UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

SIERRA CLUB, 2101 Webster St., Suite 1300 Oakland, CA 94612 **Plaintiff,** **v.** **SCOTT PRUITT,** in his official capacity as Administrator of the Environmental Protection Agency USEPA Headquarters William Jefferson Clinton Building 1200 Pennsylvania Avenue, NW Mail Code 1101A Washington, DC 20460 **Defendant.**	)	**Case Number: 1:17-cv-2174**

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

I. INTRODUCTION

1. The Administrator of the United States Environmental Protection Agency ("Administrator" or " EPA") has failed to perform his non-discretionary duties pursuant to the Clean Air Act and Energy Independence and Security Act (EISA), 42 U.S.C. § 7545 note (Sec. 204 of the Clean Air Act) and 42 U.S.C. § 7545(v)(1)-(2). Specifically, the EPA has failed to assess and report to Congress on the environmental and resource conservation impacts of the Energy Independence and Security Act's (EISA) Renewable Fuel Standard (RFS) program and has failed to complete the required "anti-backsliding" study to determine whether vehicle and engine air pollutant emissions changes, resulting from the Program's renewable fuel volumes, adversely impact air quality.

2. Under EISA's Renewable Fuel Standard program, which was intended to curb climate change-inducing petroleum fuels by increasing our nation's production and use of renewable biofuels, EPA takes several discretionary actions, including but not limited to: 1) setting annual volumetric standards for renewable fuels; 2) reviewing and approving new pathways for renewable fuels using new feedstocks and advanced technologies; and/or 3) determining whether to exercise its waiver authority to limit renewable fuel production due to limited supplies or when production causes harm to the economy or environment. The statutorily required Triennial Report to Congress on the program's environmental and resource impacts and the "anti-backsliding" air quality impact analysis of the program provide critical information for EPA's decision making as well as for the public's review and participation in EPA's annual renewable fuel volumetric standard setting.

3. Sierra Club seeks a declaration that the Administrator is in violation of the Clean Air Act and Energy Independence and Security Act for its failure to complete its non-discretionary duties, and an order compelling the Administrator to complete the required reports and analyses by expeditious dates certain.

II. JURISDICTION

4. The instant action arises under the Clean Air Act, 42 U.S.C. §§ 7604(b)(2), 7545 note, and 7545(v)(1)-(2). This Court has jurisdiction over Sierra Club's claims pursuant to 42 U.S.C. § 7604(a) and 28 U.S.C. §§ 1331, 1361. This Court has authority to order declaratory and injunctive relief pursuant to 42 U.S.C. § 7604 and 28 U.S.C. §§ 1361, 2201, and 2202.

III. NOTICE

5. By certified letter dated February 23, 2017, Sierra Club provided the Defendants with written notice of the Administrator's failure to perform the non-discretionary duties at issue in this case and of its intent to bring this action, as required by 42 U.S.C. § 7604(b); 40 C.F.R. §§ 54.2, 54.3. A period of more than sixty days has elapsed since Defendant was notified of Sierra Club's claims and intent to file suit. Therefore, notice was proper. *See* 42 U.S.C. § 7604(b)(2).

IV. VENUE

6. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(e)(1). A substantial part of the events or omissions giving rise to Sierra Club's claims occurred in the District of Columbia. Defendant Administrator Pruitt is an officer of the United States, sued for acts and omissions in his official capacity as Administrator of the EPA. EPA has its principal offices in the District of Columbia.

V. PARTIES

Plaintiffs

7. Plaintiff Sierra Club is the oldest and largest grassroots environmental organization in the United States, with over 750,000 members nationally, including more than 190,000 members in Midwest and Gulf Coast states and urban areas directly affected by this action.[1] Sierra Club's mission is to explore, enjoy, and protect the wild places of the Earth; to

[1] Sierra Club membership broken down by affected state/city as of August 2017 totaling 142,003 members: South Dakota – 1,325 members; North Dakota – 739 members; Iowa – 7,153 members; Missouri – 12,019 members; Kansas – 5,588 members; Oklahoma – 4,262 members; Texas – 28,859 members; New Mexico – 9,624 members; Minnesota – 19,958 members; Wisconsin – 19,182 members; Michigan – 24,106 members; Louisiana – 3,500 members;

practice and promote the responsible use of the Earth's resources and ecosystems; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. Sierra Club and its members are greatly concerned about the environmental effects of land conversion and the attendant adverse water and air quality impacts, habitat degradation, and harm to species resulting from increased renewable fuel volume mandates under the Energy Independence and Security Act's Renewable Fuel Standard program. Sierra Club members have a long history of involvement in activities related to the protection of the environment and human health, including protection against loss of habitat for species and protection against water and air quality degradation.

