

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

LEAGUE OF WILDERNESS  
DEFENDERS/BLUE MOUNTAINS  
BIODIVERSITY PROJECT, an Oregon  
nonprofit corporation; KETTLE  
RANGE CONSERVATION GROUP, a  
Washington nonprofit corporation;  
THE LANDS COUNCIL, a Washington  
nonprofit corporation; HELLS  
CANYON PRESERVATION COUNCIL, an  
Oregon nonprofit corporation;  
OREGON NATURAL RESOURCES  
COUNCIL, an Oregon nonprofit  
corporation; NORTHWEST  
ECOSYSTEM ALLIANCE, a  
Washington nonprofit corporation;  
AMERICAN LANDS, an Oregon  
nonprofit corporation,

*Plaintiffs-Appellants,*

v.

HARV FORSGREN, in his official  
capacity as Regional Forester,  
Pacific Northwest Region, U.S.  
Forest Service; UNITED STATES  
FOREST SERVICE, an agency of the  
United States,

*Defendants-Appellees.*

No. 01-35729  
D.C. No.  
CV-00-01383-RE  
OPINION

Appeal from the United States District Court  
for the District of Oregon  
James A. Redden, District Judge, Presiding

Argued and Submitted  
April 2, 2002—Seattle, Washington

Filed November 4, 2002

Before: Dorothy W. Nelson, David R. Thompson and  
Richard A. Paez, Circuit Judges.

Opinion by Judge D.W. Nelson

**COUNSEL**

Marianne Dugan, Facaros & Dugan, Eugene, Oregon; Lauren Regan, Eugene Oregon, Brent Foster, Portland, Oregon, for the appellants.

John C. Cruden, Acting Assistant Attorney General, Environment and Natural Resources Division, Washington D.C.; Kristine Olson, United States Attorney, Thomas C. Lee, Assistant United States Attorney, Val. J. McLam Black, Special Assistant United States Attorney, Portland, Oregon; Ellen J. Durkee, Paul S. Weiland, Environment and Natural Resources Division, Department of Justice, Washington D.C., for the appellees.

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**OPINION**

D.W. NELSON, Senior Circuit Judge:

Appellees Harv Forsgren and the United States Forest Service (“Forest Service”) have underway a program of annual aerial insecticide spraying over 628,000 acres of national forest lands in Washington and Oregon. The spraying is aimed at controlling a predicted outbreak of the Douglas Fir Tussock Moth (“Moth”), which kills Douglas Fir trees.

Appellants League of Wilderness and seven other environmental groups (“Environmental Groups”) filed suit in district court challenging the spraying program. They assert that the Environmental Impact Statement (“EIS”) prepared by the Forest Service was inadequate and that the Forest Service failed to obtain a National Pollution Discharge Elimination System permit (“NPDES permit”), which the Environmental Groups argue is required for this type of aerial spraying. The district court granted summary judgment on the EIS and NPDES claims in favor of the Forest Service. The Environmental Groups appeal on both issues. We have jurisdiction pursuant to 28 U.S.C. § 1291 and we reverse with instructions to the district court to enter an injunction prohibiting the Forest Service from further spraying until it acquires an NPDES permit and completes a revised EIS.

*I. FACTUAL BACKGROUND*

In the early 1970’s the Moth defoliated approximately 700,000 acres in Oregon, Washington, and Idaho. After that outbreak, the Forest Service developed an early warning system to predict future Moth outbreaks. Based on its warning system, the Forest Service predicted an outbreak in 2000-2002 and designed the spraying program that is the subject of this litigation to reduce its anticipated impact. Moth outbreaks are a natural occurrence in forest ecology and serve the purpose of thinning the forest to create stand openings. However,

the Forest Service concluded that the predicted outbreak would cause unacceptable levels of damage in scenic areas, critical habitat areas, and areas where the Forest Service has invested in improvements such as seed orchards.

