



September 12, 2013

Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W. Mail Code: 1101A  
Washington, D.C. 20460

Dear Administrator McCarthy,

Congratulations once again on your confirmation as Administrator of the U.S. Environmental Protection Agency ("EPA"). I am writing to you today to express our deep concern about, and request your immediate attention to EPA's decision to terminate its investigations into alleged drinking water contamination related to natural gas development involving hydraulic fracturing in Parker County, Texas; Pavillion, Wyoming; and Dimock, Pennsylvania. The public is losing confidence in EPA's dedication to protecting drinking water from the risks of fracking and, with your new leadership at EPA, it is an appropriate time to review EPA's past decisions, consider the information that has come to light since those decisions, and re-open these investigations.

EPA's actions in these three cases point to a troubling trend of abandoning investigations of hydraulic fracturing before they are completed, and risking the loss of invaluable information. These three cases have become high-profile precisely because of the extraordinary public attention to the potential risks to drinking water posed by rapidly expanding hydraulic fracturing nationwide.

In each of these cases, state agencies ignored citizen complaints, and the public was heartened when EPA became involved to provide important federal scientific analysis. When EPA abruptly withdrew from each, the public lost confidence that EPA was truly dedicated to investigating the risks of hydraulic fracturing and ensuring full enforcement of federal environmental statutes. These unexplained withdrawals from the three high-profile investigations also raise questions about the agency's commitment to conducting an impartial, comprehensive assessment of the risks fracking presents to drinking water in its Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources[1] – a study now in its fourth year and the final date of which was recently delayed another two years.

To provide the residents of Parker County, Pavillion and Dimock with the full and reliable information and assistance they deserve – and to restore public confidence in EPA’s study of and enforcement actions relating to the contamination of groundwater by hydraulic fracturing – I respectfully request that you conduct an inquiry and provide a full public explanation as to EPA’s actions related to these investigations. I further request that you reaffirm EPA’s commitment to thoroughly investigating these and any other potentially informative cases concerning alleged hydraulic fracturing-related drinking water contamination.

I and my NRDC colleagues who have been closely involved in following these issues would welcome the opportunity to meet with you to discuss them in further detail.

Sincerely,

A handwritten signature in black ink that reads "Frances Beinecke". The signature is written in a cursive, slightly slanted style.

Frances Beinecke



NATURAL RESOURCES DEFENSE COUNCIL

February 27, 2013

Bob Perciasepe  
Acting Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Mail Code: 1101A  
Washington, D.C. 20460

Dear Acting Administrator Perciasepe:

In 2010, the Environmental Protection Agency (EPA) issued an emergency administrative order (“Emergency Order”) under the Safe Drinking Water Act (SDWA) regarding underground drinking water source contamination in Parker County, Texas.<sup>1</sup> Although the EPA withdrew the Emergency Order in 2012, the Natural Resources Defense Council is alarmed by reports that underground sources of drinking water in Parker County, Texas appear to remain contaminated and may still pose imminent and substantial endangerment to the health of persons, 42 U.S.C. § 300i, even as the EPA Inspector General investigates the matter.

EPA has an obligation to enforce the Safe Drinking Water Act, and the authority and duty to step back in where there is evidence that the domestic water from an underground drinking water source may pose imminent and substantial endangerment to human health and the relevant state agency has not sufficiently addressed the potential endangerment. To do anything less would risk the confidence of communities nationwide that are faced with oil and gas production operations within residential areas and near sources of drinking water. Communities must know that EPA will take action to thoroughly investigate and protect them from harms inflicted by the oil and gas industry.

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<sup>1</sup> Range Resources Corporation, Safe Drinking Water Act Docket No. SDWA 06-2011-1208, (EPA Region VI Dec. 7, 2010) (Emergency Administrative Order), [http://www.epa.gov/region6/6xa/pdf/range\\_order.pdf](http://www.epa.gov/region6/6xa/pdf/range_order.pdf).

