

FOR PUBLICATION

**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

WASHINGTON ENVIRONMENTAL
COUNCIL; SIERRA CLUB, Washington
State Chapter,

Plaintiffs-Appellees,

v.

MAIA D. BELLON, Director of
Washington State Department of
Ecology, in her official capacity;
MARK ASMUNDSON, Director,
Northwest Clean Air Agency, in his
official capacity; CRAIG T.
KENWORTHY, Director, Puget Sound
Clean Air Agency, in his official
capacity,

Defendants-Appellants.

No. 12-35323

D.C. No.
2:11-cv-00417-
MJP

WASHINGTON ENVIRONMENTAL
COUNCIL; SIERRA CLUB, Washington
State Chapter,

Plaintiffs-Appellees,

v.

MAIA D. BELLON; MARK
ASMUNDSON, Director, Northwest

No. 12-35324

D.C. No.
2:11-cv-00417-
MJP

Clean Air Agency, in his official
capacity; CRAIG T. KENWORTHY,
Defendants,

and

WESTERN STATES PETROLEUM
ASSOCIATION,
Intervenor-Defendant – Appellant.

WASHINGTON ENVIRONMENTAL
COUNCIL; SIERRA CLUB, Washington
State Chapter,

Plaintiffs-Appellants,

v.

MARK ASMUNDSON, Director,
Northwest Clean Air Agency, in his
official capacity; CRAIG T.
KENWORTHY, Director, Puget Sound
Clean Air Agency, in his official
capacity; MAIA D. BELLON, Director
of Washington State Department of
Ecology, in her official capacity,
Defendants-Appellees,

and

WESTERN STATES PETROLEUM
ASSOCIATION,
Intervenor-Defendant.

No. 12-35358

D.C. No.
2:11-cv-00417-
MJP

OPINION

Appeal from the United States District Court
for the Western District of Washington
Marsha J. Pechman, Chief District Judge, Presiding

Argued and Submitted
July 10, 2013—Seattle, Washington

Filed October 17, 2013

Before: Andrew J. Kleinfeld, Milan D. Smith, Jr.,
and N. Randy Smith, Circuit Judges.

Opinion by Judge Milan D. Smith, Jr.

SUMMARY*

Environmental Law

Vacating the district court’s judgment, the panel held that plaintiffs lacked standing to pursue a citizen suit seeking to compel the Washington State Department of Ecology and other regional agencies to regulate greenhouse gas emissions from the state’s five oil refineries under the Clean Air Act.

The panel assumed without deciding that the plaintiff non-profit conservation groups showed the injury in fact required to establish Article III standing by submitting their members’ declarations attesting to specific aesthetic and recreational injuries allegedly resulting from the agencies’

* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

failure to control greenhouse gas emissions. Nonetheless, the plaintiffs failed to satisfy the causality and redressability requirements for standing. The panel held that the chain of causality between the defendants' alleged misconduct and the plaintiffs' specific, localized injuries was too attenuated. The panel also held that the plaintiffs did not show that their injuries would be redressed by a court order requiring the defendants to control greenhouse gas emissions from the oil refineries. The panel vacated the district court's order on the parties' dispositive motions and remanded to the district court with instructions that the action be dismissed for lack of subject matter jurisdiction.

COUNSEL

Laura J. Watson (argued), Assistant Attorney General; Robert M. McKenna, Attorney General; and Katharine G. Shirey, Assistant Attorney General, Olympia, Washington; Svend A. Brandt-Erichsen, Marten Law PLLC, Seattle, Washington; Jennifer A. Dold, Puget Sound Clean Air Agency, Seattle, Washington, for Defendants-Appellants/Cross-Appellees.

Janette K. Brimmer (argued), Earthjustice Legal Defense Fund, Seattle, Washington; Brian W. Chestnut and Joshua A. Osborne-Klein, Ziontz Chestnut Varnell Berley & Slonim, Seattle, Washington, for Plaintiffs-Appellees/Cross-Appellants.

Jeffrey W. Leppo (argued), Matthew Cohen, and Jason T. Morgan, Stoel Rives LLP, Seattle, Washington, for Intervenor-Defendant-Appellant.

OPINION

M. SMITH, Circuit Judge:

The parties cross appeal the district court’s decision granting in part and denying in part their dispositive motions regarding environmental claims brought by the Washington Environmental Council (WEC) and the Sierra Club, Washington State Chapter, (collectively, Plaintiffs) under the citizen-suit provision of the federal Clean Air Act (CAA), 42 U.S.C. §§ 7401–7671q. Plaintiffs seek to compel the Washington State Department of Ecology (Ecology) and other regional agencies (collectively, the Agencies)¹ to regulate greenhouse gas emissions from the state’s five oil refineries under the CAA. The Western States Petroleum Association (WSPA), whose members include those refineries, intervened on behalf of the Agencies. Specifically, Plaintiffs claim that the Agencies failed to define emission limits—called “reasonably available control technology” (RACT)—for greenhouse gases, and apply those limits to the oil refineries, in violation of two provisions of Washington’s CAA State Implementation Plan (SIP): the “RACT Standard” and “Narrative Standard.” The district court awarded Plaintiffs summary judgment on their RACT claim, but dismissed their Narrative claim. The court enjoined Defendants to complete the RACT process for the refineries by May 2014.

¹ Defendants are Maia D. Bellon, substituted for her predecessor Theodore L. Sturdevant, Fed. R. App. P. 43(c)(2); Mark Asmundson; and Craig T. Kenworthy, in their official capacities as directors of, respectively, the Washington State Department of Ecology; the Northwest Clean Air Agency; and the Puget Sound Clean Air Agency.

