

THE ECOTONE

Summer, 1999 The Journal of Environmental Studies, The University of Oregon

Perspectives:

The New Carissa Oil Spill



<i>Chronology of the New Carissa Oil Spill</i>	3
<i>Flames of the New Carissa Illuminate the Environmental Dilemma</i>	5
<i>When the Beach is Clean, the Hard Work Begins</i>	6
<i>Responding to Environmental Accidents: Regulating Others and Regulating Ourselves</i>	7
<i>The Role of Coastal Communities in Emergency Environmental Decisions</i>	8
<i>Green Investing</i>	12
<i>Welcome!</i>	12

Editor's Note

ECOTONE: a transition zone between two adjacent ecological communities, such as forest and grassland. It has some of the characteristics of each bordering community and often contains species not found in the overlapping communities. An ecotone may exist along a broad belt or in a small pocket, such as a forest clearing, where two local communities blend together. The influence of the two bordering communities on each other is known as the edge effect. An ecotonal area often has a higher density of organisms and a greater number of species than are found in either flanking community.

This issue of *THE ECOTONE* is devoted to the New Carissa Oil Spill which occurred near Coos Bay, Oregon in early 1999. Receiving international coverage, this environmental tragedy continued to surprise and dismay us all as it unfolded. In this issue, we examine the oil spill from several diverse perspectives. In his article, "Flames of the New Carissa Illuminate the Environmental Dilemma," Gregory Bothun examines the complexities of environmental decision-making, which must often choose among several undesirable options. Peter Walker then examines the important need for strong maritime rules to help prevent such disasters in his article, "When the Beach is Clean, the Hard Work Begins." Ronald Mitchell, in "Responding to Environmental Accidents," addresses the need for both external regulations on polluters and internal regulations on our own behavior, which also has a tremendous cumulative impact on the environment. Finally, Robert Collin argues that local communities must be incorporated into the decision-making process as a means of achieving environmental justice in his article, "The Role of Coastal Communities in Environmental Decisions."

Every environmental issue, problem or event is highly complex, requiring the diverse perspectives of many different fields to identify, describe, or solve. We hope this issue of *THE ECOTONE* begins to untangle some of the many strands that together compose the New Carissa tragedy.

INSIDE THIS ISSUE

Chronology of the New Carissa Oil Spill	3
Flames of New Carissa Illuminate Environ. Dilemma	4
When the Beach is Clean, the Hard Work Begins	6
Responding to Environmental Accidents	7
Role of Coastal Communities in Environ. Decisions	8
Green Investing	12
Welcome!	12

THE ECOTONE

THE ECOTONE is published by the Environmental Studies Program at the University of Oregon. If you have any questions, comments or articles, or if you would like to be placed on the mailing list, please contact us at:

THE ECOTONE
Environmental Studies Program
5223 University of Oregon
Eugene, OR 97403
E-mail: ecotone@darkwing.uoregon.edu
Web Address: http://darkwing.uoregon.edu/~ecostudy/Resources/Publications/ecotone_index.htm

EDITOR

Anthony A. Leiserowitz

CONTRIBUTORS

Gregory Bothun
Peter Walker
Ronald Mitchell
Robert Collin

Cover Photograph:
Burning vessel with pinniped in foreground
2/11/99 U.S. Coast Guard

Chronology of the New Carissa Oil Spill

Copyright 1999, Oregon Live

Grounding Feb. 4: The New Carissa runs aground near Coos Bay, Oregon; the crew of 23 is evacuated the next day.

Feb. 6: Bill Milwee, a salvage expert on the spill response command team, says, "We have no fear. We'll get it out of here."

Feb. 8: The ship begins leaking from two of its five fuel oil tanks. Crews begin deploying cleanup equipment.

Feb. 10: The command team decides to burn the fuel oil onboard, but Navy explosives experts fail to ignite it. Using heavier explosives and napalm the next day, the Navy team sets the ship ablaze. Hours later, the stern section splits apart from the bow. For several days, crews try to reignite the remaining fuel.

Feb. 16: In an onboard inspection, officials discover 130,000 to 150,000 gallons of unburned fuel oil still on board.

Feb. 17: The tugboat Sea Victory prepares to tow the bow section to sea and sink it, but high seas foil the attempt. Officials announce plans to pump fuel oil off the ship before trying again.

