

ENVIRONMENTAL PROTECTION AGENCY

FINDINGS FROM FIRST SET OF SEDIMENT SAMPLES  
TAKEN FROM NEW ORLEANS AREA  
AND THEIR HEALTH IMPLICATIONS

PRESS CONFERENCE

September 16, 2005

Environmental Protection Agency  
Washington, D.C.

Participants:

Marcus Peacock, Deputy Administrator, EPA.

Dr. William Farland, EPA

Secretary Mike McDaniel, Louisiana Department of Environmental  
Quality (via telephone)

Members of the Press (via telephone)

## P R O C E E D I N G S

MODERATOR: I'd like to start off with a quick roll call of who's on the line. Maybe one by one in somewhat orderly fashion, if we could get a sense of who's out there, that would be very helpful.

PARTICIPANT: This is Matt Wald with the New York Times.

MODERATOR: And please remember you'll have to unmute to do that.

PARTICIPANT: Mark Schleifstein, Times-Picayne.

PARTICIPANT: Fred Robey, Inside EPA.

PARTICIPANT: Matt Wald, New York Times.

PARTICIPANT: Amanda Spake, U.S. News & World Report.

PARTICIPANT: Betsy McKay, Wall Street Journal.

PARTICIPANT: Steve Gibb, Inside EPA.

PARTICIPANT: Bruce Sky (inaudible) Waste News.

PARTICIPANT: Ceci Connolly, Washington Post.

PARTICIPANT: Richard Ingham (phonetic), Agency France Press.

PARTICIPANT: Myra Cohen (phonetic), LA Times.

PARTICIPANT: Eric Prine (phonetic), KPFA.

PARTICIPANT: Jeff Young with NPR program Living on

Earth.

PARTICIPANT: Toni Johnson, (inaudible) Greenpeace  
(phonetic).

MODERATOR: I'm sorry. Who's that?

PARTICIPANT: Toni Johnson, (inaudible) for Greenpeace.

PARTICIPANT: Tasha Eichenseher with Greenwire.

PARTICIPANT: Toni Carmine (phonetic), (inaudible) Base  
Tech Incorporated (phonetic).

PARTICIPANT: Dean Scott, BNA's Daily Environment  
Report.

MODERATOR: Okay. Anyone else out there?

PARTICIPANT: Ben Raines (phonetic), Mobile Register.

PARTICIPANT: Joe Davis, SEJ (phonetic) Tip Sheet.

PARTICIPANT: Molly Peterson, NPR.

PARTICIPANT: Keshia (phonetic) (inaudible), Syracuse  
University.

MODERATOR: Has Secretary McDaniel joined us?

SECRETARY McDANIEL: Yes, I'm here.

MODERATOR: All right, thank you, Secretary. Is that  
everyone then? We'll start the program. If everyone could please  
mute, we'll start the program, okay? Well, I'd like to introduce

our first speaker. It's Marcus Peacock, Deputy Administrator here at EPA. I also have with me Dr. Bill Farland from EPA and Secretary Mike McDaniel from the Louisiana Department of Environmental Quality.

We're going to be discussing first findings from the first set of sediment samples that were found in the New Orleans area and discuss some of the health implications and health risks that they may pose.

I'll turn it over to Marcus now and take it from there.

MR. PEACOCK: Thanks very much, Bob. This is, as Bob noted, the first results from samples taken of sediments by EPA and the Louisiana Department of Environmental Quality. And first of all, let me just say how closely EPA and the states have worked, not just on sediment sampling but on water sampling and other aspects of the environment in the area.

And thus far, it's just been a seamless operation, and a lot of that goes to the credit of Secretary McDaniel, and I appreciate his support. And we will of course try to continue to support him in any way we can.