## Background

On December 7, 2010, EPA issued the Emergency Order<sup>2</sup> to Range Resources and Range Production (collectively “Range”) on the grounds that: 1) water samples demonstrated the presence of methane, benzene, toluene, ethane, propane, and hexane in two domestic water wells fed by an underground source of drinking water; 2) these contaminants pose a variety of risks to the health of persons and may present imminent and substantial endangerment to human health; 3) the isotopic fingerprint analysis of methane obtained on October 26, 2010 from local domestic wells and Range’s gas wells (Butler and Teal) indicated that gases from the water and the gas wells are “likely to be from the same source”<sup>3</sup>; and 4) the state agency with jurisdiction over such matters—the Texas Railroad Commission (RRC)—had not taken sufficient action to address the endangerment or had no intention to take such action at the time.<sup>4</sup>

EPA’s Emergency Order (paragraph 50) required Range to:

- provide replacement potable water supplies for the consumers of water from the domestic wells in question;
- install EPA-approved explosivity meters in affected dwellings;
- submit to EPA a survey that lists and identifies the location of all private water wells within 3,000 feet of the Butler wellbore track and 3,000 feet of the Teal wellbore track, as well as all of the Lake Country Acres public water supply system wells for sampling;
- conduct soil gas surveys and indoor air concentration analyses of the properties and dwellings;
- submit a plan for EPA approval identifying gas flow pathways to the Trinity Aquifer, eliminating gas flow to the aquifer if possible, and remediating impacted areas of the aquifer.<sup>5</sup>

RRC stepped in to the matter and held hearings on January 19 and 20, 2011.<sup>6</sup> On March 22, 2011, RRC issued a Final Order on the matter, finding that Range’s wells have not caused or contributed and are not causing or contributing to contamination of any domestic water wells.<sup>7</sup> EPA withdrew its Emergency Order on March 29, 2012.

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<sup>2</sup> *Id.*

<sup>3</sup> *Id.* ¶ 25.

<sup>4</sup> Safe Drinking Water Act, 42 U.S.C. § 300(i)(a).

<sup>5</sup> Emergency Order ¶ 50.

<sup>6</sup> Range Production Company Domestic Well Water Contamination, Oil & Gas Docket No. 7B-0268629, (Railroad Comm’n of Tex. Mar. 22, 2011), <http://www.rrc.state.tx.us/meetings/ogpfd/7B-68629-commcalled-epa.pdf>.

<sup>7</sup> *Id.* Fingerprinting testimony presented by Range at the RRC hearing is conclusory and inconclusive. It does not demonstrate that Range’s activities did not cause or contribute to the contamination of the Lipsky well. See Range Production Company Domestic Well Water Contamination, Oil & Gas Docket No. 7B-0268629, (Railroad Comm’n of Tex.), <http://www.rrc.state.tx.us/meetings/ogpfd/7B-68629RangePFD-03-11-11-commcalledepa.pdf>.

## Addressing endangerment

The RRC ignored EPA's prescriptions for addressing the endangerment:

- 1) EPA had ordered soil gas surveys and indoor air concentration analyses of the properties and dwellings. These were not mentioned in the RRC's Final Order or its appendices.
- 2) EPA had ordered a plan identifying gas flow pathways to the Trinity Aquifer, eliminating gas flow to the aquifer if possible, and remediating impacted areas of the aquifer. The RRC Final Order and appendices do not mention any such plan.
- 3) EPA had ordered provision of replacement of potable water supplies for the domestic well consumers. There is no mention of this in the RRC Final Order and appendices. Further, a recent Associated Press (AP) article reports that one of the domestic water consumers, Mr. Steven Lipsky, pays \$1,000 per month for water service, where previously he was able to use the domestic well as his family's water source.<sup>8</sup>
- 4) EPA had ordered the installation of EPA-approved explosivity meters. The Final Order and Appendices make no mention of these. The AP story states that the Lipsky home has a methane detector, but does not state whether it is EPA-approved nor who paid for it.
- 5) EPA's Order had required Range to submit to EPA a survey listing and identifying the location description of all private water wells within 3,000 feet of the Butler wellbore track and 3,000 feet of the Teal wellbore track and all of the Lake Country Acres public water supply system wells for sampling. The AP reported that Range has not shared its data with EPA or RRC. RRC's Statement of the Case presents some data<sup>9</sup> identifying private wells, and data about those wells, which are stated to have come from Range. However, the data do not appear to be comprehensive.

Of the five requirements EPA had established that would sufficiently address the endangerment, there is no evidence that any of them have been fully complied with. In a December 2011 e-mail, EPA Region 6 Director of Compliance Assurance and Enforcement wrote: "I do think we have a technical duty to verify that soil gas in and around some of the homes is not a human health problem. A well designed and implemented soil gas survey can address this issue. Remediation of any 'found' problems

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<sup>8</sup> Ramit Plushnick-Masti, EPA backed off Weatherford Water Contamination Probe After Gas Drilling Company Protested, Associated Press January 16, 2013, available at <http://www.dallasnews.com/news/state/headlines/20130116-epa-backed-off-weatherford-water-contamination-probe-after-gas-drilling-company-protested.ece>.

