

**THE WASHINGTON AQUEDUCT
AND THE EFFECTS OF ITS DIS-
CHARGE ON THE C&O CANAL
NATIONAL HISTORIC PARK
AND THE ENDANGERED
SHORTNOSE STURGEON**

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

June 19, 2002

Serial No. 107-131

Printed for the use of the Committee on Resources



Available via the World Wide Web: <http://www.access.gpo.gov/congress/house>
or

Committee address: <http://resourcescommittee.house.gov>

U.S. GOVERNMENT PRINTING OFFICE

80-271 PS

WASHINGTON : 2002

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2250 Mail: Stop SSOP, Washington, DC 20402-0001

COMMITTEE ON RESOURCES

JAMES V. HANSEN, Utah, *Chairman*
NICK J. RAHALL II, West Virginia, *Ranking Democrat Member*

Don Young, Alaska, <i>Vice Chairman</i>	George Miller, California
W.J. "Billy" Tauzin, Louisiana	Edward J. Markey, Massachusetts
Jim Saxton, New Jersey	Dale E. Kildee, Michigan
Elton Gallegly, California	Peter A. DeFazio, Oregon
John J. Duncan, Jr., Tennessee	Eni F.H. Faleomavaega, American Samoa
Joel Hefley, Colorado	Neil Abercrombie, Hawaii
Wayne T. Gilchrest, Maryland	Solomon P. Ortiz, Texas
Ken Calvert, California	Frank Pallone, Jr., New Jersey
Scott McInnis, Colorado	Calvin M. Dooley, California
Richard W. Pombo, California	Robert A. Underwood, Guam
Barbara Cubin, Wyoming	Adam Smith, Washington
George Radanovich, California	Donna M. Christensen, Virgin Islands
Walter B. Jones, Jr., North Carolina	Ron Kind, Wisconsin
Mac Thornberry, Texas	Jay Inslee, Washington
Chris Cannon, Utah	Grace F. Napolitano, California
John E. Peterson, Pennsylvania	Tom Udall, New Mexico
Bob Schaffer, Colorado	Mark Udall, Colorado
Jim Gibbons, Nevada	Rush D. Holt, New Jersey
Mark E. Souder, Indiana	Anibal Acevedo-Vila, Puerto Rico
Greg Walden, Oregon	Hilda L. Solis, California
Michael K. Simpson, Idaho	Brad Carson, Oklahoma
Thomas G. Tancredo, Colorado	Betty McCollum, Minnesota
J.D. Hayworth, Arizona	
C.L. "Butch" Otter, Idaho	
Tom Osborne, Nebraska	
Jeff Flake, Arizona	
Dennis R. Rehberg, Montana	

Tim Stewart, *Chief of Staff*
Lisa Pittman, *Chief Counsel/Deputy Chief of Staff*
Steven T. Petersen, *Deputy Chief Counsel*
Michael S. Twinchek, *Chief Clerk*
James H. Zoia, *Democrat Staff Director*
Jeffrey P. Petrich, *Democrat Chief Counsel*

C O N T E N T S

	Page
Hearing held on June 19, 2002	1
Statement of Members:	
Christensen, Hon. Donna M., a Delegate in Congress from the Virgin Islands	6
Hansen, Hon. James V., a Representative in Congress from the State of Utah	1
Prepared statement of	2
Otter, Hon. C.L. "Butch", a Representative in Congress from the State of Idaho	53
Radanovich, Hon. George P., a Representative in Congress from the State of California	3
Prepared statement of	5
Washington Times article "EPA says toxic sludge is good for fish" submitted for the record	55
Rehberg, Hon. Dennis R., a Representative in Congress from the State of Montana, Prepared statement of	49
Statement of Witnesses:	
Grumbles, Benjamin H., Deputy Assistant Administrator for Water, U.S. Environmental Protection Agency	32
Prepared statement of	34
Izzo, Dominic, Principal Deputy Assistant Secretary of the Army for Civil Works, U.S. Army Corps of Engineers	21
Prepared statement of	29
Letter and report "Washington Aqueduct Sediment Discharge—Report to Congress" submitted for the record	24
Keeney, Timothy R.E., Deputy Assistant Secretary for Oceans and Atmosphere, National Oceanic and Atmospheric Administration, U.S. Department of Commerce	12
Prepared statement of	15
Letter to the National Marine Fisheries Service submitted for the record	14
Two diagrams showing shortnose sturgeon, NPDES and drinking water facilities submitted for the record	18
Response to questions submitted for the record	19
Comparison of the 2001 Klamath River and 2002 Potomac River Biological Opinions submitted for the record	70
Murphy, Donald W., Deputy Director, National Park Service, U.S. Department of the Interior	8
Prepared statement of	10

**OVERSIGHT HEARING ON THE WASHINGTON
AQUEDUCT AND THE EFFECTS OF ITS DIS-
CHARGE ON THE C&O CANAL NATIONAL
HISTORIC PARK AND THE ENDANGERED
SHORTNOSE STURGEON**

**Wednesday, June 19, 2002
U.S. House of Representatives
Committee on Resources
Washington, DC**

The Committee met, pursuant to call, at 10:21 a.m., in room 1334, Longworth House Office Building, Hon. James V. Hansen (Chairman of the Committee) presiding.

**STATEMENT OF THE HON. JAMES V. HANSEN, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH**

The CHAIRMAN. The Committee will come to order.

We apologize for starting late. We don't like to do that in this Committee, but we had a journal vote. I am sure more members will be dribbling in.

This morning the Committee on Resources is here to examine the effects of the Washington Aqueduct discharge on the C&O Canal National Historic Park and the endangered shortnose sturgeon. I would like to begin by welcoming our witnesses here today. I would also like to thank the members of this Committee who have brought this issue to the attention of the full Committee on Resources.

For those of us on this Committee, the issue extends beyond the Washington Aqueduct. For many years, those of us who represent rural areas in the west have had a difficult time understanding how those living in urban areas can be so unfamiliar with the reaches and impacts of the Endangered Species Act and other environmental acts.

I appreciate that this forum today will provide the Committee with an opportunity to examine the extent to which this has been the result of agencies failing to enforce laws equally across the board. We have long suspect that if laws, such as the Endangered Species Act were enforced the way they are in the rural west that the urban parts of the country would simply not stand for it.

As these witnesses are well aware, agencies enjoy a broad degree of discretion in choosing where they are going to focus their attention and resources in enforcing the environmental laws.

It has been clear to many members of this Committee that the enforcement agencies simply do not pursue their duties with the same vigor and force in the urban areas of the east as their counterparts do in the rural west. Maybe this is due to the fact that the same unequal standard is applied environmental groups who love the tool of litigation, are much more willing to stand over the shoulder of the enforcement agencies of the west and drag them into court if they do not share their vigor than they are back here in the nation's capital.

Nevertheless, the laws of this nation require that the standard be equally applied and it is the duty of this Committee to see that when the law is not being equally applied that we raise the issue.

Today, we will be interested to learn how the Washington Aqueduct, operated by the Army Corps of Engineers is permitted by the EPA to discharge limitless amounts of sediment, together with heavy amounts of additives, such as aluminum, directly into the C&O Canal National Historic Park.

We have heard complaints about this practice from all quarters, including park officers complaining about heavy amounts of chlorine in the discharges, fishermen complaining about its impact upon the fish, and local recreationists about the smell.

Once again, I appreciate the presence of the witnesses here today and the opportunity for the Committee to take a close look at this issue.

[The prepared statement of Mr. Hansen follows:]

**Statement of The Honorable James V. Hansen, a Representative in
Congress from the State of Utah**

Good morning. This hearing will come to order.

This morning the Committee on Resources is here to examine the effects of the Washington Aqueduct discharges on the C & O Canal National Historic Park and the endangered shortnose sturgeon. I'd like to begin by welcoming our witnesses here today. I'd also like to thank the members of this Committee who have brought this issue to the attention of the full Committee on Resources.

For those of us on this Committee, this issue extends beyond the Washington Aqueduct. For many years, those of us who represent rural areas in the west have had a difficult time understanding how those living in urban areas can be so unfamiliar with the reaches and impacts of the Endangered Species Act and other environmental laws.

I appreciate that this forum today will provide the Committee with an opportunity to examine the extent to which this has been a result of agencies failing to enforce laws equally across the board. We have long suspected that if laws, such as the Endangered Species Act, were enforced the way they are in the rural west that the urban parts of the country would simply not stand for it. As these witnesses are well aware, agencies enjoy a broad degree of discretion in choosing where they are going to focus their attention and resources in enforcing environmental laws.

It has been clear to many members of this Committee that the enforcement agencies simply do not pursue their duties with the same vigor and force in urban areas of the east as their counterparts do in the rural west. Maybe this is due to the fact that the same unequal standard is applied by the extreme environmental groups, who love the tool of litigation, are much more willing to stand over the shoulder of the enforcement agents of the west and drag them into court if they do not share their vigor than they are back here in the nation's capital. Nevertheless, the laws of this nation require that the standard be equally applied and it is the duty of this Committee to see that when the law is not being equally applied that we raise the issue.

Today, we will be interested to learn how the Washington Aqueduct, operated by the Army Corps of Engineers is permitted by the EPA to discharge limitless amounts of sediment, together with heavy amounts of additives, such as aluminum, directly into the C & O Canal National Historic Park. We have heard complaints about this practice from all quarters, including park police officers complaining about heavy amounts of chlorine in the discharges, fisherman complaining about its impacts upon the fish, and local recreationists about the smell.

Once again I appreciate the presence of the witnesses here today and the opportunity for the Committee to take a close look at this issue.

The CHAIRMAN. With that, Mr. Radanovich, do you have an opening statement as the Subcommittee Chairman?

Mr. RADANOVICH. I do, thank you.

STATEMENT OF HON. GEORGE RADANOVICH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. RADANOVICH. Mr. Chairman, I appreciate your leadership on so many of the issues that are important to this country, and particularly in the west, and especially on this issue. I am very pleased that this oversight hearing is being held and that this important matter is being brought to the attention of the full Committee on Resources.

This is an issue that goes to the heart of what we do here in this Committee and I think that everybody would agree that one of the most fundamental principles upon which this nation was founded and is operated on is that the laws of this country must be equally enforced.

The American people expect this and they expect their Representatives in Congress to insist on an equal standard. As any representative of a western State or a rural State can attest, there has been no lack of vigor in how the environmental laws are enforced in the west or in rural parts of the country.

Among those of us in the west there is a great realization that the Federal enforcement agencies have seen fit to consistently and vigorously interpret these laws, including the Endangered Species Act, in the strictest manner possible, even when it has had to trump human life.

In addition, many environmental groups have held the heavy hand of litigation over the heads of agencies to ensure that they do so. This principle of equal enforcement of our environmental laws is what brings us here today. In the case of the Washington Aqueduct and its impact upon the habitat of the endangered shortnose sturgeon and the resources of the C&O Canal National Historic Park, environmental laws in our nation's capital have simply not been enforced the way they have been in the rural west.

Since the oversight hearing held to examine these issues in October of 2001 by the Subcommittee on National Parks, Recreation and Public Lands, this unequal standard has become even more clear. I remain baffled as to how an agency such as the EPA which prides itself on its role as the protector of the environment, who for over 20 years has refused to use their authority to simply impose some minimum limitations on the enormous volume of sludge dumped directly through a unit of a national park system and into what is considered to be the primary, if not the only spawning habitat for the endangered shortnose sturgeon, despite the fact

that the National Marine Fisheries Service have stated that the fish is generally present in the Potomac River, which is a National Heritage River.

Let me reiterate again, there are absolutely no limitations on the amount of sludge that can be dumped directly upon this habitat and into this park.

Let me also state up front that we are not asking them to do something that they would not otherwise be willing to do and that they have continued continually to impose stricter regulations throughout the country.

In 1995, a draft MPDES permit was issued by the EPA which placed the same kind of limitations that we are asking them to impose today. In fact, these are the same standards that every other water treatment plant in this region abides by; none of which, I might add, discharge into a National Park unit. But for some unknown reason, the draft permit was pulled and today we have a draft permit in its place that has removed those limitations and maintains the status quo.

Why? Did the EPA yield to a powerful interest? Is that the same powerful interest still exerting that pressure on the agency today? Why then, when EPA's own personnel have described the sludge as the most toxic discharge they have ever seen, does the practice continue?

Why, when rural Americans in rural parts of this country are required to meet these standards of modernization, is it not required of an affluent area and our Federal agencies?

Why have multiple reports by Park Service law enforcement officials including one where the officer describes the discharge as "highly chlorinated discharge, so strong as to burn their eyes, nose and throats from 30 yards up stream" been met with absolutely no response from the Park Service, despite chlorine's known impact on aquatic life?

Why is it that the Park Service has not at least expressed opposition to the practice? They have certainly used the bully pulpit before to express their opposition to impacts on the parks that originate outside their borders.

This is a direct dumping of sludge into a National Park unit. Why has the Park Service remained silent in light of the clear impacts upon the park and the complaints from the visitors?

Why is it that the weight of the Endangered Species Act is not brought to bear here, but its full weight is continually felt over and over and over in rural areas of the United States, without regard to human impact?

Why are the Federal agencies just now engaging in formal consultation after they have known about this situation for over 20 years, just now engaging in formal consultation under the Endangered Species Act when NPDES has stated that the fish is generally present in the area for years?

I am hopeful that the witnesses today will provide answers for these questions. I continually remain hopeful that as this inherited issue is brought to the full attention to the Bush Administration that they will proactively take action to ensure that our laws are equally enforced so that the folks who inhabit the rural parts of this country can know that the full weight of the laws that rou-

tinely are brought to bear on their lives and communities are also being enforced on the urban parts of our country. The principle of equal application of the law demands it.

Mr. Chairman, again, I want to thank you for bringing this to the full Resources Committee. I look forward to the testimony of the witnesses.

[The prepared statement of Mr. Radanovich follows:]

Statement of The Honorable George P. Radanovich, a Representative in Congress from the State of California

Thank you Mr. Chairman. I appreciate your leadership on so many issues that are important to the country and particularly the West, including this issue.

I am pleased that this oversight hearing is being held and that this important matter is being brought to the attention of the full Committee on Resources. This is an issue that goes to the heart of what we do here in this Committee. I think that everyone would agree that one of the most fundamental principles upon which this nation was founded and has operated is that the laws of this country are enforced equally. The American people expect this and they expect their representatives in Congress to insist on an equal standard. As any representative of a western state can attest, there has been no lack of vigor in how environmental laws are enforced in the west. Among those of us in the west, there is a great realization that the Federal enforcement agencies have seen fit to consistently and vigorously interpret these laws, including the Endangered Species Act in the strictest manner possible, even when it has had to trump human life. In addition, environmental groups have held the heavy hand of litigation over the heads of the agencies to ensure that they do so.

This principle of the equal enforcement of our environmental laws is what brings us here today. In the case of the Washington Aqueduct and its impact upon the habitat of the endangered shortnose sturgeon and the resources of the C & O Canal National Historic Park, environmental laws in our nation's capital have simply not been enforced the way they have been in the rural west. Since the oversight hearing held to examine these issues in October of 2001 by the Subcommittee on National Parks, Recreation, and Public Lands, this unequal standard has become even more clear. I remain baffled as to how an agency such as the EPA, which prides itself on its role as the protector of the environment, can continue to refuse to use their authority to simply impose some minimum limitations on the enormous volume of sludge dumped directly through a unit of the national park system and into what is considered to be the "primary, if not only spawning habitat" for the endangered shortnose sturgeon, despite the fact that the National Marine Fisheries Service has stated that the fish is "generally present" in the Potomac River.

Let me reiterate that again. There are absolutely no limitations on the amount of sludge that may be dumped directly upon this habitat and into the park. Let me also state up front that we are not asking them to do something they would not otherwise be willing to do and that they have not continually imposed throughout the country. In 1995 a draft NPDES permit was issued by the EPA which placed the same kind of limitations that we are asking them to impose today. In fact, these are the same standards that every other water treatment plant in the region abides by, none of which I might add, discharge into a national park unit. But for some unknown reason, that draft permit was pulled and today we have a draft permit in its place that has removed those limitations and maintains the status quo.

Why? Did the EPA yield to a powerful interest? Is that same powerful interest still exerting that pressure on the agency today? Why, when EPA's own personnel have described the sludge as "the most toxic discharge [they] have seen" does the practice continue? Why, when smaller rural areas of the country are required to meet these standards of modernization, is it not required of an affluent area and our Federal agencies? Why have multiple reports by Park Service law enforcement officials, including one where the officer describes the discharge as a "highly chlorinated discharge" so strong as to burn their "eyes, nose, and throat from 30 yards upstream" been met with no response from the Park Service, despite chlorine's known impact upon aquatic life? Why is it that the Park Service has not at least expressed opposition to the practice? They have certainly used the bully pulpit before to express their opposition to impacts upon the parks that originate outside their borders. This is a direct dumping of sludge into a national park unit. Why has the Park Service remained silent in light of the clear impacts upon the park and complaints from visitors? Why is it that the weight of the Endangered Species

Act is not being brought to bear here, but its full weight is continually felt over and over and over in rural areas of the west, without regard to its human impact? Why are the Federal agencies not engaged in formal consultation under the ESA when NMFS has stated that the fish is "generally present" in the area? Why are we now hearing from the former EPA permit writer stating that the discharges are clearly illegal and violate not only EPA regulations, but also the Clean Water Act and yet the EPA continues to maintain that this permit is nothing unusual?

I am hopeful that the witnesses here today will be able to provide answers to these questions. I continually remain hopeful that as this inherited issue is brought to the full attention of the Bush Administration that they will proactively take action to ensure that our laws are equally enforced so that the folks who inhabit the rural areas of this country can know that the full weight of the laws that routinely are brought to bear upon their lives and communities are also being enforced in the more urban areas of our nation. The principle of the equal application of the law demands it.

Once again, thank you Mr. Chairman.

The CHAIRMAN. I thank the gentleman from California.

The gentlelady from the Virgin Islands, the Ranking Member of the Subcommittee.

Ms. CHRISTENSEN. Thank you, Mr. Chairman.

**STATEMENT OF HON. DONNA CHRISTENSEN, A DELEGATE IN
CONGRESS FROM THE VIRGIN ISLANDS**

Ms. CHRISTENSEN. Mr. Chairman, the environmental degradation within our National Park system causes by various forms of pollution is a chronic and pressing issue. As a result, we welcome the Committee's exercising its oversight jurisdiction to investigate this persistent problem.

As you are aware, however, this is the second oversight hearing conducted regarding operation of the Washington Aqueduct following an identical hearing before the National Parks, Recreation and Public Lands Subcommittee less than 9 months ago.

Of all the environmental threats facing the 385 units of the National Park system, this is the only one to receive this kind of energetic focus. Thick smog caused by nearby coal-fired power plants hang over the Great Smokey Mountains and Big Ben National Parks.

Industrial and agricultural runoff spews poisonous amounts of phosphorus, nitrogen and mercury into the waters of the Everglades National Parks.

Cruise ships dump raw sewage, oily bilge water and toxic chemicals into Glacier Bay. Other units have leaking underground storage tanks encroaching road and subdivision development and the list goes on and on, and yet we have not held one oversight hearing on those issues.

While the operation of the Washington Aqueduct may raise serious issues, it is not the single most important pollution issue facing our National Parks. Other issues are more serious and more easily remedied and we would welcome a similar level of Committee interest in resolving those challenges as well.

As to the Washington Aqueduct, our Subcommittee hearing on this topic outlined the problem well. In creating the C&O Canal National Historic Park, Congress grandfathered the culverts that transport this sediment under the park and back into the river.

As a result, neither the enabling statute or any other statute of which we are aware grants the National Park Service the authority

to alter the way in which the aqueduct is operated. If this practice is harming the park resources, then we have more blame in Congress than anywhere else.

The National Marine Fisheries and U.S. Fish and Wildlife Service have fulfilled their responsibilities by trying to establish whether or not any endangered species are present in the Potomac and providing that information to the Corps and EPA.

As a result, that information is being incorporated, as I understand it, into the new permit. EPA is following the process outlined in the Clean Water Act to reissue a NPDES permit for the aqueduct. The agency has hired independent contractors to conduct scientific evaluations of the effects of returning this sediment to the river.

Those evaluations have found little or no harm, but their recommendations regarding the theoretical effects of the young sturgeon are being incorporated into the new permit anyway.

For their part, the Army Corps of Engineers operates a facility according to existing law and EPA permit. It should be noted that the last two agencies, the EPA and the Corps, are not within the jurisdiction of this Committee.

The current situation is far from ideal, and I do appreciate the concern about the smell of the discharge. However, it is not clear that this Committee would have these agencies do differently. Nor is it clear that new information there is to be gathered on this topic.

It is our hope that after the second hearing we can move forward to broaden the scope of our oversight to include the myriad other pollution problems facing our national parks over which the Committee does have jurisdiction.

We thank our witnesses for their time today and look forward to their testimony.

Unfortunately, our Ranking Member, Mr. Rahall, couldn't be here this morning, but he wanted me to recognize, on his behalf Ben Grumbles with the EPA, since for many years Mr. Grumbles was a staffer on the Transportation and Infrastructure Committee on which Mr. Rahall also serves. He was always very helpful to both Democrats and Republicans on that Committee.

Welcome to you, Mr. Grumbles, and to all of our witnesses this morning.

The CHAIRMAN. I thank the gentlelady.

The CHAIRMAN. We have a panel of four experts with us at this time, Mr. Don Murphy, Deputy Director, National Park Service; Tim Keeney, Deputy Assistant Secretary for Oceans and Atmosphere; Dominic Izzo, Principal Deputy Assistant Secretary of the Army for Civil Works; and Ben Grumbles, Deputy Assistant Administrator for Office of Water, Environmental Protection Agency.

As you gentlemen can see, you have these little things like this in front of you. That gives you 5 minutes. I know you can probably talk for an hour or so on your issues, so let's see if you can—

Mr. RADANOVICH. Mr. Chairman, if I may interrupt, is it possible to play just a two, two or 3-minute video before we begin the testimony?

The CHAIRMAN. The gentleman asks unanimous consent to play a video for 2 minutes.

[Video played.]

Mr. RADANOVICH. Thank you, Mr. Chairman.

The CHAIRMAN. Well, let's hope the beaver makes it.

I apologize to you folks who are standing. We normally, for the full Committee, don't use this room. We use the other room, but it is being remodeled right now.

As I was saying, gentlemen, there is this little thing in front of you. We try to hold you to 5 minutes. That is about a minute per page if you talk fast.

So, we will start with you, Mr. Murphy. Thank you for being here and thank all of you for being here.

Your full testimony will be included in the record if you want to abbreviate your testimony.

I will turn the gavel over to the Chairman of the Subcommittee on Public Lands and Recreation and whatever else you do.

**STATEMENT OF DONALD MURPHY, DEPUTY DIRECTOR,
NATIONAL PARK SERVICE**

Mr. MURPHY. Thank you, Mr. Chairman. I am Donald Murphy, Deputy Director of the National Park Service. It is good to see you again.

Thank you for the opportunity to appear before this Committee to present the views of the Department of Interior on discharges from the Washington Aqueduct on the Chesapeake & Ohio Canal and through the C&O National Historic Park.

The U.S. Army Corps of Engineers operates the Washington Aqueduct facility, which provides potable water to the District of Columbia and certain jurisdictions in Northern Virginia. The United States Environmental Protection Agency regulates the discharges from this facility within the District of Columbia.

Although the Department of Interior does not bear primary responsibility for the operation of the Washington Aqueduct facility or the regulation of its discharges, we take very, very seriously our stewardship responsibilities for the resources entrusted to our care.

Since we became aware of environmental concerns regarding the Washington Aqueduct facility operation, we have immersed ourselves in the complex legal and technical issues associated with them and are committed to working with other agencies and jurisdictions to address the problems and concerns.

Recently, EPA provided a key opportunity for all concerned with the impacts of the Washington Aqueduct facility. On March 28, 2002, EPA proposed a revised discharge permit for the facility under the National Pollution Discharge Elimination System known as NPDES. The Department of Interior has prepared comments on the proposed permit.

As an interim goal, the Department supports the approximately 35 percent further reduction of sediments discharged to the Potomac River proposed in the revised permit. However, the Department feels there is a need for additional research in monitoring of the discharge impacts.

With respect to the United States Fish and Wildlife Service, involvement in the Washington Aqueduct issue, the Fish and Wildlife Service has stewardship responsibility for certain Potomac River species using the best scientific information available. The Fish

and Wildlife Service has already determined that except for occasional transient individuals, endangered species under the jurisdiction of the Fish and Wildlife Service are neither present, near nor likely to be affected by the discharges for purposes of the Endangered Species Act.

Please note that the National Marine Fisheries Service, not the Fish and Wildlife Service, have sole regulatory authority over the shortnose sturgeon. If any new information that has not already been considered becomes available suggesting affects the listed species or their designated critical habitat, the Fish and Wildlife Service will determine if Section 7 consultation under the Endangered Species Act must be reinitiated.