8. Sierra Club is a "person" within the meaning of 42 U.S.C. § 7602(e). As such, Sierra Club may commence a civil action under 42 U.S.C. § 7604(a).

9. The Administrator's failure to perform the mandatory duties described in this Complaint has injured and continues to injure the health, recreational, environmental, organizational, and informational interests of Sierra Club and its members.

10. Sierra Club has individual members who live, work, travel, and recreate in areas that have been directly impacted by the production of corn- and soy-based ethanol to meet federal renewable fuel volume mandates. Sierra Club members recreate, including boating and fishing, in waterways where land conversion and the intensified application of pesticides and fertilizers for the production of corn-based ethanol have led to water pollution. Sierra Club members also participate in other outdoor recreational activities such as birding and wildlife viewing in native grassland and wetland habitat which have been harmed by land conversion as

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Mississippi – 1,625 members; Alabama – 4,063 members; Los Angeles, CA – 48,685; Denver, CO – 9,239.

a result of the renewable fuel standard volume mandates. Specifically, grasslands and other unique ecosystems, have been eradicated or adversely modified for corn-based ethanol production. As a result, Sierra Club members' enjoyment of impacted waterways and grassland and wetland habitats have been significantly diminished and have cut off future planned visits to these special places.

11. Specifically, one Sierra Club member since 1981 is an avid wildlife observer who frequents state and local parks, wildlife refuges, and recreates in Kansas lakes, including Perry, Milford, Melvern, Pomona, Kanopolis, and Wilson. She and her family camp, swim, canoe and hike in these areas. Impaired water quality at these lakes due to nutrient pollution from adjacent farmland runoff has caused unusually high algal growth and has impaired this member's enjoyment of the area. It has prevented her from returning to these sites for camping and wildlife viewing.

12. The impacts of land conversion resulting from the federal renewable fuel mandate extend far beyond the corn fields; they are felt throughout the Mississippi River watershed reaching into the Gulf of Mexico. As such, Sierra Club members from the Midwest to the Gulf Coast states who live and recreate in these areas have been injured by these widespread impacts.

13. In addition, Sierra Club members live, work, travel, and recreate in areas where they are exposed to dangerous air pollutants emitted by vehicles that combust high ethanol content fuels. In some regions of the country, the pollutant emission levels from vehicles running on high ethanol content fuels are greater than those from vehicles running on high gasoline content fuel. This is especially true in urban areas during colder winter conditions. These air pollutants, including ozone forming nitrogen oxides and carcinogens such as

formaldehyde and acetaldehyde, are associated with a variety of adverse health effects. Sierra Club members experience health impacts resulting from these vehicle emissions.

14. Specifically, one member from Montebello, California in Los Angeles County, who has been a Sierra Club member since 2010, has experienced and continues to experience respiratory health conditions with symptoms including chest tightening, soar and tingling lungs, heavy congestion, and wheezing and breathing difficulty. These symptoms have worsened in the last 10 years and become exacerbated during the colder winter months.

15. EPA's failure to complete the statutorily required Triennial Report to Congress on the environmental and resource conservation impacts of the Renewable Fuel Standard program and the anti-backsliding air quality assessment has caused and will continue to cause injury to Sierra Club members. Without information provided by the Report, Congress cannot meaningfully review the statute and make necessary changes to the law, including altering renewable fuel volume targets, to address adverse environmental and health impacts that harm Sierra Club members. Further, without this information, EPA is impeded from meaningfully reviewing and proposing annual renewable fuel volumetric standards and approving new pathways for renewable fuels to ensure minimal impacts to the environment and human health. EPA is also deprived of making an informed determination about whether to exercise its waiver authority if, for example, it concludes, based on the Report, that the implementation of renewable fuel requirements would severely harm the environment. Moreover, without the required anti-backsliding air quality assessment, EPA is unable to implement air quality impact mitigation measures to directly address harm to respiratory health experienced by Sierra Club members as a result of the renewable fuel volumes and associated high ethanol content fuel

combustion. Sierra Club members will continue to experience injury unless and until EPA completes the statutorily required assessments.

16. Moreover, to further Sierra Club's mission of improving environmental and public health, Sierra Club participates in relevant agency rulemakings through written comment, public testimony and informational alerts to members. These efforts help to inform the public and further the regulatory objective of ensuring maximum environmental and public health protections. Without key information about the environmental, conservation resource, and air quality impacts of the Renewable Fuels Standard program, Sierra Club members are deprived of critical information to meaningfully review and comment on EPA's proposed annual volumetric renewable fuel standards. Thus, Sierra Club members experience informational injury year after year as a result of EPA's years-long delay in completing the required environmental and air quality studies of the RFS program.

