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# *PFIESTERIA* AND PUBLIC HEALTH: THE STATE AND FEDERAL RESPONSE

## HEARINGS

BEFORE THE

SUBCOMMITTEE ON HUMAN RESOURCES

OF THE

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

FIRST SESSION

SEPTEMBER 25, 1997

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# *PFIESTERIA* AND PUBLIC HEALTH: THE STATE RESPONSE

**THURSDAY, SEPTEMBER 25, 1997**

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HUMAN RESOURCES,
COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT,
*Washington, DC.*

The subcommittee met, pursuant to notice, at 10:05 a.m., in room 2247, Rayburn House Office Building, Hon. Christopher Shays (chairman of the subcommittee) presiding.

Present: Representatives Shays, Pappas, Towns, Kucinich, and Allen.

Also present: Representatives Morella, Etheridge, Hefner, Gilchrest, McIntyre, and Clayton.

Staff present: Lawrence J. Halloran, staff director and counsel; Anne Marie Finley, professional staff member; R. Jared Carpenter, clerk; Cherri Branson, minority counsel; and Ellen Rayner, minority chief clerk.

Mr. SHAYS [presiding]. I would like to thank our witnesses and guests who are here today, and we'll begin this hearing.

The emergence of *Pfiesteria piscicida* in coastal waters from here to the Gulf coast poses an insidious challenge to the early warning systems meant to protect human, ecological, and economic resources from toxic harm. The one-celled bugs at the bottom of the food chain are biting back, and we are struggling to find a way to restore the natural balance in which *Pfiesteria* and its kin can once again live out their complex life cycles in benign obscurity.

Since suspected outbreaks, or blooms, of this ages-old algae began in 1987, they have elicited a wide range of responses from affected governments, industries, and individuals. Those varied responses—from enhanced water quality monitoring to estuary closures—reflect what is known, what is suspected, and what is feared about *Pfiesteria*.

As an oversight subcommittee responsible for public health programs, our mission demands vigilance, that we constantly test the sensitivity and effectiveness of our defenses against infectious agents and toxic invaders.

Until recently, the response to *Pfiesteria* has been episodic and disjointed, separated by time, distance, and a reluctance to connect a few fishkills into a regional or national environmental crisis. After each toxic attack, the microbe receded to the river bottom, pushed out of public view by falling temperatures and rising skepticism about the real hazard of so intermittent an adversary.

But now, with increasing evidence of serious illnesses coincident to *Pfiesteria* exposure in natural settings, prudent public health practice calls for a more unified response. While each State may face unique problems when *Pfiesteria* strikes, this increasingly ubiquitous algae won't be blocked by political boundaries, and it won't delay its toxic attacks while we grope for scientific certainty as to its nature. So today we seek the most current, candid assessment of the risks *Pfiesteria* poses to public health.

We're going to have a few interruptions today, sadly, but that's the way it is.

So today we seek the most current, candid assessment of the risks *Pfiesteria* possesses to public health. And we ask how State and Federal efforts can be focused in an effective, sustained program to determine the causes and effects of *Pfiesteria* contamination.

When the pathogens causing CJD and "mad cow" disease emerged as possible threats to food and blood safety, we asked regulators and researchers to help us measure the appropriate response to unproved, but potentially calamitous, public health risks. In our examination of Gulf war veterans' illnesses, we probed the very probable, but still unproven, causal link between toxic exposures and undiagnosed syndromes.

*Pfiesteria* presents public health officials with both challenges: uncertain, but potentially grave risks, and the still mysterious relationship between environmental causes and human neuro-toxic effects. This uncertainty calls for caution—caution to prevent panic; caution to avoid leaping to conclusions. But in crafting a response to a public health threat on this scale, better to err on the side of caution than succumb to complacency or wishful thinking.

The task calls upon government, science, medicine, agriculture, and others to cooperate and collaborate in unprecedented ways to unlock the mysteries of *Pfiesteria*. We are fortunate to have as witnesses today the leaders in that effort: public officials, regulators, researchers, and an author, who are answering the challenges posed by *Pfiesteria*.

Welcome, Governor Glendening, and welcome to all the witnesses giving us their time and expertise in this hearing and the hearing this afternoon.

Now, what I think we are going to do—we do have a vote, but I'd like to move forward and allow those of us up here to finish our statements; and Governor, we're going to come back for your opening statement.

Mr. TOWNS. I don't think we have enough time to do that.

Mr. SHAYS. Do you want to just make your statement, Mr. Towns, and then——

Mr. TOWNS. Break now and then come right back.

Mr. SHAYS. I know that we have some who want to welcome—I would, either you would like to say something before you go——

Mr. TOWNS. She has an opening statement, too.

Mr. SHAYS. What would you like to do? I would like to——

Mr. TOWNS. I would like to break and go vote as fast as we can and just run back and then continue.

Mr. SHAYS. We are at recess.

[Recess.]

[The prepared statement of Hon. Christopher Shays follows:]

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# Congress of the United States

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## Statement of Rep. Christopher Shays
## September 25, 1997

The emergence of *Pfiesteria piscicida* in coastal waters from here to the Gulf coast poses an insidious challenge to the early-warning systems meant to protect human, ecological and economic resources from toxic harm. The one-celled bugs at the bottom of the food chain are biting back, and we are struggling to find a way to restore the natural balance in which *Pfiesteria* and its kin can once again live out their complex life cycles in benign obscurity.

Since suspected outbreaks, or blooms, of this ages-old algae began in 1987, they have elicited a wide range of responses from affected governments, industries, and individuals. Those varied responses, from enhanced water quality monitoring to estuary closures, reflect what is known, what is suspected, and what is feared about *Pfiesteria*.

As an oversight Subcommittee responsible for public health programs, our charge is vigilance, our mission to constantly test the sensitivity and effectiveness of our defenses against infectious agents and toxic invaders.

Until recently, the response to *Pfiesteria* has been episodic and disjointed, separated by time, distance and a reluctance to connect a few fish-kills into a regional or national environmental crisis. After each toxic attack, the microbe receded to the river bottom, pushed out of public view by falling temperatures and rising skepticism about the real hazard of so intermittent an adversary.

But now, with increasing evidence of serious illnesses coincident to *Pfiesteria* exposure in natural settings, prudent public health practice calls for a more unified response. While each state may face unique problems when *Pfiesteria* strikes, this increasingly ubiquitous algae won't be blocked by political boundaries, and it won't delay its toxic attacks while we grope for scientific certainty as to its nature.

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When the pathogens causing CJD and Mad Cow Disease emerged as possible threats to food and blood safety, we asked regulators and researchers to help us measure the appropriate response to unproven, but potentially calamitous, public health risks. In our examination of Gulf War veterans' illnesses, we probed the very probable, but still unproven, causal link between toxic exposures and undiagnosed syndromes.

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The task calls upon government, science, medicine, agriculture and others to cooperate and collaborate in unprecedented ways to unlock the mysteries of *Pfiesteria*. We are fortunate to have as witnesses today the leaders in that effort: public officials, regulators, researchers, and an author, who are answering the challenges posed by *Pfiesteria*.

Welcome Governor Glendening, and welcome to all the witnesses giving us their time and expertise at this hearing, and the hearing this afternoon.

Mr. TOWNS. Let me begin by apologizing—of course we have had a couple of votes, but we should be able to move forward now without any interruptions, hopefully.

I want to thank the chairman for holding this hearing today to examine the State and Federal response to recent outbreaks of *Pfiesteria*.