Feb. 19: Pumping is postponed when crews discover rainwater has flooded the fuel tanks. Once the fuel oil is pumped ashore, the plan is to tow the bow 248 miles to sea and sink it in deep water. The next night, challenged by heavy winds and strong currents, crews begin pumping thick fuel oil from the ship through 700 feet of 4-inch-diameter hose to tanks on land.

Feb. 21: Stinging hail, gale-force winds and a kinked hose hamper the off-and-on attempts, but by afternoon, crews manage to pump 100,000 gallons of fluid from cargo hold No. 3 to tanks on shore but most of it is water.

Feb. 22: U.S. Coast Guard and salvage officials abandon oil-pumping efforts as overnight winds and break-

ers push the New Carissa at least 30 feet to the south. Punishing winds the next day block helicopter from hooking the New Carissa to the tugboat Sea Victory.

Feb. 25: Bouncing in rough seas, the Sea Victory is unable to hold steady for hooking a towline to the ship. But conditions have improved enough to enable a helicopter to fly and for crews to complete most of the other towing connections.

Feb. 26: A helicopter lifts the towline to the Sea Victory, and the tug pulls hard for two hours. The New Carissa's bow appears to pivot slightly seaward.

Feb. 27: The slightest jostle is cause for speculation and cautious celebration as the broken ship begins creeping into the sea. It inches forward 35 feet on a rising tide while the Sea Victory churns with 107 tons of pulling power.

Feb. 28: The morning tide is the highest yet, and the Sea Victory drags the New Carissa 35 feet in the morning and another 25 feet shortly before midnight.

Mar. 1: Buoyed by the high tide the New Carissa moves over a sandbar and more than 900 feet into the waves. Officials say a tow of another 400 feet will get it into water deep enough for its bottom to clear the beach.

Mar. 2: The New Carissa heads to sea, but jubilation turns to horror when, at 5:18 p.m. and about 40 miles out, the towline snaps amid one of the fiercest storms of the winter. The Sea Victory puts out an alert that the New Carissa is "freedrifted" on a north northeast course at 6 mph.

Mar. 3: The New Carissa runs aground near Waldport about sunrise and begins leaking again.

Mar. 8: The New Carissa dragged off the coast a second time.

Mar. 12: After defying multiple explosives and artil-

continued on page 10

Flames of the New Carissa Illuminate the Environmental Dilemma

by Gregory Bothun, Professor of Physics, University of Oregon

Few issues polarize society more than environmental ones. It seems that everyone has an opinion on the right course of action to take and, of course, there are as many right courses as there are opinions. Amidst this plethora of “solutions” time-critical decisions must be made. This opens the door to second-guessing and arm-chair policy makers who insist there is a silver bullet to solve a given environmental problem. Bang, bang, problem solved - if only they had listened to me.

In the real world, environmental problems are complex and multi-dimensional. Often times, the “solution” does more harm than good. For instance, in 1967 the massive oil tanker Torrey Canyon struck the rocks of the Isles of Scilly in the UK and began spilling its 120,000 tons of crude oil. Similar to the New Carissa incident, a decision was made to burn off the fuel by bombing the wrecked freighter. But this decision was made several days after an extensive oil spill had already escaped the breached hull. By then 700 square miles of sea were covered with oil. Ironically, more damage was done to the ecosystem by the application of detergents designed to disperse the oil than the actual oil spill itself.

The grounding of the New Carissa and the subsequent breach of its hull via wave action created an immediate environmental problem for the Coos Bay ecosystem. Little time was available for problem analysis and decisions had to be made. As such, the New Carissa represents an excellent case study of the response of policy makers to a random, but catastrophic, environmental occurrence.

Photograph: U.S. Navy uses explosives and napalm in attempt to burn oil on board.

2/10/99 USCG

On Feb 11, while the Naval expert explosives team was applying 350 gallons of Napalm to the New Carissa fuel tanks, I started off my Environmental Science class with an open discussion of the problem and possible solutions.

“Why can’t we just pump it out?” was a common question.

“Why did we allow the ship to reach this condition where its hull was breached?” was another.

“Why doesn’t Oregon have better response team for this kind of environmental hazard?” said a student from Galveston, Texas.



“How about helicoptering out the oil in small barrels?” wondered another.