17. Granting the relief requested in this lawsuit would redress Sierra Club and its members' injuries.

Defendant

18. Scott Pruitt is sued in his official capacity as the Administrator of the EPA. The Administrator is responsible for taking various actions to implement and enforce the Clean Air Act and Energy Independence and Security Act including the mandatory duties at issue in this case.

VI. LEGAL BACKGROUND

The Energy Independence and Security Act's Renewable Fuel Standard

19. The Energy Policy Act of 2005 (EPAct), which amended the Clean Air Act, created the national Renewable Fuel Standard program. 42 U.S.C. § 7546. The goal of the RFS

was to address the climate change impacts of carbon-intensive petroleum-based fuels upon which the large majority of our nation's vehicle fleets rely. To that end, the RFS requires reduction and replacement of petroleum-based transportation fuel, heating oil and jet fuel with a certain volume of renewable fuel. Under the EPAct, Congress initially mandated the use of a minimum of 4 billion gallons of renewable fuel in the nation's gasoline supply in 2006, and increased the threshold to 7.5 billion gallons by 2012. This mandate was referred to as RFS1.

20. The Energy Independence and Security Act of 2007 (EISA) further amended the Clean Air Act by expanding the RFS program (RFS2) in several ways. 42 U.S.C. § 7545(o). In particular, RFS2 increased the long-term volume goals for renewable fuels to 36 billion gallons by 2022 and subdivided the total renewable fuel requirement into four categories – total renewable fuels, advanced biofuels, biomass-based diesel, and cellulosic biofuels – each with explicit qualifying criteria and standards. 42 U.S.C. § 7545(o)(2)(B)(i)(I),(II),(III),(IV).

21. Under RFS2, EPA determines whether a fuel qualifies as a renewable fuel based on statutory and regulatory criteria and determines the annual volume mandate for each category of biofuel. Each fuel is subject to biomass feedstock criteria as well as a minimum lifecycle greenhouse gas emission reduction threshold as compared to the lifecycle greenhouse gas emissions of the 2005 petroleum based fuels that it replaces. 42 U.S.C. § 7545(o)(1)(C).

22. Under the program, the term "feedstock" refers to the type of renewable biomass that is converted into a renewable fuel, such as corn starch, soybean oil, switchgrass and landfill biogas. Sometimes feedstocks, which can be processed independently to produce a fuel, are comingled and converted to renewable fuel together. In these cases EPA evaluates feedstocks separately when calculating the lifecycle greenhouse gas emissions for a fuel

pathway, which is further explained below.

23. The RFS further defines the four categories of renewable fuels as follows:

- Total renewable fuel – These biofuels are required to reduce lifecycle greenhouse gas ("GHG") emissions by at least 20% relative to conventional fuels to qualify as a renewable fuel. Most biofuels, including corn-starch ethanol from new facilities, qualify for this mandate. However, the volume of corn-starch ethanol included in the RFS was capped at 13.8 billion gallons in 2013, but grew to 15 billion gallons by 2015 and became fixed thereafter.

- Advanced biofuels – Advanced biofuels must reduce lifecycle GHG emissions by 50% to qualify. Advanced biofuels are a subcomponent of the total renewable fuels mandate. Corn-starch ethanol is expressly excluded from this category. Cellulosic biofuel and biomass-based diesel (defined below) are considered advanced biofuels. Potential feedstock sources include grains such as sorghum and wheat. Imported Brazilian sugarcane ethanol, as well as biomass-based biodiesel and biofuels from cellulosic materials (including non-starch parts of the corn plant such as the stalk and cob) also qualify. The total advanced biofuel mandate for 2013 was 2.75 billion gallons (ethanol equivalent) but increases to 21 billion gallons by 2022.

- Cellulosic and agricultural waste-based biofuel – Cellulosic biofuels must reduce lifecycle GHG emissions by at least 60% to qualify. Cellulosic biofuels are derived from cellulose, hemicellulose, or lignin. This includes cellulosic biomass ethanol as well as any biomass-to-liquid fuel such as cellulosic gasoline or diesel. The mandate requires 100 million gallons in 2010 and grows to 16 billion gallons in 2022, however, EPA has subsequently lowered the RFS mandate for this category using its waiver authority.

- Biomass-based biodiesel – Any diesel fuel made from biomass feedstocks (including algae) qualifies, including biodiesel (mono-alkyl esters) and non-ester renewable diesel (e.g., cellulosic diesel). The lifecycle GHG emissions reduction threshold is 50%.

EPA established the 2013 mandate at 1.28 billion gallons (actual

volume). The mandate grew from 0.5 billion gallons in 2009 to 1 billion gallons in 2012.[2]

24. There is no statutory volume requirement for "conventional" biofuels, which are the biofuels that do not qualify as "advanced biofuels," i.e., corn-based ethanol, and are included as part of the "total renewable fuels" category. Conventional volumes are calculated by subtracting "advanced biofuels" from "total renewable fuels."

