

ROBERT LUHN

The ozone shell game

WHEN SCIENCE and politics collide, science is often the loser. Consider the San Francisco Bay Area, one of the few areas in the nation where the battle against smog is more or less being won.

According to atmospheric scientists, former regulators and policy planners, the California Air Resources Board and the Bay Area Air Quality Management District have quietly suppressed embarrassing air pollution projections.

These projections show that the Bay Area, despite proposed pollution controls that could cost taxpayers and industry almost \$4 billion, won't comply with state ozone standards in this century, even if every car is taken off the road.

"(The projections) undermine their legislation, and the politicians hate that," says Gene Leong, associate executive director of the Association of Bay Area Governments.

Lewis Robinson, former director of planning for the Air Quality Management District for seven years, is blunter: "It's a coverup, pure and simple. They don't like the results and that's why they haven't seen the light of day."

The chilling message this sends to scientists, policy makers and regulators won't be confined to the Bay Area. It will ricochet throughout California and other states looking for a way to conduct (smoggy) business as usual.

The irony is that California has made remarkable progress in air quality. Although Los Angeles is decades away from complying with the federal Clean Air Act, ozone levels are half what they were in 1974, in spite of population growth.

But the Bay Area is the success story — it's one of the few major metropolitan areas in the nation to reach federal standards.

The problem? If it can't satisfy the stricter standards laid down by the 1988 California Clean Air Act — and many experts say it can't — the California Air Resources Board will have egg on its face.

"That's why CARB is pinning so

much on the Bay Area," says Leong. "It has to show the program is do-able."

The Bay Area is also notable because it has relied on computer-based photochemical models for nearly 15 years. These models let planners predict ozone emissions and evaluate strategies.

Scientists pour in data for population, land use, transportation and weather, plus the physics and chemistry of ozone production (namely, how hydrocarbons and nitrogen oxides interact in sunlight to create ozone).

What comes out is a rough estimate of future ozone concentrations by place and time.

LIKE WEATHER forecasts, ozone projections are hardly 100 percent accurate. But experts, from the EPA's Ken Schere, who has developed and tested models for 17 years, to Philip M. Roth, the godfather of photochemical modeling, agree that models are indispensable tools when grappling with the complexities of ozone emissions.

The non-experts seem to concur: "You can't do enough modeling!" says Marin Supervisor Al Arambaru, who chairs the Bay Area's Joint Air Quality Policy Committee. "The proof is in the pudding when you have to ask industry to reduce their emissions."

Funny thing is, the air district once felt the same way. Since 1978, as required by federal law, the district, ABAG and the Transportation Commission have produced clean-air plans — the regional blueprints for controlling emissions — with the aid of computer-based smog models.

The agencies have shared expertise and legal responsibility, and taken the heat together when plans have been challenged by environmentalists in court.

But when the trio finished a draft of their first California plan

in April 1991, the coalition unraveled. Pick up a copy of the 76-page document and you see it's packed with modeling results, the financial and social impact of proposed anti-pollution measures and lots of honest bad news.

The draft warns, "Even if all the programs (in this plan) are carried out, the region will not meet the state ozone standard during this century."

It adds, "Bay Area citizens are being asked to change their travel behavior . . . but the gains (in air quality will be) quite modest."

That apparently didn't sit too well with the state Air Resources Board or the Bay Area air district. The two agencies decided the Bay Area's smog model (which had been used for three years and is standard issue at the CARB and the EPA) was inadequate and needed further validation. The air district rewrote the draft, dismissing the model as unreliable.

The final 42-page plan issued in October 1991 was bitterly criticized by ABAG, MTC and local environmentalists for stripping out modeling data and assumptions, glossing over the repercussions of pollution controls and burying the fact that attainment of California air standards is highly unlikely.

"All of a sudden models are dead, and we're supposed to fly by the seat of our pants?" fumes Robinson. "It's a lousy way to do science and planning."

BOTH THE ABAG and the MTC refuse to endorse the plan, in spite of state pressure.

"This has been a battle royal, but we're not going to be left out on the hook," says Steven Weir, the MTC's chairman. "The Air Resources Board called us into a meeting like bad little kids and tried to push us into signing the air plan. And why? Because if we don't, they can't sell it politically."

Talk to the people at the Air Resources Board or the Bay Area air district, however, and the mantra you hear over and over is: "The California act doesn't require modeling, the California act doesn't require modeling, the . . ."

John Holmes, the CARB's research director, admits that it's hard to brush off models completely: "If you add a car-pool lane to Highway 101 between San Francisco and Palo Alto, what's the effect?" says Holmes. "The only way to determine that is using a model. It may not be very accurate, but it points you in the right direction."

IF THE CARB seems cool to smog models and their pesky projections, then the Bay Area air district's CEO, Milton Feldstein, is positively frosty: "You don't need modeling. If you reduce emissions, you reduce ozone. It's that simple."

This contradicts most scientific evidence.

"It's a gut feeling," he says. "I don't care what the atmospheric scientists say."

And what about charges of modeling results being covered up?

"That's categorically untrue. We're not withholding information," says Feldstein.

But talk to Feldstein's former comrades.

"We know the air district has done the modeling, and we know their results say that the district can't meet California clean-air standards," says Robinson.

If basing billion-dollar planning decisions on "gut feelings" bugs you, consider this: Will other states struggling with more stringent local air-quality standards take similar shortcuts?

At the moment, no one knows. But most everyone agrees that reducing air pollution comes at a price: in taxes, in jobs, and in how we must change our lifestyles.

Any air plan — especially one that could cost Californians nearly \$4 billion — should clearly disclose all the pros and cons, including the uncertainties inherent in measuring and reducing air pollution.

"We're talking about social policy," says Robinson. "If we're going to make radical changes, let's do it on the basis of the best scientific evidence."

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