In addition to ESA listed species, the Fish and Wildlife Service has statutory authority and trust responsibilities with respect to a number of Potomac River migratory fish species, Striped Bass, Alewife, Blueback Herring, and American Shad.

In 1998, EPA requested that the Fish and Wildlife Service convene a panel of fishery experts to recommend short-term measures to protect fish potentially impacted by the discharges, while the discharge permit was being reissued.

In 1999, the panel recommended among other measures a time of year restriction on the discharges that correspond to sensitive breeding and migratory seasons. EPA has included this restriction in its current draft permit.

The Fish and Wildlife Service Environmental Contaminants Branch also provided limited technology assistance to EPA in the development of a work plan for a 3-year discharge study. The Fish and Wildlife Service believes additional studies designed to assess the direct and cumulative impacts on aquatic resources under the Fish and Wildlife Service jurisdiction are needed. The Fish and Wildlife Service is willing to provide technical assistance with respect to these studies.

With respect to the National Park Service involvement in the Washington Aqueduct, the facility discharges flow through conduits traversing the C&O Canal National Historic Park, managed at the National Park Service. These conduits empty either on park land near the Potomac River or the riverbed itself.

The Washington Aqueduct has had discharge lines in place since at least 1927, well before the park was established in 1971. Since the hearing on the Washington Aqueduct back in October, the department, with the cooperation of the Corps, has been reviewing relevant documents to determine whether all the existing discharges fall within the scope of the grandfathered permits and right of way.

If National Park Service ultimately determines that authorized discharges are harming park resources, the agency will take appropriate action to protect park resources consistent with the findings of the studies of the National Park Service and the Fish and Wildlife Service.

In addition to managing the C&O Canal National Historic Park, the National Park Service also manages the riverbed of the Potomac River in the District of Columbia. Based on its unique assignment to the department's jurisdiction, National Park Service has long managed the riverbed as miscellaneous property on behalf of

the Office of the Secretary of Interior, but has not managed it as a unit of the National Park Service.

Nevertheless, the potential impact of sedimentation on the riverbed from the Washington Aqueduct discharges is another area of concern for the National Park Service.

Mr. Chairman, this concludes my testimony on behalf of the Department of Interior who is committed to continuing to learn more about the impacts of the outfalls from the Washington Aqueduct on the resources managed by the department and working with these other Federal agencies with authority over the discharges to minimize those impacts.

That concludes my prepared remarks and I am looking forward to answering any questions that you might have.

[The prepared statement of Mr. Murphy follows:]

**Statement of Donald W. Murphy, Deputy Director, National Park Service,
U.S. Department of the Interior**

Mr. Chairman, thank you for the opportunity to appear before this Committee to present the views of the Department of the Interior on discharges from the Washington Aqueduct on the Chesapeake and Ohio (C&O) Canal National Historical Park and on the endangered shortnose sturgeon.

The U.S. Army Corps of Engineers (Corps) operates the Washington Aqueduct facility which provides potable water to the District of Columbia and certain jurisdictions in Northern Virginia. The U.S. Environmental Protection Agency (EPA) regulates the discharges from this facility within the District of Columbia. Although the Department of the Interior does not bear primary responsibility for the operation of the Washington Aqueduct facility or the regulation of its discharges, we take very seriously our stewardship responsibilities for the resources entrusted to our care. Since we became aware of environmental concerns regarding the Washington Aqueduct facility's operation, we have immersed ourselves in the complex legal and technical issues associated with them, and are committed to working with the other agencies and jurisdictions to address any problems and concerns.

Recently, EPA provided a key opportunity for all concerned with the impacts of the Washington Aqueduct facility. On March 28, 2002, EPA proposed a revised discharge permit for the facility under the National Pollution Discharge Elimination System (NPDES). The Department of the Interior has prepared comments on the proposed permit. As an interim goal, the Department supports the approximately 35 percent further reduction of sediments discharged to the Potomac River proposed in the revised permit. However, the Department believes there is a need for additional research and monitoring of discharge impacts.

With respect to the U.S. Fish and Wildlife Service's (FWS) involvement in the Washington Aqueduct issue, the FWS has stewardship responsibility for certain Potomac River species. Using the best scientific information available, the FWS has already determined that, except for occasional transient individuals, endangered species under the jurisdiction of the FWS are neither present, near, nor likely to be affected by the discharges for purposes of the Endangered Species Act. Please note that the National Marine Fisheries Service, not FWS, has sole regulatory authority over the shortnose sturgeon. If any new information that has not already been considered becomes available suggesting effects to listed species or their designated critical habitat, the FWS will determine if Section 7 consultation under the Endangered Species Act must be reinitiated.

In addition to ESA listed species, the FWS has statutory authority and trust responsibilities with respect to a number of Potomac River migratory fish species including striped bass, alewife, blueback herring, and American shad. In 1998, EPA requested that FWS convene a panel of fisheries experts to recommend short-term measures to protect fish potentially impacted by the discharges, while the discharge permit was being re-issued. In 1999, the panel recommended, among other measures, a time of year restriction on the discharges that corresponds to sensitive breeding and migratory seasons. EPA has included this restriction in its current draft permit. The FWS Environmental Contaminants Branch also provided limited technical assistance to EPA in the development of a workplan for a 3-year discharge study. The FWS believes additional studies designed to assess the direct and cumulative impacts on aquatic resources under FWS jurisdiction are needed. The FWS is willing to provide technical assistance with respect to these studies.

With respect to the National Park Service's (NPS) involvement in the Washington Aqueduct issue, the facility's discharges flow through conduits traversing the C&O Canal National Historical Park managed by NPS. These conduits empty either on parkland near the Potomac River or in the river itself.

The establishment of the C&O Canal National Historical Park was the culmination of years of community efforts to save the canal as a recreational, natural, and historical resource. It appears that Congress sought to ensure that creation of the park would not disturb certain valid existing rights and permits by including in the enabling legislation (P.L. 91-664) language that grandfathered them. Section 5(a) of that law states: "The enactment of this Act shall not affect adversely any valid rights heretofore existing, or any valid permits heretofore issued, within or relating to areas authorized for inclusion in the park." The Washington Aqueduct has had discharge lines in place since at least 1927, well before the park was established in 1971. Since the hearing on the Washington Aqueduct by the Subcommittee on National Parks, Recreation, and Public Lands on October 30, 2001, the Department, with the cooperation of the Corps, has been reviewing relevant documents to determine whether all the existing discharges fall within the scope of the grandfathered permits and rights-of-way.

The National Park Service believes there is a need to assess the nature and extent of any potential impacts from these discharges on park resources. The NPS is willing to work with the other Federal agencies on these studies. If NPS ultimately determines that authorized discharges are harming park resources, the agency will take appropriate action to protect park resources consistent with the finding of the studies NPS and FWS have identified.

In addition to managing the C&O Canal National Historical Park, the NPS also manages the riverbed of the Potomac in the District of Columbia. Based on its unique assignment to the Department's jurisdiction, NPS has long managed the riverbed as miscellaneous property on behalf of the Office of the Secretary of the Interior, but it is not managed as a unit of the National Park System. Nevertheless, the potential impact of sedimentation on the riverbed from the Washington Aqueduct discharges is another area of concern to the NPS.

In addition to collecting information regarding the Washington Aqueduct discharges, since the October, 2001 hearing on this subject, the NPS has begun collecting information from other units of the National Park System that are also involved with discharges that require NPDES permits in order to compare how the agency addresses situations similar to the one here in Washington, D.C. One such unit is Gateway National Recreation Area in New York and New Jersey, where the water quality is heavily influenced by permitted discharges from sewage treatment plants, combined sewer overflows, industrial effluents, and toxic substances from abandoned landfills.

As part of an ongoing program to improve water quality in the park, Gateway staff routinely review draft NPDES permits and provide recommendations to New York State and New York City governments. Over the past decade, the staff has: (1) reviewed and commented on four permits for sewage treatment plants adjacent to Jamaica Bay (26th Ward, Red Hook, Coney Island, and the Rockaway plants); (2) participated in a review of New York City discharges to reduce the volume of sediment flowing into to Jamaica Bay; and (3) collaborated with the Interstate Sanitation Commission in an effort, though unsuccessful, to eliminate the year-round use of chlorine in New York City sewage treatment plant effluents. However, we note that the drinking water plant return of sediment back to the Potomac River by the Washington Aqueduct is qualitatively different from the raw and treated sewage discharges that the Gateway staff monitors.

Mr. Chairman, in conclusion, the Department is committed to continuing to learn more about the impacts of the outfalls from the Washington Aqueduct on the resources managed by the Department and working with the Federal agencies with authority over the discharges to minimize those impacts. That concludes my prepared remarks, and I would be pleased to answer any questions you or other Committee members might have.

Mr. RADANOVICH. [Presiding] Thank you, Mr. Murphy. Welcome to the Committee. We will go ahead and hear from everybody and then open up the panel for questions.

I would like to introduce Mr. Tim Keeney, the Deputy Assistant Secretary for Oceans and Atmosphere for the National Oceanic and Atmospheric Administration. Well, Mr. Keeney. Again, I won't be

real strict on that time clock. I want to make sure everybody gets out what they need to, so use the time to make your remarks.

**STATEMENT OF TIM KEENEY, DEPUTY ASSISTANT SECRETARY
FOR OCEANS AND ATMOSPHERE, NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION**

Mr. KEENEY. Thank you. Good morning, Mr. Chairman and members of the Committee. I am Tim Keeney, Deputy Assistant Secretary of Commerce for Oceans and Atmosphere. Thank you for the opportunity to testify before this Committee on the status of shortnose sturgeon in the Potomac River and the effects of the discharges from the Washington Aqueduct on its population and habitat.

Mr. Chairman, I ask that my entire statement be introduced into the record. This is just an oral summary.

Mr. RADANOVICH. I am sure there is no objection. It is so ordered.

Mr. KEENEY. The shortnose sturgeon is listed under the Endangered Species Act, ESA of 1973. The National Oceanic and Atmospheric Administration or NOAA Fisheries has sole jurisdiction for protecting shortnose sturgeon under the Endangered Species Act.

Prior to 1996, the best available information suggested that the species was extirpated from the Potomac River. However, over the past 6 years, six shortnose sturgeon have been captured in the Lower Potomac River.

Mr. Chairman, I refer to a map I have brought with me. I believe I have made copies available for members to see the areas that I am talking about. The map on the right, which is the map of the entire Chesapeake Bay and the tributaries that flow into it specifically, if you look at the Potomac River area, it is indicated where the six fish were caught. Three were caught sort of midway up the Potomac River. And four additional ones were caught near the mouth of the river. So that is a total of seven and that is where they were caught.

Also, the same map indicates with stars where other shortnose sturgeon have been found. As you can see, most of them are in the northern part of the Chesapeake Bay, particularly up toward the Delaware River.

These unexpected captures represented new scientific information to be considered by NOAA Fisheries and other agencies including the Corps of Engineers which operates the Washington Aqueduct and EPA that permits the aqueduct discharges. Not one of the six recent captures of shortnose sturgeon has been documented within 50 miles of the aqueduct discharges sites.

There is also no documentation of shortnose sturgeon spawning anywhere in the Potomac River. However, based on an understanding of preferred sturgeon spawning habitat and the fact that little sampling has been conducted, NOAA Fisheries and the Environmental Protection Agency have made the precautionary assumption that shortnose sturgeon may be present and spawning in the vicinity of the Washington Aqueduct and may be affected by its discharges/

In light of this, EPA and NOAA Fisheries initiated an informal ESA Section 7 consultation in the spring of 2001 to examine the possible effects of the aqueduct discharges on shortnose sturgeon.

Informal consultations include all discussions and correspondence between NOAA Fisheries and Federal action agencies that are designed to assist NOAA and the action agency in assessing the effects of the of the action on the listed species.

In addition, the informal consultation is a very valuable tool by which the action agency may refine a proposed action with guidance from NOAA Fisheries to minimize adverse effects on listed species.

Our informal consultation with EPA has already yielded benefits for sturgeon. Through discussion with NOAA Fisheries, EPA and the Corps of Engineers, EPA has included a provision in their draft permit to prohibit discharges during the spring months when sturgeon and many species spawn.

This provision significantly reduces the potential impact of the discharges on sturgeon during the Corp's management of the aqueduct. Despite this progress, NOAA Fisheries continues to have concerns about the potential effect of the discharges on shortnose sturgeon.

Last week, EPA sent NOAA Fisheries a letter requesting a formal consultation along with a final version of their biological evaluation which provides information NOAA Fisheries needs to continue this consultation.

Mr. Chairman, I would like to submit a copy of this letter for the record.

Mr. RADANOVICH. Is there any objection? It is so ordered.

[The letter from EPA submitted for the record follows:]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION III
 1650 Arch Street
 Philadelphia, Pennsylvania 19103-2029

Ms. Mary Colligan, Assistant Regional Administrator.
 National Marine Fisheries Service
 Northeast Region
 One Blackburn Drive
 Gloucester, MA 01930-2298


JUN 13 2002


Dear Ms. Colligan:

As you are aware, the Environmental Protection Agency (EPA) has engaged in "informal" consultation under the Endangered Species Act with the National Marine Fisheries Service (NMFS) concerning the issuance of the NPDES permit for the Washington Aqueduct and possible effects on the federally-listed endangered shortnose sturgeon in the Potomac River. I want to thank you and your staff for your comments of March 27, 2002 on the draft permit and EPA's draft biological evaluation.

By this letter, EPA is now requesting initiation of formal consultation. Our staff have been working together for some time, including visiting the Washington Aqueduct, and have the relevant materials to meet the initiation criteria [50 CFR Part 402]. EPA will immediately send all additional information needed for consultation. Because this is a high priority permit issue, we request that the formal consultation process be expedited. Once the permit comment period ends on June 28, 2002, we will continue to work with your staff to insure that all NMFS comments are addressed. We look forward to continuing our ongoing collaboration and if you have any questions, please contact Patricia Gleason at 215/814-5740.

Sincerely,


 Jon Capacasa, Acting Director
 Water Protection Division

 Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.
 Customer Service Hotline: 1-800-438-2474

Mr. KEENEY. NOAA Fisheries will seek to complete the consultation within the required 135 days of the request. This consultation will culminate in NOAA Fisheries providing its biological opinion regarding the possible effects of the permit on shortnose sturgeon.

Mr. Chairman, in closing, my written testimony outlines the need for better science and data to ascertain the extent to which endangered sturgeon may rely on the Little Falls area for spawning habitat.

NOAA Fisheries plans to meet with other Federal and local agencies later this summer to further investigate and propose sampling protocols for the spring 2003 sturgeon spawning season.

NOAA Fisheries looks forward to working with Congress, other Federal agencies and the citizens of the area to gather the additional science necessary to make informed decisions that will best protect the shortnose sturgeon in the Potomac River.

Mr. Chairman, I welcome any questions from you or any other members of the Committee.

[The prepared statement of Mr. Keeney follows:]

**Statement of Timothy R.E. Keeney, Deputy Assistant Secretary,
U.S. Department of Commerce**

Good morning, Mr. Chairman and members of the Committee. Thank you for the opportunity to testify today on the status of shortnose sturgeon in the Potomac River, and the effects of the discharges from the Washington Aqueduct on its population and habitat. This issue is of great interest and concern to NOAA just as it is to this Committee. We look forward to working with Congress, other Federal agencies, and the citizens of the area to identify and implement appropriate programs to conserve species and aquatic habitats.

Background

Shortnose sturgeon exists in rivers and bays of eastern North America from Canada to Florida. It is an anadromous species, which means that it lives in slow moving river waters or nearshore marine waters, but migrates periodically to fresher water to spawn. The shortnose sturgeon was listed as endangered under the Endangered Species Preservation Act on March 11, 1967, and subsequently listed under the Endangered Species Act (ESA) of 1973. The National Marine Fisheries Service (NMFS) has sole jurisdiction for protecting shortnose sturgeon under the ESA.

Shortnose Sturgeon in the Chesapeake Bay and Potomac River

Prior to 1996, the most recently documented evidence of shortnose sturgeon in the Potomac was from 1899. The best available information suggested that the species was extirpated from the Potomac River. Most of the shortnose sturgeon captured recently in the Chesapeake Bay have been in the upper Bay, north of Baltimore, close to the Chesapeake and Delaware Canal. Between 1996 and 2002, six shortnose sturgeon were captured in the lower and middle tidal Potomac River during a U.S. Fish and Wildlife Service (FWS) reward program for Atlantic sturgeon (see attached map). These shortnose sturgeon were captured between 55 and 123 miles downstream of the Washington Aqueduct's Little Falls discharge.

In addition to the reward program for Atlantic sturgeon, the FWS conducted two sampling studies between 1998 and 2000 in the Maryland waters of the Chesapeake Bay to determine the occurrence of shortnose and Atlantic sturgeon in areas of proposed dredge-fill operations. One of these studies included surveys at five sites located in the middle Potomac River approximately 30 to 74 miles downstream of the Washington Aqueduct discharge site. During this study, no shortnose sturgeon were captured. A second much more limited study included sampling at two areas in the vicinity of Little Falls, Virginia, which are environments that are consistent with the preferred spawning habitat of shortnose sturgeon in other rivers and are located near the Aqueduct discharge sites. No shortnose sturgeon were captured during this study.

To date, no Shortnose sturgeon have been documented in the area of the Aqueduct discharge sites. There is also no documentation of shortnose sturgeon spawning anywhere in the Potomac River. However, the FWS study that was performed near Little Falls was limited in scope due to adverse river conditions. In addition, shortnose sturgeon are inherently difficult to capture and often there is little evidence of their presence in river systems. NMFS and the Environmental Protection Agency (EPA) have, therefore, made the precautionary assumption that shortnose sturgeon may be present and spawning in the vicinity of the Aqueduct and may be affected by the discharges. This assumption is based on the following information: (1) Recent captures of shortnose sturgeon in downstream reaches of the Potomac River; (2) The presence of habitat near Little Falls that is consistent with known shortnose sturgeon spawning habitat in other rivers; and (3) Known migratory and spawning behavior of shortnose sturgeon in other rivers for which NMFS has more information.

Washington Aqueduct ESA Section 7 Consultation History

Prior to 1996, the best available information indicated that shortnose sturgeon were extirpated from the Potomac River. Therefore, while concerns about the effect of the Washington Aqueduct's discharge on water quality, fish, and other aquatic life existed prior to 1996, the impacts to shortnose sturgeon specifically were not considered. The recent captures of shortnose sturgeon during the FWS reward program represented new scientific information that NMFS and other agencies had to consider, resulting in the initiation of consultation pursuant to section 7 of the ESA in spring, 2001.

EPA and NMFS pursued "informal" section 7 consultation, as defined by NMFS' regulations, for over a year on the issuance of a National Pollutant Discharge Elimination System (NPDES) permit for the Washington Aqueduct to determine the possible effects of the Aqueduct discharges on shortnose sturgeon. While the consultation is not yet complete, NMFS has already recommended that the EPA permit contain a condition that no discharges be allowed during the spawning period for shortnose sturgeon. EPA has included this recommendation as a condition of their draft NPDES permit. NMFS reviewed a draft of the permit and provided written comments to the EPA on March 27, 2002.

The Army Corps of Engineers (Corps), operator of the Washington Aqueduct, funded a three-year water quality study to assess the discharge from the Aqueduct and its effects. The study report was published in October 2001. EPA used the discharge study results, among other available information, to develop a draft biological evaluation (BE) on the potential impacts of the Washington Aqueduct discharges on shortnose sturgeon. After NMFS review of EPA's draft BE and subsequent discussions, EPA and NMFS have agreed to enter into "formal" consultation, which will culminate in NMFS providing its biological opinion (BO) regarding the possible effects of the permit on shortnose sturgeon. The BO may include measures to minimize adverse effects on shortnose sturgeon.

Clarifications on Sturgeon Biology and the Consultation Process

We are concerned that there may be several important misconceptions in regards to sturgeon biology and our ongoing consultation with the EPA. We appreciate the opportunity to further clarify these issues.

Misconception 1 - Little Falls is the sole spawning ground for the shortnose sturgeon.

We are aware of reports and comments indicating that the Little Falls area is the sole spawning area of the shortnose sturgeon. This statement is not true. Shortnose sturgeon exist as 19 distinct populations that occupy and spawn in rivers and bays from Canada to Florida. In addition, the Potomac River is just one of several tributaries in the Chesapeake Bay drainage that appears to have suitable habitat for shortnose sturgeon. Other rivers that appear to have suitable spawning habitat for the Chesapeake Bay population of shortnose sturgeon include the York, Rappahannock, Patuxent, James, Susquehanna, and Gunpowder Rivers.

Without a doubt, more research is needed to fully understand the extent to which the shortnose sturgeon may or may not rely upon the Little Falls area for spawning habitat.

Misconception 2 - Discharges from the Aqueduct are responsible for the lack of sturgeon recovery in the Chesapeake Bay.

Some reports have strongly suggested that the Aqueduct discharges are responsible for the lack of shortnose sturgeon recovery in Chesapeake Bay. NMFS recognizes that water quality may be one of several factors affecting shortnose sturgeon recovery. However, the facts do not support isolating discharges from the Aqueduct as a primary factor affecting shortnose sturgeon recovery in the Chesapeake Bay. As noted above, the Potomac River is just one of several rivers in the Chesapeake Bay drainage that appear to have suitable habitat for shortnose sturgeon. However, no recovery of shortnose sturgeon has been observed in any river in the Chesapeake Bay drainage (see attached map). Therefore, it appears that some natural and/or anthropogenic factor(s) other than sediment discharges into the Potomac may be limiting this species' ability to recover in the Chesapeake Bay.

It is interesting to note that the Hudson River, which supports the most healthy and increasing shortnose sturgeon population, is not pristine. Studies have identified 183 separate industrial and municipal discharges in the Hudson and Mohawk Rivers, including chemical and oil industries, power plants, and sewage and wastewater facilities. In spite of these less than ideal water quality conditions, the Hudson River population of shortnose sturgeon has grown to approximately 60,000 individuals and appears to be on its way toward recovery.

Misconception 3 - NMFS is not consulting with the EPA on the effects of Aqueduct discharges on shortnose sturgeon.

NMFS has been criticized by some for being slow to react to the ramifications of the discovery of shortnose sturgeon in the lower Potomac. In light of this, I want to assure you that NMFS will make every effort to be as thorough as possible during the consultation process.

NMFS has been engaged in an “informal” section 7 consultation with the EPA since spring 2001 regarding EPA’s issuance of a NPDES permit for the Aqueduct discharges. Now NMFS and EPA are in “formal consultation.” Formal consultations generally must be completed within 135 days.

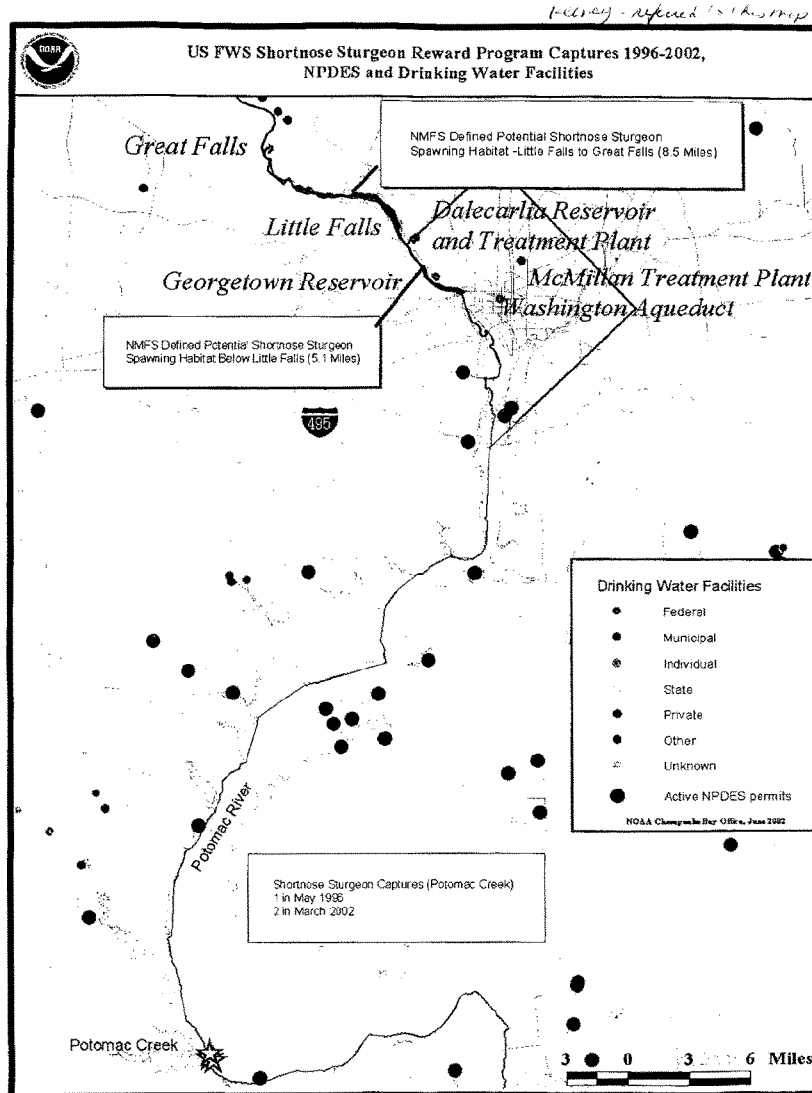
ESA consultations occur in two stages as defined in NMFS’ ESA section 7 regulations: the informal consultation and the formal consultation. Any section 7 consultation is triggered by Federal actions that “may affect” a listed species or critical habitat (50 CFR 402.14). Typically, an action agency will first engage in informal consultation. Informal consultations include all discussions and correspondence between NMFS and Federal action agencies that are designed to assist NMFS and the action agency in assessing the effects of the action on the listed species. If NMFS concurs with the action agency that the action is not likely to adversely affect the listed species, the consultation process ends at the informal stage (50 CFR 402.13). However, if NMFS determines that the action is “likely to adversely affect” a listed species, NMFS will recommend that the action agency enter into formal consultation. Alternatively, as EPA has done in this case, an action agency may choose to proceed directly to the formal consultation stage at any point in the process.

