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# ***Public Hearing***

before

## ASSEMBLY AGRICULTURE AND NATURAL RESOURCES COMMITTEE

*“Testimony on the subject of using decommissioned subway cars as artificial reefs”*

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**LOCATION:** City Hall  
Somers Point, New Jersey

**DATE:** April 23, 2002  
6:30 p.m.

**MEMBERS OF COMMITTEE PRESENT:**

Assemblyman Robert J. Smith, Chairman  
Assemblyman Jeff Van Drew  
Assemblyman George F. Geist



**ALSO PRESENT:**

Jeffrey T. Climpson  
*Office of Legislative Services*  
*Committee Aide*

Maggie Manza  
*Assembly Majority*  
*Committee Aide*

Jerry Traino  
*Assembly Republican*  
*Committee Aide*

*Hearing Recorded and Transcribed by*  
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Hearing Unit, State House Annex, PO 068, Trenton, New Jersey

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**ASSEMBLYMAN ROBERT J. SMITH II (Chairman):** I'd like to get started. Good evening, everyone. I'm Assemblyman Bob Smith. I want to thank everybody for coming out here this evening for a very important issue. I think we're going to hear a lot of balanced testimony regarding the issue of using recycled and cleaned subway cars off our Jersey coast.

But before we get into the testimony, I just wanted to thank the Somers Point Mayor and Council for their courtesy in allowing us to use this building for the public hearing. So, I think what we're going to do is just really jump into the testimony. What I'd like to do is try to keep the testimony as succinct and brief as possible. I know there's going to probably be some duplication. Looking through the list of witnesses, it appears as though there's going to be some duplication. So, if we can just keep the testimony succinct and to the point, that would be helpful. I'm sure the Committee members will have some questions as we move through the process.

What I'd like to do before we actually start the testimony, though, is maybe start from my right and have everybody introduce themselves, and then I'll begin by calling the first witness. If we could just start over to the right, including staff.

**MR. TRAINO (Republican Committee Aide):** My name is Jerry Traino. I am the Republican staff for the Assembly Agriculture Committee.

**ASSEMBLYMAN GEIST:** Good evening. My name is George Geist. I am pleased to visit this community this evening. As a member of this Committee, I represent Gloucester County and Camden County, District 4. My hometown is Gloucester Township. I'm now in my sixth term, and I serve as co-chair of the south Jersey delegation. I'm interested in listening and learning

a lot this evening. At the end of the meeting, if there's any of our constituents here from the Chairman and my district, I would like to meet you personally so we can keep in touch directly as your local legislators.

I thank the Chairman for having this meeting this evening in our south Jersey. (laughter)

Thank you.

MR. CLIMPSON (OLS Committee Aide): I'm Jeff Climpson with the Office of Legislative Services, staff to the Legislature.

MS. MANZA (Majority Committee Aide): I'm Maggie Manza. I'm the Democratic Aide to the Committee.

ASSEMBLYMAN VAN DREW: Jeff Van Drew, Assemblyman in the 1st Legislative District. I would like to welcome everyone to the 1st Legislative District. I think that all of us in south Jersey have long said that more than us going to Trenton all the time, that we wanted to bring Trenton to south Jersey.

I would like to thank the Chairman for helping us to bring Trenton to south Jersey and particularly deep south Jersey, the 1st Legislative District. It's an honor to be here. I think that we all are going to listen and learn, weigh the subject carefully, and I'm sure it's going to be a productive night.

MS. SPINELLA: Hi. I'm Deb Spinella, Chief of Staff to Assemblyman Jeff Van Drew.

MS. DiMATTEO: Hi. I'm Heather DiMatteo, Chief of Staff for Assemblyman Bob Smith.

ASSEMBLYMAN SMITH: All right. Thank you very much.

We have OLS here tonight, Office of Legislative Services, and they are recording all the testimony. So it's important that when people are called to testify that they state their name, their address, the group that they represent -- if they represent a group -- for the record. It's important just for transcribing purposes that they enunciate clearly when they state their name and address.

We're going to begin with the former Chairman of the Assembly Agricultural Committee, Jack Gibson.

**A S S E M B L Y M A N J O H N C. G I B S O N:** Thank you, Mr. Chairman. Thank you for the courtesy of accommodating my schedule. Let me compliment you and this Committee for taking up this very important subject.

As a former Chairman of this Committee, I've been long an advocate of New Jersey's offshore reef enhancement program. It promotes recreational fishing. It promotes diving. It adds to our tourism. I was very disappointed last year when we missed the opportunity to take advantage of New York's subway cars, and they went to Delaware. I had, in fact, recommended to the former governor, who had appointed a committee to study this subject -- I had recommended to him to accept the cars because I truly believe that they were appropriate. He didn't accept that recommendation, and we lost that opportunity. We have another opportunity, and I respect you and your Committee for airing this proposal.

Both the Federal EPA and the Army Engineers have signed off on the utilization of leftover subway cars for this purpose. New Jersey has one of the best reef enhancement programs in the nation, and this can only make it better. We have, I believe, about 14 existing sites, all of which are strategically

located to our inlets. This does not add to the sites. This does, in fact, take those identified sites and make them better. Certainly, it contributes to our economy. I do not believe it will adversely impact the environment. The issue of asbestos will, as the cars and some of their component parts deteriorate-- Experts have indicated that the ambient effect on the water around these cars will be less than that which is specified for, in fact, drinking water standards.

The other issue is how long will the cars last. The last test we had on cars in New Jersey were lighter gauged cars than these that are proposed. I believe they lasted somewhere in upwards of 10 years. These cars should easily last 20 years or 25 years. The issues here are -- does it, in fact, contribute to marine growth and help fishing? It will. Is there no negative impact on the environment or very, very minimal negative impact to the marine environment? And the answer to that is there will not be, from the experts, any negative impact.

The third issue is whether, in fact, the cars will last. They will last, as predicted, between 20 and 25 years. So I support the proposal. I encourage you to recommend that to the administration.

I thank you again, you and the members of the Committee, for coming to south Jersey and, in particular, airing this very important issue.

Thank you very much.

ASSEMBLYMAN SMITH: Thank you, Jack.

In looking through the sheets regarding testimony, I don't see anybody listed here for New York City Transit, but is David Ross--

David, are you prepared just to lay a foundation for the plan that New York City Transit has and the cooperation that they have with the state of Delaware? Are you able to give us some background?

**DAVID N. ROSS:** Yes, I'd be delighted.

ASSEMBLYMAN SMITH: Good evening.

MR. ROSS: Good evening. I'm David Ross. I'm the Chief Operations Officer, Material Division at MTA New York City Transit. I'm here today representing New York City Transit. I also have Michael Zacchea here with me today as well. Well, he'll speak after me, but he's the Assistant Chief Operations Officer, Asset Recovery, of New York City Transit. We'll be here representing Transit today to discuss the program.

About a year and a half ago, New York City Transit, looking forward to receiving about 1300 new IRT subway cars, was also faced with having to dispose of the older subway cars, affectionately referred to by us as the Redbirds, in one way or another. The traditional means of disposal of those cars was to take the asbestos out of the cars, rid them of asbestos, which is a very expensive process for Transit, and then dispose of them as scrap metal.

We contacted Army Corps of Engineers and the U.S. EPA upon learning about the Federal ReefEx Program, which involved the disposal of a lot of army vehicles, ships and tanks, and other military excess and found out that, in fact, there would be a lot of interest they expected, at the state level, for receiving our subway cars.

We contacted New York and New Jersey, and later on, we spoke with Ocean City, Maryland, Delaware, and several other states about whether they would be interested in receiving our cars. Almost every one of the state's

environmental agencies was, in fact, interested in receiving these subway cars to promote their artificial reefs, and that's what we've come here to discuss with you today in New Jersey.

Our options were to sell the cars as rolling stock, dispose of them as scrap metal after abating them of asbestos, or disposing them as artificial reefs. The latter option is the option that we're pursuing now. We, in fact, have an agreement with Delaware to accept up to all 1300 of those subway cars. So Delaware will accept all of our cars if other states are not interested in receiving them.

We are providing them to the state of Delaware, and we would provide some cars to New Jersey free of charge. We clean the cars, and we provide the shipping of those cars to the reef site for the states. Then the states effectively take responsibility for the cars once they are dropped in the water.

The benefits to the program for Transit are obvious. They are a lower cost means of disposing of the cars than doing the traditional asbestos abatement on the cars and ridding them as scrap metal. I'm going to have Mike Zacchea come up and actually discuss in detail the cleaning protocol of those cars.

Just as a general overview, there is a Federal ReefEx Program to promote reefs up and down the Atlantic Coast. This is not a part of the ReefEx Program, but it's very much like it. There are several environmental organizations that are involved in oversight. The program has been reviewed by the U.S. Army Corps of Engineers, by the U.S. EPA, by the National Marine Fishery Services, and the U.S. Coast Guard. All of those entities have either

approved or are participating in the program, and all have spoken favorably of the reefing of subway cars and reefing more in general.

The way the program stands right now, Delaware, as I mentioned, will be receiving up to 1300 subway cars. We have an agreement signed by South Carolina, which is near signature at New York City Transit. Their site has been signed. I expect we'll be agreeing to it shortly. We'll probably be providing them with 100 cars as a start. The agreement will allow them to receive up to 300 cars. The states of Georgia and Virginia have also expressed a clear interest in receiving the cars. The agreements with those states are pending legal approval in both of our states.

So there are ample places for these cars to go in other states. We're interested, though, in seeing that other states, including New Jersey and New York, have an opportunity to get some cars if there is an interest in receiving them.

If I can, Assemblyman, I'll invite Michael Zacchea of New York City Transit to come up, and he'll speak in somewhat more detail about the cleaning protocol for the cars.

ASSEMBLYMAN SMITH: Please.

MR. ROSS: We'll also have some nice pictures to share with you of what the things look like when they're cleaned up.

Thank you.

ASSEMBLYMAN SMITH: Thank you.

**M I C H A E L Z A C C H E A:** Good evening, ladies and gentlemen, and thank you for the opportunity to present ourselves. This is John Doherty. John is Director of Car Equipment at New York City Transit. John is here to answer

questions that you might have about the specifics of the kind of materials that are removed from the cars and the process that we go through when we clean them and prepare them for reefing.

To repeat a little bit about what David said, when we first began to look into this program, we went to the Army Corps of Engineers and actually got the copy of the cleaning protocols that were used for the demilitarized vehicles that were part of the initial ReefEx operation. That's the basic model for the cleaning protocol that we use for the Redbirds.

Essentially, what we do is take the cars out of service, remove all the doors, all the glass, all the floatable materials, any components that have greases or other hazardous or toxic substances.

Do you have a copy of the protocol?

**JOHN DOHERTY:** No, I don't.

MR. ZACCHEA: Excuse me while I look for it.

ASSEMBLYMAN SMITH: Sure.

ASSEMBLYMAN VAN DREW: I thought this kind of stuff only happens to me, Mr. Chairman. (laughter)

MR. ZACCHEA: No, not at all.

Basically, the only part of the cars that are placed on the reefs are the car bodies themselves. The trucks, that is the wheel assemblies, are separately removed and sold as scrap material. The trucks are not placed on the reef sites. Basically, there's five steps.

One is the truck preparation to remove -- the separation of the car body from the trucks. There's an undercar preparation phase where all the greases are removed from the couplers and the carrier assemblies -- that is the

coupling devices that link the cars together. The compressed air tanks are removed. The air-conditioning compressors are removed. The converter boxes, batteries, fiberglass, air-conditioning box covers, all the refrigerants and Freons and other chemicals are drained and removed from the cars. When we move inside the car, we remove all the fluorescent bulbs, all the electrical ballasts and plastic light covers, plastic frames, and all the cardboard advertising materials are removed, anything floatable. The doors, both the passenger entry and exit doors, are removed, and the end doors of the cars are removed. All the fiberglass insulation is removed from the cars. All the windows are removed.

The fourth part of this is that none of the friable asbestos materials are exposed. If asbestos is present in the cars, and there is some on most cars, that which requires removal is removed, understanding protocols that New York City Transit has, and never leaves our shop. It is removed in a prescribed manner that we handle asbestos containing materials. Those components are stored and disposed of separately from this project. Finally, what we do is remove all floatable materials from the cars.

