



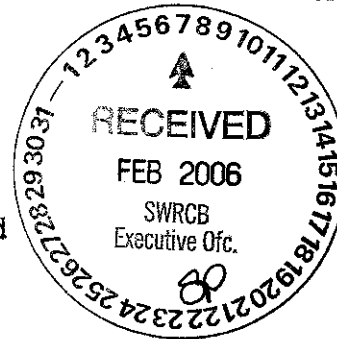
NATURAL RESOURCES DEFENSE COUNCIL

February 7, 2006

*Via email and facsimile*Atmospheric
Workshop: 2/9/06

Chair Tam Doduc and Members of the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Chair Robert Sawyer and Members of the Board
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812



Re: Comment Letter: Atmospheric Deposition and Water Quality

Dear Chair Doduc, Chair Sawyer and Members of the State Water and Air Resources Boards:

On behalf of the Natural Resources Defense Council ("NRDC") and our more than 125,000 California members, we are pleased to write this letter in support of the State Water and Air Resources Boards' initiative to meet jointly to consider the issue of atmospheric deposition and water quality. For the reasons discussed below, we urge the Boards to take critically-needed action by employing their regulatory authority to minimize the detrimental effects of atmospheric deposition on water quality in California.

Nature of the Issue

As the Boards should hear in detail at their joint hearing on February 9, atmospheric deposition is a significant cause of water quality problems ranging from acidification to toxic contamination to eutrophication. There are two types of atmospheric deposition: (1) dry deposition, which occurs when pollutants emitted into the air settle on land or waters, and (2) wet deposition, which occurs when rain, snow, or fog returns pollutants in the air to land and water bodies. The pollution can come from waste incinerator emissions, burning of fossil fuels, brake dust, metal smelting operations, diesel-fueled vehicles, or a host of other sources.¹ EPA has identified toxic compounds such as dioxins and furans, mercury, lead, sulfur, nitrogen, and PCBs as having substantial atmospheric contribution in water bodies.² The presence of such

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pollutants in waters across the nation has serious implications for human and ecological health. Mercury, for example, collects in aquatic, estuarine, and marine environments, bioaccumulates through the food chain and can cause serious neurological impairment in animals and humans. Dioxin, a known human carcinogen, also bioaccumulates in the environment.

These findings not only apply in many places across the nation, scientific studies have made clear that they reflect current conditions in California, as well. Available evidence implicates aerial deposition as a significant contributor to impairment of waterways in California. For example, a study of the Santa Monica Bay found atmospheric deposition to be a significant contributor of trace metals to the overall pollutant load of the Bay, particularly for lead (99%), chromium (50%), and zinc (43%).ⁱⁱⁱ Findings like this demand action.

Cooperative and Individual Agency Actions to Address the Problem

In spite of the significant threat atmospheric deposition poses to the health of the nation's and the State's waters, remarkably little has been done to address the problem. As both Boards consider how to move forward, we strongly encourage each to recognize that both (1) cooperative endeavors and (2) individual agency actions are necessary to address aerial deposition in California.

As to the first category, the development of technically adequate monitoring and modeling protocols leads the list of joint projects that both Boards should promptly commit to undertaking and completing in 2006. Indeed, monitoring and modeling are key aspects of any program to address atmospheric deposition. Two geographic units provide the basis for monitoring and modeling: watersheds and airsheds. While watersheds are defined by the physical features (drainage) of a landscape, an airshed is a geographical area responsible for emitting a certain percentage of air pollutants reaching a body of water.^{iv} Airsheds are determined using pollutant-specific mathematical models, because different pollutants exhibit different atmospheric chemistry, transport, and deposition characteristics.^v The information gained from monitoring and modeling watersheds and airsheds can be used in a number of helpful ways to inform air and water regulations aimed at addressing atmospheric deposition:^{vi}

- simulate water quality changes caused by atmospheric deposition;
- summarize current conditions to help identify management options;
- estimate what reductions are needed to reach specific goals; and
- detect significant impacts on ecological or human health.

With the aid of jointly developed monitoring and modeling protocols, each agency will be better equipped to take appropriate regulatory action within its own sphere of statutory responsibility. As sketched below, the Clean Water Act, Clean Air Act, and California's Porter-Cologne Act provide ample basis for the Boards to address atmospheric deposition. In fact, not only do these statutes permit strong action to control aerial deposition of pollutants, a proper implementation of each of them requires it.