On appeal, WSPA argues that Plaintiffs lack Article III standing. We agree with WSPA, and hold that Plaintiffs failed to satisfy the causality and redressability requirements to establish Article III standing. Accordingly, we vacate the district court's order on the parties' dispositive motions and remand with instructions that the action be dismissed for lack of subject matter jurisdiction.²

FACTS AND PRIOR PROCEEDING

A. Greenhouse Gas Emissions

Greenhouse gases are gases that trap heat in the atmosphere and contribute to what is known as the "greenhouse effect." See *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66496-01, 66499 (Dec. 15, 2009); *Massachusetts v. EPA*, 549 U.S. 497, 504 (2007). Greenhouse gases consist of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, among others (collectively, greenhouse gases or GHGs). 74 Fed. Reg. at 66499. Both natural and man-made sources contribute to

² Defendants and WSPA further argue that the district court lacked jurisdiction under the CAA's citizen-suit provision, 42 U.S.C. § 7604(a)(1), in light of the Supreme Court's decision in *Bennett v. Spear*, 520 U.S. 154 (1997). They urge this court to follow the Sixth Circuit's recent ruling in *Sierra Club v. Korleski*, 681 F.3d 342 (6th Cir. 2012), where the court held that under *Bennett*, the CAA's citizen-suit provision does not permit suit against government agencies acting in their regulatory capacity for alleged statutory violations under the CAA. Because we conclude that Plaintiffs lack Article III standing, we do not reach this issue. Nor do we reach the parties' other arguments as to whether the district court properly decided the merit claims.

greenhouse gases, which are mixed and dispersed in the global atmosphere. *Id.* Although there is continuing scientific debate regarding some of the causes, projections, and effects of global warming, we assume for the purposes of this opinion that global temperatures have increased over the past fifty years and that greenhouse gases are contributing to global climate change. The U.S. Environmental Protection Agency (EPA) has announced that six greenhouse gases taken in combination “may reasonably be anticipated both to endanger public health and to endanger public welfare.” 74 Fed. Reg. at 66497; *see also id.* at 66524–66535 (discussing adverse environmental effects and other dangers resulting from greenhouse gas emissions); *Am. Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527, 2532–33 (2011) (*AEP*).³

In Washington, Plaintiffs allege—and Defendants admit—that greenhouse gases have caused climate-related changes, such as “rising sea levels, coastal flooding, acidification of marine waters, declines in shellfish production, impacts to snow pack and water supplies, agricultural impacts on the east side of the Cascades, and changes in forest fires.” Compl. ¶ 15. The Governor of Washington declared that “greenhouse gases are air contaminants within the meaning of the state’s Clean Air Act and pose a serious threat to the health and welfare of Washington’s citizens and the quality of the environment.” State of Wash. Governor Exec. Order 09-05, *Washington’s Leadership on Climate Change* (May 21, 2009).

³ Like the Supreme Court in *AEP*, 131 S. Ct. at 2533 n.2, we take no position concerning the scientific issues related to greenhouse gas emissions and climate change.

In this case, there is no dispute that the five oil refineries in Washington—BP Cherry Point, ConocoPhillips, Shell Oil, Tesoro, and U.S. Oil (collectively, Oil Refineries)—emit greenhouse gases. They are each members of Intervenor-Defendant WSPA, a non-profit trade association that represents the interests of the petroleum and petroleum products industry in several states, including Washington. Specifically, the refineries emit three greenhouse gases—carbon dioxide, methane, and nitrous oxides—during the conversion of crude oil into usable petroleum products, and they publicly report their annual greenhouse gas emission levels.⁴ Most of the refineries’ GHG emissions are carbon dioxide. The collective GHG emission levels for the five refineries in 2008 were 5.94 million metric tons of carbon dioxide equivalents. This figure approximates current greenhouse gas emission levels from the refineries. Ecology reported that the total greenhouse gas emissions in Washington in 2008 were 101.1 million metric tons of carbon dioxide equivalents. Thus, in 2008, GHG emissions from the Oil Refineries were approximately 5.9% of the total greenhouse gas emissions in Washington.

B. Regulatory Framework – CAA and SIPs

The Clean Air Act authorizes the creation of air quality standards for a number of pollutants. These standards are called the National Ambient Air Quality Standards (NAAQS). 42 U.S.C. § 7409(a), (b). The CAA instructs the EPA to publish a list of air pollutants that cause or contribute to air pollution and to issue NAAQS for each pollutant it has identified. 42 U.S.C. §§ 7408(a), 7409(a). The EPA refers to

⁴ See “Washington State Greenhouse Gas Emissions Inventory, 1990–2008,” *available at* www.ecy.wa.gov/biblio/1002046.html.

the air pollutants for which it has established NAAQS as “criteria pollutants” or “NAAQS pollutants.” See 40 C.F.R. § 51.491. To date, the EPA has developed NAAQS for six criteria pollutants: sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. 40 C.F.R. § 50. The EPA has not established NAAQS for greenhouse gases.

To ensure that air quality standards are met, the CAA establishes a cooperative federal-state scheme that relies heavily on state participation. *Safe Air for Everyone v. EPA*, 488 F.3d 1088, 1092 (9th Cir. 2007); 42 U.S.C. §§ 7401–7431. Once the EPA sets the criteria pollutants, each state must propose a SIP for the “implementation, maintenance, and enforcement” of the ambient air quality standards, 42 U.S.C. § 7410(a)(1), which is subject to the EPA’s review and approval. *Safe Air for Everyone*, 488 F.3d at 1091; *Bayview Hunters Point Cmty. Advocates v. Metro. Transp. Comm’n*, 366 F.3d 692, 695 (9th Cir. 2004). When the EPA approves a SIP, it becomes federal law and federally enforceable, and must be carried out by the state. *Safe Air for Everyone*, 488 F.3d at 1091; *Bayview Hunters*, 366 F.3d at 695.