In addition to the health affects which may be linked to the exposure of affected waterways, there may also be a concern about the toxin in *Pfiesteria* entering the food supply. Although there is no proved link, it should be noted the *Pfiesteria* tends to attack menhaden; and menhaden is used to make food for dogs, poultry, swine, and farmed fish. Additionally, its oil is used to make cooking oil and margarine for sale outside of the United States. Because little is known about the toxin which triggers the documented adverse affects, it is unknown whether processing neutralizes its effects.

I don't want to be an alarmist—I've never been, and don't plan to start now—but I believe that any uncertainty about the safety of our food supply is unacceptable in 1997. The public has a right to understand that their Government is concerned about the potential affects on the health and well-being of all of Americans, not to mention the well-being of the animal community; that is important also.

However, once this hearing is over and we have asked all the questions and debated the issues, we must be committed to providing Federal advice and funding to continue research which will bring about answers to the mystery of *Pfiesteria*. Congress may take some credit for timely response by recently providing $7 million to the Centers for Disease Control and Prevention to start developing an emergency public health response. But we cannot stop there, and should not stop there. It is not enough to clean up the problem after it surfaces, we must take preventative steps to assure water quality for all of our constituents. We may need to take legislative actions to amend the Clean Water Act and regulate pollutants which may contribute to this problem.

Finally, let me say, Mr. Chairman, we should be aware that this crisis may provide a unique opportunity for Federal-State cooperation in coordinating research and reporting in overall environmental efforts. I hope that each of us realize the magnitude of good which could be accomplished through such cooperative efforts.

Again, Mr. Chairman, thank you for holding today's hearing. I look forward to working with you. I also look forward to hearing from the witnesses. I'm delighted that we have been joined this morning by the Governor of the State of Maryland, Governor Glendening; and of course, an outstanding Member of the U.S. Congress who's been here now for many years now, one of our senior Members, the Hon. Steny Hoyer.

At this time I yield back, Mr. Chairman.

[The prepared statement of Hon. Edolphus Towns follows:]

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**OPENING STATEMENT OF**

**REP. EDOLPHUS TOWNS, RANKING MEMBER**
**SUBCOMMITTEE ON HUMAN RESOURCES**

**SEPTEMBER 25, 1997**

Mr. Chairman, I want to thank you for holding today's hearing to examine the state and Federal response to recent outbreaks of pfiesteria.

Pfiesteria was first identified in 1988. It was linked to fish kills in North Carolina three years later. Major fish kills have been reported in North Carolina since the early 1990's and more recently in Maryland. Pfiesteria has also been identified in Delaware, Virginia, South Carolina and Florida. Fish with lesions, open sores or ulcers have been noted in other regions, including India and Southeast Asia and Europe's North Sea, since the early 1970's.

However, even though these outbreaks have caused intense harm to the fish population, little study has been devoted to examining the human health effects until recently. Those studies have revealed that exposure to pfiesteria may result in significant and potentially dangerous health consequences such as rashes; peeling skin; eye irritation; weakness in hands and feet; open sores; short term memory loss; disorientation; fatigue, diarrhea, nausea; and headaches.

In addition to the health effects which may be linked to exposure to affected waterways, there may also be a concern about the toxin in pfiesteria entering the food supply. Although there is no proven link, it should be noted that pfiesteria tend to attack menhaden. Menhaden is used to make food for dogs, poultry, swine and farmed fish. Additionally, its oil is used to make cooking oil and margarine for sale outside of the United States. Because little is known about the toxin which triggers the documented adverse affects, it is unknown whether processing neutralizes its effect. Mr. Chairman, I do not want to be an alarmist, but I believe that any uncertainty about the safety of our food supply is unacceptable. The public has a right to understand that their government is concerned about the potential affect on the health and well-being of all Americans, not to mention the well-being of the animal community.

However, Mr. Chairman, once this hearing is over and we have asked all the questions and debated the issues, we must be committed to providing federal advice and funding to continue research which will bring about answers to the mystery of pfiesteria. Congress may take some credit for timely response by recently providing $7 million to the Centers for Disease Control and

Prevention to start developing an emergency public health response. But we cannot stop there. It is not enough to clean up the problem after it surfaces. We must take preventative steps. To assure water quality for all of our constituents, we may need to take legislative action to amend the Clean Water Act and regulate pollutants which may contribute to this problem.

Finally, Mr. Chairman we should be aware that this crisis may provide a unique opportunity for Federal-state cooperation in coordinating research, reporting and overall environmental efforts. I hope that each of us realizes the magnitude of good which could be accomplished through such cooperative efforts. Again, Mr. Chairman, thank you for holding today's hearing. I look forward to hearing the witnesses.

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Mr. SHAYS. I thank the gentleman.

And, Governor, we do owe you an apology. Your time is very important. We have some votes that are, frankly, protest votes; and without passing judgment on the legitimacy of the protest, it's hard to know when they are coming up. So, we do apologize. This is not typical. But you do draw a crowd, Governor; I want to say that.

I'd like to draw on an individual who's not a member of this committee. Mr. McIntyre, we welcome your statement.

Mr. MCINTYRE. Thank you very much. As a Representative of southeastern North Carolina's seventh district, I'm especially appreciative of the opportunity to speak to this issue today. As many of you know—and I know we have some good friends here from North Carolina with Dr. Burkholder, Dr. Bruton, and long-time friend, Wayne McDevitt—welcome to Washington. We know that in southeastern North Carolina, our coastal areas, not only along our beaches, but also we are blessed with many natural lakes, rivers, streams, and tributaries that fishing is quite a long tradition, commercially as well as recreationally, in our area.

Due in large part to the Clean Water Act that was enacted by Congress in 1970, the river and coastal estuaries in our area are now cleaner than they were 30 years ago. Industry and agriculture have made tremendous strides in cleaning up the wastes and runoff. Yet, today, this threat that we are having this hearing on is one that could cause great problems not only for our natural resources, but also for human beings.

Fishkills up and down the mid-Atlantic coast have brought national attention to this problem. Last week, we know that Governors from our State, North Carolina, as well as Maryland, Pennsylvania, West Virginia, Virginia, and Delaware, met to discuss this problem, and I'm especially pleased to see that the committee has taken the time to look at this today.

Because of the unfortunate concerns when we do not know enough about the potential impact of this problem, we need to give it the critical attention it needs. And, as my good friend, Mr. Towns, who is also an original native of North Carolina and of the area that I come from, we share in the concern, nationwide and up and down our coast, about this problem that is so critical to the health of our rivers, and lakes, and streams, and also, of course, to human beings. This, if anything, is a wonderful opportunity for cooperative effort between Federal, State, and local governments.

I'm pleased to tell you that I am supporting the amendment to the House Commerce, Justice, and State appropriations bill that would bring 3 million additional dollars to effectively respond to this problem and to these conditions throughout the eastern seaboard. And, with this cooperative effort, I believe we're in a position now that we can find a solution to this problem.

I welcome those who have come, again, from North Carolina today. I appreciate this moment to be able to share our concerns and to let you know that you have our wholehearted support in working together on this problem.

Thank you, Mr. Chairman.

Mr. SHAYS. I thank the gentleman. At this time we recognize a member of the committee, Mrs. Morella, if she has an opening statement.

Mrs. MORELLA. Thank you, Mr. Chairman. I think it is very important that you called this meeting. I'm not on this subcommittee, but I'm on the full committee; but I wanted to particularly come here to show my support of the Governor's efforts in the State of Maryland to address the problem of *Pfiesteria* which affects all of us in the region. And, I think it's a national problem.