The record reveals a number of harmful side effects associated with the aerial spraying program. Insecticide will drift outside of the area targeted for spraying and may kill beneficial species, including butterflies. Because aircraft conducting the spraying discharge insecticides directly above streams, stoneflies and other aquatic insects may be affected, reducing food supplies for salmon and other fish. The spraying could also adversely affect birds and plants.

## II. STANDARD OF REVIEW

This court reviews the district court's grant of summary judgment *de novo*. *Hall v. Norton*, 266 F.3d 969, 975 (9th Cir. 2001). We review an agency's decision from the same position as the district court. *Nevada Land Action Ass'n v. United States Forest Serv.*, 8 F.3d 713, 716 (9th Cir. 1993). Judicial review of agency decisions under NEPA is governed by the Administrative Procedure Act ("APA"), which specifies that an agency action shall be overturned where it is found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). We review a district court's interpretation of the Clean Water Act *de novo*. *Pinal Creek Group v. Newmont Mining Corp.*, 118 F.3d 1298, 1300 (9th Cir. 1997) (holding Court of Appeals reviews district court's interpretation of a statute *de novo*). We review a district court's interpretation of a federal regulation *de novo*. *Hopi Tribe v. Navajo Tribe*, 46 F.3d 908, 918 (9th Cir. 1995). An agency's interpretation of its own regulations is entitled to deference unless it is plainly erroneous or inconsistent with the regulation, *Auer v. Robbins*, 519 U.S. 452, 461 (1997), and so long as the agency's interpretation of the regulation is based on a permissible construction of the governing statute. *Id.* at 457.

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### III. DISCUSSION

#### A. NPDES Claim

##### 1. Point Source And Nonpoint Source Water Pollution And NPDES Permit Requirements

[1] The Clean Water Act, 33 U.S.C. §§ 1251-1387, requires that government agencies obtain an NPDES permit before discharging pollutants from any “point source” into navigable waters of the United States. 33 U.S.C. § 1323(a). This type of pollution is commonly referred to as “point source pollution.” Absent the required permit, such discharge is unlawful. Point source pollution is distinguished from “nonpoint source pollution,” which is regulated in a different way and does not require the type of permit at issue in this litigation.

The issue before us is whether spraying insecticide from aircraft (as the Forest Service is doing without a permit) is point source pollution or nonpoint source pollution. If the Forest Service’s aerial spraying is classified as point source pollution, then the Forest Service must obtain a permit. If the spraying is classified as nonpoint source pollution, then no permit is required. The Forest Service argues that its aerial spraying should be classified as nonpoint source pollution, while the Environmental Groups argue that it should be classified as point source pollution.

Although nonpoint source pollution is not statutorily defined, it is widely understood to be the type of pollution that arises from many dispersed activities over large areas, and is not traceable to any single discrete source. Because it arises in such a diffuse way, it is very difficult to regulate through individual permits. The most common example of nonpoint source pollution is the residue left on roadways by automobiles. Small amounts of rubber are worn off of the tires of millions of cars and deposited as a thin film on highways; minute particles of copper dust from brake linings are spread

across roads and parking lots each time a driver applies the brakes; drips and drabs of oil and gas ubiquitously stain drive-ways and streets. When it rains, the rubber particles and copper dust and gas and oil wash off of the streets and are carried along by runoff in a polluted soup, winding up in creeks, rivers, bays, and the ocean. Nonpoint source pollution of this kind is the largest source of water pollution in the United States, far outstripping point source pollution from factories, sewage plants, and chemical spills. *See, e.g., www.epa.gov/region4/water/nps* (last visited 9/17/02).

