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# OVERSIGHT OF THE U.S. FISH AND WILDLIFE SERVICE

## HEARING

BEFORE THE

## COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

## UNITED STATES SENATE

ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

FEBRUARY 5, 2020

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

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# C O N T E N T S


Page

**FEBRUARY 5, 2020**

OPENING STATEMENTS

Barrasso, Hon. John, U.S. Senator from the State of Wyoming ..... 1
Carper, Hon. Thomas R., U.S. Senator from the State of Delaware ..... 3

WITNESS

Wallace, Hon. Robert, Assistant Secretary for Fish, Wildlife, and Parks, Department of the Interior ..... 6
Prepared statement ..... 8
Response to an additional question from Senator Barrasso ..... 15
Responses to additional questions from:
Senator Carper ..... 16
Senator Booker ..... 24
Senator Cramer ..... 29
Senator Duckworth ..... 36
Senator Markey ..... 37
Senator Merkley ..... 39
Senator Rounds ..... 43
Senator Sullivan ..... 44
Senator Wicker ..... 47

ADDITIONAL MATERIAL

"Hunting is 'slowly dying off,' and that has created a crisis for the nation's many endangered species," by Frances Stead Sellers. Washington Post, February 2, 2020 ..... 167

# OVERSIGHT OF THE U.S. FISH AND WILDLIFE SERVICE

**WEDNESDAY, FEBRUARY 5, 2020**

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
*Washington, DC.*

The Committee, met, pursuant to notice, at 10:06 a.m. in room 406, Dirksen Senate Office Building, Hon. John Barrasso (Chairman of the Committee) presiding.

Present: Senators Barrasso, Carper, Inhofe, Cramer, Braun, Rounds, Sullivan, Ernst, Cardin, Whitehouse, Merkley, Gillibrand, and Van Hollen.

## OPENING STATEMENT OF HON. JOHN BARRASSO, U.S. SENATOR FROM THE STATE OF WYOMING

Senator BARRASSO. Good morning. I call this hearing to order.

I will point out that last night, President Trump called on Congress to pass America's Transportation Infrastructure Act. He said we must also rebuild America's infrastructure.

He then asked Congress to pass America's Transportation Infrastructure Act, as he said, "to invest in new roads, bridges, and tunnels across our land."

The Senate is ready to answer the President's call. This bipartisan legislation passed our Committee unanimously by a vote of 21 to nothing.

America's Transportation Infrastructure Act is the most substantial highway infrastructure legislation in history. It will fix our roads; it will help speed up project delivery; it will help protect the environment; it will help grow America's economy.

I specifically want to thank Ranking Member Carper, and Subcommittee Chair and Ranking Member Capito and Cardin for their participation and leadership on this legislation, and all the sponsors of the bill for their hard work, and Senator Inhofe, for your leadership on this area over the years. I look forward to sending it to President Trump's desk for his signature.

This morning, we are here to conduct oversight over the U.S. Fish and Wildlife Service. I welcome our witness, Rob Wallace, who was confirmed in June of last year to be Assistant Secretary for Fish, Wildlife, and Parks at the U.S. Department of Interior.

I have known Assistant Secretary Wallace for 35 years, as he has served in several wildlife conservation leadership roles, both in Wyoming and here in Washington.

Now, Assistant Secretary Wallace oversees the U.S. Fish and Wildlife Service, which is under the jurisdiction of this Committee,

and the National Park Service, which is under the jurisdiction of the Energy and Natural Resources Committee.

I look forward to hearing from Mr. Wallace about his priorities for the U.S. Fish and Wildlife Service.

I am especially interested to learn more about what the Service is doing to strike the proper balance between wildlife conservation, habitat management, and the use of our public lands. The U.S. Fish and Wildlife Service enforces our Nation's wildlife laws. It protects endangered species. It restores and conserves wildlife habitat. It administers our National Wildlife Refuge System. It manages migratory birds and restores fisheries.

Over the last 3 years, the Trump administration has worked to implement policies that benefit our Nation's wildlife and remove unnecessary barriers to growing our economy. For example, the Administration recognizes what westerners have known for years: That the Endangered Species Act needs to work better for species and for rural communities.

The Administration finalized three rules last year to improve implementation of the Endangered Species Act. These rules revised existing regulations to help clarify and improve standards for making listing and delisting decisions, as well as critical habitat designations.

The Trump administration also recognizes the important role that sportsmen and women play in wildlife management and conservation. Last August, Secretary Bernhardt announced that the Department of Interior would open more than 1.4 million acres of lands and waters in our National Wildlife Refuge System to new opportunities for hunting and fishing.

The President also signed into law two provisions passed by this Committee that improve the ability of States to use the Pittman-Robertson Act funds to promote hunting.

This Committee continues to move other significant bipartisan legislation that will help the U.S. Fish and Wildlife Service fulfill its important mission.

In December, the Committee reported America's Conservation Enhancement Act, or the ACE Act. We did it by voice vote.

Among other provisions, the legislation reauthorizes important environmental programs, including the North American Wetlands Conservation Act, the National Fish and Wildlife Foundation Act, and the Chesapeake Bay Program. The ACE Act also solidifies partnerships among public agencies and other interested parties that promote fish conservation.

The ACE Act addresses the terrible, degenerative, highly contagious brain disease known as chronic wasting disease. Detected nearly 40 years ago, chronic wasting disease has spread to 26 States and 4 Canadian Provinces. The ACE Act establishes a Chronic Wasting Disease Task Force at the U.S. Fish and Wildlife Service to address this important wildlife threat.

The ACE Act passed the Senate in January, and I encourage the House to pass it without amendment as soon as possible. We need to get this legislation to the President's desk so the Fish and Wildlife Service can have the tools they need to fulfill their mission.

I look forward to hearing more about what the U.S. Fish and Wildlife Service is doing to both protect wildlife and to support eco-

nomic growth. As I have said at other hearings, we can and we must do both.

I would now like to turn to my friend and Ranking Member, Senator Carper for his statement.

**OPENING STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE STATE OF DELAWARE**

Senator CARPER. Chairman Barrasso, thank you very much; thank you for your kind words.

I am going to start today by quoting one of our finest American leaders. I want to quote one of our great American leaders, who once said these words. He said, "Along the way, I have learned so much, especially that no one ever really wins by winning everything, and that bipartisan solutions are always lasting solutions."

Some of you in the room probably don't remember who said those words, but it was our witness today, Rob Wallace.

We welcome you back, and thank you for those words. I literally sat last night during the State of the Union Address thinking about those words. No one ever really wins by winning everything, and that bipartisan solutions are always lasting solutions.

If we are going to be successful, as the Chairman has said, we are going to be successfully moving surface transportation legislation that actually begins to address our roads, highways, bridges, and waterworks that needs to be done. And this extreme climate weather that we are facing the challenges there. We are going to be able to do that. We have to do it together. None of us can do it by ourselves, and I welcome the Chairman's words as he opened his statement.

Let me just say, I know we can agree on a lot on this Committee, but I think we can all agree on the importance of promoting urban national wildlife refuges, like two we have in Delaware, Prime Hook and Bombay Hook National Wildlife Refuge. They are treasures to our State, and not just for our State, they are treasures for our country.

People who come and visit our country and our State from around the world to visit those wildlife refuges would be very much in agreement with that. We are proud that people travel from far and near, from throughout the world to visit us for a variety of reasons, but especially those refuges.

As the U.S. Fish and Wildlife Service works to enhance access to these special places, I hope we can work together to ensure adequate law enforcement at our refuges and all refuges.

