Bill Rodgers

Good afternoon everybody welcome. My name is Bill Rodgers I'm a law teacher here at the University and I have the honor of identifying for you two opportunities for this afternoon. We're going to hear first from a spectacular panel on the Deep Water Horizon oil spill and its predecessor the Exxon Valdez oil spill. Beth Bryant will do the introductions in a minute. Following that we're going to have a session for our celebration of the launching of the Washington of Environmental Law and Policy and this is a product of student initiative the green law students this year helped out by a number of profs including Greg Hicks. And the Journal is off to a spectacular start. I felt like we were dealing with Jason Derosa and Sarah Reineveldt with a forty year Yale environmental law journal and they really did a great job and it's wonderful that we get a chance to celebrate their first, their initiation of the Journal.

The panel. Just a great group of experts who, I guess all three of them go back to the Exxon spill in their experience. And the moderator of the panel will be Beth Bryant. Beth is a former student. Really proud of her in many ways. She was a student who managed to publish a law review article while she was in law school on hydro-electric energy. Published a number of other articles since. She's working now at the School of Marine Affairs. Beth really has the best article on the conflict between the Pollock fisheries and steller sea lions. It's been cited in many court opinions. So Beth is going to introduce us to our very talented panel and with that let me introduce Beth Bryant.

Beth Bryant

Thank you very much. It's a pleasure to be here. I'm going to give you a very, very brief of the timeline events of the oil spill. I only have five minutes to talk and this is a topic that could easily expand into an hour and a half. And we want to have plenty of time to hear our panel so I'm going to keep this very short and sweet and then I'm going to introduce the panel. This is a picture I like because it shows what the Deep Water Horizon semi-submersible floating offshore drilling unit looks like when it's out of the water. It's capable of operating in water up to eight thousand feet deep and owned by a company called Transocean and leased to BP in 2008. And this is the before picture. In April 2009 the Minerals Management Service gave BP's lease at Deepwater Horizon a categorical exclusion under NEPA and this is an actually very interesting story for those of you who are NEPA heads like me, if you're interested in looking a little bit more closely into the story of how these Deepwater drilling platforms were given blanket categorical exclusions it's a very interesting story. But I don't have time to go into it in detail right now but I do encourage you to look into that if you're interested. When the Minerals Management Service assessed the environmental impact of drilling in the Gulf of Mexico, on three different occasions in 2007, including a specific evaluation of BP's lease at Deepwater Horizon, it called the prospect of an oil spill unlikely. Estimated that a large oil spill should it occur would not exceed a total of 1500 barrels and that a deepwater spill occurring offshore would not reach the coast. This particular crab begs to differ with that assessment.

Many of the workers escaped on life boats but eleven were missing and presumed dead. Efforts to extinguish the fire proved futile and the rig sank thirty-six hours after it caught fire. Soon thereafter a leak was discovered via underwater camera. Initial estimates were 1000 barrels a day leaking. This was later revised to 5000 barrels and over the next several months there were greatly fluctuating estimates of exactly how much was leaking and that's something that remains uncertain to this day. By April 25 the spill covered 600 square miles and was about 70 miles from the coast. By April 26, the spill was approaching the Louisiana coast and landfall was looking like an increasingly likely event. BP deployed booms and started discussing setting fire to the slick to get rid of it. On April 29th Louisiana Governor Bobby Jindal declared a state of emergency and the Federal Government started to get involved deploying skimmers and booms. At this point the spill stretched across a 600 mile area. On April 30, President Obama temporarily halted new offshore drilling projects while emphasizing the importance of ongoing offshore drilling. And he instructed Interior Secretary Ken Salazar to report back in 30 days on what, if any, additional precautions and technologies should be required on future leases to prevent accidents like this from happening again. By May 1 oil began washing on shore despite attempts to prevent this from happening using skimmers, booms, and dispersants. Thousands of square miles of fishing area were closed by this point. Some of the floating oil was being burned. BP made its first attempt to try to cap the leak but it did not work. This began a series of attempts, various attempts to cap flow by means of what they call "top kill". And this is the containment dome that they initially placed over the leak and they also began drilling a relief well in attempt to take the pressure off, but that would take three months, it was estimated, and so it wasn't a quick fix. The dome was ineffective. They next tried what they called a "top hat device" to cap the leak and that didn't work either. By May 7th the oil was still leaking to the tune of 6000 barrels a day. After several attempts BP did have some success siphoning off the leaking oil into a vessel on the surface and burning off the natural gas but this was by no means a permanent solution. In late May, BP started planning a strategy that it called "the junk shot" injecting drilling mud along with substances like shredded tires, rope, and golf balls and that didn't work out too well either. So they gave up on the top kill operation and tried a lower marine riser package. An underwater picture of it here. And that involved slicing off the leaking pipe at the top, placing a cap on that and channeling the flow to the surface. That too was not entirely effective. Over the months of June and July, oil and tar balls continued to wash up along the Gulf Coast. In mid-June BP announced that it would establish a twenty billion dollar claims fund. I'm sure we'll be hearing more about the litigation and the financial aspects of it from our panelists. In mid-July BP employed undersea robots to remove the existing cap to install a new sealing cap. This appeared to be effective but it was only a temporary measure again. Then in early August BP employed what it called a "static kill procedure" which involved pumping mud into the well and then they continued to work on drilling the relief well from the side and this is what actually finally did the trick. This was called the "bottom kill" drilling the relief well that intersected the bottom of the leaking well and then putting the final cap. By September 19th the government announced that the well was permanently sealed. Now there was an estimate made by the government in August that nearly 75% of the oil spilled into the Gulf was eliminated by evaporation, burning, capturing, or other means, dispersants, all the different things that they tried. However, that estimate has been strongly disputed by some other scientists. And the science around this remains uncertain and subject to a fair bit of controversy.

Just briefly, you'll often hear the Exxon Valdez spill compared to the Gulf oil spill. There are some substantial differences. I find this particularly interesting because I was in Prince William Sound during the summer of the oil spill. And have walked on some of these oily beaches. The date of this map is June 2010 showing the Deepwater Horizon accident site as compared to the Exxon Valdez site. So the Deepwater Horizon spill covered a great deal of a larger area although, quite a bit of additional beach there. Although there are very substantial differences in how that oil was dispersed and spread due to being onshore versus offshore and the temperature and other factors that we'll be
hearing about from the panelists.

So just to sum up very, very briefly, this ended up being the largest accidental oil spill in world history. Greatly varying estimates of how many gallons actually were ultimately spilled—127 million was a low estimate. Many, many higher estimates than that. Hundreds of miles of oiled shoreline. Millions of gallons of dispersants that entered the environment, thousands of fish, birds and marine mammals that were killed and very substantial economic impacts to fishing, tourism, and property values. This is the sort of the end of the story as far as capping the well, but it's the beginning of the story as far as the litigation is concerned and continuing attempts to sort out the natural resources, damage assessment and compensation. For those factors I will turn things over to our panelists.

