

## REMARKS BY THE HONORABLE LEO MCCARTHY, LIEUTENANT GOVERNOR OF CALIFORNIA

Director Frieman, Director Mullin, Under Secretary Knauss, Regent Chairman Brophy, Professor Revelle, and ladies and gentlemen. On the program it says that I have 45 minutes. This will not be a 6-hour watch, and it won't be a 45-minute watch. I once spoke for 32 minutes at a gathering, and have never forgiven myself for that. So we'll do it in a somewhat shorter period of time.

Professor Revelle is remarkable for many reasons. I was told before we came into this auditorium that just a couple of weeks ago he had his pacemaker checked out, and that he watched as they were doing it. Professor Revelle, when I was in the legislature, especially as speaker, I had many incisions in my heart, but they were never voluntary, and I never enjoyed watching them.

It struck me as I was sitting there in the front row that I was watching a man being honored, Roger Revelle, who is one of the eminent scientists in the world and has achieved so much. One of the things from my childhood that I cling to as a happy memory is the one B that I got in a science course. (*laughter*) We don't have to mention what the other grades were. But that doesn't diminish my feeling in any way that today's symposium is critical, not only to celebrate this remarkable fortieth anniversary of CalCOFI, but in attempting to fuse the magnificent research that has been going on here — it's one of the premier science programs in the world — with the making of public policy.

Being here in La Jolla today, I'm reminded of John Steinbeck's *Cannery Row* and of the journeys that Doc Ricketts used to make from his biological lab in Monterey down the coast to La Jolla, looking for specimens of marine life. I wonder what Doc Ricketts would think if he made such a journey today as he passed mile after mile of vital, beautiful coastline pocked by a number of offshore oil platforms, as he watched a young lifeguard post another "no swimming" sign on the beach in Santa Monica, as he saw the La Jolla tidepools he prized littered with plastic six-pack rings, some lying free, some entwined around the beaks and throats of seabirds. I believe Doc Ricketts would see what we see — that the forces of human ignorance, arrogance, and greed have the power to turn the majesty of our environment into a memory found only in fiction and photographs.

It's up to the policymakers, in concert with the

scientific community, the environmental community, a number of enlightened business leaders in the state, and concerned citizens to challenge those forces and to reverse the damage they have caused in the past and would continue to cause.

Of course oceans make up only a part of all of our resources that are in jeopardy. Rain forests, home to half the species of the world, are being eradicated. Acid rain threatens many of our most beautiful, pristine areas. Chlorofluorocarbons are eating a hole in our atmosphere. And overdevelopment is taking a toll on open space, particularly on crucial wetlands areas.

The scientists in this audience, better than anyone, understand the environmental implications of these phenomena. Your arguments are compelling for reducing the use of chlorofluorocarbons, for banning the use of carcinogenic pesticides, for doing everything possible to prevent oil spills, and for recycling.

And hearing about the very real damage being done to our environment, it is hard for me to believe that we — we in a broad, public sense — don't respond more vigorously. But we allow the damage to continue with only moderate change. Acid rain wasn't discovered yesterday. The *Valdez* disaster last March wasn't our first exposure to the devastating effects of a massive oil spill. And although global warming has gained considerable attention in the last year, scientists have known about this phenomenon for quite some time. Scientists are doing research and giving us much new knowledge.

So why the lack of progress? Because time and again we lose vital battles in the political arena. Because every time scientists, and those enlightened businesspeople, and community leaders issue warnings about an environmental hazard, someone inevitably clouds the issue by hiding behind specious arguments, usually disguised as economics, but often cloaking somewhat narrow economic self-interest. The partnership between science, policy, and community action must disperse those foggy arguments.

We work to require oil companies to take steps to prevent spills. They say that they can't make those requirements fit, because they would raise the cost of oil and gasoline, thereby raising costs for thousands of businesses and forcing layoffs. We hear that argument even after the Exxon *Valdez* accident.

We want to ban carcinogenic pesticides. The pub-

lic hears that we shouldn't because crop yields would plummet and food prices would skyrocket. Or that pesticides really aren't all that dangerous when properly applied. I've been visiting with groups of farmers all over this state who on their own initiative have been reducing the use of pesticides and using alternatives — predators and parasites, good bugs to kill the bad bugs.

Let's say we put together a stringent plan to cut back on chlorofluorocarbons. Before the ink on the plan was dry, chlorofluorocarbon apologists would be contending that using substitutes would raise prices and that thousands of people would lose their jobs.

We support mandating higher deposits on beverage bottles to increase recycling. Our opponents claim store owners would have to hire extra people to deal with the returns, and would have to reduce shelf space to create storage room for all the bottles.