I also want to thank you, Mr. Secretary, for your assistance on issues of importance for the First State National Historical Park, which serves as one of the newest national parks in America. It tells a story of early colonial settlement of America leading up to the ratification of our Constitution, which we talked about a lot the last few weeks.

Collaborative species conservation is another bipartisan priority. I think we can all agree that it is better to conserve species, such as the monarch butterfly, before these species require Endangered Species Act protection. We look forward to hearing Mr. Wallace's thoughts on these issues of bipartisan subjects.

I must, however, also express my continued concerns with actions the Trump administration is taking that I believe will harm fish and wildlife.

The mission of the U.S. Fish and Wildlife Service is to work with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the benefit of the American people.

Unfortunately, too often, this Administration has proposed, and in some cases, already finalized regulations that are not in the spirit of that mission. Specifically, I fail to see how Endangered Species Act regulations finalized last year will better "conserve, protect, and enhance fish, wildlife, plants, and their habitats."

Just last week, the Administration released its proposed Migratory Bird Treaty Act rule. This proposal, which has been met with strong, bipartisan opposition, breaks with every precedent of law and caters solely to industry, not to the American people, as the U.S. Fish and Wildlife Service mission states it should.

Recent reports suggest that the Department of the Interior is preparing nearly 100 additional policy changes for 2020. To be clear, I do not know what all of these policy changes could be, but given this Administration's track record, I fear we have reason to expect that these policy changes will be met with some disagreement from Democrats on this Committee and in Congress, along with conservation groups and other stakeholders.

As we look ahead, Mr. Secretary, I hope you can assure our Committee today, and in the days ahead, that any upcoming policy changes will be more thoughtful, careful, and inclusive of all perspectives than some of the previous changes I have mentioned. We have to remember that our national resources are precious, and in many cases once they are gone, they are gone.

If there are indeed scores of policy changes on the horizon, I urge the Administration to work with States and all stakeholders on those policies because conservation policies work best when we work together, and as you once said, Mr. Secretary, bipartisan solutions are indeed lasting solutions.

Thank you, Mr. Chairman, and welcome back, Rob.

Senator BARRASSO. Well, thank you, Senator Carper, for quoting our witness here today. Those are wonderful words that I am glad are once again in the record, because they are words that we can all benefit from. So thank for bringing that to our attention.

Senator CARPER. Mr. Chairman, can I mention one other thing?

I have my wallet here, and I put it out for a reason. Last night when the President was talking about transportation infrastructure, one of the things he did not mention is that you have to pay for this stuff. I have always believed, I think former Governor Rounds and my other colleagues believe, if things are worth having, they are worth paying for.

We heard nothing last night about how we are going to pay for stuff, and we are looking at a budget deficit this year of a trillion dollars. A trillion dollars.

I used to, when I first came to the Congress in 1982 as a freshman Congressman and joined Jim Inhofe, our budget deficit was about, I don't know, $50 billion, $60 billion, $70 billion. We thought that was way too much.

We are looking at a trillion dollars this year, and the idea of passing a transportation infrastructure bill without any funding would be, I think, just an aberration. That would be just awful.

I know this is something that you share, views that you share, and it is important that we not just say we want to improve the infrastructure, we have to do a lot more on roads, highways, bridges, but we also have to figure out where the money is going to come from. Thank you.

Senator BARRASSO. Well, now, I appreciate that as well, Senator Carper, because I agree. I think that is something that we all need to work together on with the Finance Committee. We are in the process of doing that.

This bill needs to be paid for. I believe we should start by agreeing that everyone who uses the roads should help pay to maintain and improve them.

There isn't a single answer, but among other solutions, I believe that the electric vehicle, which currently pays no Federal gas tax, actually needs to make a contribution and pay into the system as well.

Senator Inhofe, do you have a question?

Senator INHOFE. Yes. Let me just make a comment about that, because I chaired the Committee during the last three of these types of bills.

It is so popular; that is one of the few taxes that everyone agrees on. But it is not just taxes. There are other ways of doing it, and we have studied and we have been able each time we passed a bill, whether it is any of the last three bills, to come up with the funding of it because it becomes necessary and that prioritizes it.

This is going to happen again, so I am glad he said what he said, and made a commitment to do something that I think a lot of people, most Oklahomans, are enthusiastic about.

Senator BARRASSO. Thank you, Senator Inhofe.

Senator Carper.

Senator CARPER. In my conversations with the President on infrastructure, Senator Inhofe has been there for a number of those, the President has actually been very bold in private in suggesting ways to pay for this. I think that some around him are concerned that if he is bold in making proposals, that he will turn around and look for Democrats and Republicans to support him and not find anybody, if he is bold, and strong, and honest about the need for funding, including what you just mentioned.

Folks who use roads, highways, and bridges ought to pay for them, including folks that are in electric vehicles or hydrogen powered vehicles and all that.

I realize it is not the jurisdiction of this Committee. Some of us on this Committee do serve on Finance, and we have our work cut out, and we need to lean on the Finance Committee to do their job. Thank you.

Senator BARRASSO. Thank you, Senator Carper.

As we get ready to hear from our witness, Rob Wallace, remember he was unanimously confirmed July 2019. He is a Wyoming native. His distinguished career includes 45 years of service in a variety of positions directly related to supervising the U.S. Fish and Wildlife.

He began his career as a seasonal park ranger in the Grand Teton National Park. Since then, he has served as Assistant Director of the National Parks Service, Chief of Staff for Wyoming's Senator Malcolm Wallop, Staff Director for the U.S. Senate Energy and Natural Resources Committee, Chief of Staff for the Wyoming Governor Jim Geringer, Manager of U.S. Government Relations for GE Energy, President of our Nation's first cooperative conservation bank, co-founder of the Upper Green River Conservancy, where he built partnerships among diverse stakeholders to protect core sage grouse habitat in southwest Wyoming, served on numerous other organizations and boards dedicated to conserving wildlife.

Assistant Secretary Wallace, it is a privilege to welcome you back as a witness before the Environment and Public Works Committee today. Thank you for being with us. I want to remind you that your full written testimony will be made part of the official record here today, so please try to keep your comments to 5 minutes, so we may have more time to argue among things among ourselves.

Please proceed with your testimony.

**STATEMENT OF HON. ROBERT WALLACE, ASSISTANT SECRETARY FOR FISH, WILDLIFE, AND PARKS, DEPARTMENT OF THE INTERIOR**

Mr. WALLACE. Good morning, Chairman Barrasso, Ranking Member Carper, and members of the Committee. Thank you for the opportunity to discuss the mission and work and priorities of the U.S. Fish and Wildlife Service.

The Service is the only agency of the Federal Government whose primary mission is fish and wildlife conservation. The Service's conservation mission is carried out by over 8,000 employees stationed at hundreds of wildlife refuges, fish hatcheries, and field stations and regional offices spread across all 50 States and all 5 U.S. territories.

I have been fortunate to travel around the country to meet with some of the Service's dedicated professionals. I have been impressed with the good work they are doing on the ground to conserve fish and wildlife for the American public. Their work, carrying out the laws that you, Congress, pass ensures that America's wildlife heritage will pass on to future generations.

I will focus my remarks on a few of the priorities that are being led by Secretary Bernhardt and supported by his team at Interior. One of the Secretary's priorities is to be a good neighbor. The Service understands that the conservation of our Nation's fish and wildlife is not something that it can achieve alone. Strong partnerships with State and Federal agencies, tribes, private landowners, and other stakeholders are essential to successful conservation.