[2] On the other hand, point source pollution discharges that require an NPDES permit are statutorily defined. The definition, which is found in several different code sections, was deftly laid out by the United States Supreme Court:

Under the [Clean Water Act], the “discharge of any pollutant” requires a National Pollutant Discharge Elimination System (NPDES) permit. 33 U.S.C. §§ 1311(a), 1323(a). . . . The term “discharge of any pollutant” is defined as

“any addition of any *pollutant* to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.” 33 U.S.C. § 1362(12) (emphasis added).<sup>1</sup>

Pollutant, in turn, means

“dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge,

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<sup>1</sup>The waters covered also include all “navigable waters” of the United States. 33 U.S.C. § 1362(12). The parties in this litigation do not dispute that the rivers and streams in the area being sprayed by the Forest Service are navigable waters of the United States within the definition of the Clean Water Act.

munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water . . . .” 33 U.S.C. § 1362(6).<sup>2</sup>

And, under the Act, a “point source” is

“any discernable, confined and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other *floating craft from which pollutants are or may be discharged.*” 33 U.S.C. § 1362(14) (emphasis added).

*Weinberger v. Romero-Barcelo*, 456 U.S. 305, 308-09 (1982).

[3] In the present case, the insecticides at issue meet the definition of “pollutant” under the Clean Water Act, and Forest Service aircraft spray these insecticides directly into rivers, which are waters covered by the Clean Water Act. Further, an airplane fitted with tanks and mechanical spraying apparatus is a “discrete conveyance.” Therefore all the elements of the definition of point source pollution are met.

## *2. The Forest Service’s Arguments For Excluding The Aerial Spraying From NPDES Permit Requirements*

The Forest Service does not dispute any of this, but rather relies on a regulation drafted by the United States Environmental Protection Agency (“EPA”), two letters written by the

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<sup>2</sup>The parties do not dispute that the insecticides at issue meet the definition of “pollutant” under 33 U.S.C. § 1362(6).



EPA, and a passage in a guidance document propounded by the EPA to claim that its spraying is excluded by regulation from being a point source.

*i. The Purported Exclusion By Regulation*

First, the Forest Service relies on 40 C.F.R. § 122.27, which reads in pertinent part as follows:

(b) *Definitions.* (1) *Silvicultural<sup>3</sup> point source* means any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities, which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. The term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff.

The Forest Service argues that the aerial spraying is a silvicultural pest control activity, and that the regulation excludes pollution arising from silvicultural pest control activities from NPDES permit requirements by defining such pollution as nonpoint source. The Forest Service reads the regulation as a blanket exclusion for all silvicultural pest control activities.

The Forest Service's argument fails because the statute itself is clear and unambiguous. The statutory definition of point source, "any discernible, confined and discrete conveyance, including but not limited to any . . . vessel," 33 U.S.C. § 1362(14), clearly encompasses an aircraft equipped with

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<sup>3</sup>The Forest Service advises us that silviculture is the "care and cultivation of forest trees."

tanks spraying pesticide from mechanical sprayers directly over covered waters.<sup>4</sup> The Forest Service cannot contravene the will of Congress through its reading of administrative regulations. “If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.” *Chevron, U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837, 842-43 (1984).

Unlike the Forest Service, we read the regulation to conform to the statute and to the common understanding of the difference between point source and nonpoint source pollution. We conclude that the regulation excludes from the definition of point source pollution only those silvicultural pest control activities *from which there is natural runoff*, rather than *all* silvicultural pest control activities. Again, the operative sentence reads as follows:

The term [point source] does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drain-

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<sup>4</sup>We note that other courts have not hesitated to find the discharge of pollutants from aircraft over navigable waters to be point source discharges. *Romero-Barcelo* concerned the Navy dropping bombs from aircraft into the ocean off of Vieques Island in Puerto Rico. The district court for the district of Puerto Rico, in a thorough and scholarly opinion, found that the “release or firing of ordinance from aircraft into the navigable waters of Vieques” was a point source discharge requiring an NPDES permit and that a permit was required whether the discharge was “accidental or intentional.” *Romero-Barcelo v. Brown*, 478 F.Supp. 646, 664 (D. P.R. 1979), *vacated in part on other grounds*, 643 F.2d 835 (1st Cir. 1981). On appeal, the Supreme Court did not quibble with the district court’s finding that discharge of pollutants from aircraft constitutes a point source discharge. The Supreme Court, rather, reversed the First Circuit which had vacated a portion of the district court’s order with respect to the remedy for the violation. *Weinberger v. Romero-Barcelo*, 456 U.S. at 305, 320 (1982).

age, or road construction and maintenance from which there is natural runoff.

