

## Marine Debris

15                   MR. EHRMANN: Okay. I am not sure whether we  
16                   are moving up or down the hierarchy of stewardship  
17                   issues by moving to marine debris, but let's go ahead to  
18                   marine debris.

19   MARINE DEBRIS

20                   DR. SANDIFER: In my case, I believe this is  
21                   becoming mental debris as I work my way through this  
22                   list.

1 (General laughter.)

2 DR. SANDIFER: Marine Debris has been  
3 characterized a number of times as a very significant  
4 problem, both in terms of its immediate impact on  
5 resources, its long-term impact particularly in the case  
6 of plastics kinds of stuff, and the impact it has on  
7 economic uses.

8 Nobody wants to go onto a foul beach, that is,  
9 a beach or a stream that has litter all over it or junk.  
10 This, again, begins with a recommendation that the  
11 biggest opportunity to improve the situation is by  
12 educating the public how their individual actions affect  
13 the marine debris problem.

14 In our analysis of this, we found that at one  
15 point there was an interagency marine debris committee  
16 co-chaired by EPA and NOAA, and that apparently has  
17 fallen on hard times. As another one of these examples  
18 where this kind of coordination is essential, we would

19 strongly recommend reestablishment of that program.

20 We also found that a program that had been  
21 quite active back in the, I think, late 1980s and early  
22 1990s through to the mid-1990s was the Marine

1 Entanglement Research Program out of NOAA that dealt  
2 with lost fishing gear and its non-intended impacts on  
3 living marine resources, particularly killing marine  
4 mammals and seabirds, turtles.

5 This program was lost after 1996, yet the  
6 problem of gear loss, not only fishing gear but related  
7 packing materials or whatever, continues to be a  
8 significant problem. We recommend that that Marine  
9 Entanglement Research Program be revisited.

10 Also, improve port reception facilities to  
11 address the marine debris problem. Ed, I think even in  
12 Alaska we saw some cases where material was being  
13 brought in by fishing boats where they had picked up  
14 some derelict gear and then had to figure out what in  
15 the heck to do with it once they get to the dock with  
16 it. It is not a trivial question, What are you going to  
17 do with these huge pieces of gear?

18 We believe that Congress should require

19 establishment of technical standards for reception  
20 facilities. You can move on. This is also an area in  
21 which we believe we should take a lead in the  
22 international environment by supporting and assisting

1 other countries in implementing special area  
2 designations under MARPOL. Our staff knows far more  
3 about this than I do, but those places where you have  
4 areas of special significance and no place to do  
5 anything with junk, here it is.

6 We had some significant discussions about how  
7 much research is needed in this arena and concern that a  
8 recommendation to simply study the problem ends up being  
9 study and no implementation. Yet, at the same time  
10 there are some issues, particularly in international  
11 waters, that do need study.

12 We suggest the National Research Council work  
13 with the appropriate international agency, it might be  
14 the Food and Agriculture Organization of the  
15 United Nations, and any other appropriate international  
16 bodies dealing in the marine environment, perhaps ISIS,  
17 to make recommendations to address the derelict fishing  
18 gear and other marine debris problems. In so doing,

19 both here in this country and internationally, we  
20 suggest improving information such as source  
21 identification, monitoring, and the sharing of data.  
22 Finally, we believe there should be an

1 increase in funding for public education, monitoring and  
2 source identification, prevention and derelict fishing  
3 gear removal programs. A good example of this was the  
4 Northwestern Hawaiian Islands Expedition that a number  
5 of us heard about in some of our site visits. I believe  
6 that concludes this one at this point.

7 MR. EHRMANN: Commissioner Rasumson?

8 MR. RASMUSON: Thank you.

9 This business of derelict fishing gear, we  
10 call them "death nets." We don't allow them in our  
11 fisheries; but the Taiwanese, the Japanese, I believe  
12 the Koreans and what have you, and others do. They will  
13 be out 4 miles, 5 miles, 6 miles, 10 miles, 15 miles, 20  
14 miles, or 30 miles.

15 We have discussed that at length with  
16 Senator Stevens about what we could do. Some  
17 suggestions that came up is that on an international  
18 basis we would like to encourage those companies,

19 fishing companies, that use those large, long nets --  
20 because in international waters I don't think they are  
21 illegal -- to have transponders on either end of the  
22 nets.

1           When they break off, they can start beeping  
2           and you can find where they are at. Now, what happens  
3           is they get the sea mammals and all the other fish in  
4           there, they drop down below the surface, then they rot  
5           out, they go back up again, and they start fishing  
6           again.

7           If we can get them on the transponder before  
8           that happens, we could have boats either in Hawaii,  
9           which is right here, or over in Kodiak, because over in  
10          the North Pacific usually they are over by Guam, go out  
11          there and get these nets and burn them up. I think it  
12          sounds far-fetched, but I think that is the way we are  
13          going to have to do it.