In Washington, the Agencies are responsible for implementing the CAA requirements. The EPA approved certain revisions to the SIP submitted by Ecology in 1995. 60 Fed. Reg. 28,726-01 (June 2, 1995). At issue in this case are two provisions in the EPA-approved SIP—the RACT Standard and Narrative Standard—codified in the Washington Administrative Code (WAC).

First, the RACT Standard provides in relevant part:

All emissions units are required to use reasonably available control technology (RACT) which may be determined for some sources or source categories to be more stringent than the applicable emission limitations of any chapter of Title 173 WAC. Where current controls are determined to be less than RACT, the permitting authority shall, as provided in RCW 70.94.154, define RACT for each source or source category and issue a rule or regulatory order requiring the installation of RACT.

WAC 173-400-040(1). RACT is defined as “the lowest emission limit that a particular source or source category is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.” WAC 173-400-030(77). “Emissions unit” is “any part of a stationary source or source which emits or would have the potential to emit any pollutant subject to regulation under the Federal Clean Air Act.” WAC 173-400-030(29). As referenced in the RACT Standard, the Revised Code of Washington (RCW) states in part that “[i]n establishing or revising RACT requirements, ecology and local authorities shall address, where practicable, all air contaminants deemed to be of concern for that source or source category.” RCW 70.94.154(5). Oil refineries qualify as “sources” or “source categories.” *See* WAC 173-400-030(80)–(81); RCW 70-94-030(22). Each of the five oil refineries in Washington constitutes a “source” of “air contaminants” subject to the state’s SIP. WAC 173-400-040(1); RCW 70.94.154(1).

Second, the Narrative Standard provides:

No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.

WAC 173-400-040(6). The term “air contaminant,” referenced in both the RACT and Narrative Standards, is synonymous with “air pollutant” and is broadly defined in the SIP to mean “dust, fumes, mist, smoke, other particulate matter, vapor, gas, odorous substance, or any combination thereof.” WAC 173-400-030(3); RCW 70.94.030(1). The Washington Governor’s 2009 executive order declared that “greenhouse gases are air contaminants.” Exec. Order 09-05. The Supreme Court has also held that the sweeping definition of “air pollutant” under the CAA encompasses carbon dioxide and other greenhouse gases. *Massachusetts*, 549 U.S. at 528–29; *AEP*, 131 S. Ct. at 2532–33.

The Agencies admit that they have never set or applied RACT standards for GHG emissions at the Oil Refineries. Plaintiffs insist, therefore, that the Agencies must do so pursuant to the mandate in SIP. Defendants argue that Washington’s SIP is not federally enforceable as to regulation of greenhouse gases under RCW 70.94.154 because they are not properly criteria pollutants with recognized NAAQS.

C. Procedural History

In March 2011, Plaintiffs filed their complaint against the Agencies, asserting two claims under the CAA’s citizen-suit provision, 42 U.S.C. § 7604(a)(1). Under Count I, Plaintiffs

claim that the Agencies failed to establish RACT standards for greenhouse gas emissions from the Oil Refineries, in violation of the RACT Standard, WAC 173-400-040 and RCW 70.94.154. Under Count II, Plaintiffs claim that the Agencies have allowed the Oil Refineries to emit greenhouse gases, thereby failing to protect the health, safety, and welfare of Washingtonians, their property, and business, in violation of the Narrative Standard, WAC 173-400-040(6).⁵ Plaintiffs seek declaratory relief and an injunction requiring the Agencies to set RACTs for GHG emissions from the Oil Refineries.

In July 2011, Plaintiffs moved for summary judgment on their claims. WSPA successfully moved to intervene as a defendant, and filed a cross-motion for summary judgment. WSPA further moved to strike several of Plaintiffs' exhibits and standing declarations. The Agencies moved to dismiss the case under Federal Rule of Civil Procedure 12(b)(6).

In December 2011, the district court issued its order on the parties' dispositive motions. The court granted Plaintiffs' motion for summary judgment on Count I, concluding that the RACT provision plainly applies to greenhouse gases emitted by the Oil Refineries. The court, however, dismissed Plaintiffs' Narrative claim as unenforceable because it concluded the provision was overly broad and aspirational. The court granted WSPA's motion to strike several of Plaintiffs' exhibits as irrelevant, but otherwise denied it as to Plaintiffs' standing declarations. After additional briefing,

⁵ The Complaint cites to subsection (5) of WAC 173-400-040, instead of subsection (6), but this is clearly a typographical error, since the quoted statutory text is from the latter. Subsection (5) pertains to the regulation of odors, which is not at issue in this case.

the district court denied WSPA's motion for reconsideration. In March 2012, the district court issued its order on remedies enjoining Defendants to determine RACT for the Oil Refineries within 26 months. The parties timely appealed.

JURISDICTION AND STANDARD OF REVIEW

We have jurisdiction under 28 U.S.C. §§ 1291 and 1292(a)(1). We review *de novo* the district court's assumption of jurisdiction. *Natural Res. Def. Council v. EPA*, 542 F.3d 1235, 1241 (9th Cir. 2008) (*NRDC*). The jurisdiction of the federal courts is limited to "cases" and "controversies." U.S. Const. art. III, § 2. "If the court determines at any time that it lacks subject-matter jurisdiction, the court must dismiss the action." Fed. R. Civ. P. 12(h)(3).