I'd be happy to answer any questions that you might have about the particulars in processing the cars as they are prepared for reefing.

ASSEMBLYMAN SMITH: Are there any questions from the Committee?

Assemblyman Geist.

ASSEMBLYMAN GEIST: Thank you, Chairman Smith.

A brief question. Asbestos -- how old are these cars that they contain asbestos, and do all the cars have that as a factor?

MR. ZACCHEA: I think John might be able to answer this better than I.

MR. DOHERTY: The cars were built in the early '50s to late '50s. The asbestos is in the inner wall of the car, and we spray it on as a soundproofing, fire-retardant material. There is some asbestos in the mastic of the floor tiles. The actual amount of asbestos in the car, I couldn't tell you off the top of my head, but it is a very small amount.

MR. ZACCHEA: We have some exhibits if you care to look at them.

ASSEMBLYMAN SMITH: Please.

ASSEMBLYMAN GEIST: Thank you, Mr. Chairman.

MR. ZACCHEA: What you're looking at there (indicating exhibit) is the inside of the car with the seat bottoms and seat backs removed. That grayish area that you see is typical of what we call the sprayed on asbestos. It's a very thin coating that's sprayed on the interior wall of the car.

Can you address why it's there and what it does -- the purpose of it?

MR. DOHERTY: It was basically for soundproofing and a fire retardant.

ASSEMBLYMAN SMITH: Any questions? Any further questions from the Committee? (no response)

Thank you very much.

ASSEMBLYMAN VAN DREW: Mr. Chairman, I had one question.

ASSEMBLYMAN SMITH: Sure.

ASSEMBLYMAN VAN DREW: The parts that you said aren't used -- I understand the windows, the doors-- Is the entire undercarriage used? Is it dumped? I'm not sure I understood that. What I would commonly call the wheels and so forth--

MR. DOHERTY: Right. That is removed from the car.

ASSEMBLYMAN VAN DREW: That is removed?

MR. DOHERTY: Yes, sir. You only get the car body itself.

MR. ZACCHEA: It's scrapped separately.

MR. DOHERTY: Either we scrap, or we use the trucks on other cars.

ASSEMBLYMAN VAN DREW: Okay. Thank you.

MR. DOHERTY: You're welcome.

ASSEMBLYMAN SMITH: Any other questions? (no response)

Cindy Zipf.

**C I N D Y   Z I P F:** Thank you, Mr. Chairman, Committee members. My name is Cindy Zipf. I'm the Executive Director of Clean Ocean Action. The address is P.O. Box 505, Sandy Hook, New Jersey.

Clean Ocean Action is a broad based coalition dedicated to improving and protecting the waters off the New York and New Jersey coasts. We welcome this opportunity to testify and appreciate the Committee's interest in this issue to give an opportunity for us to all share views on this important issue.

Clean Ocean Action uses research, education, and citizen action to identify and reduce sources of marine pollution. Significant progress has been made to the water quality off the Jersey shore, thanks to many individuals

throughout the state and many of whom are in this room tonight. New Jersey is now a national leader in ocean advocacies. Indeed, groups from around the country look to New Jersey to set strong environmental policies, particularly in marine advocacy.

Clean Ocean Action is not opposed to artificial reefs. I want to repeat that because there's been a great deal of question about that. Clean Ocean Action is not opposed to artificial reefs and welcomes, again, this opportunity. Artificial reefs, over the long term, can enhance and improve ecological conditions, providing marine life with an important chance for growth in both size and numbers. To that end, it is important that there be a clear program to maximize reef benefits to marine life and ensure environmental protection. Given the current status of fisheries in our region, too few and too contaminated, it is imperative that caution be the guide in implementing the program.

The proposal to use 1300 decommissioned New York City subway cars has raised important issues concerning New Jersey's artificial reef program. In 2001, the New Jersey DEP, after careful evaluation of a proposal to dump 600 of these subway cars as reef materials off our coast, determined that they were unacceptable. This decision was based on a variety of issues including durability and stability, contaminants, public risk from corroding material, lack of proposed monitoring, and the magnitude and the extent of the proposal.

Clean Ocean Action has raised similar concerns and, specifically, is troubled by the slippery slope that using these materials evokes. The subway cars are being considered for use as artificial reef under a category known as materials of opportunity, for which there are currently no specific standards and

criteria. It is the lack of standards that can lead to the junking of materials off the Jersey shore.

For example, the very thin steel walls of the subway cars are at 0.0747 inches. This is barely thicker than an automobile at 0.05 inches, leading to the possibility that cars could be next. In contrast, Florida's reef program, one of the best in the nation, established a minimum thickness standard for steel at 0.25 inches to ensure durability and stability. And based on that standard, Florida rejected the subway cars.

Adding to Clean Ocean Action concerns about the slippery slope is the argument by proponents that the subway cars are free. This rationale further raises the possibility that future unwanted materials could be easily disposed of in the ocean. Already, New Jersey has allowed miles of submarine cables to be spooled into spaghetti piles as reef material because it, too, was free and hard to recycle. The lack, again, of standards and criteria for reef materials makes the ocean vulnerable to becoming a convenient junkyard for unwanted materials that are difficult to recycle.

Finally, New Jersey has not updated its artificial reef plan since 1985. It is outdated and lacks detail and, given the great amount of science that is now available, is in need of revision and clarification. Clean Ocean Action is recommending that the New Jersey DEP convene a team of experts in reef ecology to revise New Jersey's artificial reef plan to enhance the regional ecological community and ensure that the artificial reef materials are appropriate. Standards must be biologically defensible, prove to provide sustainable biological ecosystems of importance to the ocean, and be free of contaminants that would threaten fisheries, resources, and public health.

Through this process, a comprehensive proactive protective program can be developed that will ensure the ocean does not become a convenient junkyard. Clean Ocean Action has submitted for the Committee's consideration a proposal and a package of materials that we have provided.

ASSEMBLYMAN SMITH: Thank you.

MS. ZIPF: Thank you for this opportunity.

ASSEMBLYMAN SMITH: Any questions?

Assemblyman Geist.

ASSEMBLYMAN GEIST: Thank you, Mr. Chairman.

Just a couple quick ones. Who currently provides financial support for the artificial reef program?

MS. ZIPF: Who currently supports -- private donations. There's an artificial reef program, I believe, and fisherman folks that support artificial reefs donate to this program in order to provide funding for different materials. Individuals also donate reef materials as memorials for friends and family. The State runs the artificial reef program through the DEP.

ASSEMBLYMAN GEIST: Does the DEP finance an artificial reef program?

MS. ZIPF: You mean the materials being placed in the ocean?

ASSEMBLYMAN GEIST: Yes.

MS. ZIPF: I don't believe so.

ASSEMBLYMAN GEIST: First of all, nice meeting you.

MS. ZIPF: Nice meeting you, too.

ASSEMBLYMAN GEIST: Thank you for your advocacy. I had those questions because the free factors were used. We in state government are

not accustomed to hearing the word free (laughter) because we ordinarily think of taxpayers picking up the tab. That's why I asked you the questions about what is the financial support for a program, that you embrace the concept of artificial reefs but, at the same time, raised constructive criticisms about a component that is free. And to me, free is good and particularly when it means we won't be paying for it with our tax dollars or in this year's budget, that is obviously already a challenge. Do you have any comments about the free factor, further?

MS. ZIPF: Well, I think you raise a very important point. There is a lot of economic value in the reef program. The reef program sustains a tremendous amount of economic value in the state, and it is underfunded considering the value that this state generates through these valuable resources.

I think the free factor is one of the things that raises our concern without the standards and criteria that we need, because you can get anything for free. I think phrases like, you know, "there's no such thing as a free lunch" or "look a gift horse in the mouth," these are things that cause us to be concerned. Because I'm sure there's a lot of junkyards throughout the State of New Jersey that have a lot of free material that they would like to get rid of.

Up until the subway cars, material that has been placed are -- tug boats, ships, tanks, barges -- and this proposal by New York, they had a waste disposal problem. It was expensive to get rid of, and they created this opportunity. It raises the slippery slope concern for us and urges us to press hard for the State to establish standards so that we don't begin a downward spiral in terms of what materials we are willing to accept, that we have a number of years, a thickness of materials such as Florida has, so that it's not just an

open book. We have good standards that are defensible, for biological reasons, that we have these materials placed off our coast.

ASSEMBLYMAN GEIST: Thank you, Mr. Chairman.

Thank you, Cindy.

ASSEMBLYMAN SMITH: Any further questions?

MS. ZIPF: Thank you.

ASSEMBLYMAN VAN DREW: Thank you, Mr. Chairman.

Through the Chairman, just so that I understand, are you unalterably opposed to this -- utilizing these subway cars, or is that the process that it opens up? In other words, because there aren't any standards, because there isn't a system, because there's no definition to it, you don't like the entire process, the way it's being gone about or, particularly, just in reference to this particular project and these cars would you say, no, that I am opposed to them on any grounds, on any means of using these cars?

MS. ZIPF: Well, I think that what we've been calling for is a scientific evaluation to support the fact that these cars are going to be good artificial reef material for the Jersey shore. Now the State of New Jersey had determined that, no, they were not suitable. We have raised the question about their suitability based on the precedence that they set. So I think we have been raising concerns about the contaminants in the material, about the durability of the material, and we would like a scientific panel to affirm that this material is good artificial reef material. Because New Jersey has a good program, we have set a standard, if you will, and this sets a new standard.

ASSEMBLYMAN VAN DREW: But are you saying you're not sure if this would meet your standard or not--

MS. ZIPF: Correct.

ASSEMBLYMAN VAN DREW: --and it has to be evaluated?

MS. ZIPF: Correct.

ASSEMBLYMAN VAN DREW: Or you're saying it's absolutely--  
I'm not sure. I don't like it regardless?

MS. ZIPF: No.

ASSEMBLYMAN VAN DREW: You're not sure? So it might be  
acceptable. You'd want more scientific information that it is acceptable before  
you would be willing to approve of it.

MS. ZIPF: That's what we've consistently said. That's what we've  
consistently said.

ASSEMBLYMAN VAN DREW: Thank you, Mr. Chairman.

ASSEMBLYMAN SMITH: Thank you very much.

MS. ZIPF: Thank you.

ASSEMBLYMAN SMITH: Speaking of scientific evaluation,  
durability, and safety, we have William Muir -- is that pronounced correctly? --  
from the United States EPA, Region 3, Philadelphia Office.

**WILLIAM MUIR:** Thank you, ladies and gentlemen.

My name is William Muir. I'm the regional oceanographer with the  
United States Environmental Protection Agency, which is at 1650 Arch Street  
in Philadelphia. I'm also EPA's nationally designated oceanographer for marine  
pollution. So what I would like to do is comment on the issue of the subway  
cars in several different ways.

First, I want to just put a little bit of background on this in that  
EPA does not have the role either of being in favor nor against this particular

project or any other project. Our role is an advisory one. We were asked-- I was specifically asked by the State of New Jersey to review this particular material and to provide some guidance as to whether the material was suitable for use as an artificial reef.

Some background in that context -- I've worked in the ocean's programs dealing with marine pollution since the early 1970s, specifically dealing with such things as artificial reefs. And starting in the mid 1980s, I wrote the protocol for the ReefEx Program. I helped write the cleanup protocol for this particular project in the context of using this particular material as an artificial reef. We submitted a letter to the State of New Jersey, and it was EPA's opinion, and there was three parts to that.

The first part -- and I think Ms. Zipf did a very good job of framing one of the concerns in placement of material in the ocean for artificial reefs -- and that's in the durability of the materials. We've looked at that, and it was one of the reasons that we really favored using the military hardware, the tanks, as artificial reefs. We estimated those to have a life expectancy of several hundred years in the ocean. These subway cars are not going to have that kind of a life.