I'd like to introduce the panel at this time. Craig O'Connor here. He is the Special Counsel for Natural Resources for NOAA, US Department of Commerce. As head of NOAA's office of General Counsel for Natural Resources, Mr. O'Connor oversees implementation of the government's natural trustee responsibilities and litigation implementation under Federal Environmental Statutes. That is an office is responsible for seeking monetary restitution for natural resource damages caused by the release of hazardous substances and oil spills as well as physical impacts to marine sanctuaries. Mr. O'Connor was lead counsel for the United States in the Exxon Valdez case and is currently representing the government in the pending Deepwater Horizon litigation. Mr. Brad Marten is the founder and managing partner of Seattle's Marten Law Group. The largest environmental and energy law firm in the western United States. He is recognized as one of the nation's top environmental lawyers and has been a leader in complex environmental litigation, having represented a wide variety of clients ranging from private parties across many economic sectors to local governments and NGOs. Mr. Martin is on the advisory board of the Washington Journal Environmental Law and Policy and he is the President-elect of the American College of Environmental Lawyers. He represented the State of Alaska in the Exxon Valdez oil spill and is currently special counsel to Louisiana's Attorney General in the Deepwater Horizon litigation. Professor Tom Leschine is the director of the University School of Marine and Environmental Affairs and an adjunct professor in the School of Aquatic and Fishery Sciences. Professor Leschine brings a background in mathematics to the study of environmental decision making and public policy. His research includes quantative methods as applied to environmental impact assessment and management of marine resources. During his term as Commissioner of Marine Pilotage for the State of Washington, Professor Leschine central in the institution of a new approach for placing monetary value on natural resources damages caused by oil spills in state waters. While with the US Coast Guard, he was teh principle writer and editor-in-chief of the Federal On Scene Coordinators Report for the Exxon Valdez oil spill. At this time we will begin with a general background on the NRDA process from Mr. Craig O'Connor.

Craig O'Connor

I will confess to being inept at Power Point. I'm a great litigator but I can't do anything with electronics. I will tell you that last time I made a PowerPoint presentation I was in Santiago, Chile where I met with the Chilean government to talk to them about natural resource damages, the environmental obligations that they have under NAFTA and how to bring their laws up to be in concert with ours. I had a thirty PowerPoint presentation which of course, I was going to lean on for my conversation with them. Well I'd sent it in advance and low and behold the first screen went up, I turned to start seeing what I was supposed to say and it was in Spanish, so I have not touched PowerPoint since. It was an embarrassing experience and I don't know Spanish that well. Let's see if I can get us through this.

I want to bring you up to speed so to speak on what it is that your governments are doing, state, federal, local governments to address the impact in an environmental sense of the Deepwater
Horizon spill. And as Beth mentioned it's the natural resource damage assessment and restoration process that has taken over since the Coast Guard declared the spill closed. At this stage what we're engaged in is a legal process that's designed to determine the losses to the public of the natural resources and what sort of compensation in terms of restoration and monetary compensation is appropriate. It's our responsibility on your behalf to make the public whole. My job as legal counsel for NOAA is to assure that the environment has been restored to the condition it was in prior to the time of the spill and that BP, Transocean, and sundry other defendants are responsible the government and assuring there's adequate funding for that work. The construct that the Oil Pollution Act set up which is not dissimilar from what earlier was the legal construct under Super Fund and at the time of the Exxon Valdez oil spill which was not under the Oil Pollution Act, was under the Clean Water Act, but nonetheless there were provisions for natural resource damage assessment and compensation for whatever injuries might have occurred. The statutes that are at play right now in addition to the Oil Pollution Act, we do have the Clean Water Act, that's the context in which fines and penalties are assessed against BP, potentially Halliburton, Transocean, and so on. Natural Marine Sanctuaries Act because we have a sanctuary off of Texas that may or not have been affected by the spill we still don't know, that's Flower Garden Bank Sanctuary. The National Parks Service is involved because there were parks and refuges all along the coast. The process that sort of evolves and we all watched this on TV as soon as the spill began. As soon as the explosion occurred, responsibility for oversight and management and enforcement became that of the Coast Guard. And you may have heard anecdotally, "well the Coast Guard kept people captured," and that sort of thing. What was going on, quite honestly, was trying to make a determination as to whether or not this event was caused by a terrorist. Was this a terrorist event or was this as has been described an accidental spill? So the Coast Guard engaged at that point and then began, after they determined that this was not necessarily a terrorist activity, to release people, let them go home, and they began an investigation and the management of the response effort on behalf of the United States government. The Coast Guard was much maligned during the course of this effort because it was perceived that BP was running the show, the Coast Guard, NOAA, state agencies and so on were subordinate to the interests and the desires of British Petroleum. In a way that's accurate because the way the statute, National Contingency Plan is developed, the responsible parties are, in essence in charge, they are responsible, it's their money, their efforts, but they have to do so under the supervision of state and federal government. But they were the ones making the call in consultation with the Coast Guard. Were the Coast Guard to step up, was my agency NOAA to step up and say, "we're in charge". That meant it came out of our pocket, it came out of your pocket as tax payers, so there is a tension there, but in the end, we deployed, the federal government, state government, local governments deployed thousands of people, we addressed the spill. We tried to figure how much was coming out, we don't know to this very moment how much oil was actually discharged. I have scientists who work for me who are looking at that as we speak. Trying to come up with ways to determine what the spill was. At this point the job is to figure out the injuries that have occurred, the natural resources and what to do about them as a result of that spill.

Under the National Contingency Plan which the implementation construct for the management of environmental...Under the National Contingency Plan which is the governmental construct for dealing with environmental emergencies, we have representation from states, tribes, there are twenty-four, twenty-six tribes in the Gulf of Mexico area that have in some way been affected or potentially affected by this spill. They are not federally recognized tribes, which don't give them a certain standing as co-trustees, but they nonetheless have their own interests. As far as the Federal government is concerned, the Secretaries of Agriculture, Commerce, Interior, and Energy serve as trustees, we work together. And as well, we have the Department of Defense because they had a couple of bases that were affected that were located along the beaches part of the base, so they have an interest as well. And interestingly, we have been approached by Mexico, the government of
Mexico asking to be a co-trustee with us under the provision for the Oil Provision Act which do authorize foreign governments to have standing under our law to prosecute and to seek natural resource damages. And as you can well imagine, Mexico, particularly, I think, it's the state of Campeche is very interested in the effects of the spill in the Gulf of Mexico because their resources are there as well as ours. So we have not at this point formally recognized Mexico as a trustee, that's a determination made by the State Department conditioned upon them having laws similar in nature to ours. As far as the actual functioning trustees today, we're talking about my agency, NOAA, US Fish and Wildlife Service and the Parks Service under the Department of Interior and then we have the five states: Florida, Louisiana, Mississippi, Alabama and Texas because each of those states, potentially, their resources were affected they are all trustees and we function as a trustee counsel, we function as a committee of the whole, making our decisions with regard to the Natural Resources Damages Claim.

