg. 7762 (Feb. 11, 2011).

³⁷ *Natural Resources Defense Council v. United States Environmental Protection Agency, et al.*, 16-cv-1251 (ER) (S.D.N.Y.).

³⁸ Consent Decree, ECF No. 38 in 16-cv-1251 (ER).

³⁹ SDWA § 1412(b)(9); 42 U.S.C. § 300g-1(b)(9).

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² 68 Fed. Reg. 42,907 (July 18, 2003).

⁴³ 67 Fed. Reg. 19,029, 19,030 (Apr. 17, 2002) (notice of proposed results and comment period) ("the Agency preliminarily believes that the 68 chemical [National Primary Drinking Water Regulations] remain appropriate at this time, and that the [Total Coliform Rule] should be revised").

decision on the appropriateness of revision.⁴⁴ It took EPA nearly 10 years after its final decision for EPA to actually revise the Total Coliform Rule, which it did on February 13, 2013.⁴⁵

a. Failure to revise existing regulations for acrylamide, epichlorohydrin, tetrachloroethylene, and trichloroethylene.

On March 10, 2010, EPA released the results of its Six-Year Review 2.⁴⁶ In that second review, EPA changed its approach. Instead of publishing a preliminary determination as to which regulations should be revised, taking public comment, and then finalizing the decision (as EPA had done in the first cycle), the agency announced the completion of its second review, published the results, noted which regulations are “are candidates for regulatory revision,” and accepted public comment.⁴⁷ In particular, EPA stated that four of 71 existing regulations – those for acrylamide, epichlorohydrin, tetrachloroethylene, and trichloroethylene – are candidates for regulatory revision.⁴⁸ Under the heading “Next Steps,” EPA stated:

The announcement that the Agency *intends to revise an NPDWR* (pursuant to SDWA section 1412(b)(9)) is not a regulatory decision. Instead, it initiates a regulatory process that will involve more detailed analyses of health effects, analytical and treatment feasibility, occurrence, benefits, costs, and other regulatory matters relevant to deciding whether an NPDWR should be revised. *The Six-Year Review results do not obligate the Agency to revise an NPDWR in the event that EPA determines during the regulatory process that revisions are no longer appropriate. . . .*⁴⁹

To date, EPA remains vague as to its intentions for these “candidates” for revision. EPA’s online fact sheets for tetrachloroethylene and trichloroethylene state that during Six-Year Review 2 EPA “determined that it is appropriate to revise the regulation[s].”⁵⁰ In contrast, the fact sheet for acrylamide states merely that EPA “determined that it is a candidate for regulatory revision,” and the fact sheet for epichlorohydrin states lacks any reference to the results of the Six-Year Review 2 for this contaminant.⁵¹

⁴⁴ 68 Fed. Reg. at 42,909 (notice of final completion of review) (“Based on the Agency’s preliminary review, as well as the public comments received and other new information, EPA believes that it is appropriate to revise the Total Coliform Rule (TCR).”)

⁴⁵ 78 Fed. Reg. 10,269 (Feb. 13, 2013), corrected by 79 Fed. Reg. 10,665 (Feb. 26, 2014).

⁴⁶ 75 Fed. Reg. 15,499 (Mar. 29, 2010).

⁴⁷ *Id.* at 15,500.

⁴⁸ *Id.* at 15,500.

⁴⁹ *Id.* at 15,568-69 (emphasis added).

⁵⁰ <https://safewater.zendesk.com/hc/en-us/articles/212075597-4-What-are-EPA-s-drinking-water-regulations-for-tetrachloroethylene-> and <https://safewater.zendesk.com/hc/en-us/articles/212075407-4-What-are-EPA-s-drinking-water-regulations-for-trichloroethylene-> (last visited Oct. 27, 2016).

⁵¹ <https://safewater.zendesk.com/hc/en-us/articles/211403878-4-What-are-EPA-s-drinking-water-regulations-for-acrylamide-> and <https://safewater.zendesk.com/hc/en-us/articles/212076677-4-What-are-EPA-s-drinking-water-regulations-for-epichlorohydrin-> (last visited Oct. 27, 2016).