We took 18 sediment samples on September 10th, and I wanted to note that these are initial sediment results and really

just represent the beginning of an extensive sampling effort which has gone on since then, so they may not characterize the condition of all sediments throughout the area. That's why they are preliminary results. They were analyzed for bacteria and chemicals, and just so everyone understands what sediment is, at least for the purposes of this hurricane response effort, sediments are residuals. It's the mud and muck and other things that were deposited by the receding flood waters. They may include sediment from other nearby water bodies that was there historically and has been picked up and redeposited. It could be soil from yards, road and construction debris, any other material that was picked up by the flood waters and then deposited on the ground.

These preliminary results indicate that some of the sediment may be contaminated with bacteria and fuel oil. And, therefore, human risks may exist from contact with sediment deposited from this receding flood water. And in particular, and it's not a surprise since we found it in the flood water, we have found high levels of e-coli in the sediment.

Therefore, direct, frequent contact with sediments containing these petroleum hydrocarbons and fuel oils and e-coli at the levels detected in the samples may cause adverse health

effects. Levels of other chemical contaminants, which we looked for and were detected in the sediment, at least at the levels we found in these preliminary results, are not expected to result in adverse health effects. The real concern here in particular is the e-coli, the bacteria and the fuel oil.

EPA recommends avoiding all contact with the sediment deposited by the flood water wherever possible because of these risks.

Bob?

MODERATOR: Okay. Thank you, Marcus. I'd like to turn it over to Dr. William Farland, who will provide some additional analysis on the results.

DR. FARLAND: Thanks, Bob. I just wanted to expand a bit on what you heard from Marcus. As he said, it was not unexpected that we would find e-coli in the sediment. These are sediments that are contaminated with fecal material based on this e-coli finding.

For that reason, we do have concerns about individuals coming into contact with these materials and suggest, along with our colleagues, CDCs, that we would avoid contact with these, but if contact should be made that use soap and water to clean the

exposed areas and removal of contaminated clothing would be the order of the day.

As Marcus mentioned, we also sampled quite a large number of chemicals, over 100, analyzed from a variety of chemical classes, including volatile organic compounds, semi-volatile organic compounds, metals, pesticides, petroleum hydrocarbons and others. For the most part, the only concern here has to do with the semi-volatile, particularly diesel and fuel oils. These were detected at elevated levels, and we know that these will persist in the sediments. And so, therefore, we want to be very careful in terms of exposures to these sediments. Certainly skin contact with fuel oils short period may cause some minor effects, itchiness and irritation. But we're also concerned about breathing fumes and longer-term exposure of the bare skin to these materials. So, again, if contact with fuel oil should occur, NIOSH (phonetic) has worked with us and recommends washing with soap and water, flushing of the eyes, removal of contaminated clothing and so on.

If ingestion of fuel takes place, then we clearly want to make sure that people would seek some medical assistance.

The levels of other compounds were not at the levels that would be of concern, although some of them were detected, and



in our statement you'll see some additional comments about the classes of compounds that were found. Again, these findings were not unexpected.

So we're really suggesting that we would avoid direct frequent contact with these sediments that contain petroleum hydrocarbons, fuel oils and the e-coli, and that if there would be contact that appropriate steps would be taken to remove those materials and clean up.

I think at this point I'll stop, and Secretary McDaniel would like to make a comment.

MODERATOR: Secretary McDaniel?

SECRETARY McDANIEL: Thank you. I would like to start by indicating we've been working very closely with EPA throughout this process; sampling, analysis and assessment of the data, and it's been working very well. We all I think have been anxiously awaiting results. These initial results are going to be very important to us. They have health implications for our workers and our field crews. And they're ultimately going to be very important in planning and assessment, determining how to dispose of the sediments at some point and the clean-up strategies that will be employed.

Initial results are pretty much what we expected. As has been mentioned, we've got swamp wastewater systems, a lot of human waste. It's been there for some time now.