We read the final modifying phrase, “from which there is natural runoff,” to modify all the listed activities in the sentence. Therefore, silvicultural pest control *from which there is natural runoff* would be an example of a “nonpoint source silvicultural” activity not included in the term “point source.” Simply put, the regulation excludes nonpoint source silvicultural activities from NPDES permit requirements, whereas the spraying involved here is not a nonpoint source activity at all.

We are aware that a common canon of statutory construction provides that “[r]eferential qualifying phrases, where no contrary intention appears, refer solely to the last antecedent.” 2A Singer, Sutherland—Statutory Construction § 47.33 (5th ed. 1992). However, our reading of “from which there is natural runoff” to reach back, qualifying all of the preceding antecedent examples of nonpoint source activities makes sense because nonpoint source pollution involves runoff that picks up scattered pollutants and washes them into water bodies. *Oregon Natural Desert Ass’n v. Dombeck*, 172 F.3d 1092, 1098 (9th Cir. 1998) (“Congress had classified nonpoint source pollution as *runoff* caused primarily by rainfall around activities that employ or create pollutants. Such *runoff* could not be traced to any identifiable point of discharge.”) (citing *Trustees for Alaska v. EPA*, 749 F.2d 549, 558 (9th Cir. 1984)) (citing *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979)) (citing legislative history of the Clean Water Act) (emphasis added).

The Forest Service asserted at oral argument that the qualifying phrase “from which there is natural runoff” applies only to the last antecedent “road construction and maintenance,” and does not reach back to qualify the activity at issue here, which is pest control. However, the administrative history of the regulation leaves no doubt that the qualifying phrase

“from which there is natural runoff” reaches back to qualify all the listed activities, including pest control.

An early version of this regulation reads in pertinent part as follows:

This term does not include nonpoint source activities inherent to forest management such as nursery operations, site preparation, reforestation in all stages of growth, thinning, prescribed burning, pesticide and fire control, and harvesting operations from which runoff results from precipitation events.

National Pollution Discharge Elimination System and State Program Elements Necessary for Participation, Silvicultural Activities, 41 Fed. Reg. 6281, 6283 (Feb. 12, 1976). At the time this early version of the present regulation was promulgated, “road construction and maintenance” were not among the listed activities. Road construction and maintenance were added to the list several months later in June 1976 and the proposed regulation was changed to read as follows:

This term does not include nonpoint source activities inherent to silviculture such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, and road construction and maintenance from which runoff results from precipitation events.

Part 124—State Program Elements Necessary for Participation in the National Pollutant Discharge Elimination System, Application of Permit Program to Silvicultural Activities, 41 Fed. Reg. 24709, 24711 (June 18, 1976). As the regulation was updated, the qualifying phrase remained at the end of the sentence and additional activities were simply inserted before the final qualifying phrase.<sup>5</sup> This editorial practice leaves no

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<sup>5</sup>The final modifying phrase has subsequently undergone minor rewording from “from which runoff results from precipitation events” to “from which there is natural runoff.”

doubt that the final qualifying phrase modifies all the listed activities and that the regulation means only that those listed activities from which there is natural runoff are defined as nonpoint source activities. Because discharging pesticide from aircraft directly over covered waters has nothing to do with runoff, it is not a nonpoint source activity.

The Forest Service also argues that the first sentence of the regulation limits point source silvicultural activities to only the four listed point source activities:

*Silvicultural point source* means any discernable, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities.

40 C.F.R. § 122.27. In support of this reading, the Forest Service points to a passage from the Federal Register appearing contemporaneously with the publication of the regulation: “only discharges from four activities related to silvicultural enterprises, rock crushing, gravel washing, log sorting and log storage facilities, are considered point sources and thus subject to the NPDES permit program.” 41 Fed. Reg. 24710 (June 18, 1976). The Forest Service reads this quote out of context. Our reading of the entire text explaining the regulation leaves only one reasonable conclusion: that at the time the regulation was promulgated, only these four activities had previously been identified as point source activities associated with silviculture, and they are specifically listed to make clear that it is not the intent of the new regulation to exclude them from NPDES permit requirements.

