Administrator Gina McCarthy U.S. Environmental Protection Agency 1200 Pennsylvania Ave. NW. Washington, DC 20460

## Re the EPA Science Advisory Board review of EPA's June 2015 Draft Assessment of the Impacts on Drinking Water Resources from Hydraulic Fracturing for Oil and Natural Gas

Dear Administrator McCarthy,

One year ago, many of us wrote to you to express our serious concerns over the agency's June 2015 draft study of impacts on drinking water resources from hydraulic fracturing, or fracking. Since then, our concerns about the draft study have been reiterated, expounded and amplified by the EPA's independent Science Advisory Board (SAB).

We are writing you now to urge you to act quickly on the recommendations from the SAB. We also wish to make certain our concerns are clear. As with the SAB, our concerns begin with the draft study's problematic and scientifically unsupported top finding.

Briefly, the executive summary of the draft study stated: "We did not find evidence that these mechanisms have led to widespread, systemic impacts on drinking water resources in the United States." Here, the "mechanisms" include "water withdrawals in times of, or in areas with, low water availability; spills of hydraulic fracturing fluids and produced water; fracturing directly into underground drinking water resources; below ground migration of liquids and gases; and inadequate treatment and discharge of wastewater."

The EPA's corresponding news release made the top finding more definitive, and therefore even further mischaracterized the conclusions of the study, reading: "Assessment shows hydraulic fracturing activities have not led to widespread, systemic impacts to drinking water resources and identifies important vulnerabilities to drinking water resources."

News media quickly relayed this wholly inaccurate statement about the findings of the 1000-page study, much to the delight of the oil and gas industry and much to the satisfaction of the large financial interests invested in continued drilling and fracking for decades, to maximize U.S. oil and gas production.

But the EPA's choice to run with the "widespread, systemic" line, without providing a scientific basis for that line, has proven controversial. After more than a year of careful review, the SAB has now issued its final peer-review report on the EPA's June 2015 draft assessment. It includes a clear rebuke of the agency on the controversial line: "The SAB concludes that if the EPA retains this conclusion, the EPA should provide quantitative analysis that supports its conclusion that hydraulic fracturing has not led to widespread, systemic impacts on drinking water resources."

That is, the SAB has instructed the agency to either drop the language it used for its top finding, or "provide quantitative analysis that supports" the statement.

We believe that the EPA owes it to the public to revisit its statements of findings, consistent with the SAB recommendations, and resolve the three major problems with the controversial line.

First, the EPA did not provide a sense of what the agency would have considered "widespread, systemic impacts on drinking water resources in the United States." In a departure from the agency's past uses of the word "widespread," the EPA only defined "widespread, systemic impacts" implicitly; i.e., as a threshold beyond current levels of damage. There is no discussion of whether "widespread, systemic" is an appropriate threshold.

Second, the "widespread, systemic" line is problematic because it presumes, without discussion, that looking on a national scale, over several years, provides an appropriate metric for evaluating the significance of known impacts. The SAB has asked EPA to place more emphasis on the significance of local impacts. Moreover, the EPA failed to consider impacts that residents of heavily targeted counties and states can expect over the coming decades, given financial and policy commitments to continued drilling and fracking, toward maximizing oil and gas production.

Third, the "widespread, systemic" line is problematic because the EPA failed to explain adequately the impediments to arriving at quantitative estimates for the frequencies and severities of the impacts already occurring. The agency should use the instances of contamination it has documented in the draft assessment to fully explain all sources of data gaps and uncertainties, as well as outline steps that could be taken to fill these gaps and reduce the uncertainties.

By dismissing fracking's impacts on drinking water resources as not "widespread, systemic," the EPA seriously misrepresented the findings of its underlying study. This has done the public a disservice. We feel the agency now owes it to the public — and particularly to those already impacted by "hydraulic fracturing activities" — to address the above three criticisms.

Further, the SAB has also recognized the agency's failure to include information on three high-profile cases of contamination. We support the following statement from the SAB on these cases:

The SAB recommends that the EPA should include and fully explain the status, data on potential releases, and findings if available for the EPA and state investigations conducted in Dimock, Pennsylvania; Pavillion, Wyoming; and Parker County, Texas where many members of the public have stated that hydraulic fracturing activities have caused local impacts to drinking water resources.

We urge you to act quickly on these and other recommendations in the SAB's report, and we look forward to the agency finalizing an assessment of fracking's impacts on drinking water resources.