Their ideas, while sincere, reflect the silver bullet approach to environmental problem solving. Most of the students questioned the necessity of burning the bunker oil, as the experts at Coos Bay ultimately decided, as the best solution. They

were convinced better solutions were possible. Burning seems like an extreme solution and certainly a more benign approach is warranted. Besides, burning has been tried before in similar incidents in the Gulf of Alaska and the results have been mixed. So is this really the wisest approach? All of these are proper questions to ask, but they need to include a dose of reality and objectivity.

So one by one we went through the list. The risks of pumping the oil out were great. Approximately 1000 feet of line would have to be laid to shore. The 20 to 30 foot seas greatly elevated the risk of a line rupture and spilling oil directly on the shoreline. The bunker oil itself has the viscosity of tar and is therefore not

amenable to being pumped out at a very fast rate. Lowering the viscosity requires heating the oil. But, how do you heat oil that is constantly inundated (and cooled) by sea water?

Why was the ship allowed to remain grounded without an immediate tow? Well, immediately towed with what? Several hundred thousand tons of metal buried in the sand represents an immense inertia that can't be dislodged by the action of small tugboats bumping into the hull. The right kind of equipment to deal with this problem simply wasn't available. But this is not poor planning. The grounding of the New Carissa was a highly improbable event. There is not enough money in the State Budget to foresee all possible random environmental catastrophes and have an immediately available response - preparations taxpayers ultimately have to pay for. Environmental accidents are generally unexpected and can happen quickly. While such incidents usually generate a torrent of blame, that is wasted energy. It's the decision making after the event that is critical.

So what about the idea of removing the fuel in small helicopter loads? A creative approach to be sure, but tempered by the reality that 400,000 gallons need to be transported. Each helicopter could take, at most, about 250 gallons per trip. Winds were howling, the deck was rocking and you still have the problem of pumping sticky goo out of the fuel tanks up to the deck to put in lots of containers which have to be flown in from somewhere else.

No silver bullet. No win. No way to implement a solution that everyone agrees on. Yet, you can't just do nothing and watch 400,000 gallons empty out and cover 50-100 miles of shoreline. Reality is often a harsh teacher, indeed.

That leaves us with the burning idea. A successful burning would certainly minimize the amount of oil that would contaminate the beaches. But it would produce thick clouds of toxic smoke and particulate pollution. People with respiratory conditions would be at risk. If the fire burned too hot, the vessel could melt to some degree and immediately release the rest of the bunker oil to the sea. Plus, there is the problem

of igniting the oil in the first place. The first attempt failed because not enough heat was generated. So, napalm time. Napalm will generate enough heat initially and if enough oxygen could be made available to the fuel tanks (possibly by puncturing the sides with small torpedos) then there was half a chance of achieving a controlled burn. Mix half a chance with some hope and weigh that against the other alternative and you quickly realize there's one and only one option.

This is the message I was trying to impart to the students, but was unsure if it was being received or understood. Finally, after a moment of awkward silence, one remarked, "So essentially, the least bad alternative was chosen." "Bravo", I said to myself, because after the smoke dissipates and the charred hull is towed away and sunk and the incident fades into memory, this student will still remember that environmental decisions are difficult and usually require not being afraid to implement the "least bad alternative."

The actual burn was not completely successful, but by most accounts, it converted 75% of the on-board oil into smoke. That meant 300,000 fewer gallons were available to reach the beach. Do we declare victory with a 75% solution? Of course not. But there are never any 100% solutions or victors in environmental problems. There are only victims and good decision-making that ultimately minimizes the number of victims. What else can you do?

There is more than enough blame to be spread around as the judicial system attempts to track the real "owner" of the New Carrissa. Yet in a sense, we are all owners. We live in a world with 6 billion other people with an exponentially growing population and hence an exponentially growing use of resources. That means more cars on the road, more greenhouse gas emissions, more dollars being created, more trade required, more ships in the ocean. Events like the New Carissa, the Torrey Canyon, and the Exxon Valdez ultimately are nothing more than the price of doing business.