DISCUSSION

Defendants contend for the first time on appeal that this case must be dismissed for lack of Article III standing, or in the alternative, because Plaintiffs lack statutory standing. Although Defendants did not advance these objections below, we may consider them here, since a jurisdictional defect is a non-waivable challenge that may be raised at any time during the proceedings, including on appeal. *See United States v. Hays*, 515 U.S. 737, 742 (1995); *Renee v. Duncan*, 686 F.3d 1002, 1012 (9th Cir. 2012). We also have an independent duty to assure that standing exists, irrespective of whether the parties challenge it. *Summers v. Earth Island Inst.*, 555 U.S. 488, 499 (2009).

I. Standing – General Requirements

A plaintiff must demonstrate standing for each claim he or she seeks to press and for each form of relief sought. *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 352 (2006). The plaintiff also bears the burden of proof to establish standing “with the manner and degree of evidence required at the successive stages of the litigation.” *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992). While “[a]t the pleading stage, general factual allegations of injury resulting from the defendant’s conduct may suffice,” in responding to a summary judgment motion, “the plaintiff can no longer rest on such mere allegations, but must set forth by affidavit or other evidence specific facts, which for purposes of the summary judgment motion will be taken to be true.” *Id.* (citation and quotes omitted); *accord Gerlinger v. Amazon.com Inc.*, 526 F.3d 1253, 1255–56 (9th Cir. 2008). “A plaintiff’s basis for standing must affirmatively appear in the record.” *Salmon Spawning & Recovery Alliance v. Gutierrez*, 545 F.3d 1220, 1228 n.5 (9th Cir. 2008) (citation and quotes omitted).

Where, as here, plaintiffs are organizations, they may assert standing on behalf of their members as long as the “members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization’s purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.” *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc.*, 528 U.S. 167, 181 (2000); *see also NRDC*, 542 F.3d at 1244.

In this case, Plaintiffs WEC and the Sierra Club are non-profit conservation groups dedicated to environmental

protection in Washington State. The WEC focuses on state level policy-making and implementation. It consists of roughly 3,500 member households and 55 member organizations. Its members routinely enjoy recreation in the North Cascades, Olympic, and Mount Rainer National Parks. The Sierra Club, with approximately 20,000 members in Washington, is dedicated to exploring, enjoying, and protecting waterways, mountains, forests, sustainable agriculture, air quality, and global and regional climates. The Sierra Club regularly organizes outings for its members in public places. In support of standing, three members of WEC and three members of the Sierra Club each submitted affidavits attesting to their current and future injuries resulting from elevated levels of greenhouse gases. Thus, the relevant inquiry is whether at least one member from each group has established standing to sue in his or her right. *Carrico v. City and Cnty. of San Francisco*, 656 F.3d 1002, 1005 (9th Cir. 2011).

II. Constitutional Requirements

For Article III standing, a plaintiff must satisfy three “irreducible constitutional minimum” requirements: (1) he or she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision. *Lujan*, 504 U.S. at 560–61; *see also NRDC*, 542 F.3d at 1244.

A. Injury In Fact

Plaintiffs allege that Defendants’ failure to set and apply RACT standards has contributed to greenhouse gas pollution and caused their members to suffer recreational, aesthetic,

economic, and health injuries, in violation of the RACT and Narrative provisions. An environmental plaintiff may satisfy the injury requirement by showing that the challenged activity impairs his or her “economic interests or “[a]esthetic and environmental well-being.” *Natural Res. Def. Council v. EPA*, 526 F.3d 591, 601 (9th Cir. 2008) (quoting *Sierra Club v. Morton*, 405 U.S. 727, 734 (1972)); see also *Friends of the Earth*, 528 U.S. at 183 (“[E]nvironmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity.” (citation and quotes omitted)). Injury may also include the risk of future harm—*i.e.*, ““a connection to the area of concern sufficient to make credible the contention that the person’s future life will be less enjoyable—that he or she really has or will suffer in his or her degree of aesthetic or recreational satisfaction—if the area in question remains or becomes environmentally degraded.”” *Ocean Advocates v. U.S. Army Corps. Eng’rs*, 402 F.3d 846, 859 (9th Cir. 2005) (quoting *Ecological Rights Found. v. Pac. Lumber Co.*, 230 F.3d 1141, 1149 (9th Cir. 2000)).

WEC and Sierra Club members have submitted declarations attesting to specific aesthetic and recreational injuries allegedly resulting from the Agencies’ failure to control greenhouse gas emissions. Scott Stromatt, an officer and long-time member of the Sierra Club, states that his members’ enjoyment of outings to Washington’s natural areas has and will be diminished because those “areas have been impacted by climate change through changes in precipitation patterns, reduction of glaciers, changes in wildlife habitat, [and] increased risk of forest fire.” Stromatt Decl. ¶¶ 5–6. For example, Terese Vanassche—a member and volunteer of the Sierra Club for 20 years—is an avid