And, as my colleague has mentioned, there are several amendments, one that's been accepted and one that will be offered on the floor, and I'll be one of the cosponsors with Mr. Hoyer, Mr. Gilchrest, and Mr. Cardin for additional moneys to be put into this particular study, and Governor Glendening's efforts to encourage the identification and to have the summit of the various Governors is certainly commendable.

And, I stand here, Mr. Chairman, and members of the subcommittee, to do everything I can to make sure that we take care of that terrible blight. Thank you.

Mr. SHAYS. I thank the gentlewoman, and at this time I call on Mr. Allen, a member of the subcommittee. He'd just like to read an opening statement or—you don't have anyone to greet here from North Carolina or Maryland?

Mr. ALLEN. I'm from Maine; no. But I will say——

Mr. SHAYS. Not yet.

Mr. ALLEN [continuing]. As a Member from a coastal State, I am acutely aware of how interconnected our coastal waterways and oceans are to the conditions that we live under on the land. And, we have had similar kinds of incidents involving red tide up in Maine that have affected our clamming industries, and so I have a great deal of sympathy for those populations and those States that are now undergoing this *Pfiesteria* epidemic. And, I just want to say I will do everything I can to help make sure that the Federal response is appropriate to the scale of the problem and support the States involved in any way that I can.

Mr. SHAYS. Thank you.

Mr. Hoyer, you're the senior member from the Maryland delegation. We are going to let you speak last, and introduce the Governor. At this time I'll call on Ms. Clayton, and welcome your statement, and welcome you here as well.

Ms. CLAYTON. Thank you, Mr. Chairman, good morning. I would like to thank you, Mr. Chairman, and the ranking member of this committee, by the way, who others have noted is from North Carolina, and who I have the distinction of representing his hometown. We are also excited about the number of persons who are here.

*Pfiesteria* has plagued North Carolina for many years, and some experts now think the organism was first observed in our waters almost 20 years ago in 1978. While the old northwest State has made multiple efforts to address this pestilence through actuary studies, nondischarge rule, phosphate bands, rapid response team, nitrogen-load reduction, nutrient-limit reduction, soil-sweatland restoration programs, and now a 2-year moratorium on new and expanded swine farming; *Pfiesteria* is an enigma for us all, as it has been found in many Atlantic waters, from Chesapeake Bay south to Florida, west to Texas. We must work together constructively and effectively, Federal, State, and local government and

agencies, academic research, concerned citizens, to attack and find a rapid and workable solution to this predicament.

I am pleased to note that several officials from North Carolina, who we've already said will be properly introduced later. We also will hear testimony from Dr. Joann Burkholder, who we proudly claim in North Carolina. Through her diligent research, we now know a great deal about the organism itself and its life cycle. All of us owe her a great debt of gratitude for her tireless work which put her at great physical risk for illness. Now it is time to fund additional work for Dr. Burkholder and other scientists and researchers like her in order to answer the remaining question regarding the effects of *Pfiesteria* on humans, animals, and watersheds.

The waters of North Carolina have certainly felt the effect of *Pfiesteria* outbreak, especially in the Neuse River, the Tar River, the Pamlico River, as well as the entire Albermarle-Pamlico Estuary, part of which is in my congressional district. There have been more than a million fish killed reported in our State, and many reports of human health problems. Given the adverse impact of such significant fish-kill upon my district, North Carolina, and the mid-Atlantic, we need to seek solutions through aggressive research.

Mr. Chairman, we face a very serious threat that must be addressed immediately. We should not rush to judgment, however. Scientific inquiries are ongoing, but we should not waste time. Further researching and testing should be undertaken at once. It is my hope that the funding for critical and needed research and testing will come as a result of today's hearing and other amendments that have been introduced already which I also support. Only through funding will come the opportunity for a solution. All North Carolinians, including Gov. James B. Hunt and others who live, work, recreate in the affected waters, share that hope. Their lives and their livelihoods depend upon it.

I will not be able to stay through the hearing, but I look forward to reading about it. I must attend a markup in the Agricultural Committee, where I have asked the chairman to insert the language into the chairman's en bloc amendment authorizing specifically for *Pfiesteria* research through our agriculture research arm.

I am awaiting the testimony of many of you who will go forward. Thank you for bringing your testimony; we look forward to it.

Again, Mr. Chairman, we thank you for allowing us all to participate.

Mr. SHAYS. Well, it is nice to have you. And at this time I would call on Mr. Gilchrest, who has been very active in this issue for a while, and was the first to ask if he could not only be here in the beginning, but to participate in the entire hearing. Welcome here.

Mr. GILCHREST. Thank you, Mr. Chairman, and I do thank you for allowing me to sit on the dias this morning and participate in this most important, interesting, fascinating subject of life in all its varied forms on planet Earth, in the midst of an infinite hostile environment where we can't go anywhere to get away from this. So, we have got to figure it out. Steny Hoyer told me to say that, Mr. Chairman, so I thought—[laughter.]

Mr. SHAYS. He also told you to say that the Governor is doing an excellent job.

Mr. GILCHREST. Oh, did he tell me that? [Laughter.]

Well, I was going to say that anyway.

I do want to say that the States' efforts in this situation—actually, starting last October when the States began to investigate some of the first reports—the States' efforts to have a summit—not only a summit of Governors recently—but the States' efforts to have a summit of scientists down in the affected waters to collaborate and discuss what could be done and what would be the plan initiated to look at the problem. Do you look at water? Do you look at fish? Do you look at runoff? Do you look at air deposition? There is a whole range of scientific disciplines that are now converged on this particular problem, and I feel very secure about the progress, and what is going on.

And, I can tell the people here, and the Governor: Whenever I travel around the district, whether I'm talking to a waterman, just citizens, or farmers, that people are getting the sense of the complexity of this issue. But the more information that goes out, they are getting a sense of security that the Government is responding to this in a very intelligent way.

And, what we're responding to, interestingly enough, I'm sure we'll hear from some of the scientists today—and Dr. Burkholder, welcome to the Nation's Capital and the U.S. Congress. I think what we are trying to do to understand the mechanics of natural processes one molecule at a time—in essence, the mechanics of creation: How does it all work and what is the impact?

Somebody told me that if you drive a car across South Dakota, it's not going to have much of an impact on the climate or the air or anything else. But look at the beltway—the Washington Beltway, the Baltimore Beltway, going to Ocean City in the summertime—that amount of traffic; that's air deposition.

We say that we have instituted over the last 30 years some incredible legislation to secure the quality of the water, the quality of the food; all these mechanisms to make our impact less: wetlands legislation, buffers for farmers. We've cleaned up sewage treatment plants, a whole range of things. The problem is that one car across South Dakota—and I'm going to finish up here, Mr. Chairman—isn't a problem. But then when you get to the beltway—we've increased in population.

I've talked to farmers about the problems of instituting new regulations, mandatory regulations, and basically the response from the farmers is that they have instituted new management techniques for the last 20 years, and this is one more step in the right direction.

We need regional efforts, national efforts, and basically we need an international effort, in understanding what the next frontier is. And the next frontier is an intellectual frontier to understand the mechanics of natural processes, so we can continue to live on planet Earth.

Mr. SHAYS. I thank the gentleman. This is the intent, Governor: If we have a rollcall vote, we're going to have someone stay here and you're not going to have to wait again.

I'm getting a little nervous. We're getting more Members coming in, but we have some very distinguished Members, including Mr. Hefner; we're going to call on you in a second, but to have a senior veteran to come here to this committee is a distinguished privilege.

Mr. Etheridge.

Mr. ETHERIDGE. Thank you, Mr. Chairman, and I promise you I will be brief. I'm honored to be here and I want to thank you for allowing me this opportunity to sit in today on what I think is a very important hearing on *Pfiesteria*. And, certainly, in North Carolina alone, over 1 billion fish have been killed as a result of this organism. And I want to thank you for the hearing. I think it's important; it's important to all of us on the east coast, and all of us really in this country.