We expect, given the SAB's firm recommendations, that the agency's final assessment will be clear about where thorough scientific analysis ends and any political considerations begin.

Signed,

Food & Water Watch ~ Alaska Wilderness League ~ Alliance of Nurses for Healthy Environments ~ Breast Cancer Action ~ Center for Biological Diversity ~ Clean Water

Action ~ Earth Action ~ Earthjustice ~ Earthworks ~ EcoFlight ~ Emerge USA ~ Environment America ~ Environmental Action ~ Food Empowerment Project ~ Friends of the Earth ~ Great Old Broads for Wilderness ~ Greenpeace ~ Honor the Earth ~ Indigenous Environmental Network ~ Intertribal Territories Recovery ~ League of Conservation Voters ~ Natural Resources Defense Council ~ Oil Change International ~ People Demanding Action ~ Physicians for Social Responsibility ~ Popular Resistance ~ Rainforest Action Network ~ Sierra Club ~ Union of Concerned Scientists ~ United Native Americans ~ Waterkeeper Alliance ~ WildEarth Guardians ~ 350.org ~ Cook Inletkeeper ~ Prince William Soundkeeper ~ Justice Action Mobilization Network ~ Los Padres ForestWatch ~ Marin Water Coalition ~ Protect Monterey County ~ Rootskeeper ~ Santa Cruz Climate Action Network ~ 350 Santa Cruz ~ 350 Silicon Valley ~ Association of Irritated ~ Residents ~ Californians for Western Wilderness ~ Courage Campaign ~ Frack Free LA County ~ Frack Free Culver City ~ Fresnans against Fracking ~ SLO CLEAN WATER ~ Sunflower Alliance ~ Women Donors Network ~ COCRN ~ Frack Free Colorado ~ 350 Fort Collins ~ Colorado People's Alliance ~ Community for sustainable energy ~ North Metro Neighbors for Safe Energy ~ Our Health, Our Future, Our Longmont ~ Colorado Interfaith Power and Light ~ CT Citizen Action Group- CCAG ~ Dynage ~ Friends Committee on National Legislation ~ 350 CT ~ ACOTE: Advisory Commission on the Environment for Hartford, CT ~ East CT Green Action ~ Green Council of Eastern Connecticut ~ Human Race ~ New Haven Leon SCP ~ Occupy Danbury ~ PACE-CT People Action for Clean Energy CT ~ Sierra Club-CT Chapter ~ Town of Windham Energy Commission ~ Damascus Citizens for Sustainability ~ 350JAX ~ Aquamarine Studio ~ Democratic Women's Club of Bay County, FL ~ Florida Clean Water Network ~ Floridians Against Fracking, FL Federation of Garden Clubs ~ Hernando County Democratic Club ~ Loxahatchee Group of the Sierra Club ~ Nature Coast Conservation, Inc. ~ Save the Manatee Club ~ Sierra Club-Loxahatchee Group ~ South Florida Wildlands Association ~ Tampa Bay Climate Action Network ~ Unitarian Universalist Church in the Pines ~ Denker Law Office and Waters without Borders ~ GreenLaw ~ Savannah Riverkeeper ~ Kootenai Environmental Alliance ~ Sierra Club Member ~ Atchafalaya Basinkeeper ~ Bold Louisiana ~ 350 Louisiana ~ GASPP (Grassroots Against Another Salem Power Plant) ~ Springfield Climate Justice Coalition ~ Assateague Coastal Trust/Assateague Coastkeeper ~ Chesapeake Sustainable Business Council ~ Center for a Competitive Waste Industry ~ Community-Vision Partners ~ Howard County Climate Change (name changing shortly to Howard County Climate Action) ~ 350 Central Mass ~ Arise for Social Justice ~ Climate Action Now, Massachusetts ~ Partnership for Policy Integrity ~ Chesapeake Earth First! ~ Chesapeake Physicians for Social Responsibility ~ Citizen Shale ~ Don't Frack Western Maryland ~ Husky Power Dogsledding ~ Mountain MD Kennels, LLC ~ Myersville Citizens for a Rural Community ~ We Are Cove Point ~ Concerned Citizens of Cheboygan and Emmet County ~ Progressive Democrats of America ~ TC350 ~ We Want Green Too ~ Great Lakes Bioneers Detroit ~ Manistee Water Guardians ~ Michigan Citizens for Water Conservation ~ Michigan Land Air and Water Defense ~ Porter Family Foundation ~ Sierra Club Michigan Chapter ~ SEED: Stopping Extraction