When I reviewed the original proposal, I went up, and I inspected the cars that were proposed to be disposed of. In addition to just looking at it from a cleanup perspective, we looked at it from a standpoint of the gauge of the steel. We compared that against another artificial reef that was already placed, using subway cars from the city of Philadelphia. Those cars are currently off the mid-Atlantic. Actually, it's off the New Jersey coast right -- a little bit further north from here. I dove on those cars several times, inspected

those cars, and was rather surprised. There is still about-- I'm going to guesstimate about 10 years of useful life in those cars, which means that the total life expectancy of the Philadelphia cars is about 20 to 22 years. Those cars are thinner, and they're slightly smaller than the New York cars.

It's my opinion that the New York cars will probably last sometime greater than 20-plus years, probably somewhere around 25 to 28 years before they slowly rust away and dissolve. So, in the context of the longevity of the cars, that was one of our major concerns as well. When we estimated a long-term reef project, we wanted to see something greater than 15 years.

We were also concerned with using such things as car bodies. Although New Jersey, if you go back to the '70s and '80s, car bodies were tried along the mid-Atlantic coast. It was found that they were very unsuitable. They quickly rusted or dissolved out, and they did not provide any useful artificial reef habitat. These cars -- again, I'm basing this first on the other reefs which were placed out using similar subway cars, and they seem to be functioning very well. They have a complex matrix. You think of it as a large steel box, but in fact, each one of the windows are taken out, the doors are taken out, the end doors are taken out, and the fish use that fairly extensively.

We also noted on there that there was extensive growth on the cars. Primarily in the mid-Atlantic area, artificial reefs are used as food habitat and for protection. And those units -- now I'm talking about the Philadelphia cars -- work very well. We looked at the cars that were being proposed, at that time, for placement off of the state of Delaware. After they placed those cars out, I dove on the cars. I then dove on the cars several months after the cars were placed in the ocean. There was a good growth. It already had a good set.

There were rhizomes, hydroids. There was a good mussel set on it, even though it had only been out a few months. We also noticed juveniles working on it, primarily scup and some small sea bass. So, we feel the units, again, off of Delaware, were successful. We'll be going out periodically over the next two or three years to look at the success of those cars.

The second issue that we were concerned with is toxins. As you know, we do not-- Our role is to provide guidance to the states and other federal agencies on what toxic substances would be placed in the ocean and what those impacts would be. We set up a cleanup protocol for the cars, specifically targeting areas such as oil and greases. We were worried about the paints and took some samples on that, and those turned out to be not an issue.

The only issue that was of concern that was raised was asbestos. There's asbestos in two places. It's in the floor tile, both in the floor tile and in some of the adhesive that holds the floor tile. It's also in an epoxy matrix painted on the inside skin of the cars. I took samples of that, and indeed, they did contain nonfriable asbestos. The issue then comes down to, is asbestos an issue in the marine environment? Based on all the studies that we've looked at-- And I should mention here that there's not a lot of studies in the marine environment on this particular issue, especially in terms of toxicity. So what we have to do is look at other studies that relate to that. One of the best areas-- And we have fairly extensive documentation on the drinking water program. We allow drinking water -- and this is Environmental Protection Agency specific criteria for drinking water -- at 7 million fibers per liter. That is allowed. At that level, we have seen no environmental or human health threat from that level.

When we looked at the cars, it did not appear that the material was in any way friable or would be that the matrix would dissolve or could become dislodged as the subway cars slowly rusted and dissolved. Over time, what will happen with these cars, and we've seen it with other artificial reefs, these cars will rust. They will slowly implode on themselves and become a small mound in the ocean. The asbestos will be entrained in that matrix. Asbestos is, right now, in all forms of dirt. It's a naturally occurring substance. If you were to go out and test soils from many parts of New Jersey and Maryland and Delaware, you would find it naturally occurring. The levels that will be in the marine sediments would not be anything above what would be naturally occurring along the Atlantic coast or in the upland area.

Also, in the context of the potential for the asbestos being a contaminant, the only real literature showing contaminant levels that are showing really responses to aquatic organisms are in dramatically higher concentrations. In the issue of reserve mining, and these are some of the projects that went on in the '60s and '70s up in the Great Lakes and in Canada where they were mining the asbestos, they were able to get up into the hundreds of millions and billions of fibers per liter. When you get up into the extremely high levels, you do have problems. At the levels that we're dealing with, which is 100 to 1000 or a million times below that level, we have seen absolutely no indication of any kind of either aquatic or public health threat from the asbestos.

The next issue that we have a concern with is -- it sort of fits in the same regard that Ms. Zipf raised -- the concern of the placement of a huge number of artificial reefs. In this case, 1300 or some high number of subway

cars in any one area. The recommendation that we made, and this goes back to Delaware, but we also made it in Maryland and Georgia, and that is to place no more than a few hundred -- 300, 400 cars in any one state. My rationale behind that is that I was fortunate to spend five years doing, as a chief scientist, doing a reef study in Delaware Bay, where we were specifically looking at the regrowth and colonization of a reef. And what we were concerned with is that placement of a very high number of cars, in a very short time, to get the maximum colonization and to get the maximum utilization by fish. The role of these units is to enhance fisheries.

We do not want to see it as a disposal option. So somehow we need to only place enough cars in any one location to optimize the growth on that car and to make them available for fish. We're not quite sure how many that would be. I haven't seen anything in the literature that would indicate where any real high numbers would have that kind of colonization. So 300 to 400 cars would be the max that EPA would really recommend for the State of New Jersey.

I think that's basically what we said in our letter to the State of New Jersey.

ASSEMBLYMAN SMITH: Mr. Muir, just one question. Would it be fair to characterize your testimony, if I could summarize it, it is that you were pleasantly surprised with the durability of the units to begin with?

MR. MUIR: I was very surprised at how well the cars held up that we inspected. Again, I dove on those several times to do measurements on the cars to see exactly how much loss had occurred over time. I also inspected another car in Philadelphia of this same type as that place, because I wanted to

see the gauge of the steel and the structure of the cars. One of the things that we noticed on the cars that are -- the Redbird cars -- is the thickness is greater, and the actual structural members are placed a little bit different. It's a much heavier car than the others. But, yes, I was surprised.

ASSEMBLYMAN SMITH: The second point was that, based on your studies and examination, you did not see any imminent health threat from toxins?

MR. MUIR: Oh, another point in that regard, one of the things that we did -- again, because of not having a lot of background information in this particular area of the ocean, I collected background samples, and I did background for asbestos, both in the cars -- the cars that were placed off of Delaware. After they were placed in the ocean, I collected samples from another artificial reef that was used off of New Jersey that was a ship that I knew contained asbestos. I also collected a sample of another vessel which I knew contained asbestos off of Maryland. Looking at it from strictly -- to try to get a background level, and there was no statistically significant difference between the concentrations of asbestos and the background marine environment between Delaware and New Jersey and the subway cars, neither the Redbird cars, nor the Philadelphia cars. That was taken right next to the inside wall of the car.

ASSEMBLYMAN SMITH: Questions?

ASSEMBLYMAN VAN DREW: Thank you, Mr. Chairman.

The thinner Pennsylvania cars, the Philadelphia cars, why is it that they lasted so much longer than, say, automobiles would? The gauge is--

MR. MUIR: The gauge is still significantly thicker.

ASSEMBLYMAN VAN DREW: --not that significantly thicker.

MR. MUIR: It's still four or five times thicker than an automobile.

ASSEMBLYMAN VAN DREW: Okay. And as far as I know, obviously, we're all concerned if they don't have a long life, if they deteriorate quickly. Is there any imminent risk if they do? What is the risk of that if the deterioration occurs too quickly, other than, obviously, we don't want our ocean to be just a disposal area?

MR. MUIR: Right. That's a good question. And primarily, these are steel cars. There's a few other small amounts of aluminum, some wiring that contains a few things. There is some copper in there, but primarily it's steel. Steel in the marine environment is a trace nutrient. The only contaminant that it would do would be to provide a very low level stimulation on algal increase, which is so small that we wouldn't be able to measure it.

ASSEMBLYMAN VAN DREW: In it's final stages of deterioration, does it still serve a functional purpose?

MR. MUIR: Again, I have to base it on the reef that we looked at that's working very well off of New Jersey right now. Those cars -- and this has been done almost 15 years, and they're very, very functioning. We saw a very good growth of mussels. Again, those are seasonal, but those are very, very important for the scup, black sea bass, tautog, the communities that the fishermen are targeting. The other side that I was very, very pleased with is those particular units work very well for juveniles. The size and all of the mussels provides very nice juvenile habitat grazing potential that also had a good growth of rhizomes and hydroids. One of the things that we noticed, even after just three months, there was already a fairly good colonization of the

Redbird cars off the Delaware coast for mussels. They were already being grazed very, very extensively.

ASSEMBLYMAN VAN DREW: Thank you.

ASSEMBLYMAN SMITH: Yes.

ASSEMBLYMAN GEIST: Thank you, Mr. Chairman.

A couple quick questions. First of all, is there a favorable or adverse impact on marine life population?

MR. MUIR: From the use of the-- It would be favorable in that what you would be doing would be creating a hard bottom environment for reef-type populations. So you increase the total biomass of that area.

ASSEMBLYMAN GEIST: One other question. You're here today on behalf of the EPA?

MR. MUIR: Yes.

ASSEMBLYMAN GEIST: Is the policy judgment made by the EPA of such a magnitude that it has been decided by the EPA Commissioner Whitman?

MR. MUIR: No, our position is not to-- We are not an advocacy group. The Army Corps of Engineers would issue the permit in this case. Our job is to determine whether the material, in fact, is suitable for placement in the ocean.

ASSEMBLYMAN GEIST: Is your declaration of neutrality one that has risen to the level that the EPA Administrator Whitman has reviewed it?

MR. MUIR: No.

ASSEMBLYMAN GEIST: Thank you.

ASSEMBLYMAN SMITH: Thank you, Mr. Muir.

Jeff Tinsman, Delaware Division of Fish and Wildlife.

**J E F F T I N S M A N:** I'd like to thank the Committee for the invitation.

Is this on? (referring to PA microphone)

**ASSEMBLYMAN SMITH:** I think so. It should be in the up position. (referring to PA microphone)

**MR. TINSMAN:** Okay. I guess it's on.

I'm an employee of the State of Delaware, Division of Fish and Wildlife, and I'm the Artificial Reef Coordinator for the State of Delaware. I'm here to discuss our decision-making process and our experience with subway cars which we've been using on our artificial reef since August of 2001. I was first approached by New York City Transit in the winter of 2001 and was made aware that 1300 subway cars were available for reefing. I began the evaluation process of these cars at that time.

All materials of opportunity that we use on the artificial reefs are evaluated for certain common characteristics that we look for that make good reef material. Stability is important. The material must stay where it's placed on the permitted sites. Durability, which you've heard quite a bit about from Bill Muir -- the material must be nontoxic, and it must function well to support and enhance fisheries habitat. On the stability issue, you've heard about the cleaning protocol and the shell that we're left with -- 51-feet long, by 9 by 11, I believe, with all the doors and windows removed. This piece still weighs between 17 and 19 tons. It is distinctly bottom heavy. When these pieces leave the barge at deployment, they're pretty much self-righting. They land bottom down most of the time, and as such, they tend to be very stable. Because of the openings where the doors and windows were, they provide minimal resistance

to storm surge. The few Philadelphia cars that have been in place on one of the New Jersey sites, for many years, have all remained exactly where they were placed. So stability for these cars appears to be very good.

The durability issue was one that we might not have predicted based on our experience. The reef communities' experience with cars and trucks, which, as Bill Muir pointed out, generally occurred many years ago -- was not favorable. Generally, the cost of transportation to transport the reef material to site is fairly expensive, and it's about the same for almost any material. So it's just common sense that you want to use durable material that's going to benefit fish communities for an extended period of time. So things like automobiles and white goods -- washing machines and dryers and that sort of thing -- are very short-lived and are not used in the reef programs on the Atlantic coast for that reason.

New Jersey did have this small group of Philadelphia cars on one of their reef sites. And examination of those cars, after 11 years, did show that some of these cars are still fully three-dimensional and providing very excellent fish habitat and still a full high-profile structure.