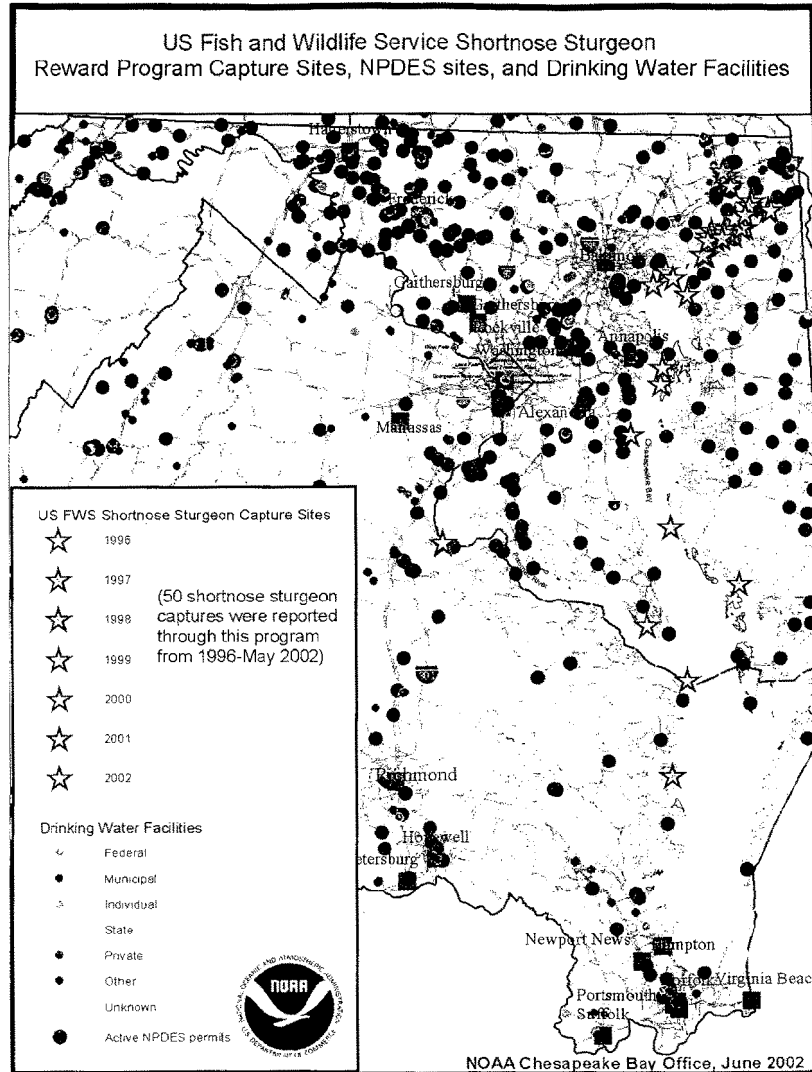
Misconception 4 - NMFS has the authority and obligation to shut down Federal operations that may adversely affect an endangered species.

In 1982, Congress amended the ESA to authorize Federal agencies to adversely affect threatened or endangered species and even “take” threatened and endangered species as long as the actions are not likely to jeopardize the continued existence of the listed species, the “take” is not the intended purpose of the action, and the impact is minimized. As a result of these amendments, section 7(b)(4) directs NMFS to issue “incidental take statements” for any take NMFS anticipates, if the action is not likely to jeopardize the listed species that would be “taken.” Section 7(o) of the ESA exempts such taking from acts that are prohibited by section 9 of the ESA. There are several examples of incidental take statements issued in the past that “authorize” takes resulting from sediment discharges into the spawning areas of threatened or endangered fish.

To conclude, NMFS takes its responsibility to protect endangered aquatic species seriously. The discovery of the shortnose sturgeon in the lower Potomac will require additional research by Federal agencies, including NMFS, into its habitat and into actions that could adversely impact the existence of the species. I look forward to working closely with Congress and other agencies for the protection of this species. Thank you for the opportunity to provide this testimony.

[Attachments to Mr. Keeney’s statement follow:]





**Response to Questions Submitted for the Record by Timothy R.E. Keeney,
Deputy Assistant Secretary, U.S. Department of Commerce**

Question: Comparison of the 2001 Klamath River and 2002 Potomac River biological opinions

Answer

In April, 2001, NOAA Fisheries completed a biological opinion (BiOp) on the Bureau of Reclamation's (BOR) proposed operation of the Klamath Project and the project's effects on a threatened population of coho salmon. The BiOp concluded that the proposed operation of the water storage and delivery system was likely to jeopardize this population of coho salmon, and provided reasonable and prudent alternatives (RPAs) to avoid jeopardizing threatened coho. In November, 2002 NOAA Fisheries completed a BiOp on the effects of discharges from the Washington Aqueduct, operated by the Army Corps of Engineers (ACOE) and permitted by the Envi-

ronmental Protection Agency (EPA), on an endangered population of shortnose sturgeon. The BiOp found that the action was not likely to jeopardize this population of sturgeon.

These two BiOps differ in their conclusions because of significant differences in the biology of coho salmon (assessed in Klamath BiOp) and shortnose sturgeon (assessed in Washington Aqueduct BiOp) and based on NOAA Fisheries' analysis of the effects of the proposed actions on listed species. In summary, the effects of chronic reduced water flows in the Klamath River on coho salmon that die after spawning are more significant than periodic discharges of sediments on sturgeon that can persist and spawn within a river for decades. The differences in the conclusions of the two BiOps in question are, therefore, not the result of unequal implementation of the ESA, as some have suggested. Rather, the BiOps differ because of significant differences in the biology of coho salmon and shortnose sturgeon, and differences in the effects of the Federal actions on the two species.

What are the Key Biological Differences between Coho Salmon and Shortnose Sturgeon? Coho salmon in the Klamath River basin, like other Pacific salmon, have a life history that includes spending a number of years at sea before returning to natal rivers to spawn. Adults die shortly after spawning. Consequently, an adult coho salmon that lives out its complete life cycle will spawn only once in its lifetime. Coho salmon are very dependent on adequate freshwater habitat for juvenile rearing, adult and juvenile migration, and spawning. Coho can be very habitat limited in the freshwater environment.

Shortnose sturgeon, like coho salmon, are migratory. However, sturgeon do not die after spawning. Shortnose sturgeon in the Chesapeake Bay and its tributaries may live 20 years or more. A shortnose sturgeon from the Chesapeake Bay that lives out its complete life cycle will likely spawn at least several times, and perhaps more than 15 times. This life history strategy provides a natural buffer against environmental variability and unsuccessful spawning years. It allows shortnose sturgeon populations to withstand an occasional year of low reproductive output without jeopardizing the population.

What are the Key Differences in Effects of the Federal Actions?

In the Klamath River, the BiOp assessed water management practices which would result in a significant reduction in habitat quantity and quality for coho salmon. Specific concerns included maintaining adequate habitat space and water temperatures. NOAA Fisheries found that the minimum flow requirements in BOR's 2001 water management plan were inadequate. NOAA Fisheries determined that the flow schedule proposed in BOR's biological assessment would result in a reduction in habitat quantity and quality compared with the average operations of the project during the 1990s. In NOAA Fisheries' view, this water management strategy suffered from the same flaw as BOR's 2001 biological assessment which the National Research Council (NRC) concluded exposed threatened coho salmon to new levels of risk and was not scientifically justifiable. Given the life history of coho salmon and the findings of the NRC, NOAA Fisheries found that the water management plan was likely to jeopardize the continued existence of the species. NOAA Fisheries recommended higher flows to avoid jeopardy. BOR managed the Project to meet those flows.

In the Potomac River, the BiOp assessed the effects of periodic discharges of sediment into the Potomac River near Little Falls, where shortnose sturgeon are presumed to spawn. One of NOAA Fisheries' two major concerns was that discharges from the Aqueduct could be toxic to shortnose sturgeon. A toxicology study of discharges concluded that there were few toxicological effects on test organisms. NOAA Fisheries concluded that, given the short duration of the pulse of sediments, the potential toxicological impacts were unlikely to jeopardize shortnose sturgeon. NOAA Fisheries' second major concern was that discharges during the spring spawning season could smother sturgeon eggs and larvae. NOAA Fisheries worked closely with EPA and ACOE during the early, "informal" stage of the consultation to address this concern. EPA and ACOE agreed to prohibit discharges during the spring spawning season to avoid potential smothering effects. The only exception would be under certain emergency situations, and would occur no more than once during the 5-year duration of the permit. Given the life history of shortnose sturgeon, and given that other rivers in the Chesapeake Bay appear to have suitable spawning habitat for sturgeon, one discharge in the Potomac River in 5 years is not likely to jeopardize the continued existence of this sturgeon population.

How have BOR and EPA Responded During the Consultations?

Another distinction between the consultations on the Klamath and Potomac Rivers is how each Federal action agency responded to NOAA Fisheries' recommenda-

tions to protect ESA listed species. In each case, NOAA Fisheries found that actions proposed by the BOR and EPA “may affect” ESA listed species, thereby triggering a consultation under section 7 of the ESA. NOAA Fisheries and BOR have consulted multiple times on BOR’s operation of the Klamath Project. In each instance, BOR has proposed to allow minimum flows below those recommended in NOAA Fisheries’ previous BiOps. Consequently, NOAA Fisheries have issued a series of “jeopardy” BiOps for proposed annual operating plans for the Klamath Project. In contrast, EPA and ACOE worked with NOAA Fisheries during the “informal consultation” process to minimize negative effects from discharges in the Potomac River on shortnose sturgeon. Specifically, EPA agreed to alter the permit authorizing discharges from the Washington Aqueduct into the Potomac River to prohibit discharges during the spring spawning season, significantly reducing the threat to shortnose sturgeon.

Mr. RADANOVICH. Thank you very much, Mr. Keeney. I appreciate your testimony.

Next is Mr. Dominic Izzo, who is the Principal Deputy Assistant Secretary for the Army for Civil Works, U.S. Army Corps of Engineers.

Dominic, welcome to the Committee. Please begin your testimony.

STATEMENT OF DOMINIC IZZO, PRINCIPAL DEPUTY ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS

Mr. IZZO. Mr. Chairman and members of the Committee, thank you for inviting me to testify today. I am Dominic Izzo, the Principal Deputy Assistant Secretary of the Army for Civil Works. The civil works of the Corps of Engineers and its Baltimore District are under my supervision.

The Baltimore District has a long distinguished history of service to the Nation and the region and they have a significant record of good environmental achievements. For example, for more than two decades, the Baltimore District has been in the forefront of environmental restoration in Chesapeake Bay, including projects that have improved water quality and habitat in the Potomac River, Anacostia and Susquehanna Rivers. We have full confidence in the district and in its commander.

You asked the Army to provide information on the Washington Aqueduct and its legally permitted discharges. The Washington Aqueduct is a division within the Baltimore District.

I will first summarize the major role the aqueduct plays in support of our Nation’s Capital and the surrounding areas and then respond to the issues raised in your presentation.

The aqueduct has supplied water to the District of Columbia since 1859. Many of the original structures from the 1850’s are still in operation and many others date to the 1920’s. Most of the real estate supporting the aqueduct’s mission and current treatment processes were acquired and functioning decades before the C&O Canal became a national park.

Today, the aqueduct provides all the water supplied to Washington, D.C., Arlington County, Virginia and the city of Falls Church, Virginia, providing high quality, safe and affordable water to approximately one million consumers in these areas, particularly in light of September 11th, is one of the District’s highest priorities.

The aqueduct operates like a business. It gets its operational and capital improvement funds from the fees it charges its customers for the water it supplies. It is regulated by the Safe Drinking Water and Clean Water Acts and takes its compliance responsibilities under those acts seriously.

It operates in accordance with the National Pollutant Discharge Elimination System permits issued to it by both the State of Maryland and by the Environmental Protection Agency. These permits allow the aqueduct to make routine discharges from the sediment basins to the Potomac River and infrequent, maintenance related discharges at other permitted locations.

All water treated by the aqueduct comes from the Potomac River which naturally transports a large volume of sediment. Treatment involves a three-step process that includes sedimentation, filtration and disinfection. In the case of the aqueduct, sediment removal begins in the Dalecarlia Reservoir. Half of the sediment taken in from the Potomac River naturally settles in that reservoir and is not returned to the Potomac River.

With the aid of a coagulant, aluminum sulfate, the remaining sediment is forced to settle out into six large basins and Dalecarlia in Georgetown. This process is typical in the water production industry. Periodically, these six sedimentation basins must be cleaned of the sediment buildup. Their contents, which include river water, accumulated sediments and the accumulated coagulant, are drained to the Potomac River in keeping with the terms of the EPA discharge permit.

At the last stage of the basin cleaning at Dalecarlia, some treated water is used to push out the remaining sediment. That water contains chlorine, but the aqueduct has verified through samples taken during the basin cleaning that the chlorine in both the water and the sediment, as returned to the river, has been neutralized.

The volume of solids discharged to the Potomac River from the six basins is only one-half of the total volume of solids removed from the water, which was originally taken from the river. At a maximum, it represents less than 1 percent of the river flow on days when we do the discharge.

With respect to the non-routine discharges for plant maintenance, the State of Maryland permits the aqueduct to discharge raw water, that is untreated water, into streams and on lands that cross park property.

EPA has also issued the aqueduct a permit that allows discharge of raw water, dosed with coagulant, if maintenance is required on a major conduit. The path of this discharge is open and crosses park property. Discharges of this nature seldom occur, about once every 2 years, and last approximately 6 hours.

Two other discharges are allowed under the permit. One is to drain ground water from under the sedimentation basins directly to the Potomac River and the other is to drain water from another large conduit to Rock Creek. That discharge might occur only once in 10 years and involves sediment-free, clear, but unchlorinated water.

All of the Washington Aqueduct's discharge points or outfalls are properly regulated by and comply with Federal and State permits.

At this time, there are no known adverse effects from these discharges from the C&O Canal National Historic Park property.

The next issue you asked us to discharge is the impact of the sediment discharges, if any, upon the shortnose sturgeon. That particular question is the subject of current litigation brought by the National Wilderness Institute against several of the Federal agencies testifying here today. Accordingly, I will constrain my remarks.

In accordance with the Endangered Species Act, consultation among the Federal agencies regarding the shortnose sturgeon is ongoing at this time. I can mention that at the request and direction of the EPA the Army Corps of Engineers contracted for two significant studies to determine the impact, if any, of the sediment discharges upon the aquatic life of the Potomac River.

Based on the study plan coordinated with the Fish and Wildlife Service and approved by EPA Region 3, and performed in accordance with the accepted scientific procedure and analysis the most recent study was completed in October 2001 and sent to these agencies.

Based on that and other information provided to EPA Region 3, they have recently issued a draft NPDES permit relating to Washington Aqueduct solids discharges. The public comment period closes on June 28, 2002 for that permit.

In addition, I would like to mention that we also provided a report to the Appropriations Committee on the 23rd of May that summarized all the reports and studies that the Corps has conducted and alternatives we have examined in regard to the Washington Aqueduct. I have attached a copy of that report to my written testimony for your information.

[The report referred to follows:]



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
100 ARMY PENTAGON
WASHINGTON DC 20310-0108



23 May 2002

REPLY TO
ATTENTION OF

Honorable C.W. Young
Chairman
Committee on Appropriations
United States House of Representatives
Washington, D.C. 20515-6015

Dear Congressman Young:

Enclosed is a report on the environmental impacts of sediment discharges from the Washington Aqueduct drinking water plant into the Potomac River. House Report 107-216 (page 60) and Senate Report 107-85 (page 65) accompanying the District of Columbia Appropriations Act, 2002, Public Law 107-96, directed the Washington Aqueduct and Environmental Protection Agency (EPA) to submit this report to Congress. It was stated in the House and Senate Reports that this report to Congress should include an analysis of options for handling the residual solids from plant operations including, but not limited to, off-site disposal and treatment at the Blue Plains Waste Water Treatment Plant. The analysis should also include estimated costs and possible implementation schedules. The Blue Plains treatment option should also include, in part, a description of how the proposed Combined Sewer Overflow Long Term Control Plan tunnel system might be used to handle the discharge from the Aqueduct.

Additionally, I understand that the EPA has provided you with its draft permit to the Washington Aqueduct for the authorization to discharge under the National Pollutant Discharge Elimination System. The enclosed report and the information that EPA has provided constitute our response to the directive contained in the House and Senate Reports. If you require additional information, please feel free to contact me.

Sincerely,

R. L. Brownlee
Acting Assistant Secretary
of the Army (Civil Works)

Enclosure

Printed on Recycled Paper

WASHINGTON AQUEDUCT SEDIMENT DISCHARGE—REPORT TO CONGRESS

Purpose of Report

This report has been prepared in response to House Report 107-216 (page 60) and Senate Report 107-85 (page 65) accompanying the District of Columbia Appropriations Act, 2002, Public Law 107-96. These two documents direct the Washington Aqueduct and Environmental Protection Agency (EPA) to submit a report to Congress on the environmental impacts of sediment discharges from the Washington Aqueduct drinking water plant into the Potomac River. The report should include an analysis of options for handling the residual solids from plant operations including, but not limited to, off-site disposal and treatment at the Blue Plains Waste

Water Treatment Plant. The analysis should include estimated costs and possible implementation schedules. In addition, the Blue Plains treatment option should include, in part, a description of how the proposed Combined Sewer Overflow Long Term Control Plan tunnel system might be used to handle the discharge from the Aqueduct.

Background

Because the issue of residual solids is one of long-standing interest, the analysis contained in this report draws upon studies conducted as far back as 1977 and as recent as last year. The report describes the processes by which the residual solids are generated and the various alternatives that have been investigated over the years. Some of the prior studies had the benefit of detailed engineering analysis while others were discussed professionally but without the same level of specificity. This report provides the Committee with an overview of Washington Aqueduct operations, a summary of many of the residual solids management options that have been explored in past years, and a discussion of some of the options that might be considered in greater detail in the future.

Overview of Washington Aqueduct Operations

Washington Aqueduct collects, purifies and pumps an adequate supply of potable water to the District of Columbia, Arlington County and the City of Falls Church, Virginia. Average daily production is approximately 180 million gallons. All costs of the Washington Aqueduct's operation, including capital construction, are borne by the citizens of its customer jurisdictions. The last time funds were appropriated for capital improvements was 1927, when the Dalecarlia plant was built.

Washington Aqueduct provides water for all users in the three named jurisdictions. Included in the service area are Federal Government facilities located in the District of Columbia. In addition, water is provided to the Pentagon, National Airport, Arlington National Cemetery, and other Federal and military facilities in the Aqueduct's Northern Virginia service area. A fire in the Capitol Building in 1850 resulted in the Corps of Engineers mission to develop a water supply for the Federal city. Providing safe drinking water for public health and sanitation, as well as reliable fire protection for the National Capital Region (as exemplified by Arlington County's response to fighting the fire at the Pentagon on September 11, 2001), remains the mission of the Washington Aqueduct.

Washington Aqueduct is a division of the Army Corps of Engineers Baltimore District. As a wholesale public water utility, it is regulated by Region 3 of the EPA. It also has permits from the State of Maryland and the District of Columbia covering various aspects of its overall industrial operations.

All water treated by Washington Aqueduct and delivered to its customers comes from the Potomac River. The treatment process employs three phases: sedimentation, filtration, and disinfection. Aluminum sulfate (commonly called alum) is used as the coagulant in the sedimentation process. The solids that collect in the six sedimentation basins (two at Georgetown and four at Dalecarlia) are a combination of the added coagulant and the naturally occurring sediment that is being transported by the Potomac River at the time it is diverted to the raw water reservoir, which is known as the Dalecarlia Reservoir.

Of the sediment taken in with the river water, approximately half of it settles naturally (i.e., without the use of a coagulant) in the Dalecarlia Reservoir. This sediment never goes back to the Potomac River. Some of it is removed mechanically and deposited on land surrounding the reservoir, and the remainder is left to accumulate in the reservoir.

The sediment that does not settle in the Dalecarlia Reservoir enters the treatment process. The two Georgetown sedimentation basins support the McMillan treatment plant, and the four Dalecarlia sedimentation basins support the Dalecarlia treatment plant. The dosage of alum used to coagulate and settle the sediment varies with the turbidity of the incoming raw water from the Dalecarlia Reservoir. The sediment and alum (a combination referred to as "residual solids") must be cleaned from the sedimentation basins periodically to ensure the ability of the sedimentation basins to function as designed. The current technique used to clean a sedimentation basin is to release the contents through a pipe to an outfall on the Potomac River. Some additional flushing water is used to eject the sediment remaining after the initial draining. This process requires approximately 24 hours to complete for each basin.

Under normal operating conditions, there could be 16 discharges from the Dalecarlia plant each year (four times a year for each of four basins) and four to six discharges per year from the Georgetown basins (two to three times a year for each of the two basins). There are three discharge pipes. Material is discharged di-

rectly into the Potomac River from the discharge pipe that serves the basins at the Dalecarlia plant. The two discharge pipes that serve the Georgetown basins terminate in a headwall approximately 75 feet from the river bank, and the discharged material flows through a channel (which is normally dry except during the two or three annual discharges) into the Potomac River. These pipes all transit the C&O Canal National Historic Park, a unit of the National Park Service. The discharges are timed to coincide with river flows that are determined to provide the best sediment transport in the free flowing river.

Environmental safeguards concerning river flows at the time of discharge were added in 1983. These safeguards required the presence of certain river levels to ensure proper reintegration of solids with the flowing river. This altered the cleaning techniques that had been used at Georgetown since the McMillan plant was built in 1903 and had been in effect at the Dalecarlia plant since it was completed in the late 1920's.

There is another element of the water treatment process that produces particulate matter. That is the backwash from the filters. At the Dalecarlia plant there are 36 filters. Each filter is cleaned by a process that temporarily reverses the flow thereby flushing out sediment trapped in the media. On average, a filter is backwashed every 96 hours. Given the number of filters, the process occurs several times a day. As explained later, even though the plant was designed in 1925 to discharge sediment and the flushing water to the Potomac River, that procedure has not been used since 1982. The McMillan treatment plant filter backwash has never gone to the Potomac River. It is handled on site at McMillan.

Prior Studies of Alternative Sediment Discharge Methods

Over the years that the Washington Aqueduct has been operating its treatment plants, there have been several studies undertaken to look at the chemical and physical effects of the solids periodically discharged into the Potomac River. Washington Aqueduct has also studied alternatives to the discharge of these solids to the Potomac River.

In 1976, a contractor to Washington Aqueduct (Camp Dresser & McKee, Inc.) undertook a comprehensive study of alternatives. Its report on "Water Treatment Plant Waste Disposal Alternatives Dalecarlia Water Treatment Plant and Georgetown Reservoir" was issued in 1977. That report dealt with disposal alternatives of particulate matter involved with two processes: the filter backwash and the sedimentation basin cleaning. Two options were identified for the filter backwash at Dalecarlia. One option was to continue discharging into the Potomac River (which was the practice at the time). The other option was to recycle the discharge.

In 1977, Washington Aqueduct adopted the "recycle" option from the report and began the design that led to the construction of a project to collect the filter backwash sediment and the flushing water and route it to the Dalecarlia Reservoir. That project consisted of the construction of a large underground chamber to initially contain the discharge. A collocated underground pumping station was built to send the sediment and the water back to the Dalecarlia Reservoir. When the project was completed in 1982, the filter backwash discharge to the Potomac River ceased.

Seven options were identified for the sedimentation basin solids. Each option is listed below, along with the estimated capital construction/annual operating costs shown in parentheses. The cost estimates are in 1977 dollars. The estimates do not represent the outcome of a complete design of each option considered at that time. They are reported here to provide a relative magnitude of costs among options considered at that time. The options and cost estimates are as follows:

1. Continue to discharge solids to the Potomac.
2. Collect and discharge daily 0.75% solids to Potomac at Dalecarlia and Georgetown (\$11,339,350/\$1,071,550).
3. Collect, thicken and discharge daily 3% solids to DC Sewerage System from Dalecarlia and Georgetown (\$14,004,950/\$1,536,410).
4. Collect, thicken, dewater (centrifuge) and dispose residue to land application (existing excavation) (\$14,276,750/\$2,695,670).
5. Collect, thicken, dewater (centrifuge) and dispose residue to landfill (sanitary) (\$15,658,000/\$2,567,670).
6. Collect, thicken, dewater (filter press) and dispose residue to landfill (\$19,471,100/\$3,142,140).
7. Collect, thicken, dewater (filter press) and dispose residue to land application (\$19,471,100/\$3,230,340).

