

## Up close with Schwarzenegger's green guru

California EPA chief on global warming and hydrogen promise

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Terry Tamminen, secretary of California's Environmental Protection Agency, may hold the most powerful environmental job in the United States outside of Washington, D.C. Not only is California the world's fifth-largest economy, it has long been an environmental trendsetter, pioneering standards in automobile regulation and alternative-energy development that have spread across the nation and around the world. But Tamminen works for Gov. Arnold Schwarzenegger (R), whose fondness for gas-guzzling Hummers leaves some environmentalists skeptical of his assurances about protecting California's environment.

Grist sent environmental author and reporter Mark Hertsgaard to question the 52-year-old Tamminen about how he and Schwarzenegger plan to deliver on their environmental agenda -- including a promise to cut California's air pollution in half by 2010, in part by building a "hydrogen highway" -- and the governor's recent disagreements with the environmental policies of fellow Republican George W. Bush. The interview took place in Tamminen's corner office on the 25th floor of the Cal/EPA headquarters in Sacramento, which commands a spectacular view of the Central Valley and features a poster of Schwarzenegger, wearing a tank top and smoking a cigar, with the caption: "I recycle more with my pinkie than you do with both hands. Recycle now, thank me later. RECYCLE HARD."

Grist: I want to start by asking how you got this job, because some of the initial press reports got it wrong. The story was that Bobby Kennedy Jr. called the governor and said, "This is the guy you've got to have." But in fact you've had a long relationship with the governor and first lady. Can you tell our readers what really happened -- how somebody who used to be an aspiring Shakespearean actor, a pool cleaner, and who ran BayKeeper, an environmental group in Los Angeles ...

Terry Tamminen: And ran sheep ranches and real estate in Florida -- a jack of all trades, master of none ...

Grist: ... how you got this job?

Tamminen: When the [California gubernatorial] campaign came about, I was running a foundation called Environment Now. I saw there was a need for all of the candidates to have solid facts about California's environment, and our foundation offered it to all the candidates.

But because I knew the governor and Maria [Shriver, his wife], I made a special effort to reach out to him and say, "If you want this information, I'm happy to provide it." And he said, "Come on in, let's have lunch and talk about it." This was two days after he'd announced. His kids were still out of school at that time, so we met at his office in Santa Monica with his kids there taking pizza off of our plates. We talked about everything from air pollution to global warming, invasive species, forestry issues -- you name it. Over the next couple of days, we

kept discussing his philosophy, what direction he wanted to see the state go, and started to evolve that into an environmental action plan.

Grist: You knew him originally through the Bobby Kennedy Riverkeeper connection? [Riverkeeper, a New York-based conservation group that Kennedy works with, had collaborated with Santa Monica BayKeeper, where Tamminen once worked.]

Tamminen: Actually not. [Schwarzenegger] has been involved in a lot of charitable activities in Southern California, and over the years we've been at different things related to the environment, but also Jewish causes. Obviously the connection with BayKeeper through Bobby Kennedy was to Maria Shriver. And then we have another close mutual friend, Bonnie Reiss, who was the founder of Earth Communications, and she's now a senior adviser to him. And my wife, Karen Borell, signed his last movie. She's a theatrical rep at Screen Actors Guild and signed the contracts that literally allowed him to go to work on his own movie.

Grist: How much staff and resources do you have here at Cal/EPA?

Tamminen: This budget year, we have 4,275 employees and a budget of roughly a billion dollars.

Grist: And your basic portfolio is water, air, toxics ...

Tamminen: And solid waste and the Office of Environmental Health Hazard Assessment and pesticides.

Grist: How do you feel about holding what is arguably the most powerful environmental job in the United States outside the Beltway?

Tamminen: What's powerful? Powerful is results. With air quality, for years we had been making good, steady progress. Now, in the last four or five years, we're going backwards: to stage-one smog alerts, to non-attainment of federal ozone standards and particulate matter. So there are very troubling signs on the horizon, especially as we try to accommodate the state's growth. Power is success. If we set some goals and achieve them, that's power.