The planning process that we engage in and this is referenced in our regulations, it's all about figuring out what to do, how to restore the environment. And we begin the process by doing an injury assessment, we determine what injuries have occurred, some of the obvious ones are the impacts on marshes, dead birds, dead fish. We have potentially hundreds of dead dolphins, hundreds and hundreds of dead sea turtles. Our job right now is to determine what has been injured and how extensive are those injuries, what sort of recovery might we anticipate as a function of nature without human intervention. We then look to the restoration process which begins by asking the question, "what can we do to intervene today to accelerate the natural processes so that the resources return to the condition that they were in at the time of the spill." We then look at what we need to compensate both the resources and the people for the loss of their availability during the time they're recovering. And in that process we engage the public extensively and then we end up with a restoration plan. This is just a quick schematic, I didn't do it, couldn't have done it. But that's sort of how the process works. And what we're trying to do is quite simply balance the losses against the gains. What can we do to bring things back to the way they were the hour before the spill began?

We do this as a cross-cultural undertaking, legal, economic, and biological scientists. At last count, we had probably a thousand folks working on this. I have a legal team, myself, of twenty the Department of Justice has attorneys, the States all have attorneys. We have a team of natural resource economists that we have engaged that are experts that we have used in other cases. And we have I don't know how many hundreds of scientists both out of the academic community as well as out of governmental agencies.

The resources that were impacted are quite obvious when we're at the surface, when we're looking at dead bodies, but the real challenge today is to try to figure out what the hell happened below the surface. What happened at 5000 feet where a massive amount of oil and dispersants remains today? When they were blowing dispersants and the oil was coming up, that oil was not going to the surface, the oil was distributing itself and getting down into small droplets and so on. We now have a massive plume in the Southwestern Gulf area of micro-droplets of oil that are causing all sorts of problems. We're trying to figure out where it is and what its impact is. We're also trying to figure out what the impact is at 5000 feet where we have coral structures and life forms that have been in existence for hundreds if not thousands of years and they have been wiped out as a result of the presence of the oil and the dispersants. And trying to do work at 5000 feet even with the Alvin is quite a challenge.

We're looking at what services are provided by those resources to each other and to us as humans. We're trying to determine what is the ecosystem in the Gulf of Mexico. How has the spill affected the function of that ecosystem? An ecosystem that is very, very strained already. As you guys are well aware, I'm sure, we've got what we call a "dead zone" off the mouth of the Mississippi and
several thousand square miles it is a place that is dead. And this is a result of contaminants, phosphorous, and so on, that have entered into the Mississippi and have been discharged off the mouth of the Mississippi.

Categories of natural resource services that we look at: ecological, cultural, and historic. We look at the sustenance, or subsistence, recreational and passive existence type services. The fact that maybe you or I have never lived in the Gulf of Mexico, that we've never experienced utilization of those resources, but to us nonetheless there is a value it's an intrinsic value, it's a psychological value and that's something that we can measure and that value has got to be restored to all of us. And that's part of our natural resource damage claim as well.

As far as the current activities, I mentioned that we have hundreds and hundreds of scientists working. We're looking at the water column, the fate and transport of the oil. We're looking at fisheries and the impact on plankton. One of the interesting dynamics that was going on...I'm probably spending much more time on this than I was allotted, I'll skip it, anyways...We look at submerged aquatic visitation, the shoreline, sub tidal habitats, on and on. Everything there is out there ot look at, we are looking at it.

This is sort of a schematic of the assessment process. Once again I didn't do it and couldn't explain it, smarter minds than mine. Restoration timeline, very, very simple. The day the spill began, the folks who were responsible for restoring the environment, likewise began. NOAA deployed individual scientists, teams of scientists both to deal with the response effort and to begin the process of figuring out what the impact is going to be and what we're going to do about it. So we began a discussion of the natural resource damage claim within a matter of hours of when I was notified of the spill and that was the next morning. So we deployed our teams, we began the thinking about the figuring out what we're going to do to fix the environment. How we can interject the implications of this spill into the decision process by the Coast Guard and from the standpoint of how should you manage your response activities to minimize environmental impacts, where should you be focusing your efforts and what shouldn't you be doing? One of the things that was engaged almost immediately was a release of fresh water to keep the oil off of the marsh areas, was that a good thing or a bad thing? The development of berms to keep the oil out, is that a good thing or a bad thing? The deployment of heavy equipment along the beaches, is that good or is that bad or are you just going to turn up turtles that are actually nesting in those areas? So we began that process, providing that input. There were a couple of activities which we call "emergency restoration" that we engaged in. We began the process of trying to fix things almost immediately and at this stage we're working then, beyond emergency on the primary restoration, bringing things back and compensating for the losses. The other day, April 20th, an interesting coincidence with the date of the spill we announced an agreement with BP to provide early funding for restoration and BP has put on the table of a billion dollars that we're going to utilize to begin the process of restoring the environment today where we can see obvious needs are. And we're going to negotiate those projects with British Petroleum, with the states and this is the allocation of the money for utilization.

In summary, three things on our natural resource damage assessment is restoration focused, it's a legal process, I have been advised to be prepared to be in court a year from this February with what is probably the most complex environmental case that has ever come across the bow. This will be a phenomenal challenge. We have two years to accomplish what we would normally accomplish in twenty or thirty because you cannot predict what the environment is going to do and what the impacts are. But at this point we're supposed to be in court, we will be, and at this stage I'm trying to figure out what outfit to wear. Anyways, I gave you a few websites. Everything that we're doing, all data we're collecting, or activities are all being made publicly available. These are the websites where you can get a lot of this information. And with that I'll get out of the way.
Tom Leschine

So I was sitting up there thinking I'm the only one without a law degree and now I'm looking at my title and thinking I don't actually have a degree in economics or science either, so we'll see how this goes. You did mention math, that's what I've done. But I do environmental public policy and my point in this talk is really to kind of step back and try to do, maybe a little bit dangerous, but a broad overview of where natural resource damage assessment comes from and then what I think the current thinking of scientists is on this problem. I should mention I'm having having a glasses problem and I do not own the perfect pair of glasses, but I'm happy to say I'm back to owning two pairs because I only had one when I woke up this morning. so I'll be fiddling. Well let's just get into it, then.