Many weeks after the New Carissa incident it was popular to second guess all the decisions. Self-pro-

continued on page 10

When the Beach is Clean, the Hard Work Begins

by Peter Walker, Assistant Professor of Environmental Studies and Geography, University of Oregon

As the flames on the broken hulk of the New Carissa continue to burn, it is natural that most of our attention so far has been directed at the urgent and immediate problem of averting an even greater environmental disaster. We have been forced to make difficult choices about different options for minimizing ecological damages. But an even more difficult and important set of questions awaits us: how to prevent similar events in the future. The wreck of the New Carissa is not the first and will not be the last threat from the international shipping industry to Oregon's sensitive coastal areas. Once the immediate threat of further ecological damage from the New Carissa is under control, it is imperative that the public insist on improvements to maritime rules to provide greater environmental protection.

The burning hulk of the New Carissa, surrounded by napalm- and grenade-dropping helicopters and crashing high surf, is an action-packed drama that has captured the attention of the media and the public. But this drama conceals an important mystery: why was the New Carissa, heavy with toxic fuel, only a few yards off the shore of a National Recreation Area and a sensitive habitat for threatened species during near-hurricane conditions? The media has paid scant attention to the question of why the New Carissa ran aground. In part, this is because we know so little. On Thursday, February 18, the Coast Guard opened an inquiry into the cause of the wreck, and we will probably have to wait for the results of that inquiry to say for certain what happened. The best information so far is that an inexperienced crew anchored the ship just off the beach while waiting for a pilot ship to guide the



Photograph: Cleanup workers near vessel, bow, stern and towline in background

2/26/99 USCG - Brandon Brewer

New Carissa into Coos Bay. When the crew realized that the strong currents and surf threatened to push the ship aground, the New Carissa's engines were too weak to take the ship back out to sea.

If this information is accurate, it is clear that the wreck of the New Carissa was entirely preventable. The under-powered ship should never have been so close to shore in such heavy weather. The captain should never have set anchor so close to shore in high surf and strong currents. Like most 'accidents', this was not an act of God. It was an act of people in a hurry acting under inadequate safety rules. In turn, the inadequacy of rules for operating ships near fragile ecological areas reflects the political power of important industries. It is likely that the Coast Guard will conclude that the captain and crew of the New Carissa were at fault. But it is our own political system that created the rules that allowed this disaster to happen. Ultimately, we, the public, and our political leaders, must take the blame.

Strengthening maritime rules will not be easy or cheap, and these efforts will be resisted by powerful industries. The public will be asked to make the familiar choice between environmental protection and possible job losses in affected industries. But we must also consider the cost of doing nothing. The environmental costs are well known: another, possibly much larger, spill could devastate fragile estuaries and coastal ecosystems and habitat for endangered species, such as the last remaining 100 or so Western snowy plovers in Oregon. But we should also think about the economic costs of the status quo: the wreck of the New Carissa threatened south-central Oregon's \$24-million-a-year dungeness crab industry, as well as the livelihoods of the area's oyster farmers,

When the Beach is Clean continued on page 10

Responding to Environmental Accidents: Regulating Others and Regulating Ourselves

by Ronald B. Mitchell, Assistant Professor of Political Science, University of Oregon

The New Carissa, the Exxon Valdez, the Chernobyl nuclear reactor, Love Canal. We hear about large, high-visibility, dramatic environmental accidents like these all too often. Such incidents often serve as useful “wake-up calls” (as Peter Walker suggests) for the need for regulations that can help prevent similar accidents from occurring in the future. People are rightly outraged at the apparent lack of environmental concern in others - from tanker captains to the responsible companies and industries to the policy makers who should have regulated those companies and industries. Most environmentalists, and even many who would not consider themselves environmentalists, respond with a desire to find what Greg Bothun, elsewhere in this issue, calls a “silver bullet” to solve the problem and make sure it doesn’t happen again. Often they produce valuable efforts to get the people and organizations immediately responsible for the accident to take actions to mitigate as much damage as possible and to pay for such damage as cannot be mitigated. In addition, we often demand very specific rules that seek to constrain responsible individuals, corporations, and governments to reduce the chance that such environmentally-damaging behaviors happen again. When well thought through, such efforts can help preserve the environment of our planet.