After discussions with EPA in the late 1970's, the practice of discharging residual solids to the Potomac was retained. As indicated earlier, a river flow condition was added to the National Pollutant Discharge Elimination System (NPDES) permit issued by EPA in 1983. That condition was intended to ensure good reintegration

of the sediment into the flowing river and limit the localized sedimentation effects in the river by the introduction of the residual solids. In the NPDES permit issued to Washington Aqueduct in 1989, EPA Region 3 required that a study be undertaken to determine the toxic and benthic effects of these periodic discharges on the Potomac River. The Dynamac Corporation completed that study in 1993 after two years of fieldwork, modeling studies, and laboratory testing. It found that there were no toxic or benthic effects.

In September 1994, Washington Aqueduct contracted with Whitman, Requardt and Associates (WR&A) to begin design of a method to collect, convey and dewater residual solids generated by the operations of the Dalecarlia water treatment plant, the Georgetown basins and the Dalecarlia Reservoir. The final design memorandum (conceptual design and cost estimates) was completed in November 1996. That concept involved centrifuges and trucking from the Dalecarlia water treatment plant site. It included an alternative to continuously dredge the Dalecarlia Reservoir to remove the sediment that naturally settled out, dewater it, and truck it off-site along with the residual solids recovered from the sedimentation basins at Dalecarlia and Georgetown. The estimated capital construction costs and annual operating costs of this concept (in 1996 dollars) were \$63,387,340 and \$3,387,000, respectively.

The design memorandum was prepared based on assumed discharge criteria of 30 milligrams per liter for both aluminum and iron. Washington Aqueduct made that assumption in order to study the option that had the most complex outcome that might be expected if it were executed in response to an EPA permit decision. Other options were not developed in that design memorandum. Development of such a design memorandum generally takes 12 to 18 months as fundamental design decisions are evaluated for cost and function. Because of the major undertaking such a project would represent, the Corps of Engineers would be required to follow the provisions of the National Environmental Policy Act (NEPA). Several months would be required to prepare a report, which evaluates the environmental consequences of the full menu of alternatives, in addition to the preferred alternative being proposed. Additional time would then be needed to address concerns raised during the public comment period before proceeding on with the plans and specifications. Plans and specifications for projects of this scope usually take two years to complete. Upon award of a contract for a process and facilities of the kind evaluated in the design memorandum, it would take at least three years of construction before the facilities would be placed into operation. Other alternatives could take more or less time to construct.

The WR&A design memorandum project focused on the collection and movement of the solids for processing at the Dalecarlia plant. Their analysis favored centrifuges over filter presses. The alternatives that involved a lesser concentration of solids discharged from the basins to the Potomac River or the placement of those solids into the District of Columbia wastewater collection system were not investigated. The latter decision reflected a conclusion reported in an exchange of letters with the District of Columbia Department of Public Works (the agency responsible for wastewater operations at that time) that there was no capacity for these solids at Blue Plains.

In December 1993, after a malfunction in the treatment process at the Dalecarlia treatment plant, EPA issued a precautionary boil water advisory. Even though later analysis of the suspect water revealed there was no contamination, this incident heightened concerns about the District of Columbia drinking water system. Both in-house and consultant studies produced a substantial capital project array that would be necessary to ensure long term safe and reliable operation of the water treatment facilities. Paying for these improvements was a major issue, since the Corps of Engineers relies on the Washington Aqueduct customers to fund all aspects of its operations.

Design work on these improvements was suspended as a result of the uncertainty of the Corps of Engineers' continued ownership and operation of the Washington Aqueduct and the financial condition of the District of Columbia at that time. The conceptual design also generated considerable opposition from the residential communities surrounding the Dalecarlia site. These communities were, and continue to be, concerned about the truck traffic required to transport dewatered solids from the facility. A provision in the Safe Drinking Water Act Amendments of 1996 (Section 305) gave the Army the ability to let the wholesale customers recommend what entity should continue water production operations. That same provision also allowed for a three-year period (Fiscal Years 1997 through 1999) in which Washington Aqueduct could borrow a total of \$75,000,000 for necessary capital improvements. However, a final provision in that legislation, while not prohibiting the expenditure of those funds on a new solids handling regime, effectively put the emphasis on 43 separate projects funded by Treasury Department loan funds. These projects ranged

from studies, to infrastructure repairs, to whole new process systems, all of which focused on making the water production process safer, more reliable, and more cost effective for the public. In May 1998, the wholesale customers and the Army signed a Memorandum of Understanding for the Corps to continue ownership and operation of the Washington Aqueduct water treatment facilities.

Between 1996 and 1999, the Washington Aqueduct, its customers, and EPA Region 3—assisted by the District of Columbia Department of Consumer and Regulatory Affairs (functions now integrated into the D.C. Department of Health) and U.S. Fish and Wildlife Service and National Marine Fisheries Service—developed a comprehensive water quality study plan to again study the effects of the periodic solids discharges on the Potomac River. EPA Region 3 approved the study plan in June 1999 and work began. The study was completed in October 2001 and Washington Aqueduct sent it to EPA Region 3 for its use in writing an NPDES permit to replace the 1989 permit that had been administratively extended in the intervening years. EPA issued a draft permit for public comment on March 27, 2002.

The time from 1994 to the present was spent dealing with some very important issues—issues critical to the safe, reliable and cost effective production of water from Washington Aqueduct facilities to the benefit of customers in the District of Columbia, Arlington County and Falls Church. A major ownership and operation decision was made. The customers asked the Corps to continue operations, as they believed that significant operational improvements and businesslike practices made it an excellent utility. The financial problems surrounding the District of Columbia's ability to support the wholesale water operations have cleared up with the establishment of the District of Columbia Water and Sewer Authority. The Treasury loans have gone to construct many important process changes that improve the safety and reliability of the water produced to enable it to be in compliance with emerging regulations. It was necessary for EPA to consider both water quality effects and best management practices in issuing a draft permit. The new water quality study provided important information. First, any capital expenditure required to remove solids from the process will be governed by the technology-based, rather than the water quality-based requirements of the Clean Water Act. Second, whatever future technical procedures or processes that may be used to modify the way the residual solids are handled, the Corps' studies conclude that the Potomac River is not significantly affected by its present continued use.

Blue Plains Wastewater Treatment Plant Option

House Report 107–216 and Senate Report 107–85 asked for an analysis of options and specifically identifies disposal at the Blue Plains Wastewater Treatment Plant and use of facilities envisioned in the proposed Combined Sewer Overflow Long Term Control Plan tunnel system to handle the discharge from the Aqueduct. The Chief of the Washington Aqueduct has met with the general manager of the District of Columbia Water and Sewer Authority (DC WASA) to discuss how the latter alternative might be added to the alternatives enumerated earlier in this report. The two options that involve DC WASA will require extensive engineering and economic study that exceed the time allotted by the Committees to respond to the House and Senate Reports. It should be noted that a final Long Term Control Plan has not yet been submitted to EPA (this is expected to occur later in 2002) and that any plan developed by DC WASA will be subject to review and approval by EPA. The impacts of additional solids loading on the Blue Plains Advanced Wastewater Treatment Plant, the feasibility of handling these solids at the plant and the significant costs of construction and operation of facilities that could be required have not been evaluated to the degree that any conclusion may be reached about the viability of this option.

Dredging and Disposal Operations

Washington Aqueduct undertook a significant dredging operation of the Dalecarlia Reservoir between 1996 and 1999. This project was necessary to increase the retention time of water in the reservoir to improve pretreatment—specifically the natural sedimentation of particulate matter from the raw water. In the design of this project, great care was taken to analyze the material being removed and to determine appropriate disposal sites. In that analysis, transportation routes became a key factor. Because of the load limitations on MacArthur Boulevard from the Dalecarlia site north into Maryland (which are due to the raw water conduits being located directly beneath the roadway), truck traffic would have to be routed either to Western Avenue or Massachusetts Avenue to go north. To go south, the route would be MacArthur Boulevard to Key Bridge. Trucks are prohibited from using the Clara Barton Parkway and have great difficulty negotiating the right turn at Arizona Avenue on to Canal Road in an attempt to get to Chain Bridge and into Vir-

ginia. Even though this operation to haul away the Dalecarlia Reservoir sediment was conducted with great care, it proved to be a major concern for the safety and quality of life of the community. It was evident that any permanent major trucking operations from Dalecarlia would face significant obstacles.

Pipeline Alternative

Based in part on the dredging and disposal experience described above, another alternative that might be considered is construction of a pipeline to a location some distance from the Dalecarlia water treatment plant. Thickened solids would be pumped through the pipeline to a storage location (e.g., an abandoned quarry) or to a remote processing site for dewatering and subsequent disposal. This option also will require extensive engineering and economic study (as well as site development). This option and other options would need to be evaluated further using the results of the water quality studies and best professional judgment to determine Best Conventional Technology/Best Available Technology for the Washington Aqueduct.

Time Required to Implement Options

After the engineering and economic studies of the various options have been developed, the environmental analysis, public involvement and decision-making process required by NEPA would take more than a year to complete. The amount of time required for final design and construction would depend on the alternative selected, but would normally take approximately five years (two years for design and three years for construction). No estimates on costs are available yet.

Draft Permit

Washington Aqueduct and its wholesale customers are evaluating the draft NPDES permit that EPA Region 3 has issued for public comment. The Aqueduct will work with EPA to clarify the elements of the permit that employ the principles of best professional judgment in order to make a precise determination of Best Conventional Technology/Best Available Technology.

Mr. IZZO. The Army will continue to work closely with the EPA and other Federal agencies to do what is best for the environment and to ensure the availability and safety of the drinking water that the aqueduct supplies to this region.

Again, I thank you for the opportunity to be here this morning to apprise the Committee about the operations of the Washington Aqueduct and to respond to your questions.

[The prepared statement of Mr. Izzo follows:]

Statement of Dominic Izzo, Principal Deputy Assistant Secretary of the Army for Civil Works, U.S. Army Corps of Engineers

Mr. Chairman and members of the Committee, thank you for inviting me to testify before you today. I am Dominic Izzo, the Principal Deputy Assistant Secretary of the Army for Civil Works.

You invited a representative of the Army here today to provide information on the Washington Aqueduct and its legally permitted discharges. The Washington Aqueduct is a division within the Baltimore District of the Army Corps of Engineers, an organization under my general supervision. I would like to provide a brief background of the significant role the Washington Aqueduct plays in support of our nation's capital and the surrounding areas and then respond to the issues raised in your invitation.

At the direction of Congress in 1853, the United States Army Corps of Engineers began construction of the water delivery system that is today known and operated as the Washington Aqueduct. The United States Army Corps of Engineers has continuously supplied water for drinking, fire protection, and a host of other purposes to the City of Washington and the District of Columbia since 1859. Many of the original structures from the 1850s are still in operation and many others date back to the 1920s. Consequently, many of the real estate interests acquired to support the Aqueduct's mission and the treatment processes currently used by the Aqueduct were acquired and functioning decades before the C & O Canal National Historic Park became a national park.

Today, through the Aqueduct, the Army Corps of Engineers own and operate wholesale water production facilities that provide all of the water supplied to Washington, D.C., Arlington County, Virginia, and the City of Falls Church, Virginia, an

area home to numerous agencies which support the administration and defense of this country including the very building we are meeting in today. By way of example, the Washington Aqueduct supplied the water used to fight the fires at the Pentagon on September 11, as it would for any fire in any one of these three jurisdictions. Providing high quality, safe, and affordable water to the approximately one million consumers in these areas, particularly in light of the September 11 attack on this country, is one of its highest priorities.

The Washington Aqueduct is a unique Federal institution. While much of the Federal Government is totally or largely dependent upon congressional appropriations, the Washington Aqueduct operates as a business. It receives the funds it needs to operate by way of the fees it charges its three local government customers for the water it supplies. Capital improvements are also funded by the customers. At the same time, like all of the other drinking water production facilities, the Washington Aqueduct is regulated by the terms of the Safe Drinking Water Act and the Clean Water Act. The Washington Aqueduct takes its compliance responsibilities seriously. It operates in accordance with the National Pollutant Discharge Elimination System (NPDES) permits issued to it by both the State of Maryland and by Region 3 of the Environmental Protection Agency (EPA).

You invited us to address the effects of Washington Aqueduct sediment discharges on the C&O Canal National Historic Park and the endangered shortnose sturgeon. All water treated by the Washington Aqueduct comes from the Potomac River. When water is withdrawn and brought into the treatment process, approximately half of the naturally occurring sediment carried by the Potomac River settles out in the Dalecarlia Reservoir and never returns to the Potomac River. The remaining sediment is forced to settle in six large basins through the use of a coagulant. The coagulant Washington Aqueduct uses is aluminum sulfate. In the ensuing chemical reaction most of the aluminum and some of the sulfate remains with the sediment in those basins while the clear water moves to the filtration and disinfection portions of the water treatment process.

Periodically, these six sedimentation basins must be cleaned of the sediment build up. When that occurs, the contents, which include raw water (i.e., river water), the accumulated sediments, and the accumulated coagulant, are drained to the Potomac River in accordance with the terms of the NPDES permit issued by EPA Region 3.

At the last stage of the basin cleaning at the Dalecarlia treatment plant some finished water (i.e. drinking water) is used in fire hoses to push out the last of the sediments. That drinking water does contain chlorine, but the physical action of the water on the walls and bottom of the basin volatilizes some of that chlorine. The remaining available chlorine in the drinking water used to push out the solids reacts with the sediment effectively using up all free chlorine potential. Since the issue of chlorine in the discharge from the Dalecarlia sedimentation basins was raised in October 2001, the Aqueduct has been able to take actual samples of the sediment as it is exiting the basin and find that, as expected, there is no free chlorine remaining to react with any organic matter when that sediment returns to the Potomac River.

To put the discharges into perspective, the current permit allows discharge only when the flow of the Potomac exceeds 3.5 billion gallons per day. Normally a discharge event from one of the sedimentation basins will be completed within a 24 hour period. From the most often drained basins, the total volume of the discharge would be in the range of 12 to 18 million gallons most of which is water. The total volume of liquids and the suspended solids being discharged is at a maximum, well less than one percent of the flow of the river during that 24 -hour period. The volume of solids discharged to the Potomac River from the six sedimentation basins is half of the total volume of solids that were removed from the water taken from the Potomac River. The other half remains in the Dalecarlia Reservoir, which acts as a pre -sedimentation basin before the raw water enters the formal treatment process and is dosed with a coagulant.

With respect to the C&O Canal National Historic Park, the Washington Aqueduct, in accordance with EPA and State of Maryland permits, conducts two types of discharges. They are the just -described routine sedimentation basin discharges that occur approximately 16 to 20 times a year and infrequent discharges of raw or partially treated water to allow for maintenance of Washington Aqueduct infrastructure.

The routine water treatment solids, i.e., sediment, discharges use three conduits to get those solids to the Potomac River. One of those conduits is a closed pipe that runs underground through the park's property and discharges into the Potomac River approximately 12 to 16 times per year. A typical discharge there lasts 12-16 hours. These discharges are in accordance with the EPA NPDES permit. At the point of discharge, the sediment enters the Potomac River below water level from

a concrete structure slightly offshore. No sediment is deposited within the C&O Canal National Historic Park at that location.

The other two conduits discharge onto Park property approximately 75 feet from the shore of the Potomac River and follow a channel into the river. These discharges are also in accordance with the EPA NPDES permit and occur approximately 4 to 6 times per year for approximately 12 to 18 hours. The closed discharge pipes at those locations run underground from the sedimentation basins and end in a headwall about 50 to 75 feet from the river. A small channel a few inches deep at each location extends from the headwall, traveling perpendicular to the river, and transports the liquid and the solids until they enter the river and are mixed and carried downstream. During a discharge, the sediment is confined to that channel and does not otherwise affect the surrounding land. There is no build-up of residue from the sediment discharges on park land.

With respect to the non-routine discharges to accomplish plant maintenance, the State of Maryland, under a Maryland General Discharge Permit, allows the Washington Aqueduct to discharge raw water into streams and on lands which cross Park property. These discharges are infrequent, approximately once a year.

In only one location where infrequent discharge occurs is there the potential for chlorinated water to leave the Washington Aqueduct treatment plant and enter the waters of the State of Maryland. This may occur approximately 5 to 6 times per year for a few hours at a time. In that instance a dechlorination station is used to properly dechlorinate the water before it leaves the treatment plant.

EPA has also issued Washington Aqueduct an NPDES Permit (DC0000329) that allows discharge of raw water dosed with coagulant should maintenance be required on a major conduit. The path of this discharge is open and crosses park property. Discharges of this nature occur infrequently, approximately once every two years, for approximately six hours. There are two other points allowed under this permit. One is to drain ground water from under sedimentation basins. That water goes directly to the Potomac River. The other is to drain water from another large conduit to Rock Creek. That discharge might occur only once in 10 years and would be clear, unchlorinated water.

All of the Washington Aqueduct's discharge points or outfalls are properly regulated by and comply with NPDES permits. Where other private or public properties are crossed, proper land usage rights have been obtained.

At this time, there are no known adverse effects on C & O Canal National Historic Park property as a result of these discharges.

The next issue associated with the Washington Aqueduct's sediment discharges that the Committee has asked us to discuss is the impact of the discharges, if any, upon the shortnose sturgeon. That particular question is the subject of current litigation brought by the National Wilderness Institute against a number of the Federal agencies testifying here today. My testimony is therefore constrained so as not to compromise the Government's ability to present a sound defense in this litigation. In accordance with the Endangered Species Act, consultation among the Federal agencies regarding the shortnose sturgeon is ongoing at this time.

At the request and direction of the Environmental Protection Agency, the United States Army Corps of Engineers contracted for two significant scientific efforts to study the impacts, if any, of the sediment discharges upon the aquatic life of the Potomac River. The first effort was a study completed by the Dynamac Corporation in 1993. This report concluded that there were no apparent water quality effects from the release of the discharges. The second effort, based upon a study plan coordinated with the United States Fish and Wildlife Service and approved by EPA Region 3, was a study conducted by EA Engineering, Science, and Technology, Inc., which was completed and provided to EPA Region 3 on October 5, 2001. This report is based upon accepted scientific procedure and analysis. Based upon the results of the study and other information available to EPA, it appears to the Army and the Corps that the sediments have a negligible effect upon the Potomac River.

EPA Region 3 issued a draft NPDES permit concerning Washington Aqueduct's sediment discharge in March 2002. The public comment period is open until June 28.

In conclusion, the United States Army and the Corps of Engineers continue to work closely with the EPA and other Federal agencies to provide independent, thoughtful and scientific information for them to use in preparing permits and otherwise regulating the activities of Washington Aqueduct. Washington Aqueduct acts to do what is best both for the environment, and to ensure the availability and safety of the drinking water we supply to this region.

Again I thank you for the opportunity to be here this morning to apprise the Committee of the operations of the Washington Aqueduct and to respond to your questions.

Mr. RADANOVICH. Thank you very much, Mr. Izzo.

Next up is Mr. Ben Grumbles, Deputy Assistant Administrator for Office of Water, Environmental Protection Agency

STATEMENT OF BEN GRUMBLES, DEPUTY ASSISTANT ADMINISTRATOR FOR OFFICE OF WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. GRUMBLES. Thank you, Mr. Chairman. I am Ben Grumbles, with the Environmental Protection Agency. First, let me convey Administrator Whitman's regrets for not being able to be here to participate in this important hearing.

The second thing, right off the bat, I want to say perhaps now more than ever this hearing is a very timely one, particularly when newspaper stories raise questions that there is a lot of confusion as to exactly what the situation is.

What I would like to do is address the situation and EPA's role in this important issue. I have to say that this morning there was a headline in the Washington Times that said, "EPA says toxic sludge is good for fish."

I would just like to say that that is absolutely untrue. That is not the case at all. In fact, we are still trying to determine the basis upon which that article was written and the document that was relied upon.

We don't even know that it was an EPA employee who said something like that and it was certainly taken out of context. The basic point is that EPA does not believe toxic sludge is good for fish.

In the situation here, what we are talking about is permitting under the Clean Water Act of sediments from the Washington Aqueduct. What I would like to do is just talk a little bit about EPA's role. EPA is the permitting authority in the District of Columbia for Clean Water Act discharges and that is what we are addressing here, the discharges that include the sediments from the basins in the Dalecarlia and the Georgetown Reservoirs under the control of the Corps of Engineers.

The NPDES permit, the Clean Water Act permit, that is currently in force, allows for the discharge of residual solids from cleaning out the sediment basins used to treat water taken from the Potomac River. State-issued permits throughout the Nation frequently allow such discharges, but when the receiving water body is a high volume river such as the Potomac the permits limit the discharges to high flow conditions when the river naturally contains a large quantity of solids.

As issued in 1989, the permit required the Corps to conduct a study of toxicity of the discharge. The Corp's contractor issued a report in February of '93 concluding that there were no apparent water quality effects from the releases of the discharge.

One of the points that we want to make and try to emphasize here is that over this period of time, since the discharges haven't been occurring, we have not gathered, and we don't believe there is conclusive evidence, scientific evidence that there is a toxic effect or an adverse water quality impact.

That doesn't mean that we are not concerned about any kind of discharges, sediments and residuals to the Potomac River or any

river. But the point is that some of the studies, including the study in 1993, did not indicate apparent water quality adverse impacts.

Now, in early '95 EPA prepared for comment a draft permit that would have required the construction of a residual recovery facility to dewater and remove solids from the treatment plant.

At the same time, Congress was drafting comprehensive legislation to amend the Safe Drinking Water Act and earlier drafts in the law itself actually enacted included different provisions that could have produced drastic changes in the financial and organizational structure of the aqueduct.

So, EPA, during that time, took from that, these Congressional discussions, a clear message that it would be premature and inappropriate, even potentially wasteful, to issue an NPDES permit during all those discussions since very much at issue was who would own and operate and how the facility itself would be structured.

Let me address some of the fish issues in the remaining amount of time that I have. EPA, the Corps and the wholesale customers had an agreement on October 3, 1997, to undertake a detailed study of the water quality effects. The study was vital to establish a sound scientific basis for any new requirements in a re-issued Washington Aqueduct permit.

Also, while the study was being developed, EPA entered into an inter-agency agreement with Fish and Wildlife Service in April 1998 for help in developing interim discharge guidelines for the aqueduct sediments.

In March 1999, the Fish and Wildlife Service submitted in a report to EPA the results and recommendations and we believe those recommendations from the expert panel are in large degree captured and reflected in the draft permit.

We also approved a plan for a discharge study in 1999 that you have heard some reference to. The report itself was finalized on October 10, 2001. Based on the results of the study, EPA has concluded that the sediments appear to have a negligible effect upon juvenile and adult fish in the Potomac River.

EPA has also concluded that the discharge is not acutely toxic and that the chronic toxicity tests suggested that the discharge is not currently affecting juvenile and adult fish.

Mr. Chairman, it is important in issuing and renewing permits to look at the science and see exactly what the science is saying, not to rely on anecdotal and news reports, but to really look at exactly what the results are.

The draft permit attempts to reflect that science, but also acknowledges, as you yourself have pointed out on numerous occasions, there are some real questions about the impacts. So, the draft permit that is currently subject to the public comment period, does include some additional safeguards.

I think the most important ones is that the permit itself includes a requirement for a reduction in the sediments being discharged to the Potomac River, an 85 percent reduction compared to the inflow going into the plan of the raw Potomac River water.

Another important safeguard in the draft permit is the prohibition on discharges of the sediment during the spring spawning season, from February 15 through June 15.

Another provision is that there be monitoring for any detectable levels of chlorine where processed water has been used to flush out the sediment basins.

Another important safeguard is the requirement that there be a study conducted on the actual presence of the shortnose sturgeon. Some of the expert witnesses here today have also been addressing that, that to date we have not seen this shortnose sturgeon show up within 50 miles of the outfalls. But that doesn't mean that that is not a continuing area of concern that we want to continue to look at. That is clearly an important message that needs to be conveyed.

So, the draft permit, we believe it is certainly not a final permit, but we are looking forward to the comments, the basis of this hearing, to really get into the additional issues.

Mr. Chairman, the last thing I would like to say is that I know Administrator Whitman takes very seriously some of the concerns that some folks have raised about the potential impacts of the sediments, the possible presence of metals or toxics, but science hasn't borne that out yet.

But we are very concerns and continue to work with the other agencies through consultation under the Endangered Species Act and through gathering additional data to make sure that the sediment that is being discharged is not harmful to the aquatic environment.

Thank you very much, Mr. Chairman.

