Peter Lehner once climbed the Cordillera Blanca (the White Range) in Peru. Climate change models show that the Andes mountains are experiencing one of the fastest rates of change.

Executive Director Peter Lehner Identifies Priorities & Future Opportunities for Collaboration with the Navy

ON 9 AUGUST 2010, Ken Hess from the public affairs staff at the Chief of Naval Operations Energy and Environmental Readiness Division (N45) and Bruce McCaffrey, managing editor of *Currents* magazine, traveled to New York City and interviewed Peter Lehner, executive director of the Natural Resources Defense Council (NRDC) as one in a series of *Currents* interviews with representatives from environmental non-governmental organizations. Mr. Lehner (pronounced LAY-ner) spoke about NRDC's top priorities, past interactions with the Navy and Department of Defense (DoD), and opportunities for future collaborations between NRDC and the Navy.

CURRENTS: Thanks for taking the time to speak with us today. Let's start with a discussion of your role at NRDC.

PETER LEHNER: In my role as Executive Director of NRDC, I manage more than 350 dedicated environmental advocates in seven offices and guide all of NRDC's policy positions and advocacy strategies.

NRDC is working to safeguard the planet and the plants, animals, people, and systems on which all life depends.

Matt Greenslade/ photo-nyc.com

Since I assumed this role in 2006, we have strengthened and rededicated our resources towards curbing global warming, building a clean energy future for America, reviving the world's oceans, saving endangered wild spaces and lands, stemming the tide of toxic chemicals, and accelerating the greening of China.

CURRENTS: What is the primary mission of the NRDC?

LEHNER: NRDC is working to safeguard the planet and the plants, animals, people, and systems on which all life depends. It is the connectedness of all of these systems that is so often forgotten that we are frequently focusing on. Right now our big priorities are clean energy and climate change.

NRDC is 40 years old this year. We are one of the country's oldest, most influential environmental organizations with 1.3 million members and

offices around this country and in China. We have members in every state and virtually every county.

We work through scientific and economic analysis, litigation, lobbying, and a lot of public education, mobilization and partnerships with companies and governments big and small including a number of partnerships with DoD.

CURRENTS: What are the primary challenges that NRDC is facing right now?

LEHNER: The biggest challenges we face right now are climate change and our energy system. NRDC is pushing very hard to move to a clean energy system that doesn't pollute our air and water, doesn't leave us at a trade deficit or a competitive jobs deficit, or endanger national security. We think that a clean energy future is possible, will provide jobs, will provide greater security and really is clean.

The oceans are acidifying, and a vast majority of the world's fisheries are overfished or exploited.

Another one of our big priorities is our *Reviving the Oceans* campaign. The oceans are acidifying, and a vast majority of the world's fisheries are overfished or exploited. So we're trying very hard to revive the oceans by advocating for the establishment of marine protected areas particularly off the coast of California.

The oceans are governed by about 120 different laws and administered by about 20 different agencies. This means that there isn't much of a coordinated presence, protection or plan for the oceans. We pushed very hard for and were delighted with the National Oceans Policy that President Obama recently released.

One of our biggest challenges is the fact that much of what we are tackling now is invisible. Climate change—you can't see it. It's not like the Cayahoga River catching fire. Ocean depletion—you don't see the depletion of fish stocks. You can read about how cod were once so plentiful you could scoop them up with a bucket in Boston Harbor. You don't see that. That's one of the real challenges we have. So many of the environmental issues are long-term, diffuse, and not very visible.

That's why we are delighted that the Navy is getting engaged. The Navy is an important voice, and people who might not listen to us might listen to you.

CURRENTS: How might NRDC's challenges evolve over the next five years?

LEHNER: We just completed a strategic planning process to establish our priorities for the next five years. So we'll be concentrating on them for a while. We looked at issues that were the most pressing to people and the planet, and issues where we could make a difference. We think we can make a difference with the oceans. We believe that the National Oceans Policy will lead to better management of the ocean in terms of areas that should be open to offshore drilling or wind or fisheries and other areas that are so special from a fisheries perspective that they should be protected. We're hopeful that this process will help to restore some of the fisheries and result in fewer destructive practices, including bottom trawling. I think we'll make progress on all of these fronts, although I doubt we'll be done in five years.

CURRENTS: Can you provide us with more insights into some of your priority initiatives?