As far as hydrocarbons or petroleum products we have -- again, that's not unexpected -- we have about 350,000 vehicles that are flooded, probably about 50,000 boats, and of course a lot of underground storage tanks as well as above-ground tanks throughout the area. So there was a lot of fuel to begin with. And then of course in one area we've got the Murphy oil spill, and that is being worked as we speak. That was about 19,000 barrels spilled near Chalmette. And that's going to create I think some special problems on cleanup there, and I think we saw some of the problems with the actual analysis, some samples taken in those areas.

I might add on closing that these are initial results. We expect that we will run into some hot spots, perhaps in the industrialized area, or even in some of the commercial areas that might be storing some hazardous wastes, and that's why it's very important to characterize these wastes so we can figure out how best to handle them.

As a final note, flying over the other day was an observation that the worst of the sediment seemed to be collecting

in the area Chalmette, and other areas of the cities, it didn't seem that we had as much of the sediment. You could actually see the striping on highways down through several feet of water.

So we're hoping it's going to be somewhat limited in what we're going to have to deal with, but, obviously, we still have a ways to go in complete characterization and lot of work to do on assessment strategies on how we're going to clean up not only this but 160,000 homes and everything else that we're dealing with.

MODERATOR: Secretary, are you all set?

SECRETARY McDANIEL: Yes.

MODERATOR: Okay. Very good. We'd like to, you know, go to a quick Q&A and probably start with the folks probably most interested in this. Mark, do you have any questions at this time?

MR. SCHLEIFSTEIN: Yes sir. Obviously, the biggest question will be for the city of New Orleans and also for Chalmette, when people can actually go in and try to get stuff out of their homes.

MODERATOR: Secretary McDaniel?

SECRETARY McDANIEL: This is Mark Schleifstein?

MR. SCHLEIFSTEIN: Yeah.

SECRETARY McDANIEL: How you doing?

MR. SCHLEIFSTEIN: Oh, pretty good.

SECRETARY McDANIEL: There is some concern not so much in the sediments, Mark. There are some sediments, and you've heard previously now the concern for the bacterial contamination, and to a lesser extent, the petroleum hydrocarbons. I think the greater concerns that we're looking at right now, and I understand there was some release of a possible reentry into St. Bernard starting tomorrow, which causes I think a great deal of concern.

Homes have been flooded. We don't know if they're structurally sound, leaking gas lines, toxics that have come out of dissolved packaging, mosquitoes. We've got people going in that aren't immunized. We have to immunize all the workers going in there because of the bacterial contamination. And I'm hopeful that there's going to be some form of thoughtful process on making sure people are safe when they return, or we're going to end up with some more additional health problems related to reentry at this point.

MODERATOR: Okay. The reporter from the Mobile Register, any questions? I just want to be sensitive to the folks who are --

MR. RAINES: Have you all done any assessments of our

near shore areas and flooded communities?

MODERATOR: Secretary McDaniel?

SECRETARY McDANIEL: We haven't (inaudible) on the near shore areas. I can tell you that NOAA has sent out the ship Nancy Foster, and they're collecting bacteria samples.

MR. RAINES: Yeah. I was on it yesterday. They said that the near shore areas were going to be left up to the state. So I was wondering if EPA had put any thought into heading, you know, to Mississippi and Alabama.

DR. FARLAND: This is Bill Farland. I know that we are talking with the folks in the state, with NOAA. Our laboratories are working with them, and we will be looking at sampling plans for some of those near coastal areas.

MR. RAINES: Okay. But those haven't started yet?

DR. FARLAND: No.

MR. RAINES: Okay. That's all I got.

MODERATOR: Any other questions?

MS. CONNOLLY: Yes, hi. This is Ceci Connolly. I had two follow-up questions. The first, the Secretary referenced in his comments 160,000 homes. I wanted to try to be clear on exactly what you were saying about those 160,000 homes, and if you could

also elaborate a little bit on the potential challenges for residents returning.

As you know, in the city of New Orleans, they're starting to let people back in over this weekend and Monday.

SECRETARY McDANIEL: The 160,000 homes is the latest estimate from those that are working on recovery. That comes from the Corps of Engineers. Well, it's mainly Orleans Parish, to put I guess a boundary on it. These are homes that are flooded, that they feel will have to be ultimately demolished and just then removed for disposal.