14          DR. SANDIFER: Ed, I think your point is  
15          well-taken. We did not specify drift net, gill-net  
16          fishing, but that is an appropriate issue to include  
17          here. We did talk about life-cycle costs of net  
18          manufacturers that perhaps net manufacturers ought to

19 have include some kind of cost --

20 MR. RASMUSON: Biodegradable?

21 DR. SANDIFER: Biodegradable issues and some

22 kind of cost or fee to be paid for the ultimate recovery

1 of these things as well. Transponders on nets might be  
2 a way to do it.

3 MR. RASMUSON: It has got to be done in a  
4 cooperative effort with the foreign nations that use  
5 these.

6 DR. SANDIFER: It absolutely does. That is  
7 why we flagged this as an area of international  
8 cooperation. It wasn't included specifically early.  
9 The marine debris we are talking about, both  
10 international study and international implementation, I  
11 don't know enough about all of those organizations to  
12 suggest which one is the right one, international  
13 organization, to work with.

14 The high-seas drift net is one element, but,  
15 as you mentioned, just lost nets is another one. If  
16 there is some mechanism to have locators on them, it  
17 might be a significant advantage. That is a  
18 technological side that we could add in here.

19                   That is not the only means of marine debris.  
20    We also talked about beach sweep kinds of activities in  
21    coastal areas and how important that is. That is part  
22    of the whole public participation, the public education

1 effort here, but it goes beyond that. It is literally  
2 from the creek behind your house or the stream that you  
3 go to at a lake that you go to all the way out into the  
4 middle of the ocean.

5 MR. EHRMANN: Commissioner Rosenberg?

6 DR. ROSENBERG: Thank you.

7 On the ocean gear issue, I agree that it is  
8 important to continue to work through international  
9 agreement to address this. Of course, with drift nets  
10 there is an international agreement and we have had  
11 high-profile enforcement cases and even extensive  
12 negotiations to end the drift-net fishing. There have  
13 even been high-seas arrests by the Coast Guard.

14 I think drift netting is less of a concern  
15 than other kinds of gear now, everything from long lines  
16 to the remaining kinds of netting. I wouldn't say that  
17 drift netting has been eliminated, but at least there is  
18 an international agreement that has been effective.

19                   I do think that more broadly we need to work  
20    in some of the regional organizations to try to get  
21    agreement on how you deal with discarded or lost fishing  
22    gear. Part of the problem here is there needs to be

1 some incentive for people to bring it home. I mean, not  
2 only is it a problem of what do you do when you bring it  
3 home, but in some cases domestically there is absolutely  
4 no incentive if you have everything from lost lobster  
5 gear to long-line gear for somebody to pick it up and  
6 bring it back.

7           It is a major issue, and so some careful  
8 thought needs to be given to development of incentive  
9 programs for people to actually clean up gear. In fact,  
10 it probably would not be a bad thing if there were a way  
11 to actually compensate people for the expense of  
12 bringing in discarded gear.

13           DR. SANDIFER: Andy, just one second. I  
14 suspect that the compensation would be a lot cheaper  
15 than leaving it out there.

16           DR. ROSENBERG: Right.

17           DR. SANDIFER: Again, that is an area that  
18 staff can look at. Secondly, if you have suggestions of

19 regional organizations, can you get those to us  
20 specifically? That is an area that I simply didn't feel  
21 confident that I knew about.

22 DR. ROSENBERG: Right. Well, I think there

1 are some regional organizations, and I will give those  
2 names to staff, both in the Pacific and Atlantic. I  
3 don't know about the Indian Ocean ones.

4 I think it is fine to go to FAO, but if you  
5 are going to go to FAO, the effort should be to develop  
6 an international plan of action, the same kind of thing  
7 that was done with seabirds or with sharks. That is  
8 what FAO can do as voluntary agreements, and then the  
9 regional organizations can feed off of that.

10 It is quite similar to the marine mammal  
11 bycatch issue. I mean, hopefully, we would be  
12 encouraging an organization like FAO to develop an  
13 international plan of action, which then can be picked  
14 up by regional organizations for implementation. That  
15 is probably the right route to go.

16 I mean, of course the drift-net mechanism is  
17 much more powerful, but it is unlikely you will be able  
18 to do that more broadly. It is certainly worth asking

19 the State Department and others to consider what might  
20 be the possible international instruments to deal with  
21 this issue. There is a domestic problem as well as an  
22 international one.

1 I also think that it would be very helpful in  
2 the discussion to refer to some of the public education  
3 exercises, beach cleanup, and that might be in the text.  
4 Those are really important efforts to encourage to raise  
5 public awareness. Here maybe it is because of the way  
6 it was --

7 DR. SANDIFER: Those are in the background  
8 information specifically, because that is an area where  
9 a number of us have local experience and understand it.  
10 We are trying to find some other examples that would  
11 work as well.