Significantly, EPA never published a final decision following public comment on Six-Year Review 2. And, more than six years after announcing the results of Six-Year Review 2, EPA has never revised the National Primary Drinking Water Regulations for acrylamide, epichlorohydrin, tetrachloroethylene, or trichloroethylene, which remain the same today as when first promulgated. This violates the Safe Drinking Water Act for one or more reasons. First, to the extent that EPA has not completed its second six-year review, which was required by July 18, 2009 at the latest (*i.e.*, no more than six years after EPA published the final completion of Six-Year Review 1), then EPA is still in violation of that mandatory deadline to review the existing regulations. Second, if EPA has completed its second round of review, then the agency has failed to revise the regulations for acrylamide, epichlorohydrin, tetrachloroethylene, and trichloroethylene within the Act's statutory deadline. The Act states that "The Administrator shall, not less than often than every 6 years, review and revise, as appropriate, each national primary drinking water regulation."⁵² This plainly requires EPA to review each and every existing NPDWR in every six-year period and also to revise the regulations that are appropriate for revision within that same six-year period.⁵³

b. Failure to complete Six-Year Review 3.

In addition, the third six-year review was due not later than July 18, 2015, which date is six years after the deadline for Six-Year Review 2, which is itself six years after EPA published the results of Six-Year Review 1.⁵⁴ EPA has not yet published its third six-year review, more than fifteen months after the statutory deadline.⁵⁵

c. Failure to complete review and revision of existing chromium regulation in light of carcinogenicity of hexavalent chromium.

EPA is also behind schedule in completing its review and revision of the National Primary Drinking Water Regulation for chromium. Hexavalent chromium, also known as

⁵² SDWA § 1412(b)(9); 42 U.S.C. § 300g-1(b)(9) (emphasis added).

⁵³ Were EPA to take the position, contrary to the statute's plain language, that the 6-year deadline applies only to *review* and not to *revision*, then, under that interpretation, the deadline for revision could be no longer than 51 months after EPA determines that a regulation should be revised. That is because the very next sentence of the statutory provision at issue states: "Any revision of a national primary drinking water regulation shall be promulgated in accordance with this section [*i.e.*, Section 300g-1]. . . ." SDWA § 1412(b)(9); 42 U.S.C. § 300g-1(b)(9), which provides in subsection (b)(i)(E) that regulations must be promulgated within 51 months of the determination to regulate – *i.e.*, 24 months for proposal, 18 months for promulgation, with a possible 9-month extension, SDWA § 1412(b)(1)(E); 42 U.S.C. § 300g-1(b)(1)(E). Under that interpretation, EPA was required to promulgate revised regulations for acrylamide, epichlorohydrin, tetrachloroethylene, or trichloroethylene by June 10, 2014, at the latest.

⁵⁴ If the first six-year review was due six years from the Enactment Date, then the deadlines for the second and third six-year reviews would be August 6, 2008, and August 6, 2014, respectively, roughly eleven months earlier than July 18, 2009, and July 18, 2015. By either measure, the third six-year review is well overdue.

⁵⁵ On its website, EPA states: "Six-Year Review 3 is underway and expected to be completed in 2016." <https://www.epa.gov/dwsixyearreview> (last visited Oct. 27, 2016). If EPA completes that task or any other overdue non-discretionary duty in the manner required by the statute, during the 60-day notice period, then litigation will be unnecessary with respect to the violation in question.

chromium-6, is a highly toxic form of chromium best known for its role in the movie *Erin Brockovich* and the contamination of Hinkley, California's drinking water. The current Maximum Contaminant Level for total chromium is 100 parts per billion.⁵⁶ That limit was established in 1991 based on the belief that chromium-6 could result in allergic dermatitis (skin reactions) but was not carcinogenic.⁵⁷ In 1998 EPA revised its risk assessment for chromium in light of studies of potential developmental and reproductive toxicity.⁵⁸ The U.S. Department of Health and Services' National Toxicology Program ("NTP") then agreed to study the chronic toxicity and carcinogenicity of chromium-6 after oral exposure. In 2002, when releasing the preliminary results of Six-Year Review 1, EPA stated that the "results of the health effects review support consideration of whether it may be appropriate to revise the [regulation] for chromium."⁵⁹ But EPA stated that it would await completion of National Toxicology Program study before deciding whether the chromium regulation should be revised. EPA stated:

the Agency believes that a decision to revise the chromium NPDWR at this time is premature in light of the ongoing NTP studies on the toxicology and carcinogenicity of hexavalent chromium. . . . Because the NTP studies will not be available in time for the final revise/not revise decision, EPA is placing chromium in the "not revise–data gap" category. When completed, the NTP results will be considered either in the next review round or sooner, if the Agency deems it appropriate.⁶⁰