Yet, in most realms, the majority of the damage humans do to the environment does not stem from the large, rare, high-visibility, dramatic accidents that are likely to make the evening news. Rather, the overwhelming majority of human harm to

the environment stems from the aggregate unintended consequences of millions of small, intentional, everyday acts. Accidental oil spills are responsible for only a small fraction of the oil that enters the ocean each year, dwarfed by the discharges from tanker operators cleaning their tanks, pleasure boaters pumping their bilges, and even car owners who fail to fix their engines’ oil leaks. If the New Carissa constitutes an environmental “felony,” then the vast bulk of ecological “crime” consists of environmental “misdemeanors.” Consider the collective burden on the environment that results from each of us engaging in the long string of small, mundane, and often daily acts, each of which imposes some small, sometimes almost immeasurable additional burden on the planet’s environment. Unfortunately, the environment cannot discriminate between environmental offenses that are the unintended result of intentional actions, and those that are the unintended and even undesired result of true

accidents. Water and air quality are damaged, forests and wetlands are destroyed, and species are threatened as much by the sum of the mundane and unintended “misdemeanors” each of us commits every day as by the more infamous “felonies” of others.

Does this mean we should not push for better regulations and other policy actions when faced with environmental tragedies like the New Carissa, the Exxon Valdez, Chernobyl, or Love Canal? Of course not. Identifying ways to induce large corporations to take more responsibility for environmental protection and to develop measures that will reduce the likelihood of such accidents happening in the future should be a crucial part of our efforts to protect the environment.

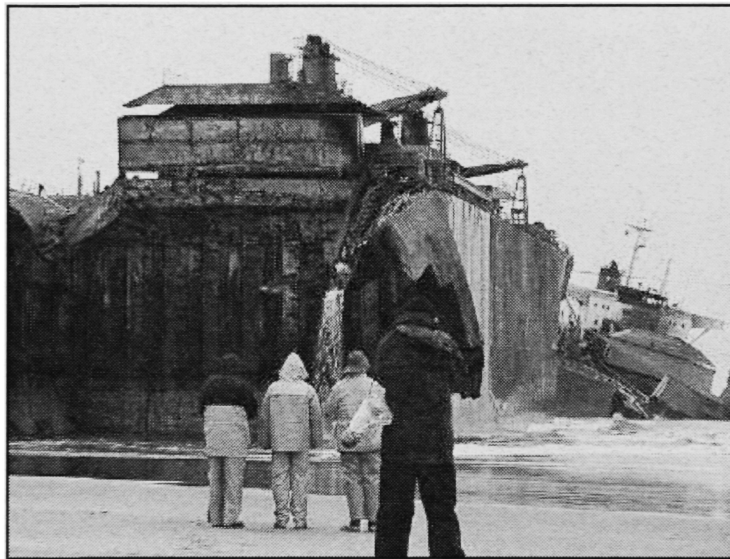
*Photograph: Vessel and Alesia Bay/Waldport
3/6/99 NOAA*

Responding to Environmental Accidents continued on page 11

The Role of Coastal Communities in Emergency Environmental Decisions: The New Carissa as a Living Laboratory for Environmental Justice

by Robert W. Collin, Assistant Professor of Political Science, University of Oregon

The recent sinking of an ocean going vessel, the New Carissa¹, near sensitive ecosystems and resource dependent communities is indicative of how we solve most environmental problems. First, no one had a clear idea of exactly what chemicals were emitted or discharged. The subsequent napalm bombing of the stranded, leaking vessel by federal agencies did not consider possible synergistic effects with whatever was inside of this particular vessel. Second, no one considered the human health and ecological pathways of exposure and risk of exposure to these chemicals,² erring on the side of making those harmed or at risk of being harmed prove their losses before this is even considered. And last, the affected community was not allowed to engage in the solution, or even participate in information sharing at critical stages of decision making.



The exclusion of communities in any type of environmental decision is typical. Many environmental decisions made by the Government do have requirements for public participation, however, there is often no requirement to notify communities of the opportunities to participate. Many people thus question the value of these forums in terms of meaningful involvement. The end result is that communities do not have much experience with multi-stakeholder³, complex environmental decisions⁴. Government and industry do not have this experience

either. When developing proactive policies or regulating industry, this lack of collaborative partnership simply repeats the environmental decisions that got us here. When the community is not considered as both a source of information and part of the ecosystem, this lack of partnership exacerbates environmental degradation.