My history goes back, we're supposed to tell war stories, back in the 1980's I had what was in many ways the perfect project, I was relatively new on this campus. I was handed a pile money by the state legislature to come up with a new way to do natural resource damage assessment for the state around oil spills and the problem was they were spending too much money, getting too little in return, there's got to be a better way, couldn't we use a shortcut of some sort? So what this is then is from one of our project reports, a schematic. You know you start with a release of oil that leads to injury to natural resources, that leads to now, an economics term, "reduction in society's wellbeing", which leads to compensation for this reduction in wellbeing something that is essentially what we think of as damages this is the process we're talking about. And what's nice about it, especially the way I've lived my life as an academic, it's a nice fusion of natural and social science. So the natural science is the release of the oil, how much was released, we heard Beth talking about that. The injury, determination of injury, those hundreds or thousands of scientists, boy. Then the economics and other social science comes into play in this problem of deciding, how much of society's wellbeing has been reduced and in what days and in what ways and what does it take to make this whole, to make society whole? And the law and the regulation sort of form the framework that lets the whole process go forward. So what was neat about this project when I did it, I had to recruit students to do this work and I put together a team I was looking for a law student and I found out that one of our students had been a paralegal and I hired her to work on the project. I found and economics student who was thinking of leaving UW going to another school for his PhD, take a master's degree, and I said why don't you work for me and he came, this is Jonathan Ruben who wrote this report. Then I found a third student who was a marine scientist, a really well trained marine biologist and she was extremely effective as well. So that was my team and you know parenthetically there's going to be a Science Law kind of clinic emerging and this is the perfect kind of problem for that. So NRDA-type issues I think are really perfect because they demand law, science, economics to come together in some way. That overlap between the science and economics is significant and I think actually, that economics leads the science or it should. I know that Mark Plummer's sitting from NOAA economics and he'll be happy that I said that, I hope. So also finally, injury and damages just in terms of terminology, injury is what happens biologically, damages is what that means in economics or in some valuation terms.

So this is my quick two-slide whole history of NRDA. We started badly and we learned, basically is what happened. So we had to look at all of this in order to come up with something that was defensible for the State of Washington that would pass the muster of the courts. And we started out really trying to price the thing that got injured, in other words a fish has died and what is a fish worth? Okay? That wasn't the right thing to do, putting the price on the thing itself. We have to put the price on the contribution the thing makes to human satisfaction. Pricing the fish itself lead to the Zoe Colocotroni, which I remember talking to Jason about, so here's a case where a ship runs
aground in Puerto Rico, munches up a whole bunch of barnacles. We go to a supply catalog, we ask how much is a barnacle worth? Answer's six cents, how many do we need? Oh a couple of million, so six cents times a couple of million, that's the bill. Got thrown out in the courts, nobody was really going to do a restoration that way. You wouldn't use the biological supply house catalog if you needed millions of barnacles exactly, it was unrealistic to the situation. Well getting it right economically was to realize that we had to look at natural resources in terms of the benefits they provide in the broadest possible way. And this is worth mentioning because actually, no longer with us on campus, but retired Gardner Brown from economics was one of the people (five minutes left already) who did this first. And in this Stewart barge case in 1977 made a strong argument that the way to look at a duck killed by spilled oil was to look at it in consumptive and non-consumptive use both. I think the next lesson we learned that damages only indirectly related to the spillage of oil have to also be counted, so in the Amoco Cadez spill where NOAA went in and for the first time hired a group of economists to really do a thorough assessment of the social cost of the spill they said, 'yes, that hotel owner who doesn't actually live on the beach but has lost revenue because people are not going to his hotel because they usually go from his hotel where the tanker now lies in ruins and they don't see that vacation the same way, that person's entitled to compensation too.' And then finally the big step that I think Craig alluded to instead of now looking at the damage as the summed value of all the deaths of the organisms, we're looking at it in terms of what does it cost to restore the environment or to put the environment on its path to recovery, that's kind of where we are today. The concept of ecosystem services is important in this regard and it's what we're trying to do. This is all the different types of value that come into play. Indeed I think Craig mentioned some, passive values, active values, use and nonuse, consumption, non-consumptive uses. The simple fact of existence of pristine environments turned out to be one of the most important reasons why citizens put value on the losses associated with the Exxon Valdez spill. People that had never been to Prince William Sound, had no prospect of ever going there. Indeed as one economist famously said, I think it was Crudela, he said, people put a high value on wilderness, a very high value on the idea of it, but most people would be appalled by the prospect of being exposed to it, but they value it. So, ecosystem services not going to bore you with the details, but this is a new way of thinking. And there's some interesting questions here because I'm supposed to talk about the science too. Do we have the science to really talk in terms of ecosystem services because we look at the details of NOAA's doing, that's kind of what it's forcing us to do. The Millennium Ecosystem Assessment done by the UN at the click of the millennium is the basis for this. The idea that we can sort of take all of the benefits that nature provides to humans categorize them in to these four categories and that essentially is the basis for thinking about repairing the harm that oil spills do, by thinking about that lost value to those services and what it takes to recover that.

This is a NOAA website, that's why it looks so much like what Craig showed us. So the idea here is that you're humming along the green line with a certain more or less, constant level of ecosystem services. Do scientists have the knowledge to tell us what that is before the spill, the oil hits the water, baseline studies? The event happens but you plunge down along the red curve and all other things being equal, you very slowly recover, but society, humans have lost all of the service value that's in the area A. The idea that Craig talked, too about compensatory restoration, this is the idea providing a benefit which will hasten that recovery but will in some way put back the losses that have been suffered as a result of that accident. To make the fact that we're on this trajectory on the red curve toward recovery be a little less impactful for us in social and economic terms. This is the actual press release that I think Craig alluded to. What's interesting about this okay, so BP has an obligation to fund complete restoration, that puts quite a burden on us to know what that is. And at the end of the process the trustees will take in to account any benefits that were realized so this early restoration and some natural scientists have a lot of concern about how that's going to be interpreted in the courts. I'll come to that in a minute. This is what the spill looked like, the point in
showing you this if we're comparing this to Exxon Valdez, it's really different because it was really what one of my colleagues in my old college of Ocean and Fishery Sciences calls a vent. It's coming from the sea floor like the deep sea floor vents. It's not a spill in the usual sense, so it's not at all like Exxon Valdez because so much of the action, as Craig alluded, was in the water column and we don't really understand the effects of that very well. Volumes, has stated it's the red bar second only to the deliberate release by Sadam Hussein of all the oil in Kuwait in total volume. And also the 1.8 million gallons of dispersants that were used, very controversial what the impacts of that were. And so now, I have like three sides and I'm done, sort of. How does this look to natural scientists? Well I've decided, this is such a big question, I took a deliberate strategy is there a consensus of experts who aren't sort of in the middle of part of NOAA, let's say, or in the center of things and who are well respected, and what are their opinions? So it turns out the National Center for Ecological Analysis and Synthesis at Santa Barbara pulled together a team of very distinguished people, some of whom are seeing things in a different way than NOAA is and tried to develop a consensus view. So it's not the Exxon Valdez spill. And we don't understand the pelagic middle water column, that is deep sea effects very well at all. We don't really have much prior knowledge to help inform that view. So there's this idea that in fact in Exxon Valdez, one of the important things is you know, you know you're going to go to court at a certain moment in time, I think I heard February, and you're going to try to leave this thing open until the science is settled. You want to know when the definitive hit the literature that kind of said this is what we think happened in Exxon Valdez 2003, the article appeared in Science Magazine. The spill occurred in 1989. This was a considered effort over more than an decade to really pull together the story and the Exxon Valdez will be easier to figure out than this one surprisingly.