LEHNER: Sure. Let's take global warming, which we refer to as the "evil twin" of ocean acidification. Our carbon dioxide emissions are vastly in excess of what the planet can absorb. The more one looks around—whether it be the drought here in the New York City metropolitan area, the flooding in other places, the wildfires in Russia—climate change is an issue that is really coming home to roost.

A lot of the wars around the world are fights over resources. As areas dry out, as areas flood, there will be more conflicts over limited resources. And the United States will be called in as the world's cop and peacekeeper. That's NOT an easy job.

I have always very much admired the military's willingness to speak out even when it was politically unpopular to do so.

CURRENTS: In November 2009, the Navy issued an Arctic Roadmap to guide strategy, policy, investments, and training activities now that reduced sea ice is making the Arctic more accessible to human activity.

> We try to find, based on medical information, those chemicals for which we have safer, healthier alternatives.

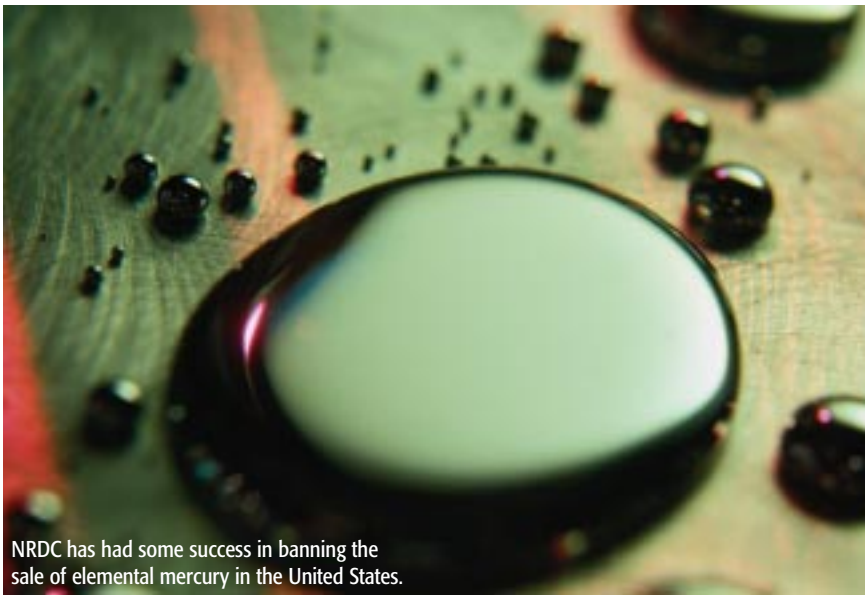
LEHNER: The Arctic is one specific area we are interested in because it is one area that has been particularly hard hit by the changes brought on by global warming. Areas that used to be covered by ice half the year or all year are now open for commercial consideration—ironically, exploration for oil in areas that were unreachable before the ice melted—including the competing demands of the different countries as well as an extremely vibrant fishery. The same is the case in the Antarctic. The Antarctic krill fishery supports a vast portion of the world's fish and marine mammals. As these oceans change, we are going to face challenges all around the world.

We are also working very hard to advance clean energy. Right now, clean energy is competing against dirty energy. The benefits associated with clean energy aren't counted when it's compared to dirty energy, and the harms associated with dirty energy are not counted against or included in its price.

Here in New York, we're downwind from the mid-western coal plants, and during the Bush administration the U.S. Environmental Protection Agency estimated that 20,000 people per year were being killed by coal-fired power plant pollution. Think about the economic drag that creates on this country.

We also have a public health program we've started with the over 200 different dangerous chemicals inside our bodies. We try to find, based on medical information, those chemicals for which we have safer, healthier alternatives. We then develop strategies to take the worst chemicals out of commerce.

CURRENTS: Do you have a top ten list of sorts?



NRDC has had some success in banning the sale of elemental mercury in the United States.

LEHNER: Mercury. Lead—which has been a priority for quite some time. Sulfur from diesel fuel. The organophosphates in pesticides, which are nasty. Some recent additions include phthalates which are plasticizers (added to plastics to increase their flexibility). All of these chemicals are turning up, in varying levels, in our blood.

We have had some success in banning the sale of elemental mercury in the United States. The European Union has done the same, and they are negotiating a world-wide treaty to phase out mercury. That is really terrific.

We call this initiative *Protecting Our Health by Preventing Pollution*, and it is part of our *Partnership for the Earth* campaign.