Another area of focus for the Service is partnerships with landowners. This is especially important because 60 percent of the land in the United States is privately owned. The Service invests in keeping landowners on their land and preserving working landscapes for the benefit of agriculture, ranching, timber, and traditional land uses. We do that because fish, wildlife, and plants benefit from the investment in working landscapes.

Ensuring public access to Federal lands is another high priority. In addition to its core conservation purpose, the National Wildlife

Refuge System plays an essential role in providing outdoor recreation opportunities for the American public, with over 59 million visitors last year.

Access to land of the refuge system also benefits local communities. We recognize this significant impact, and so, last year, the Service announced new hunting and fishing opportunities on more than 1.4 million acres nationwide.

To further facilitate public access, the Service removed or revised 5,000 site specific hunting and fishing regulations to more closely align with State law. For example, one of my favorites, we eliminated the burdensome requirement that hunters must wear a vest or jacket containing back and front panels of at least 600 square inches of solid, fluorescent, orange color. Instead, we aligned our regulations with the State's less burdensome requirements for just wearing blaze orange while hunting.

Other ways the Service is expanding access is by promoting wildlife conservation in hunting and fishing and outdoor recreation in our cities and getting new, non-traditional audiences to visit their local refuges. The Service has a new confirmed director, Aurelia Skipwith, who is a strong leader in this effort.

There are more than a hundred such urban refuges that are great resources to connect people with nature. To further this effort, the Secretary designated September 29th as Urban National Wildlife Refuge Day.

I will close by highlighting the Secretary's emphasis on recovery of species listed under the Endangered Species Act. The United States is a global leader in species protection and conservation. The Service is committed to the recovery of listed species and to returning management of those species to our State and tribal partners. This will allow the Service to focus our limited resources on those species of greatest conservation need.

Already, in this Administration, the Service has issued final and proposed rules to the list or down list nearly 30 species. For example, the Service recently proposed to delist the interior least tern, which migrates across 18 States in the central United States. The tern has come back from just 2,000 individuals, thanks to years of cooperative work with Federal, State, local, and other partners. These efforts will help ensure that the continued success of the species, should it be returned to the State management.

This is one of the many great success stories to show how ESA can work and the department as a committee to making the progress going forward. Improving implementation of the ESA continues to be a priority for the Secretary. We are committed to making the ESA as efficient and predictable as possible in accomplishing its purpose of conserving threatened and endangered species and protecting ecosystems upon which they depend.

I appreciate the Committee's interest in further wildlife conservation. I would be happy to answer your questions, and thank you again for having me here.

[The prepared statement of Mr. Wallace follows:]

**Testimony of Robert Wallace,**
**Assistant Secretary for Fish and Wildlife and Parks,**
**Department of the Interior**
**before the**
**Senate Committee on Environment and Public Works**
**regarding the U.S. Fish and Wildlife Service**

**February 5, 2020**

Good morning Chairman Barrasso, Ranking Member Carper, and members of the Committee. I am Rob Wallace, Assistant Secretary for Fish and Wildlife and Parks in the Department of the Interior (Department). Thank you for the opportunity to discuss the mission, work, and priorities of the U.S. Fish and Wildlife Service (Service).

The Service is the oldest Federal conservation agency, tracing its lineage back to 1871, and it is the only agency in the Federal government whose primary responsibility is fish and wildlife conservation. The Service is responsible for the conservation of trust wildlife resources, including endangered and threatened species, migratory birds, certain marine mammals, and certain native and interjurisdictional fish. The Service is responsible for implementing a large number of conservation laws passed by Congress over the past 120 years, including some of our nation's most important and foundational environmental laws. These include the Endangered Species Act (ESA), Migratory Bird Treaty Act, National Wildlife Refuge System Administration Act, Pittman-Robertson and Dingell-Johnson Acts, Marine Mammal Protection Act, and Lacey Act, and international agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The Service has approximately 8,300 employees stationed at hundreds of wildlife refuges, fish hatcheries, and other field stations and regional offices spread across all 50 states and many U.S. territories.

The Service's mission – "Working with others to conserve, protect, and enhance, fish, wildlife, plants, and their habitats for the continuing benefit of the American people" – reflects the value the agency places on working in partnership with others. The Service understands that the conservation of our nation's fish and wildlife is not something that it can achieve on its own. Strong partnerships with state and Federal agencies, tribes, private landowners, and other stakeholders are integral to achieving conservation successes.

We appreciate the Committee's interest in the Service's important work and thank President Trump and Secretary Bernhardt for their support and leadership. The Secretary has established clear priorities for the Service that support broader Administration goals. I will focus my testimony on highlighting some of the Administration's priorities for the Service, and achievements that the Service has made in advancing these priorities.

**Expanding Access to FWS Lands for Hunting, Fishing, and Outdoor Recreation**

The Service manages a network of 568 National Wildlife Refuges, with at least one refuge in each U.S. state and territory, and with more than 100 refuges close to major urban centers. These refuges provide lands and waters for thousands of species of wildlife and plants, sanctuary for

hundreds of threatened and endangered species, and spawning areas for native fish that are important to recreational and commercial fisheries and the overall economy.

The National Wildlife Refuge System plays an essential role in providing outdoor recreation opportunities to the American public. In Fiscal Year (FY) 2019, more than 59 million visitors to national wildlife refuges hunted, fished, observed or photographed wildlife, or participated in environmental education or interpretation on a refuge. Of the 568 wildlife refuges and 38 Wetland Conservation Districts, 381 are open to some type of hunting, and 316 are open to fishing.

Access to Refuge System lands generates economic contributions to local communities. According to the Service's 2017 Banking on Nature report, spending by recreational visits to refuges generated $3.2 billion of economic output in local economies. As this spending flowed through the economy, it supported over 41,000 jobs and generated about $1.1 billion in employment income. Refuge recreational spending generated about $229 million in tax revenue at the local, county, and state levels.

Recognizing this significant impact, and responding to the leadership of Secretary Bernhardt, last year, the Service announced new and increased hunting and fishing opportunities on more than 1.4 million acres nationwide. Additionally, the Service removed or revised 5,000 site-specific hunting and fishing regulations to more closely align with state laws. These regulations were often redundant with state laws, and removing them further increases public access on our public lands by reducing needless logistical hurdles for hunters and anglers.
There is a national wildlife refuge located within a one-hour drive of most major metropolitan areas in the United States, providing nearby opportunities to discover wildlife, experience the outdoors and gain a greater appreciation for the natural world. In order to connect urban America to their wildlife heritage, the Urban Wildlife Conservation Program was created to introduce those Americans living in densely populated areas to the more than 100 national wildlife refuges located near their homes. To further this effort, Secretary Bernhardt designated September 29th as Urban National Wildlife Refuge Day. This designation highlights urban refuges as good neighbors and places for people to experience the outdoors within their local communities, and as a key to reaching the next generation of anglers, hunters, and conservationists. The designation puts a focus on getting new, non-traditional audiences to visit their local urban refuge.

**Being a Good Neighbor**

While the Service holds the responsibility for conserving trust resources across broad landscapes, its work is not possible without vital partnerships with states, tribes, private landowners and others to conserve natural resources. The Department and Service are committed to being good partners to the states and working to incorporate that in all we do. A 2018 Secretarial Memorandum to all Departmental Bureaus reaffirms the authority of the states to exercise their legal authority to regulate fish and wildlife species on Federal public lands and waters, except as otherwise required by Federal law. Secretary Bernhardt recognizes that states are good stewards of our natural resources and practice sound management of fish and wildlife while allowing appropriate opportunities for citizens to enjoy public resources.