So I won't dwell on details here, I know we want to move on. So the Exxon Valdez spill is the most extensively studied by far. A lot of what was concluded about the spill was very controversial, something important to keep in mind. And you know the big picture on bringing science to bear on this problem is that first of all scientists will feel a very pragmatic problem right at the beginning because there's litigates and are you on Exxon's side, BP's side, or the state's side okay? And science operates by the free flow of information and data, well you can't do that when you're going to court right? So that's a problem and it's something that a lot of scientists who worked on Exxon Valdez talked about quite a bit. A second problem is that law and policy kind of put this definition of injury into categories. This is what you guys do for a living maybe, those categories don't fit this unprecedented situation. What will injury be? Will it be what a scientist can determine in five years of study or will it be something that comes from a list that's in a regulation that Craig is following? What constitutes recovery? Those have been terrific issues over Exxon Valdez. A great article in Scientific American about 1996 called sounding out science simply about how Exxon and the Fish and Wildlife Service and NOAA brought completely different conceptual understanding and experimental design to deciding whether Prince William Sound had now recovered and guess what? They got two diametrically different answers and neither one could be said to be just plain wrong while the other one was right. Science is like that, it doesn't necessarily settle things and if there is political or social conflict, it may exacerbate.

Okay, more quickly. Calling out injury, and Craig mentioned this, and targeting restoration can be difficult for sure, the use of dispersants has been especially problematic. Okay I'm going to go to the end here to wrap things up because I am out of time. So I just pulled three titles of papers here as a way of getting to the some of the essential issues. The application of the dispersants which to a natural scientist, there's a good healthy debate about was that toxic, it changed the state and the fate of the oil. It deposited a whole lot of oil on the bottom that wouldn't have been there otherwise, there's still this plume lurking out there, so it's a question to a scientist. But scientists are worrying and one of the big concerns that came out of this study group was, will the litigants agree that this is a benefit because it has been cast as a benefit by the administration? So will BP get credit for the
application of dispersants in a way that will reduce compensatory mitigation, compensatory restoration, will it be seen that way, it's kind of a question, so it's a way that scientists frame a problem compared to a way that you might. The article in the middle: Trouble on Oiled Waters, nice title, Bob Payne is a very well know ecologist on this campus, his point is simply that when all you're doing is counting critters to get a body count, to get an injury, that's not the same as doing good science so that you really understand fate and effects what the nature of recovery is. And he and this group did a very long considered paper where they reviewed all the science and came to the conclusions that it wasn't very useful. And then finally the last paper is the one that I wanted to point to basically, this is what is regarded as the first definitive paper that really laid out long term effects of Exxon Valdez that were really not imagined at the time the settlement was being completed. That essentially there is a lot of evidence now that effects that were dismissed at the time are in fact real. And so that's how the science process operates compared to how the legal process operates. And I'll stop there, thank you.

Beth Bryant

Next we will be hearing from Mr. Brad Marten.

Brad Marten

Thank you Beth. Thank you all for coming it's nice to see so many people here and interested in this topic. And it's great to see Craig again. The first time I met Craig was up in Alaska in 1989 I walked in to the NOAA offices that day in Juneau and he said, "who the hell are you and what the hell are you doing here?" Which has sort of been my relationship with Craig ever since and it's been a long and wonderful one and he is an example of the very best of government lawyers. So I've got two minutes, no problem. And I'm going to take, you know, seven, maybe, six. Here's what I want to do, you know we live this so we get very wound up in it and it's very interesting stuff so we like to talk about it, so we talk about it. But what I want to do is sort of take us back to the forest, I think we've gotten a little bit in the trees and they're pretty interesting trees, but let me spend my time talking about the litigation. A little something different than what Tom and Craig talked about. That's what I've been most involved with, I represent the State of Louisiana, which is one of many litigants in this oil spill and I have to say that, you know, this is the largest piece of environmental litigation in history. And it's for those of you that go into environmental law and decide to become a lawyer in that area, whatever group you join, you'll do a lot of environmental litigation. But if you're really lucky, you might do one case like this in your life. And I've been lucky enough and Craig's been lucky enough to do two, so it's amazing. But it's not like a normal case, it's sort of like the Super Bowl of environmental law, there are just unbelievable numbers of players, complications, politics, a lot of politics, a lot of money and it's just not your normal case. So I just need to tell you a little bit about it so you have a context for how these natural resource damages fit in. So these two guys are in charge, the guy on the right is Ken Feinberg, he's a mediator, he's the guy that's in charge of the 20 billion dollar fund, and the guy on the left is Judge Barbier, he's the United States district court judge, sits in New Orleans and he's in charge of what's called a multi-district litigation, which is where all the cases wherever they were filed around the country come to be tried. And there are hundreds and hundreds of individual cases that are combined in this one preceding. Now, what Ken Feingold does, is he deals with the process outside of the litigation, in other words, claims that could be settled without going to court. And people elect, they can either go to court or they don't have to go to court. And early on in the process, there were many, many claims that were paid by BP. And you have some of the numbers up here, these were individuals who alleged that they were harmed because of this oil spill. Their business was harmed, their property was harmed, their lives were interfered with in some way, so there were almost half a million emergency claims made, imagine that. A half a million claims, just on an emergency basis. After those half a million emergency claims were paid, which were primarily $1000, $5000 sort of immediate money that you get to
people in a crisis like this. Then there was a process whereby people brought in what were called interim claims, which were claims since that initial money was paid out to them to bring them sort of made whole while they decide they wanted to join this gigantic law suit or not. If they do not decide to join this gigantic law suit, then they are to be paid final claims and release their damages against BP and everyone else involved in this. None of that has happened, no claim has been finally resolved in this Deepwater Horizon incident, none, there have been a lot of claims paid on an interim basis, on an emergency basis, but no one has actually released BP for anything, from the fishermen and oystermen to the United States and various states that are involved. But a lot of claims have been paid and a lot of money has been paid, $4 billion. Just to give you a sense of scale here, in the Exxon Valdez, the State of Alaska and the United States were eventually settled that case for a little short of a billion dollars. In this case they've already got a billion dollars for the interim damages, the early restoration damages that Craig was alluding to earlier, so that's as much money as we got in the Exxon Valdez case already. The private plaintiffs, who in the Exxon case waited twenty years to be paid have already been paid $4 billion, so 4 billion and 1 billion that's 5 billion and that doesn't count all their lawyers. So these folks have paid a lot of money already and of course they have a lot of money left to pay, but that's a sense of scale, it's already a $5 billion damage case. We've got to move on. That's what Feinberg's doing, he's outside of the judicial process, he's processing these claims, he's making the interim claims and people are deciding whether to finally cash out. That process is going on.