The National Toxicity Program completed its animal study in July 2008 and concluded that chromium-6, which "has already been shown to cause cancer when inhaled in the air," causes oral cancers in rats and cancer of the small intestine in mice when ingested in drinking water.⁶¹ Based in part on the NTP study, the State of California established a maximum contaminant level of 10 parts per billion for hexavalent chromium, which is 10 times lower than the federal standard.⁶²

As a result of the NTP study, EPA changed its classification of hexavalent chromium from Group D (not classifiable as to human carcinogenicity by the oral route of exposure) to Group B (probable human carcinogen) study and stated that the hexavalent chromium data on

⁵⁶ 40 C.F.R. § 141.62(b). EPA has explained that "Chromium-6 and chromium-3 are covered under the total chromium drinking water standard because these forms of chromium can convert back and forth in water and in the human body, depending on environmental conditions." <https://www.epa.gov/dwstandardsregulations/chromium-drinking-water> (last visited Oct. 27, 2016).

⁵⁷ <https://www.epa.gov/dwstandardsregulations/chromium-drinking-water> (last visited Oct. 27, 2016).

⁵⁸ 67 Fed. Reg. at 19,057-58.

⁵⁹ *Id.* at 19,058.

⁶⁰ *Id.* at 19,060; *see also* 68 Fed. Reg. at 42,918 (EPA noted that NTP study "should be available before the end of the next Six-Year Review cycle").

⁶¹ National Toxicology Program, *Technical Report on the Toxicology and Carcinogenesis Studies of Sodium Dichromate Dihydrate* (Cas No. 7789-12-0) (Drinking Water Studies) (July 2008) at 5.

⁶² 22 Cal. Code Regs. § 64431.

cancer “could have an effect” on the Maximum Contaminant Level Goal.”⁶³ However, in its Six-Year Review 2, in 2010, while recognizing that the 2008 NTP study “found clear evidence of carcinogenic activity” in animals and noting that analyses of human exposure to hexavalent chromium “further support a statistically significant increase in stomach cancer,” EPA did not determine whether to revise the National Primary Drinking Water Regulation for chromium, stating that “[a] reassessment of the health risks associated with chromium exposure is being initiated and the Agency does not believe it is appropriate to revise the NPDWR while that effort is in process.”⁶⁴ Six years after that, EPA continues to state on its website:

EPA is now reviewing data from a 2008 long-term animal study by the Department of Health and Human Service’s National Toxicology Program, which suggested that chromium-6 may be a human carcinogen if ingested. When the review is completed, EPA will consider this and other information to determine whether the drinking water standard for total chromium needs to be revised.⁶⁵

Accordingly, more than 25 years after EPA set the current federal limits on chromium in drinking water, more than 14 years after recognizing in Six-Year Review 1 that revisions to that regulation “may be appropriate,” and more than six years after recognizing in Six-Year Review 2 that hexavalent chromium is a “probable human carcinogen,” EPA is well behind schedule in determining that the chromium regulation is appropriate for revision and for actually revising the enforceable chromium significantly downward. The oft-expressed intention of Congress throughout the Act was to ensure timely regulation of chemicals that pose a threat to human health. It is inconceivable that, in mandating that EPA “shall, not less than often than every 6 years, review and revise, as appropriate, each national primary drinking water regulation,”⁶⁶ Congress intended to afford EPA such an lengthy period of time – more than two six-year review cycles (and counting) – to decide whether to revise a drinking water regulation for a probable human carcinogen. EPA has thus failed to carry out its mandatory duty to review and revise existing regulations, has acted in a manner plainly inconsistent with the statute’s text and congressional intent, and has unreasonably delayed in its implementation of the Act.

⁶³ EPA, Six-Year Review 2 Health Effects Assessment: Summary Report, Office of Water (4304T) EPA 822-R-09-006, October 2009, at 23.

⁶⁴ 75 Fed. Reg. at 15,530.

⁶⁵ <https://www.epa.gov/dwstandardsregulations/chromium-drinking-water> (last visited Oct. 27, 2016).

⁶⁶ SDWA § 1412(b)(9); 42 U.S.C. § 300g-1(b)(9).

II.