In terms of California's role as a trendsetter, the governor has mentioned AB 1493. That is our greenhouse-gas bill with respect to cars, which he intends to defend in court if need be, because there've been some rumblings about challenges [from auto companies]. We're doing our best to work with the stakeholders to avoid that, so we get implementation and actual CO2 reductions rather than just go to battle. His friend [New York Gov. George] Pataki [R] has literally told him they are waiting to see how it plays out so they can adopt it in New York. Other states are looking to do the same. I just got back from Australia and England, where they're also looking to copy what we're doing.

Grist: The greenhouse-gas law would establish a 30 percent reduction in CO2 emissions. Will the governor stand behind that number?

Tamminen: Absolutely. Of course we're waiting for the final report to come out and there will be opportunity for public comment. But whatever gets adopted by the [California Air

Resources] Board as technologically feasible, the governor has stated he will defend. [Editor's note: The CARB staff's final report, released after this interview was conducted, proposed giving the auto industry eight rather than six years, starting in the 2009 model year, to meet the 30 percent target. The CARB will decide in September whether to endorse the staff's recommendation.]

Grist: Where is the erosion of air quality coming from and what are your plans for attacking it?

Tamminen: [We have] 36 million people and our population is growing by almost 600,000 every year. We have 30 million motorized vehicles in the state, almost one per person. And the vehicles in showrooms today have worse fuel economy than in 1987. So if you have more vehicles that are less fuel-efficient, that results in more consumption and more air pollution.

Grist: On my way into the building today, I picked up downstairs the bumper stickers that say, "Don't Be Fuelish."

Tamminen: That's a whole campaign we'll be rolling out over the next month. People will be seeing these messages at gas stations, teaching them how to conserve as much as 20 percent of their fuel regardless of what they drive. In the mid-term, we're working to get more fuel-efficient vehicles into the fleet. The state [government] itself has 70,000 vehicles. As the natural turnover occurs, we're going to get more hybrids and fuel-efficient vehicles into that fleet and then promote them for personal and business choices as well.

As an example, right behind your head is a box of clean air that was presented to me by FedEx at an event the governor and I did to promote their diesel-electric hybrids, which save 50 percent of the fuel and reduce air emissions by a similar amount. They have pledged to convert their entire fleet and we're trying to get them to be a model for others. And all of this is as a bridge to truly clean fuels, and that's hydrogen.

Grist: Isn't it hard for the governor to ask people to be more sensitive about this when he drives a Hummer?

Tamminen: Sure, sure. He's very aware of that. What people don't know, because his screen persona is macho and Hummers and blowing things up, [is that] he also has an electric car. And since he began campaigning for governor, he's never been in a car that hasn't been a car pool. I mean, he's probably the most fuel-efficient person in California.

Grist: Is he going to get rid of the Hummer?

Tamminen: Well, stay tuned. He's going to do something with the Hummer that ties into a campaign promise, let's just put it that way.

Grist: One rumor is that he's going to try to adapt the Hummer to run on hydrogen.

Tamminen: Hybrid hydrogen, that's what his campaign pledge was, and I'll just say, the governor always keeps his promises.

Grist: On hydrogen, you must know that some knowledgeable environmentalists have said that this is a crazy idea -- that it may sound good out on the campaign trail, but using hydrogen to fuel cars is a misallocation of resources, because the hydrogen won't be produced renewably. It will be produced from natural gas, which could be used more efficiently to phase out coal-fired power plants.

Tamminen: First of all, if we're not going to evolve to hydrogen, what then? Even the most optimistic futurists don't think we have more than 40 years, 50 tops, of our oil future. And with car companies investing heavily in China and India, where a middle class is now coming into existence that can afford cars, they're going to be using fuel at a prodigious rate. So we're going to be running out very shortly in real terms, and we've got to plan what's next and get it commercialized.

Experts assume we won't move to hydrogen until it's cost competitive with \$2-a-gallon gasoline. But gasoline doesn't cost \$2 a gallon when you factor in all of the externalities: the tax breaks to the oil industry, the health-care costs. In California alone, the [externalities] cost is anywhere from \$20 billion to \$50 billion a year, depending on whether you include productivity losses as well. And when you consider that we've also run out of refinery capacity, we're going to be seeing \$5-a-gallon gasoline in the very near future.

Grist: \$5-a-gallon gasoline? When?