<sup>9</sup> Range Production Company Domestic Well Water Contamination, Oil & Gas Docket No. 7B-0268629, (Railroad Comm'n of Tex. Mar. 22, 2011), <http://www.rrc.state.tx.us/meetings/ogpfd/7B-68629RangePFD-03-11-11-commcalledepa.pdf>.

is straight forward.”<sup>10</sup> Yet there is no evidence this has happened, or that either RRC or Range acted to address the imminent and substantial endangerment to human health before or after EPA withdrew its Emergency Order.

### Current concerns

On January 16, 2013, the Associated Press (AP) reported that it had obtained a confidential report demonstrating that EPA had scientific evidence against Range, but changed course after the company threatened not to cooperate with a national study on hydraulic fracturing.<sup>11</sup> The AP also reported that interviews with Range representatives confirmed this information. A copy of what appears to be the confidential report referred to in the AP article, written by an independent scientist reviewing the case, concluded that Range’s Butler well was “the most likely source of methane” in the domestic water wells, and that the carbon and hydrogen isotopic values of the Range gas wells match the values in the domestic water wells.<sup>12</sup> Testimony from Range’s expert, Mark McCaffrey, is reported to concede “that the gas sample the EPA collected from Lipsky well was so similar to Range’s that it was all but impossible to separate them.”<sup>13</sup>

We have also learned from another recent news report that RRC found that the Butler well had pressure on the bradenhead, which according to the article, “is an indication that formations behind uncemented production casing are seeping fluid into the space behind the production casing.”<sup>14</sup> Additionally, testimony and depositions by former RRC employee Thomas Richter and his current supervisor Wayman Gore, Jr., both petroleum engineers and consultants, indicate their determination that Range’s activities were the only logical explanation for the Lipsky domestic water well contamination.<sup>15</sup>

On February 22, 2013, Energywire reported that an internal EPA e-mail stated RRC thought it should not “act until the flow pathway has been determined, but they [RRC] have no plans to figure out what the flow pathway is.”<sup>16</sup>

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<sup>10</sup> E-mail from John Blevins to Al Armendariz, December 22, 2011, 6:30 am CST, available at: [http://www.eenews.net/assets/2013/02/05/document\\_ew\\_04.pdf](http://www.eenews.net/assets/2013/02/05/document_ew_04.pdf).

<sup>11</sup> Ramit Plushnick-Masti, EPA backed off Weatherford Water contamination probe after gas drilling company protested, Associated Press, January 16, 2013, available at <http://www.dallasnews.com/news/state/headlines/20130116-epa-backed-off-weatherford-water-contamination-probe-after-gas-drilling-company-protested.ece>.

<sup>12</sup> Report on domestic water wells, pages 1-8. There is no cover page for the report labeled “Thyne study commissioned by EPA” and available at: <http://www.earthworksaction.org/files/pubs-others/Thyne-EPA-Range-water-contamination.PDF>.

<sup>13</sup> Brantley Hargrove, How One Man’s Flaming Water Fired Up A Battle Between Texas And The EPA, Dallas Observer, Apr. 26, 2012, <http://www.dallasobserver.com/2012-04-26/news/fire-in-the-hole/full/>.

<sup>14</sup> Mike Soraghan, EPA Officials Ignored Engineer’s Theory in Range Contamination Case, Energywire, February 20, 2013, <http://www.eenews.net/ew/2013/2/20>.

<sup>15</sup> Richter Dep. 116:17-117:20, Nov. 9, 2011, [http://www.eenews.net/assets/2013/02/20/document\\_ew\\_01.pdf](http://www.eenews.net/assets/2013/02/20/document_ew_01.pdf) and Gore Dep. 127:2-127:8, Nov. 16, 2011, [http://www.eenews.net/assets/2013/02/19/document\\_ew\\_04.pdf](http://www.eenews.net/assets/2013/02/19/document_ew_04.pdf).

<sup>16</sup> Mike Soraghan, EPA Hit Range After Official Said Texas Leaders Are Too Cozy With Drillers, Energywire, February 22, 2013, <http://www.eenews.net/ew/2013/2/22> and E-mail from Cynthia Giles, U.S. EPA Assistant Administrator, to Al Armendariz, U.S. EPA Region 6 Administrator (Dec. 4, 2010), [http://www.eenews.net/assets/2013/02/21/document\\_ew\\_01.pdf](http://www.eenews.net/assets/2013/02/21/document_ew_01.pdf).