One reason for this exclusion is that communities are thought to be ignorant of science, or at least of the science that would be applicable to the decision.⁵ First, it is questionable just how many environmental decisions are premised on scientifically validated conclusions; whether the decision is to protect the environment and how, or whether the decision is premised on human mortality figures based upon exposure.⁶ Much

of the use of science is premised on political considerations related to who is making the decision. The use of science is very different in academia; in local, state, and federal agencies; and in communities.⁷ The time, political, and economic constraints of these three sets of stakeholders create different types of forums for environmental decisions.

A second issue is the practicality of the scientific method when information is unknowable, incomplete, and incomparable. While “science-bashing” may be popular in some circles, it is not the tools and methods of science that pose a problem in emergency environmental decisions such as the immediate and complete remediation of the ecosystem after the grounding of

*Photograph: People on beach looking at ship
2/26/99 USCG - Brandon Brewer*

the New Carissa. It is the incomplete reporting of scientific conclusions. When information is incomplete, unknowable, and/or incomparable the scientific conclusion is generally that one can neither confirm nor deny any conclusions. This is often reported in the press and is used by scientific expert witnesses to “disprove” causality.⁸

The third major issue in emergency environmental decisions is the length of time of scientific, on the ground, investigations. This problem is compounded by the lack of important environmental baseline information. Environmental baseline information is both static and dynamic, so that applicable baseline information would include the types and rates of change of major environmental activity. (i.e., tide constriction, migration paths, public and private development and/or remediation activities) Not knowing these rates of change in a particular ecosystem severely hampers timely scientific intervention. Therefore, in emergency environmental decisions data and knowledge about the particular dynamics of the ecosystem must come from somewhere else.

Coastal communities rest on the edge of land in a delicate and dynamic balance, creating pockets of life renewing biodiversity and people with a history and culture of natural resource use⁹. The environmental trauma caused by the New Carissa and subsequent environmental decisions highlighted the exclusion of the affected communities. Community members were not even allowed to volunteer to clean the oil tarnished beaches of their home. While the environmental outreach to birds and some sea mammals has been well documented, nothing has been discussed in terms of public health. Community residents first spotted the New Carissa floundering close to shore, and later observed the failure of the New Carissa to lower the anchor after it reported having done so. If the real reason communities are excluded from environmental decisions is to hide sordid truths about environmental and ecosystem trauma because of legal liability and cost, then this hiding will be short-lived. Unfortunately it will have a very high impact on the environment; especially as emissions, discharges, and pollutants accumulate. We, as humans, are not immune from this dynamic. The communities that have been most impacted and most

excluded from environmental decisions are increasingly demanding that they speak for themselves.¹⁰ This is a fundamental concept in the Environmental Justice Movement and indicative of rising civic environmentalism.

There will be other incidents like the New Carissa. These incidents require us to react quickly to a set of unknown and potentially dangerous circumstances. These incidents must be analytically revisited in a way that includes the community. How would have the city of Newport handled this? Would the damage have been less? What was the range of interventions inclusive of community? What we can do now is to examine the reasons why we lack understanding of our impacts upon the ecosystem and each other. This will require multi-stakeholder forums, inclusionary dialogues, and much more time for decision making. If our goal is sustainability then new forums, dialogues, and time will be even more important.

⁸Some federal agency documents regarding this incident are available at http://161.55.32.17:591/carissa/uc_doc6.htm. There is little mention of the human community.

⁹See, National Research Council: Committee on Risk Characterization, UNDERSTANDING RISK: INFORMING DECISIONS IN A DEMOCRATIC SOCIETY, Paul C. Stern & Harvey V. Fineberg, eds. (National Academy Press, Washington, D.C.)(1996).

¹⁰The author was part of a Federal Advisory Committee that developed a multi-stakeholder, multimedia, community involved, sector based (Printing) permitting project. The Request for Proposals for state agencies can be accessed by www.access.gpo.gov/sudocs/aces/aces140.html, then look for “notices”, then 4/21/99, for search term type in environmental protection agency.

¹¹See, Architects/Designers/Planners for Social Responsibility, “Community Revitalization: Uncommon Partners in Renewal” issue NEW VILLAGE: BUILDING SUSTAINABLE CULTURES. (1999).

¹²See, Michael K. Heiman, “Science by the People: Grassroots Environmental Monitoring and the Debate Over Scientific Expertise” Journal of Planning, Education, and Research 291(Summer 1997).