First, the explanation elucidates the general criteria applicable to silviculture for identifying nonpoint and point sources:

Basically, nonpoint sources of water pollution are identified by three characteristics:

(i) The pollutants discharged are induced by natural processes, including precipitation, seepage, percolation [sic], and runoff;

(ii) The pollutants discharged are not traceable to any discrete or identifiable facility; and

(iii) The pollutants discharged are better controlled through the utilization of best management practices, including process and planning techniques.

In contrast to these criteria identifying nonpoint sources, point sources of water pollution are generally characterized by discrete and confined conveyances from which discharges of pollutants into navigable waters can be controlled by effluent limitations. It is these point sources in the silviculture category which are most amenable to control through the NPDES program [i.e. require permits].

41 Fed. Reg. 24710. There would be no reason to announce general criteria for identifying silvicultural point sources if the narrow list of four activities was intended to be exhaustive.

Next, the explanation makes clear that the list is not exhaustive by providing the reason for listing the four activities:

By recognizing that most water pollution from silvicultural activities is nonpoint in nature, it was not intended that certain operations already identified as point sources be excluded from the permit program by definitional oversight. Thus, for the four operations incidental to silvicultural activities—rock crushing, gravel washing, log sorting and log storage—the jurisdiction and impact of these regulations remain the same.

*Id.* at 24711. The point of listing the four activities is to ensure that they continue to be subject to permit requirements after the new criteria for identifying point and nonpoint sources take effect, not to exclude all other silvicultural activities from NPDES permit requirements.

Considerable background discussion of this regulation found at 41 Fed. Reg. 6281 (Feb. 12, 1976) also makes clear that the four activities are not an exclusive list of point source activities associated with silviculture.<sup>6</sup> It is unnecessary, however, to beat an already dead horse with a continued exegesis through the yellowed pages of the Federal Register. We hold that the list of four silvicultural point source activities is not exhaustive.<sup>7</sup>

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<sup>6</sup>The Forest Service's other citations to the Federal Register, and our own review of the administrative history, yield a consistent result when read in context and in light of the history and background of the regulation. For example, at one time the EPA considered including a procedure for case-by-case identification of silvicultural point sources through application of the regulation. However, EPA decided after public comment that "designation of any additional silvicultural point sources should be through rulemaking procedures." 44 Fed. Reg. 32871 (June 7, 1979). At most, continued references to the four listed silvicultural point source activities means that the EPA has not yet had occasion to identify through appropriate rule making additional silvicultural point source activities. It does not (and cannot) mean that activities which meet the statutory definition of point source pollution are excluded from NPDES permit requirements. We note in this regard that the district court's determination in *Romero-Barcelo v. Brown*, that discharge of pollutants from aircraft is point source pollution, was not disturbed by the Supreme Court regardless of the fact that EPA had not yet promulgated rules to govern the issuance of NPDES permits for the particular type of discharge at issue. *Romero-Barcelo v. Brown*, 478 F. Supp. at 664.

<sup>7</sup>To the extent that *Sierra Club v. Martin*, 71 F.Supp.2d 1268, 1304-05 (N.D. Ga. 1996), and *Newton County Wildlife Ass'n v. Rogers*, 141 F.3d 803, 810 (8th Cir. 1998), support the Forest Service's interpretation of this regulation as excluding all but the four listed activities from NPDES permit requirements, we respectfully disagree with those opinions.