25. EPA also reviews and approves new pathways for fuels using new feedstocks and advanced technologies to meet the RFS2. 40 C.F.R. 80 § 1416. A renewable fuel pathway includes three components: 1) feedstock, 2) production process, and 3) fuel type. Each combination of the three components is a separate fuel pathway which is assigned one or more "D-codes" representing Renewable Fuel Identification Numbers (RINs) that reflect the volume and renewable composition (i.e., renewable fuels, advanced biofuel, biomass-based diesel, cellulosic biofuel or cellulosic diesel) of each gallon of renewable fuel. RINs are the credits generated when fuel is produced. Regulated parties must obtain sufficient quantities of RIN credits on an annual basis to demonstrate compliance with the Program. 40 C.F.R. 80 §§ 1125, 1126.

26. In setting the annual volumetric standard for each biofuel category and corresponding compliance percentages for regulated parties, 42 U.S.C. § 7545(o)(3)(B)(i), EPA also has specific waiver authorities: the authority to waive RFS volumes, in whole or in part, (1) if there is inadequate domestic supply, or (2) if "implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States." 42 U.S.C. § 7545(o)(7)(A). To date, EPA has only exercised its waiver authority based on an

[2] Schnepf & Yacobucci, Congressional Research Service, *Renewable Fuel Standard: Overview and Issues*, available at: https://www.ifdaonline.org/IFDA/media/IFDA/GR/CRS-RFS-Overview-Issues.pdf (Mar. 14, 2013).

insufficient domestic supply.[3]

EPA's Mandate to Conduct Environmental and Air Quality Assessments

27. EISA requires EPA to conduct a triennial assessment and report to Congress on the Program's environmental and resource conservation impacts to date and likely future impacts. Specifically, the law requires, "[n]ot later than 3 years after the enactment of this section and every 3 years thereafter," an assessment and report to Congress on the impacts to date and likely future impacts of the requirements of section 211(o) of the Clean Air Act on the following:

> (1) Environmental issues, including air quality, effects on hypoxia, pesticides, sediment, nutrient and pathogen levels in waters, acreage and function of waters, and soil environmental quality. (2) Resource conservation issues, including soil conservation, water availability, and ecosystem health and biodiversity, including impacts on forests, grasslands, and wetlands. (3) The growth and use of cultivated invasive or noxious plants and their impacts on the environment and agriculture … The report shall include the annual volume of imported renewable fuels and feedstocks for renewable fuels, and the environmental impacts outside the United States of producing such fuels and feedstocks … The report required by this subsection shall include recommendations for actions to address any adverse impacts found.

42 U.S.C. § 7545 note (Energy Independence and Security Act of 2007, Pub. L. 110-140, § 204, 121 Stat. 1492 (Dec. 19, 2007).).

28. EISA also requires that EPA complete an "anti-backsliding" study within 18 months of the law's passage to determine whether the renewable fuel volumes set by RFS2 will adversely impact air quality as a result of vehicle and engine air pollutant emission changes. 42 U.S.C. § 7545(v)(1)(A). In addition, "[n]ot later than 3 years after December 19, 2007," EPA

[3] U.S. Environmental Protection Agency Office of Inspector General, "EPA Has Not Met Certain Statutory Requirements to Identify Environmental Impacts of Renewable Fuel Standard," (Aug. 18, 2016) at 2 (hereafter IG Report).

must "(A) promulgate fuel regulations to implement appropriate measures to mitigate, to the greatest extent achievable, considering the results of the study under paragraph (1), any adverse impacts on air quality, as the result of the renewable volumes required by this section; or (B) make a determination that no such measures are necessary." 42 U.S.C. § 7545 (v)(2).

29. If the Administrator fails to comply with a non-discretionary duty, such as conducting the required triennial assessment and report and anti-backsliding analysis, the Clean Air Act allows any person to bring suit to compel the Administrator to do so. *See* 42 U.S.C. § 7604(a).

VII. FACTUAL BACKGROUND

Ethanol Growth Resulting from Increased Renewable Fuel Volume Mandates has Resulted in Significant Land Conversion and Impacts to Ecosystems, Habitat and Species

30. EISA's steadily increasing renewable fuels volume targets and EPA's corresponding volumetric mandates have led to significant ethanol growth, in particular corn based ethanol growth. By 2015 and continuing through 2022, the law's renewable fuel targets suggest annual corn ethanol volumes of 15 billion gallons, an increase from 10.5 billion gallons in 2009. Accordingly, EPA's most recent 2017 volumetric standards set ethanol volumes at 15 billion gallons. 81 Fed. Reg. 89746 (Dec. 12, 2016).