and Exports Destruction ~ ADK Mothers Out Front ~ Citizens for Fair Rates and the Environment ~ Honor Our Pueblo Existence (HOPE) ~ NC WARN ~ Sisters of Mercy West Midwest Community ~ Already Devalued and Devastated Homeowners of Parsippany ~ Franciscan Response to Fracking ~ Head Start Program ~ Northjersey Pipeline Walkers ~ Raritan Riverkeeper ~ St. Mary's Parish ~ Sustainable West Milford ~ Dooda (NO) Desert Rock ~ Earth Care ~ Interfaith Worker Justice - New Mexico ~ New Energy Economy ~ Securing Economic and Energy Democracy for SW NM ~ Tewa Women United ~ Audubon New Mexico ~ Global Warming Express ~ Northern New Mexico Group, Rio Grande Chapter, Sierra Club ~ 350NYC ~ Catskill Mountainkeeper ~ Citizen Action of New York ~ Citizens For Water ~ Concerned Citizens of Allegany County Inc. ~ Concerned Residents of Oxford ~ Environmental Task Force of the WNY Peace Center ~ Frack Action ~ Frack Free Catskills ~ Grassroots Environmental Education ~ Mothers Out Front - Southern Tier ~ New York Society for Ethcal Culture ~ New Yorkers Against Fracking ~ Physicians for Social Responsibility/New York ~ Riverkeeper ~ Solutions Grassroots Project ~ Stop the Algonquin Pipeline Expansion ~ Sustainable Warwick ~ The Natural History Museum ~ Three Parks Independent Democrats ~ NYH2o ~ ECHO Action: #FossilFree603 ~ Citizens for a Clean Pompton Lakes ~ Coastal Monmouth Democratic Club ~ Don't Gas the Pinelands ~ Essex/Passaic Green Party ~ Monmouth Community Climate Coalition ~ Roseland Against the Compressor Station (RACS) ~ WATERSPIRIT ~ Multicultural Alliance for a Safe Environment ~ Physicians for Social Responsibility, NM Chapter ~ Calhoun County Citizens Against Fracking ~ Rio Arriba Concerned Citizens ~ Stewards of the Earth ~ River Guardian Foundation ~ Breathe Easy Susquehanna County ~ Bethlehem Ecodefense ~ Complete It Cuomo ~ Concerned Citizens of Otego NY ~ Gas Free Seneca ~ PF Pictures ~ Seneca Lake Guardian, a Waterkeeper Affiliate ~ The God is Dead Theology Movement ~ United for Action ~ Athens (OH) County Fracking Action Network ~ NEOGAP (Network for Oil and Gas Accountability and Protection) ~ LEAD Agency, Inc. ~ Lehigh Valley Gas Truth ~ Pennsylvania Alliance for Clean Water and Air ~ Schuylkill Pipeline Awareness ~ Northern Colorado Community Rights Network ~ Michael 2016, Green Party, State Rep. PA-64 ~ Middle Susquehanna Riverkeeper Association, Inc ~ Patriots From The Oil & Gas Shales ~ Responsible Drilling Alliance ~ FANG: Fighting Against Natural Gas ~ Tennessee Riverkeeper ~ Waterkeepers Chesapeake ~ Chesapeake Climate Action Network ~ New Mexico Environmental Law Center ~ PSR-TN [Physicians for Social Responsibility, TN Chapter] ~ Big Bend Conservation Alliance ~ Defend Big Bend ~ The Red Nation ~ Nashville TN chapter Physicians for Social Responsibility ~ Big Mountain Dineh Nation ~ Native Plant Society of Texas/Defend Big Bend ~ Office of Justice and Peace of the Sisters of the Congregation of Notre Dame United States ~ Wild Virginia ~ Potomac Riverkeeper Network ~ Appalachian Mountain Advocates ~ West Virginia Rivers Coalition ~ SkyTruth ~ Pioneer Valley Mothers Out Front ~ Milwaukee Riverkeeper ~ Physicians for Social Responsibility Wisconsin ~ Wyoming Outdoor Council ~ Citizens Campaign for the Environment ~ NYC Friends of Clearwater ~ Clean Ocean Action ~ ReThink Energy Florida