Meanwhile, down the street, there's this federal courthouse where many of these same claimants, covering their bets have filed individual claims and hired lawyers, a lot of lawyers who represent them. So they have filed claims, over 70,000 lawsuits have been filed, The United States has filed a complaint. There are five states, several of but not all of which have filed law suits. There are a number of local governments that have filed law suits and Louisiana, counties are called parishes, the parishes have filed individual law suits. And then there's a bunch of collateral cases. There's securities class action cases, there's insurance coverage class action cases, and then there's claims and cross claims galore. There are almost a thousand lawyers just on the service list. So when I like, tonight, every night in fact I get an e-mail, seven days a week, I get an e-mail. And the e-mail goes to me and 999 of my best friends, all of whom get the same e-mail that says, 'here's what happened today'. And some days it's like 30 items long. And a lot of it's nonsense, but most of it's like, 'motion to dismiss your case', so you got to kind of pay attention. The depositions have been going on in Louisiana, a place in London, everybody wants to go on those, they're being triple tracked, so you're having to throw a lot of people, and there's a lot of money just for all of these lawyers to be involved for all of these parties all of the time. And then there's written discovery, millions of documents, and this judge has decided to put this case on a fast track, so as I think Craig and I think Tom was also commenting, you know, it's hard enough to do an underground storage case in two years, but if you're doing a case like this, this is really hard to do this much, but this judge wants to move it along. So they have scheduled an initial trial there's an admiralty aspect of this case which I'm not going to get into too much because I don't have the time, but the first aspect of this trial is being tried, not a year from February, that's another deadline, but this February. So this is like May, February is coming up. And in that trial, the issues of liability will be resolved as to to who done it, which is sort of an open question. And you see a lot of maneuvering going on. just the other day, one of the owners, one of the lessees, there were more than BP were the leases of this particular well, BP was the majority, there was a company called MOEX and another company called Anadarko. Well MOEX paid BP a billion dollars the other day, just paid them a billion dollars said, 'you take it and indemnify us, we're out of here.' So there's a lot of stuff going on a lot of big dollars a lot of maneuvering and a lot of pressure on everybody to sort of move this along. I think we'll probably better serve if we listen to your questions than just talk at you. I would just say this, in this case, let me just mention what the damages are to give a context for natural resource damages. So when you have an event like this now, unlike, as Craig mentioned, under the Exxon Valdez, we
didn't have the Oil Pollution Act of 1990, the spill of Exxon was in 1989. There are a suite of damages that various kinds of claimants can recover depending on who they are: individual claimants, state and governmental claimants, etc... So basically if you are Craig's client or my client the State of Louisiana, you can recover basically the cost of cleaning it up, basically response costs. You can recover natural resource damages, which we've been talking about. You can also recover lost revenue, lost taxes and royalties, actually royalties from the wells that were shut down because of this oil spill, that revenue loss is recoverable. You can recover for any damage to state property or federal property, and that's on the civil side. You can also recover penalties which are per gallon penalties, we haven't talked very much about it but I think you'll be interested in knowing that potentially these penalties, state and federal penalties run into the billions of dollars. And then while all of this is going on, on the civil side, there is this criminal investigation that the United States and some states are involved in that is also proceeding and has its own set of consequences, some of which involve money and some of which involve jail time. So we're dealing with a very complex case involving on the one side of the V a number of plaintiffs, thousands of individual of plaintiffs, five states, the United States which isn't by the way just one entity, but a number of different agencies. On the other side, the lessees, plural, not just one, the owner of the rig, the various folks that were involved in manufacturing the equipment that failed, so you've got all of that going on in both the civil side and the criminal side simultaneously with a judge that wants answers in about eight months. So it's very challenging, but this is a problem that you could only dream about. I mean this is about the biggest problem you could have as a lawyer and it's about as much fun as you could have. So we'll answer questions, I think that would be more helpful. Thank you.

Beth Bryant

Thank you very much. Now there is a slot here in the itinerary for Mr. Craig O'Connor to make any additional comments if he wishes or we can launch right into the questions.

Craig O'Connor

I think questions are important but I'm loathe to shut up. Let me touch on just a couple of let me touch on just a couple of things and one of them I think is important to understand, listening to Tom's presentation and Brad's and having been with this subject of oil spills and hazardous waste releases for 20 plus years in my career. There has been an evolution that is important to understand and that is how we go about addressing pollution cases particularly in the natural resources damages world. We began in the Exxon context with basically litigation. We wind up our troops, we dug our trenches, we hired our experts and Exxon and the state and federal government lined up to fight. And in the course of that we obviously settled the case within a reasonable period of time with a reasonable amount of money, but what we failed to do was, as Tom has eluded to, to develop the science and to develop the knowledge that is necessary for our society to make decisions with regard to the implications of oil spills and the implications of the exportation of petroleum in the United States, whether it's shipment of those products into our ports or the development of offshore oil and gas operations, we've never had an understanding of potential implications. One of the things that we did under the Oil Pollution Act and I will take full blame or credit for this because I was responsible for the development of our regulations under the Oil Pollution Act was to try to create a system where we may ultimately end up in litigation. We may end up ultimately with large economic damages, but a system where we can integrate the science and the tensions of science and come up with meaningful answers and in that context what we developed was a cooperative damage assessment process, that we bring to the table or at least invite to the table the responsible parties and their scientific consultants. We also found under the Exxon Valdez and the utilization of various economic tools that attached monetary value to damages that knowing how much money may have been lost does nothing for us in determining what to do about it. If I got a billion dollars or a gazillion dollars, that doesn't tell me what I need to do to restore the environment and that's our
responsibility. So over the evolution of time over the course of the last twenty plus years, we have changed the construct. We have invited the responsible parties to the table, quite frankly, they have as smart of scientists as we do. We have tried to create an environment where the science is engaged in an open atmosphere. We have arrangements with the responsible parties where we will go forward together, we will collect data. We will share that effort in the interpretation of that data, we will reserve to each of us and that may be the source of the litigation in the end. But we are trying to get away from, and I would suggest that an interesting public policy study could be put together right now on what has happened over the course of the last twenty years in how our country has dealt with the natural resource implications of environmental harm. And what has been accomplished in that context as far as the solution to the problems? What has happened under the Oil Pollution act to discourage the spills? And quite frankly we've had no major oil spills since the Oil Pollution Act was passed, major meaning the magnitude of an Exxon or even a meaningful magnitude in the coastal waters of the United States until we had this spill. Our country has done a lot to try to address the implications of our utilization, our gluttony, if you will for petroleum products, for oil. I dare say most of us drove here and in so doing created the market for folks like Exxon and BP and so on. But what are we doing to fix the problems that we're creating as a result of that. I think the evolution since 1989 has been dramatic and I think that's worthy of public policy consideration because a lot has been accomplished. So that's just my two cents of government policy.