31. Unlike "advanced" biofuels, for which production has not kept pace with federal targets of 21 billion gallons by 2022,[4] ethanol production growth has kept pace with statutory mandates. In fact, the steadily increasing volume requirements have propelled historically high levels of corn production for ethanol and soy production for biodiesel. To keep pace with regulatory mandates, approximately 40 percent of the U.S. corn crop is diverted to biorefineries

[4] EPA has exercised its waiver authority and accordingly set advanced biofuel volumetric standards below the statutory targets.

for fuel production (up from 9 percent in 2001). Over 97 percent of biofuels produced in the United States are derived from corn and there is little potential to spur growth of new fuels from other feedstocks. At more than 90 million acres, corn production dominates the agricultural landscape.[5]

32. To increase corn production for ethanol, farmers are using more intensive cultivation methods including switching from alternating to consecutive-year corn production, double-cropping, and increasing chemical fertilizer and pesticide application to maximize crop density.

33. Farmers also have brought large new swaths of land under cultivation for the first time causing the elimination of valuable ecosystems.[6] From 2008 to 2012, during the first four years of the expanded renewable fuel mandate, 7.3 million acres were converted into crop land.[7] Much of the land that has been converted is concentrated in the Dakotas, southern Iowa, northern Missouri, western Kansas, Oklahoma and the Texas panhandle, and is comprised of grassland, wetlands and forest that had not been cropland for more than 20 years. Significant expansion has also occurred in the western plains from South Dakota to New Mexico in areas traditionally unsuitable for agriculture. From 2008 to 2013, while Michigan, Minnesota and Wisconsin documented a loss of 2 million acres of non-agricultural land, 37 percent of which was open

[5] David DeGennaro, National Wildlife Federation, *Fueling Destruction: The Unintended Consequences of the Renewable Fuel Standard on Land, Water, and Wildlife*, (2016), available at: http://www.nwf.org/~/media/PDFs/Education-Advocacy/Fueling-Destruction_Final.ashx (hereafter DeGennaro).

[6] *Id*. at 3.

[7] Lark, T.J., Salmon, J.M. & Gibbs, H.K. Cropland expansion outpaces agricultural and biofuel polices in the United States, *Environmental Research Letters*, Vol. 10, 044003 (2015) (accounting for other land use fluctuations, net cropland expansion was 2.9 million acres – an area larger than the state of Massachusetts, this is an underestimate since the study evaluated only 15 acre parcels or greater, leaving out smaller converted areas along the periphery of existing fields).

space, corn acreage increased by 36 percent in those states.[8]

34. The drive to increase plant-based fuels as a result of RFS program mandates has gone unchecked, directly contributing to the destruction of sensitive natural areas and ecosystems. The majority of ecosystems lost as a result of RFS mandates are grasslands, including native prairie, pasture, and federal Conservation Reserve Program lands, accounting for 77 percent of new farmland. Lost grasslands provide seasonal habitat for spring nesting, brooding, fawning cover, and are a source of winter food and cover.[9] Of particular concern is the loss of grassland immediately surrounding wetlands, which, like wetlands, serve the critical function of providing habitat and food for nesting waterfowl and other species.[10]

35. Expansion of corn and soybean production has been identified as the greatest source of wetland loss in the North and South Dakota Prairie Pothole Region, which functions as the primary North American breeding ground for ducks and waterfowl, producing more than 60 percent of the country's total duck population.[11] In this region land conversion to corn and soy steadily increased between 2006 and 2012, with the region experiencing a 27 percent increase in corn and soy acreage between 2010 and 2012 alone. The total acreage was equivalent to an area larger than the state of Connecticut.[12]

36. Ethanol production has also eradicated other uniquely important ecosystems, including marginal lands at the edge of existing cropland supporting pollinators like bees and

[8] Mladenoff, D.J., Sahajpal, R., Johnson, C.P. & Rothstein, D.E. Recent Land Use Change to Agriculture in the US Lake States: Impacts on Cellulosic Biomass Potential and Natural Lands. *PloS one*, Vol. 11, e0148566 (2016).
[9] DeGennaro at 13.
[10] Wright, C.K. & Wimberly, M.S. Recent land use change in the Western Corn Belt threatens grasslands and wetlands. *Proceedings of the National Academy of Sciences,* Vol. 110, 4134-4139 (2013).
[11] *Id*; DeGennaro at 3.
[12] Johnston, C.A. Agricultural expansion: land use shell game in the US Northern Plains. *Landscape ecology*, Vol. 29, 81-95 (2014).

monarch butterflies, and buffer strips along waterways that filter polluted farm runoff before depositing into waterways that serve as drinking water sources and support aquatic species.[13] In addition, forest lands comprised three percent of new cropland while wetlands comprised two percent of new cropland.[14]