In summary, there remain reported conditions that may cause imminent and substantial endangerment to the health of persons in Parker County, Texas. Existing evidence from EPA records and scientific analysis from technical experts supports the hypothesis that oil and gas operations may be responsible for such reported conditions. EPA has the responsibility (notwithstanding the recently announced Inspector General investigation) to take immediate action to ensure that the domestic water in the first two identified wells and in any other wells in the area that may depend upon the same drinking water source does not pose imminent and substantial endangerment to human health. EPA should also ensure that all data collected by EPA, Range, subsequent owners or operators of the Butler and Teal wells, or other wells in the area, or RRC are available to the public to review in a transparent fashion, just as EPA has done in the investigation of drinking water contamination in Pavillion, Wyoming.

Americans across the country are watching this case and EPA's actions to protect drinking water from the risks of oil and gas production operations, including hydraulic fracturing. The fact remains that the health of families in Parker County may be at risk from their domestic drinking water wells. While EPA may have discretion to withdraw its Emergency Order against Range, EPA also has the obligation to enforce the SDWA and the authority and responsibility to step back in where there is evidence that the domestic water still poses imminent and substantial endangerment to human health. We call on EPA to re-open this case and take the next essential steps to ensure that drinking water in Parker County and throughout the country is protected from the harmful consequences of fracking.

Sincerely,

Amy Mall  
Senior Policy Analyst

cc: Nancy Stoner, Acting Assistant Administrator for Water  
Ron Curry, Administrator, Region 6



July 16, 2013

Bob Perciascepe  
Acting Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Mail Code: 1101A  
Washington, D.C. 20460

Dear Acting Administrator Perciascepe:

We are writing today to ask you to reverse the decision recently announced by the Environmental Protection Agency (EPA) not to finalize or seek peer review for the Draft Investigation of Ground Water Contamination Near Pavillion, Wyoming.<sup>i</sup>

Science plays a vital role in the EPA's mission. The EPA's decision to drop its investigation of water contamination in Pavillion, WY, and the lack of transparency about the reasons for this decision, raise troubling questions about the EPA's current approach to scientific standards and independent scientific research. The press release announcing the suspension of the investigation created confusion with the seemingly contradictory statements that "EPA stands behind its work and data..." but yet, "the agency [does not] plan to rely upon the conclusions in the draft report."<sup>ii</sup> This confusion has led to wide speculation about the basis of this decision.<sup>iii</sup>

Standards of scientific integrity demand that the EPA publicly clarify the decision-making process that led it to suspend work on this draft report. The EPA's recent actions regarding this report seem to be in direct conflict with aspects of its own Scientific Integrity Policy, in particular those policies related to transparency.<sup>iv</sup> Given that the EPA stands behind the work done in the study, it must provide justification for its decision not to rely upon the conclusions of its own scientists.

As you know, the EPA is currently in the process of conducting the first ever comprehensive study of the potential impacts of hydraulic fracturing on drinking water. The EPA's decision not to finalize its investigation in Pavillion, WY seems at odds with the goals of this study, as do its decisions last year to back off its water contamination investigation in Parker County, TX,<sup>v</sup> and to cease investigation of water contamination in Dimock, PA<sup>vi</sup>. The EPA's decision to drop these investigations creates a worrying pattern in the EPA's scientific work on hydraulic fracturing.

In a 2012 op-ed defending the Pavillion study, then-Regional Administrator Jim Martin wrote, "The residents deserve answers to their questions, and EPA will continue to use the best scientific process to determine the facts."<sup>vii</sup> This statement is no less true today, and the EPA must follow through on that



promise. The people of Pavillion, WY and the American public must have confidence that the EPA can fulfill its mission, which includes ensuring that “all Americans are protected from significant risks to human health and the environment where they live, learn and work,” and that “national efforts to reduce environmental risk are based on the best available scientific information.”<sup>viii</sup> With this goal in mind, we respectfully request that the EPA reverse its decision and move forward with work to finalize and peer review the Pavillion study.

Sincerely,



Briana Mordick  
Staff Scientist  
Natural Resources Defense Council

Cc: Glenn Paulson, Ph.D, Science Advisor to the EPA Administrator  
Shaun McGrath, EPA Regional Administrator for Region 8

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<sup>i</sup> US Environmental Protection Agency. (2011, December). *Draft Investigation of Ground Water Contamination near Pavillion, Wyoming*.