snowshoer who routinely travels to Mt. Rainer, Mt. Shuksan and Baker, Stevens Pass Lanham Lake, and the Wild Sky Wilderness. Vanassche Decl. ¶ 3. She states that her “ability to engage in snowshoeing has been diminished because of elevated levels of greenhouse gases in the atmosphere,” which have increased temperatures and reduced snow pack in Washington. *Id.* ¶¶ 4–5. Due to reduced snow pack in 2008 and 2009, she was forced to either cancel snowshoeing and cross-country ski trips or change their venue. *Id.* ¶ 4. She states that future outings to those locations are threatened by poor snow pack and high avalanche conditions. *Id.* ¶¶ 5–6. Likewise, WEC members David Gorton and Jabez Blumenthal are life-long skiers who are concerned that increased alpine temperatures and decreased snow pack have reduced and will reduce the viability of their favorite ski spots at Snoqualmie Pass and shorten the ski season at those locations. Gorton Decl. ¶¶ 14–15; Blumenthal Decl. ¶ 9. In addition to skiing, Mr. Gorton enjoys backpacking at least five times a year throughout the Cascades and the Olympics. Gorton Decl. ¶ 16. He states that climate changes have degraded and will degrade the habitat of native species, thereby decreasing his enjoyment of the sub-alpine environments near Crater Peak. *Id.* Mr. Blumenthal, too, enjoys other recreational activities, including hiking, mountaineering, and glacier climbing. He is concerned that climate change will negatively affect his enjoyment of climbing the glaciated volcanoes in Washington and Mt. Rainier. Blumenthal Decl. ¶ 10.

WEC and Sierra Club members further state that their properties have been damaged by climate change. For example, Rodney Brown, a WEC officer and member, attests that flooding from the Teanaway River has eroded his 40-acre farmland. Brown Decl. ¶ 12. He is concerned that flooding

and decreased water availability will further reduce the benefits from and enjoyment of his property. *Id.* ¶¶ 13–14. Mr. Gorton similarly states that flooding—particularly heavy rains in 2008—has damaged his Seattle home and threatens further harm to his property. Gorton Decl. ¶ 13. Mr. Blumenthal also attests that his 2,000-acre ranch in Eastern Washington has been, twice, burned by wildfires, charring his once tree-lined ridge into “a row of black dead spikes.” Blumenthal ¶¶ 11–13, 16. He fears that “as global climate change worsens, the frequency and intensity of wildfires near [his] property will increase,” and diminish the value and enjoyment of his property. *Id.* ¶ 15.

Finally, Plaintiffs’ members claim that their or their family’s health has been negatively affected by climate changes. For instance, Aaron Robins, a member of the Sierra Club, is an asthma patient who is concerned that his “health is personally endangered by uncontrolled climate pollution from oil refineries operating with outdated equipment and processes.” Robins ¶ 8. Ms. Vanassche’s son also suffers from muscular dystrophy that has diminished his capacity to clear his lungs of air pollutants. She and her son live four miles from two oil refineries emitting greenhouse gases in Washington. Vanassche Decl. ¶ 7. She fears that higher air temperatures and ozone pollution—exacerbated by global warming—expose her son to increased respiratory problems. *Id.* Ms. Vanassche has expended significant time and resources in caring for her son while he suffers from air quality-related ailments. *Id.*

Defendants do not dispute the accuracy of these statements of injuries. Nor do they challenge their legal sufficiency. For the purposes of this case, we assume without deciding, that the declarations submitted by WEC and Sierra

Club members have provided “specific facts,” *Lujan*, 504 U.S. at 561, of immediate and concrete injuries. *Natural Res. Def. Council*, 526 F.3d at 601; *Friends of the Earth*, 528 U.S. at 183. Plaintiffs have therefore satisfied the first prong under *Lujan*.

B. Causality

Plaintiffs allege that their injuries are causally linked to the Agencies’ failure to set and apply RACT standards. WSPA contends that the chain of causality between Defendants’ alleged misconduct and their injuries is too attenuated. WSPA argues that Plaintiffs do not, and cannot, show causality. We agree.

To satisfy the causality element for Article III standing, Plaintiffs must show that the injury is causally linked or “fairly traceable” to the Agencies’ alleged misconduct, and not the result of misconduct of some third party not before the court. *See Lujan*, 504 U.S. at 560–61. “The line of causation between the defendant’s action and the plaintiff’s harm must be more than attenuated.” *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 867 (9th Cir. 2012) (citations and quotes omitted), *cert denied*, 133 S. Ct. 2390 (2013). A “causal chain does not fail simply because it has several links, provided those links are not hypothetical or tenuous and remain plausible.” *Id.* (citations, quotes, and bracket omitted). Nor does standing require the defendant’s action to be the sole source of injury. *See Barnum Timber Co. v. EPA*, 633 F.3d 894, 901 (9th Cir. 2011). Nevertheless, “where the causal chain involves numerous third parties whose independent decisions collectively have a significant effect on plaintiffs’ injuries, . . . the causal chain is too weak

to support standing.” *Native Vill. of Kivalina*, 696 F.3d at 867 (citations, quotes, and bracket omitted).

We assume without deciding that man-made sources of GHG emissions are causally linked to global warming and detrimental climate change. *See Massachusetts*, 549 U.S. at 507–09; *Barnes v. U.S. Dep’t of Transp.*, 655 F.3d 1124, 1140 (9th Cir. 2011); 74 Fed. Reg. at 66524–66535. Plaintiffs provide a litany of adverse environmental effects in Washington, which Defendants do not dispute, and are supported by various research reports: increased temperatures, changes in precipitation and snow pack, flooding and storm damages, increased wildfires, adverse effects on agriculture and irrigation, disruptions to ecosystems, decreases in forest productivity, among others. The EPA, too, admonishes that “[e]ach additional ton of greenhouse gases emitted commits us to further change and greater risks.” 77 Fed. Reg. 22392, 22395 (Apr. 13, 2012) (citation and quotes omitted).