Mr. RADANOVICH. Thank you, Mr. Grumbles. Thank you for coming before the Committee. We appreciate your testimony.

[The prepared statement of Mr. Grumbles follows:]

**Statement of Benjamin H. Grumbles, Deputy Assistant Administrator for
Water, U.S. Environmental Protection Agency**

INTRODUCTION

Good morning, Mr. Chairman and Members of the Committee. I am Ben Grumbles, Deputy Assistant Administrator for Water at the U.S. Environmental Protection Agency (EPA). First, let me convey Governor Whitman's regrets for not being able to be here today to speak with this Committee. Second, I appreciate this opportunity to provide the EPA's views on the Washington Aqueduct, and to discuss the National Pollutant Discharge Elimination System (NPDES) permit required under the Clean Water Act.

BACKGROUND

The Washington Aqueduct is truly unique. The history, ownership, operations, regulation, and financing of the Aqueduct, coupled with the various responsibilities of the Federal, State, and local agencies, and the District of Columbia, have presented—and continue to present—some interesting challenges.

Ordinarily, the States assume the primary authority for regulatory implementation and enforcement under the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA), as Congress intended. Forty-nine States have primary enforcement authority for supervising public water systems under SDWA, and forty-four States are authorized to carry out NPDES permitting responsibilities under the CWA. EPA takes on the permit-issuing or primary enforcement authority that States ordinarily assume only in those few situations in which a particular State has not assumed this authority. Such is the case in the District of Columbia for both the CWA and SDWA regulatory programs.

Two unique factors should be noted when discussing the Aqueduct's compliance with SDWA and CWA requirements. First, there is no other situation in the country where a Federal agency is, by law, specifically assigned the role of providing municipal drinking water treatment—which, in this case, means serving over a million customers in multiple jurisdictions. Second, as noted in the Senate Environment and Public Works Committee's November 1995 report on S. 1316—which became the SDWA Amendments of 1996—"The Corps of Engineers, as owner of the system,

has no authority to finance capital improvement projects necessary to meet Federal drinking water standards.” [S. Rpt. 104–169, p. 99]

Not only was the Aqueduct given a mission that is unique within the Corps (and within the entire Federal Government as well), but its pursuit of this mission has also been complicated by its lack of the same access to capital funds that traditional municipalities or drinking water authorities have. Important Congressional initiatives to address the Aqueduct’s situation were being formulated and subsequently implemented for some time while EPA was proceeding to revise the Aqueduct’s discharge permit for drinking water treatment residuals, and EPA has very properly recognized and respected those initiatives.

EPA’S ROLE AS NPDES PERMITTING AUTHORITY

EPA is the authority in the District of Columbia responsible for issuing NPDES permits, in accordance with Section 402 of the CWA, and for regulating public drinking water systems in the District under SDWA, acting in both cases in a role analogous to that undertaken by most States. EPA works closely with the Washington Aqueduct and its wholesale customers—the District of Columbia Water and Sewer Authority, and Arlington County and Falls Church, Virginia—to insure that the Aqueduct and its wholesale customers comply with all applicable requirements related to drinking water in order to provide customers with high quality drinking water. EPA also has issued NPDES permits for discharges from the Aqueduct into waters of the U.S., and oversees the facility’s compliance with its permit.

Finally, EPA has responsibilities under section 7 of the Endangered Species Act (ESA), including the obligation to ensure that its actions are not likely to jeopardize the continued existence of listed endangered and threatened species or result in the destruction or adverse modification of designated critical habitat. The ESA complements EPA’s and the States’ responsibilities under the CWA to restore and maintain the biological integrity of the Nation’s waters.

In general, the States and EPA (where a State lacks permitting authority) apply the following procedures in issuing an NPDES permit. Upon receiving an application for an NPDES permit (or in this particular case, an application to renew the permit), EPA begins to draft the permit. A major part of this work is preparing limits on the discharge of pollutants, based on technology requirements and water quality impacts. Limits may set conditions on the pollutants to be discharged, such as: restrictions on the mass and/or concentration of the pollutants; timing of the discharge; and, monitoring requirements. The responsible EPA Region often consults with Federal and State agencies about possible provisions before it completes the draft permit. EPA also includes general conditions applicable to any NPDES permit, and prepares a fact sheet (a detailed explanation of the permit and its terms) or a statement of basis (a less detailed explanation). In the few States that lack NPDES permit authority, prior to seeking public comment on the permit, EPA will also send a draft to the appropriate State agency to certify that the permit will be protective of the State’s water quality standards.

After EPA has completed the draft permit, the Agency sends out a notice of the draft permit, a solicitation of comments, and the necessary information to request a hearing. EPA sends the notice to, among others: the permittee; other Federal agencies, including the Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS); State agencies with responsibility over fish, shellfish and wildlife in the State; and persons who are on a mailing list EPA maintains of individuals who have expressed an interest in NPDES permits. EPA’s NPDES regulations note the Agency’s obligation to comply with the ESA as well as the possibility that EPA may impose conditions based upon comments from FWS or NMFS. Notice of the draft permit is also published in a daily or weekly newspaper within the area affected by the discharge. Anyone may ask for a copy of the draft permit, the fact sheet (or statement of basis), and at the same time request a public hearing. Depending upon the interest in the permit, EPA may hold a public hearing to take comments on the draft permit.

After the public comment period is closed, EPA reviews the comments and prepares a document responding to them. At the same time, the Agency prepares a final permit, making any changes needed to respond to the comments. If the changes required are such that the original draft permit would not provide sufficient notice of the revised permit’s contents, EPA will repeat the steps above, in effect issuing a new draft permit and providing an additional public comment period. EPA then issues the final permit, and sends a notice to anyone who sent in comments on the draft permit that the Agency has taken this action.

In taking any action to issue a permit, EPA must comply with the applicable requirements contained in section 7 of the Endangered Species Act (ESA) and 50 C.F.R. Part 402. Under section 7(a)(2), EPA must ensure, in consultation with the

FWS and NMFS, that issuance of the permit is not likely to jeopardize the continued existence of any listed threatened or endangered species or result in the destruction or adverse modification of designated critical habitats. EPA has entered into a Memorandum of Agreement with the Fish and Wildlife Service and National Marine Fisheries Service that describes the process that the agencies will follow in consulting on NPDES permits. This process, which tracks the requirements in 50 C.F.R. Part 402, includes a determination by EPA whether the permitted activity may affect a listed species and, if so, EPA requests either informal or formal consultation. Based on the consultation, EPA imposes any permit conditions needed to ensure that the discharge is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Should the Service(s) anticipate incidental take of listed species, EPA also considers changes to the permit required by the Service(s) for incidental take to be authorized.

Any person who participated in the permit-issuance process is entitled to appeal a final permit to an administrative body at EPA, the Environmental Appeals Board, which can review whether the permit is based on a finding of fact or conclusion of law which is clearly erroneous, including a claim that the permit fails to comply with the ESA.

PERMITTING OF WASHINGTON AQUEDUCT DISCHARGES

The Corps owns and operates the Washington Aqueduct facility. The functions of the facility include the collection, purification, and pumping of an adequate supply of clean drinking water for the District of Columbia, Arlington County (VA), and the City of Falls Church (VA). The Washington Aqueduct provides the drinking water supply for approximately one million residents of the District of Columbia and Northern Virginia. The area residents receive water through distribution systems owned and operated by the Water and Sewer Authority, "WASA" (for the District of Columbia), Arlington County, and the City of Falls Church (the "Wholesale Customers"). Drinking water distribution is the responsibility of the Wholesale Customers.

The 1989 Permit and Its Revision

On April 3, 1989, EPA reissued NPDES Permit No. DC 0000019 to the Corps for the Washington Aqueduct facility, effective date May 3, 1989. (EPA had issued the original permit in 1983.) The contents of this permit were devised on a basis similar to that used by States in issuing many permits throughout the country—on the permit writer's Best Professional Judgment, which is used to determine what limitations to apply in the absence of relevant Effluent Limitation Guidelines. In this case, the NPDES permit allows for the discharge of residual solids from cleaning out the sedimentation basins used in filtering water withdrawn from the Potomac River. State-issued permits throughout the nation frequently allow such discharges when the receiving water body is a high-volume river such as the Potomac. The Aqueduct permit does not require any treatment of the discharge, but limits the timing of the discharges to the Potomac to high flow conditions, when the river naturally contains a large quantity of solids.

The permit currently in use contains monitoring requirements but no specific effluent limits on Total Suspended Solids, Total Aluminum, Total Iron, and Flow in the permit. The permit does prohibit the discharge of floating solids or visible foam. The permit also requires the Aqueduct to meet a pH level of not less than 6.0 standard units nor greater than 8.5 standard units. At the time of the discharge, the Aqueduct must take monitoring samples of pH, Total Suspended Solids, Total Aluminum, Total Iron, and Flow, to provide EPA, through Discharge Monitoring Reports, a representation of the discharge's volume and nature.

As issued in 1989, the NPDES permit required the Corps to conduct several studies on the toxicity of the discharge. The Corps' contractor completed the initial studies and issued a report in February 1993, concluding that there were no apparent water quality effects from the release of the discharges.

The 1989 permit had an expiration date of May 2, 1994. The Corps applied for a new permit before the expiration date, and under 5 U.S.C. §§ 558(c) and 40 C.F.R. §§ 122.6(a), the prior permit continues in effect by operation of law pending the NPDES authority's (here, EPA's) decision to issue a new permit.

In early 1995, EPA prepared a draft permit for comment, and sent copies to the District of Columbia and the Aqueduct. In February 1995, the Wholesale Customers and the Aqueduct stated their significant concerns with proposed new conditions in the draft permit that would limit the concentrations of Iron, Aluminum and Total Suspended Solids in the Aqueduct's discharge. These limits would have required the construction of a residual recovery facility. This is a facility built adjacent to a

drinking water treatment plant to dewater the solids (largely silt and organic material) removed from the water during coagulation and filtration, which occur prior to disinfection. Depending on the composition of the dried solids, they are either used for some commercial purpose (directly or after further treatment) or trucked to a landfill for disposal.

The Wholesale Customers expressed concern that the cost of such a facility would be unaffordable for many and excessive in relation to what they and the Aqueduct considered were hypothetical or vague environmental benefits from a recovery facility.

As EPA was considering these concerns, Congress was drafting comprehensive legislation to reauthorize and reform the Safe Drinking Water Act. Contrasting bills had passed both the House and Senate in late 1994, but the 103rd Congress had adjourned before a compromise agreement could be reached. With this base of prior action to build on, a number of locally significant issues, like the future of the Aqueduct, were discussed at a relatively early point in the 104th Congress. A March 31, 1995 SDWA discussion draft of Sen. Kempthorne (then Water Subcommittee Chairman on the Senate Environment and Public Works Committee) included a provision authorizing the Corps to borrow "such funds as the Secretary of the Army determines are required to finance capital improvements for the Washington Aqueduct." The relevant provision in Sen. Kempthorne's June 26, 1995 discussion draft took the form that was included in S. 1316 as passed by the Senate in November 1995.

Congressional discussions of the Aqueduct's financial situation were occurring at the same time as the Wholesale Customers and the Corps were questioning the cost and environmental benefits of the draft permit. At least one clear message seemed to emerge: that EPA should not issue an NPDES permit that would preempt or prematurely direct the Aqueduct's capital investment priorities separate from, ahead of, or in conflict with how Congress might direct the Aqueduct to address its many capital needs in the SDWA Amendments.

As a result, in April 1996, EPA agreed to delay the issuance of the permit. This was consistent with both the 1995 Senate-passed provision and Section 306 of the SDWA Amendments (Public Law 104-182) enacted August 6, 1996, which directed the Aqueduct and its Customers to explore the feasibility of turning over the ownership and operations of the Aqueduct to a non-federal entity.

Section 306 also required that, before reissuing the NPDES permit, EPA must consult with the Customers "regarding opportunities for more efficient water facility configurations that might be achieved through various possible transfers of the Washington Aqueduct. Such consultation shall include specific consideration of concerns regarding a proposed solids recovery facility, and may include a public hearing."

On May 5, 1998, the Corps and the Wholesale Customers signed a Memorandum of Understanding (MOU). This MOU included their joint "determination that a desirable option is for the ownership, operation, maintenance, and management of the Washington Aqueduct to remain with the Army, ...and for the creation of a stable and mutually beneficial partnership ... between the Wholesale Water Customers and the Corps of Engineers." Section 306(e) authorized the Corps to borrow \$75 million over three years for Aqueduct capital improvements; the Congressional Budget Office cost estimate for S. 1316 in Senate Report 104-169, referenced above, states that "[t]he Corps estimates that the modernization would cost about \$275 million in 1995 dollars." [p. 111] However, the Wholesale Customers' recognition of their responsibility to help finance Aqueduct capital improvements, while not yet applied in practice, should finally enable the Aqueduct to finance a comprehensive, long-term program of asset management, including ongoing regulatory compliance.

Fish Issues

After discussions among the Corps, EPA, and the Wholesale Customers, these parties agreed on October 3, 1997, that contractors for the Wholesale Customers would undertake a new study of the water quality effects of the Aqueduct's discharge and would address issues raised by EPA ("Discharge Study"). The results of the Study, completed last Fall, are discussed later in this testimony. The parties agreed that the Discharge Study would include six parts: an effluent dilution and fate study, where a computer simulates river flow and the suspended solid's plume to determine acute and chronic dilution factors as a function of effluent loading and river flow; effluent toxicity testing to determine the toxicity of discharges to freshwater species; effluent chemical characterization, using existing effluent discharge data to calculate preliminary projections of receiving water concentrations in comparison to water quality criteria; an analysis of the Potomac's fishery to determine the effect of the discharge upon key anadromous and resident fish species; an analysis of the Potomac's macroinvertebrate community to characterize the community

prior to and after discharge; and, an analysis of a modification of the aluminum criteria in the event the other parts of the Aqueduct Study show that this would be desirable. EPA believed this study was necessary to establish a scientifically-sound basis for any new requirements written into the reissued Washington Aqueduct permit. New effluent limits and special conditions in a revised NPDES permit could mandate the expenditure of large amounts of ratepayer funds, and, taking the role of a State agency responsible for long-term public water system supervision, EPA recognized especially the challenges this would raise given the Aqueduct's unique financing issues.

While the study was being developed, EPA entered into an Interagency Agreement with Fish and Wildlife Service ('FWS') in April 1998 for help in developing interim discharge guidelines for the Washington Aqueduct sediments. The purpose of this work was to determine whether or not there were any near-term cost-effective remedies which the Washington Aqueduct could employ to avoid potential impacts to fish species that may migrate or spawn in the Potomac River in the vicinity of the Aqueduct discharges. EPA convened a panel of fisheries biologists from the District of Columbia, National Marine Fisheries Service, State of Maryland, FWS and the Interstate Commission on the Potomac River Basin (1998 Fisheries Panel) to provide recommendations on minimizing impacts to migratory fish from sediment discharges at the Aqueduct, while EPA and the Corps pursued a long-term solution.

In March of 1999, the FWS submitted, in a report to EPA, the results and recommendations of the Fisheries Panel's study, including that there should be no discharge in the Spring when anadromous fish spawn, and that rocks by one of the outfalls should be moved to facilitate the flow and dispersion of the discharge into the river.

On June 24, 1999, EPA approved the study plan for the Discharge Study developed in part with technical assistance from the FWS Environmental Contaminants Branch of its Chesapeake Bay Field Office. The Discharge Study was performed by scientists at EA Engineering, Science & Technology, Inc. under contract to the Metropolitan Washington Council of Governments on behalf of the Wholesale Customers. EPA held public meetings and informational sessions attended by FWS, most notably in the Spring of 2000 and on October 10, to explain the techniques used during the collection of environmental data for the Discharge Study.

Field work for the studies began in August of 1999 and was completed in May of 2001. The Discharge Study Report was finalized on October 10, 2001. Based upon the results of the Study (which analyzed observations made over the 21 month field study period) and other available information, EPA has concluded that the sediments appear to have a negligible effect upon juvenile and adult fish in the Potomac River. EPA has also concluded that the acute toxicity studies showed that the discharge is not acutely toxic, and the chronic toxicity tests, while not conclusive, seemed to support a judgment that the discharge is not currently affecting juvenile and adult fish. The Study did suggest a potential risk of smothering fish eggs and larvae if they are in the river at the time of the discharge.

Based on NMFS's continued concern about the potential presence of shortnose sturgeon, and the Fisheries Panel's similar concern that the discharge may have a smothering effect on early life stages of fish, and in light of our ongoing section 7 consultation about the sturgeon, EPA has prepared a draft permit that goes beyond the present permit requirements to protect the river and its living resources.

Draft Permit

Draft permit number DC 0000019 was issued by EPA Region III on March 28 for public comment. It contains several new provisions including:

- A prohibition against the Washington Aqueduct discharging during the spawning season for the native fish of the river, which runs from February 15 to June 15, unless specifically allowed to do so by EPA because of emergency conditions.
- A requirement that drainage times be lengthened for the two of the sedimentation basins at the Aqueduct, and that the amount of untreated process water used to flush and clean these basins be increased, resulting in a less concentrated effluent.
- A requirement that, as a technology-based control, a conceptual study plan be completed to identify engineering controls capable of removing a total of 85% of all incoming solids, and that implementation of the plan begin within 5 years.
- A requirement to remove the rocks in the vicinity of one of the outfalls pursuant to the recommendations of the Fisheries Panel.
- A requirement that the Washington Aqueduct perform a study, using an approved National Marine Fisheries Service (NMFS) protocol, to evaluate whether shortnose sturgeon are present in District of Columbia waters of the Potomac

River. In its planning for and performance of this study, the Aqueduct must consult with NMFS and the U.S. Fish and Wildlife Service.

In the preparation of this draft permit, EPA took several steps to ensure adequate public involvement from all interested parties. This included informal consultation with the D.C. Department of Health, and we believe that the District of Columbia will certify under Clean Water Act Section 401 that the new permit complies with D.C. Water Quality Standards.

Informal consultation with the FWS and NMFS—to ensure that endangered species and habitat are protected—has also occurred, with the constructive results discussed in this testimony. In addition, since the State of Maryland and the Commonwealth of Virginia share the waters of the Potomac with the District of Columbia, they too were provided the opportunity to comment on the draft permit. EPA and the Washington Aqueduct also hosted a public meeting on March 26 to explain to local community members the provisions in the draft permit. Finally, pursuant to requests from both Congress and the Washington Aqueduct, the public comment period for the draft permit, initially scheduled to run until Monday, April 29, was extended by EPA to run until June 28.

ESA Consultation

The ESA provides for consultation with the appropriate Federal wildlife agency when a Federal action may affect endangered species. The ESA regulations give a Federal Agency two options for consultation: informal or formal. As provided by the regulations, informal consultation is designed to determine whether formal consultation is necessary.

EPA has been engaged in “informal” consultation under the Endangered Species Act with the National Marine Fisheries Service (NMFS) for about a year, concerning the issuance of the NPDES permit for the Washington Aqueduct and possible effects on the Federally-listed endangered shortnose sturgeon. While the draft permit’s prohibition on discharges during spawning season was designed to protect fisheries in the river, EPA and NMFS have this month agreed to enter into formal consultation to determine the effects of the limited potential for emergency discharges from the Aqueduct on shortnose sturgeon if sturgeon were to be present at this location during such emergency discharges. According to NMFS, there are no data documenting the presence of sturgeon in waters affected by the discharge or within 55 miles of those affected waters. Because additional data gathering would be necessary to conclusively prove its presence or absence in those waters, EPA and NMFS are taking a conservative approach by formally consulting, to determine the response to this lack of information in the context of the draft permit. The NMFS is currently reviewing the matter, and will provide a Biological Opinion with recommendations to EPA.

EPA will then address whatever recommendations are contained in the Biological Opinion, and after review of, and response to, any comments received in the public comment period, will issue the final permit. The length of time it will take to issue a final permit depends on a number of factors, including when EPA concludes its consultation with NMFS, the number and content of public comments received, and results of Congressionally mandated consultation with the Customers.

CONCLUSION

In summary, by following the requirements of the Clean Water Act, the Endangered Species Act, and the Safe Drinking Water Act, EPA believes that we can issue a new permit for the Washington Aqueduct that will protect the river’s ecosystem and aquatic life.

I would like to thank the Members of this Committee for inviting EPA to participate in this important hearing. The Administration shares the Committee’s concern for the preservation of our nation’s park system and protection of endangered species, and commends the Chairman for his interest in this particular issue.

This concludes my prepared remarks, and I would be happy to answer any questions that you may have at this time.

Mr. RADANOVICH. I am going to open it up with a few questions and open it up to different members of the Committee for questions.

I would start with Mr. Grumbles by asking the question, I have a bit of concern over the permitting process that the EPA went through. As you know, and I have just been informed by the Department of Commerce or NMFS that they have just entered into

formal consultation regarding the effects of the dumping on any endangered species including the shortnose sturgeon.

In your testimony you mentioned that you made the determination that it was not harmful to fish and wildlife and so therefore the EPA determined it was allowed to proceed, although to my knowledge the shortnose sturgeon has been listed since the 1970's, I think. It has been present in there. To my knowledge there has never been any formal consultation going on.

Please explain your role, how you came to those conclusions, and also your relationship, when you develop permits like this, do you interrelate with NMFS on that and what has been NMFS' response to something like that?

Mr. GRUMBLES. A couple of points: The first one is that I think for well over a year we have been engaged in "informal" consultation with NMFS over the presence and potential impacts to the shortnose sturgeon.

I guess based on the ongoing questions and the fact that there were still some issues that had not been fully resolved, and based on an abundance of caution, recognizing that this is a situation where you need to have a conservative approach and follow up with more information, we agreed on June 13th to enter into a formal consultation.

Now, all of this is in the context of EPA issuing a Federal Clean Water Act permit. Now, the timeframe that we have set out is that our comment period closes on June 28th. After that comment period closes, we will continue to be working with, certainly with NMFS in terms of the formal consultation.

It may be, Mr. Chairman, based on the nature of the public comments and how we respond, if we recommend substantial changes to the draft permit, we would then propose a second round of public comment based on those changes. Then, in terms of the formal consultation with NMFS, which could be up to 135 days from June 13th, we would take their considerations and their comments into account.

Perhaps by the end of the year—it just depends on the timeframe—we would be issuing a final permit.

Mr. RADANOVICH. I guess what is unclear to me is that the species was listed in the 1970's, the shortnose sturgeon. How long is the permitting of the dumping of the sludge into the Potomac been allowed? I would guess that it has been about that long.

Why is it now that the EPA is finally engaging itself, and it may be a question for Mr. Keeney as well, finally there is some formal consultation to find out that while this dumping is going on where it is known to be a habitat for an endangered species, have you finally waited this long to get into formal consultation.

We are glad of the fact that you are, but why did it take so long?

Mr. GRUMBLES. I think your question is a fair one and I think the response is that while understanding that the shortnose sturgeon has been listed for quite some time, the real question was the geographic proximity of the sturgeon and the relevance of it to the precise locations of the outfalls.

Mr. RADANOVICH. It has been known that that is potential habitat, where the sludge is being dumped, right? I mean that is obvious to everybody.

Mr. GRUMBLES. The information that I think we had was that back in the late 1800's there was a spotting of shortnose sturgeon in the area, and based on the information I have from EPA, there had not been any more recent sightings until we get to the 1996 one spotted about 50 miles from the outfall itself.

So, there wasn't any compelling, convincing scientific evidence over the decades that the shortnose sturgeon actually was within an area where it could be impacted.

Mr. RADANOVICH. But the point under the law is that if it is potential habitat, you have to treat it as if the endangered species is present. That is what the law reads.

I will conclude my round of questions by giving you a couple of examples. In 1997, in January in California, there was a flood along the entire west coast. A levy broke and killed three people. The story behind it was that the water agency that knew that the levy was weak was prohibited from going in and effecting repairs to protect human life, because it was the habitat of the endangered Elderberry Bark Beetle. And there was absolutely no evaluation that that bark beetle was present. But it was known to be the habitat of one, so they were kept from all that time, up until the flood hit and killed three people, from going into that area because it was a suspected habitat.

Another perfect example is what happened up in Klamath recently with the Sucker Fish in the Klamath River that is known to be the habitat of the Sucker Fish. The Sucker Fish wasn't present. Nevertheless, not your agency, but a different Federal agency came in and shut off water to 1200 farmers that year, bankrupting most of them, because it was the known habitat of an endangered species.

This is why we bring this up in this case, because over 25 years, ever since the shortnose sturgeon was listed, this area where the dumping is occurring is a known habitat of the endangered species and under normal law that is applied in my area of the world, there would have been a cease and desist order issued 20 years ago.

Mr. Grumbles, I am done with my questioning. You can respond quickly. We are going to be asking a lot of questions, but I want to give everybody else a chance to ask them.

Mr. GRUMBLES. Mr. Chairman, I want to add that just because it is potential habitat doesn't mean that consultation is necessary. In fact, if you look on the map that I provided, there are several rivers, like the York, the Patuxent and others along the Virginia and Maryland coast that are looked at as being potential habitat.