<sup>ii</sup> US Environmental Protection Agency, Region 8. (20 June 2013). Wyoming to Lead Further Investigation of Water Quality Concerns Outside of Pavillion with Support of EPA [Press release]. Retrieved from <http://yosemite.epa.gov/opa/admpress.nsf/20ed1dfa1751192c8525735900400c30/dc7dcd471dcfe1785257b90007377bf!OpenDocument>

<sup>iii</sup> See, e.g. American Petroleum Institute. (20 June 2013). EPA acknowledges Pavillion study deficiencies [Press Release]. Retrieved from <http://www.api.org/news-and-media/news/newsitems/2013/june-2013/epa-acknowledges-pavillion-study-deficiencies>

“The EPA’s retreat.” Editorial. Oil & Gas Journal (1 July 2013) Retrieved from <http://www.ogj.com/articles/print/volume-111/issue-7/regular-features/editorial/the-epa-s-retreat.html>

<sup>iv</sup> US Environmental Protection Agency. (2012). *U.S. Environmental Protection Agency Scientific Integrity Policy*. Retrieved from [http://www.epa.gov/osa/pdfs/epa\\_scientific\\_integrity\\_policy\\_20120115.pdf](http://www.epa.gov/osa/pdfs/epa_scientific_integrity_policy_20120115.pdf)

<sup>v</sup> See, e.g. Soraghan, Mike. (12 February 2013). Fracking study helped drive Range case to dismissal. E&E News Energywire. Retrieved from <http://www.eenews.net/energywire/stories/1059976285> (subscription required)

<sup>vi</sup> US Environmental Protection Agency. (25 July 2012). EPA Completes Drinking Water Sampling in Dimock, Pa. [Press release]. Retrieved from <http://yosemite.epa.gov/opa/admpress.nsf/0/1A6E49D193E1007585257A46005B61AD>

<sup>vii</sup> Martin, Jim. “Finding answers for Pavillion residents.” Editorial. Casper Star-Tribune (22 January 2012) Retrieved from [http://trib.com/opinion/columns/finding-answers-for-pavillion-residents/article\\_2d4e5b10-4399-5e45-9f5e-ee75d8949de8.html](http://trib.com/opinion/columns/finding-answers-for-pavillion-residents/article_2d4e5b10-4399-5e45-9f5e-ee75d8949de8.html)

<sup>viii</sup> “Our Mission.” US Environmental Protection Agency. US EPA, n.d. Web. 1 July 2013.



## MEMORANDUM

To: EPA Administrator Gina McCarthy  
From: Natural Resources Defense Council  
Date: September 12, 2013  
Re: Investigation into Alleged Drinking Water Contamination Associated with Hydraulic Fracturing in Dimock, Pennsylvania

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This memorandum addresses the apparent decision by the Environmental Protection Agency (“EPA”) to abandon its investigation of alleged drinking water contamination in Dimock, Pennsylvania, and lays out the case for EPA to reengage in that investigation.

### Introduction

On January 19, 2012, based upon its concern for the potential significant health hazards posed by drinking and bathing with contaminated groundwater, EPA authorized an emergency removal action to conduct water testing in Dimock and provide delivered supplies of clean drinking water to a number of affected families.<sup>1</sup> The stated “goal” of the action “was to provide the Dimock community with complete and reliable information about the presence of contaminants in their drinking water and to determine whether further action was warranted to protect public health.”<sup>2</sup>

Although EPA officially terminated its investigation and deliveries of fresh water in July 2012 after finding that the results of its water testing did not “give EPA reason to take further action,” a recently revealed presentation by an EPA On Scene Coordinator assigned to the Dimock case (“EPA Presentation”) appears to come to the opposite conclusion. Indeed, the presentation—which summarizes testing results for nine Dimock residential water wells—concludes that methane released during drilling “and perhaps

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<sup>1</sup> EPA, *Action Memorandum – Request for Funding for a Removal Action at the Dimock Residential Groundwater Site, Intersection of PA Routes 29 & 2024 Dimock Township, Susquehanna County, Pennsylvania* (Jan. 19, 2012) [hereinafter “EPA Action Memo”] available at <http://www.epaosc.org/sites/7555/files/Dimock%20Action%20Memo%2001-19-12.PDF>.