We do not discount the gravity of these asserted environmental effects or gainsay the EPA’s warning that continuing greenhouse gas emissions creates greater risks of harm. However, we may act only where we are granted power to do so by the Constitution and applicable statutes and regulations. *Exxon Mobil Corp. v. Allapattah Servs., Inc.*, 545 U.S. 546, 552 (2005). One such limitation on our power to act is Article III standing. *See Bender v. Williamsport Area Sch. Dist.*, 475 U.S. 534, 541–42 (1986). Under *Lujan*’s causality prong, Plaintiffs must show that a causal connection exists between their asserted injuries and the conduct complained of—*i.e.*, the Agencies’ failure to set and apply RACT standards. Therein lies the problem. Plaintiffs offer only vague, conclusory statements that the Agencies’ failure

to set RACT standards at the Oil Refineries contributes to greenhouse gas emissions, which in turn, contribute to climate-related changes that result in their purported injuries. *See, e.g.*, Vanassche Decl. ¶ 6 (“I fear that continuing greenhouse gas emissions from industrial facilities and other sources, including the oil refineries that operate in Washington State, will contribute to further reductions of winter snowpack in the region and make it more difficult or impossible for me to engage in snowshoeing in the future.”); Stromatt Decl. ¶ 7 (“[T]he failure of the Agencies to take the actions described . . . will result in additional greenhouse gas emissions in Washington State that will exacerbate changes to the regional and global climates.”); Gorton Decl. ¶ 17 (“The failure of the clean air agencies to require [RACT] that can result in reductions to greenhouse gas emissions at the oil refineries has harmed me, and other WEC members, by failing to reduce and control air pollutant emissions that cause or contribute to climate change and its negative impacts on my property, my health, and my way of life.”). Plaintiffs’ causal chain—from lack of RACT controls to Plaintiffs’ injuries—consists of a series of links strung together by conclusory, generalized statements of “contribution,” without any plausible scientific or other evidentiary basis that the refineries’ emissions are the source of their injuries. While Plaintiffs need not connect each molecule to their injuries, simply saying that the Agencies have failed to curb emission of greenhouse gases, which contribute (in some undefined way and to some undefined degree) to their injuries, relies on an “‘attenuated chain of conjecture’ insufficient to support standing.” *Salmon Spawning*, 545 F.3d at 1228 (quoting *Ecological Rights Found.*, 230 F.3d at 1152). Plaintiffs thus have failed to satisfy their evidentiary burden of showing

causality at the summary judgment stage. *See Lujan*, 504 U.S. at 561–62.⁶

Indeed, attempting to establish a causal nexus in this case may be a particularly challenging task. This is so because there is a natural disjunction between Plaintiffs’ localized injuries and the greenhouse effect. Greenhouse gases, once emitted from a specific source, quickly mix and disperse in the global atmosphere and have a long atmospheric lifetime. Current research on how greenhouse gases influence global climate change has focused on the cumulative environmental effects from aggregate regional or global sources. But there is limited scientific capability in assessing, detecting, or measuring the relationship between a certain GHG emission source and localized climate impacts in a given region. As the U.S. Geological Survey observed, “[i]t is currently beyond the scope of existing science to identify a specific source of CO₂ emissions and designate it as the cause of specific climate impacts at an exact location.” Ltr. from Director, U.S. Geological Survey to Director, U.S. Fish & Wildlife Service, *The Challenges of Linking Carbon Emissions, Atmospheric Greenhouse Gas Concentrations, Global Warming, and Consequential Impacts* (May 14, 2008). Thus, according to the unchallenged declaration of WSPA’s expert, “it is not possible to quantify a causal link,

⁶ In a different context, the Second Circuit held that to satisfy the causality requirement, “[i]t is sufficient that [plaintiffs] allege that Defendants’ [GHG] emissions contribute to their injuries.” *See Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309, 347 (2d Cir. 2009), *rev’d on non-standing grounds by AEP*, 131 S. Ct. at 2450. Contrary to Plaintiffs’ argument, however, that ruling is unpersuasive here because the Second Circuit case involved a different procedural posture (a motion to dismiss, rather than summary judgment) and state entities—both of which permit less strenuous levels of proof to achieve standing. *See infra* n.8.

in any generally accepted scientific way, between GHG emissions from any single oil refinery in Washington, or the collective emissions of all five oil refineries located in Washington, and direct, indirect or cumulative effects on global climate change in Washington or anywhere else.” Umenhofer Decl. ¶ 8. We have also explained in a case involving potential GHG emissions from aviation activities that the causal chain between those activities and localized environmental harm is untenable. *See Barnes*, 655 F.3d at 1140 (stating that aviation activities accounting for .03% of U.S.-based greenhouse gas emissions do “not translate into locally-quantifiable environmental impacts given the global nature of climate change”).

Moreover, there are numerous independent sources of GHG emissions, both within and outside the United States, which together contribute to the greenhouse effect. As we noted in *Native Vill. of Kivalina*, “global warming has been occurring for hundreds of years and is the result of a vast multitude of emitters worldwide whose emissions mix quickly, stay in the atmosphere for centuries, and, as a result, are undifferentiated in the global atmosphere.” 696 F.3d at 868. Here, the five oil refineries in Washington emit 5.94 metric tons of carbon dioxide equivalents, and are responsible for 5.9% of GHG emissions in Washington. According to WSPA’s expert, however, the effect of this emission on global climate change is “scientifically indiscernible,” given the emission levels, the dispersal of GHGs world-wide, and “the absence of any meaningful nexus between Washington refinery emissions and global GHG concentrations now or as projected in the future.” Umenhofer Decl. ¶ 10. Because a multitude of independent third parties are responsible for the changes contributing to Plaintiffs’ injuries, the causal chain

is too tenuous to support standing. *Native Vill. of Kivalina*, 696 F.3d at 867.