We have two new priorities. One is water—a topic we've been litigating since 1971 when we were first founded—and the recognition that it is water quantity as well as water quality that is important.

In many parts of the world, it will be in water shortages where climate change will first be felt. I once climbed the Cordillera Blanca (the "White Range") in Peru. But the locals say that this range is not nearly as white as it once was—the glaciers have been melting fast. Climate change models show that the Andes mountains are experiencing one of the fastest rates of change. Those glaciers are the water supply, the reservoirs for those communities. So we are studying issues pertaining to water efficiency through a connection we call "green infrastructure." When it rains, very often the goal of the engineers and civic planners is to get rid of the stormwater as fast as possible. And yet stormwater is an extraordinarily valuable resource. We are promoting ways to capture rainwater and use it as a resource. We're not there yet, but we really do need a paradigm shift in how we think about stormwater.

Our last new priority is in the area of sustainable communities—recognizing that how we shape our existing communities in terms of infrastructure, design and urban planning drives how healthy we are and how clean our air and water are.

We've begun to collaborate with the Navy and other branches of the military on sustainable fuels.

As a simple matter, you have 80 percent of the economic engine of this country in 100 metropolitan areas. Most of those areas are crying out for more mass transit. It would be a great economic and environmental driver to meet the need for more mass transit. We've also seen an exodus to the suburbs where very limited mass transit options exist. According to the American Association of Retired Persons, there are 50 to 60 million Americans who are living in places where there is limited access to mass transit. Of course, there is a tremendous potential environmental benefit to using mass transit instead of our cars. And it offers a better quality of life.

CURRENTS: How would you characterize NRDC's interactions with the Navy?

LEHNER: NRDC has been working with, and sometimes against, the Navy for 10 to 15 years. We've had our ups and downs, but we are hopeful—particularly with a new administration—that we will be able to find common ground. We've had some litigation with the Navy over the use of low- and mid-frequency sonar. There are different types of sonar and different exercises in different parts of the country. But what's interesting is that in most areas, after a little pushing and shoving, we were able to resolve the issues. The Navy was able to do, as is appropriate, its training. We have no desire to, in any way, undermine national security and fully believe in the Navy's mission. On the other hand, with a little bit of thinking ahead, planning and flexibility, you can also protect the marine mammals.

An F/A-18F Super Hornet strike fighter is fueled with a 50/50 blend of biofuel and conventional fuel at Naval Air Station Patuxent River, MD.
Liz Goettee

We've…begun to collaborate with the Navy and other branches of the military on sustainable fuels. The energy density of fuel is such that I suspect ships and planes will probably be run on liquid fuels for quite a while. Shifting to sustainable biofuels for those purposes is an important issue which the military recognizes.

It is very important to look at biofuels throughout their life. If you clear land that had been forested to grow a feedstock to

For More Information

FOR MORE INFORMATION about EPA's National Renewable Fuel Standard, visit www.epa.gov/otaq/fuels/renewablefuels/index.htm and download the fact sheet entitled, *EPA Lifecycle Analysis of Greenhouse Gas Emissions from Renewable Fuels*.

make biofuel, you start with a large timber and soil carbon deficit. If you are growing the biofuel crop on land that is otherwise used to plant food crops, that's not optimal either. We have been working extensively with the U.S. Environmental Protection Agency (EPA) on the lifecycle analysis rules that they have just recently issued on renewable fuels.

The military is a major purchaser of biofuels. This sets a wonderful example that takes biofuels out of the realm of the treehuggers and into the realm of serious national security. This is a collaboration that we hope will result in the development of a good standard for what are truly sustainable biofuels.

NRDC also worked with DoD to resist the purchase of jet fuel made from tar sands. (Note: Tar sands are a combination of clay, sand, water, and bitumen—a heavy black viscous oil. Tar sands can be mined and processed to extract the oil-rich bitumen, which is then refined into oil.) Refining fuel from tar sands is an energy-intensive process. We want to make sure that the military resists pressure to purchase jet fuel made by processing the oil from tar sands.

CURRENTS: Can you talk about some particularly successful collaborations between the Navy and NRDC?

LEHNER: Sure. One successful collaboration resulted in the Navy adopting a set of mitigation measures that guided the use of sonar during their training exercises. These measures, devised by experts, allow the Navy to conduct their training and, at the same time, protect marine mammals. This is almost a text book "win-win." I hope that we can get to those types of resolutions more quickly than we have in the past.