Beth Bryant

Thank you very much. At this time we have about twenty minutes left for questions and the panelists may ask each other questions and we'll also take questions from the audience. Would you like to ask each other a question to get things rolling?

Craig O'Connor

What the hell are you doing here Brad? You never gave me an answer to my question.

Tom Leschine

I have a question for Brad based on what he said and maybe my understanding. In all of the mixing of these kinds of claims and suits I guess I always believed that the natural resources arena was in some way distinctly different you know, public damages versus private, in you know my intellectual conceptual framework they're very different. Do they, in fact, end up getting blended in a way are they going to be blended in the courts so that there won't be distinctly different natural resources claims from private...

Brad Marten

There's a process laid out in regulations in sort of a belief that these oil spill cases get tried in a certain way and when you're dealing with some reasonable size event, they do. And the process that Craig describes is the one that tends to be followed when you have a spill that isn't on the front page of every newspaper in the world. The problem is that when you have an event like this it is more sociology than it is law. There are lots of different people with lots of different interests and there are lots of things to balance. The scientists; and I've been in rooms where there are more Nobel prize winners than one could imagine. They all want the answer, like scientists always do. In fact most of what I do in environmental law involves engineers or scientists, they want the answer. Then there's the litigants; they generally want it to be over and they don't necessarily need the answer. Now the scientists want the answer, but the litigants really just want it to be over and all of those interests have to get resolved. In a case like this, sure there are people even within the oil company;
I expect that would like the answer to exactly what happened and what the valuation should be and the appropriate way to address it. And then there are guys that just want to get back to drilling and they just want to get this over with so that they can write it off their balance sheet and tell their shareholders what it's worth and get their stock price back up and move on and there's a lot of oil out there to be drilled. And you know leases, the government's back in the leasing business and there’s a lot of politics in D.C. and that's the real world. So I think that we always have to balance, first of all you have recognize the uniqueness of this situation. It is very unique. You know, twenty years between oil spills, hopefully we'll never have another one. If we do I don't think Craig and I are going to be on that one. But in a unique situation, you have some unique compromises to make. I do think that the process which Craig developed does work in 99% of the cases and it's a good process and people understand it and they follow it, but this is that one percent.

Beth Bryant

Yes, Professor Hicks:

Hicks

Could you speak a bit more about the challenges of doing natural resource damage assessment against the background of the state of the Gulf just before the spill occurred because not only was it in whatever condition it was in but that also might have a trend in it so that resources might be declining, jeopardized, whatever, it just seems to be just an enormous task of sort of pulling out from that complexity a calculation of the damage assessment so it'd be great to hear you speak to that a bit.

Craig O'Connor

Is that to me? What you're referring to in the vernacular that we use in the natural resource damage assessment process is the baseline. What was the environment like moments before the spill occurred? And that always is a phenomenal challenge and in the case of Deepwater Horizon it's even more complicated because of the geographic massiveness or the potential impacts geographically. In the process, it is our responsibilities as trustees to be sure that we understand that baseline condition what the environment was like at the time of the spill so that we can bring it back. BP is not responsible for doing any more than that. As a mechanical manner, we deployed teams of scientists whose responsibility it was to go out and determine what that baseline was from what are the condition of the beaches today, what are the condition of the marshes. What is the situation with regard of the productivity of the various natural resources in the environment are red fish up or down? Do we have problems with Bluefin tuna today that might be exacerbated but are not a situation that BP may ultimately be responsible for? That is a phenomenal challenge and as I think I mentioned, we've got that huge dead zone. Today we have very real potential impact of the floods in Mississippi, all that's going to be introduced into the Gulf of Mexico as a result of that. We are trying to determine as effectively as we can with limited scientific knowledge. There's going to be a huge dump of crap in to the Gulf of Mexico and it will be our responsibility as trustees to be sure that we do not tag BP for those impacts. So sorting all that out is phenomenally challenging. We have good scientists, we have Peter Peterson who is referenced in the papers that Tom is talking about, one of the best near shore ecologists in the world, he's an expert that I've retained, he works with us, for us. Academic institutions from all over the country have provided folks to help us engage in the process of determining what that baseline and what our restoration goals should be. We have a dynamic today you may have read about in the paper. We're seeing that reef fish, vermillion snapper, particularly in the Gulf of Mexico and one that is going to be targeted by the commercial fishery for red snapper that opens June first are showing up with lesions. Their skin infected with two significant bacteria that have not necessarily in the past been a prevalent problem
like they are today. Is this caused by the spill? Is this caused by exposure to the contaminants of the dispersants or is this something that's naturally occurring like a red tide that has no connection to the spill at all. We have to figure that out. The challenges and I think that Brad very eloquently put it, this is the biggest problem and the most fun that I've encountered and it's those challenges that we're faced with, what the hell. And right here in your own Duwamish waterway or in Commencement Bay as we were looking to clean those areas up and the natural resource damage cases associated with that. We had to take into account the urbanization of those environments and reduce, if you will the biological carrying capacity of that environment as a result of the presence of other perturbations in this system. To touch on this issue of dispersants and will there be credit given to BP for the utilization of dispersants, the answer is categorically, 'no'. And in fact we're looking at the implications of the utilization of those dispersants on the environment and on the resources and that's part of the natural resource damage claim. They may have had authorization to utilize them, but what happened as a result of that? Is there a responsibility? We will be looking to determine that as well.