<sup>2</sup> EPA, *EPA Completes Drinking Water Sampling in Dimock, Pa* (Jul. 25, 2012) available at: <http://yosemite.epa.gov/opa/admpress.nsf/0/1A6E49D193E1007585257A46005B61AD>.



during the fracking process” resulted in “significant,” and possibly long-term, “damage to the water quality” of Dimock water wells.<sup>3</sup>

In light of this new information, EPA’s stated commitment to providing full and reliable information to Dimock residents, and the agency’s mission to ensure all Americans are protected from significant risks to human health and the environment, we urge EPA to reopen its investigation to determine the source and extent of the water contamination in Dimock and to provide emergency relief to Dimock residents as necessary.

### The Contamination of Dimock Residential Drinking Water

Since the Pennsylvania Department of Environmental Protection (“DEP”) began water quality testing in Dimock shortly after the explosion of a local residential water well on January 1, 2009, the evidence has been unequivocal that Cabot wells have polluted Dimock groundwater.<sup>4</sup> In late 2010, DEP determined that faulty drilling, casing, and cementing practices at Cabot Oil and Gas Corporation (“Cabot”) well sites were responsible for “gas migration that ha[d] caused [19 Dimock] families to be without a permanent water supply for nearly 2 years.”<sup>5</sup> And results from Cabot, DEP, and EPA water quality testing over the course of the last 4 years have consistently shown a number of Dimock water supplies as having dangerously high levels of methane—well above levels at which the gas would be at risk of volatilization and explosion.<sup>6</sup> To this day, methane migration from Cabot wells continues to be a problem in Dimock as evidenced by a DEP announcement last month that Cabot will plug its Costello 1 well after the closure of a departmental investigation into its possible role in contaminating two Dimock water supplies.<sup>7</sup>

The contamination of Dimock water also extends beyond methane. In December of 2011, in response to a request from EPA Region 3, the Agency for Toxic Substances and Disease Registry (“ATSDR”) conducted an evaluation of available Dimock residential water well data for 18 properties, finding elevated levels of ethylene glycol, bis(2-ethylhexyl) phthalate, 2-methoxyethanol, aluminum, arsenic, lithium, manganese,

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<sup>3</sup> EPA, *Isotech – Stable Isotope Analysis: Determining the origin of methane and its effect on the aquifer* (undated) [hereinafter “EPA Presentation”] available at <http://desmogblog.com/sites/beta.desmogblog.com/files/Dimock%20report.pdf>.

<sup>4</sup> See Open Letter from Secretary John Hangar to the Residents of Dimock (Oct. 19, 2010) [hereinafter “DEP Open Letter”] available at <http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=14827&typeid=1>.

<sup>5</sup> *Id.*

<sup>6</sup> See EPA Presentation.

<sup>7</sup> Laura Legere, *DEP: Cabot to plug well involved in methane investigation*, *thetimes-tribune.com* (July 13, 2013) available at <http://thetimes-tribune.com/news/dep-cabot-to-plug-well-involved-in-methane-investigation-1.1519972>.



sodium, and iron.<sup>8</sup> In response to the “possible chronic public health threat based on prolonged use of the water from at least some of [the] wells,” ATSDR began a public health consultation regarding Dimock water quality, the results of which are still forthcoming. EPA echoed these concerns in its January 19, 2012 Action Memorandum, stating that arsenic, barium, Bis(2-ethylhexyl) phthalate, glycol compounds, manganese, phenol, and sodium—all found present in Dimock water—“could cause adverse health impacts when chronic exposure through drinking water or other uses of water in the home occurs.”<sup>9</sup> For the four homes which already “contain[ed] contaminants at levels that present a public health concern,” the memorandum recommended immediate provision of alternative water, which EPA subsequently supplied.

Results from EPA testing conducted in early 2012 confirm this contamination of Dimock groundwater. EPA’s validated results show exceedances of primary and secondary maximum contaminant levels for arsenic, lead, barium, iron, and manganese as well as detection of benzo(a)pyrene at its maximum contaminant level.<sup>10</sup> The results also demonstrate exceedances of EPA trigger levels for numerous compounds of concern, such as arsenic, chromium, fluoride, lithium, methane, and sodium. With respect to methane, EPA tests found astounding levels of the explosive gas at some Dimock homes—as high as 77mg/L, or nearly three times its saturation point in water.

#### Dimock Residents Still Lack Answers or Effective Remedial Action by Regulators

Despite close to five years of investigation and involvement by both state and federal regulators, many of the Dimock residents who have experienced significant contamination of their water supplies—such as those residences identified in the EPA Presentation—still remain without definitive answers as to its cause or a reliably clean and potable source of water.