We have no evidence of shortnose sturgeon in those rivers. As Mr. Grumbles said, it was only 1996. It went from 1899 until 1996 with no sturgeon known to be in the Potomac River. In 1996, there were six sturgeon caught or found to be in the river. Since then, we have been involved in consultations with EPA.

Mr. RADANOVICH. Not formal consultation but—

Mr. GRUMBLES. We normally start with informal consultations unless we have reason to believe that formal consultations are necessary and we did not at that point.

Mr. RADANOVICH. Did the fact that this hit the press and has become quite an issue now encourage the department to go into formal consultation?

Mr. GRUMBLES. I think our discussions have reached the point with EPA that EPA felt that formal consultations were appropriate.

Mr. RADANOVICH. Thank you. I turn my time over to Ms. Christensen.

Ms. CHRISTENSEN. Thank you, Mr. Chairman. I want to welcome Mr. Murphy, our Deputy Director of the National Park Service with whom I have had several meetings. It is also nice to have you here with us this morning, Tim.

Mr. KEENEY. Thank you.

Ms. CHRISTENSEN. I have a couple of questions for Interior. One, does the sediment discharged from the Dalecarlia and Georgetown water treatment facilities impact the National Park Service property at any point before it reaches the Potomac River?

Mr. MURPHY. Yes, there is a section up about 75 feet where the effluent crosses the National Park Service land and then it also affects the river bed that is the responsibility of the National Park Service as well.

Ms. CHRISTENSEN. So, do you have authority to stop that impact?

Mr. MURPHY. That is something that our solicitors started taking under advisement from the last hearing in October and the solicitor has just completed a draft review which I have not a chance to review myself and that draft opinion from the solicitor will give us a better idea as to whether or not we have the authority to stop it unilaterally.

Ms. CHRISTENSEN. In your view has the U.S. Fish and Wildlife Service, which usually is very aggressive in my experience, complied with statutory responsibilities in the sense of the sturgeon in the Potomac?

Mr. MURPHY. It is our opinion that it has. As you know, NMFS has the responsibility for, in this case, in the Potomac River. But it is our opinion, as I stated in my testimony, that the United States Fish and Wildlife Service has pursued this consistent with its authority, but as expressed earlier in my testimony, they feel that there certainly is an opportunity here for further review and for additional studies to be done to see what the exact effects are.

We are working with EPA to see that that is done. As I said in my testimony also, the U.S. Fish and Wildlife Service would be happy to provide technical assistance.

Ms. CHRISTENSEN. Did they not fully comply with their responsibilities? Why now do they feel the need to perhaps look at it? Is it because of the fact of these hearings or is it because something was found in the science that indicates that they need to pursue it further?

Mr. MURPHY. I think what we are saying here is that as additional information becomes available, particularly when these permits come up for review, it gives an opportunity for us to take an additional look at these and as new information comes up and questions are asked, I think an agency appropriately responds by saying, well, perhaps we really need to take a closer look at this. I think that is what the Fish and Wildlife Service is doing here.

Ms. CHRISTENSEN. Mr. Grumbles, with respect to the recommendations, and I know you said it, I am just asking for clarification, the recommendations of the U.S. Fish and Wildlife Service that have been incorporated into the draft permit, the ones that has been recommended thus far. So, for example, even though there is no evidence of impact, they had recommended, for example, that it might be prudent to mitigate any possible impact on the shortnose sturgeon.

I think you said in your testimony that you had incorporated, despite the fact that there was no real evidence of adverse impact on the sturgeon, that you had incorporated the Fish and Wildlife Service recommendations.

Mr. GRUMBLES. I think that we have been in the draft and we are certainly not locked into concrete on that.

Ms. CHRISTENSEN. The new draft?

Mr. GRUMBLES. In the draft what we have been doing is trying to incorporate Fish and Wildlife Service or Marine Fisheries Service concerns, basically the comments with respect to the spawning season, the ban on that. That is a specific example of something that we have incorporated in the draft permanently.

Ms. CHRISTENSEN. Well, I just wanted to establish that where Fish and Wildlife Service had fulfilled its responsibilities that were incorporated, just to clarify that.

Back to Deputy Director Murphy, if you feel that more scientific evaluation on these issues should be completed, which agencies other than Fish and Wildlife Service should do that work? And is that work required by Clean Water Act or some other statute?

Mr. MURPHY. Let us see. The first part of your question is which other agencies should be involved. As I said earlier, we would welcome additional studies and actually would request that additional studies be done by EPA and by the Corps and that we would provide whatever technical assistance was necessary to facilitate those additional studies and additional data being collected.

The second part of your question was? I'm sorry.

Ms. CHRISTENSEN. Would the work that you are suggesting might need to be done be required under Clean Water Act or some other statute and which statute?

Mr. MURPHY. I can't answer that directly. I would defer to EPA on the answer to that as far as exactly what statute it would be under. I can answer the question with respect to the National Park Service's own regulations which get at harm being done to the National Park Service's resources and our statutory responsibility to take action if we believe that harm is being done to our National Park Service resources.

Under the statutes that govern the National Park Service, if there is data that shows that there is harm being done, of course we would take the appropriate action.

Ms. CHRISTENSEN. Do we have that data?

Mr. MURPHY. That is what we are asking for, and additional studies.

Ms. CHRISTENSEN. Perhaps, Mr. Chairman, we could ask that when that study is completed that the results be forwarded to the Subcommittee?

Mr. RADANOVICH. That was done in 1998.

Ms. CHRISTENSEN. This is the study that is being done on the impact of the effluent on the Park Service property.

Mr. MURPHY. Well, let me provide clarification. What we are asking, we just made comments to the Environmental Protection Agency, which we just provided to the Committee. In those comments we ask that additional studies be done. Once those studies are carried out or done, which we would be happy to assist in and facilitate them, we could provide additional information. But those studies haven't been completed yet.

We are asking, as part of our comments to EPA, that this be done.

Ms. CHRISTENSEN. Thank you. The next up for questions is Mr. Otter as soon as he makes his speech. Do you want to go ahead? Shall we let Tom go first?

Mr. Osborne.

Mr. OSBORNE. Thank you. Well, I will stall while Butch gets here.

I appreciate your being here this morning. I would like to just mention to you that I have some knowledge of the Endangered Species Act with regard to the Platte River in Nebraska. The only endangered species we are required to try to protect is the Pallid Sturgeon and, to my knowledge, the Pallid Sturgeon does not inhabit the Platte River.

This particular section over in the middle of Nebraska, I don't believe a Pallid Sturgeon has ever been seen there, but it does exist in the Missouri River, a couple of hundred miles downstream. So, it does seem to me that even though you may have not observed the shortnose sturgeon in this particular area that it is not without precedent that the Endangered Species Act is very far reaching and sometimes if it is in the same watershed, there is some application.

I guess the question that I would have is simply irrespective of the Endangered Species Act, does the dumping of sludge into a river such as the Potomac, is that acceptable? I mean we have seen rather graphically what it has done to some birds and some animals. If something like this were done in the Yellowstone River, Yellowstone National Park, would it fly?

Again, some of us are a little paranoid, but sort of feel like maybe western States are treated a little differently. It just doesn't make sense. I can't envision something like that occurring in some of our western rivers and something not being done rather dramatically.

So, do you have any response to that, I mean the impact on birds and animals, whether this is truly being administered evenhandedly across the board? I am just interested in your reaction and any one of you who would care to respond.

Mr. GRUMBLES. Congressman, I would be happy to respond first. The response is that it is not appropriate to allow or to tolerate the discharge of toxic sludge into any water body. I think that is a general statement.

EPA's position, and the way EPA implements the Clean Water Act is that we have on occasion, it is not just limited to the Washington Aqueduct, but there are drinking water treatment facilities throughout the country in various States that do have these residual solids, sediment.

I wouldn't call it sludge. In my mind sludge is more associated with sewage sludge, which is not at all what is at issue here. But there are drinking water treatment facilities in other States throughout the country that are authorized, subject to conditions and limitations of various types, depending on the nature of the water body, to discharge the solids into a receiving water and do so under the parameters of a Clean Water Act permit.

Now, as you point out, there can be some questions and one of the issues as to whether or not a permit gets issued is exactly what the impacts will be, not just on the water column, the quality of the water, but on the fish and wildlife that are present in the water body.

One of the questions, I think, does boil down to, in terms of the intersection between the Clean Water Act and the Endangered Species Act, as the Chairman was raising, is getting a handle on what is the potential habitat of particular species, whether it is the Pallid Sturgeon or some other species that may or may not be in the receiving water. That is something that the permit write would have to factor in in consultation with NMFS and the Fish and Wildlife Service.

It would be a significant factor in whether or not to issue a Clean Water Act permit.

Mr. KEENEY. Mr. Osborne, I might add a few things here. First of all, NOAA Fisheries, we believe, applies the ESA consistently wherever the species are listed. I can give you some examples of other places along the east coast where we have done that. We have taken actions to protect Atlantic salmon along the east coast; sea turtles in the Atlantic Ocean, the Gulf of Mexico and western Pacific. We are currently conducting Endangered Species Act status review of Atlantic White Marlin.

We have also proposed designated critical habitat for Gulf Sturgeon in the Gulf of Mexico.

Also, I might add that on the west coast, as you know, under the Endangered Species Act, endangered species may be taken, as long as the action of the taking is not likely to jeopardize the continued existence of the listed species.

Examples where takings have been permitted on the west coast include spawning areas of threatened or endangered fish included in the Northwest Forest Plan, numerous consultations with the Federal Highway Administration on seismic retrofitting of bridges in California, Oregon and Washington, and Department of Army permits for in-stream mining along the Russian River.

So, I think that even though it may appear that there is an unequal application of the regulatory authority, I think it is more of a matter of a historic legacy of development and industrial use, where in the East there obviously is a much longer history of that kind of activity. As a result, we have less habitat and many fewer species.

Mr. OSBORNE. Thank you. I yield back, Mr. Chairman.

Mr. RADANOVICH. Thank you very much.

Mr. Udall.

Mr. UDALL OF NEW MEXICO. Thank you, Mr. Chairman. I appreciate members of the panel being here.

Mr. Grumbles, back to your statement on this has been done before. How many times? Do you have knowledge of how many times the EPA has issued these NPDES permits and where you have a regular discharge of sediment and chlorine into a waterway? Is this a frequent occurrence around the country?

Mr. GRUMBLES. A couple of things. One is a general response and then the other one is to try to get back to you with precise numbers because I don't have precise numbers readily available, but as a general matter, there are States throughout the country, there is not—I wouldn't say it is anywhere comparable to the number of wastewater treatment facilities, but there are numerous facilities, drinking water facilities where they may have some alum or they may have some residual levels of chlorine in the sediments or in the solids, but through the Clean Water Act they are discharging those sediments subject to conditions, constraints and requirements.

There are only a few States. As you know, in most situations it is the State itself that is issuing the permits. There are only about five or six, about six States where EPA itself is the permitting authority, that issues the Clean Water Act permits and that is the situation here because of the District of Columbia. EPA is the—

Mr. UDALL OF NEW MEXICO. Your role is to oversee the consistency, though. You allow the States to issue the permits, but it is your job to make sure that they are consistent overall so you can't just say, you know, "The States are doing it. We don't care what they do."

Mr. GRUMBLES. Oh, absolutely not. The States, in order to be able to issue the permits under the Clean Water Act, they first have to go through a process that can be fairly detailed and exhaustive, some might say. But it is a process where the State applies to the Federal EPA to receive the authority for the NPDES permit program. They have to go through and make a lot of demonstrations.

One of the precise reasons for that is that under the Clean Water Act there is a need for some overall Federal consistency so that each State doesn't have completely different standards and requirements.

Mr. UDALL OF NEW MEXICO. Could you get back to us? I mean what I would like to know, I mean much has been made of the charge that the west is being treated differently than the east. I mean, I would really like to know. Comparing this permit and the amount of discharge in terms of the sediment, the volume of sediment, the chlorine, the alum that is in it, are there comparable situations around the country and where are they?

Not just saying there are some discharge; I am talking about what are the comparisons?

Mr. GRUMBLES. There are some specific facilities such as in Nebraska and some of the other States that are discharging either on an intermittent or a continuous basis some solids from the drinking water treatment process.

I would say, and I know the Chairman recognizes this, because of this particular facility, as Dom Izzo has pointed out, it is truly unique in the sense that there is no other facility like it in the Na-

tion in one respect in that it dates back, I guess, dates back to the mid-1800's.

It has a Federal agency running it and it has excess capacity in terms of the sedimentation basins which leads to a more, as a natural process in terms of the operation of the facility, it means you are going to have intermittent discharges as opposed to continuous discharges.

So, there are some nuances with respect to this particular facility, but our basic point is that this is not a one-of-a-kind permit. There are other permits throughout the country that do authorize, with safeguards to minimize any potential toxic contaminants within those sediments that authorize the discharge of sediments from a drinking water treatment plant into a water body.

Mr. UDALL OF NEW MEXICO. And one of the toxics is chlorine itself. It is a biocide. It kills everything at certain levels.

Mr. GRUMBLES. Chlorine, and I would defer to Dom on this. I can just say that one of the specific components in the draft permit is the requirement to test for detectable levels of chlorine, because chlorine, as you know, is used at various drinking water facilities as a disinfectant, chlorine or chloramine.

So, if processed water is used to flush out the sediment basins, there may be situations where there are detectable levels of chlorine or chloramine in the discharge.

Mr. UDALL OF NEW MEXICO. OK. That is it.

Mr. IZZO. As far as the chlorine goes, based on the monitoring we have done and the information that is available, it is completely neutralized by the time it gets into the river. Essentially, what we are using it for is when the basins have been emptied they have to be flushed to get that last layer of sediment out of there. They just use the water that is available.

The combination of the water mixing with the air, which causes a certain amount of the chlorine to vaporize, and the chlorine interacting with the sediment causes it to be neutralized before it gets into the environment. So, we do not believe that that is a problem.

Mr. UDALL OF NEW MEXICO. Well, the Chairman mentioned in his statement and I'm talking about Chairman Hansen, not Chairman Radanovich, fishermen and police officers complained about heavy amounts of chlorine in the discharges. So, you are saying that doesn't occur?

Mr. IZZO. If it has occurred in the past, it has been of an intermittent nature and it is basically an accident. The information we have is that it is not occurring.

Mr. UDALL OF NEW MEXICO. Have any of you received any commitments from Park Police officers that there have been major discharges of chlorine into the river?

Mr. IZZO. We have not.

Mr. GRUMBLES. Congressman, I think one of the points, I have no doubt that some of the people who live and recreate in the area have, as I have just read in the papers, some have expressed some concerns about the quantity of the water in the Potomac River.

I think one of the points that EPA's perspective is is that this draft permit, as we go through the comment period, is an opportunity to respond to concerns based on the scientific analysis and also we view it in its current form as an improvement that will re-

sult in increased protections by increasing from 50 percent to 85 percent the amount of sediments that need to be removed from the discharge and also begin the process and aggressively pursue the process of more studies on some of the remaining issues and questions that some in the public are raising.

Mr. UDALL OF NEW MEXICO. Thank you, Mr. Chairman.

Mr. RADANOVICH. Thank you, Mr. Udall.

Before I allow the others to speak, I do want to make reference to a couple of things. On the issue of the nature of this particular dumping, to my knowledge other water agencies and other rivers are allowed to meter back sludge that is taken out from the river because a lot of this is sediment that was originally pulled from the river.

The issue is in other agencies, and what sets this one apart, is that they are required to meter them in more slowly, not to push them out into the river in higher concentrations than are normally allowed. This is probably an issue where this type of dumping doesn't occur and this high concentration on river volume, as many as others do.

But I would like to, if I can, before I go on to the others, to kind of steer this questioning a little bit differently and that is on the issue of whether or not this is environmental acceptable or not.

I want to refer to a couple of things. One is that in the discussion that was had about whether the dumping was going to be occurring during the spawning season of the shortnose sturgeon or precautions were being taken care of that the dumping was occurring to protect the endangered species according to a 1998 fisheries panel study that recommended that.

However, their first recommendation was to stop this dumping altogether, which was ignored. Then their second recommendation was, if you were going to be doing this dumping, then you ought not to be doing it during the time of the spawning of the endangered species.

The second thing I will refer to is the June 18 letter from Craig Manson who is the Assistant Secretary for Fish and Wildlife and Parks that states in his letter to the Water Protection Division of the EPA, states, "The Department of EPA believes that the sediment discharges should ultimately be eliminated. The department also has concerns respecting the adequacy of the science underlying the EPA's draft NPDES permit."

Coming from the Department of Interior, which I appreciate, those who are custodians of national parks should be on the side of eliminating the discharges altogether.

I know that there was discussion of the ultimate solution of this thing which has been on the board for many, many years and that is a treatment facility that would treat the sludge and the byproduct then would be hauled out in dump trucks to a landfill somewhere. This is the ultimate resolution for this environmental problem.

I want to encourage some discussion. I am going to give time to the remaining people. But that is why it has been 25 years that we have known that a facility was required that would treat the facility and haul it out through D.C. neighborhoods and we are still

discussing whether dumping all this sludge in the Potomac is good or bad and should be allowed to continue.

With that I want to yield to Mr. Rehberg who will have some questions.

Mr. REHBERG. Thank you, Mr. Chairman. I was afraid you wouldn't see me among all my colleagues down here.

This being my first opportunity to address this issue, might I beg the indulgence of the Committee to submit for the record an opening statement and I will dispense with reading. I would like the opportunity to have that in the official record.

[The prepared statement of Mr. Rehberg follows:]

**Statement of The Honorable Dennis R. Rehberg, a Representative in
Congress from the State of Montana**

Mr. Chairman, thank you for holding this oversight hearing on an issue that highlights the alarming inconsistency in the enforcement practices of the Endangered Species Act.

Mr. Chairman, it is time for this Congress to end the East vs. West hypocrisy of the Endangered Species Act.

It's well past time we demand consistent application of the ESA—from the eastern shores and marsh lands, to the vast plains stretching across middle America to the ocean lined cliffs of the West. The same law that has continuously affected projects throughout the rural West, halting progress, and derailing hundreds if not thousands of enterprises out of business appears to be simply tossed aside when it's enforcement does not suit those along the urban corridors of the East.

Despite potential endangered species implications, the expansion project for the Woodrow Wilson bridge continues, as does the sludge dumping that is the topic of today's hearing. Why should one species or project warrant less scrutiny simply because of its zip code?

Mr. Chairman, these inconsistencies highlight the double standard that is repeated over and over again when well-funded East Coast environmental lobbying organizations file lawsuits, crushing economic advancement throughout the rural West, as in the case of the Klamath Basin in Oregon and the forests of the Pacific Northwest.

When it comes to ESA enforcement thousands of miles away, these lobbying groups are ready with a lawsuit in one hand a muckraking media campaign in the other. However, threaten these so called stewards of the land with trucks carrying sludge through their upscale neighborhoods or the possibility of adding 15 minutes to their daily commutes because the bridge is backed up and—wait—the spawning ground for an endangered species suddenly becomes less worthy of protection.

Clearly this is “selective enforcement” of the Endangered Species Act, right here in the backyard of the Capitol.

Why? Well with the Corps' practice of sludge dumping, any other option for discharging this toxic material would include transporting it from the Washington Aqueduct to an alternate location. But to do that, transport vehicles would follow a route through some of the priciest real estate in the area—Georgetown. Of course the folks who live in Georgetown haven't exactly been receptive to this idea. But that shouldn't be justification for not enforcing the Endangered Species Act—folks in Montana aren't given the choice to be receptive to an ESA concern or not. The file a lawsuit, shut down a project and ask questions later approach of the East Coast environmental groups doesn't allow for that.

The overreaching effects of the ESA affect Montanans, and many Westerners, on a daily basis. Foresters are precluded from harvesting timber because of possible implications on an endangered or threatened species, ranchers fear for their herds because of wolf populations increased by reintroduction, and small businesses must be aware of the umbrella of ESA regulations and policies or risk legal action. These are just a few of the examples available. Yesterday we heard from my good friend from California as he regaled us with unbelievable stories of inconsistent EPA enforcement. But apparently, these overreaches only apply out West. At least the examples set by Federal agencies, right here in the Nation's Capitol, illustrate that the ESA doesn't apply here.

Today's hearing focuses on the Army Corps of Engineers' traditional practice of dumping toxic sludge into the Potomac River, in a National Park, and onto the spawning ground of the shortnose sturgeon—an endangered species. Are the Na-

tional Marine Fisheries Service and the Fish and Wildlife Service asleep at the switch? The Environmental Protection Agency is in the process of re-issuing the Corps' permit to dump toxic sludge into the spawning ground of an endangered species. How can this be? This would never fly out west, nor should this Congress allow the Endangered Species Act to continue to be enforced in an inconsistent and haphazard patchwork manner across the country. Your zip code, no matter how wealthy, should have no bearing on the enforcement of Federal law.

I hope that by bringing these issues to national attention we will enlighten the public that some in this zip code clearly believe environmental laws are too good for some folks. Regardless of how anyone feels about the ESA, the law must be applied in a consistent manner across the country.

Mr. Chairman, I thank you, and Subcommittee Chairman Radanovich for your efforts to uncover and correct these inconsistencies.

Mr. REHBERG. Mr. Grumbles, is it usual for the EPA to allow permits to be either continued or considered with incomplete data? I guess I wasn't aware of that. Maybe you could refresh my memory a little bit about the permitting process under both Clean Water and the Endangered Species Act and your ability to have the flexibility to decide in this particular case, we are going to let them go ahead and keep doing it until we determine whether there is both a health risk and a fish and wildlife risk.

Mr. GRUMBLES. That is a fair question. I think a couple of things. One is, when EPA or as is most likely the case, Congressman, a State issues a Clean Water Act permit, and as I said I have 44 or 45 States, 44 States that are the ones actually issuing the permits, not EPA.

But in the situation of issuing a permit, it is frequent that some of the limitations and conditions that are included in the permit are met to foster additional monitoring and gathering of information on potential issues. I think that the concept of a permit is that it needs in some sense to be reflecting adaptive management in an iterative process and that when the permit comes up for renewal or expires at 5 years, that will be a period of time when you have additional information to respond to that new information or if, under certain circumstances this new information comes in and is made aware to folks before that 5-year expiration, then there may be a need for a modification tool.

Mr. REHBERG. Is that same flexibility afforded the private sector? I will use as an example the sugar factory in Billings, Montana. Would they have that same opportunity?

Mr. GRUMBLES. My understanding is yes, they would. There is no distinction between governmental and non-governmental entities in terms of that.

Mr. REHBERG. Then let me ask you my follow-up question, and that is, in the case of the sugar factory in Billings, Montana, for a period of 10 minutes 1 year, they allowed, through a mechanical error, a discharge of sugar into a drain ditch. They were assessed a penalty of \$100,000.

What kind of penalties are you assessing against the municipalities that are dumping highly chlorinated water maybe once every couple of years?

Mr. GRUMBLES. A couple of things, in terms of the Clean Water Act, the authorities—and this gets into an enforcement type of question—in most permits, whether it is a municipal discharger or an industrial or private sector discharger, there are situations, fair-

ly prescribed situations, where they are able to avail themselves of a bypass or an upset defense if they can point to certain circumstances, act of God or some circumstance where there is a likelihood of substantial damage to persons or property.

They have a defense where a limited discharge can occur without creating liability, as long as they report the discharge in advance.

Mr. REHBERG. Can you give me an example then of a situation where this municipality has been fined?

Mr. GRUMBLES. This municipality being—

Mr. REHBERG. The aqueduct, the C&O and the sludge?

Mr. GRUMBLES. Well, that is a good question. This is a unique situation where it is really not the municipality that would be fined. It is the Army Corps of Engineers which is out of the Baltimore District. It runs and operates and controls the Washington Aqueduct.

I know that there have been Safe Drinking Water Act violations in the past, perhaps not at the facility itself, but within the distribution system where fines have been imposed.

I would be happy, Congressman, to provide you more information for the record on that.

Mr. REHBERG. OK. One last question for you, and that is Mr. Keeney mentioned the fact, and I will have you respond to his statement that the inconsistency that probably exists that we allude to, the west versus the east or urban versus rural, is that you have already destroyed your habitat in the east and you are trying to keep us from doing that.

Does the Endangered Species Act or the Clean Water Act allow the flexibility of making a determination that you are going to protect us from ourselves, but it is OK for you not to go back to what you were as a rural area in the 1800's?

That is a serious question. You see, I wasn't aware that the laws, both the Endangered Species and the Clean Water Act allowed you the opportunity to make a determination that because, as Mr. Keeney mentioned, you were something back in the 1800's but you are not now.

In Mr. Osborne's case they are moving into Nebraska and making a determination that they are potential habitats, so they become critical habitat for the re-establishment of something that was never there, but it is not OK in the east to say, "We have proof in 1899 that there was a sturgeon in your river and we are going to make you go back to what you were—I didn't realize you were a different Zip Code or a different financial situation."

I just don't understand the inconsistency of the application of those two laws, the Clean Water Act and the Endangered Species Act.