**Tom Leschine**

If I could comment, you know Craig, I don't think you'll be able to answer those questions and tease apart those relationships. And also if I sort of put on my hard-hatted, economics hat I would say it's not actually worth it. It's only worth it up to a point to invest in this understanding of what happened. And it seems to me it's a little bit out of sync with what I understand the actual restoration program that's starting to shape up to be which is something that, a lot of us would say, is a really good thing. The idea that it's time to restore the Gulf, in other words, to address this world of woe that Greg Hicks alluded to in his question. And so there's this idea in economics that you know, you have these choices between restoration in place or out of place, in kind, out of kind. And there's a kind of an efficiency that should play a role in letting you decide what to do. So if you have to learn too much and it's really beyond your capacity to understand what went wrong so that you can target the restoration that way, it's not unfair to raise the question, maybe we should do something else and maybe that is what we're doing by targeting on dealing with the dead zone. This is the most endangered part of the country we have. The map of the United States will change noticeably in the lifetime of those of you that are young out here law students. It won't look the same in twenty or forty years because these areas are drowning very quickly it's changed since the 1950's so this is a big issue and it's a big trajectory and it makes total sense to try to target that problem. So I get a little concerned, maybe that's too strong a word, but I'll note a disparity between the quest for knowledge and maybe what the intention of restoration policy should be recognizing that policy isn't totally derived from natural science.

**Beth Bryant**

Another question back here.

**Audience**

I'm from Louisiana, actually and I was there during the spill and one thing that really distressed me and everyone else was BP just started spraying these chemical dispersants. And just the way the public could tell, it was without approval, we had various local marine biologists and scientists and officials saying, 'what the hell are they doing?' And going out and taking their own samples and showing that pre spill the water column was teaming with microorganisms and plankton and after they started spraying the chemicals it was going down to like ten percent. We all eat massive amounts of seafood; it's a major part of our culture. To us it seemed like this strange foreign company dumped a massive amount of oil and then the administration's just letting them come out and spray chemicals in our food supply. We were really distressed because to us it seemed like there
was no, kind of, checks and balances. Our local scientists were saying these chemicals are new they haven't been properly tested in the lab and we basically felt kind of helpless and exploited. And I understand because of the national contingency plan, BP is responsible for the clean-up, but does that just give them free reign to do whatever they like? Because that's what it seemed like.

Brad Marten

Craig I really want you to take that one.

Craig O'Connor

No they're not allowed to free reign. For belter or for worse, we did not know and still do not know what the implications are of the utilization of Corex as a dispersant in this context. We as a government, both state and federal engaged in the deliberative process way before Corex was even authorized to be a dispersant as to what the potential implications would be. And in the context of the spill itself, I know we engaged our agency with the environmental agency in trying to figure out what the hell the implications would be. The answer is for the most part is we don't know. What we did know is if we allowed the oil, four plus million barrels of oil to hit the surface and the beach, that the devastation would be massive. A somewhat informed decision was made to try to inject the dispersants at the well head to try and break up the oil. And the dispersant is really nothing more than Simple Green, you can spray that on oil on the surface of the water and what it does is makes the oil become very tiny droplets. And one of the natural processes that occurs is that microorganisms will consume those. And I'm sure you read some of the articles that were done funded by BP and otherwise on the potential positive of making this stuff in to tiny droplets. Well the fact is that we really don't know what the implications are of that and we're trying to figure it out. The Exxon Valdez was a surface spill. We found maybe one or two fish, rock fish at the bottom that had some oil. The surface spill killed tens of thousands of critters from sea otters to whales, on and on. And one of the biggest concerns that we had was allowing that oil to hit the surface and the beach and spread and during the course of that we were very much concerned as well with the implications of loop current in the Gulf of Mexico. And those of you who understand that oceanography recognize that we were faced with the possibility of that oil being entrained with that current and finding itself working its way through the Florida Keys, all of those coral structures that are in the Florida Keys and working their way up the East coast in the gulf stream. So we were very, very concerned as biologists and scientists with the implications of that oil staying on the surface or getting captured in other currents. We consulted with the government of Cuba, put them on notice as to what might be going to happen as well as Mexico. Not to justify our decision but we made the best one we could at the time. And hopefully it was a good one. I'm very concerned with the implications for the impact on the bottom of the ocean, but we sure as hell kept a lot of oil off the surface and that's what we were trying to do.

Brad Marten

And I think it's interesting to note that you see the government in two roles here, right? You see the government in the role of assessing the damage from a spill it didn't cause and then dealing with that spill and making decisions which are difficult decisions requiring difficult trade-offs under a lot of time pressure and a lot of uncertainty about whether it's the right thing or the wrong thing. Of course it's always easy to criticize but it's tough to be in that position of having to make those decisions in real time when the whole world is watching. I have to take my hat off to the folks at NOAA, it's not a good place to be.

Craig O'Connor
That's the first good thing you've said about me in twenty years.

**Tom Leschine**

You know NOAA didn't make the decision, EPA did. There was an interview with Lisa Jackson, a great article in the New Yorker about the spill. She wasn't motivated, primarily with ecological things, she had great concern with public health. And so her logic was inhalation of these chemicals, with the idea of this massive slick, would be out there by all these response workers who were going to be on vessels. She was envisioning thousands of people inhaling lethal, carcinogenic levels of toluene and all the light fraction things that come pouring off an oil spill. They could smell this in New Orleans when the wind was blowing right. So she had that concern, too, so she was actually acting out of a public concern and that's something we tend to not look at. It's a very complex decision and I think it's going to be historians that finally tell us exactly how this decision was arrived at.

**Craig O'Connor**

The aromatics which are the toluene, benzene so on and so forth are lethal and those were being distributed as far inland as a thousand miles, so the public health implications as Tom mentioned were phenomenally prevalent in the decision process.

**Beth Bryant**

Thank you. Unfortunately we don't have time for further questions right now. But the panelists will be at the reception and you can chat with them at that time. So thank you very much for coming. I'd like to introduce Katherine Hunter Kirkland, who is Greenlaw co-president and she will tell us what's going on with the reception.

**Katherine Hunter Kirkland**

Thank you Professor Bryant. On behalf of Greenlaw and the Washington Journal of Environmental Law and Policy I just wanted to thank you all for being here for this very special event. We're tremendously fortunate as environmental law students to have this depth and breadth of expertise in our own community so we wanted to thank Professor Bryant and our panelists for generously sharing that expertise with us today. The students also wanted to thank our own environmental law faculty Professor Rogers, Professor Anderson who is here, and Professor Hicks for all their support this year and always and finally we wanted to acknowledge our Dean Kellye Testey for her generous support of tonight's events and all of our efforts to expand the environmental offerings here at the Law school. So I hope you can join us at the reception. We'll be celebrating the launch of the Washington Journal of Environmental Law and Policy just down the hall in room 115. And the panelists will be there to perhaps answer some more questions and celebrate the tremendous accomplishment of the students who have brought this journal to life this year. So thank you very much and thank you once again to the panelists.