I am hopeful that biofuels will be another area of successful collaboration with the Navy. In particular, I hope the Navy is able to look beyond the glib answers that some will encourage them to adopt, and instead consider a real lifecycle analysis of any particular biofuel. I suspect that the Navy will be pressured to adopt biofuels that are not truly sustainable if you look at the impact across their lifecycle.

We are finding that the "renewable" fuels industry is pushing for renewable fuels regardless of whether or not they are truly sustainable. Renewable fuels done badly can actually take us backwards.

The Basics About the Navy's Marine Mammal Mitigation Measures

THE NAVY EMPLOYS 29 protective measures to limit contact with marine mammals while training with active sonar. These measures include the following:

1. Marine mammal awareness training for key shipboard personnel;
2. Multiple lookouts aboard sonar-equipped ships during exercises;
3. Special operating procedures, including safety zones for reducing power or shutting off sonar at specified distances from marine mammals; and
4. Coordination and reporting requirements for marine mammal strandings, mortalities or unusual behavior.

The measures were developed in cooperation with the National Marine Fisheries Service, the regulatory agency that oversees the protection of marine life for U.S. entities. In addition, the Navy funds about half of the marine mammal research conducted world-wide. Much of the approximately $20 million the Navy spends annually (as of Fiscal Year 2009) goes toward studying the effects of sound on marine life.

The Navy is currently developing comprehensive environmental planning documentation for its training ranges and operating areas. As part of the environmental planning process, Navy researchers perform modeling of animal movements and acoustic exposure to ensure adequate assessment of the effects of active sonar and have conducted concurrent studies to ensure that sonar systems will not harm humans scuba diving in the ocean.

Peter Lehner (standing right) on a boat in Laguna San Ignacio as a gray whale approaches.
Jacob Scherr

Peter Lehner (left) touching a baby gray whale in Laguna San Ignacio, one of the last breeding grounds for Pacific gray whales, which NRDC fought to protect from industrialization and pollution.

I am hopeful that the Navy remains interested and wants to work together on sound renewable fuels issues.

CURRENTS: With regard to the mitigation measures that you discussed, can you explain what NRDC did to help get those measures in place?

LEHNER: Yes. Many of the mitigation measures are not that complex—having a spotter on the flight deck, not using sonar when whales are in the area, and so on. What we did is talk to a lot of marine experts so we had some idea of what measures were necessary to protect marine mammals. There is a strong consensus among these experts that

by far the most effective mitigation measure is geographic avoidance in training exercises—that is, avoiding areas of particular importance to marine mammals when they are present. We also increased public awareness of this issue so that there was some appreciation of why we were taking these actions. We also promoted a fact-based, scientifically-driven approach to this issue.

We were able to reach common ground with the Navy on training exercises in some areas, but other areas were tougher. But even before we went to the Supreme Court, there were six mitigation measures at issue. The Navy adopted four of them, which left only two as part of the Supreme Court case. And the court didn't say that the mitigation measures weren't scientifically based. In our view, the court's decision was much more a procedural decision about the role of the Navy and national security matters.

> What we did is talk to a lot of marine experts so we had some idea of what measures were necessary to protect marine mammals.

CURRENTS: How would you like to see interactions between NRDC and the Navy change?

LEHNER: Generally, I'd like to see us resolve issues prior to litigation. The National Environmental Policy Act (NEPA) process gets to the essential information—information that you will want to have. Yes, sometimes it means you may have to change course. But that's what life is all about—learning, then adjusting to what you learn. Don't try to minimize it—jump into it, hear the voices and then make the best decision you can. It's much better to do that than to enter into litigation and be forced to modify your NEPA documentation. That entire process can be very messy and stressful. Do it up front. Do it early. You'll reach a much better decision.

CURRENTS: Are there other changes in the way the Navy does business that would be valuable for us to consider?

LEHNER: I don't say this just with regard to the Navy, but with other branches of government, I would encourage them to be as public as possible with their information. Keeping things secret slows the process, and ultimately is destructive. When people know something is going on but are not being informed, they assume the worst. So we encourage governments to be as open as they can be with scientific and other information. Obviously, the Navy has a lot of information that they cannot release for security reasons. But the Navy also has a tremendous amount of information on the marine environment. Making more of that information accessible to the general public would be terrific. We probably don't even appreciate all of the valuable information the Navy has.