Bill Muir went through his description of examining the Philadelphia and New York cars and his projection was that these things will last between 20 and 30 years as high-profile structure. Someone asked earlier about the value of low-profile structure. Even something a foot or 18 inches high is still a very significant value to fish communities in the mid-Atlantic region here, where we have vast expanses of sand or mud but very little exposed rock or any other hard substrate for the rich fouling communities that we get on this type of structure.

We went into the issue of how clean the cars were. You've heard the description of the ReefEx modified cleanup protocols that were developed and approved by the Coast Guard, who has primary federal authority to make sure that all reef material is, in fact, clean and that this protocol is also reviewed and approved by EPA. So this is truly a top of the line cleanup protocol. What remains is a very sturdy complex steel structure with fairly high profile, a lot of surface area and many openings for fish and water movement in and out of the car. So we decided that that was a very desirable product.

On the asbestos issue, we in the reef program did not have any previous experience dealing with asbestos issues. So we contacted a number of experts in this field. We spoke with Patricia Petchko, from New York Region EPA, and some members of her staff. We spoke with Bill Muir, from Philadelphia EPA, and Lew Morrison, from Delaware Division of Air and Waste Management. People from all three of these groups toured the Transit shop in New York City and examined the cars, looked at the material firsthand, and also examined assays of the material that had been sampled, and the actual composition and percentages of asbestos contained in the materials was examined by these folks. Generally, all three of these groups came to a general consensus and educated me somewhat, in general, about the asbestos issue.

That can be summarized in the following points: asbestos in the loose or friable form can be a human health hazard in the air when it gets into the lungs of humans or other mammals. Asbestos is very common, however, in the aquatic medium and drinking water. As Bill Muir pointed out, the EPA drinking water standard is 7 million particles per liter. This level of asbestos has no known effects on the human alimentary canal. In the marine environment,

there are relatively few studies. Most of these show only sublethal effects of asbestos at extremely high concentrations; concentrations hundreds or thousands of times higher than would be expected to be encountered in the real world. There's no apparent mechanism for asbestos to be concentrated in the food chain, in the marine environment, as is a concern with certain toxic chemicals.

Another point is that of the hundreds of ships that were sunk in the World War II era, in virtually every type of fisheries habitat around the world, there were no fisheries impacts noted from the huge amounts of friable asbestos that was present on all these ships. These ships were built during the 1930s and '40s and literally had loose asbestos shoveled up against the boilers, because we didn't recognize the problems and concerns about human health at that time.

So how asbestos relates to the subway cars is another story. The asbestos, of course, in the subway cars is not in the friable form, but it is well bound up in this epoxy matrix. In this form, there are no regulatory requirements necessary to protect the Transit crews that work on these cars and perform standard maintenance on these cars in the shop in New York City. So, in this nonfriable form, it is a safe material requiring no special protective equipment. The volume of asbestos containing material is relatively small. It's similar to a couple coats of varnish or some other type of material painted onto the surface. It's by no means a big thick block of material.

The assays show that the asbestos content within this matrix is relatively low. This matrix is not soluble in sea water, and as such, the asbestos, as these cars deteriorate slowly, may never be released into the sea water but may be incorporated into the ocean bottom. If there is any release, it would be

extremely slow, and it would approximate release from natural geological sources such as rock in the ocean, of which there are many. So, basically, from what we could find out, there's no mechanism for any increase of this asbestos from the matrix, so the concentrations would not be expected to rise above the background levels.

The other thing that we look at is the function of the reef. Will this reef be successful in supporting fish? I'd like to address a previous comment about the difference between the standards for the state of Florida and our decision to go ahead with using a material with thinner steel. The function of the reef is what involves the fouling organism or community that you expect to become attached to this hard substrate.

In Florida, hard coral may be your target community. This is a very slow growing organism which takes decades or even centuries to become fully established and fully functional as a community. In the mid-Atlantic region here, we're working with the blue mussel community. It's also a complex community with dozens of species of invertebrates, but it's an ephemeral community. It doesn't live for a long time. There's an annual renewal of these blue mussels. Bill Muir mentioned that some of them had colonized our reef site as early as three months after deployment. So, within a year, these cars are expected to be fully functional in supporting the fish community, and that's a significant point. For every year that they're in place, they will be there doing the full job of supporting the fish.

These cars have extensive surface area. We have accepted over 400 cars at this point. The 400 cars have over a million square feet of surface area,

and this will support, literally, tons of blue mussels and other invertebrates which will provide the eutrophic support or food for structure-oriented fish.

So we concluded, after this extensive technical consideration, that subway cars are a desirable reef material, but that they had a public perception problem relating to the asbestos issue. Our challenge then was to educate the public about this issue and hope that we could make them understand that there are great benefits to be gained from use of this large number of subway cars, and that there really is no risk from nonfriable asbestos present in small quantities. So we had a public meeting, somewhat similar to this one, in Delaware on May 7, 2001, and we had key people there from the federal regulatory agencies. Ed Bonner was there from the Corps of Engineers; Bill Muir, from EPA; and Peter Colosi, from the National Marine Fishery Service.

They addressed all issues that related to their agency, each expressed support for the project. Bill spent probably nearly two hours addressing asbestos issues, but the result was some very favorable reaction from the press. I think we really convinced the public, the fishermen, and the environmental community that there were great advantages to be gained in enhancing fish habitat and really no reasonable risk from asbestos. So, on June 1 of 2001, we signed an agreement with New York City Transit to accept the first 400 cars with the provision that we could extend that to as many as 1300 if we both agreed to do that.

We had the first deployment on August 21, 2001, and I was extremely surprised by the interest in this reef material throughout the country. We had front-page photos and stories in *The New York Times*, *The Philadelphia Inquirer*, *The Baltimore Sun*, and both Delaware newspapers. It remains a very,

very popular program with anglers and divers. To date, we've had 15 deployments of these cars. In each case, I went up to New York City and inspected the cars prior to loading. We have deployed 435 cars, and the program is ongoing.

The other variable here, of course, is New York City Transit and how they execute the cleanup and delivery of these materials that can make the project either a good one or a bad one. I must say that they have been excellent and very professional and committed to doing a first-rate cleanup of these cars. My understanding is that the cleanup costs have approached \$5000 per car, so they're not sparing any expense or manpower on this aspect of the project.

Someone mentioned earlier, in addition to being an excellent reef material, these cars are delivered to our sites free. That's, as you mentioned, an unprecedented aspect for us -- very, very nice to receive this much high-quality material at no charge. An additional bonus for us is that we use sport fish restoration federal funding, which is the so-called Wallop-Breaux funds, which is excise tax money on sporting equipment and boating equipment for reef development. This requires that \$3 of federal money be matched by \$1 of donated or locally generated funds. The cleanup and transportation costs of the Transit donation have totaled, so far, \$3.8 million, which will match \$11.6 million in Wallop-Breaux funds, which will allow us to do extensive development of our other 10 reef sites.

Some mention was made about concern about the large volume of material. I have the site-- Where I'm placing these cars is 1.3 square nautical miles. It's not an excessively large reef site. I know some of New Jersey's reef sites are considerable larger. People, I think, envision 1300 cars coming up out

of the ocean, making an island and coming up like a volcano. Thirteen hundred cars on my site would be just about 1 car per acre. So that's a very sparse distribution if they were distributed evenly throughout that area. As it is, we're clustering them, and the site certainly can accommodate an extensive amount of material.

We think that the large volume of material is an important aspect of this project, because often we're criticized by regulatory agencies because our development efforts are meager. We do everything we can afford to do, but the material we put out there is still somewhat limited. We're criticized for concentrating fish so they can be easily caught and not really benefitting the fish population. I think, in this case, we have enough material deployed that we can, with the million square feet of surface area -- we can truly support thousands and thousands of sea bass and tautog and really benefit the fish population.

Well, this has been the Delaware experience. We're very positive about subway cars, and we're not alone, as someone mentioned earlier. Virginia, South Carolina, and Georgia will be receiving cars this summer. I'm certainly not here from out of state to tell you folks what decision to make in this regard, and I wish you luck with your deliberations. But should you decide not to take the cars, my fishermen in Delaware are glad to accept them.  
(laughter)

ASSEMBLYMAN SMITH: Mr. Tinsman, I just have a few questions. Did you say that just by virtue of receiving the cars that you did, that Delaware was eligible for \$12 million in matching funds from the federal government?

MR. TINSMAN: Well, this serves as our required 25 percent match against the Federal Wallop-Breaux funding, yes. So, somewhere down the road, I certainly won't get that in one year, but we get somewhere over \$2 million in Wallop-Breaux funding total, annually. We have a number of projects that we run on that funding, but a considerable amount of that money goes to the reef program.

ASSEMBLYMAN SMITH: And the cars serve as the state's match for the federal grant?

MR. TINSMAN: Yes. The donation of the cleanup and transportation to site of those cars.

ASSEMBLYMAN SMITH: Are you of the opinion that the cars that Delaware has received will have a long-term positive effect on the biomass and not just acting as a fishing magnet?

MR. TINSMAN: Absolutely. This site has got some tautog, some scup on it, but primarily it's used by black sea bass in quite large densities. We're in a position right now where black sea bass are under management by the Mid-Atlantic Council. The size limits have been changed recently, and that seems to have benefitted the population. There's some extremely good year classes of black sea bass being produced for the first time in 20 or 30 years. I think it's appropriate that, especially in the mid-Atlantic region, where there's no natural structure, that reefs be created to support this biomass of fish.

ASSEMBLYMAN SMITH: In retrospect, are you able to comment about the opinions of the policy makers in the state of Delaware, meaning legislators, executive branch, about their decision last June to accept the subway cars.

MR. TINSMAN: Am I-- What was the question? Am I at--

ASSEMBLYMAN SMITH: Essentially, are you able to say whether or not the policy makers in Delaware are happy with the decision to accept the subway cars?

MR. TINSMAN: I believe that everyone that was involved is very pleased with the program. There was a lot of support among the fishing community, and legislators that represent those fishermen were strongly in support of this project. I think, at this point, people are fishing on them and fishing very successfully. I think everyone is very pleased. I don't see any downside of this project at all.

ASSEMBLYMAN SMITH: Okay. Thank you.

Questions?

ASSEMBLYMAN VAN DREW: It's just more a thought than a question. When you say we're not in this alone, I think that's an accurate statement. It's interesting to note that where those cars have been placed is as close to Cape May County, which is my district, as it is to Delaware. So everybody's -- what's it going to do to Delaware? I'm glad to see that you did your research, because quite frankly, it's just as close to Cape May County and New Jersey as it is to Delaware. So this isn't like a walled off situation where there's the Atlantic Ocean over here, which has nothing to do with the Atlantic Ocean in Cape May County or the rest of the State of New Jersey.

I think the chairman asked-- You answered his question, which answers my question. I just wanted to make sure I understood it correctly. Not only does this certainly attract fish, but you actually get a greater biomass, or you generate more fish life. Would that be an accurate statement?

MR. TINSMAN: That's my opinion, yes. The age-old question is the aggregation versus production argument. Are you harvesting more than you're benefitting the population? We have traditional methods to limit the harvest now. The argument arose decades ago when salt water fish were not under management plans. Now we have size limits, creel limits, and seasons that are effective in limiting the overall catch. I think, when you have 200 times the biomass of food organisms on this hard structure, you've got to be benefitting the population.

ASSEMBLYMAN VAN DREW: And has there been -- or maybe somebody can answer this question later -- studies done to see what happened in the peripheral area around it as you expand out. In other words, if it was just a magnet, then there would be a decrease in production. There would be a decrease in life in a zone, I would imagine, around the area. Do we have any information?

MR. TINSMAN: No. But as I mentioned, I think we have an expanding sea bass population right now. The management has been very successful, as I said, producing several good year classes in the last five years.

ASSEMBLYMAN VAN DREW: So it would be your opinion that there's nothing that would show that it causes an overfishing?

MR. TINSMAN: No. Especially with the tools that I mentioned -- the management tools to control the fishing mortality.

ASSEMBLYMAN VAN DREW: Thank you.

ASSEMBLYMAN SMITH: Assemblyman Geist, do you have a question?

ASSEMBLYMAN GEIST: No questions, Mr. Chairman.

ASSEMBLYMAN SMITH: Thank you. Thank you.