¹³See, e.g., John Wargo, OUR CHILDREN’S TOXIC LEGACY: HOW SCIENCE AND LAW FAIL TO PROTECT US FROM PESTICIDES (Yale University Press, New Haven and London)(1996).

¹⁴See, Institute of Medicine, TOWARD ENVIRONMENTAL JUSTICE: Research, Education, and Policy Needs, (National Academy Press, Washington, D.C.) (1999)(www.nap.edu).

¹⁵See, National Safety Center - Environmental Health Center, CHEMICALS, THE PRESS, AND THE PUBLIC: A JOURNALIST’S GUIDE TO REPORTING ON CHEMICALS IN THE COMMUNITY, 1050 17th Street, N.W. Suite 770, Washington, D.C. 20036.

¹⁶As communities seek to speak for themselves in new multistakeholder environmental decision making forums, historical and cultural values are expressed. These images can differ greatly, and understanding them can help decrease acrimony in the discourse. For example, gender issues may shape environmental perspective, and in matriarchially-led groups this is important to understand. See e.g., Louise H. Westling, THE GREEN BREAST OF THE NEW WORLD:LANDSCAPE, GENDER, AND AMERICAN FICTION (University of Georgia Press, Athens, GA)(1996).

¹⁷See, Collin & Collin, “Urban Environmentalism and Race” in URBAN PLANNING AND THE AFRICAN AMERICAN COMMUNITY: IN THE SHADOWS, June Manning Thomas & Marsha Ritzdorf Eds. (Sage Publications Thousand Oaks, CA)(1997).

Chronology continued from page 3

lery fire from a Navy destroyer, the oil-laden New Carissa takes a torpedo from a nuclear-powered submarine before dropping two miles to the ocean floor.

Totals: Approximately 70,000 gallons of oil spilled. More than 200 dead birds recovered after the spill, including: 2 Snowy Plovers and 24 marbled murrelets (endangered species). Tests underway to determine how many killed by oil. Forty percent of the endangered Snowy Plover bird population (100 total in Oregon) found with traces of oil or tar. Nearly \$22 million spent on salvage and cleanup to date.



Flames of New Carissa continued from page 4

claimed experts spontaneously appeared demonstrating once again the wisdom of hindsight. Such is the legacy of environmental catastrophe - post-event analysis. Who will do that when the ultimate environmental catastrophe eliminates humans? When will we realize that statistical accidents do occur, but they are motivated in the first place by consumption and this is directly scalable. If we want to have 10% fewer oil spills then each individual needs to consume 10% less oil. Simple as that. As long as we continue to engage in conspicuous consumption without accountability we will get exactly what we paid for.

Photograph: Detonation of plastic explosives
3/11/99 Seattle Times

When the Beach is Clean continued from page 6

crabbers, and fishermen, not to mention the multi-million-dollar tourist industry. A major spill could devastate these important industries and the livelihoods of the thousands of people who depend on them. In strengthening maritime rules, we will be protecting these human communities as well as the local ecology.

Of course, not all industries are created equal. The timber industry, which depends heavily on international shipping, has a special place in Oregon politics. Yet several Oregon political leaders have already taken a stand in favor of revised maritime rules. U.S. Representative Peter DeFazio has announced that he plans to file a bill to make some foreign-flagged ships wait at international borders 12 miles out to sea until

they receive a U.S. pilot or are found competent to enter U.S. waters. DeFazio has also called for changes in maritime laws to improve the quality of ships' crews and give the U.S. more power to regulate the operations of foreign ships in our waters. Governor Kitzhaber has indicated that he will probably appoint a task force to make recommendations for new rules to prevent similar occurrences in the future.

In a way, perhaps we were lucky with the New Carissa: this experience may serve as an important wake-up call before a bigger disaster occurs. It appears at the moment that the ecological damages from this wreck, while substantial, may be relatively limited. This should not lull us into complacency: next time, we may not be so lucky. When the last oil globules are scraped off the beaches of Coos Bay, the even more difficult job of revising maritime rules against the interests of powerful industries will begin. Much to their credit, Representative DeFazio and Governor Kitzhaber have stated their intention to take on this task. But politicians have been known, on occasion, to take bold positions following disasters only to give in to industry pressure as the heat of public outrage dissipates with time. It will be up to all of us to keep the heat on.