People who have been in contact with this organism, toxic, have become ill and suffered short-term memory loss, and many others have seen that, and I look forward to hearing part of the hearing today.

I, like my colleague, Ms. Clayton, will not be able to stay for the whole thing because we have a Science Committee going on right now.

*Pfiesteria* has now resulted in fishkills in Maryland and Virginia and has become a genuine health concern for more than a half-a-dozen States, from Delaware to Florida. It is vital that we learn more about what causes *Pfiesteria* and its potential impact on public health.

Mr. Chairman, I commend you for holding this hearing, and thank you very much. It's a clear recognition that this issue has taken on national significance. I also want to commend my colleagues in the House for approving $7 million in the recently passed appropriations bill for the Center for Disease Control and Prevention to develop an emergency response plan to monitor and research and react to the public health effects of *Pfiesteria*.

And, Mr. Hefner, is one of our ranking members from North Carolina, and I want to thank you for your leadership in that effort.

Later today, the House will consider an amendment, as we have just heard, on the Commerce, State, and Justice appropriation bill to the National Oceanic and Atmospheric Administration to respond to this *Pfiesteria* issue, and I'm very proud to be a cosponsor of that. It will have an impact in dealing with the conditions on the eastern seaboard that the Governor is here to talk about, and many of my colleagues from North Carolina and I, urge all of us to support that.

Thank you, Mr. Chairman, for the opportunity to comment.

Mr. SHAYS. I thank the gentleman. Another gentleman from North Carolina, the distinguished gentleman, Mr. Hefner.

Mr. HEFNER. Thank you, Mr. Chairman, for those kind words. I would like to just thank you for having this hearing.

And Mr. Gilchrest's statement, talking about the things that we need to do—and this is something that we do as a Government, as the people, that sometimes gets overlooked with all the adverse comments you hear around and across the country—but this is something we do because that is who we are.

And Mr. Chairman, I want to thank you for your leadership in this area, and, by the way also, I support your position on campaign financing, too. [Laughter.]

We have some very distinguished Carolinians here, and they'll be introduced a little bit later. And, Governor, I know that you are

working very diligently to try to come to grips with this problem, and I want to assure you that any way we can help you, I don't speak for Steny Hoyer, but we're on the Appropriations Committee and we'll work there very hard to work with all the Governors and all the States that are affected, because this is a problem that when it affects one of us it affects the rest of us; it affects all of us.

And, thank you, Mr. Chairman, for letting me come in and have a few words.

Mr. SHAYS. Thank you very much. It's a pleasure to have you here. I think it is fairly clear, Governor, that you and others have caught the attention of the U.S. Government, and that's why you see such a large number of people who wanted to be present.

Mr. Kucinich, is a member of the committee, walked in and was very willing to have others who weren't members of the committee speak before him. If you just have some brief words now, then we're going to go to Mr. Hoyer, and then, Governor, you're on.

Mr. KUCINICH. Thank you very much, Mr. Chairman, members of the committee. I'm glad that this committee is here to examine the recent outbreak of *Pfiesteria* around the Mid-Atlantic seaboard, and I hope that this subcommittee will be able to provide the people of Virginia, Maryland, North Carolina and other areas assistance in their effort to protect their waters. But more importantly, I hope that this subcommittee can take a hard look at the bigger picture: non-point-source pollution poses, not only a threat to the people of the Atlantic seaboard and the Mid-Atlantic area, but to Americans nationwide.

The Clean Water Act has succeeded in reducing point-source pollution. But we need to address the problem of non-point-source pollution. The Lowey-Gilchrest amendment provides a good starting point in reestablishing funding for the coastal, non-point pollution control program, but we must do more to ensure the safety and cleanliness of America's water supply. Thank you, Mr. Chairman.

Mr. SHAYS. I thank the gentleman. Mr. Hoyer, you have the distinct honor of introducing the Governor of the great State of Maryland.

Mr. HOYER. Mr. Chairman, I want to thank you for giving the Governor, and myself, and others this opportunity to speak out on an issue that is critically important.

Mr. Chairman, you will hear this morning from a Governor who has made some very difficult decisions over the past several weeks. Some of his actions have been questioned; others have been outright opposed. However, one thing is clear: as the leadership of the Governor of our State, he has acted forthrightly, responsibly, and effectively to help protect the citizens, not only of our State, but of all the States who share the waters of the Atlantic coast and limit the awesome damage that this toxic microbe has caused elsewhere along our seaboard.

This committee will investigate how the State has responded to *Pfiesteria* and I believe that you will find no better example of decisive action to combat the problem than under the leadership of our Governor. And, I think that is a bipartisan, as you can tell, observation, Mr. Chairman.

Finally, I understand that later today you will hear from a panel of agencies on the Federal response to *Pfiesteria*. Congressman Clayton mentioned the Department of Agriculture and the agriculture hearing. I talked to Secretary Glickman, as has the Governor, and that is a very important component of this effort.

The Federal Government has a responsibility to assist the States, however possible, in this fight, and it will be important that the Congress give the agencies the necessary tools to accomplish this task. That is why I, on behalf of all of you who have spoken about our amendment, will seek to add—and we have the agreement of Chairman Rogers and ranking member Mollohan on the bill that is on the floor today—to add $3 million to NOAA's budget. Congressman Gilchrest, Morella, and all of the North Carolinians, Floridians, South Carolinians; Governor Castle, who is the only one from Delaware, and others, will join in a bipartisan way as we seek to ensure that NOAA, an agency with scientific and technical know-how to help in this fight has enough money to do so.

Recently, Mr. Chairman, as you know, the House passed an amendment to the Labor, Health, and Human Services appropriations bill to add $7 million to CDC's budget for this purpose. Congressman Etheridge spoke to that. This was an important step, and today will be yet another in the Congress' response to the ongoing critical problem confronting our people.

With that, Mr. Chairman, I thank you very much for this opportunity to introduce to you the Governor of our State, who has been the Governor of our State for the past 3½ years, and in addition to that, was county executive of the county in which I lived for 12 years prior to that—the only county executive to be reelected in our county, which shows you, notwithstanding some things you may have read, the viability of our Governor.

Ladies and gentlemen, Governor Parris Glendening.

Mr. SHAYS. Thank you. Now, Mr. Hoyer, if you want to stay there, I have to swear you in. We swear in all our witnesses, as you know, Governor; and so we would ask you to stand and if you think there is anyone else—that was supposed to be a joke, Mr. Hoyer. [Laughter.]

Mr. HOYER. I was going to respond, "Everything I said was the truth, the whole truth, and nothing but the truth."

Mr. SHAYS. Governor, if you would raise your right hand.

[Witness sworn.]

Mr. SHAYS. Thank you. For the record, the Governor has responded in the affirmative; and let me just say, Governor, we swear in all our witnesses, even Members of Congress. This is an investigative committee and that's our practice for everyone, as you know.

It's wonderful to have you here.

I'm going to get one piece of housekeeping out of the way and ask unanimous consent that all members of this subcommittee be permitted to place any opening statement in the record, and the record will remain open for 3 days for that purpose; and without objection, so ordered.