Another area of particular focus for the Service is its partnerships with landowners. This is especially important since 60 percent of the land in the United States is privately owned. The Service invests in keeping landowners on their land, and preserving working landscapes for the benefit of plants, wildlife, and agriculture, ranching, timber and other traditional land uses. In many cases, species will greatly benefit from appropriately managed private lands.

The Service has several tools to help private landowners enhance the stewardship of their lands and has worked with landowners across the country to preserve and restore open spaces. A primary tool for collaboration with private landowners is the Partners for Fish and Wildlife (Partners) program. The Partners program offers voluntary habitat restoration and enhancement options that are tailored to mutually benefit wildlife and landowner needs. The program requires a cost share – an investment of private landowner funds, land, or other services to complement federal funds.

Since the Partners program's inception, these voluntary, incentive-based efforts have resulted in more than 6 million acres and 14,000 miles of stream habitat restored and enhanced across the nation. This work was completed in partnership with nearly 50,000 private landowners and more than 5,000 partner organizations. The Partners program contributes to the economies of many rural communities in order to balance landowner objectives with wildlife habitat and ensure that the needs of people and wildlife are met for future generations.

The Service strives to be a good neighbor by ensuring it meets its obligations to private landowners who have entered into contracts to establish wetland and grassland conservation easements on their lands. Last month, the Service issued new internal guidance to provide better government services, greater clarity, and minimize conflict with landowners stemming from easements that pre-date 1976. Based on this new guidance, the Service is working to clearly identify easement wetland boundaries and acreage, provide a means for landowners to appeal any boundary disputes, and apply those internal processes consistently, fairly and in a timely manner. The Service will continue to take additional steps to deliver better government services for the American people and to be a good neighbor to private landowners.

**Striking a Regulatory Balance**

Preventing extinction and achieving recovery of species listed under the ESA is one of the Administration's highest priorities for the Service. The Service is committed to the recovery of listed species and to returning management of those species to our state and tribal partners when they no longer require ESA protections. This process allows the Service to focus on those species of greatest conservation need.

During this Administration, the Service has issued final and proposed rules to delist or downlist nearly 30 species, including the final delisting of the Monito gecko; final downlisting of the Nene; proposed delisting of the gray wolf and Interior least tern; and proposed downlisting of the American burying beetle. These rules are based on the best available science, are consistent with the ESA's requirements, and are subject to public review. This track record of progress to

recovery shows that the ESA can work, and the Department is committed to making even more progress going forward.

The Service delivers conservation for imperiled species through its administration of the ESA, which provides a suite of voluntary tools for private landowners to undertake conservation practices for the benefit of species. The Service is committed to strengthening delivery of conservation under the ESA by making it easier for states, tribes, private landowners, and others to work with the agency on proactive conservation efforts for threatened and endangered species and for species at-risk for needing protection under the ESA. By reducing threats to species and their habitats before they become critically imperiled, future conservation efforts are likely to be less costly, more flexible, and result in successful conservation.

Improving implementation of the ESA continues to be a priority for the Department. The Department is committed to making the ESA as efficient, predictable and effective as possible in accomplishing its purpose of conserving threatened and endangered species and protecting the ecosystems upon which they depend. The Service also provides timely review and recommendations to facilitate decisions on proposed infrastructure, energy, and other development projects that contribute to job creation and economic growth, while ensuring that impacts to fish, wildlife, and their habitats are avoided, minimized or otherwise appropriately mitigated.

The Department is committed to ensuring that the ESA works for the American people and for the species it protects. Last year, the Service finalized revised regulations to improve implementation of the ESA to increase transparency and effectiveness of the law. These revisions are consistent with the law and reflect public input and best practices based on years of agency experience. The changes are intended to improve conservation results and reduce regulatory overreach on the American people.

In furtherance of our commitment to providing a clear and commonsense regulatory framework, the Service recently proposed a rule to clarify the scope of the Migratory Bird Treaty Act (MBTA). The proposed rule would codify the 2017 Department of the Interior's Solicitor's Opinion M-37050 which determined the Act only extends to conduct intentionally injuring birds. Conduct that results in the unintentional (incidental) injury or death of migratory birds is not prohibited under the Act. The proposed rule would provide the public, businesses, and government agencies with legal clarity and certainty regarding what is and what is not prohibited under the MBTA. The Endangered Species Act and the Bald and Golden Eagle Protection Act, as well as state laws and regulations, are not affected by the Solicitor's Opinion M-37050 or the proposed regulation. This is the first step in an open and transparent public process that the Service will continue to manage throughout the development of the rulemaking process. The public is encouraged to provide input to help ensure that these changes are clear, effective and advance the goal of migratory bird conservation.

**Preventing the Spread of Invasive Species**

The introduction of invasive species occurs in myriad ways, from the illegal release of non-native species to the discharge of ballast water from ships. The adverse consequences from

invasive species costs the U.S. economy $120 billion per year and is among the most significant challenges facing the conservation of native fish and wildlife populations. Invasive species are a major contributing factor in the listing of species under the ESA, which can lead to increased regulatory burdens on the public.

The Service relies on the Lacey Act to regulate the importation and transport of species that have been determined to be injurious to human beings, the interests of agriculture, horticulture or forestry, or to wildlife or wildlife resources. The Service historically interpreted the Lacey Act to include a prohibition on the transportation of injurious species between states within the continental United States. However, in 2017 the U.S. Court of Appeals for the D.C. Circuit held that the law does not prohibit transport of injurious wildlife between States within the continental United States. As a result, the prohibition on transport of injurious wildlife within the United States is limited to the jurisdictions listed in the statute.

Recently, the Service and U.S. Customs and Border Protection conducted a successful operation codenamed "Hidden Mitten," which prevented the illegal import of approximately 15,000 live Chinese mitten crabs. These crabs are a highly invasive species that can cause serious damage to the environment and infrastructure. Once introduced to a new location, the crabs can spread rapidly. Female mitten crabs are capable of producing 100,000 - 1,000,000 eggs per brood and crabs can migrate up to 11 miles per day.

Across the American West, the invasion of non-native plants like cheatgrass, and the cycle of extreme wildfires they promote, is one of today's most important land management issues. The invasion of these exotic annual grasses into sagebrush habitats in Wyoming and elsewhere has resulted in more frequent and extreme wildfires, accelerating habitat loss and threatening the health of the greater sage-grouse and other sagebrush-dependent species. To address this issue, the Service works through collaborative partnerships to strategically apply herbicides to control cheatgrass infestations, target livestock grazing management to reduce standing cheatgrass fuels and improve perennial plant health, as well as seed desired perennial plants after a fire to prevent cheatgrass dominance.

The old adage remains true that an ounce of prevention is worth a pound of cure. The Service continues to work with its partners to prevent new introductions and manage established invaders to protect and conserve our natural resources.

**Combating Wildlife Trafficking**

Wildlife trafficking remains a serious global threat to conservation, national security, economic prosperity, and community stability. This multi-billion dollar illegal trade is fueled by demand and enabled by corruption, limited legal authorities and law enforcement capabilities, and weak institutions abroad. Continuing the fight to combat wildlife trafficking is a priority for this Administration. President Trump signed Executive Order 13773 in 2017 to focus the efforts of the United States Government on transnational organized crime and recognized the connections between wildlife trafficking and transnational criminal organizations. The Service's Office of Law Enforcement is leveraging their skill and technical expertise and working collaboratively with key partners to combat this global crisis.