Tamminen: If you look at the AB 2076 report, which you can download from the California Energy Commission, we may see shortages in the next three to five years, and that in turn will drive prices up. And that's assuming no terrorism or mechanical upsets in the meantime.

Grist: What makes you and Gov. Schwarzenegger think you can make this hydrogen plan work?

Tamminen: The science is there. The only challenge that people who are engaged in this every day see is [the question of] the chicken or the egg: Who's going to invest in fueling stations if there's not enough vehicles, or who's going to produce vehicles if there's inadequate fueling stations? [Our] hydrogen highway concept [starts with] bringing together all the different players who are working on this. There's billions of dollars on the table -- all the energy companies and car companies and the Ballards and Praxairs of the world. We want to bring them together in the same room and have everyone put their chips on the map, in a literal sense: Where are you going to put your stations and by when? And then ask the car companies, If we can have 200 stations in California by 2010, what kind of vehicles could you start delivering? And what by 2012 and 2015? Let's start blueprinting this so we all have some predictability to the process. A blueprint [will be delivered] to the governor by January 2005 with all the specifics.

Grist: It seems like a lot of your focus is on private vehicles and not so much on mass transit. Is that accurate?

Tamminen: I wouldn't say so. The emphasis is on private vehicles because California has so many. But the governor pledged a three-part program on mass transit.

The first thing is just putting more butts into mass transit through simple fixes that make mass transit easier. For example, there's heavy rail between L.A. and Santa Barbara but no commuter service, so the only way you can go from Santa Barbara to L.A. is on the 101 [freeway], which is terribly clogged on Sunday afternoons and every day during the commute. If we can get some Metrolink service on that existing rail line, we can get thousands of people out of their cars and put them on rail. We're doing an inventory right now to find all that low-hanging fruit, and within a couple of years, [we'll] get those kinds of projects up and running.

The mid-term goal is to finish projects like the rail line that right now ends a mile short of Oakland Airport or a quarter mile short of [Los Angeles International Airport] -- some of these silly things where you have good mass transit but it isn't connected.

Grist: Let's talk about water, which has always been so central to the history of California. I assume you know the study by the Department of Energy that says California will double its water demand by 2025 but have less supply, because global warming will bring more rain and less snow, which in turn will lead to flooding in the winter but less water available in the summer, when demand is highest. What do you plan to do about this challenge?

Tamminen: We haven't begun to do what we need to do with conservation and ground storage and reuse. Right now, we send billions of gallons of water every day from Northern California to the south, do various things with it, and then throw it out into the Pacific Ocean. If a visitor from Mars came down and looked at this system, he'd think we were crazy. We know that the 350 million gallons a day that the Hyperion Sewage Treatment Plant by itself dumps into the Pacific Ocean is a resource we should be using. In Los Angeles County, the population has grown 15 percent in the last 15 years but water use has grown 0 percent because of an aggressive conservation campaign. We've got to take those lessons on the road.

Grist: How?

Tamminen: First, by getting other cities to adopt similar approaches. One of the most effective things in Los Angeles was passing an ordinance that says when a building changes hands, you have to put in low-flow toilets and showerheads. So it doesn't create a burden immediately, it's when you change hands and you're upgrading anyway. We're working with the Farm Bureau and other industry-specific agricultural leaders on laser-leveling and drip irrigation. Our sustainability program at Cal/EPA has developed a set of standards for the wine industry that is now being widely adopted. Silicon Valley is another sector that has committed to water reduction, electricity reduction, and global greenhouse-gas reduction.

Grist: One last question: This is such a different agenda than the Republican president of the United States has followed. And Schwarzenegger has stood up on a number of environmental issues and said to the White House, "We're not with you on this." Do you expect further divergences with the White House, and is there any way the governor can help the president get some religion on this?

Tamminen: All I can tell you is that the governor is single-mindedly focused on protecting California and its resources and making this a state we're happy to pass on to our kids. Where we diverge on federal policy, we've tried to work with the federal government, and

we'll continue to do that. If you go back through the history of the Clinton administration, California didn't always agree with everything that came out of that administration. So I'm not going to start pointing fingers. We have to do what's right for the state and future generations, and we will.

Grist: Nice dodge. [Laughter] Thank you for your time.

Tamminen: Thank you.