[The information referred to follows:]

# NEWS FROM

CONGRESSWOMAN

*Eva M. Clayton*

*MAKING A DIFFERENCE*

1ST DISTRICT . NORTH CAROLINA

## MEDIA ALERT

FOR IMMEDIATE RELEASE
SEPTEMBER 25, 1997

CONTACT: VEDA J. LAMAR
(202) 225-3101

CLAYTON AMENDMENT ASK FOR ADDITIONAL PFIESTERIA FUNDING

WASHINGTON -- Congresswoman Eva M. Clayton (D-NC) today will offer an amendment in Forestry, Resource Conservation and Research Subcommittee of the House Agriculture Committee asking for additional funding to be authorized for Pfiesteria research.

Proposed legislative language and statement attached.

-30-

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**Opening Statement of**
**Representative Eva M. Clayton**
**Before the House Government Reform and**
**Oversight Subcommittee on Human Resources**
**Hearing On *Pfiesteria* and Public Health:**
**The Federal Response**
**2247 Rayburn House Office Building**
**Thursday, September 25, 1997**

Good morning. I would like to thank Chairman Shays and my good friend and fellow North Carolinian, Ranking Member Edolphus Towns, for permitting me to participate. *Pfiesteria* has plagued North Carolina for many years, and experts now think that this organism was first observed in our waters almost twenty years ago– in 1978.

While the Old North State has made multiple efforts to address this pestilence, through estuary studies, nondischarge rules, phosphate bans, rapid response teams, nitrogen load reductions, nutrient limit reductions, source wetland restoration programs and a two-year moratorium on new or expanding swine farms; *Pfiesteria* is an enigma for us all as it has been found in many Atlantic waters, from the Chesapeake Bay south to Florida and west to Texas.

We must work together constructively and effectively, federal and state and local governments and agencies, academic researchers, and concerned citizens– to attack and find rapid and workable solutions to this predicament.

I am pleased to note that several officials from North Carolina will be testifying today. Dr. David Bruton, Secretary of the North Carolina Department of Health and Human Services, joins us today as the Governor's personal emissary. He is accompanied by Wayne McDevitt, the Secretary of the North Carolina Department of Environment and Natural Resources.

We will also hear testimony from Dr. JoAnn Burkholder, who we proudly claim in North Carolina. Through her diligent research, we now know a great deal about the organism itself and its life cycle. All of us owe her a

debt of gratitude for her tireless work, which put her at great physical risk for illness.

Now it is time to fund additional work for Dr. Burkholder, and other scientists and researchers like her, in order to answer the remaining questions regarding the effects of Pfiesteria on humans, animals and watersheds.

The waters of North Carolina have certainly felt the effects of *Pfiesteria* outbreaks, especially in the Neuse River, the Tar River, the Pamlico River as well as the entire Albemarle-Pamlico Estuary, parts of which are in my Congressional District. There have been more than a million fish killed in our State and many reports of human health problems. Given the adverse impact of such significant fish kills upon my District, North Carolina and the Mid-Atlantic, we need to seek solutions through aggressive research.

Mr. Chairman, we face a very serious threat that must be addressed immediately. We should not rush to judgement, however. Scientific inquiries are ongoing, but we should not waste time. Further research and testing should be undertaken at once.

It is my hope that funding for critically-needed research and testing will come as a result of today's hearings. Only through funding will come opportunities for solutions.

All North Carolinians, including our Governor, James B. Hunt, Jr., as well as all North Carolinians and others who live, work and recreate in the affected waters, share that hope. Their lives and livelihoods depend upon it.

I will not be able to stay throughout the entire day, due to a conflicting mark-up in the Agriculture Forestry, Resource Conservation and Research Subcommittee, where I have been able to insert language into the Chairman's *En Bloc* Amendment to authorize funds specifically for *Pfiesteria* research. However, I am eager to hear and read today's testimony.

Thanks again to Chairman Shays and Ranking Member Towns for allowing me to participate.

## AMENDMENT TO H.R. _____

## (RESEARCH REAUTHORIZATION BILL)

## OFFERED BY MR. COMBEST

Insert at the appropriate place in the table of contents the following new items:

Sec. 306. Grants and fellowships for food and agricultural sciences education.
Sec. 307. Grants for research on the production and marketing of alcohols and industrial hydrocarbons from agricultural commodities and forest products.
Sec. 308. Policy research centers.
Sec. 309. Human nutrition intervention and health promotion research program.
Sec. 310. Pilot research program to combine medical and agricultural research.
Sec. 311. Food and nutrition education program.
Sec. 312. Animal health and disease continuing research.
Sec. 313. Animal health and disease national or regional research.
Sec. 314. Grant program to upgrade agricultural and food sciences facilities at 1890 land-grant colleges.
Sec. 315. National research and training centennial centers.
Sec. 316. Supplemental and alternative crops research.
Sec. 317. Aquaculture research and extension.
Sec. 318. Rangeland research.
Sec. 319. Federal agricultural research facilities.
Sec. 320. Water quality research, education, and coordination.
Sec. 321. National genetics resources program.
Sec. 322. Agricultural telecommunications program.
Sec. 323. Assistive technology program for farmers with disabilities.
Sec. 324. National Rural Information Center Clearinghouse.
Sec. 325. Critical Agricultural Materials Act.

**Subtitle B—Repeals**

Sec. 341. Aquaculture research facilities.
Sec. 342. Agricultural research program under National Agricultural Research, Extension, and Teaching Policy Act Amendments of 1981.
Sec. 343. Livestock product safety and inspection program.

**TITLE IV—NEW RESEARCH, EXTENSION, AND EDUCATION INITIATIVES**

**Subtitle A—Partnerships for High-Value Agricultural Product Quality Research.**

Sec. 401. Establishment and purpose of partnerships.
Sec. 402. Elements of grant making process.
Sec. 403. Authorization of appropriations and related provisions.

**Subtitle B—Precision Agriculture**

Sec. 411. Definitions.
Sec. 412. Competitive grants to promote precision agriculture.
Sec. 413. Reservation of funds for education and information dissemination projects.
Sec. 414. Precision agriculture partnerships.
Sec. 415. Miscellaneous provisions.
Sec. 416. Authorization of appropriations.

**Subtitle C—Other Initiatives**

* Sec. 421. High-priority research and extension initiatives.
Sec. 422. United States/Mexico joint agricultural research.
Sec. 423. Food animal residue avoidance database program.
Sec. 424. Development and commercialization of new biobased industrial products.
Sec. 425. Sense of Congress regarding Agricultural Research Service emphasis on in field research regarding methyl bromide alternatives.

Redesignate title IV of the bill as title V and insert after section 305 the following:

1 **SEC. 306. GRANTS AND FELLOWSHIPS FOR FOOD AND AGRI-**
2 **CULTURAL SCIENCES EDUCATION.**

3 Section 1417(j) of the National Agricultural Re-
4 search, Extension, and Teaching Policy Act of 1977 (7
5 U.S.C. 3152(j)) is amended by striking "1997" and in-
6 serting "2002".

7 **SEC. 307. GRANTS FOR RESEARCH ON THE PRODUCTION**
8 **AND MARKETING OF ALCOHOLS AND INDUS-**
9 **TRIAL HYDROCARBONS FROM AGRICUL-**
10 **TURAL COMMODITIES AND FOREST PROD-**
11 **UCTS.**

12 Section 1419(d) of the National Agricultural Re-
13 search, Extension, and Teaching Policy Act of 1977 (7
14 U.S.C. 3154(d)) is amended by striking "1997" and in-
15 serting "2002".

997 (2:52 p.m.)