With the support of the State Department, the Service created the first program for stationing regional wildlife law enforcement special agents at U.S. embassies as attachés, beginning in Bangkok, Thailand in 2014. The Administration has prioritized expanding the program and added five attachés last year. The Service now has a total of twelve attachés stationed at U.S. embassies across the globe. Service attachés play a critical role in the U.S. government's ability to combat wildlife trafficking from a global perspective. The attachés provide investigative support and facilitate the sharing of information across borders while providing technical expertise to local and regional partners. They also provide training in areas such as crime scene processing and evidence collection, wildlife identification, technical investigative techniques, handling and processing of digital evidence.

Last year, in cooperation with the State Department, the Service established two wildlife trafficking Vetted Units in Gabon and Peru and are working on others. They are the first dedicated wildlife trafficking units in the world, and a major step in the fight against transnational organized crime. When trained, these units can work seamlessly with U.S. law enforcement, tracking and investigating highly complex crimes associated with wildlife trafficking. By placing these units in strategic locations, the Service hopes to gain further insights and conduct in-depth advanced investigations into wildlife trafficking in these regions.

The Service's Office of Law Enforcement also continues to successfully build critically important investigations and work collaboratively with the Department of Justice to charge criminals and disrupt wildlife trafficking networks. Last year, the Service, Department of Justice, and Drug Enforcement Agency announced an indictment against a significant wildlife trafficking network. Four individuals were charged with trafficking in African elephant ivory and rhino horn, valued at more than $7 million, from Africa to the United States and Southeast Asia. Three of the individuals were also charged with money laundering, including for wildlife trafficking violations. This was the first time the U.S. Government utilized the authorities provided in the Eliminate, Neutralize, and Disrupt (END) Wildlife Trafficking Act to charge money laundering for wildlife trafficking violations. In addition, two of the individuals were also charged with drug trafficking, highlighting the well-known fact that transnational organized groups will deal in any illegal good that can make them money. The Service is committed to continuing the important work of combating wildlife trafficking and working with our partners, both here in the United States and abroad to bring criminals to justice.

**Conclusion**

Fish, wildlife, plants, and their habitats face many stressors and threats across the nation and around the globe, including habitat loss, invasive species, wildlife disease, wildlife trafficking, and a changing planet. The Service is committed to accomplishing its mission, in accordance with its statutory mandates and through science-driven decision-making, on behalf of current and future generations of Americans. I would like to thank President Trump and Secretary Bernhardt for their leadership and support of the Service's mission.

The Department commends Congress for passing the John D. Dingell, Jr. Conservation, Management, and Recreation Act, and recognizes this Committee's efforts that led to the

creation of the Theodore Roosevelt Genius Prizes. These prize competitions will allow the Service to help foster innovative solutions to address some of the nation's most pressing conservation challenges, including wildlife conservation; invasive species; protection of endangered species; wildlife poaching abroad and illegal trafficking of wildlife; and non-lethal management of human-wildlife conflict. Congress provided $1 million in funding to the Service in FY 2020 for the Theodore Roosevelt Genius Prizes, and the Service is working diligently on implementation of this new authority.

We also appreciate the Committee's interest and commitment to fish and wildlife issues through its work on the America's Conservation Enhancement (ACE) Act. This legislation addresses a number of conservation challenges, including protection and restoration of fish and wildlife habitat, wetlands and the Chesapeake Bay; the urgent threat of Chronic Wasting Disease; and preventing the spread of invasive species. The ACE Act would also establish a new Theodore Roosevelt Genius Prize for technological innovation to reduce human-predator conflict using non-lethal means. The Department appreciates the Committee's interest in fish and wildlife conservation and management, and we welcome the opportunity to work with the Committee in these areas.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question from Chairman Barrasso**

**Question 1: What impact do ESA listing decisions made by lawyers and the federal courts and not by scientists and other experts, have on the implementation of the ESA and the successful recovery of endangered and threatened species?**

**Response:** The U.S. Fish and Wildlife Service (Service) expends a substantial amount of time and money in court defending itself from alleged procedural violations of the ESA. The time and money spent on procedural litigation is certainly time and energy that should be spent on working to recovery of species. Additionally, the ESA's citizen's suit provision contains an attorney fee shifting provision so that successful litigation on any procedural issue, no matter how minor, including ones that make no difference in the substance of species recovery, can subject the federal government to using taxpayer dollars to paying attorney's fees and costs to litigants. All of this forces the Service to focus on the procedural form over substance of protecting and more importantly recovering truly threatened or endangered species.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Ranking Member Carper**

**Question 2: As I mentioned at our hearing, the Fish and Wildlife Service has delayed finalization of an important candidate conservation agreement for the monarch butterfly for more than six months. Proponents of this agreement believe that stakeholder needs have been accommodated to the extent practicable, and there are no outstanding legal issues that would hinder the agreement's effectiveness. I asked: "what precludes the Service from finalizing this agreement now and working with agricultural stakeholders separately to develop an additional agreement for their continued engagement?" You replied that you would need to get back with me. Would you provide a response?**

**Response:** The candidate conservation agreement was delayed at the time of the hearing to work with the Farm Bureau to consider private landowner inclusion as part of the energy and transportation Candidate Conservation Agreement and Assurances (CCAA). Those discussions were successful and culminated in the completion of a historic agreement on April 8, 2020, between the Service and the University of Illinois-Chicago to conserve the monarch butterfly. In addition to the habitat provided within the rights-of-way, landowners adjacent to the enrolled rights-of-way can enroll additional property if they agree to certain conservation measures. The agreement encourages transportation and energy partners to participate in monarch conservation by providing and maintaining habitat on potentially millions of acres of rights-of-way and associated lands. The agreement provides regulatory certainty for industry participants and adjacent landowners while addressing the conservation needs of our most at-risk species.

Under the monarch agreement, more than 45 companies in the energy and transportation sectors and private landowners will provide habitat for the species along energy and transportation rights-of-way corridors on public and private lands across the country. Participants will carry out conservation measures to reduce or remove threats to the species and create and maintain habitat annually. Although this agreement specifically focuses on monarch habitat, the conservation measures will also benefit several other species, especially other pollinating insects.

The Service is now working with the Farm Bureau to complete an additional CCAA to include the voluntary conservation of those private lands that are not adjacent to transportations rights-of-way but whose owners are interested in conserving monarch habitat.

**Question 3: I also asked about the Fish and Wildlife Service's proposed rule regarding the Duck Stamp program and how this rule would increase participation in the program. You stated that this rule was in response to hunting declines in the United States. However, duck hunters are required to purchase Duck Stamps, and I have a hard time believing that the design on the Duck Stamp is what determines whether or not a duck hunter decides to hunt. Alternatively, birders are not required to purchase Duck Stamps but often do, and I am concerned that the proposed rule, which excludes these participants from the art contest, will deter their purchases. Did the Fish and Wildlife Service conduct any research**

**to support the notion that limiting the scope of the duck stamp art contest will increase sales and user participation?**

**Response:** On May 8, 2020, the Service published a final rule governing the annual Duck Stamp Contest with the theme of "celebrating our waterfowl hunting heritage," and it will be mandatory that each art contest entry include an appropriate waterfowl hunting scene and/or accessory. The contest is open to all U.S. citizens, nationals and resident aliens who are at least 18 years of age by June 1, 2021. Final contest rules will be posted to https://www.fws.gov/birds/get-involved/duck-stamp/duck-stamp-contest-and-event-information.php.