In October of 2010, in response to the “overwhelming evidence” that Cabot gas wells had contaminated local water, DEP promised to construct a 5.5 mile fresh water pipeline to supply Dimock families with uncontaminated drinking water from a neighboring community.<sup>11</sup> Yet less than two months later, DEP rescinded that promise, substituting instead an agreement with Cabot by which the driller would provide individual methane removal systems along with a financial award to each affected family. Because DEP never found Cabot liable for pollution of Dimock groundwater by contaminants other than methane, the systems were not designed to treat the full range of contamination found in local water. Furthermore, where installed, Dimock residents report that the water treatment systems are ineffective even at treating for methane.

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<sup>8</sup> ATSDR, *Record of Activity/Technical Assist for Dimock, Pennsylvania* (Dec. 28, 2011) available at <http://www2.epa.gov/sites/production/files/documents/dimock-atsdr.pdf>.

<sup>9</sup> EPA Action Memo.

<sup>10</sup> EPA, *EPA Validated Data Summary Report: Dimock Residential Sampling* (Spring 2012). To the best of our knowledge, EPA no longer provides the summary report of the Dimock validated results online.

<sup>11</sup> DEP Open Letter.



Because of DEP's record of undependable enforcement of state and delegated federal environmental laws, and in response to the its decision to allow Cabot to terminate delivery of fresh water to Dimock residents in late 2011, NRDC, on behalf of Dimock residents, requested that EPA intervene to conduct its own investigation of the Dimock situation.<sup>12</sup> The agency began testing Dimock water wells a month later, but failed to provide Dimock residents with comprehensible and meaningful analysis of the subsequent results.

Although EPA's investigation of Dimock groundwater ultimately produced reams of raw scientific data—totaling thousands of pages—the final analysis of that data is contained in a sparse one-page news release simultaneously announcing the end of the investigation. This press release contains a number of important omissions. First, it fails to mention the presence of extraordinarily high methane levels in Dimock water or their likely cause. Second, it discusses only contaminants found in excess of federal drinking water standards, without discussion of other contaminants that may present a risk to human health and/or the potability of a water supply, such as sodium (one of the contaminants of concern mentioned in the EPA Action Memorandum) or other harmful organic or anthropogenic contaminants associated with gas drilling that have not yet been assigned a federally recognized standard. Third, it omits mention of the ongoing investigation by ATSDR as to the potential health hazards of long term exposure to Dimock water. And fourth, it neglects to “show its work” as to how EPA concluded that available treatment systems would treat the hazardous levels of arsenic, barium, and manganese the agency found in Dimock water in excess of safe drinking water standards.

Collectively, these omissions represent a failure of EPA's promise to provide Dimock residents with vital information regarding the health and safety consequences of using their water and, coupled with the agency's decision to take no further action in Dimock, misled the public. As a result, it was widely reported in the mainstream press that EPA had found Dimock groundwater “safe” to drink,<sup>13</sup> even though many Dimock residents remained with water that was visibly dirty and/or flammable.

#### The Need for Further Investigation and Remedial Action by EPA in Dimock

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<sup>12</sup> Letter from Kate Sinding and Dan Raichel to Region 3 Administrator, Shawn Garvin (Jan. 10, 2012); Letter from Kate Sinding and Dan Raichel to Region 3 Administrator, Shawn Garvin (Jan. 13, 2012) [hereinafter “NRDC SDWA Letter”]. Both letters are attached at Attachment A to this letter.

<sup>13</sup> See e.g. Michael Winter, *EPA declares water in Pa. 'fracking' village safe to drink*, USA Today (Jul. 25, 2012) available at

<http://content.usatoday.com/communities/ondeadline/post/2012/07/epa-declares-pa-fracking-village-water-safe-to-drink/1#.UgziHpKKLOt>; Andrew Maykuth, *EPA: No cause for health concern in Dimock's water*, Philly.com (Apr. 6, 2012) [http://articles.philly.com/2012-04-06/business/31300424\\_1\\_gas-drilling-roy-seneca-epa](http://articles.philly.com/2012-04-06/business/31300424_1_gas-drilling-roy-seneca-epa).