* CLAYTON AMENDMENT IN THIS SECTION

1 "(B) transferring the results of such re-
2 search for agricultural producer use.
* 3 "(16) WATER QUALITY AND AQUATIC ECO-
4 SYSTEM RESEARCH AND EXTENSION.—Research and
5 extension grants may be made under this section for
6 the purpose of investigating the impact on aquatic
7 food webs, especially commercially important aquatic
8 species and their habitats, of microorganisms of the
9 genus *Pfiesteria* and other microorganisms that are
* 10 a threat to human or animal health.
11 "(17) POTATO RESEARCH AND EXTENSION.—
12 Research and extension grants may be made under
13 this section for the purpose of developing and evalu-
14 ating new strains of potatoes which are resistant to
15 blight and other diseases, as well as insects. Empha-
16 sis may be placed on developing potato varieties that
17 lend themselves to innovative marketing approaches.
18 "(18) WOOD UTILIZATION RESEARCH AND EX-
19 TENSION.—Research and extension grants may be
20 made under this section for the purpose of develop-
21 ing new uses for wood from underutilized tree spe-
22 cies as well as investigating methods of modifying
23 wood and wood fibers to produce better building ma-
24 terials.

*- CLAYTON AMENDMENT

BOB ETHERIDGE
2d District, North Carolina
COMMITTEE ON AGRICULTURE
COMMITTEE ON SCIENCE
NEW MEMBER WHIP

DISTRICT OFFICES

# Congress of the United States
## House of Representatives
## Washington, DC 20515

**The Honorable Bob Etheridge**
**Statement and Introduction for the Record**
**Human Resources Subcommittee**
**of the Government Reform and Oversight Committee**

**September 25, 1997**

Mr. Chairman I am honored to have the opportunity to sit in today on this important hearing on pfiesteria. In North Carolina alone over 1 billion fish have been killed as a result of this organism. People who have been in contact with this organism's toxins have become ill and suffered short term memory loss. Pfiesteria has now resulted in fish kills in Maryland and Virginia and has become a genuine health concern for more than a half a dozen states from Delaware to Florida. It is vital that we learn mor about what causes pfiesteria and its potential impact on human health.

Mr. Chairman, I commend you for holding this hearing, a clear recognition that this issue has taken on national significance. I also want to commend my colleagues in the House for approving $7 million on the recently passed appropriations bill for the Centers for Disease Control and Prevention to develop an emergency response plan to monitor, research and react to the public health effects of pfiesteria. Later today the House will consider an amendment to the Commerce-Justice-State appropriations bill that would provide $3 million to the National Oceanic and Atmospheric Administration to respond to pfiesteria and pfiesteria -like conditions along the Eastern Seaboard. I am proud to be a sponsor of this amendment and I urge my colleagues to support it later today.

Mr. Chairman, it is now my pleasure to introduce a great North Carolinian, a man who will play a huge role in battling this mysterious organism. Wayne McDevitt has had a long and distinguished career of service to his state and his country. Mr. McDevitt most recently served as the Senior Adviser to Governor Jim Hunt working directly with the federal and local governments on environmental, economic development and transportation issues. Mr. McDevitt has a strong environmental record and has served in a number of important environmental posts in North Carolina over the past twenty years including General Manager of the North Carolina

Arboretum and Regional Manager for the Department of Natural Resources. As the newly appointed Secretary of the North Carolina Department of Environment and Natural Resources, Mr. McDevitt has set as his number one priority fighting pfiesteria by cleaning the state's rivers and streams and by aggressively enforcing environmental laws. Mr. Chairman, it my pleasure to present to the committee a great public servant, Wayne McDevitt.

Mr. SHAYS. And I ask further unanimous consent that all witnesses be permitted to include their written statement in the record; and without objection, so ordered.

And, Governor, you have waited so long, I'm not putting a time limit on you. I don't know if that's the way to go, but you are going to have a green light that will continually go green.

You are on, sir.

**STATEMENT OF PARRIS N. GLENDENING, GOVERNOR, STATE OF MARYLAND**

Governor GLENDENING. Mr. Chairman, thank you very much, although, I must tell you, as a person who taught for 27 years at the University of Maryland, College Park, my thoughts come in 55-minute segments as a result.

Mr. SHAYS. Well, Governor, I may want to reconsider. [Laughter.]

Governor GLENDENING. I know how busy everyone is, so I will be brief.

Mr. Chairman, let me just thank you and members of the committee for having this hearing and being here today. It does really illustrate that this is not a just a Maryland problem. The Governors coming together very rapidly indicated that this was a regional problem, and your quick response—the Congress' quick response—and the administration's, shows that this is really a national challenge. And, I want to thank you for your leadership on that as well.

Mr. SHAYS. Thank you, Governor. I'm going to ask you to move the mike a little closer. We want to pick up your voice; if you'll pull it up a little bit, I think it's a little hard to hear. Yes, that's great. And turn a little toward the middle. I'm sorry to direct you like that.

Governor GLENDENING. Great.

Mr. SHAYS. OK, I think we're picking up your voice better.

Governor GLENDENING. Let me also, as I mention my comments there, give a special thanks to Congressman Hoyer, who has been a leader in our congressional delegation for so long and his absolute prompt response to this and the partnership that he illustrated earlier with the State of Maryland and the National Government; and Congressman Gilchrest in particular—the whole delegation has been very, very supportive and we certainly appreciate that. Connie, Wayne, has been out there in the field as well trying to work on this, and I certainly appreciate your being here as well as your support and your leadership.

Let me, if I might, make just a few comments. I have submitted written testimony, and I know I'm followed by a number of scientists and medical experts, and so I'll leave the technical stuff to them.

We have tried to make our decisions based on health issues and science and medical research; and that's why I am so pleased with the team that you have assembled to make testimony here today.

Maryland faces a very serious problem. The *Pfiesteria* impacts our citizens, our waterways, our economy, and even our way of life; and particularly when you think about the importance of the Chesapeake Bay in terms of what Maryland is. At the same time, I would note this is not just a Maryland problem. *Pfiesteria*-like or-

ganisms have been found in Virginia; North Carolina has been struggling with this problem now for almost 7 years; Delaware experienced a massive fishkill in 1987 which we now believe, as we accumulate knowledge on this, to have been the *Pfiesteria*; and just last week we met with four Governors and representatives from two other States because *Pfiesteria* does not know anything about State boundaries.

Today, what I want to talk about is what we are doing in Maryland about *Pfiesteria*, and particularly how the Federal partnership might help us and the other States.

Currently, Maryland is working toward several objectives: first, and primary for all of our consideration, is we must protect the public health.

Second, we need to better understand what *Pfiesteria* is and, particularly, what causes it to become toxic and why it harms both fish and people. And I want to emphasize that last point because I think we have passed over this issue that it clearly now demonstrates that it is a human health problem as well.

And, third, we must ensure that we craft a solution for the problem of *Pfiesteria* that we work to protect the interests throughout our community. We are all in this together. This is not about pointing fingers either one State to another or one part of our community to another. The public, the watermen, the tourism industry, the farmers, the poultry growers, the retail sales—we're all in this together.

First and foremost is the public health issue. First, the good news. Our seafood is safe to eat. The seafood that you buy at the grocery store or eat at the restaurant does not come from the infected waterways. It is absolutely safe to eat; in fact, I will be taking the entire Maryland cabinet out later this afternoon for a rockfish lunch, and I guarantee you we will all be at work tomorrow morning—and members of the committee, if you wish to join us. [Laughter.]

Since our first report——

Mr. SHAYS. Governor, if you aren't well tomorrow, we're in deep trouble. [Laughter.]

Governor GLENDENING. Since our first reports of sick fish and sick people, we have been working very aggressively. We have closed the impacted waterways to protect public health. We have established a blue-ribbon citizen's *Pfiesteria* committee, which is chaired by former Governor Harry Hughes, who are looking for long-term solutions but know the importance of this, and they will be reporting to us by November 1 of this year. We have also appropriated $2 million emergency funds for a State-only program to help Maryland farmers with the winter cover crop. We have increased the monitoring and inspection of our waterways. We have added funds to educate the public about the safety of Maryland's seafood market.