12 DR. ROSENBERG: I think they should be  
13 highlighted, because I do think they are very important.

14 MR. EHRMANN: Commissioner Borrone?

15 MRS. BORRONE: Thank you.

16 Well, I appreciate the last point that Andy  
17 just made and the one you made earlier, Paul. I would  
18 really like to get back to the coastal issues as well or

19 the coastal-related issues.

20 We have had harbor drift programs. Both EPA

21 and the states have vessels out picking up debris or

22 rotting pier structures or other materials, agriculture

1 or other products, that can be hazards both to  
2 navigation, as well as to marine life, and of course  
3 users of the coast.

4 This is an area that is not clear to me, but I  
5 am hopeful that when we are talking about these issues  
6 in the paper we are talking about issues not only on the  
7 high-seas, but also in the coastal areas, in our harbor  
8 areas as well and encouraging either the continuation of  
9 already-funded programs or the reauthorization of  
10 programs whose funding may have lapsed; or encouraging,  
11 as you have suggested, local environmental organizations  
12 to work in a collaborative fashion perhaps to put some  
13 reward money on the table to help achieve some of these  
14 things with volunteers or with the states.

15 DR. SANDIFER: I think that last is excellent,  
16 Lillian. I hope we will capture that. The NGOs could  
17 be a great help in this. Also, we actually talked

18 longer about inshore stuff than the offshore. The  
19 offshore just happens to be bigger chunks than the  
20 inshore.

21 One of the things we talked at length about  
22 and will, I hope, be reflected in the text is public

1 education dealing with prepared foods, for example, not  
2 just fast food. Fast food is a lot of the debris that  
3 then floats into our waters as a result of careless  
4 either use by you and me as consumers or containment on  
5 the way to landfills. A lot of that material ends up in  
6 coastal waters.

7           In some cases, municipalities are enacting  
8 ordinances that the originator has to do some things; in  
9 other cases, it is public education. The reality is the  
10 public impact is the big one. We captured some of that  
11 in our discussions, but not so much here. The only  
12 formal program most of us know about is the beach  
13 sweep/river sweep one. If there are others that we need  
14 to be made aware of that we can cite, that would be  
15 great.

16           For example, every time we have a good example  
17 and say, "Go do this, the people someplace in New Jersey  
18 or in South Florida or in Houston or wherever are doing

19 a great job," that helps our report, I think. It tells

20 people, "My community isn't measuring up the way it

21 should be. Here is something we can really do."

22 MRS. BORRONE: Well, I think we could turn. I

1 know there was some NGO representatives in the audience,  
2 but I think we could turn to the Coastal Alliance, the  
3 Clean Ocean Action, or some of those other organizations  
4 to help us out here.

5 DR. SANDIFER: Thank you.

6 MR. EHRMANN: Commissioner Kelly?

7 MR. KELLY: Paul, you know I participated in  
8 this discussion as a member of the Stewardship  
9 Committee, but one item I forgot to bring up is another  
10 area where there are international implications that in  
11 the beach cleanups in the Gulf of Mexico we are finding  
12 a lot of five-gallon drums and other things with Spanish  
13 labels on them.

14 Because of the prevailing winds and currents,  
15 we get a lot of things from Mexico ending up on Texas  
16 and Louisiana beaches, so it might be another thing we  
17 can mention for some cooperation. I think some of the

18 Texas universities may already have a program underway  
19 with Mexico, but I am not positive about that.

20 DR. SANDIFER: One final statement on this. I  
21 think most of us who have dealt with these kinds of  
22 cleanup programs know that you get an awful lot of bang

1 for a very little buck, because most of the hard work is  
2 actually done by volunteers.

3 The financing that goes into making sure you  
4 have got a few coordinators -- all the necessary bags,  
5 the boats to get out to islands, and what not for the  
6 days that you do it -- the real work, the hard labor is  
7 done by volunteers.

8 In terms of expenditures, one gets an awful  
9 lot of cleanup value for the dollar. We may be able to  
10 find some statistics on that that helps make the point  
11 not only nationally, but internationally as well.

12 MR. KELLY: The Ocean Conservancy deserves  
13 some kudos for probably having the leading program  
14 around the nation.

15 DR. SANDIFER: They sure do.

16 MR. KELLY: They have good statistical  
17 information on what has been found, I think, too. I am  
18 sure they would be glad to give us what we need.

19 DR. SANDIFER: I think we probably need to get  
20 that, and I imagine somebody will volunteer to make sure  
21 we do get it. It is exactly the sort of thing we need  
22 to have in this report, and it is the sort of thing that

1 people see.

2 MR. KELLY: Thank you.

3 MR. EHRMANN: Very good.

4 Staff, any comments or questions here?

5 THE STAFF: (Shaking heads.)