*ii. The Purported Exclusion By Informal Correspondence From The EPA*

Next, the Forest Service points to two one-paragraph letters written by the EPA (in response to Forest Service requests) and a brief passage in an EPA guidance document that indicate that no NPDES permit is required for this aerial spraying project. These documents do not help the Forest Service. To the extent that these documents purport to show that the Forest Service's interpretation of the regulation is permissible because the statute itself would allow such an interpretation, they are not due any deference. The weight accorded documents of this type when advanced for the purpose of statutory interpretation "will depend upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control." *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944). The Supreme Court has recently reaffirmed the holding in *Skidmore*, stating that "interpretations contained in formats such as opinion letters are 'entitled to respect' under our decision [in *Skidmore*], but only to the extent that those interpretations have the 'power to persuade.'" *Christensen v. Harris County*, 529 U.S. 576, 587 (2000) (quoting *Skidmore*, 323 U.S. at 140).

The two letters have very little power to persuade. They provide no analysis and do not even mention the regulation that the Forest Service relies on. The guidance document, dated March 29, 2002, is not a guidance document for silvicultural activities. Rather its subject line states that it concerns an exemption from the Clean Water Act for "Return Flows from Irrigated Agriculture." In the middle of the guidance document is a paragraph which refers to the regulation now before us and pronounces EPA's "longstanding interpretation of 'point source' with respect to silvicultural activities. EPA regulations exclude from NPDES permit requirements 'non-point source silvicultural activities such as . . . pest and fire



control . . .’ 40 CFR 122.27.” The guidance document then cites the decision of the district court in this case.

We are unable to discern any connection between the references in the guidance document to this case, which was pending before this panel at the time the guidance document was issued, and the content of the balance of the five pages of the guidance document. The exemption for return flows from irrigated agriculture, unlike the issue now before us, is a *statutory* exemption not an exclusion purportedly bestowed by regulatory interpretation. 33 U.S.C. § 1342(l)(1). Unlike the balance of the document, which carefully analyzes the statutory exemption for agricultural return flows, including references to the legislative history, the function of the exemption, and the need for parity of regulation between irrigated and non-irrigated agriculture, there is no analysis of the purported exclusion for silvicultural pest control. Indeed, the guidance document provides a good example of persuasive analysis under the *Skidmore* test with respect to agricultural return flows. The fact that such analysis is entirely lacking with respect to silvicultural pest control activities is glaring in its omission.

An agency’s interpretation of its own regulations, as opposed to its interpretation of statutes, is due deference and does not necessarily implicate the *Skidmore* test. *Auer v. Robbins*, 519 U.S. 452, 461-62 (1997). *See also Christiansen*, 529 U.S. at 587-88 (providing example of difference between *Auer* deference for regulatory interpretation and *Skidmore* deference for statutory interpretation). However, *Auer* deference is appropriate where the agency’s interpretation of its regulation is “based on a permissible construction of the [governing] statute.” *Auer*, 519 U.S. at 457 (quoting *Chevron*, 467 U.S. at 842-43). An agency simply may not interpret a regulation in a way that contravenes a statute. Furthermore, these post hoc informal documents provide no rebuttal to the contemporaneous explanation of the regulation published through notice and comment rule making in the Federal Register.

*iii. Authority Of The EPA To Define Point Source And Non-point Source Pollution*

Even if we were to accept the Forest Service's reading of the two letters and guidance document as definitive pronouncements of the EPA, we reject the Forest Service's argument that the EPA has the authority to "refine" the definitions of point source and nonpoint source pollution in a way that contravenes the clear intent of Congress as expressed in the statute. We view the Forest Service's reliance in this regard on *Natural Resources Defense Council v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977), to be misplaced. In *Costle*, the D.C. Circuit considered the predecessor of the regulation at issue today. That regulation purported to flatly *exempt* from NPDES permit requirements certain categories of point sources (rather than defining them as nonpoint sources), including several types of point sources emanating from silvicultural activities. The D.C. Circuit held that "[t]he wording of the statute, legislative history, and precedents are clear: the EPA Administrator does not have authority to exempt categories of point sources from the permit requirements of § 402 [33 U.S.C. § 1342]." *Id.* at 1377. In response to arguments that some of the activities at issue were not clearly point sources, the D.C. Circuit noted that "[t]he definition of point source in § 502(14) [33 U.S.C. § 1362(14)], including the concept of a 'discrete conveyance', suggests that there is room here for some exclusion by interpretation." *Id.* It is in this context that the D.C. Circuit went on to observe that "the power to define point and nonpoint sources is vested in EPA and should be reviewed by the court only after opportunity for full agency review and examination." *Id.* at 1382 (citation and internal quotation marks omitted).