While Maryland has taken decisive steps, the battle against *Pfiesteria* is bigger than any one State can tackle alone. We need your help. The Federal Government has already been responsive. We're working with President Clinton and Vice President Gore; with EPA Administrator Carol Browner; with U.S. Secretary of Agriculture Dan Glickman; with the Maryland congressional delega-

tion, and I specifically want to thank the leadership of Senators Sarbanes and Mikulski, Congressmen Hoyer and Gilchrest, and the entire delegation working together on this, and now this support and involvement of the members here of this committee.

The Federal Government has already provided $500,000 in emergency assistance for EPA and NOAA; an additional $100,000 from the U.S. Geological Survey; and with the leadership of Congressman Hoyer and the involvement of our entire congressional delegation and support of so many Members here, as we know, $7 million of new money was appropriated to the Center for Disease Control to better understand the public health effects of *Pfiesteria*. It is my understanding that the Center for Disease Control will be having a *Pfiesteria* conference next week in Atlanta trying to get a better handle on this.

I also want to indicate our strong support for the amendment that several Members discussed, that Congressman Hoyer has offered, joined by many cosponsors, for the $3 million to NOAA's budget to help research the cause and the formation of *Pfiesteria*.

I appreciate the Federal response. But let me also emphasize that for both the State government, for the Federal Government, there is so much more that can be done. We need, for example, to expand the national research effort to provide greater understanding of this toxic organism. It has been around for at least 10,000 years, and I say half in jest and half seriously, I don't know why it decided to go active and toxic right in the middle of my administration. [Laughter.]

But, regardless of the timing, something is clearly triggering this outbreak. We also need, definitively, to determine the impact that *Pfiesteria* is having on human health; and, I would suggest that is the most important issue that is before us, but also the impact on our environment and on our waterways. We need to help expand the multi-State area our winter crop cover efforts, as well as address the issue of seafood marketing, on which so many families are dependent. We have to assist the States, if we will, in developing nutrient management practices as well as innovative waste management methods.

And, last, I would say, we seek help in coordinating multi-State responses. Just as a quick example: The largest source of water for the Chesapeake Bay is the Susquehanna River. The Susquehanna River starts in upstate New York, flows through New York, through Pennsylvania, and through Maryland before it empties into the Chesapeake Bay.

I also want to emphasize, by the way, this is not, as the committee clearly knows, partisan, or anything like this; because I saw Governor Ridge step right up where they're not having *Pfiesteria* outbreak. And, Governor Ridge of Pennsylvania said, "I understand that the water source for the Bay comes through Pennsylvania, and I want to be part of the solution." And I appreciate that type of effort.

Finally, we must work cooperatively to aid those farmers, and watermen, and poultry growers, as well as private citizens whose livelihood are being adversely impacted in a very major way by the recent outbreaks of *Pfiesteria*.

Let me note that in the 1960's, pollution of the Potomac River became a national symbol for why we need the Clean Water Act. Last week, EPA Administrator Carol Browner, observed that *Pfiesteria* outbreak was really a clarion call about our Nation's waterways. I agree with that.

You know, my father used to tell me a story that I'm sure many people have heard about how the miners in West Virginia used to take canaries into the mine; and when the canary died, they knew they had a serious problem and they immediately fled the mine because of poisonous gas. Our fish are dying in the same way, to tell us we have a very serious problem in our environment. It is not confined to one area; it is not just about what is happening in the water; it is about human health.

Now, with cold weather coming on, *Pfiesteria* outbreaks are likely to diminish. Next spring, in almost certainty, they will return, and they will return with a vengeance. Obviously, we must act now.

I would make two quick observations in conclusion: One is that the problem in the water clearly starts on the land. Our solution is going to be on the land, and it's not going to be an easy solution. We're going to have to take decisive action; I believe it will be expensive; I believe it is going to take some political courage for us to require what must be done.

Second, no one State is going to be able to handle this by ourselves. We are working regionally; the Governors are very enthusiastic about the outcome of the conference—the summit we had just recently—but we do need full partnership of the Federal Government, and this is a major step to do exactly that.

Thank you for your time.

[The prepared statement of Governor Glendening follows:]

MARYLAND GOVERNOR PARRIS N. GLENDENING
TESTIMONY BEFORE HOUSE GOVERNMENT REFORM &
OVERSIGHT SUBCOMMITTEE ON HUMAN RESOURCES
THURSDAY, SEPTEMBER 25, 1997 – 10:00 A.M.

Thank you, Mr. Chairman for inviting me to talk with you and members of the Subcommittee today about Maryland's recent experience with *Pfiesteria*-like organisms. I also thank Congressman Steny Hoyer for that warm introduction. As he has done on so many issues in our State, whether they are in his backyard or across the State, Steny Hoyer has marshaled resources and done what it takes to meet Maryland's needs. I speak for the entire State, when I say that we am truly grateful for his efforts.

I am pleased to see Congressman Wayne Gilchrest on the dais today. He is a great advocate on environmental issues generally, and I thank him for his tireless efforts on behalf of his constituents on this issue in particular. Mr. Chairman, much of the reason we are here today is because of Congressman Gilchrest's efforts, and you should know how honored I am to work with him.

We are fortunate in Maryland that when we have such a challenge, it does not matter if you live on the Pocomoke or on the Potomac, whether you are a Democrat or a Republican, we are all Marylanders first. Maryland faces an unprecedented challenge to the health and vitality of our fragile waterways. In recent weeks, the Pocomoke River, a creek of the Manokin River watershed and part of the Chicamacomico River, have experienced outbreaks of toxic *Pfiesteria*-like organisms.

All across Maryland, this region and this nation, there are thousands of families like mine for whom our waterways are places to work, to live, and to play. While other states have faced similar challenges with *Pfiesteria*-like organisms, Maryland's experience is unique in two respects. First, Maryland is Maryland because of the Chesapeake Bay. Indeed, while the Bay literally divides our State geographically, it is also a powerful unifying force in the lives of many Marylanders. Second, Maryland was the first state in the nation to link toxic outbreaks of *Pfiesteria* to concerns about public health.

Today I will talk about: What has Maryland done about *Pfiesteria* so far? What is Maryland going to do about Pfiesteria in the future? How is the federal government helping the states now? And how can the federal government help in the future?

In the few minutes we have together, I will outline briefly Maryland's experience with *Pfiesteria*. I attached a more detailed time line of Maryland's experience with *Pfiesteria*. Maryland's response to occurrences in the Pocomoke, Manokin and Chicamacomico watersheds, has received national attention. When *Pfiesteria* first became a serious problem, we assembled a high level interagency team led by the Secretaries of Agriculture, Health and Mental Hygiene, Environment and Natural Resources. Throughout our efforts to identify and understand this microbe, we also worked with Maryland's academic and scientific institutions, as well as the Chesapeake Bay Foundation, and the Watermen's Association.

Most importantly, we worked closely with the people of Maryland. They are our eyes and ears, providing thousands of leads on our toll-free *Pfiesteria* hotline. That is why throughout this year, I insisted that the public has a right to know the same things we know. I hope that sharing information with the public has given the public confidence that we are doing the right thing in protecting public health.