37. Widespread cultivation of corn for ethanol also has significant impacts on water quality and aquatic habitat. Corn production is associated with high levels of nutrient loss and soil erosion, leading to contamination of water supplies.[15] Corn, as opposed to other biofuel crops, absorbs less nitrogen per acre and requires the highest level of fertilizer and pesticide application resulting in higher runoff from fields into waterways.[16]

38. Ethanol production, which is largely sourced by corn grown in the Mississippi River watershed and Great Lakes Basin, places the largest burden of potential water quality impacts on the Great Lakes and the Gulf of Mexico.[17] Recent land conversion studies demonstrate that conversion from pasture to corn leads to increased sediments yields of up to 127 percent.[18] Excessive nutrient runoff from more intensive agriculture has led to severe algal blooms in water bodies including the Great Lakes. The majority of land in the Mississippi River

[13] DeGennaro at 4.
[14] *Id.*
[15] DeGennaro at 16.
[16] National Research Council & Committee on Economic and Environmental Impacts of Increasing Biofuels Production. *Renewable fuel standard: potential economic and environmental effects of US biofuel policy.*(National Academies Press, 2011); Housh, M., M. Khanna & Cai, X. Mix of First and Second Generation Biofuels to meet Multiple Environmental Objectives: Implications for Policy as a Watershed Scale. *Water Economics and Policy*, Vol. 1, 26 (2015).
[17] Wallander, S., Claassen, R. &Nickerson, C. The ethanol decade: an expansion of US corn production, 2000-09. *USDA-ERS Economic Information Bulletin* (2011); U.S. Congressional Budget Office. The Renewable Fuel Standard: Issues for 2014 and Beyond. Report No. 45477, (Congressional Budget Office, Washington, DC, 2014).
[18] Shao, Y., Lunetta, R.S. Macpherson, A.J., Luo, J. &Chen, G. Assessing sediment yield for selected watersheds in the Laurentian great lakes basin under future agricultural scenarios, *Environmental management*, Vol. 51, 59-69 (2013).

watershed, which drains into the Gulf of Mexico, is farmland. Massive land based nutrient runoff into rivers and streams that flow into the Mississippi River and ultimately drain into the Gulf of Mexico is the largest contributor to the documented hypoxic area known as the "Dead Zone."[19]

39. Located at the mouth of the Mississippi in the Gulf, the Dead Zone threatens marine habitat on an enormous scale.[20] The huge influx of nutrients – nitrogen and phosphorous – cause massive phytoplankton blooms leading to a large increase in zooplankton that feed on phytoplankton. Large amounts of dead phytoplankton and zooplankton waste then accumulates on the seafloor, burying bottom dwellers and prey for larger fish and mammals that frequent these waters for food, nesting and raising young. The decomposition of such an enormous amount of plankton matter depletes the dissolved oxygen in the water faster than it can be replaced, causing hypoxia, the state where oxygen concentrations have dropped below the level necessary to sustain aquatic life, and thereby produces a large dead zone.[21]

40. According to NOAA, the 2015 Gulf of Mexico "Dead Zone" was above average, measuring 6,474 square miles – an area about the size of Connecticut and Rhode Island combined. The 2015 "Dead Zone" was larger than the previous year's 5,052 square-mile "dead zone," indicating that nutrients from the Mississippi River watershed are continuing to affect the nation's coastal resources and habitats in the Gulf on a greater scale. NOAA-funded research in the past decade shows hypoxia results in habitat loss, displacement of fish from their preferred

[19] Joyce, Christopher. 2010. "Massive 'Dead Zone' Threatens Gulf Marine Life" (radio report). National Public Radio, Morning Edition Transcript, available at www.npr.org/templates/story/story.php?storyId=128946110.

[20] Donner, S.D. & Kucharik, C.J. Corn-based ethanol production compromises goal of reducing nitrogen export by the Mississippi River. *Proceedings of the National Academy of Sciences*,Vol. 2015, 4513-4518 (2008).

[21] National Oceanic and Atmospheric Administration (NOAA). 2009a. "Dead Zones. Hypoxia in the Gulf of Mexico," (factsheet) at 1-2, available at http://www.noaanews.noaa.gov/stories2009/pdfs/new%20fact%20sheet%20dead%20zones_final.pdf.

areas, and a decline in the reproductive ability in some species.[22] Additional studies show that addressing the annual Dead Zone to improve conditions for marine life is practically impossible under the current RFS volume mandates, without huge shifts in food production.[23]

EPA Failed to Meet its Non-Discretionary Duty to Assess the Environmental and Air Quality Impacts of the Renewable Fuel Standard

41. Under EISA EPA was required to submit its first Triennial Report to Congress on the environmental and resource conservation impacts of the RFS program on or before December 19, 2010. 42 U.S.C. § 7545 note. However, EPA issued it in December 2011. The Report made recommendations for future assessments that would inform RFS rulemakings and other determinations such as waiver determinations for "situations involving 'severe' environmental impact." Triennial Report at xvii.