The Clean Water Act's Total Maximum Daily Load ("TMDL") program exemplifies these general observations. It requires that all sources of pollution contributing to the

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impairment of a water body be included in a TMDL. 40 C.F.R. § 130.7(c). Where it is known that atmospheric deposition contributes or has the potential to contribute to pollutant loading in a given water body, such contribution must be accounted for in the TMDL allocations. Importantly, TMDLs must be established even if nonpoint source pollution is the only source of pollution to a body of water.^{viii} A crucial tool available to the Water Board in order to fulfill its duties here is the reporting requirements of the Porter-Cologne Act. Most generally, the Board is broadly empowered to request monitoring information regarding the quality of the state's waters. Cal. Water Code § 13267. In addition, any person discharging or proposing to discharge waste into any region which could affect water quality must file a technical report with the appropriate Regional Water Board. Cal. Water Code § 13260. The State Water Board could—and should—enforce this requirement beyond traditional water polluters to include air polluters, and thereby gather valuable information on the sources of atmospheric deposition. It is essential that atmospheric deposition data be taken into account to set TMDLs for impaired water bodies in order to achieve water quality standards that are intended to protect the beneficial uses of the State's waters.

Furthermore, the Porter-Cologne Act provides the State Water Board not only a useful information-gathering tool but also a direct regulatory mechanism that, properly construed, reaches air polluters whether they are contributing to an impaired watershed or not: “[N]o person shall initiate any new discharge of waste or make any material changes in any discharge . . . prior [to] the filing of a report required by Section 13260[.]” Cal. Water Code § 13264. Because the Act prohibits discharges—a prohibition backed by civil liability—unless a technical report has been filed, the Board has significant authority to regulate atmospheric deposition. *See, e.g.* Cal. Water Code § 13265.

The State Air Resources Board also has tools at its disposal that it should employ to regulate atmospheric deposition. The regulatory scheme created by the federal Clean Air Act includes secondary National Ambient Air Quality Standards (NAAQS) that are set at levels “requisite to protect the public welfare,” including public health and the environment, “from any known or anticipated adverse effects associated with the presence of such air pollutants in the air” such as atmospheric deposition. 42 U.S.C. § 7409(b)(2) (emphasis added). While EPA is responsible for identifying the pollutants for which NAAQS are set, the State Air Board is charged with developing and implementing state implementation programs (“SIPs”) to achieve and maintain the public welfare-protective NAAQS. The SIPs, and the permits granted under SIPs, can and should be used to protect the public welfare from the effects of atmospheric deposition. For instance, the Board can take into consideration collateral environmental impacts—including impacts caused by pollutants for which NAAQS have not been set by EPA—when determining control measure requirements in a specific permit.^{viii}

Furthermore, the Clean Air Act's hazardous air pollutant (“HAP”) regulatory scheme requires EPA to consider atmospheric deposition and bioaccumulation of toxic pollutants and the adverse environmental consequences—including any reasonably anticipated adverse effect on “wildlife, aquatic life, or other natural resources”—of these phenomena. In discharging its duty to protect the state's air quality and the public welfare, the State Air Board has a responsibility to

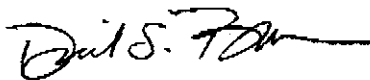
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monitor and model atmospheric deposition of hazardous air pollutants, for such information bears on the permitting of HAP emissions.

Conclusion

We are encouraged that the Boards have chosen to take the relatively unusual step of meeting jointly to consider this significant water pollution problem. We urge both to extend and transform their joint inquiry into purposeful action. In order to do this, we suggest that action plans reflecting a plan of attack be formulated and adopted by each agency within 90 days. In this effort, NRDC looks forward to working with the Boards to achieve better water and air quality for all Californians by taking action to address the problem of atmospheric deposition. Please contact us if you have any questions.

Sincerely,



David S. Beckman
Michelle Mehta
Dorothee Alsentzer
Natural Resources Defense Council

¹ See EPA, FAQ, at 79.

² See EPA, Frequently Asked Questions About Atmospheric Deposition, at 3-4 (Sept. 2001) ("EPA FAQ").

³ EPA, Coastlines Newsletter (Jan. 2002), available at <http://www.epa.gov/owow/estuaries/coastlines/jan02/airpoll.html>.

⁴ NEIWPC, Fact Sheet 3.

⁵ New England Interstate Water Pollution Control Commission, From Air to Water: The Challenge of Atmospheric Deposition, Fact Sheets 1, 3 ("NEIWPC").

⁶ NEIWPC, Fact Sheets 2, 3.

⁷ See *Pronsolino v. Nastro*, 291 F.3d 1123, 1140-41 (9th Cir. 2002).

⁸ See *North County Resource Recovery Associates*, 2 E.A.D. 229 (1986).



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FAX TRANSMISSION

This transmission is 5 pages including this cover sheet.
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DATE: February 7, 2006
TO: Selica Potter, Acting Clerk to the Board
State Water Resources Control Board
FROM: David Beckman
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MESSAGE:

Following please find NRDC's Comment Letter – Atmospheric Deposition and Water Quality.

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