Maryland is working hard to accomplish several objectives: First and foremost, we have a responsibility to protect public health. Whether it is the consumers, the watermen or the recreational water enthusiasts, nothing is more important to me as Governor than the health and safety of our citizens. I will begin with the good news on the public health front: I am pleased to report, Mr. Chairman, that Maryland seafood is safe to eat. The seafood you buy at the grocery store, or eat at restaurants does not come from affected waterways and is safe to eat. Of course, convincing the public of the safety of Maryland seafood is only part of the challenge. At the same time, we know that seafood is safe to eat, we also know that *Pfiesteria* is harming fish, and in some cases, toxic levels of *Pfiesteria* in the water is linked to human health problems.

We received our first report of people becoming ill in April. At that time, our local public health officials, under the direction of Maryland's Department of Health and Mental Hygiene, encouraged those persons who reported any unusual illnesses to see their personal physician and to report their illnesses to the local health department. In the weeks that followed these reports, our team continued to investigate aggressively the causes and effects of the presence of *Pfiesteria*-like organisms in Maryland's waters.

Since June, our Departments of Natural Resources and the Environment have conducted an aggressive fish and water quality monitoring program, and evaluated point and non-point sources of pollution in affected and potentially affected areas. At the same time, our Agriculture Department is reviewing farm practices in the Chesapeake watershed. On August 6th, we experienced our first major fish kill in the Pocomoke River where as many as 15,000 fish were found dead or dying. We immediately issued a public health advisory to avoid all water contact in designated areas. When the fish kill continued, I ordered an indefinite closure of the area and ordered Natural Resources police to ensure compliance. Results from testing of water samples from the August 6th fish kill indicated the likely presence of *Pfiesteria*-like organisms. On August 26th, a fish kill occurred in the Virginia waters of Pocomoke Sound. We again issued an advisory to avoid water contact in designated areas.

On August 29th, our medical team, which included doctors from the University of Maryland, Johns Hopkins University, and accompanied by the Centers for Disease Control and prevention, presented the preliminary results of their evaluations of persons reporting illnesses thought to be associated with *Pfiesteria*. You will hear from the head of that team, Dr. Glenn Morris shortly, and he will give further details on his research into the effects of *Pfiesteria* on people. Research clearly showed that people had suffered skin irritation, skin lesions, respiratory problems, as well as memory loss and other neurological problems.

As a result of this report, which found that persons exposed to the Pocomoke River during an outbreak of toxic *Pfiesteria* experienced difficulties in learning and short-term memory, I ordered that the Lower Pocomoke River be closed. You may recall that August 29th was the Friday before Labor Day. Although there was much discussion about closing the river, I decided that we must move on the side of caution and on the side of public health. That is why we closed the river.

In addition to our primary focus of protecting the health of our citizens, we also are working hard to better understand what *Pfiesteria* is, what causes it to become toxic and why it harms people and fish. At this point, there are probably more questions than there are answers. We do know that *Pfiesteria* is not new. In fact, the nation's leading expert on *Pfiesteria*, Dr. JoAnn Burkholder, who identified it in 1988, is consulting with our research team. Working with our team of scientists and now the federal government, we hope to learn more about what causes *Pfiesteria* to turn toxic, kill fish, and harm people.

In order to continue to respond effectively to this issue in Maryland, we recently broadened our action plan to include the following activities: Creation of a Blue Ribbon Citizens *Pfiesteria* Commission chaired by former Governor and environmentalist Harry Hughes to meet over the next several weeks and present recommendations for implementing long-term objectives; approval of a $2 million emergency appropriation of State-only funds to help Maryland farmers plant cover crops to both offset current livestock feed shortages and to help absorb unused crop nutrients caused by this summer's drought; increased State monitoring and inspection of waterways that exhibit characteristics similar to and consistent with those in affected watersheds; and the provision of $200,000 in State funds to educate the public on the safety of Maryland's seafood market and to boost efforts to ensure the health and viability of this vital industry.

These responses will help us accomplish our third objective, which is to ensure that all those citizens who treasure the Bay like I do can be part of the solution. We also must ensure that as we craft a solution to the problem of *Pfiesteria*, that we work to protect the public, the watermen, the tourism industry, the farmers, and the poultry growers.

As stated earlier, *Pfiesteria* knows no geographic boundaries. As Maryland's war on *Pfiesteria* captured the national spotlight, I am pleased that surrounding states, as well as the Congress and the Clinton Administration joined us in trying to solve this problem. Last week, I hosted a six-state summit on *Pfiesteria* where we agreed to: establish a mechanism for exchanging information about *Pfiesteria* and how we can reduce the chance that these organisms will rise to problem levels in our waters; provide for immediate notification of outbreaks of toxic *Pfiesteria* and any information that is needed to address the public health threats posed by these threats; establish a regional technical team to work on reducing future outbreaks of toxic *Pfiesteria*; and, work cooperatively in seeking a federal response to the human and environmental threats posed by *Pfiesteria*. We know that this is only a beginning and that each state has special circumstances.

On the federal level, I spoke personally to President Clinton and Vice President Gore, EPA Administrator Carol Browner and U.S. Secretary of Agriculture Dan Glickman, as well as members of Maryland's Congressional delegation, about the need for a coordinated federal response to a problem that is bigger than any one state.

I am deeply gratified at the rapid and comprehensive response they are preparing. I attached a copy of my letter to President Clinton and a copy of his response, as well as a joint response from the Secretaries of Agriculture, Commerce, Health and Human Services, and the Administrator of the Environmental Protection Agency.

I already mentioned the outstanding efforts of Congressmen Hoyer and Gilchrest, but I thank Senators Sarbanes and Mikulski for their leadership on this issue. In response to our request, the White House quickly established an interagency working group to develop a coordinated response. Already, the federal government provided $500,000 in emergency assistance from EPA and NOAA. And an additional $100,000 came from the U.S. Geological Survey. Federally-supported experts also have been dispatched to help monitor water conditions, analyze data and investigate the health impacts of *Pfiesteria*. Working with state health officers from seven states, the Centers for Disease Control is hosting a conference on *Pfiesteria* next week in Atlanta. We have been assured that CDC is intensifying its *Pfiesteria* research activities, and is working with the Food and Drug Administration, the National Institutes for Environmental Health Sciences, USDA, EPA, NOAA, the U.S. Geological Survey, and the Fish and Wildlife Service. We are hopeful that $7 million of new money that the House of Representatives has already approved under the leadership of Congressmen Hoyer and Gilchrest, will be made available to CDC to better understand the public health effects of *Pfiesteria*.

Among the areas in which the federal government can play a critical role are the following: National research efforts should be expanded to help provide our citizens, scientists and public health officials with a greater understanding of this toxic organism. We must determine what causes *Pfiesteria* outbreaks in Maryland and elsewhere. We must definitively determine what impact *Pfiesteria* is having on human health, our environment, and on our waterways. Very little national data or information exists on this toxic organism, and the research required is too massive for any one state to undertake on its own. Federal technical and financial assistance should be provided to citizens in affected and potentially affected areas to reduce incidences of future *Pfiesteria* outbreaks. Most immediately, we hope that the federal government will extend our State-only efforts to provide cover crop assistance to our farmers and our efforts to market Maryland seafood in view of recent outbreaks of toxic *Pfiesteria*.

We also ask that the federal government assist the states in developing improved nutrient management practices and innovative waste management methods, as well as continuing efforts to upgrade sewage treatment facilities.

Finally, we must work cooperatively to aid those farmers, watermen, poultry growers, and private citizens whose livelihoods have been adversely affected by recent outbreaks of toxic *Pfiesteria*. Specifically, federal technical and financial assistance should be joined with State researchers to help our citizens protect the public and environmental health of our State, as well as the livelihoods of those who live and work on the land and in the waters of Maryland.