MS. CONNOLLY: Okay. And with respect to people starting to return to New Orleans over this weekend and Monday, would there not be some of those same health risks that you were discussing with respect to St. Bernard?

SECRETARY McDANIEL: The ones that are returning under the mayor's recent announcement will be going into areas that have not been flooded. They're higher ground. Although there are still some concerns because of limited sewage service, and I think right now people are working around the clock trying to come up with some interim solutions to make sure that we have sanitary conditions for those coming in.

We hope that it is controlled and limited to in and out, particularly in the business district for people to recover records, for example. But we're all very nervous about an overwhelming influx of people coming in and the potential health threats that are -- that that represents.

PARTICIPANT: I've got a question. Hello?

MODERATOR: Hello. Can you state your name and organization, please?

MR. INGHAM: Absolutely, yes. The name is Richard Ingham. I'm a journalist with the French News Agency, Agents (phonetic) France Press.

MODERATOR: Okay.

MR. INGHAM: Could I ask a question about the samples that you took. Presumably, they were taken while the city was still flooded, so it's from damp sediment. Have you made an evaluation as to what's going happen when sediment dries out? Could the bacteria become airborne? In other words, when people clean out their homes, there's a risk that they could breathe this stuff in?

DR. FARLAND: This is Dr. Farland.

MR. INGHAM: Thank you.

DR. FARLAND: Thank you. We are concerned about the issues with these materials as they dry, and EPA will be performing air samplings that monitor potential inhalation risks, and we'll be looking at the question of the longer-term safety issues that may come as these materials are dried and moved and so on. But we will be looking at that with our air monitoring.

MODERATOR: Thank you.

MR. WALD: A question, please. This is Matt Wald with the New York Times. Presumably, the bacteria sitting out in the sun long enough will die. The heavy metals will persist. I realize most of the areas you're sampling are urban. But do the heavy metals have any implication for agriculture? Can people grow vegetables in their back yard? Can farmers grow produce, or will with this stuff be plucked up by the heavy -- (inaudible) pluck up the heavy metals and get (inaudible)?

MODERATOR: It's really difficult to hear you. You keep on cutting in and out.

MR. WALD: I'm sorry. Is that better?

MODERATOR: Yes.

MR. WALD: I wonder if I could ask about the heavy metals. Presumably, the bacteria will die off at some point, but



the heavy metals -- I know the areas you've been sampling, and they're probably mostly urban. But does this have any implication for agriculture? For either people growing things in their back yards, or farmers, that this stuff will be taken up into the food chain?

DR. FARLAND: That's something that we will be looking into, although the --

MR. WALD: Who is speaking, please?

DR. FARLAND: This is Bill Farland.

MR. WALD: Thank you.

DR. FARLAND: The levels of the metals that we're seeing in the sediment are relatively low, and so compared to an urban background, we're not seeing these as being particularly high. It is something that we want to continue obviously as we begin to characterize the entire area, so this is a concern in the past around areas of very heavy metal deposition, but we're not seeing those kinds of levels in the sediment.

MR. WALD: Thank you.

MS. CAPIELLO (phonetic): Yeah, a question. This is Dina Capiello calling from the Houston Chronicle. You said that these petroleum products are likely to persist. How long do you

think they will persist in the sediment? And can you elaborate on something the (inaudible) said on Wednesday about the difficulty in analyzing the sediments? Can you elaborate on what difficulties do exist?

DR. FARLAND: Yes. This is Bill Farland again. These heavy fuel oils tend to persist in soil for a matter of years typically. I don't know at this point what kind of conditions we're going to have, given the mix of bugs, given the types of issues, microbes that are in this, what kind of persistence we'll see, but we're going to have to follow that carefully. But that is something that we'll need to look at.