What we're going to do is-- I have two more representatives -- one from the DEP and one from the Governor's Office in the State of New Jersey -- run through their testimony real quickly, and then we're going to start getting into the groups.

At this point, I'd like to call Kevin Drennan. Pardon me?

**KEVIN DRENNAN:** I have no testimony.

ASSEMBLYMAN SMITH: No testimony. Okay.

Marc, from DEP. I can't make out the last name -- Matsil.

**ASSISTANT COMMISSIONER MARC A. MATSIL:** I thank you very much, Mr. Chairman and honorable Committee members. I was lured here actually tonight with the notion that this hearing would be in one of your nearby marshes, and I was promised Somers Point crab cakes, and I'm hoping you're going to deliver. (laughter)

ASSEMBLYMAN VAN DREW: If you treat, we will. (laughter)

ASSISTANT COMMISSIONER MATSIL: Anyway, as mentioned, my name is Marc Matsil, and I'm Assistant Commissioner for Natural and Historic Resources for New Jersey DEP. Really, there are many compelling arguments for establishing reefs off New Jersey's coast. Also, here, several people understood that they would be treated to Somers Point crab cakes. Tom McCloy, who is the DEP administrator for Marine Fisheries; Bill Figley, from DEP; Curtis Fisher, who is an environmental policy person for Governor McGreevey; and several other representatives. Anyway, there are many compelling arguments for establishing reefs off of New Jersey's coast, as I said. Public sentiments run the gamut from "Artificial reefs provide the structural

matrix capable of increasing biomass, fish diversity, and numbers that enhance ecotourism in the economy” to, “This is New Jersey’s contribution to ocean dumping.” And I’ve gotten all of those comments, quite poignantly, handed to me in the last couple of weeks.

Governor McGreevey and DEP Commissioner Brad Campbell lured me to this garden with extraordinary vision for enhanced environmental protection habitat restoration that will reduce sediment burdens into our riparian corridors and coastal waters, while improving water quality and fish habitat. They’ll be a number of initiatives announced in the next two months.

New Jersey’s marine resources support, as we’ve heard, some of the largest recreational and commercial fisheries along the Atlantic seaboard. Out of the 14 Atlantic coastal states, New Jersey is third in recreational and sixth in commercial importance when ranked by the value of our marine fisheries resources. Each year, about 1 million recreation anglers spend over 5 million days fishing in our marine waters. The commercial fishing industry employs approximately 22,000 people in harvesting, processing, and wholesale and retail sales of marine fish and shellfish. The combined value of these commercial and recreational industries to the economy of New Jersey is between \$1.5 billion and \$2.1 billion, annually.

In 1984, DEP established its reef program. The objectives of the program are to provide habitat for fish and marine life, as we’ve heard, and new fishing grounds for anglers and underwater attractions for scuba divers. DEP studies conducted, under federal aid grants, on colonization, fishermen utilization, and productivity over the last 10 years, show that New Jersey reefs support 200 species of fish and other marine life. Reef structures may have 800

times more biomass -- the weight of all living organisms -- in a similar area of the sandy bottom that comprises more than 99 percent of New Jersey's sea floor.

Reefs provide habitat for important game species, as we've heard, including black sea bass, tautog, refuge for young fish and lobster, immense quantities of food for the marine food chain. The filter feeding activity also of reef invertebrates, like mussels and barnacles, improve the clarity and quality of the state's ocean waters. In the year 2000, for example, anglers caught 4.8 million fish on New Jersey reefs, which represents nearly 1 out of every 5 fish caught in all of New Jersey's salt waters.

The selection of reef materials for building reefs is based on specs of the federal regulatory agencies, the National Artificial Reef Plan, guidelines from other coastal state reef programs, and DEP's reef management plan. In general, reef material, which is, incidentally, going to be updated in the next three months-- In general, reef materials must be stable on the sea floor, durable enough to last at least 15 years, and provide an acceptable habitat for marine life communities. Perhaps, as we've heard, we need to evaluate standards for greater structural integrity.

New York City subway cars are available for ocean reef construction, as we've heard. These A trains -- and I'm partial to the A train -- meet federal reef material standards. The cleaning and preparation protocol for ocean redevelopment, as we've also heard, has been approved by the U.S. EPA and the U.S. Coast Guard and also the Army Corps of Engineers. The National Marine and Fishery Service has endorsed the use of subway cars as reef material.

Two concerns were raised about the subway cars as ocean reefs: the presence of small amounts of asbestos and their longevity on the sea floor. According to the testimony that we heard from Bill Muir of the EPA, the EPA collected samples. Once the New York subway cars were placed on the ocean, it found either nondetectable or just at the detection limit of 1.5 million fibers per liter, which as we've heard, innumerably, it's five times below the drinking water criteria, which is set at about 7 million fibers per liter. More, of course, needs to be studied on marine organisms over time.

In 1990, New Jersey DEP's reef program placed five SEPTA subway cars on Sea Girt reef. During the past 12 years, these subway cars have been thriving marine habitats and remain stable on the sea floor. This was monitored by the EPA last November. During the past year, 400 cars, as we just heard, were acquired by Delaware and placed on the Delaware reef. The reefs are now heavily used, as we've also heard, by Delaware anglers. There are reef programs in Virginia, South Carolina, and Georgia that's also -- they've requested subway cars from NYC and are awaiting delivery.

With that said, New Jersey DEP is weighing this option very carefully. We're gathering relevant information that will allow us to make the most responsible decision, incorporating public input and, most importantly, sound science to protect and enhance our marine environment.

ASSEMBLYMAN SMITH: Thank you.

Any questions?

ASSEMBLYMAN GEIST: Thank you, Mr. Chairman.

Quick questions. Do you believe that this is solely and exclusively the Governor's decision, or do you believe that there is a necessity of

prerequisite legislative enabling authority for this particular use of decommissioned subway cars and artificial reefs in the State of New Jersey?

ASSISTANT COMMISSIONER MATSIL: I think the Governor is weighing the many options that are out there, including looking at a combination of alternative substrates. He basically wants to do what's best for the environment and best for both the commercial and the fishing recreational users but without compromising the health and integrity of--

ASSEMBLYMAN GEIST: I appreciate your testimony. Let me ask you the question again. Do you believe that this is exclusively the decision of the Governor, or must there be prerequisite legislative enabling authority in order for there to be the use of decommissioned subway cars in artificial reefs?

ASSISTANT COMMISSIONER MATSIL: I think that we need to work with the Legislature, and I believe the Governor will weigh on the side of sound science. But I think it's a combination of sources. It's users. It's the Legislature and the governor. I think we need to work together.

ASSEMBLYMAN GEIST: I personally appreciate your respect for the Legislature, but is it not so that this is exclusively a gubernatorial decision that the Governor can make without any enabling authority from the Legislature? Isn't, when it's all said and done, it's the Governor's decision?

ASSISTANT COMMISSIONER MATSIL: The Governor basically wants to weigh in with the Legislature. I believe that he's going to make a decision that's correct -- that's correct, that's environmentally viable, and that brings in the multiple--

ASSEMBLYMAN GEIST: Mr. Chairman, I raise this because perhaps, through the Chair, we can get OLS's opinion for the members of this

Committee as to whether, candidly, it is the gubernatorial decision or whether it is, respectfully, our decision. I respectfully believe it's more of a gubernatorial decision than ours. I appreciate your having the committee hearings because it's a fascinating topic, but I don't know that I'll ever be voting on this. I think the public has a right to know, to the extent that we can inform them tonight, whether we have that role.

Assemblyman, we're in your district tonight, and I guess there's a lot of people out there wondering, well, how are you going to vote on it? Respectfully, I don't know whether we'll ever vote on it because I think it is a gubernatorial decision.

ASSEMBLYMAN SMITH: I agree with you, Assemblyman Geist, but I think the process is going to be more multidimensional, not just the governor. As it is with a lot of decisions, he is going to look to leaders in that area, and that includes legislative leaders. That's really the essence and the purpose of the hearing, one, and two is to gather facts, as it has been said, is very important in order to make that decision. This is more of a facilitating process.

ASSEMBLYMAN GEIST: I compliment you and the local sponsor for the forum that enables that input, but I look forward to working with you in that process.

ASSEMBLYMAN SMITH: Thank you.

Any further questions? (no response)

Thanks.

ASSISTANT COMMISSIONER MATSIL: Thank you.

ASSEMBLYMAN SMITH: Okay. We're going to call up a team. Tom Fote and Al Ristori. We're going to start calling people up in groups here to facilitate the testimony here.

**T O M F O T E:** My name is Tom Fote. I'm Legislative Chairman for Jersey Coast Anglers Association and New Jersey State Federation of Sportsmen. I'm also an environmentalist. I serve on the Board of the Marine Fish Conservation Network, which is a national group that basically covers from Alaska to Maine, all the way around the coast, all the coast. I serve in the New Jersey Environmental Federation. I'm on the Board of Directors there. I belong to numerous environmental organizations.

Assemblyman, you know, I do this strictly volunteer. One of the reasons I'm in this is environmental matters of protecting the fish -- and probably 60 percent or 70 percent of my time is no longer spent on fisheries management, it's spent on environmental matters. Like yesterday, up in Round Valley, trying to get areas of the state's streams protected up to C-1 status. I would never do anything to harm the ocean. I mean, I've sat with Cindy in battles, and we've basically argued with the Army Corps of Engineers. We've basically got almost thrown out of a room and attacked by longshoremen from New York City, because we were basically objecting to the Port Authority dumping dioxin off our coast. So Cindy and I have worked closely on a lot of issues when it came to ocean dumping, and this is not one that we agree on.

I was on the governor's task force. I'm going to make it short because I'll just cover a few points. As Jeff talked about the Florida reef-- Jeff also serves on the National Reef Committee -- I forgot to mention that -- and also serves on the Atlantic States Habitat Committee -- Atlantic States Marine

Fisheries Commission, Habitat Committee. I am the only public member of that committee. Because when I basically stopped being the governor's appointee and the legislative proxy, they basically decided, because of all my years -- I started the Habitat Committee at the Atlantic States, which is a compact of the 14 states. They asked me to stay on, basically, to do that as another volunteer job. So I've been staying on it and attending it.

And last week, we were talking about all kinds of artificial reefs for two days in Annapolis and that kind of material. So I sit with a bunch of scientists, even though my degrees are not in science. They're in business. I look at this as a business and the money it affects in the state.

It was reported that the Acting New Jersey Governor, last year, basically refused these cars. I was on -- co-chaired the task force. On the first day of the task force -- got up and says, "The acting Governor is not going to put asbestos in the ocean, not at this time." I said, "What are you having a task force for? So we can gather the information." I said, "I don't have to waste my time on a task force like that." So we actually dissolved the task force at the next meeting, and basically we couldn't agree on a position. And basically what I said about the Acting Governor at the time was, he's using a precautionary approach, which is what I wanted the Army Corps of Engineers to do when we did ocean dumping of dioxin, which they would never do, or the EPA. And how am I going to object to that, even though I don't agree with it? Plus, at that time, New York and EPA were really not involved and wouldn't come down and testify to the task force because they were afraid of the political climate. They said they're not getting involved in an election year when things are going on.

After the three gubernatorial candidates run, I basically interviewed all three of them before the last election; two of them said they would definitely use the subway cars, and one said he would revisit the issue. That was Governor McGreevey. I have his letter in my documents, that I'm going to give you a copy of, saying he will basically revisit this issue and look at the subway car issue.

We would not have put 650 cars in one site. Unlike Delaware, we have a long coastline. Some of these cars would have started up close to Sandy Hook. Some of them would have been down in the middle of the state, and some would have been on the bottom of the state. So, between one batch of subway cars and one of the other batches -- 120 -- 110 -- 120 miles on the Parkway, which is a lot bigger than the state of Delaware. Even if they put 1300 cars, it can't go out in that area. So I don't see a problem when you're using three separate sites. That's what we're using in New Jersey. So it's not going to be bunched up. Even if we had all 650 cars, there would have probably been only 200 cars at each site.