Mr. GRUMBLES. I guess what I would ask to do is, one, be able to mention that when it is brought to the attention of Administrator Whitman. She clearly has concerns about any allegations made about the unequal application of the Clean Water Act.

We are not aware of situations where there is unequal application. We can try to provide more information about violations in various States geographically, but it is really, in terms of the implementation of the Act and enforcement of the Act.

Mr. REHBERG. Well, we would feel better if we saw some financial penalties against the Corps of Engineers if they are in fact violating. We will bring that up later. I am sure the Corps would just as soon not be fined.

Mr. Murphy, in your testimony you talked a lot about additional studies. Are you allowed as a National Park Service to accept, and do you consider scientific studies by outside peer groups? All of your testimony referred to additional studies within the Federal Government system.

Mr. MURPHY. Right.

Mr. REHBERG. But there are certainly a lot of scientists that exist outside of government. Are you able under your authority to consider peer scientific studies that will and can prove that there is an impact on your park?

Mr. MURPHY. The short answer is yes. We have contracted for an outside firm, a private firm, to do studies on our behalf. The reference in my testimony was to those that have the jurisdiction for doing the studies, in this case the EPA and the Corps of Engineers.

Mr. REHBERG. How about if you didn't contract out, if I were to establish a relationship with a scientific community that could prove to you that that does exist? Would you as a National Park Service accept that as factual?

Mr. MURPHY. Well, there are certain instances where if someone comes to us and presents scientific data and information and we verify that that is the case, I mean, absolutely, we would take some sort of action if that information was verifiable and it showed that there was harm taking place to park resources. The answer is yes.

Mr. OTTER [presiding]. Pardon me, Mr. Rehberg, I know you are not colorblind. That red light has been on now for quite a while.

Mr. REHBERG. Oh, I am sorry. It is behind this young lady and I didn't see it.

Mr. OTTER. We are going to have another round, Mr. Rehberg, if you want that.

Mr. REHBERG. I just wanted to ask one last quick question, if I could, mainly because I have to go. That is public input, Mr. Murphy, are you accepting put input as you do on some of the other land resource issues in national parks?

Mr. MURPHY. Do you mean on this particular—

Mr. REHBERG. On this particular issue. If I were to make a plea through the media for public input on whether you ought to continue dumping sludge into the Potomac, chances are 100 percent of the people are going to say no. Are you accepting that public input?

Mr. MURPHY. We certainly listen to public input and take action based upon public input. There are instances where we call for public hearings on particular instances. The answer to that is yes.

Mr. REHBERG. Thank you, Mr. Chairman. I apologize for going over my allotted time.

Mr. REHBERG. [Presiding] Well, you know we indulge you, you know, Mr. Rehberg.

Mr. REHBERG. Well, Mr. Otter doesn't.

Mr. REHBERG. Mr. Otter.

Mr. OTTER. I thank you for coming back, Mr. Chairman, and getting this Committee back in shape, including Mr. Rehberg.

**STATEMENT OF HON. BUTCH OTTER, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF IDAHO**

Mr. OTTER. I think we have maybe stumbled onto the problem that we have. You know, yesterday when we began the hearing relative to the Endangered Species Act as a whole, one of my colleagues mentioned that it would be interesting to look 200 years down the road and see how successful we were and how many species we had actually lost.

I think part of the problem is that we do have, indeed, at least, a species in the form of a philosophy present here yet today that we thought we had gotten rid of 200 years ago. It was called King George III and government by men instead of by laws.

Part of the problem I see, I think, in responding to questions, Mr. GRUMBLES, you said earlier that there was like a request for an 85 percent reduction of the pollutants in the water. Is that right?

Mr. GRUMBLES. Eighty-five percent reduction of the sediment load.

Mr. OTTER. Is that the normal way you reflect on those? You have to reduce it 20 percent, 30 percent, 40 percent?

Mr. GRUMBLES. It is based on large part on the traditional approach under the Clean Water Act, particularly where you have an intermittent discharge as opposed to a continuous one. You look first for a technology base control—

Mr. OTTER. But my question here goes to the percentage. That is how we measure success or failure, did we reduce it 85 percent? Did we reduce it 10 percent? Is that right?

Mr. GRUMBLES. That number is based on the secondary treatment provisions in the Clean Water Act.

Mr. OTTER. In response to a question earlier, Mr. Keeney said part of the problem was that the east had a history of polluting and more industrial sites, I guess, and that sort of thing. And we haven't out west.

In some of the traditional and historic uses that you were mentioning on the C&O Canal, on the resulting pollutants that are then—we don't call them pollutants; we call them sludge—what do you call them?

Mr. GRUMBLES. Sediments.

Mr. OTTER. But, you know, we shut down 32 lumber mills in my district in the last 9 years. We have idled 12,000 miners, all because of the Clean Water Act and the activity on the watershed could have caused a problem in the contiguous or in the contributing streams to the Salmon River and the Snake River and subsequently the habitats.

Some of those were built in the 1920's. Now, technology has improved them. But they are still shut down and the thing is so are the jobs and so are the families and unfortunately, so are the communities. That is the problem that we have.

Now, getting back to Mr. Keeney, if you ask for a 50 percent reduction in the pollutants that are present in a stream in the east, as opposed to a stream in the west, as you well know, you know, if you take 50 percent of the pollutants out of something that is highly polluted, it is pretty easy to get a 50 percent reduction.

But of something that is running fairly clean and has not been violated to the extent and you ask for a 50 percent reduction in

that, getting that last 50 percent out of a stream that is already fairly clean is much more expensive and limits the activities to a much greater degree. Is that not so?

Mr. GRUMBLES. This came up a bit last week when we were talking about trading and watershed based approaches in a different Committee.

Mr. OTTER. Right. I am on that Committee.

Mr. GRUMBLES. The point is well taken in the sense of fundamentally, the Clean Water Act, whether it is municipal or industrial discharges, it requires EPA or the States to apply a two-part approach to permitting. The first part is a technology-based control and that is where you get into the percentages, the percentage removals.

The second part, and the part that EPA is very much focused on, we believe the more you talk about watershed-based holistic approaches and looking at the actual health of a watershed, you have to get to this second part and really focus in on it and that is the water quality-based approach that says, well, above and beyond or in addition to whatever technology-based controls, what do the fish require? What does the water column need? What do the water fowl require?

That is where you get into some additional provisions. I think the draft permit for the Washington Aqueduct tries to do that as well by requiring additional monitoring and studies on the actual impacts.

We are supportive of additional studies with the National Park Service on the potential impacts on the fisheries or a smothering effect, looking at the actual water column, going beyond the percentage removal. Because as you get into a watershed, whether it is east coast or west coast, you have to do more than just apply the baseline percentage reduction that is a technology-based control.

So, we are supportive very much of looking beyond just a baseline approach.

Mr. OTTER. Well, I am just a farm boy from Idaho. I live very close and I run up and down the Potomac all the time when I jog. I also run up and down the Boise River and the Salmon River when I am home and the Snake River and the Clearwater.

I will guarantee you, we have nothing, I mean I have never seen a river catch fire like the Potomac did one time, I am told, in Idaho. I just am unable to, I guess, get to the question of how come it seems so unequal.

How many companies have you shut down east of the Mississippi River on the watershed? How many lumber mills have you lost? How many miners have you shut down? How many coal mines have you shut down in Virginia?

I guess my time is up.

Mr. REHBERG. Keep going.

Mr. OTTER. Thank you, Mr. Rehberg. I appreciate that.

I am not going to ask for a response to that because I guess we are going to get another round.

But, Mr. Chairman, I would ask unanimous consent that the report referred to in earlier testimony that was the result of the headline in this morning's Washington Times, and I am not sug-

Mr. GRUMBLES. Mr. Chairman, if you do get a copy of the report, we would like to see it, too, because it is very unclear as to exactly what that article is referring to, as well as the allegations that somebody is making in terms of a former employee.

We are very seriously looking into whether or not there is any basis of fact in the relevance of the discussions in that article. So, I appreciate that.

Mr. OTTER. I would also like to ask unanimous consent, then, should we continue with this investigatory process, that we have those former employees come and testify before this panel.

Mr. RADANOVICH. I have no problem with that. If there is no objection, it is so ordered.

Mr. GRUMBLES. Just for the point, this was an ex-permit writer by the name of William Colley. I think his name was mentioned in recent press articles. For the benefit of the EPA, that is who it is.

Mr. RADANOVICH. Thank you, Mr. Otter.

I still can't understand why in all of this discussion about dumping the sediment into the Potomac River, again, this is onto the spawning grounds of the expected habitat of endangered species into a Heritage River, through a National Park, why nobody is in that panel, except for what was brought to light recently from the Department of Interior, why aren't people saying that we shouldn't be doing this; that we should be doing and working toward what was recommended many, many years ago and that is the construction of a treatment facility that would prevent the dumping of this sludge into the Potomac.

I can't for the life of me find out why agencies such as NMFS or EPA is justifying this without precluding it by saying this shouldn't be happening, the best solution is a treatment facility. Why hasn't that happened over the last few years?

There was evidence in an Army Corps of Engineers report that a treatment facility would result in a byproduct that would have to be hauled out into neighborhoods with dump trucks and they were affluent neighborhoods and therefore it was not recommended.

I would like to get the response either from you, Dominic, or you, Ben, on why has it been 20 years that the ultimate solution for this thing hasn't even really been worked toward?

Mr. GRUMBLES. Mr. Chairman, it is not our view that the draft permit in its current form precludes a solids recovery facility.

Mr. RADANOVICH. Why didn't you call for it? That is my question. I mean you didn't preclude it, but why didn't you call for it?

Mr. GRUMBLES. To my knowledge, based on the information that has been gathered over the years and certainly the public comment period and the views not only of the customers who actually would be paying for the facility—

Mr. RADANOVICH. God forbid that that would happen inside this Beltway.

Mr. GRUMBLES. Well, our job at EPA is to issue a permit that is protective of the environment. That is the most important factor.

Mr. RADANOVICH. So, is it your statement then that dumping the sludge or the byproduct, if you want to call it that, or the sediment into the Potomac is a better solution than building a facility?

Mr. GRUMBLES. Our position on it is that the best way to percent is to be cautious, to learn more in terms of the scientific—that the facts scientifically what is the impact, not just the shortnose sturgeon, but any other potential adverse impacts on fisheries in the river and that it is an entirely legitimate and cautious approach to require 85 percent removal of the solids where we would be requiring the permittees to also be developing a plan to implement that.

Our view is that could lead to a solids recovery facility, but that right now if you get into looking at the environmental benefits of such a facility, we are not sure yet, we are not there to say we have to mandate from the top down a requirement that this \$60 or \$70 million be built.

Mr. RADANOVICH. Mr. Grumbles, you do mention that 51 percent in sediment reduction, which I think you should be applauded for that, but the fact of the matter is that you are still filling sedimentation ponds and still requiring that sludge to be dumped out into the Potomac on to the spawning grounds of an endangered species, and you hearing known this for 25 years.

Now you are saying maybe we need to relook at the dumping of the sludge into the Potomac and there is evidence there that for the first time in 25 years you are going into formal consultations with one of the agencies that have the oversight over the enforcement of the Endangered Species Act. This doesn't wash. I mean it doesn't wash.

Why has it been 20 to 25 years and no movement on a water treatment facility that has been known has been needed and was the top recommendation at least in a 1998 study, if not before, that that was the best way to handle this problem.

Mr. GRUMBLES. I think two aspects jump out. One, the legitimate scientific debate over whether it is a spawning ground for the shortnose sturgeon; and two, the ongoing debate, particularly in the 1996 Safe Drinking Water Amendments where there was a tremendous amount of Congressional concern and jurisdictional concern among the jurisdictions, the wholesale customers about the mandated establishment of that facility.

EPA was listening and has been implementing the provisions of the '96 Act and one of the clear messages that was from that debate was that it would not be advisable; it could be premature and unjustifiably costly to mandate the construction of that type of facility at this time.

What we are saying now is that the jury is still out on what is the best way to proceed is. The jury is not still out on the need to reduce the overall sediment load. We are going to be in more consultation. We will be getting more public comments on additional ways to reduce the discharge and continue looking at—

Mr. RADANOVICH. Mr. Grumbles, please excuse me. I have a Medicare Commerce vote. That is why I am slipping out, running through the rain, to get to the votes.

Mr. Otter, would you take it over for me. Please forgive me and I will be back, if you don't mind.

Mr. OTTER [presiding]. Had you completed the answer to that question?

Mr. GRUMBLES. I believe so. I think so.

Mr. OTTER. Mr. Udall.

Mr. UDALL OF NEW MEXICO. Thank you. I wanted to explore with the Corps a little bit about whether the Corps complies with every aspect of the current NPDES permit. The majority memo prepared for the Subcommittee hearing alleges two violations of the existing permit. The first is that the Corps is required to record the temperature of the discharges and at times fails to do so.

The second allegation is that the Corps have violated the permit at times and has failed to notify the EPA as required by the permit.

What is the situation on both of those allegations, Dominic.

Mr. IZZO. Well, sir, we believe we are in full compliance with the permits and that any reported instances are fully investigated and corrective action is taken. If that is not the case, if it is brought to our attention we will certainly correct it immediately. But based on all the information that is available, we are in compliance and we have responded appropriately when any potential violations have been brought to our attention.

Mr. UDALL OF NEW MEXICO. So, you don't know of any time where you have failed to record the temperature or the discharge?

Mr. IZZO. Sir, I do not.

Mr. UDALL OF NEW MEXICO. Has there been any violation of the permit that you have failed to report to the EPA that you know of?

Mr. IZZO. Not that I can comment on. If you would like us to provide a statement, we can go back and review the records and provide any. This is obviously a day-to-day operation where there may be violations over a period of several years. You are bound to have mistakes made. If there are, they will be in the records and we will be happy to provide that information to you.

Mr. UDALL OF NEW MEXICO. But you don't have any knowledge of any specific one at this point?

Mr. IZZO. No, sir, I do not. I do not believe there are any significant violations, in other words, any violations that would not normally occur in a process plant of this types where things occasionally happen.

Mr. UDALL OF NEW MEXICO. Mr. Grumbles, the aqueduct is operating under a 5-year NPDES permit issued in 1989. Why was it that a new permit was not issued in a 5-year period? That would be 1995.

Mr. GRUMBLES. Congressman, a couple of reasons, I believe. One is just like a lot of other facilities throughout the country, there is a serious backlog of Clean Water Act, NPDES permits. The way the Act operates is that the permit cannot, by law, be for more than a 5-year period.

As well as the discharger provides notice 180 days in advance of that expiration date to the regulatory body, which is usually a State, not EPA, they are able to continue to on the under their expired permit. That is the situation where it is well over 20 percent of the dischargers throughout the country are operating under expired permits.

It is a high priority of the agency to try to reduce that backlog. I would say that the Washington Aqueduct, like so many other facilities across the country, has that. Because of the increasing complexity and resources requirements in terms of re-issuing permits, there is a backlog.

The other point, an important one, that relates specifically to the Washington Aqueduct is that in the early '90's and mid-90's, after the permit expired there was a vigorous debate within Congress as well as within the jurisdictions as to just exactly what the future of the Washington Aqueduct would be in terms of the ownership, control, operation.

The Safe Drinking Water Act Amendments of '96 specifically contemplated that there would be studies and consultation with the customers, the wholesale customers and others as to what the entity should be, whether it should be transferred from the Corps of Engineers.

In that type of a setting where there was uncertainty as to what the makeup and the design and jurisdictional operation of the facility would be, that that contributed to a "delay" in terms of re-issuing the permit.

Mr. UDALL OF NEW MEXICO. This is for any of the panelists. Have any of you had any complaints about negative impacts on the fish from anyone as far as the fishermen or anybody else on the discharge into the river?

Mr. MURPHY. We have had some complaints. I don't know what the level of those complaints. Our superintendent of the park is here and our park rangers, of course, patrol that area. So, there have been some complaints and there was at least one police complaint filed in answer to your earlier question about the chlorine and the smell of the chlorine that was probably referred to in Chairman Hansen's opening remarks.

Mr. UDALL OF NEW MEXICO. Can you tell me a little bit more about that Park Police complaint?

Mr. MURPHY. I don't have personally the details. If you would like, I could have our park superintendent come up and talk to you about that. But I don't have direct knowledge. As the Deputy Director, of course, I wouldn't get that specific of information on a particular park.

Mr. UDALL OF NEW MEXICO. OK. Have any of you heard of complaints from people who are recreating on the river about the smell? Have they brought that up? Have any of you been there? Is the discharge particularly smelly?

Mr. MURPHY. I haven't been there, but there certainly have been complaints and those have been brought to our attention, that there are those complaints from recreators.

Mr. UDALL OF NEW MEXICO. Thank you, Mr. Chairman.

Mr. OTTER. Thank you, Mr. Udall.

There are a couple of things that I would like to try to clear up here prior to recognizing Mr. Rehberg again.

One, how can an agency like the Army Corps of Engineers be in violation of a permit if they have not had a permit from 1994 until March of this year? If there is no permit, how can they be in violation of it?

Mr. GRUMBLES. Congressman, I believe they have had a permit prior to—did you say 1994 or what?

Mr. OTTER. 1994. The record shows that they operated without a permit. You said 5 years. The permit ran out between 1989 and 1994 and they operated and continued that process for 8 years.

Now is that normal, the EPA allows folks to continue for 8 years? Can you cite me examples of that?

Mr. GRUMBLES. I was trying to—I didn't do a very good job at it, but I was trying to explain to Congressman Udall that the way the Clean Water Act is written and implemented and through EPA regulations, whether it is a municipality or an industry, west or east coast entity, that if they submit 180 days before the permit expires, if they submit notice to the regulatory body, which is either EPA or the State, then by regulation under the Clean Water Act they are able to continue to operate under that expired permit.

Mr. OTTER. For 8 years?

Mr. GRUMBLES. Well, until it gets re-issued.

Mr. OTTER. Do most of them take 8 years?

Mr. GRUMBLES. I don't know what the exact timeframe is, but it can be a longer time period than we would want to admit in terms of the amount of resources. Again, it is mostly the State permitting entity, not EPA. But because of the resources, personnel and technical issues, and Clean Water Act permits are getting more complex, it can take several years.

Whether eight is the arithmetic mean or the average, I don't know. But based on all the work that is required and the technical expertise in re-issuing a permit, there are permits that are expired. When they are expired, the provisions still control.

They are not operating without any kind of a permit. It is just that they are operating under the expired permit. It is administratively continued. So, there are still requirements. They can still be in violation and still be subject to the Clean Water Act. It is just that they are not operating under a new permit. It is an administratively continued permit that was expired and they provided notice to the regulatory body.

Mr. OTTER. I am still not sure what the process is, but I guess we will get into that later.

I will recognize Mr. Rehberg now.

Mr. REHBERG. Thank you, Mr. Chairman. I will read the testimony with renewed interest. This answer is probably in there, Mr. Grumbles, but what is your drop dead date? When will this permit and all of the review and studies and determinations and input from various Federal and private entities be done?

Mr. GRUMBLES. The drop dead date is a fluid one in the sense of what we need to do, now that we are in formal consultation with National Marine and Fishery Service, I can't give you, Congressman, a drop dead date on it.

Mr. REHBERG. Our lifetime.

Mr. GRUMBLES. I hesitate to answer that. Based on the time period we have got, the comment period closes June 28th. We will be reviewing the public comments and I am sure they will be significant and numerous ones that we will be reviewing.

We also have, I think, the clock under the Endangered Species Act regulations is 135 days from the date in which we enter into formal consultation. So, 135 days from June 13th, that will be a significant timeframe.

My sense is that we will be trying the best we can to issue a permit, because we believe a permit is an opportunity to have increased safeguards, sometime before the end of the year. I hesitate

because it depends on how much additional information, how many additional studies that we do with the National Park Service or others.

Mr. REHBERG. It was mentioned that Nebraska is another State that has some of these same kinds of discharge problems. I hesitate to even ask this question, but how many States or how many municipalities can you estimate are in the same situation where they may be violating the nation's Clean Water laws and they are either under a permit that is allowing them to do it or the continuation of a temporary permit that for God knows how long, may last forever.

Mr. GRUMBLES. We don't believe there is a violation of the Clean Water Act in this situation with the Washington Aqueduct based on all the information we have right now. The process of continuing to discharge during an expired permit is one, as I was mentioning, it is a common phenomenon now where the States primarily, but also EPA as the entity that writes and issues the permit, has a significant backlog. It is over 20 percent of the existing permits that are out there that are administratively continued permits.

Mr. REHBERG. Do you have any idea of the number? Twenty percent of 10,000?

Mr. GRUMBLES. It is more than 10,000. I will definitely provide to the Committee for the record the list and the numbers of the expired permits that we have out there. It goes by region, throughout the ten regions. Just with respect to publicly owned treatment works, there are about 16,000 facilities that have permits. There are well over 70,000, over 100,000.

It depends if you count municipal storm water permits as well. But there can be over 100,000 other permitted entities. About 20 percent of those, and that is just a rough estimate right here, but I will provide you more information, 20 percent of those have administratively continued permits.

Mr. REHBERG. Let me just make sure I understand this correctly. You currently have a public comment period open now and that will close on the 28th and that is for the National Park Service's portion as well? The comments go to you. They go to the Park Service. They go to the Corps of Engineers, too?

Mr. GRUMBLES. They go to the EPA, EPA Region 3 is the entity that is tasked with issuing the permit. So, they will get the comments. We will continue to engage in a formal consultation with the National Marine Fishery Service.

We will also obviously continue to be working with other Federal agencies on this.

Mr. REHBERG. Mr. Murphy, have you received any complaints from any of your employees, staff, about the public health or danger while working in the park?

Mr. GRUMBLES. No. We haven't received any in terms of the public health danger. I was just mentioning earlier some recreators have mentioned the smell in the past and an officer has, of course, mentioned—

Mr. REHBERG. But none of your employees are worried about the health end of it? Hopefully if we asked them, that is the answer they would give us.

Mr. MURPHY. I believe so.

Mr. REHBERG. No further questions, Mr. Chairman.

Mr. RADANOVICH [presiding]. Thank you very much. Forgive me for running back and forth. Unfortunately, it is a situation I can't avoid. I do want to kind of reopen my questions, unless you had somebody, Butch.

Mr. OTTER. Yes.

Mr. RADANOVICH. Do you want to go ahead?

Mr. OTTER. Yes.

Mr. RADANOVICH. OK, go ahead. I will come in.

Mr. OTTER. Mr. Murphy, how long have you been with the Parks Department with Interior?

Mr. MURPHY. I came on at the beginning of the Bush Administration, on October 4th of last year. I have been here that long.

Mr. OTTER. Then that is understandable because all the Park Service police reports that we reviewed were prior to your arrival there. The answer to Mr. Rehberg's question really is during your time you are not aware of any incident report by the Park Police, by the National Park Service, that there was highly chlorinated water flushed from the reservoir that actually overflowed the 6000 block of Broad Street in Bethesda.

The result was strong enough to sting their eyes and throats while standing 30 yards upstream from the outflow. The majority of the gas dissipated within about 20 minutes.

So, obviously, this predates your arrival there. So, your answer to Mr. Rehberg officially is that "not during your time there."

Mr. MURPHY. That's correct. I had stated earlier that I had knowledge of that report as told to me by our superintendent, but I didn't have first hand knowledge or understanding of that. That is the only report that I had awareness of, sir.

Mr. OTTER. I see. I guess God has not given me the power of persuasion to convince you folks how frustrating it is for us, whether it is the Army Corps of Engineers or the EPA or the National Marine Fisheries or whoever that continually seem to come in conflict with our way of life in the west and the resulting damage or the resulting dislocation.

Hopefully, though, we can come to some compatible exercise. Hopefully, this will result in some sort of compatible, at least understanding exercise.

As I said in my earlier round, perhaps it is because when you require a 10-percent reduction out west of a water body that is already fairly clean, it is awful tough to get another 10 percent out of that, more costly to get another 10 percent out of that.

Mr. Grumbles, if that isn't the case, I would like to know, you know, why it is the case. I mean is dirty water in the east any different than dirty water in the west? If that is the case, perhaps, you know, as a result of these hearings, we will come to that.

I should probably, Mr. Chairman and members of the Committee that are still left and to you folks as well, offer a disclaimer because I have had a pretty good run-in personal on my own property with the Army Corps of Engineers, with the EPA, and with the Justice Department. I sought to take three old car bodies out of a swamp behind my house that became a tremendous breeding ground for mosquitos.

Because I hadn't had all the permits in removing those three old automobiles out of a swamp that was about a half acre, 6 years later, \$167,000 and I can't tell you all of the other problems that I had. Finally, I just paid the fine and said, "Here is the \$50,000 bucks."

Mr. Izzo how much have you paid in fines for your violations? That is a rhetorical question, sir. Unfortunately, that is one of the things that frustrates us so when our own government wouldn't obey its own laws and yet you expect private property owners to, you expect municipalities to.

We have \$58 million in highway construction in the State of Idaho that cannot go forward. I can tell you what that would do to our economy in the State of Idaho, if we had some of these problems solved. \$58 million in Idaho. \$14 billion, it was testified to by the Transportation Committee a couple of weeks ago, nationwide.