Yet, it can only be a part of that effort.

Accidents like the New Carissa understandably do make us more attentive to the environmental carelessness of others and lead us to seek out ways to make them be more careful in the future. But, in addition, such accidents provide an opportunity to become more attentive to our own, more mundane, environmental carelessness and can lead us to seek out ways that we as individuals can “walk more softly” on the earth. If we use such accidents to remind us of how we each contribute to the environmental devastation we see around us, it can help motivate us to identify and take the immediate and personal actions that will prevent our individually smaller, but collectively far larger, contribution to environmental degradation.

Such an approach takes advantage of our greater control over our own actions. We often lack effective mechanisms for controlling the actions of foreign tanker captains working for large shipping companies carrying wood chips for large multinational corporations.

To get the owners of ships like the New Carissa to be more careful in the future requires grassroots organizing and lobbying to influence members of Congress to draft and vote for bills and to support international treaties that then must lead to the threat of penalties (or offers of assistance) that will lead to safer operations in the future. The number of links in this policy chain

at a minimum reduce, and sometimes eliminate, our chances for success.

But, we can almost always control our own actions. The chance of environmental progress may be far greater if each of us uses these accidents to remind and recommit ourselves to fix the oil leak in our car today, to drive slower to conserve gas, to take a bike rather than drive the car, to turn out the lights as we leave a room, to put on a sweater rather than turn up the heat, to turn off the water when we shave and brush our teeth, to take a shorter shower, to remember our mug when buying coffee, to buy less coffee. Our habits and thoughtlessness make even such small changes difficult to implement. And the fact that they are so small,

especially when compared to an event like the New Carissa, makes it difficult to find any motivation to make such changes. Yet, if we do not overcome these obstacles individually, then we most certainly will not overcome the myriad and much higher obstacles to environmental protection that we face collectively.



By using major accidents as prompts not only to criticize and address the environmentally-damaging behavior of others, but to re-examine the environmental impacts of our own lives and recommit ourselves to reducing those impacts, we may be able to find a far larger silver lining in the clouds that such accidents bring.

*Photograph: Rounds fired by Navy Destroyer
3/11/99 Seattle Times*

UO Study on Success of "Green" Investing Wins National Prize

The Social Investment Forum, a national non-profit organization that promotes environmentally friendly investing, has awarded its 1998 Moskowitz Prize for outstanding research to a University of Oregon study.

The study by UO management professor Michael Russo and UO graduate student Michael Fouts examines how a group of Fortune 500 companies were able to increase profits by embracing 'green' environmental strategies.

Their work was published in the "Academy of Management Journal" after a rigorous peer review process.

"It pays to be green," says Russo. "Greener companies tend to promote innovation, conserve valuable resources in their production systems and enhance their reputation for both prospective employees and potential customers. They go beyond the minimum required by law, and their shareholders reap the rewards."

Russo and Fouts examined the economic and environmental performance of 243 companies over a two-year period. Their research found that companies with superior environmental performance had higher returns on investment compared to their competitors—even after accounting for sales growth and market position.

"We teach our students that ethical and socially conscious behavior is profitable in the long run. This research confirms that premise," says Dale Morse, dean of the UO Charles H. Lundquist College of Business.

"Some mistaken financial 'experts' assume that environmentally responsible practices represent costs without benefits," says Alisa Gravit, Social Investment Forum vice president. "Executives and stockholders take note—when you actually crunch the numbers, it turns out that good environmental citizenship is great for the bottom line."

The Moskowitz Prize, named for renowned financial analyst Milton Moskowitz, is awarded annually by a three-judge panel. Moskowitz, along with co-author Robert Levering, wrote the 1984 best seller "The 100 Best Companies to Work For in America."

The Environmental Studies community welcomes our new graduate students!

Enkhbat Altangerel

Karen Barrows

Amy Chinitz

Melynda Coble

Michelle Guay

Karla Hart

Karen (Kari) Heimerman

Jean Jancaitis

Chandra LeGue

Chaone Mallory (Ph. D.)

Loren McClenachan

Todd Miller

Steve Mital

Stacy Rosenberg (Ph.D.)

Brian Thomas

Jeremy Zhe