There is also -- one of the reasons we're getting this freebie, as you said, is because of the asbestos abatement. What I understand of the next set of cars coming down from New York, that they're going to be decommissioned, doesn't have the same problem. They were built later. We already started cleaning up some of the asbestos. It might be cheaper for them to recycle the cars and not make donation, because this is a very expensive process. I mean, we would love more ships and love more tanks. But when you start dealing with ships and tanks, you're talking about PCBs they've got to get off, friable asbestos, and a whole bunch -- it takes a lot more money to clean them up.

As far as the 25 years, well, next month I hit 55. If I can get 25 years of fishing, that's 80 years old. I'll be happy to be out there fishing at 80 years old. I think anybody in this room would be there. We have a lot of people 80 years old out there fishing, and they're taking fish home to eat. We look at regulations that have destroyed the recreational fishing industry over the last couple of years. Summer flounder -- you've all heard the experience, if you've read in the newspapers, of what a disaster that was. That was brought on by a couple of environmental groups suing National Marine Fisheries Service. We've been suffering the consequences, whether you're in Cape May or whether you up there, both commercially and recreationally. It has cut our quota by \$5 million or \$6 million because of a lawsuit. It's caused rough times.

What happens is because of the season closures now on summer flounder to target other species, the artificial reefs fill that gap. If there wasn't fish on the artificial reefs, and the summer flounder season was closed, the striped bass weren't around or the bluefish season weren't around, they always now go to an artificial reef and catch some sea bass, some porgies, some other species. We're getting croakers, spots, a whole bunch of species. They're sailing the boats. If the boats don't sail, it hurts the economy of the shore. If people don't go out and fish, it hurts the tackle stores, it hurts the restaurants, because a lot of these restaurants are people going fishing down here. When I travel to Cape May, we go down and we fish in Cape May, which I did a couple times last year. Basically, we go to a restaurant after, and we spend all the money coming in and out. When there's no fish to fish for, we're not going to come down. So, basically, it's the economy of the state, and \$2 billion of it is worth on fishing.

It's a huge economic importance, and we've been getting hit too hard. We actually had more recreational anglers 12, 14 years ago, if you look at the numbers, when it was actually worth almost 1.4, 1.5 billion in the early '80s. And with inflation, you realize that it should be worth a lot more than that, but with a lot lost with the anglers and angling time because of severe restrictions. This is one way of filling the gap.

I'm going to cut it short because a lot of people want to talk. I thank you, appreciate you, and I thank this Committee for helping with the Men-Haden bill. I know a lot of you passed it. That's going to go a long way of protecting the -- it's going to give us something to protect the species that we need to do. It adds more forage species to the state. So I thank this Committee and we're looking -- the Jersey Coast and the Federation are looking to solve a lot of issues this year with your Committee.

ASSEMBLYMAN SMITH: Thank you, Tom.

MR. FOTE: Thank you.

ASSEMBLYMAN SMITH: Al.

**A L R I S T O R I:** Yes. Just a couple of words, basically, to emphasize a couple of the points. I think the information about the scientific information has been brought out sufficiently here. We have no need to discuss it any further. It's been, I think -- what we heard from Mr. Muir and Mr. Tinsman covered all the points, and I don't see any issue involved. But I think the important thing to keep in mind here is that this is a unique opportunity.

Assemblyman Geist mentioned before, free is good. Well, free is not only good, but in this case, we're even getting matching federal funds on top of the free. The money that New York City is spending to clean up and bring

these cars down there, they're basically donating that credit to us to use with the matching funds. So we're actually making money on this thing besides getting an extremely valuable-- I really doubt if any of you have been offered anything for free, no cost involved, and with additional money coming here for any other kind of project with the state. This is very unique, and it's also unique because of the fact that there's only so many subway cars.

As Tom mentioned before, there's no assurance in the future that even future subway cars are going to be available to us on the same basis, because they may be more worthwhile for the Transit agency to recycle those newer cars. We don't know at this point what that will be, but we know that there's only 1300 involved here. Some of them are already sitting on the floor. Some of them are already destined for South Carolina. Georgia and Virginia are waiting. New York is still considering those proposals. The Transit Authority would rather have -- give some both to New York and New Jersey. They originally intended to give them all to New York and New Jersey. Now with what's left, we have to deal with this. As they say, Nero fiddled while Rome burned. We could study this issue to death and then when we decide it's a pretty good deal, there may not be any deal there.

I think it's essential that we get on top of it. I know there's not a clear legislative path for doing this, but certainly if this issue is brought to the governor's attention, and all the facts are put before him, I hope that he will look at the facts and make the appropriate decision. Any help that you can do in facilitating that, so that we don't end up losing out while waiting around too long, will be invaluable.

Thank you.

ASSEMBLYMAN SMITH: Thank you.

MR. RISTORI: By the way, one other thing I forgot to say -- and I think it should be brought out because I know you're not aware of it -- someone mentioned before that -- where the funding for this program comes from right now. There's really no amount of State funding involved in our present program, and it's Bill Figley and his colleagues who basically do everything possible, 24 hours a day, to have built this program to where it is. Bill is at fishing club meetings, selling reef books and T-shirts, and what have you, to raise the dollars that have to be spent. Normally, when we get a donation of a ship or anything else, we've got to pay for someone, basically the citizenry has got to get the money to pay for the cleanup, the transportation. There's a lot of money involved in getting something free, normally. This is a very unique situation in which we don't have to pay those costs. I think it should be recognized that the people involved with this program have -- are definitely not what you call typical state employees who go home at 5:00. These people go way beyond what they're paid to do and made New Jersey one of the top states in the country in terms of the artificial reefs. We should all appreciate what they've done for us and help them out by giving them these cars to work with.

MR. FOTE: Al reminded me of one more point.

ASSEMBLYMAN SMITH: All right, make it quick.

MR. FOTE: Yes. It's also a tax benefit because, you know, the subway cars in New York City are subsidized by the federal government. A lot of those cars get federal funds to basically do that. And also, to clean them up, to basically dispose of them, you're getting federal funds. We all contribute to

that. So we're actually paying for some of those subway cars in New York, and we have to pay for them one way or the other when you dispose of them. So it's actually coming out of our New Jersey pockets. I don't want to spend money to clean up what they're using to fish on.

ASSEMBLYMAN SMITH: Thanks.

Gene Doebley, RFA. There's a couple, maybe three members from RFA here. We have Gene Doebley? Is there anybody else from your group that wanted to come up?

**GENE DOEBLEY, ESQ.:** Dick Herb is here.

ASSEMBLYMAN SMITH: Okay. Why don't you ask Herb to come up. Herb is with the Cape May County Party and Charter Boat Association.

MR. DOEBLEY: Why don't you go first.

**RICHARD HERB:** Okay, we can do that.

My name is Dick Herb. I represent two organizations this evening. One is the Cape May County Party and Charter Boat Association, and the other one is the RFA, specifically the New Jersey Chapter of the RFA. I guess I should mention, I'm also a member of the New Jersey Marine Fisheries Council and, more specifically, relative to tonight's proceedings, a member of the Reef Committee of that Council.

We've covered a lot tonight. We've covered a lot of the technical aspects, and we're certainly not going to rehash that. I would like to reemphasize the need for the reefs off the coast of New Jersey.

Cindy and several other people remarked about the fact that the reefs provide habitat. They provide a food chain. They provide refuge, and they

are definitely a spawning area for fish. There's very little doubt in my mind that these reefs have increased the biomass of the fish in the area. I've been a charter boat captain for 25 years. I will tell you that the areas that we fish off the coast, particularly off the coast of Cape May County, are more heavily fished now than they've been any time in that 25-year period of time. There's more fishermen. There's more boats, and there's more fish.

I think one of the key reasons for the reefs, if you look where they're situated in New Jersey, almost all of them are within 15 miles of an inlet. Now, there's a lot of places out there that you can fish. There's wrecks offshore. Those wrecks require a bigger boat. They require sophisticated navigation equipment to find those wrecks. The average family with a small boat doesn't have that kind of equipment. So what the reefs provide is a safe place that someone with a relatively small boat can fish in the ocean with relatively unsophisticated navigation equipment.

The other thing it's affecting is the party boat industry. I think that this is giving the party boat industry a new life. Years ago, we were at a point where, especially the half-day party boat trips, they simply could not get to an area that contained fish. We're now at a point where we have a viable and a growing party boat industry in Cape May County and all the way up the coast in New Jersey, and a lot of this is attributable to the reefs.

I saw a statistic once that approximately 50 percent of the ground fish, or more, caught in the ocean, not counting the ones in the bays and not counting the offshore fish, are caught on the reefs. It's pretty spectacular when you realize that the reefs constitute two-tenths of 1 percent of the ocean fishing area off of New Jersey. There's only 25 square miles available for fishermen.

That's the only reef area that we have at this point. I think that speaks very well with what the reefs are accomplishing.

Bottom line is we need some more reefs. We've got to expand the reef system. As we've said on a number of occasions, there's little or no expense to the State for these reefs. All of the cash contributions have been made by sportsmen or sportsmen groups or sportsmen associations. The reef material we utilize -- and again, I do sit on a Reef Committee. I'm fairly familiar with what can go on those reefs. That's been pared down over the years. We are rewriting the reef plans. Someone mentioned that. It will be done shortly. Basically, what you're talking about is rock, concrete, and steel or aluminum products. Most of the steel and aluminum products are military vehicles, ships, or railroad cars, that type of material.

The reality of the situation is there is not a whole lot of it available. We're talking here about the availability. This material -- we're talking about the opportunity we have to grab these subway cars. I will tell you that our Charter Boat Association has a fund which, right now, has over \$10,000 in it waiting to sink the next ship that Bill Figley can find for us for an offshore reef. We've been waiting now for a year, not because Bill's doing a bad job. He's doing a phenomenal job. This stuff is just not that readily available. The restrictions for the reefs are very limited. I will tell you that you can wait long and hard for the next batch of good material to come down the road.

We talked about the concern of the ocean. We will and we have and will continue to talk to environmental groups that are very concerned with the ocean, and they should be. Tom Fote said it very well, I think, that a lot of these groups feel that all we want to do is get stuff down there for the reef. I will

tell you that we are more concerned about the health of that ocean and the health of those fish than probably just about anybody else on the face of the earth. If there is a problem with those fish and people quit fishing, we're not inconvenienced, we're out of business. So the entire industry is very, very conscious of what is out there and what we need to do to make that work better.

Based on that, we did review all the studies of the various government committees. We reviewed the results of the Delaware study. I read all that material. And based on those provisions, both of our organizations are 100 percent in favor of using this material, if at all possible, for the reefs. Now, I think anything you put on these reefs, be it tanks or ships or anything you can get to go out there, there is going to be some, maybe, minute degree of potential problem with an environmental backlash. I think our job is not to find the one piece that is absolutely 100 percent safe, but to find the best possible material we can find, given what is available. Someone is going to get those subway cars. They're going to end up in the Atlantic Ocean. The question is not whether they're going to go in there, the question is, are our fishermen, our recreational fishermen, and our charter and party boats in New Jersey going to be able to enjoy that -- those cars and that reef material.

ASSEMBLYMAN SMITH: Thank you.

Gene, do you have anything to add?

MR. DOEBLEY: Yes, I would. First, gentlemen, let me welcome you to my hometown of Somers Point. It's a pleasure to have you down here tonight. I am a member of the RFA, New Jersey Chapter, and I'm also their

Legislative Chairman. Like Mr. Herb, I'm a licensed captain of a small charter boat and run here out of Somers Point.

Some of the comments I'd like to make are, first of all, that the reef program only covers a very small portion of the ocean bottom. I believe it's only about 3 percent. Even with that area that's designated, it's so small, we've hardly filled any of it. So there's certainly not a problem of too much material down there.

The reefs provide a safe haven from the commercial draggers that work in the area. I'm also a certified scuba diver. I dive on our wrecks and our reefs, and I can tell you that when you're down there, what you see as a barren desert-like ocean bottom that's been churned and drug, there's nothing left until you come to the reef site or a wreck, and there you have an oasis. All right. It teams with life. There are small fish. It's a nursery. There are lobsters, crabs, and they're covered with invertebrates. So they're very important because they provide a place where the fish can escape the commercial operations. I don't want to see anything happen to our commercial operations. They are as important to us as recreational fishing is. We need them, but we need to also provide places where they can't get their gear so that the fish have a fighting chance.