EPA Has Failed to Perform At Least Ten Non-Discretionary Duties

As discussed in more detail above, EPA has failed to perform duties that are mandated by the Safe Drinking Water Act and not discretionary with the Administrator. The current violations of mandatory duty addressed in this letter can be summarized as follows:

1. **CCL 4 is overdue**: EPA has failed to publish, by February 6, 2013, the fourth list of contaminants that are not subject to any proposed or promulgated National Primary Drinking Water Regulation but are known or anticipated to occur in public water systems and may require regulation under the Act, as required by section 1412(b)(1)(B)(i)(I) of the Act.
2. **UCMR 4 is overdue**: EPA has failed to publish, by August 6, 2014, the fourth list of unregulated contaminants to be monitored by public water systems and included on in the national drinking water occurrence data base, as required by section 1445(a)(2)(B)(i) of the Act.
3. **The regulatory determination for strontium is overdue**: EPA has failed to determine, by August 6, 2011, whether or not to regulate five or more contaminants published on the CCL, as required by section 1412(b)(1)(B)(ii)(I) of the Act because a final regulatory determination for strontium has not been made.
4. **The fourth regulatory determination is overdue**: EPA has failed to determine, by August 6, 2016, whether or not to regulate five or more contaminants published on the CCL, as required by section 1412(b)(1)(B)(ii)(I) of the Act.
- 5-8. **Revision of the existing regulations for acrylamide, epichlorohydrin, tetrachloroethylene, and trichloroethylene are overdue**: EPA has failed to review and revise, by July 18, 2009, each National Primary Drinking Water Regulation (*i.e.*, Six-Year Review 2) as required by section 1412(b)(9) of the Act because four contaminants – acrylamide, epichlorohydrin, tetrachloroethylene, and trichloroethylene – remain “candidates for regulatory revision” more than seven years after the statutory deadline for review and revision.
9. **Six-Year Review 3 is overdue**: EPA has failed to review and revise, by July 18, 2015, each National Primary Drinking Water Regulation (*i.e.*, Six-Year Review 3) as required by section 1412(b)(9) of the Act.
10. **Review and revision of the existing chromium regulation is overdue**: EPA has failed to complete its review and revision of the National Primary Drinking Water Regulation for chromium as required by section 1412(b)(9) of the Act.

Waterkeeper Alliance intends to file suit to compel performance of these continuing duties.

III.

EPA's Failures to Regulate Contaminants in Drinking Water Poses Serious Public Health Risks

Each of the contaminants discussed above poses a threat to the safety of drinking water and to the health of persons who drink it. By failing to regulate those contaminants in a timely manner, EPA puts public health and safety at risk.

Strontium is a naturally occurring element that adversely affects human health by substituting for calcium in a variety of biological processes, particularly in bones, affecting skeletal development, making it a particular concern for infants, children, and adolescents.⁶⁷ Strontium exists in both stable isotopes and radioactive isotopes, including strontium-90, a legacy from above-ground testing of the atomic bomb. EPA's determination as to whether to regulate strontium is concerned "primarily" with the stable isotope strontium-88, which represents 83% of total environmental strontium.⁶⁸ Strontium can be released into drinking water from several sources. For example, strontium has been mined and used in commercial products⁶⁹ and is found in coal and released in the burning of coal.⁷⁰ Scientists have analyzed strontium concentrations in groundwater as indicators of whether nearby coal ash ponds are leaking.⁷¹ Strontium may also be released from shale during hydraulic fracturing and thereby contaminate drinking water.⁷²

Trichloroethylene, also known as "TCE," is a clear liquid commonly used as an industrial solvent. Tetrachloroethylene, also known as perchloroethylene, "PERC" or "PCE," is a colorless liquid widely used for dry cleaning of fabrics. Both chemicals are "probable human carcinogen[s]."⁷³ Because of their carcinogenicity, more than twenty-five years ago, in 1987 and 1991, respectively, EPA set the Maximum Contaminant Level Goal ("MCLG") – *i.e.*, the goal based only on human health considerations – at zero for both chemicals.⁷⁴ At that time, EPA established the Maximum Contaminant Level ("MCL") – *i.e.*, the enforceable limit – for both chemicals at 5 parts per billion, based on "analytical feasibility," meaning that lower quantities

⁶⁷ 79 Fed. Reg. at 62,737.

⁶⁸ 79 Fed. Reg. at 62,736.