42. Under the triennial reporting mandate, EPA was required to complete a second report no later than December 19, 2013. To date, EPA has not issued the second report. Nor has it issued a third report, which was required no later than December 19, 2016. Further, EPA has not communicated with Congress about the reporting requirement and its reasoning for failing to comply with its mandatory duty. IG Report at 5.

43. As described above, the RFS program has had significant impacts on the environment, including impacts to water and air quality as well as to habitat and species. The current mandate to increase renewable fuel volumes will only worsen these impacts. Without appropriate information including addressing the recommendations from the 2011 Report, EPA's

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[22] NOAA, "2015 Gulf of Mexico dead zone 'above average'," (Aug. 4, 2015), available at http://www.noaanews.noaa.gov/stories2015/080415-gulf-of-mexico-dead-zone-above-average.html.

[23] Donner, S. D. & Kucharik, C. J., *Corn-based ethanol production compromises goal of reducing nitrogen export by the Mississippi River,* Proceedings of the National Academy of Sciences, Vol. 105, 4513- 4518 (2008).

ability to assess the RFS program's environmental impacts and inform Congress of potential impacts are impeded. IG Report at 6.

44. In addition, EPA has never conducted the required anti-backsliding air quality impacts analysis which was due in 2009. Nor has EPA determined (based on an anti-backsliding study) if mitigation measures are necessary to prevent or reduce adverse air quality impacts resulting from the Program's renewable fuel volumes; EPA was required to make that determination on or before December 2010.

45. Research on the combustion of high content ethanol fuels indicates that pollution, particularly ozone pollution and some carcinogenic pollutants, from vehicles operating on high content ethanol fuels is exacerbated in certain regions of the country. This has been found to be true in urban areas during colder, winter conditions. In addition, EPA's 2010 Regulatory Impact Analysis (RIA) provides evidence demonstrating increased air pollutants from the RFS under a variety of different modeling scenarios. IG Report at 7. Although EPA acknowledged that the RIA did not constitute the required analysis under 42 U.S.C. § 7545(v), it committed to conducting a separate study that would analyze air quality impacts of increased renewable fuel use. To date, no study has been completed.

46. A recent Inspector General investigation underscored the importance of the statute's required analyses of the environmental impacts and the unintended consequences of the RFS program, stating "[t]he EPA does not have an assessment that meets the requirement to identify whether RFS creates any impacts on air quality and, thus, take required measures to mitigate impacts. This information is needed to fully inform the EPA, Congress and other stakeholders of the environmental impacts of U.S. biofuel policy." IG Report, At a Glance.

47. As a result of the recent Inspector General's investigation, EPA made

commitments to complete the Triennial Report to Congress by December 31, 2017 and the anti-backsliding study by September 30, 2024. These deadlines represent a 7-year and approximate 15-year delay of the Administrator's non-discretionary duties. These substantial delays undermine the purpose of the statute and its reporting requirements– to make Congress aware of the program's impacts, including adverse impacts to water and air quality, species and human health, to inform EPA's annual RFS volume development, and to ensure that the Renewable Fuels Standard program is addressing climate change without adversely impacting the environment.

48. Moreover, as of the date of filing this complaint, EPA has provided no indication that its Triennial Report is underway and will be completed by the December 31, 2017 deadline.

49. Under the RFS program, ethanol production in the United States has skyrocketed from 3.9 billion gallons in 2005 to 14 billion gallons in 2011, and biodiesel has grown from 0.1 billion gallons to 1 billion gallons in the same timeframe.[24] The lack of information on potential environmental and air quality impacts has had significant and irreparable detrimental impacts on the environment and human health. Unless EPA complies with its mandatory duties to assess and report on these impacts, these impacts will only worsen given the ongoing and expected continued growth of biofuel production resulting from the RFS program's annually increasing mandates.

VIII. CLAIMS FOR RELIEF

First Claim for Relief: Violation of CAA and EISA for Failing to Complete Mandatory Triennial Report to Congress

50. Sierra Club incorporates the allegations in all preceding paragraphs of this

[24] Congressional Research Service, "Analysis of Renewable Identification Numbers (RINs) in the Renewable Fuel Standard (RFS)," Brent D. Yacobucci, July 22, 2013 at 1.

Complaint as if set forth in full herein.