**Question 4: At our hearing, you offered to have Fish and Wildlife Service staff brief EPW staff on the status of the $12.3 million for international wildlife conservation activities that the Department has frozen. To date, my staff has not been able to get such a briefing scheduled. Would you please ensure that this briefing is scheduled as soon as possible?**

**Response:** The Department of the Interior and the Service take the allegations of human rights violations very seriously. We continue to review the $12.3 million in pending grants and are working to develop appropriate safeguards and processes to minimize the risk of U.S. taxpayer funds being used for illegal activities. We are committed to briefing you and your staff as soon as we have a decision and a path forward.

**Question 5: Restoration activities at Prime Hook National Wildlife Refuge provide an excellent example of how investing in natural infrastructure can help both wildlife and people become more resilient to climate change. The 4,000-acre barrier beach and wetland restoration effort improved habitat for fish and migratory birds, including threatened piping plovers. It has also helped mitigate flooding in the surrounding community, buffering the effects of sea level rise and extreme weather on coastal properties. Do you see any opportunities for the Fish and Wildlife Service to scale up similar efforts elsewhere in the Refuge System? How could Congress better enable these efforts?**

**Response:** The National Wildlife Refuge System (NWRS) not only benefits wildlife, but also contributes to mitigating the effects of floods, hurricanes and other natural disasters. Wetland, prairie, and floodplain restoration reduce flooding from snow melt and major extended rain events across the United States. Beach dunes and coastal wetland restorations protect communities, businesses and major energy infrastructure at Prime Hook, San Francisco Bay, McFadden, Texas Point, and other coastal Refuges. Prescribed fire on forest, prairie and wetland habitats reduce fuels and reduce the spread and impact of wildfires.

Proactively maintaining the Department of the Interior's infrastructure will reduce the probability of failure during extreme weather events, as well as reducing costs for the American taxpayer across all public lands. The 2020 budget includes $107.5 million for the Fish and

Wildlife Service's planning and consultation activities, including reviews required under Section 7 of the Endangered Species Act to prevent delays in federal infrastructure projects. In continuing to support such efforts, Congress should consider further streamlining environmental and permitting reviews for activities to support our natural infrastructure.

**Question 6: I have been very encouraged to hear about the Fish and Wildlife Service's participation and leadership in the "Conservation without Conflict" Initiative. As you know, this initiative leverages resources and engages private landowners, farmers and ranchers, hunters and anglers, conservationists and state and federal agencies in collaborative conservation. The goal is to prevent species from requiring protections under the Endangered Species Act, which creates a win-win for wildlife and land users alike. One of the budget line items that supports this initiative is the science support program, yet the administration has continuously proposed to eliminate this small but important stream of funding. Would you confirm that the administration intends to continue participating in Conservation without Conflict? Given elimination of the science support line item, how does the Fiscal Year 2021 budget support Conservation without Conflict? How can Congress best bolster this successful initiative?**

**Response:** The Service is a partner in the Conservation without Conflict coalition, which includes more than 40 entities representing the interests of government, conservation, industry, landowners and recreation, all working on a collaborative approach to support working lands and conservation of at-risk and listed species. The Service will continue to support and be an active partner in the Conservation without Conflict coalition and build upon this collaborative approach to conservation. Many other programs contribute to this effort, including our Endangered Species, Partners for Fish and Wildlife, and Fisheries and Aquatic Conservation programs. The Service appreciates Congress' continued support for this coalition and broader efforts to conserve at-risk species.

**Question 7: In January 2018, 17 former Interior officials from every administration since the early 1970s wrote to the Department of the Interior expressing serious concerns regarding the administration's Migratory Bird Treaty Act M-Opinion. The Central, Atlantic and Mississippi Flyway Councils sent similar letters to the Department, asking to suspend the M-Opinion and convene a broad group of stakeholders to determine a better path forward. Yet the Department has ignored these concerns and is moving forward with its rule to codify the legal opinion. Have you reviewed the concerns by Flyway Councils, states, and former officials? How will you take these concerns into account as the rule moves forward?**

**Response:** The Service has reviewed the concerns by the Flyway Councils, states, former DOI officials, and other segments of the American public. The Service will appropriately consider all comments on the proposed rule as it continues to prepare a final rule.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 8: In addition to overseeing the implementation of United States laws, the Fish and Wildlife Service must carry out international treaty obligations, including for our migratory birds. How will you consider treaty obligations and the views of our treaty partners during the Migratory Bird Treaty Act rulemaking process?**

**Response:** None of the four bilateral, migratory bird treaties that the U.S. holds with Canada, Mexico, Japan, and Russia explicitly mentions prohibitions of take that is not fully intentional. Each treaty prohibits the deliberate take of protected birds and describes a closed season, during which such take may not occur. The Migratory Bird Treaty Act of 1918, which is the United States' implementing legislation for these four treaties, does not explicitly include incidental take nor explicitly exclude it from the list of prohibited acts in 16 U.S.C. 703. However, the Service has made presentations to our treaty partners regarding our intention to undertake a rule-making process. The Service and the Department of State will honor requests for consultation or discussion from our Treaty partners.

**Question 9: The Fish and Wildlife Service website currently reaffirms a 2015 commitment regarding sage grouse: "The Service has committed to monitoring all of the continuing efforts and population trends, as well as to evaluate the status of the species in five years." The Fish and Wildlife Service is supposed to undertake this review this year – in 2020. Would you confirm that the Fish and Wildlife Service will in fact be doing so?**

**Response:** The Service is continuing to work with partners to support greater sage-grouse conservation. The Service continues to provide technical support to western states through the Western Association of Fish and Wildlife Agencies (WAFWA) in order to document conservation actions and their effectiveness for the greater sage-grouse. WAFWA is leading the effort to assess the range-wide status of the species. In light of the WAFWA effort supported by the Service, and because the species is neither federally managed nor petitioned for listing, the Service does not plan to conduct a separate status review for the species at this time.

**Question 10: Earlier this year, the Fish and Wildlife Service took the first of what it said would be several actions to "modernize" its wetlands easements program. I am concerned that attempts to make changes to the easement program will go beyond modernizing mapping for older easements and will leave wetlands vulnerable to conversion to farmlands or oil fields. Would you explain specifically what additional actions the Fish and Wildlife Service is considering and how you will ensure these changes will not make valuable wetlands vulnerable?**

**Response:** The Service is committed to being a good neighbor and remains committed to the wetland easement program, which represents a long-standing covenant between duck hunters, other conservationists, and the Service, to preserve waterfowl habitat using their duck stamp investment dollars. The Service is taking several steps to modernize and provide clarity to its

wetland easement program in order to deliver better government services for the American people. To further that goal, the Service has clarified how drain tile setback recommendations are calculated and how and when the Service will pursue legal action in the case of setback violations. The Service also clarified how it will initiate contact with landowners and how landowners can appeal alleged violations.

The Service has a statutory obligation to ensure that the United States' property rights are maintained for the purposes for which they are acquired. The actions to modernize the wetland easement program will not compromise this statutory obligation. The continued success of the wetland easement program requires the Service to diligently monitor easements for compliance while working with landowners to provide certainty, transparency, and understanding of the wetland easement program.

**Question 11: I understand that National Wildlife Refuge law enforcement officers have been and are still being deployed to our southern border to conduct law enforcement activities outside the scope of their job responsibilities. At the same time, the Coastal Delaware Refuge Complex does not have a fulltime law enforcement officer. I am very concerned about this trend. Would you provide detailed information on how many law enforcement officers have been relocated to the southern border, from where each has been deployed, and what activities these officers are conducting?**

**Response:** The Service supports Executive Order 13767, Border Security and Immigration Enforcement Improvements, and the Secretary of the Interior's priority of safety and security for visitors to public lands.