⁶⁹ *Id.*

⁷⁰ Agency for Toxic Substances and Disease Registry, Division of Toxicology ToxFAQs, Strontium, CAS #7440-24-6 at 1; American Water Works Association, *The Potential Regulatory Implications of Strontium*, March 2014 ("AWWA Report") at 8. Concentrations of strontium in air can vary greatly nearby coal-burning plants. *Id.*

⁷¹ Ruhl, L., Dwyer, G., Hsu-Kim, H., Hower, J., and Vengosh, A. (2014) "Boron and Strontium Isotopic Characterization of Coal Combustion Residuals: Validations of New Environmental Tracers," *Environmental Science & Technology*, Dec. 16, 2014; Harkness, J., Sulkin, B., Vengosh, A. (2016) "Evidence for coal ash ponds leaking in the southeastern United States," *Environmental Science & Technology*, 50, (12), 6583-6592.

⁷² See comments of Connection for Oil, Gas and Environment in the Northern Tier, Inc. on EPA's preliminary third regulatory determination, Dec. 5, 2014.

⁷³ 75 Fed. Reg. at 15,557, 15,564.

⁷⁴ *Id.*

could not be detected using then-available technology.⁷⁵ However, in 2010, in its Six-Year Review 2, EPA determined that it is appropriate to revise the MCLs for trichloroethylene and tetrachloroethylene because “analytical feasibility could be as much as 10 times lower [~0.5 parts per billion] and occurrence at this level appears to be relatively widespread.”⁷⁶ But, more than six years later, EPA has not even proposed a revised regulation for either chemical, thereby leaving the 1987 and 1991 enforceable limits on the books at levels that are perhaps ten times higher than they should be.

Acrylamide is a chemical compound used in the treatment of municipal and industrial effluent. Epichlorohydrin is a colorless liquid with a pungent, garlic-like odor found in the discharge from industrial chemical factories and as an impurity of some water treatment chemicals. Both are probable human carcinogens with a health-based MCLG (goal) of zero based on their cancer classification.⁷⁷ In 1991, EPA established a regulatory “Treatment Technique” requirement limiting the allowable levels of acrylamide and epichlorohydrin used in drinking water systems.⁷⁸ However, in the 2010 Six-Year Review 2, EPA found that it was appropriate to revise the regulations for both chemicals because data indicate that improved treatment technologies are “widely available.”⁷⁹ But, more than six years later, EPA has not even proposed a revised regulation for acrylamide or epichlorohydrin, thereby leaving the outdated, 1991 treatment requirements on the books.

As discussed above, hexavalent chromium is a probable human carcinogen that EPA regulated based on the outdated (1991) assumption that it causes only skin irritation. A recent analysis of federal data from nationwide drinking water tests showed that hexavalent chromium contaminates water supplies for more than 218 million Americans in all 50 states.⁸⁰ Seven million people receive tap water with levels of hexavalent chromium that are higher than the 10 parts per billion limit established by California.⁸¹ EPA’s outdated limit is ten times higher than California’s enforceable limit and 500 times higher than California’s public health goal of 0.2 parts per billion.⁸²

As a result of EPA’s delays, millions of Americans are being needlessly exposed to dangerously high levels of cancer-causing or otherwise harmful contaminants in their tap water. EPA also exposes the public to additional health risks by not even identifying other harmful unregulated contaminants that should be regulated and/or monitored and not reviewing existing

⁷⁵ *Id.*

⁷⁶ *Id.* at 15,558, 15,565.

⁷⁷ *Id.* at 15,520, 15,543.

⁷⁸ 40 C.F.R. § 141.111; *see also* 56 Fed. Reg. 3526, 3528 (Jan. 30, 1991).

⁷⁹ 75 Fed. Reg. at 15,520, 15,543.

⁸⁰ Environmental Working Group, “*Erin Brockovich*” *Carcinogen in Tap Water of More than 200 Million Americans* (Sept. 20, 2016) (available at <http://www.ewg.org/research/chromium-six-found-in-us-tap-water>) (last visited Oct. 27, 2016).

⁸¹ *Id.*

⁸² *Id.* Scientists in New Jersey and North Carolina have calculated a public health goal of 0.6 parts per billion. *Id.*

Notice of Intent to File Suit
November 2, 2016
Page 14 of 14

drinking water regulations in the timely manner required by Congress. Waterkeeper Alliance's members are among the members of the public harmed by EPA's continuing failure to fulfill its statutory obligations.

IV.

Conclusion

Pursuant to section 1449 of the Act, Waterkeeper Alliance intends to file suit to compel performance of the nondiscretionary duties described above. Waterkeeper Alliance will seek declaratory relief, injunctive relief, litigation costs, and other appropriate relief from the Court.

The full name, address, and telephone number of the person giving notice is:

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Please do not hesitate to contact us if you would like to discuss this matter.

Very truly yours,



Reed W. Super

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