We agree with the D.C. Circuit that the EPA has some power to define point source and nonpoint source pollution *where there is room for reasonable interpretation of the statutory definition*. However, the EPA may not exempt from NPDES permit requirements that which clearly meets the stat-

utory definition of a point source by “defining” it as a non-point source. Allowing the EPA to contravene the intent of Congress, by simply substituting the word “define” for the word “exempt”, would turn *Costle* on its head.

[4] We hold that the aerial spraying at issue here is a point source and that the Forest Service must obtain an NPDES permit before it resumes spraying.<sup>8</sup>

#### *B. NEPA Claim*

[5] NEPA, 42 U.S.C. §§ 4321-4370f, requires the preparation of a detailed EIS for all “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2). NEPA regulations and case law require disclosure of all foreseeable direct and indirect impacts. 40 C.F.R. § 1502.16; *City of Davis v. Coleman*, 521 F.2d 661, 676 (9th Cir. 1975). Agencies must adequately consider a project’s potential impacts and the consideration given must amount to a “hard look” at the environmental effects. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989).

Here, the Forest Service prepared an EIS to identify and analyze the potential impacts of the aerial spraying project. The Environmental Groups do not dispute on appeal that the

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<sup>8</sup>The Forest Service argues that we may not invalidate the regulation at issue because 33 U.S.C. § 1369(b) establishes that this regulation falls within a class of regulations that must be challenged initially in a court of appeals within 120 days of promulgation, or not challenged at all. The Forest Service applies a broad reading to the sweep of section 1369(b). It is far from clear that review of this regulation would be precluded by section 1369(b), particularly in light of the fact that this Court has counseled against expansive application of section 1369(b). *Longview Fibre Co. v. Rasmussen*, 980 F.2d 1307, 1313 (9th Cir. 1992). However, we do not reach the Forest Service’s arguments regarding section 1369(b) because we do not invalidate the regulation. Rather, we reject the Forest Service’s interpretation of the regulation and give it a construction consistent with its administrative history, case law, and the governing statute.

EIS adequately identifies and analyzes the potential impacts within the geographic area that is targeted for spraying. However, the Environmental Groups argue that the Forest Service failed to consider the impacts of the inevitable drift of pesticide into areas outside the target spray area.

The EIS does address the effect of pesticide drifting outside the target area and into designated wilderness areas. It adopts mitigation measures designed to prevent harm to moths and butterflies in adjacent wilderness areas. The mitigation measures include providing a one mile buffer zone adjacent to wilderness areas, where no spraying will occur, and use of only the less hazardous type of pesticide where there is a chance it might drift into wilderness areas. The EIS, however, does not discuss these mitigation measures with respect to drift into adjacent areas that are not designated wilderness areas. The Environmental Groups argue that the adoption of the one mile buffer zone adjacent to wilderness areas proves that it is needed to prevent drift; the fact that it is not considered or adopted for non-wilderness areas shows that drift into these areas simply was not considered.

The Forest Service responds that the analysis in the EIS of the impacts of spraying *inside* the target area coupled with statements in the Record of Decision are sufficient to comply with NEPA with respect to pesticide drift. A Record of Decision is propounded after environmental impacts have been considered in an EIS and a final decision to proceed with a project, as analyzed in the EIS, has been made. Here, with respect to pesticide drift, the Record of Decision does not implement the considerations contained in the EIS but contradicts the EIS with respect to pesticide drift.

The EIS concludes that “Neither B.t.k. nor TM-BioControl [insecticides] would affect Lepidoptera populations in any unprotected [non-target] areas.” This is quite different from the conclusions contained in the Record of Decision that:

Effects of direct application of both B.t.k. and TM-BioControl have been analyzed. Any effects of drift would be similar or less than the effects of direct application. Drift cannot be avoided. Operational guidelines will mitigate the impacts from drift.