MR. GIBB: Hi. Steve Gibb here with Inside EPA. I was wondering if you could speak to the health standards that were used to determine that petroleum hydrocarbons may be a concern. Are you looking at OSHA standards for workers for that, or environmental standards that EPA has used?

DR. FARLAND: This is Bill Farland, Steve. We've been working with ATSDR to actually characterize these materials with regard to public health risks, and for the most part, this is a concern that's raised generally both with ATSDR and NIOSH with regard to petroleum hydrocarbons coming in contact with the skin.

MR. GIBB: Just a quick follow-up. Is that based on acute scenario, then, or both acute and shall we say chronic or longer term exposure?

DR. FARLAND: No. We're really looking at this from the standpoint of acute exposures and suggesting that people would make sure that they remove that material as quickly as possible if they do come in contact with the skin.

MS. SPAKE: This is Amanda Spake from U.S. News & World Report. I wanted to follow up on this inhalation risk issue. Is it true that the bacteria will dry off, as one of the reporters said? And in fact, what kind of inhalation risk is there from the fuel oil products and the petroleum products?

DR. FARLAND: The issues that we're going to be considering are several. First of all, there is the question of simply the coarse particulate matter that is part of the sediment as it dries up, and the fact that there will be people driving across the material, they'll be moving the material, and it will be entrained in the air. So we have to be careful and cognizant of that.

If the material has microbiological contamination, we're looking into the survival of those materials under these kinds of

conditions. That is something that we're going to be interested in.

The third aspect of this has to do with the fact that these semi-volatile or volatile chemicals will begin to become an inhalation concern if there is drying and continued volatilization of these materials into the air.

So those are the things that we're looking into right now.

MS. SPAKE: Okay. But you don't really know what's going to happen with this yet?

DR. FARLAND: We don't. This is a very complex set of materials. That's part of the reason that they're difficult to analyze, because of the complexity of the materials and the matrix that they're in.

MS. SPAKE: Thank you. Who was that speaking?

DR. FARLAND: Bill Farland.

MS. SPAKE: Thanks.

MS. COHEN: This is Myra Cohen with the LA Times. Were any of the levels of hydrocarbons high enough to be considered hazardous waste? And if they were, do you have any ideas about whether they can be treated on site or excavated or what it would

take?

DR. FARLAND: Who was just speaking?

MS. COHEN: Myra Cohen with the LA Times.

DR. FARLAND: Can you repeat your question, please?

MS. COHEN: Were any of the levels of hydrocarbons high enough to be considered hazardous waste? And if they were, do you have any idea how they might be cleaned up? Whether they would require excavation or treatment on site or something like that?

DR. FARLAND: This is Bill Farland. At this point with these samples, we don't believe that the sediments would have to be treated as hazardous waste. That's something that the agency will look very carefully at as we further analyze some of these sediment samples.

MS. COHEN: Thank you.

MR. SCHLEIFSTEIN: This is Mark Schleifstein again with the Times-Picayne. On the last answer, is the reason it doesn't have to be treated as hazardous waste, is this because it's oil material? I mean, will it have to be treated as oil field waste?

DR. FARLAND: Mark, this is Bill Farland. I'm afraid I don't have the answer for that. We're going to have to check into that. And, again, we're all looking at these samples to understand

exactly what that's going to mean for the cleanup.

MR. GIBB: I had a quick follow-up question as well. This is Steve Gibb at Inside EPA. You mentioned that 160,000 homes may have to be evaluated and potentially knocked down. Was there any sampling in this initial set of screens for asbestos? And is there a long-range plan for looking at potential asbestos waste from buildings being knocked down in the cleanup?

SECRETARY McDANIEL: This is Mike McDaniel. That's a good question there. We expect to see some asbestos. These are older homes. We also expect to be dealing with lead in old lead paint. Plans are currently being drawn up and protocol established on the assessment of the homes and how they're going to be demolished. It might require some encapsulation or special treatment, for example, on the asbestos and lead side. Everyone's cognizant of it and in the process of trying to put together a good plan to deal with particularly airbornes during the process of demolition and movement and disposal of the debris.