The Service has provided additional Federal Wildlife Officers (FWO) to the Southwest border ranging from 5 to 16 employees per rotation based on the level of illegal trafficking activity at these sites. Since 2018, 220 of the 261 FWOs have deployed on 37 total rotations to date.

The enhanced border efforts carried out by FWOs are consistent with the Service's organic legislation, the National Wildlife Refuge System Administration Act of 1966, as amended by the Refuge Improvement Act of 1997. The humanitarian efforts being carried out and the criminal activities being addressed by these efforts are in direct support of the protection of the visitors and staff at refuges on the U.S.-Mexico border, and are in furtherance of the Service's conservation mission. These efforts have resulted in over 21,000 human trafficking encounters, 101 narcotics smuggling interdictions, over 1,500 wildlife cases, and approximately 650 public safety cases. The diversity of these activities reflects the diversity of threats to National Wildlife Refuges across the country.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 12: A report about the National Wildlife Refuge System that the Fish and Wildlife Service released in 2019 highlighted the economic benefits of increasing refuge tourism for local communities. These benefits were calculated to be $3.2 billion in Fiscal Year 2017, a significant increase from the $2.4 billion estimated in Fiscal Year 2011, and this spending supported over 41,000 jobs and generated about $1.1 billion in employment income. Non-consumptive activities such as hiking, bird watching, and photography account for the overwhelming majority (81%) of refuge visits, and about 86% of total recreation-related expenditures are generated by non-consumptive activities on refuges. What, if anything, is the Fish and Wildlife Service doing to enhance and encourage access for these increasingly popular and economically beneficial non-consumptive activities on refuges?**

**Response:** Improving public access to hunting, fishing and other outdoor recreation on national wildlife refuges and fish hatcheries has been a key focus of the Department of the Interior under this Administration. The Service improves access to public lands by constructing and maintaining recreation infrastructure such as roads, trails, parking areas, observation decks, and boat ramps. During the current administration, the Department has opened over 4 million acres of land and water to new or additional outdoor recreation opportunities — the single largest expansion on Service-managed lands in recent history. We are committed to continuing expanding the availability of these unique and magnificent places for wildlife dependent recreation for the benefit of the American people.

On March 12, 2019, President Trump signed into law the John D. Dingell Jr. Conservation, Management, and Recreation Act (S.47, the Dingell Act), which directs the Service and other federal land management agencies to develop a priority list of lands that have significantly restricted public access, or no public access, where that access could be improved. The public is encouraged to identify national wildlife refuges, fish hatcheries, and other lands managed by the Service that meet the complete criteria. On February 10, 2020, the Service announced that it is seeking the public's assistance to develop a list of its managed lands that would benefit from new or increased access routes.

In addition, the Service provides programs that encourage recreation activities. For example, the Urban Wildlife Conservation Program provides opportunities for refuge neighbors and local communities to enjoy lands and waters as places to visit with friends and family. Urban refuges offer expanded programming to attract new visitors, such as art-based activities and hosting local cultural events.

The Service is also piloting outdoor skills centers on select refuges. Outdoor Skills Centers will provide opportunities to try new recreation activities – from snowshoeing to wildlife photography.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 13: Habitat Conservation Plans (HCPs), which are developed considering section 10(a)(1)(B) of the Endangered Species Act, provide a voluntary pathway for streamlined permitting for the economic activities covered by a plan while addressing the conservation actions needed to ensure long-term survival of listed species likely to be affected by the proposed project. Because HCPs take a landscape-scale conservation approach, these plans typically benefit many other species as well. HCPs are a collaborative tool used to bring competing interests, including developers and conservationists, to the table to provide long-term certainty for all parties. How is the US Fish and Wildlife Service promoting the use of Habitat Conservation Plans under section 10(a)(1)(B) of the Endangered Species Act?**

**Response:** Habitat Conservation Plans (HCPs) are a valuable tool under the ESA to help balance listed species conservation with important economic development activities. The Service provides a number of resources to assist the public and partners with the development and implementation of HCPs. The Service works closely with local and nationally organized coalitions of HCP permit holders, applicants, practitioners, and consultants whose purpose is to further promote the use, effectiveness, and support for large-scale HCPs as local solutions to facilitate economic development and the conservation of listed species and their habitats. The Service also provides grant funding to assist states and local communities to develop HCPs through the HCP Planning Assistance grants under the Cooperative Endangered Species Conservation Fund (CESCF).

The Service also provides significant information for use by the public and our partners through our HCP national website (https://www.fws.gov/endangered/what-we-do/hcp-overview.html). This site contains useful information and resources about HCPs, including the online version of the 2016 HCP Handbook, which provides the most current recommendations to Service staff and others working on HCPs.

**Question 14: For which fiscal years that Congress has provided funding for the Cooperative Endangered Species Conservation Fund has the Fish and Wildlife Service not yet issued a Notice of Funding Opportunity, selected awardees, and/or distributed funding? If funds from any fiscal year other than 2020 are noted in response, would you provide the Committee with a date by which awardees will be selected and notified?**

**Response:** The Service has completed the awarding of funds for FY 2018 and FY 2019 CESCF Traditional funding. The Service posted the FY 2020 CESCF Traditional funding (F20AS00070) on April 3, 2020 and it closed on July 3, 2020.

The Service announced awardees for FY 2018 and FY 2019 CESCF non-Traditional funding in March 2020 and has distributed funds to selected States and Territories. A Notice of Funding Opportunity for FY 2020 CESCF Non-Traditional funding is being drafted and will be posted this summer.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 15: The Freedom of Information Act (FOIA) is a key tool in ensuring citizens have access to important government documents and communications so that they can meaningfully participate in decision making processes. Please provide a list of all outstanding FOIA requests, along with the date on which the request was received, the subject of the request, the expected date of complete response, and whether the request is currently subject to FOIA litigation.**

**Response:** The Department takes its responsibilities under the Freedom of Information Act (FOIA) very seriously.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Booker**

**Question 16: A study released in the journal Science last September found that North America's bird population has declined by 3 billion birds since 1970, representing a loss of more than 1 in 4 birds on the continent. And a report from October by the National Audubon Society found that two-thirds of North America's birds are threatened by climate change. Yet the Fish and Wildlife Service (FWS) recently proposed a rule to codify the 2017 Solicitor's Opinion on the Migratory Bird Treaty Act, reversing decades of bipartisan policy by ending protections for birds from avoidable industrial hazards by exempting all incidental take, including major oil spills.**

**Current Council on Environmental Quality regulations require that an Environmental Impact Statement (EIS) "be prepared early enough so that it can serve practically as an important contribution to the decision-making process and will not be used to rationalize or justify decisions already made." 40 CFR §1502.5. It is also expected that the draft EIS accompany the proposed rule during the informal rulemaking process. However, in this instance it appears that the comment deadline for the proposed rule ends at the same time as the deadline for the EIS notice of intent.**

a. **Can you please explain what scientific analysis the FWS conducted prior to the release of this proposed rule to assess the proposed rule's impact on bird populations?**

**Response:** In the proposed rule, the Service requested information from the American public, which aided in the environmental analyses undertaken pursuant to the National Environmental Policy Act. Analyses of management alternatives are presented in the draft Environmental Impact Statement (EIS).

b. **What is the anticipated timeline for the EIS?**

**Response:** The Department is currently evaluating its options for next steps. As noted below, on July 20, 2020, the 45-day public comment period closed for the Draft EIS.

c. **At what stages of the EIS process will the FWS allow for public comment?**

**Response:** The public had opportunities to comment on the Notice of Intent to prepare an Environmental Impact Statement (EIS) and on the draft.