In response, Plaintiffs argue that where, as here, they seek to enforce a specific regulatory obligation, a causal connection is inferred. That argument is unavailing. In *NRDC*, we observed in the context of the Clean Water Act that “[w]here Congress has expressed the need for specific regulations relating to the environment, that expression supports an inference that there is a causal connection between the lack of those regulations and *adverse environmental effects*.” 542 F.3d at 1248 (emphasis added). Plaintiffs maintain that because the RACT provision applies to GHG emissions, we must infer a causal link between the Agencies’ failure to set RACT standards and adverse environmental effects. But even assuming—without deciding—that Washington’s SIP mandates control of GHG emissions, the critical inquiry for standing purposes is whether the Agencies’ alleged misconduct causes injury to *Plaintiffs*. Injury to the environment alone is not enough to satisfy the causation prong for standing. *NRDC*, 542 F.3d at 1245 (“The injury to the plaintiff, not to the environment, is the relevant showing.”). Here, Plaintiffs must still establish that their specific, localized injuries are fairly traceable to the Agencies’ failure to set RACT standards for the GHG emissions from the Oil Refineries. As discussed above, Plaintiffs fail to satisfy this burden because the record shows no evidentiary support establishing this causal nexus.

Nor can we extend—as Plaintiffs urge—the holding of *Massachusetts v. EPA* to the present circumstances.⁷ In that

⁷ During oral argument, Plaintiffs identified *Massachusetts v. EPA* as the strongest case supporting their position.

case, a group of states, local governments, and private organizations petitioned for review of an EPA order denying a rulemaking petition for regulation of GHG emissions from new motor vehicles under CAA § 202. *Massachusetts*, 549 U.S. at 505. As a threshold issue, the Court determined that the plaintiffs had Article III standing because at least one petitioner—Massachusetts—had standing to seek review. *Id.* at 516–26. The Court, however, relaxed the standing requirement for Massachusetts based on two factors. First, the Court noted that Massachusetts was exercising a procedural right to challenge the rejection of its rulemaking petition, which permitted it to “assert that right without meeting all the normal standards for redressability and immediacy.” *Id.* at 517–18 (citation and quotes omitted). Second, the Court emphasized at length, “the special position and interest of Massachusetts” as a “sovereign State.” *Id.* at 518. Quoting *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 237 (1907), a case where Georgia sued to protect its citizens from air pollution emanating from outside its borders, the Court remarked that it has long recognized the interests of states, in their quasi-sovereign capacity, as “independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air.” *Id.* at 518–19. “Just as Georgia’s independent interest ‘in all the earth and air within its domain’ supported federal jurisdiction a century ago, so too does Massachusetts’ well-founded desire to preserve its sovereign territory today.” *Id.* at 519. The Court stressed that these two factors entitled Massachusetts to “special solicitude” in its standing analysis. *Id.* at 520; *see also Am. Elec. Power Co.*, 582 F.3d at 336–38 (discussing the effects of *Massachusetts* on the standing analysis). With that in mind, the Court determined that Massachusetts satisfied the

Lujan requirements for standing. Specifically, with regard to causality, the Court rejected the EPA’s argument that GHG emissions from new motor vehicles contribute too insignificantly to the petitioners’ climate change-related injuries to justify standing. *Id.* at 523–25. The Court considered evidence that U.S. motor-vehicle emissions constituted 1.7 billion metric tons in 1999 alone, or over 6% of world-wide carbon dioxide emissions—which it concluded constitutes a “meaningful contribution” to GHG concentrations, and thus, to global warming. *Id.* at 525.

In contrast to *Massachusetts v. EPA*, the present case neither implicates a procedural right nor involves a sovereign state. Rather, Plaintiffs are private organizations, and therefore cannot avail themselves of the “special solicitude” extended to Massachusetts by the Supreme Court. See *Amnesty Int’l USA v. Clapper*, 667 F.3d 163, 197 n.2 (2d Cir. 2011) (Livingston, J., dissenting from denial of rehearing en banc) (observing that the application of *Massachusetts* to the case was limited because the two factors warranting “special solicitude”—a procedural right and sovereign status—were absent); Richard H. Fallon, Jr., et al., *Hart and Wechsler’s The Federal Courts and the Federal System* 146 (6th ed. 2009) (suggesting *Massachusetts* may be “easily distinguishable on the ground that it involved ‘special solicitude’ for a state plaintiff protecting its quasi-sovereign interests”); Calvin Massey, *State Standing After Massachusetts v. EPA*, 61 Fla. L. Rev. 249, 253, 260–68 (2009) (interpreting the standing analysis in *Massachusetts* as only applying to state litigants to prosecute claims that would not be cognizable by individual plaintiffs).