The Record of Decision concludes that there *will* be effects of pesticide drift similar to or less than the effects of direct application, while the EIS concludes that there will *not* be any effects of pesticide drift.

The Forest Service also points to its Project Guidelines to show that pesticide drift has been adequately considered and addressed. The Project Guidelines address drift as follows: “[I]f wind will cause drift into non-target areas, spraying will be stopped or operations moved to areas with more favorable conditions . . . [and] [s]praying will be suspended when weather conditions could cause drift into no-spray areas.” The project guidelines indicate that drift will be avoided by operational precautions, but the Record of Decision flatly states that “[d]rift cannot be avoided.” The Project Guidelines and the Record of Decision contradict each other on the issue of drift, just as the EIS contradicts the Record of Decision with regard to drift.

The Project Guidelines also appear to be at variance with a Department of Agriculture document concerning drift control. The Environmental Groups characterize the Department of Agriculture document as a “guideline” for safe application of pesticides, while the Forest Service characterizes it as a “fact sheet.” In any event, the Department of Agriculture drift control document states that for “drift control” pesticides should not be applied at wind speeds over 5 miles per hour. The Project Guidelines call for spraying to stop only if wind speeds exceed 8 miles per hour.

In addition to the Environmental Groups, the Washington Department of Fish and Wildlife raised concerns about the

failure of the EIS to consider pesticide drift. In written comments addressed to the Forest Service, the Washington Department of Fish and Wildlife noted that “[t]he DEIS does not discuss Btk drift and the potential for impact to nontarget species resulting from drift. We have concerns about areas not intended (and not recommended) to receive Btk and nontarget species being impacted.” The Forest Service points to a response discussing nontarget species. However, it has not shown where it performed any further analysis of the drift issue or responded directly to its sister agency’s concerns about drift. Other circuits have held that where sister agencies pose comments such as this, the responsible agency must respond. *Silva v. Lynn*, 482 F.2d 1282, 1285 (1st Cir. 1973). Although *Silva* is not precedent in this circuit, the apparently unanswered concern of a sister agency that drift was not adequately addressed weighs as a factor pointing toward the inadequacy of the EIS.

[6] Based on our consideration of all of the above deficiencies taken together, we hold that the Forest Service’s documentation does not amount to a “reasonably complete discussion of possible mitigation measures” required by *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989), and is at best a “mere listing” of mitigation measures, without supporting analytical data. *Okanogan Highlands Alliance v. Williams*, 236 F.3d 468, 473 (9th Cir. 2000). The Forest Service did not consider how far pesticide might drift or in what direction. There does not appear to be any analysis or rationale to support the higher wind speed of 8 miles per hour as opposed to the Department of Agriculture’s recommendation of 5 miles per hour. The lack of any analysis of how far the pesticide might drift, in what direction, or of the effect of spraying or not spraying at different wind speeds coupled with the contradictory statements in the Project Guidelines, EIS, Record of Decision, and the apparently unanswered concerns of a sister agency simply do not measure up to the requirements in this Circuit for a “hard look” and discussion of mitigation measures in significant detail to ensure that

environmental consequences have been fairly evaluated. *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998). We therefore hold that the EIS did not adequately analyze the issue of pesticide drift.

#### IV. CONCLUSION

[7] We hold that the aerial spraying of pesticide being conducted by the Forest Service is point source pollution and requires an NPDES permit. We hold that the EIS inadequately analyzes the issue of pesticide drift. We remand to the district court with instructions to enjoin further spraying until the Forest Service adequately analyzes the issue of pesticide drift in a supplement to the EIS, and obtains an NPDES permit.<sup>9</sup>

**REVERSED AND REMANDED WITH  
INSTRUCTIONS.**

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<sup>9</sup>Because we are able to decide the substantive issues of this case without reference to the two scientific studies excluded by the district court, we do not reach the Environmental Groups' arguments that these studies were improperly excluded.