CURRENTS: Can you characterize the type of projects where the Navy and NRDC might be well-suited as collaborators?

LEHNER: The oceans cover two-thirds of the planet and the Navy probably knows more than almost anybody else about the ocean environment. The ocean is one of our priority areas—an area where we would love to engage more with the Navy.

CURRENTS: How does public perception of environmental issues affect NRDC's efforts? How do you change those perceptions?

LEHNER: In a very fast-paced media world, people want drama. But as I said earlier, many of the challenges we face are literally invisible. And this is not dramatic. So the challenge is to educate people about important and real issues that are not necessarily visible or dramatic. That's where messengers and their stories become more important so that the issue "sounds right" to folks.

CURRENTS: So where do we go from here?

LEHNER: Biofuels are going to be a critical element of our energy future. We're going to be using liquid fuels for ships and planes for quite some time. It would be terrific if the Navy could lead the way on this front.

With regard to the acoustic environment in the ocean and the use of sonar, the Navy should use its knowledge and keep pushing the technology forward.

I think the National Oceans Policy that President Obama just signed, deepwater drilling, and the dramatic changes in the Arctic environment, provide the Navy with a great opportunity to be a strong voice of science and reason. The "land grab" that is going on in the Arctic is really frightening—where normally restrained nations are being much more aggressive. I think the Navy could make a really powerful statement by considering the Arctic as a very special place that should be largely off limits.

CURRENTS: From the Navy's perspective, we are a major funder of marine mammal research so that our policy and operational decisions can be based on real science. In terms of discussing issues, prior to litigation, how would you propose that those interactions happen?

LEHNER: What I found from my years working for the New York State government is that things can be going along at a relatively low level without any real careful, creative or broad thinking. Litigation is finally what bumps the discussion up the chain to

Navy & NRDC Participate in Environmental Entrepreneurs Summit

LEADERS FROM THE Navy and the NRDC participated in the Environmental Entrepreneurs (E2) Summit held in San Francisco on 28 October 2010.


Captain James L. Brown.

Captain James L. Brown, Director of the OPNAV N45 Energy Coordination Office and The Honorable Jackalyne Pfannenstiel, Assistant Secretary of the Navy (Energy, Installations, and Environment) participated in a panel called "The Department of Defense as a Market Maker." According to this year's summit organizers, the military has become one of the strongest advocates for clean, low carbon energy technologies to enhance energy independence and avert the national security risks of global warming. DoD and the Navy are already committing resources to develop technologies that might not otherwise survive in this economic climate, and could be a important customer for successful new technologies. This panel discussed DoD's potential role as one of the early adopters of clean technology. Panelists, including CAPT Brown, Ms. Pfannenstiel and clean technology entrepreneurs including the chairman of Solazyme, spoke about the promise of their emerging partnerships.


The Honorable Jackalyne Pfannenstiel.

E2, born out of NRDC, is a national community of business leaders who advocate for good environmental policy while building economic prosperity. Working with NRDC, E2 takes a reasoned, economically sound approach to environmental issues by relying on fact-based policy expertise. E2 is celebrating its tenth anniversary this year.

For more information about E2, visit www.e2.org.

Photos by Christine Luong


Military participants in an E2 Summit panel.

Victoria Bermel

someone who will be thinking more broadly about a particular issue. People think, "Now that we're being sued, maybe we should think about this a different way." It is the threat of litigation that often forces the discussions to be had at higher levels in the organization and in a more creative and thoughtful way. I'd like for us to have more conversations about marine mammals or other issues at higher levels in the Navy before litigation looms.

CURRENTS: Anything else you'd like our readers to know?

LEHNER: We had an interview on the use of sonar with James Taylor, one of our trustees, in a past issue of our *Nature's Voice* newsletter. His father was a Navy SEAL and he grew up believing that the Navy was there to solve the problems and protect us. From that real affection for the Navy, he was hoping that the Navy would find ways to work with NRDC constructively on issues like sonar. Like James, my father was also in the Navy. NRDC respects and values the mission of the Navy. And we often find that when all of us are willing to step back a bit and think more broadly about an issue, we can often reach mutually agreeable solutions—you can conduct your training AND protect marine mammals at the same time. But it does require some new thinking and sometimes that's hard. It's easy to dismiss people who disagree. But I hope we can get beyond that.

CURRENTS: Thanks for sitting down with us today, Peter.

LEHNER: Thank you. ⚓