But even if we assume that Plaintiffs’ members are entitled to a comparable relaxed standard, the extension of

Massachusetts to the present circumstances would not be tenable. As true of the plaintiffs in *Massachusetts*, 549 U.S. at 523, the Agencies here do not challenge the causal link between man-made GHG emissions and global warming. At a minimum, therefore, the Agencies do not dispute that the lack of controls at the Oil Refineries “contribute” to Plaintiffs’ injuries. But Plaintiffs further insist that any and all contribution of greenhouse gases must be curbed and that this justifies standing. *See, e.g.*, Blumenthal Decl. ¶ 17 (“All greenhouse gas emissions worsen the global climate change problem, regardless of where on the planet they are emitted, and we need to reduce all the emissions that we can, wherever we can.”). The Supreme Court, however, did not endorse such a position, even as it acknowledged that it is error to assume that “a small incremental step, because it is incremental, can never be attacked in a federal judicial forum.” 549 U.S. at 524. Rather, the Court observed that the GHG emission levels from motor vehicles were a “meaningful contribution” to global GHG concentrations, given that the U.S. motor-vehicle sector accounted for 6% of *world-wide* carbon dioxide emissions. Here, the GHG emissions are from five oil refineries in Washington, making up 5.9% of emissions in *Washington*. While this may be a significant portion of state emissions, Plaintiffs do not provide any evidence that places this statistic in national or global perspective to assess whether the refineries’ emissions are a “meaningful contribution” to global GHG levels. Given the lack of evidence on this point and the fact that Plaintiffs are not sovereigns, we cannot logically apply the reasoning set forth in *Massachusetts* to this case.⁸

⁸ The Supreme Court’s ruling on standing in *AEP* does not change our analysis. The Court in *AEP* summarily affirmed, by an equally divided Court, that the court below had jurisdiction and proceeded to the merits.

C. Redressability

Plaintiffs claim that their injuries would be redressed by a court order requiring Defendants to control greenhouse gas emissions from the Oil Refineries. We agree with WSPA that Plaintiffs fail to satisfy this prong for many of the same reasons they fail to meet the causality requirement.

The Supreme Court has clarified that the “fairly traceable” and “redressability” components for standing overlap and are “two facets of a single causation requirement.” *Allen v. Wright*, 468 U.S. 737, 753 n.19 (1984) (citation and quotes omitted). The two are distinct insofar as causality examines the connection between the alleged misconduct and injury, whereas redressability analyzes the connection between the alleged injury and requested judicial relief. *Id.* Redressability does not require certainty, but only a substantial likelihood that the injury will be redressed by a

AEP, 131 S. Ct. at 2535. Four of the Justices ruled that under *Massachusetts*, “which permitted a *State* to challenge EPA’s refusal to regulate greenhouse gas emissions,” at least some plaintiffs in that case—which included eight states—had Article III standing to sue electric power companies for common law nuisance arising from their GHG emissions. *Id.* (emphasis added). The *AEP* plaintiffs alleged that the electric companies were the five largest emitters of carbon dioxide in the United States, collectively responsible for 650 million tons annually—equivalent to 25% of emissions from the domestic electric power sector, 10% of emissions from all human activities, and 2.5% of all man-made emissions worldwide. *Id.* at 2533–34. As in *Massachusetts*, however, at least some of the plaintiffs in *AEP* were sovereign states that were entitled to “special solicitude” for standing purposes. Moreover, the *AEP* plaintiffs, at the pleading stage, made claims specifying the defendants’ contribution to global GHG levels. In contrast, Plaintiffs here fail to provide any allegation or evidence of global GHG levels at the summary judgment stage.

favorable judicial decision. *Wolfson v. Brammer*, 616 F.3d 1045, 1056 (9th Cir. 2010).

Here, as a preliminary matter, the record is devoid of any evidence that RACT standards would curb a significant amount of GHG emissions from the Oil Refineries. According to WSPA's uncontested evidence, the Director of Ecology's air program explained that when the Governor of Washington issued her climate change executive order in 2009, Ecology considered whether to use the RACT tool to reduce greenhouse gas emissions. Ecology ultimately decided not to pursue controls on its own initiative in light of its conclusion that "RACT would likely not result in meaningful greenhouse gas reductions because RACT is a low bar and many sources are likely already meeting or exceeding RACT." Clark Decl. ¶ V. Instead, Ecology decided to use its "limited resources to pursue other efforts to reduce greenhouse gas emissions that presented a greater likelihood of meaningful greenhouse gas reductions." *Id.*

Even if we assume that RACT standards would eliminate all GHG emissions from the Oil Refineries, Plaintiffs have not submitted any evidence that an injunction requiring RACT controls would likely reduce the pollution causing Plaintiffs' injuries. To the contrary, the evidence below supports the opposite conclusion. It is undisputed that GHG emissions is not a localized problem endemic to Washington, but a global occurrence. Because the effect of collective emissions from the Oil Refineries on global climate change is "scientifically indiscernible," Umenhofer Decl. ¶ 10, Plaintiffs' injuries are likely to continue unabated even if the Oil Refineries have RACT controls.

Plaintiffs nevertheless insist that pursuant to *Massachusetts v. EPA*, they need not show that RACT controls will completely eliminate greenhouse gas pollution or reduce emissions by a specific amount. Plaintiffs argue that it is enough that some control of greenhouse gas pollution causing their injury is contemplated by the RACT controls. Again, Plaintiffs' reliance on *Massachusetts* is misplaced. Plaintiffs attempt to transplant the relaxed standing rule the Court carved out for a sovereign state to their own circumstances. Plaintiffs are not sovereign states and thus the Court's standing analysis does not apply.

CONCLUSION

Because Plaintiffs have not met their burden in satisfying the "irreducible constitutional minimum" requirements for Article III standing under either the causality or redressability prong discussed in *Lujan*, the district court lacked jurisdiction to hear the parties' dispositive motions on the merits. We thus VACATE the district court's order on the parties' dispositive motions, and REMAND to the district court with instructions that the action be dismissed for lack of subject matter jurisdiction. *Maya v. Centex Corp.*, 658 F.3d 1060, 1067 (9th Cir. 2011).

VACATED and REMANDED, with instructions.