Over and over again we lose because many people, especially those in my line of work, accept the opposition's economic arguments over the scientific and environmental arguments. The only exception to this trend seems to be the brief periods following high-visibility disasters or scares. The *Valdez* tragedy created a small window of opportunity for doing something to prevent oil spills. The alar scare may have made it easier to address the question of pesticides. But those windows may already be closing. The best long-term solution is for us to increase our use of strong economic arguments to counter the weaker ones of our opponents.

For some of us, simply protecting the environment for our children while preventing the extinction of our fellow creatures makes for a good enough argument. But others — and we must recognize this — are moved more by economic considerations, by the immediate obligation of rearing a family, fulfilling the economic obligations to dependents. Those are important obligations. So we need to add those considerations to the environmental and scientific arguments in terms a broader constituency can understand. The *Valdez* spill cost Alaska billions of dollars in damages: lost fishing industry, maybe for a long time; lost tourism; and losses to other sectors of their economy as well. Those are tangible adverse circumstances that diminish the ability of many families to earn a livelihood.

The California State Lands Commission, which I chair, has proposed legislation, which will be acted upon in January, that would require oil companies running 2,500 tanker trips up and down the California coast to maintain a \$500 million oil spill prevention and cleanup fund. I hope we never have to spend

a dime from it — for cleanup — once that legislation is enacted. It's not intended to be punitive; it's intended to be preventive. It will use an economic tool to prevent disaster. And compared to the multibillion-dollar damages experienced in Alaska by both the private and the public sector, it makes good sense economically as well as environmentally.

Together, the scientific and the environmental communities must work with supportive elected officials and those business leaders who are taking initiatives, to try to harmonize economic growth and environmental sense. We must unify those elements and present evidence to prove that many suffer economically because of a polluting company's indifference or mismanagement. When a chemical refinery opposes tougher standards on toxic emissions because they say it will raise consumer prices and put people out of work, let's respond by talking about the medical costs to workers and nearby residents, and about those who have to pay the medical costs. And let's talk about the economic losses from damage done to buildings and cars and other kinds of property. Or let's raise the specter of billions of dollars in costs and lawsuits that companies and their stockholders will encounter if a Bhopal occurs in California. And no one can say it's impossible, it cannot happen. We know differently. When manufacturers resist banning chlorofluorocarbons for cost reasons, or belittle the threat of global warming, let's respond with costs of the fresh water and cropland we could lose. Or the \$27 billion construction bill we'd get for new power plants to meet the increased demand for electricity.

Our key will be credibility. Our numbers have to be at least as believable as theirs. And our stories as clear. That's where the scientific community must help us again. I have suggested a fusion in the University of California and other institutions, not only the scientific community, but other departments as well, that will look at the consequences to this state's future economy and to the nation's future economy. You must help us translate your scientific findings into conclusions that will move the public and the politicians, and you must then speak loudly to those conclusions. No one will have more credibility. Nobody can, when motivated to do so, speak more clearly.

I understand that having to make this type of argument can be somewhat frustrating to scientists. After all, isn't it enough to know that chlorofluorocarbons are raising the earth's temperature? Isn't it enough to know that an oil spill will jeopardize the majesty of the coastline and the health of marine life? Isn't it enough to know that automobile emissions

are polluting the air we breathe and shortening the lives of many of our fellow human beings living in smoggy areas? It should be, but by themselves, these facts have not been enough.

We have to recognize which combination of arguments has power, and we have to make those arguments. Combining your data, your conclusions and credibility with economic projections and the deep emotional chords that environmental issues can strike will make the best armaments for policymakers to take with us into the political arena.

Here in California, home to so many environmental treasures and so many environmental threats, you also have a few hard-core elected officials eager to work with you: Byron Sher, from whom you will hear this afternoon, is one of those. Several representatives of state legislators among that group are here this morning. Together, I know we can work to win the kind of victories that ensure we do not pass on to our children and our grand-

children a hopelessly, needlessly damaged and dying planet.

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**Mullin:** Lieutenant Governor McCarthy may or may not have gotten a B in a science course, but he's obviously been studying since then.

Our next speaker is, in a very real sense, one of our own—John Knauss, who is presently the under secretary of commerce for oceans and atmosphere and the administrator of NOAA. He received his Ph.D. here at Scripps. He then became the distinguished dean of the School of Oceanography at the University of Rhode Island. In addition to continuing his interest in science, he's been very active in policy issues such as the law of the sea negotiations. It's a great pleasure to introduce John Knauss to those few of you in the audience who don't already know him.