I already mentioned the lumber mills, the miners and all the other dislocations that we have seen.

Mr. Chairman, I would hope that if you all or any of you want to respond to this rambling of mine, I invite you to do so. But I would hope that you would see the struggle that we are in and the feelings that we have for it. If it is that important, and we believe that the species and those that are endangered and those that we can help survive, we should.

But we also want you to know what the human cost has been to us. It hasn't been fun to watch a city of 400 people die. I mean the city just went away. The school system is lost. And the resulting dislocation is folks that for generations have called Idaho their home. All of a sudden, they didn't have a home. They had to uproot themselves from generations of being there, and leave.

Like I said earlier, I am just without the power of speech and persuasion to tell the story, but I would invite you all to come and look at the story because it is pretty sad in certain areas of Idaho. I have 650,000 people that live, that were born, that lived, that recreate, that worked on the watershed.

Every day, every day that watershed, we get hit right dead in the face with the Endangered Species Act and the Clean Water Act and we get precious little sympathy from the folks in Seattle that never come over and try to explain to those people, until their unemployment runs out and they have to leave and go someplace else, why they should have to be dislocated; why we can't figure out a compatible way to do both, as we seem to be able to figure out east of the Mississippi River.

Thank you, Mr. Chairman.

Mr. RADANOVICH. Thank you, Mr. Otter.

I want to draw the attention of the panel to the Institute for Regulatory Science study that was done on the assessment of water quality studies in the vicinity of the Washington Aqueduct and read a statement and talk about the 1994 draft permit that was issued. It was a draft permit that was actually never issued, thereby allowing the old permit to kind of continue indefinitely.

In this statement on Page 101, at the bottom of the page, it does state that, "None of the information provided for this review suggested that the continued discharge of flocculated sediment without treatment would be permitted on the Potomac, in the Chesapeake

Bay watershed, in a National Park, in a National Heritage River, in the proximity to an endangered species or in EPA Region 3.”

“Draft NPDES permits issued in 2000 for water treatment facilities in Maine, New Hampshire and Massachusetts require routine monitoring of flow, TSS, pH, total residual chlorine, aluminum with chronic and acute toxicity testing as requested by the EPA.”

As I understand the draft permit, which may have even been done by the former permit writer that was mentioned in the press recently, it did have such restrictions in it that would preclude the dumping of the sediment into the Potomac River. It would in fact shut the treatment facility down or require that that treatment be removed in any other way other than by dumping it into the river.

Is that my understanding, Mr. Izzo, if you could comment on that? That is why they held off on issuing the new permit in 1994 in order to study the situation a little more thoroughly?

Mr. IZZO. I really can't comment on what happened in 1994, since I wasn't here. I can tell you that there are numerous potential solutions if it was determined that the sediment should not be put in the river. These are outlined in the report that I attached to my written testimony.

They include not just trucking out, which you have mentioned, but also the construction of discharge lines to local treatment plants and so on and so forth. It is a very complex problem, so I can understand how the folks in 1994 maybe did not address it.

I think our position would be that any significant change that would be proposed for the water treatment in the Washington Aqueduct for whatever reason would have to be done in collaboration with the local users who in the long run have to foot the bill. That becomes a very complicated exercise in local government.

Mr. RADANOVICH. Mr. Grumbles, were you aware of the situation in 1984? Are you able to speak to that, given the fact that you may not have been there in 1994?

Mr. GRUMBLES. I can't add a whole lot of specificity to it. I know that there was a draft permit that was written. When I saw the article in the paper this morning about a former employee making some alleges, I can assure you that is one thing that we are going to look very closely at.

Mr. RADANOVICH. Well, this is not about a former employee and an allegation. This is regarding the statement of the fact that in the draft permit that was drafted by the EPA in 1994, it had such conditions on it that would preclude the dumping of the sediment from the river. In fact the Army Corps would not be able to meet those standards, so this sediment would have to be disposed of some other way. So, therefore the permit was never finalized.

Mr. GRUMBLES. I think that was, just based on my previous Congressional history and working on the legislation, I think that was one of the key factors that triggered the tremendous amount of debate in Congress over the future of the Washington Aqueduct because of the concern that a draft permit and the stringent nature, that it would force some \$60 million facility to be constructed and the objections raised by some of the Congressional interests to that.

I know that was one of the various aspects that was debated. I don't know the details as to why the draft permit never got finalized, but I certainly remember that there was, based on the con-

cerns over the contents of it, it triggered a tremendous amount of debate in the Senate and in the House as well..

I can't really add much more than that, Congressman.

Mr. RADANOVICH. Well, let us see, you are engaged in formal consultation now with NMFS. We are looking at a maximum of 135 days before a biological opinion, I think, is established, and then based on that you will again discuss the formation of another draft permit. Is that my understanding of how this thing works?

Prior to this, and now you have the Department of Interior that is weighing and saying, frankly, we don't want this stuff being dumped any more. You have a biological opinion that will say what it say whenever it is released.

Is there a chance that the permit will say that the dumping of sludge into the Potomac will to this day cease and desist?

Mr. GRUMBLES. It is fair to ask the question, Congressman. I would feel very constrained in answering it since we are in the pre-decisional mode. I mean we have an actual permit out there. We are getting public comment. EPA will be the decisionmaker on exactly what the contents of the permit will be.

I do feel that I can say that Administrator Whitman has tasked us with looking very closely, very carefully at measures to significantly reduce the loads of the sediments and to continue looking and, and working with our colleagues looking at the issues of possibly even pursuing a no-discharge at some point.

Mr. RADANOVICH. It is within the realm of possibility, it sounds like to me.

Mr. GRUMBLES. Well, it is just like the 85 reduction requirement of the sediments that is in the draft permit right now. That is one way to force the co-permittees to look seriously at and develop plan and in the process of doing that over the next several years, it is possible that a solids recovery facility could ultimately be the plan of choice or the mechanism of choice.

As the decisionmaker in the permit right now, we are constrained to show one way or the other which direction we are in.

Mr. RADANOVICH. No, that is certainly being asked of you. I just really wanted to know if it is within the realm of possibility that you would issue a permit, the result of which would terminate the dumping of the sludge in the Potomac.

Mr. GRUMBLES. Yes. I think the key thing is, and certainly a theme of this hearing has been really trying to focus in on what does the science say? What are the scientific data and evidence to indicate where we need to be most protective or increase the environmental protections and then not prejudge our consultation with the National Fisheries Marine Service and then working with the other entities, National Park Service on additional studies and things like that.

Mr. RADANOVICH. Thank you. Thank you very much.

Mr. Keeney, thank you for your testimony a little earlier. I am sorry I have been running back and forth.

I just wanted to bring up something that you had said earlier which may be in disagreement with regard to the equal enforcement of the Endangered Species Act east and west. You had mentioned the Atlantic salmon. It is my knowledge, you might want to look into this or you can correct me if I am wrong, but it seems

to me that on the issue of enforcement of the Endangered Species Act with regard to Atlantic and Pacific salmon, that the issue of habitat really makes a big difference in how that Act is enforced on both coasts.

I know in California that the habitat of the Pacific salmon is treated by watershed. You have a lot in my area. There is one habitat which is the Merced River, which is the drainage out of the Yosemite National Park that goes into the San Francisco Bay. It is treated separate from the Towallame River that also comes out of Yosemite, a different river that dumps into San Francisco Bay, but they are treated as separate habitats.

So, the presence of the salmon is determined within the river itself, where along the Atlantic seaboard the habitat is from Maine to about as far south as you can get. They are not treated on a river-by-river basis. The number of species that are counted are counted from the entire Atlantic coast. It is my knowledge that that is an example of the discrepancy, I think of the enforcement of the law in both areas.

Mr. KEENEY. Mr. Chairman, I am just not familiar with specifically how it is applied in that regard.

Mr. RADANOVICH. I wanted to bring that up because at least that is my knowledge of how it is differently enforced.

Another thing that you might want to look at, too, is the disparity of wildlife biologists on the east and the west coast. I don't know what the ratio is. It is quite a disproportion of wildlife biologists that are assigned. If you were to draw a line up and down the Mississippi River, how many in the west and the east coast, I think there is a ratio there of about eight to two, more biologists, I think, on the west coast.

Perhaps if you had had more biologists on the east coast they would have caught this shortnose sturgeon problem a little bit earlier.

My real question is this. I applaud you for entering into formal consultation, I think, on this. I guess the issue is the same as it would be for Mr. Grumbles. What if, in your determination NMFS comes up and does find out that the dumping of the sediment in the Potomac River is affecting the endangered shortnose sturgeon.

Is it within the possibility that NMFS will issue an order to cease and desist immediately?

Mr. KEENEY. Mr. Chairman, I think it depends on the extent of the information that we discover as to whether or not it may or to what extent it threatens the continued existence of the species.

As you know, we are continually searching for better science on this issue. We have to deal with the best available science at the time with regard to our consultations with EPA. As you know, we are going to have a biological opinion written within 135 days which may shed further light on the importance of this habitat for shortnose sturgeon. [The biological opinion has been retained in the Committee's official files.]

Mr. RADANOVICH. And I know that in some of our discussions, it wasn't with you, but with some folks on this issue, it was mentioned that even though the habitat around the dumping, which occurs on the aqueduct on the Potomac, that there are other various

inlets along the Potomac that are not affected, so therefore there is habitat for the endangered sturgeon.

Perhaps the sturgeon can live without this particular spawning ground and the dumping may be allowed to continue. Under my knowledge of the law, the law reads that if the habitat of a known endangered species is affected, that the habitat must be protected at all costs.

In fact, it was in the Supreme Court that it would be at all costs.

So, I just would caution you that my knowledge of this thing is that if you find out in any way that dumping is—and I think you will draw the conclusion that this is a spawning ground for the endangered species because that is where fresh water meets salt water, that this is a potential habitat for that shortnose sturgeon. You are just going to have to cut these guys off at the shorts.

Mr. KEENEY. Mr. Chairman, first of all, we are not aware that this is a spawning ground for shortnose sturgeon. Again, our greatest concern is for activities that threaten the continued existence of the species.

As I also mentioned before, there are examples of cases where NOAA Fisheries has allowed the taking of an endangered species where it does not threaten the continued existence of that species.

Mr. RADANOVICH. We have a hearing today at 2 o'clock where ESA and NMFS does testify in the presence that if there is habitat of an endangered species that we must err on the side of the species. I am not understanding why that wouldn't apply in this case.

Mr. KEENEY. Certainly it does apply. As Mr. Grumbles stated, we are acting under extreme caution here in moving ahead with formal consultations despite a lack of proof of the presence of the species in this area.

We believe that this area is good habitat for shortnose sturgeon, but we have not found a shortnose sturgeon within 50 miles of this area.

Mr. RADANOVICH. That is because the sludge is being dumped into the Potomac. I count up two and two. I don't mean that disrespectfully. Please forgive me. It is just that this is an important topic for me.

Again, the way I read the law is that if that area in particular is found to be a habitat, then a cease and desist must be ordered.

Mr. KEENEY. I don't believe that is the case.

Mr. RADANOVICH. Mr. Keeney, in your testimony earlier, you mentioned a word, "extirpate." Can you help me with that? That is a new term that I have heard.

Mr. KEENEY. "Extirpate." I think it has been found not to exist any longer in the area.

Mr. RADANOVICH. Can you tell me how that relates to the other part of the law that does say that if it is an suspected habitat of an endangered species, that the habitat must be protected. It seems to me contradictory in terms if you have a listed species and a suspected habitat, but they have not been spotted—

Mr. KEENEY. I think it is protected, the habitat needs to be protected if it is thought that the species could be restored in that area and you have evidence that the species is in that area.

Mr. RADANOVICH. So, since now we know there have been sightings of the species, in 1996, I guess, in lower portions of the

Potomac, it is conceivable that that shortnose sturgeon has the possibility of being restored into that bay area and this dumping ground is on suspected habitat, it seems to me a likely conclusion that you have to protect that habitat.

Mr. KEENEY. It depends on the science and it depends on our consultations with EPA.

Mr. RADANOVICH. OK. Let me ask one more time. I know that you are doing the biological opinion right now, but if you do conclude that this is an endangered species, that this is a potential habitat of the shortnose sturgeon and the sturgeon has the possibility of being revived in that area, that the possibility exists that you would issue a cease and desist order?

Mr. KEENEY. I am not sure that we have the authority to issue a cease and desist.

Mr. RADANOVICH. How does that work? Do you recommend to DOJ? Is that how that works?

Mr. KEENEY. We do have enforcement attorneys who could bring an action under Section 9 to prohibit the Federal action.

Mr. RADANOVICH. To stop it?

Mr. KEENEY. To stop it.

Mr. RADANOVICH. So, the authority is within NMFS?

Mr. KEENEY. Yes. We would work in conjunction with the Justice Department.

Mr. RADANOVICH. With the Justice Department. OK, good. Thank you very much, Mr. Keeney. I appreciate your input.

Mr. Otter?

Mr. OTTER. Yes, thank you, Mr. Chairman.

I would ask Mr. Grumbles, you are familiar with the peer review report from the Institute for Regulatory Science?

Mr. GRUMBLES. I personally have not read it. I know that they issued a report and I know that EPA staff are—

Mr. OTTER. Do you have any idea how you will use the information in this peer review.

Mr. GRUMBLES. I think we have already. If I am not mistaken, there is at least one recommendation; there may be a couple in there that we are trying to capture in the draft permit conditions. One of those is that the Institute for Regulatory As far as recommended that the Washington Aqueduct use one of two alternatives for managing the discharge and that specifically one was to clean the settling basins more slowly, using raw water and to dilute the total suspended solids and alum to acceptable levels.

In the draft permit, we have included a similar requirement for the discharges, specifically from the Georgetown Reservoir.

Mr. OTTER. Have you also taken into consideration in the Army Corps of Engineers water quality studies in the vicinity of the Washington Aqueduct, October 4 of 2001, a couple of conclusions.

“In summary, there appears to be moderate risks to several fish species,” not necessarily endangered, “of concern from sediment discharges in the project reservoirs when young life stages are present. The primary risk is from deposition of the suspended sediments on eggs and larvae which could affect survival.”

Going on, “Presumably, this restriction was incorporated, and they are talking about the restriction on time of release, to ensure that sediment discharges took place when the natural sediment

load in the river was very high and dispersion was then quicker and the visual impacts would be at their least. On a practical basis, these restrictions have meant that discharges may take place in the spring when the flow, the turbidity requirements are more likely.”

I suppose so that they look more natural.

Finally, “That no sediment discharges be made between February 15 and June 15 to protect the important fish spawning period.”

Those things are going to be taken into consideration?

Mr. GRUMBLES. Congressman, I appreciate your mentioning some of those points. We are working. This public comment period continues through June 28th. We are specifically going through the RSI recommendation and comments and working on that.

As I mentioned, we have included in the draft permit some of the recommendations and been responsive to those points, but—

Mr. OTTER. Well, my question goes to that because all of these answer one of the probably more open-ended questions under the Endangered Species Act that may affect determination, which I believe, probably through Mr. Keeney and his organizations into the consultations that you are in the middle of right now.

Isn't that a fact? Isn't that the reason that you are in the middle of those, because you have a “may affect” determination?

Mr. KEENEY. That is true.

Mr. OTTER. So, it may affect the habitat, may affect the endangered species. Isn't that right?

Mr. KEENEY. Right, the health of the habitat and in conjunction with evidence that there are species in the area.

Mr. OTTER. OK. Now, I want to get back to my frustration. Now let me get back to my frustration. It didn't happen in my district, but I am sure you are familiar with the Klamath Falls water problem that they had last year, are you not?

Mr. KEENEY. I am.

Mr. OTTER. How is that dramatically different than what happened at Klamath Falls by the National Marine Fishery and by the U.S. Fish and Wildlife in the determination that they made to seek a cease and desist order? How is that so much different than what we are talking about here?

Mr. KEENEY. Well, in the case of Klamath Falls, the Klamath River Basin, as you may know on June first NOAA Fisheries issued a biological opinion that would allow continued flows for farmers in salmon for 4 years, after which a number of measures would be required to be implemented to prevent jeopardizing the species.

So, we have been able to work out an agreement there.

Mr. OTTER. How about the period where we took the water away from 1400 farmers? They already had their crops in the ground and the crops in the ground and the crops went to waste. How about the immediate action and the immediate cease and desist order that was ordered in Klamath Falls because “may affect determination” was in force?

As a result of that, there was considerable economic damage.

Mr. KEENEY. All I can say is that it probably relates more to the presence of the species in those rivers and the knowledge that

those rivers were spawning habitat for that species. There is a distinction.

Mr. OTTER. You just concluded that because there was so many other places, in answer to Mr. Radanovich's question relative to other areas for spawning to take place. There are a "cajillion" other places that they could have spawned, other than just on the Klamath Falls project. There was one.

I am sorry to hit you right off the shoulder with this is, but I would ask you to look into the similarities between action that was taken in Klamath Falls and action that is not being taken here under the same determination of "may affect determination."

Mr. KEENEY. Congressman Otter, we can get back to you with a comparison and some thoughtful comments and I will do that.

Mr. OTTER. Thank you.

[The comparison referred to follows:]

Comparison of the 2001 Klamath River and 2002 Potomac River Biological Opinions

In April, 2001, NOAA Fisheries completed a biological opinion (BiOp) on the Bureau of Reclamation's (BOR) proposed operation of the Klamath Project and the project's effects on a threatened population of coho salmon. The BiOp concluded that the proposed operation of the water storage and delivery system was likely to jeopardize this population of coho salmon, and provided reasonable and prudent alternatives (RPAs) to avoid jeopardizing threatened coho. In November, 2002 NOAA Fisheries completed a BiOp on the effects of discharges from the Washington Aqueduct, operated by the Army Corps of Engineers (ACOE) and permitted by the Environmental Protection Agency (EPA), on an endangered population of shortnose sturgeon. The BiOp found that the action was not likely to jeopardize this population of sturgeon.

These two BiOps differ in their conclusions because of significant differences in the biology of coho salmon (assessed in Klamath BiOp) and shortnose sturgeon (assessed in Washington Aqueduct BiOp) and based on NOAA Fisheries' analysis of the effects of the proposed actions on listed species. In summary, the effects of chronic reduced water flows in the Klamath River on coho salmon that die after spawning are more significant than periodic discharges of sediments on sturgeon that can persist and spawn within a river for decades. The differences in the conclusions of the two BiOps in question are, therefore, not the result of unequal implementation of the ESA, as some have suggested. Rather, the BiOps differ because of significant differences in the biology of coho salmon and shortnose sturgeon, and differences in the effects of the Federal actions on the two species.

What are the Key Biological Differences between Coho Salmon and Shortnose Sturgeon?

Coho salmon in the Klamath River basin, like other Pacific salmon, have a life history that includes spending a number of years at sea before returning to natal rivers to spawn. Adults die shortly after spawning. Consequently, an adult coho salmon that lives out its complete life cycle will spawn only once in its lifetime. Coho salmon are very dependent on adequate freshwater habitat for juvenile rearing, adult and juvenile migration, and spawning. Coho can be very habitat limited in the freshwater environment.

Shortnose sturgeon, like coho salmon, are migratory. However, sturgeon do not die after spawning. Shortnose sturgeon in the Chesapeake Bay and its tributaries may live 20 years or more. A shortnose sturgeon from the Chesapeake Bay that lives out its complete life cycle will likely spawn at least several times, and perhaps more than 15 times. This life history strategy provides a natural buffer against environmental variability and unsuccessful spawning years. It allows shortnose sturgeon populations to withstand an occasional year of low reproductive output without jeopardizing the population.

What are the Key Differences in Effects of the Federal Actions?

In the Klamath River, the BiOp assessed water management practices which would result in a significant reduction in habitat quantity and quality for coho salmon. Specific concerns included maintaining adequate habitat space and water tem-

peratures. NOAA Fisheries found that the minimum flow requirements in BOR's 2001 water management plan were inadequate. NOAA Fisheries determined that the flow schedule proposed in BOR's biological assessment would result in a reduction in habitat quantity and quality compared with the average operations of the project during the 1990s. In NOAA Fisheries' view, this water management strategy suffered from the same flaw as BOR's 2001 biological assessment which the National Research Council (NRC) concluded exposed threatened coho salmon to new levels of risk and was not scientifically justifiable. Given the life history of coho salmon and the findings of the NRC, NOAA Fisheries found that the water management plan was likely to jeopardize the continued existence of the species. NOAA Fisheries recommended higher flows to avoid jeopardy. BOR managed the Project to meet those flows.

In the Potomac River, the BiOp assessed the effects of periodic discharges of sediment into the Potomac River near Little Falls, where shortnose sturgeon are presumed to spawn. One of NOAA Fisheries' two major concerns was that discharges from the Aqueduct could be toxic to shortnose sturgeon. A toxicology study of discharges concluded that there were few toxicological effects on test organisms. NOAA Fisheries concluded that, given the short duration of the pulse of sediments, the potential toxicological impacts were unlikely to jeopardize shortnose sturgeon. NOAA Fisheries' second major concern was that discharges during the spring spawning season could smother sturgeon eggs and larvae. NOAA Fisheries worked closely with EPA and ALOE during the early, "informal" stage of the consultation to address this concern. EPA and ACOE agreed to prohibit discharges during the spring spawning season to avoid potential smothering effects. The only exception would be under certain emergency situations, and would occur no more than once during the 5-year duration of the permit. Given the life history of shortnose sturgeon, and given that other rivers in the Chesapeake Bay appear to have suitable spawning habitat for sturgeon, one discharge in the Potomac River in 5 years is not likely to jeopardize the continued existence of this sturgeon population.

How have BOR and EPA Responded During the Consultations?

Another distinction between the consultations on the Klamath and Potomac Rivers is how each Federal action agency responded to NOAA Fisheries' recommendations to protect ESA listed species. In each case, NOAA Fisheries found that actions proposed by the BOR and EPA "may affect" ESA listed species, thereby triggering a consultation under section 7 of the ESA. NOAA Fisheries and BOR have consulted multiple times on BOR's operation of the Klamath Project. In each instance, BOR has proposed to allow minimum flows below those recommended in NOAA Fisheries' previous BiOps. Consequently, NOAA Fisheries have issued a series of "jeopardy" BiOps for proposed annual operating plans for the Klamath Project. In contrast, EPA and ACOE worked with NOAA Fisheries during the "informal consultation" process to minimize negative effects from discharges in the Potomac River on shortnose sturgeon. Specifically, EPA agreed to alter the permit authorizing discharges from the Washington Aqueduct into the Potomac River to prohibit discharges during the spring spawning season, significantly reducing the threat to shortnose sturgeon.

Mr. RADANOVICH. I have just a couple more questions and then we will wrap this thing up. Mr. Izzo, if you could help me out with something, there hearings been an issue or a question of whether or not the Army Corps of Engineers was in compliance with State and district water guidelines at any particular time.

I know that the Corps has testified that they have always been in compliance. But we have also got receipts and documents, statements from EPA, I think in 1993, and in Maryland in 2001 when you were indeed in violation. Can you explain that for me?

Mr. IZZO. Well, first, sir, I think we provided you a letter, at Mr. Parker did, back in February where we addressed all those concerns. We would like to stand by that letter.

The only notice of violation that we have received for the NPDES permit was in December 1993 at the plant drain. But that was not related to sediment discharge. That was related to another water discharge.

Mr. RADANOVICH. It was chlorine discharge, I think.

Mr. IZZO. Chlorine discharge, yes. I don't believe it had anything to do with the sediment process. There was no penalty and I believe the Washington Aqueduct took effective remedial action for that. That has been taken care of a long time. I am not aware of another formal notice of violation. But I believe our letter addressed the concerns which you raised previously based on our previous testimony here.

Mr. RADANOVICH. Are you aware of the 1993 EPA violation that was issued? Mr. Grumbles, are you aware of that one?

Mr. GRUMBLES. The plant drain violation?

Mr. RADANOVICH. To my knowledge there was notice of a violation, but I don't know what it was.

Mr. GRUMBLES. I am not personally aware of it. I understand that there is a situation where rather than EPA is the permit authority, the State of Maryland is the permit authority. Is this related to that? Yes.

Mr. RADANOVICH. No. The 1993 was a residual discharge violation. It was issued by the EPA. In 2001, it was Maryland and it was the chlorine discharge that was five times the legal limit in Maryland. To your knowledge, that has been addressed? Have you been monitoring it so it just doesn't occur again?

Mr. IZZO. I have not personally been monitoring it, but that has been reported to me, that it has been taken care of and it is not a problem.

Mr. RADANOVICH. Butch, do you have any questions?

Mr. OTTER. No, thank you, Mr. Chairman.

Mr. RADANOVICH. I want to thank everybody for being here. Again, I would just state in closing that I am glad that the process is proceeding so we can take a look and find out the environmental effects of this thing. I am amazed that we are not on our way to a facility, but I think that is going to be the result.

I thank you very much for being here today.

[Whereupon, at 12:57 p.m., the Committee was adjourned.]