The recently released EPA Presentation provides the type of substantiated and concise analysis as to the cause and extent of water contamination in Dimock that is glaringly absent from EPA's official statements about the investigation. Although the agency has dismissed the presentation as "preliminary evaluation" by one employee "that requires additional assessment in order to ascertain its quality and validity,"<sup>14</sup> its release now puts the onus on EPA to disclose that assessment and the basis for its ultimate conclusions regarding the safety and potability of Dimock water. To the extent that such analysis is either incomplete or non-existent, the potential health harms faced by Dimock residents and the long and tortured path they have endured in attempts to obtain reliable and comprehensible information about their water demand that EPA reopen its investigation and provide emergency relief where appropriate.<sup>15</sup>

### Concerns about EPA Withdrawing from Oil and Gas Related Investigations and Enforcement Nationwide

EPA's actions with regard to the drinking water contamination in Dimock is part of a troubling trend at the agency. EPA has also withdrawn from other important investigations of water contamination incidents related to oil and gas operations using hydraulic fracturing in places where EPA originally stepped in because state regulators were not responding to citizen complaints.

This trend began in March, 2012 when EPA abruptly withdrew an emergency order it had issued against Range Resources Corporation ("Range") after finding the company's natural gas production operations had likely caused methane and chemical contamination of Parker County, Texas drinking water.<sup>16</sup> NRDC's February 27, 2013 letter to EPA, asking the agency to reopen this case, provides extensive details regarding the lack of state action to address drinking water contamination despite the evidence and scientific analysis available to the agency.<sup>17</sup> While the order required Range to provide families with alternative water supplies, install explosivity meters in homes, and remediate the aquifer, there is no evidence the company ever fully complied with these, or other,

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<sup>14</sup> <http://www.latimes.com/news/nationworld/nation/la-na-epa-dimock-20130728,0,4847442.story>.

<sup>15</sup> As discussed in NRDC's Jan. 13, 2012 letter to EPA Region 3, in addition to its authority under Comprehensive Environmental Response, Compensation, and Recovery Act ("CERCLA"), EPA has authority under the federal Safe Drinking Water Act to take emergency action where the contamination of an underground water supply *may* present an imminent and substantial endangerment to human health. *See* NRDC SDWA Letter at Attachment A. Although EPA's original emergency removal action was authorized under the agency's CERCLA authority, in the event that EPA renews its investigation and involvement in Dimock, it should do so pursuant to its authority under both statutes.

<sup>16</sup> EPA, *Emergency Administrative Order in the Matter of: Range Resources Corporation and Range Resources Production Company* (Dec. 7, 2010) available at [http://www.epa.gov/region6/6xa/pdf/range\\_complaint\\_exhibit\\_a\\_01182011.pdf](http://www.epa.gov/region6/6xa/pdf/range_complaint_exhibit_a_01182011.pdf).

<sup>17</sup> Letter from Amy Mall to Acting EPA Administrator, Bob Perciasepe (Feb. 27, 2013). This letter is attached as Attachment B to this letter.



requirements of the order, and reports indicate the water there remains contaminated and a health threat.

EPA continued this trend in late June, 2013, when it made an equally abrupt and unexplained announcement that it was abandoning another investigation in Pavillion, Wyoming, where it had already preliminarily concluded that hydraulically fractured wells had contaminated local groundwater. Despite the fact that state regulatory inaction had been the basis for EPA's involvement in Pavillion, and the years that the agency has invested in preparing its report and collecting extensive scientific data, EPA provided no meaningful explanation as to why it will now entrust responsibility for preparation of a final report to the Wyoming Department of Environmental Quality. Accordingly, NRDC has similarly called upon EPA to reopen its investigation in Pavillion.<sup>18</sup>

These three cases have become very high profile because of the extraordinary public attention to the risks to drinking water posed by hydraulic fracturing and related activities. In each of these cases, state agencies ignored citizen complaints, and the public was heartened when EPA became involved to provide scientific analysis. Now, the public is losing confidence that EPA is truly dedicated to investigating the true risks of hydraulic fracturing and ensuring full enforcement of federal environmental statutes. These unexplained withdrawals from the three highest-profile federal investigations into the potential link between hydraulic fracturing and water contamination have further implications, raising public concerns about the agency's commitment to conducting an impartial, comprehensive assessment of the risks fracking presents to drinking water in its Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources<sup>19</sup>—a study now in its fourth year and the final date of which was recently delayed another two years.

### Conclusion

In sum, in order to provide the residents of Dimock with the full and reliable information and assistance they deserve, and to restore public confidence in EPA's study of and enforcement actions relating to the contamination of groundwater by hydraulic fracturing, we respectfully request that EPA reopen its investigation in Dimock and provide any emergency relief as necessary.

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<sup>18</sup> LETTER REFERENCE

<sup>19</sup> EPA, *Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources* (Nov. 2011) available at [http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/hf\\_study\\_plan\\_110211\\_final\\_508.pdf](http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/hf_study_plan_110211_final_508.pdf).