I have to emphasize what some of the others have said. I can't believe anybody can't see the logic in free subway cars and federal dollars. That just, to me, is a very important element of this. Reefs are good for the economy. Dick went into a great deal of testimony on that. I won't want to dwell on that a whole lot, but we do need something to offset some of the other problems that we face. We're facing a serious problem because of mistakes that have been

made in the fluke fishery management, and we need something else. The sea bass and scup, other fish that concentrate themselves in these reef sites, give us an alternative.

Finally, I want to comment on one other thing that was said tonight, and that was a warning that you gentlemen be very cautious about being lured onto a slippery slope. One of the ways to get peoples' attention is to paint good word pictures. The idea of a slippery slope does that. In my mind, I saw that sneaky Road Runner in his New York Transit T-shirt, luring somebody, trying to get us to walk onto that slippery slope. But I think you guys are smarter than Wile E. Coyote. I don't think that you're going to make a jump from taking a good product like these subway cars to having some south Jersey junk man sell you that you can dump a bunch of white goods. So I have more faith in you, and I believe we can do this without tripping or getting hurt by being led into something else.

That's all I have to say, except that you only have to go right across the street to Charlie's for great crab cakes. (laughter)

ASSEMBLYMAN SMITH: Thanks.

MR. DOEBLEY: Thank you.

Questions?

ASSEMBLYMAN VAN DREW: And I hope we are smarter than Wile E. Coyote.

ASSEMBLYMAN SMITH: Okay. It looks like we have a couple people from the *bassbarn.com*. It looks like Donald and Archie. Are they here? Okay, good. Are you guys able to consolidate your testimony?

**STEVE KRUMM:** Pardon?

ASSEMBLYMAN SMITH: Are you able to consolidate your testimony?

MR. KRUMM: I'm just going to briefly say a few words.

ASSEMBLYMAN SMITH: And you'll speak for the entire group?

MR. KRUMM: Pardon?

ASSEMBLYMAN SMITH: You'll speak for the group.

MR. KRUMM: Yes.

ASSEMBLYMAN SMITH: Okay, good.

MR. KRUMM: Just for the record, my name is Steve Krumm. I'm from Pennsville, New Jersey, District 3. I was looking forward to seeing Assemblyman Doug Fisher here, but I guess, unfortunately, he couldn't make it.

I just want to say that I also have my captain's license. As it's been stated -- I don't want to keep repeating this -- but these subway cars will support many species of fish. These species of fish will support many fishermen in New Jersey. This will be good for the economy.

As Assemblyman Van Drew said, and I believe that there will be many fishermen from Cape May going down to the Delaware area and fishing off those subway cars and will benefit from fishing off those subway cars and catching many fish. So I think it's a smart thing for us to do, and I support this, just to let you know.

ASSEMBLYMAN SMITH: Great. Thank you.

Archie or Donald, anything to add?

**ARCHIE E. FAULKNER:** Okay. My name is Archie Faulkner. I'm with the Bass Barn, which is a voluntary recreational fishing group. We have over 2000 members currently.

My purpose for being here is I'm an advocate of the reefs, as a citizen of New Jersey and as the unofficial reef coordinator for the Bass Barn. My family personally contributed \$1000 to put a reef on the Cape May reef this fall. Hopefully, with the help of Bill Figley, that will happen. Okay. As a member of the Bass Barn, we're raising money right now to put the second wreck on a deepwater reef site, following the Cape May County Party and Charter Boat Association. They're waiting for a wreck, and we're trying to be the second one.

We would also like to see the rail cars used -- the Redbirds -- put out on a deepwater reef site. What I didn't hear mentioned here tonight was the fact that while the reefs contribute to the bottom fishing, they also contribute to bringing in pelagic species like mako sharks, tuna, bluefish, dolphin to those offshore reefs to feed on the smaller fish; the bait fish that accumulate around them. True, it's like a seaport or reef site, is probably too deep for recreational divers, but the offshore fishermen would troll these areas just like they do right now on the 28-mile wreck, the Jacob Jones, which is a World War II destroyer, the Texera (phonetic spelling), which is a tanker that was sunk during World War II. These reefs out there are excellent areas for capturing the pelagic species.

Some of these rail cars are destined to go on the deepwater reef site as well, okay. If that happens, there's essentially nothing at the deepwater reefs right now. If we put something out there, we'll have another area for the charter

boats and recreational fishermen to fish that's a safe haven from the commercial draggers and whatnot.

So that's all I have to say. Thank you.

ASSEMBLYMAN SMITH: Great. Thank you.

Any questions from the Committee? (no response)

No.

Thank you.

Glenn Arthur, New Jersey Council of Diving Clubs.

**G L E N N A. A R T H U R:** Thank you, gentlemen.

I'm the Chairman of the New Jersey Council of Diving Clubs, which is an organization of 20 sport diving clubs from New York, New Jersey, and Pennsylvania. Our members are actively involved in sports scuba diving off the New Jersey coast and have helped to support the New Jersey artificial reef program over the years by funding and supporting several artificial reef projects.

The NJCDC strongly supports using these Redbird subway cars as artificial reefs in accordance with all federal, State, environmental laws, and regulations. They will not only provide excellent habitat for important fish, such as sea bass and tautog, but they will also provide food for all species by allowing mussels and other marine organisms to anchor on them. As sport divers, we actually see this process unfold.

The NJCDC would volunteer to aid in monitoring the status of the cars through our members' divers. I include, with this testimony, excerpts from the New Jersey Department of Environmental Protection's Division of Fish and

Wildlife's Reefs Programs, *Reef News 2002*, that gives documentations of the activities on and benefits of these artificial reefs.

The massive sand replenishment project from Sea Bright to Manasquan Inlet has destroyed underwater shoreline hard habitat by burying at least 80 jetties and 10 shipwrecks. Each of those jetties and wrecks was an important reef. Another replenishment project from Manasquan Inlet to Seaside Park is expected to bury six more wrecks and many jetties. These subway cars will at least help to replenish some of that lost habitat.

The State of Delaware Department of Natural Resources and Environmental Control's Division of Fish and Wildlife has completed their research and accepted 400 of these cars. With the approval of the Environmental Protection Agency, Army Corps of Engineers, National Marine Fisheries Service, and the U.S. Coast Guard, they have subsequently placed several barge loads on the ocean's floor off their coast. I include their press release of June 1, 2002. There are now other East Coast states that are interested in accepting the remainder of the MTA's offers.

In allowing these Redbirds to go to other states, we have missed out on a great opportunity to enhance New Jersey's artificial reef program. That they are being delivered to the bottom of the ocean at no charge, we are shortchanging the taxpayers of New Jersey by passing up at least a portion of the available cars that the New York MTA is offering.

Thank you.

ASSEMBLYMAN SMITH: All right. Thanks.

Any questions from the Committee members? (no response)

Thank you.

Okay. We have three members from the Absecon Salt Water Sportsmen: John Fish, Ed Goldman, and Oliver Carlson. If you guys are able to consolidate your testimony, that would be great.

UNIDENTIFIED SPEAKER FROM AUDIENCE: I'd like to defer my testimony to Mr. Goldman.

ASSEMBLYMAN SMITH: Thank you.

**EDWARD GOLDMAN:** And I'll be quick.

ASSEMBLYMAN SMITH: Okay, great.

MR. GOLDMAN: My name is Ed Goldman. I'm a member of the Absecon Salt Water Sportsmen. We're a group of about 100 fishermen who are dedicated to conservation of our marine resources and the promotion of sport fishing. I'm also a member of the New Jersey Marine Fisheries Council. I'm a Recreational Representative there, and I'm not on the Reef Committee. But if it does come up for a vote, which I hope it will soon, I am in favor of the cars.

Pretty much everything I wanted to say has been said more than once, so I'd just like to reiterate a couple quick facts. The regulations we have facing us today -- the flounder closure, which we just unfortunately had a vote on -- has had a drastic economic effect on a lot of the marinas that are not being able to start fishing for flounder until May 18. These marina owners are crying. Boat yards who like to start -- and people who get their boats in the water in March and April -- people are saying, "Why do I have to put my boat in? I'm going to go in later." So, that's a serious loss we have right now. As stated, the reefs definitely can help fill in this gap.

The other point I'd like to bring out is something I was wondering about -- that we've sunk tanks. We've sunk ships. I don't remember any, really, complaints from the environmental groups. Now, all of a sudden with the subway cars, which are relatively clean, there seems to be complaints. I'm at a loss to figure out why. As Tom Fote and Al Ristori and a lot of people have said, we all have these same concerns -- is we don't want to dump anything in the ocean that's going to hurt fishing. Also, as Al Ristori, one of the points I wanted to bring out also is, I've had the honor of working with Bill Figley and, as a member of the Atlantic County Artificial Reef Committee for a number of years -- and I have full confidence in Mr. Figley -- I know he and the division are not going to do anything that would hurt our environment or the ocean. If this was a bad idea, we wouldn't even be sitting here because they would have nixed it long ago.

Hopefully the State will do the right thing for all the citizens of the state and get these cars, before we lose this opportunity.

Thank you.

ASSEMBLYMAN SMITH: Okay, thank you.

Any questions? (no response)

Okay. We have somebody coming from Bergen County -- Thomas Siciliano.

**THOMAS SICILIANO:** Siciliano. (pronouncing name)

ASSEMBLYMAN SMITH: Siciliano -- Salt Water Anglers of Bergen County. We'll try to get you out of here early, because we know you have a long ride back.

MR. SICILIANO: Thank you very much, Mr. Chairman and Assemblymen. My name is Tom Siciliano. I came all the way from Montvale, New Jersey. So I probably have the long-distance record for tonight.

I have found this meeting very, very educational. There's been a lot of good information. I think it has answered a lot of questions. Hopefully, it's answered enough questions to satisfy you also. I am an environmentalist. Salt Water Anglers has worked very hard. We've worked with Clean Ocean Action for many years. I'm a fisherman, and in my day job, I'm a chemist. As that, I also work to optimize our products to be the least detrimental for the environment.

I look at this, and I see this as a really win, win, win, win, win for everybody. It's a win for the fishermen, obviously. It's going to be there, and it's going to last a few years. It's a win for the Transit Authority. It's a very cost-effective way for them to dispose of the material. One thing that's not mentioned, it's a win for the subway riders, both from New Jersey and New York, many of whom have lower incomes. That would allow the fares to remain -- the lower cost of disposal would allow the fares to remain stable for a little bit longer. A win for recreational divers, providing additional areas for them to look at and harvest their lobsters, which they like to do. It's a win for the New Jersey Reef Program. It's a win for the environment. I really believe that. It's a far better use of this material than to try to recycle it by other means. It has no, as has been testified here, adverse effects on the environment.

Yes, the cars will dissolve slowly over time. Dissolution rate of steel in salt water, there's books written on it. You can measure the steel and you can predict exactly how long it's going to last. So the scientific review by the Army

Corps and the engineers has been conducted. A big win for the State budget, who not only -- I just learned -- not only is the cost zero, you're going to make money with the Wallop-Breaux funds.

In summary, I think, if you look at all the pros-- I don't see a whole lot of cons. The subway cars are a golden material of opportunity that the State of New Jersey should not pass up. Yes, the technical merits need to be addressed, and I think they have been very well addressed by the state of Delaware. Because they asked the same questions the Clean Ocean Action has asked, and I think they've successfully answered them. So, in summary, it's a win, win, win, win for society as a whole.

Thank you very much.

ASSEMBLYMAN SMITH: Thank you.

Any questions?

ASSEMBLYMAN VAN DREW: I just have a comment. I would like to compliment you for taking the long trip. I mean, from Cape May, it's a long trip to go anywhere.

MR. SICILIANO: Yes.

ASSEMBLYMAN VAN DREW: So I can appreciate what you're going through. And Montvale, that's northern Bergen County. That's up there a little bit, isn't it?

MR. SICILIANO: Yes. That's where I work.

ASSEMBLYMAN VAN DREW: Yes. Thank you for being here.

MR. SICILIANO: Thank you very much.