MR. GIBB: Dr. Farland, was asbestos one of the chemicals that was looked at in the initial screen?

DR. FARLAND: Steve, we will be looking at asbestos in our air samples. And, again, it's because of the potential for

airborne asbestos fibers in some of the materials being moved around.

MR. GIBB: Okay. So I take that as meaning that it wasn't one of the chemicals that was looked at in the initial round?

DR. FARLAND: That's correct. Not in the water or sediment.

MS. MCKAY: This is Betsy McKay from the Wall Street Journal.

MODERATOR: Can I have your attention please? If folks have spoken, would you please mute you phones, because we're getting some background noise.

MS. MCKAY: This is Betsy McKay from the Wall Street Journal. Just one question. Were all of the samples taken from residential areas? And secondly, could you characterize more specifically how high some of these levels of fuel oils were, you know, how high above normal, as well as the bacteria?

DR. FARLAND: This is Bill Farland. The samples were taken from a variety of areas, not just the residential areas. They were taken in Jefferson and Orleans and mixed areas, residential and nonresidential.

You asked about the petroleum contamination.

MS. MCKAY: Yes.

DR. FARLAND: This is (inaudible) petroleum contamination for soils and sediments. It's hard to say exactly how to characterize that. But if you think about it in a percentage in the sediment, we're talking about these heavy fuels being -- putting out a tenth of a percent of the sediment itself. So it's a very heavy contamination.

MS. MCKAY: Okay. A tenth of a percent?

DR. FARLAND: Yes.

MS. MCKAY: One-tenth of a percent of the sediment itself? Okay. Thank you.

MR. INGHAM: This is Richard again. May I have a follow-up question? Hello?

MODERATOR: We have time for two more questions. Can whoever has your line open please mute?

PARTICIPANT: Bob?

MODERATOR: Yes?

PARTICIPANT: The Secretary would like to say something on that last one about the --

SECRETARY McDANIEL: I just didn't want anyone left with



the impression we're dealing sediment of that nature throughout the area. Those are in just spots that have been particular contaminated with oil spills or with fuel tank spills. If you don't see those kind of levels. They're typical of most urban areas and other samples.

DR. FARLAND: Thank you, Secretary McDaniel. That's a good catch there.

PARTICIPANT: Can you hear me?

MODERATOR: Hello? Yeah, go ahead.

MR. INGHAM: This is Richard Ingham again from the French News Agency. Can you please tell me, what's going to happen to the sediment? Do you have special facilities set up to take care of it? How is it going to be done? If people take it out of their house and dump it on the street, it just reenters the local environment, doesn't it?

SECRETARY McDANIEL: We're working with EPA on that as well as CDC. We'd be dealing not only with the chemical parameters, but biological. We're looking at hazardous waste. I think there's going to be an assessment of individual homes to try to remove the household hazardous waste prior to demolition.

There is a process we that we use here in the state as

part of I think of what we're looking at as a potential protocol called recap, where you go in, you characterize the sediment, and then based on the level of risk, it guides you as far as how to deal with the ultimate disposal of the sediment. Some may be clean enough to be used for building. Others may have to be disposed of in a more careful manner.

PARTICIPANT: How do you plan on using that system for the rest of the Gulf Coast?

MODERATOR: One last question.

MR. YOUNG: Can you hear me? Hi. Jeff Young with the NPR program Living on Earth.

MODERATOR: Okay.

MR. YOUNG: I'm wondering, have any of your sampling areas included known Superfund or other hazardous waste sites such as the Agriculture Street landfill?

SECRETARY McDANIEL: The Agriculture Street landfill I think is still underwater. We're waiting as the de-watering continues to get back in there. It's my understanding, and I hope I'm correct in my memory here, that the four or five sites, Superfund sites, have not been disturbed by flooding.

MODERATOR: Okay. Thank you very much.

(End of conference.)

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