51. The EPA Administrator had a non-discretionary duty to issue its Triennial Report to Congress "[n]ot later than 3 years after the enactment of this section and every 3 years thereafter," pursuant to 42 U.S.C. § 7545 note, on the environmental and resource conservation impacts to date of the EISA's Renewable Fuels Standard, as well as likely future impacts of the program and recommendations for actions to address any adverse impacts found.

52. To date, EPA has not issued the second report which was due no later than December 19, 2013. Nor has EPA issued a third report, which was due no later than December 19, 2016.

53. Without appropriate information about the program's environmental and conservation resource impacts, EPA's ability to assess the RFS program and inform Congress of potential impacts are impeded.

54. As such, EPA's failure to complete and issue the second and third Triennial Reports violates EISA, 42 U.S.C. § 7545 note.

55. As of the date of filing this Complaint, the Administrator has not indicated whether the Triennial Report is underway.

56. This Clean Air Act violation constitutes a "failure of the Administrator to perform any act or duty under [the Air Pollution Prevention and Control] chapter which is not discretionary with the Administrator" within the meaning of the Clean Air Act's citizen suit provision. 42 U.S.C. § 7604(a). The Administrator has been in violation of his non-discretionary duty for almost four years, the violation is ongoing, and will continue unless remedied by this court.

Second Claim for Relief: Violation of CAA and EISA for Failing to Conduct Mandatory Anti-Backsliding Analysis

57. Sierra Club incorporates the allegations in all preceding paragraphs of this Complaint as if set forth in full herein

58. The EPA Administrator had a non-discretionary duty to complete an "anti-backsliding" study within 18 months of the EISA's passage to determine whether the renewable fuel volumes set by the RFS will adversely impact air quality as a result of vehicle and engine air pollutant emission changes. 42 U.S.C. § 7545(v)(1)(A). That study was due in June of 2009.

59. Subsequently, the EPA Administrator has a non-discretionary duty to "(A) promulgate fuel regulations to implement appropriate measures to mitigate, to the greatest extent achievable, considering the results of the [anti-backsliding] study …, any adverse impacts on air quality, as the result of the renewable volumes required by [the EISA]; or (B) make a determination that no such measures are necessary." 42 U.S.C. § 7545(v)(2). Those regulations and/or determination were due on or before December 19, 2010.

60. To date, EPA has not conducted the required anti-backsliding analysis, nor has it determine (based on an anti-backsliding study) if mitigation measures are necessary to prevent or reduce adverse air quality impacts pursuant to 42 U.S.C. § 7545(v)(1)-(2).

61. Without appropriate information about the program's air quality impacts, EPA's ability to assess the impacts of its increasing annual renewable fuel volume standards and take necessary steps to protect air quality and human health are impeded.

62. EPA's commitment, as a result of a recent Inspector General Investigation, to complete an anti-backsliding study by 2024 – 15 years late – undermines the purpose of its long overdue statutory requirement.

63. As such, EPA's failure to complete the anti-backsliding study and make its

determination on air quality mitigation measures violates EISA, 42 U.S.C. § 7545 (v)(1)-(2).

64. This Clean Air Act violation constitutes a "failure of the Administrator to perform any act or duty under [the Air Pollution Prevention and Control] chapter which is not discretionary with the Administrator" within the meaning of the Clean Air Act's citizen suit provision. 42 U.S.C. § 7604(a). The Administrator has been in violation of his non-discretionary duty for almost eight years, the violation is ongoing, and will continue unless remedied by this court.

IX. REQUEST FOR RELIEF

WHEREFORE, Sierra Club respectfully requests this Court enter judgment providing the following relief:

A) A declaration that the Administrator has violated the Clean Air Act and Energy Independence and Security Act by failing to conduct its non-discretionary duty of completing its Triennial Report to Congress on the environmental and resource conservation impacts of the Renewable Fuels Standard program;

B) An order compelling the Administrator to perform his mandatory duty to complete and issue its Triennial Report to Congress by May 31, 2018, or by an expeditious date certain, including recommendations for actions to address any adverse impacts found;

C) A declaration that the Administrator has violated the Clean Air Act and Energy Independence and Security Act by failing to conduct its non-discretionary duty of completing an "anti-backsliding" air quality impact analysis of the Renewable Fuels Standard program, as well as its determination on necessary air quality impact mitigation measures;

D) An order compelling the Administrator to perform his mandatory duty to complete the "anti-backsliding" analysis and issue its finding by May 31, 2018, or by an expeditious date certain, and within three (3) months thereafter, make a subsequent determination on necessary air quality impact mitigation measures;

E) An order retaining jurisdiction over this matter until such time as the Administrator has complied with his duties under the Clean Air Act and Energy Independence and Security Act;

F) An order awarding Sierra Club its costs of litigation, including reasonable attorneys' fees; and

G) Such other and further relief as the Court deems just and proper.

Dated: October 19, 2017

Respectfully submitted,

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