ASSEMBLYMAN SMITH: Thank you.

ASSEMBLYMAN GEIST: Thank you.

ASSEMBLYMAN SMITH: We have somebody here from the Sport Fishermen -- Anthony. Is Anthony here? Thanks.

Anthony, maybe you can pronounce your last name for us.

**ANTHONY MYKLICH:** I'll do all that. I'll do all that. My name is Anthony Myklich. I'm from Gloucester County, New Jersey. All right.

ASSEMBLYMAN SMITH: All right. (applause)

MR. MYKLICH: I'm here. I'll wake everybody up. I'd like to see-- I'm trying to make notes here. Gerry Geist (*sic*), I'm happy to see a more inland Assemblyman here on a fisheries issue.

ASSEMBLYMAN GEIST: Thank you.

MR. MYKLICH: And I also hope that somebody treats you to a crab cake dinner. (laughter)

ASSEMBLYMAN GEIST: Thank you.

MR. MYKLICH: That's what I wondered. I've seen a lot of people here tonight -- Jack, Dave, Sandy (*sic*), Bill Muir -- and I'm wondering what draws these people here. What makes them come here? I didn't see any dollar bills given out at the door or anything like that. Tonight, it was so important to me. I got tickets to Caesars to go see dancing. Well, 8:00. Hey, I might make -- oh, your clock is not turned up. (laughter) So those tickets are wasted.

This is an important issue. Subway cars make good reefs. Sandy, she made a point. She wasn't against the subway cars. She says slippery slope, just be careful. Hey, so why are we even here? And that's what Geist brought up. Why are we even here? Is this going to be the governor's decision? Are you all going to vote on it? Why are we here? Good question. Man, I tell you, I think that's why he's in his position.

Clean oceans, we covered that. I was wondering if they were going to clean the bubble gum off the subway cars. (laughter) Did they take them out from underneath the seats? (laughter) Let's wake up now. I know it's getting late. We can wake up a little bit here.

This state, the money, it's not just a shore economy. And Van Drew, I've been at a couple meetings where you were there. You're very concerned, because that's your district. That means a lot. Those constituents there mean a lot to you. But it's not just Bergen County, it's State sales tax. I mean, it's big money. It's the state. It's just not shore states.

That's about it. I get worked up. It's not helping. You're all supposed to be naked, and it's not helping, because now I'm naked, too. (laughter) So I'm not a great speaker. I just appreciate your time. I would like to talk to you afterwards. I'm not any one representative for any one group. I know them all. I know the Bass Barn. I know the Absecon boys. I know Arthur. I know Tom Fote. They've all done great for the fisheries. The people with the Clean Ocean, I think they're concerned, too. Like they said, just be careful.

So good night.

ASSEMBLYMAN SMITH: Thank you, Anthony.

MR. MYKLICH: You're welcome. (applause)

ASSEMBLYMAN SMITH: We took care of the Cape May Party and Charter Boat Association, correct? I still have Gil here.

ASSEMBLYMAN VAN DREW: Mr. Chairman?

ASSEMBLYMAN SMITH: Yes.

ASSEMBLYMAN VAN DREW: I did have one comment for our friend from Gloucester County, though. The next time he has two tickets--

ASSEMBLYMAN SMITH: Yes.

ASSEMBLYMAN VAN DREW: --what he should do is go to the Chairman and say, "I have a very important commitment, can I get to speak a little bit earlier?"

ASSEMBLYMAN SMITH: Correct. We could have gotten you out of here.

Gil, thank you.

**GILBERT EWING:** Thank you, Mr. Chairman. I want to thank you and welcome you all down here to Cape May County, as other people have done earlier this evening. I'd be reiterating their invitations. I do want to thank you for listening to everybody. I am not going to sit here and try and go through everything that has been mentioned tonight. You've heard it more than once.

My name is Gilbert Ewing. I'm from Cape May. I'm a charter member of the Cape May County Party and Charter Boat Association. I'm also the Chairman of the New Jersey Marine Fisheries Council. I didn't want somebody to be sitting in the back and say, "He didn't mention that." Well, I will mention it.

The only thing that I would like to add to the testimony here this evening is that a lot of our reef sites, and in the state of New Jersey, are in shallow water. Therefore, we cannot take these large vessels that are sometimes offered. The water is not of sufficient depth to accommodate those large vessels to have the clearance between the top of the vessel and the top of the water for navigational purposes. These subway cars fill that void extremely well.

In southern Jersey, we've tried different things. We've had tire units and things like that. These subway cars will do an excellent job for our situation.

Mr. Geist, you said, "Whose decision is this?" It probably is the governor's. The governor has rejected it in the past. However, I think that if this Committee votes on it, and it gets to the Assembly, and it makes an impact statement to the governor, I think that your confidence and your vote will go a long way in convincing him to make his decision in a proper manner.

I thank you folks all for allowing me a couple moments to speak. If you have any questions, I'll be glad to answer them.

ASSEMBLYMAN SMITH: Thank you, Gil.

Any questions?

ASSEMBLYMAN VAN DREW: Thanks, Gil.

ASSEMBLYMAN SMITH: Yes.

ASSEMBLYMAN GEIST: A quick one, Mr. Chairman. First of all, nice meeting you. It's nice to see a southerner in your position of prominence. But on your Council, did your Council vote on this issue? Did you make a recommendation--

MR. EWING: I'm sorry. I didn't mean to interrupt you. This has not come up before the Council to be voted on. However, I have taken the liberty of talking to the Council members in the past and every one of them, including the commercial fishermen-- Let me back off there. All of the recreational fishermen are in favor of it. I'm trying to think if there was one commercial fisherman that was not 100 percent in favor of artificial reefs. However, they're not in favor of artificial reefs. Period. But as far as the

Council being in favor of it, I would say that if it would come to a vote, it would pass overwhelmingly.

ASSEMBLYMAN GEIST: Thank you.

Thank you, Mr. Chairman.

ASSEMBLYMAN SMITH: Any other questions? (no response)

Thank you very much.

MR. EWING: Thank you.

ASSEMBLYMAN GEIST: Thank you.

ASSEMBLYMAN SMITH: Cedric Vohden, Beach Haven Marlin and Tuna Club. (declines from audience)

ASSEMBLYMAN SMITH: All right.

This was the last slip I had for people testifying. Did I skip anybody? I saw we had Jeff from the Sierra Club here earlier. I don't know if he's still here or out in the hallway or left. He was not going to testify. Okay. Is there anybody else who cares to testify? I've gone through all my slips.

All right. Well, at this point, I just wanted to thank everybody for coming out. We've had people come from Bergen County. We've had people from New York. We've had people from Delaware and all around the state. It's very important to me to see everybody come out with passion, with ideas to talk about what is important to them.

Obviously, as the Chairman of the Agricultural and Natural Resources Committee, this issue is extremely important to me. That's one of the reasons why I wanted to be a facilitator in the process of trying to convince the governor that this is something that he ought to take a serious look at. I am pretty convinced, based on the testimony that I've heard tonight from the EPA

and from Delaware and from various groups, that the environmental impact of the artificial reef program, using subway cars from New York -- the environmental impact would be de minimis.

But I think that we're probably going to have some necessary further discussions, but I thought that this, as I said earlier, would be a good facilitating process. I really appreciate all the groups coming out. I appreciate the gentleman from the Delaware Artificial Reef Program coming. That's something that he didn't have to do. Delaware is obviously interested in receiving more cars, and to the extent that New Jersey will be taking the cars or other states, that may not serve Delaware's best interest, but I appreciate him coming out here to speak about the program.

Mr. Muir, I appreciated your testimony because the EPA is an objective federal agency that does not have any vested interest one way or another. They're certainly not endorsing the program. They're just providing objective scientific information. I think that that was very helpful to the Committee.

So, in closing, I just wanted to say thank you.

Yes, sir. Excuse me, sir, in order to be placed on the record, we need you to speak into the microphone, if you would.

**A R C H I E H E P L E R:** Very seldom do we have two Archies in the same room.

ASSEMBLYMAN SMITH: Okay.

MR. HEPLER: My name is Archie Hepler. I just have one question. Certainly, there was a lot of testimony here, and everything seemed

to be positive. My question is would you mind, as a panel, letting us know what your feelings are on this issue? Would you be supportive or against?

ASSEMBLYMAN SMITH: Well, I don't really want to get to that-

MR. HEPLER: No. No. No. No. No. You're not answering my question. (laughter) When you deal with politicians, you need to put them in a position where they make a definite answer. Now, I would like a definite answer. Do you favor this action, or are you opposed at this point?

ASSEMBLYMAN SMITH: Well, I can speak for myself. If Mr. Geist and Mr. Van Drew want to take a position, they can. I don't think it's necessarily fair to pose the question at this point.

MR. HEPLER: Well, just what are your feelings, is all I'm asking?

ASSEMBLYMAN SMITH: Well, my feelings are that I am an avid recreational fisherman. I intend to be on the Atlantic States Marine Fishery Council. I have a very strong relationship with the Recreational Fishing Alliance and the Jersey Coast Anglers Association, all their subsidiary groups, and without appearing to be biased, I am in support of the reef program, based on what I've heard tonight.

MR. HEPLER: Thank you.

Mr. Geist. I'm also from Gloucester County.

ASSEMBLYMAN GEIST: Nice to see you. What town, if I may ask?

MR. HEPLER: Newfield.

ASSEMBLYMAN GEIST: Newfield. Nice meeting you.

Tonight I came here with the initial question that I share with many of you: why are we here? I think the Chairman has clearly answered that, in that, the forum has provided an opportunity for us to listen and learn. I do not have the fishing expertise of my young Chairman. I say that with respect for his fascination and his interest. I had been the Chairman of the Labor Committee, and by Committee assignments we develop expertise, and I'm glad he enters into this responsibility with this enthusiasm.

Tonight, if we were voting, I would vote yes.

MR. HEPLER: I'm also a member of the Central Labor Council.  
(laughter)

ASSEMBLYMAN GEIST: Great. I answered your question in the right way before you told me that. So, spread the word.

MR. HEPLER: Okay.

Mr. Van Drew.

ASSEMBLYMAN VAN DREW: Archie, let me say that my answer would be yes, and let me tell you why, with the testimony that was presented. If there is such a problem with doing this, then certainly we have to all be concerned. Because as I was trying to point out, I mean, the ocean affects us all. Just because Delaware does it, only 15 miles away from Cape May, certainly doesn't mean that we wouldn't be affected. I didn't see any conclusive proof or problem. Even Cindy Zipf, when she spoke -- when I asked the question pointedly, do you have a particular problem with these cars? Do you think that there really would be any harm? She wouldn't say that she did feel there was any harm. I think she's concerned, and I think--

MR. HEPLER: We should all be concerned.

ASSEMBLYMAN VAN DREW: I'd like to answer Assemblyman Geist's question there a little bit, as far as what we talked about before. I think our responsibilities as legislators concerns all these issues. We certainly have influence upon the governor, and we have influence, truthfully, on the people in the State of New Jersey. So, if we're to be leaders, we have to digest the information that we're given, understand it, and then go out and lead. I think that's the purpose, and I commend the Chairman for having this meeting today. I'm thankful that he had it in my district.

I think the bottom line is, from what we heard, that we do need to be careful. We do need to be concerned. I understand the environmentalist concern about the slippery slope. But with that all being said, we can certainly have a system, and we can have standards that allow, for example, these railroad cars to be placed in the water, but wouldn't allow a washing machine to be placed in the water. Nobody should assume because we would allow the one that we would also allow the other. So the bottom line is, from everything I've seen, I think that it would enhance our recreational fishing industry, as well as, I think, we can work together with the commercial fishermen. I will say one thing, and I've said this many times. From a district and an area that has a lot of both, we need to work together. I think that we share more in common than what separates us. If we do work together, I think we can enhance our fisheries for everyone concerned. (applause)

MR. HEPLER: All right. I thank you. Thank you very much.

ASSEMBLYMAN SMITH: All right, Archie. Thank you very much.

Committee members, any final comments?

ASSEMBLYMAN GEIST: Thank you.

ASSEMBLYMAN SMITH: All right. Thanks for coming out.

**(HEARING CONCLUDED)**