**d. Will additional public comment on the proposed rule be allowed by the FWS upon completion of the EIS?**

**Response:** There was a public comment period on the proposed rule that closed on March 19, 2020. On July 20, 2020, the 45-day public comment period closed for the Draft EIS. All public comment periods are now closed.

**Question 17: Congress provided $1 million to the FWS in FY2020 for the Theodore Roosevelt Genius Prizes to address issues such as non-lethal management and protection of endangered species. You mentioned in your testimony that FWS is diligently working on implementing this new authority.**

**a. What is the status of FWS outreach to the National Fish and Wildlife Foundation related to implementation of these grants?**

**Response:** The John D. Dingell, Jr. Conservation, Management, and Recreation Act (Pub. L. 116-9) states, "The Secretary shall offer to enter into an agreement under which the National Fish and Wildlife Foundation (NFWF) shall administer the prize competition." The Service continues to work with NFWF on an agreement to implement the Theodore Roosevelt Genius Prize Competition in FY 2020.

**b. What is the anticipated timeline for FY2020 grant applications and awards?**

**Response:** The Service plans to enter into a cooperative agreement with the NFWF in FY 2020. That agreement will transfer prize funds to NFWF and include the responsibilities of both the NFWF and the Service. The call for nominations for the Theodore Roosevelt Genius Prize Advisory Council and Advisory Boards has been published in the Federal Register and closed on June 11. Once the Advisory Councils and Boards are established, they will begin determining problem statements and accepting applications. We anticipate prize selections in 2021.

**Question 18: The FWS has initiated a 5-year status review of the Grizzly bear in the lower-48 states. Grizzlies residing in the Northern Continental Divided Ecosystem (which includes Glacier National Park) and the Greater Yellowstone Ecosystem (which includes Yellowstone and Grand Teton national parks) will be considered as part of the review as both populations are protected under the Endangered Species Act. The potential genetic linkage between these two grizzly populations is of increasing interest due to the Federal District Court ruling (*Crow Indian Tribe v. United States*, 343 F. Supp. 3d 999 (D. Mont. 2018)) which found that, "The Service's determination that it need not provide for either natural connectivity or translocation is contrary to the best available science".**

a. **Will the FWS address the necessary habitat and population (mortality) management needed to connect the Northern Continental Divided Ecosystem and the Greater Yellowstone Ecosystem as part of the 5-year status review?**

**Response:** Five-year status reviews assess each threatened and endangered species to determine whether its status has changed since the time of its listing or its last status review, and whether it should be classified differently or delisted. In order to make this status recommendation for grizzly bears, the Service will take into consideration the best available scientific and commercial data on grizzly bears across the lower-48 states to ensure the species' listing classification is accurate. This includes an examination of threat status, threat trends, and conservation measures that have benefited the species, including any threats related to genetic introgression or reduced reproductive fitness. Genetic health or population connectivity will be addressed in any separate determinations to delist or reclassify one or more grizzly populations.

**Question 19: Lands along the border under the jurisdiction of the FWS are slated for construction of new border wall. In some cases, this construction has already started. I am very concerned about the short-term and long-term impacts the construction and wall will have on the public lands that the agency is entrusted with protecting, as well as the wildlife and communities that call the border region home. For the lands under your jurisdiction, including the Lower Rio Grande National Wildlife Refuge, the San Bernandino National Wildlife Refuge, and the Cabeza Prieta National Wildlife Refuge:**

a. **Has the FWS played any role in the construction process? Did the agency or individual units submit official comments? If yes, can you please provide me with a copy of the comments?**

**Response:** The Service is in regular communication with the Department of Homeland Security (DHS) through U.S. Customs and Border Protection (CBP) on barrier construction occurring at national wildlife refuges along the United States-Mexico border.

b. **Has the FWS performed any analysis of the direct or indirect impacts on plant and animal habitat, such as area (acres) of habitat and numbers of species impacted, by this construction of new border wall? If yes, can you please provide me with a copy of this analysis?**

**Response:** Infrastructure construction on federal lands requires either completion of environmental reviews to assess and minimize impacts to wildlife and their habitats or a waiver of such reviews through appropriate authorities. Pursuant to Public Law 102-408, the Secretary of Homeland Security issued a series of environmental waivers for various environmental laws to expedite construction of border infrastructure on the southwest international border with Mexico, including endangered plants in Texas and Arizona.

The Service has worked with CBP to identify potential impacts and conservation recommendations to avoid, minimize and offset these potential impacts to trust species.

Prior to the waiver, the Service engaged in formal consultation under section 7 of the ESA for border projects. The associated documents are all available on the Arizona Ecological Services Field Office website: https://www.fws.gov/southwest/es/arizona/Biological.htm.

**c. Has the FWS performed any analysis of the direct or indirect impacts on wildlife movement, and how those impacts impede recovery of Endangered Species Act-listed species? If yes, can you please provide me with a copy of this analysis?**

**Response:** In Arizona, the Service has performed several analyses specific to the jaguar. Biologically, jaguars can be considered a surrogate for other larger carnivores, including the endangered ocelot. The jaguar critical habitat rule, https://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/Jaguar/2014-03485_Fed_Reg_Jag_fCH_2014-3-5.pdf, includes information regarding the impacts of destroying or modifying critical habitat, including severing connectivity of habitat, for the species.

In 2008, the Service completed a short study in Texas on bobcats to see how border wall construction may impact endangered species like the ocelot prior to original wall sections being constructed. The study is attached.

**d. Has the FWS performed any analysis of the direct or indirect impacts on hydrology, and the consequences for wildlife including ESA listed species, of this construction of new border wall? If yes, can you please provide me with a copy of this analysis?**

**Response:** In Arizona, five listed aquatic species - beautiful shiner, Yaqui chub, Yaqui catfish, Yaqui/Gila topminnow, and San Bernardino springsnail – are dependent on deep aquifer water at San Bernardino National Wildlife Refuge. The CBP and the U.S. Army Corps of Engineers are working with the construction contractor on estimated water usage requirements for barrier construction as well as with San Bernardino National Wildlife Refuge to mitigate the impacts of groundwater use for the project.

The Service has expressed concerns about predictable flooding and the sustainability of border wall construction across arroyo drainages in Arizona and Texas. The Service is coordinating with CBP to address potential impacts to wildlife trapped behind the fence during high water events. Hydrological analysis has not been conducted in Texas.

e. **Has the FWS performed any analysis of the direct or indirect impacts that new lighting associated with the new border wall will have on wildlife including ESA listed species? If yes, can you please provide me with a copy of this analysis?**

**Response:** No, the Service has not performed an analysis on these impacts. In Texas, the Service asked CBP to analyze lighting impacts for the endangered ocelot and jaguarundi and were informed that CBP's analysis will be used in the wall design.

f. **Has the FWS performed any analysis of the direct or indirect impacts that new infrastructure associated with the border wall, such as power substations, will have on wildlife including ESA listed species? If yes, can you please provide me with a copy of this analysis?**

**Response:** No analysis has been conducted on Texas or Arizona national wildlife refuges.

g. **Has the FWS performed any analysis of the direct or indirect impacts of the new border wall on past Service investments in the refuges, including both border infrastructure such as vehicle barriers and investments in wildlife habitat restoration, acquisition and management? If yes, can you please provide me with a copy of this analysis?**

**Response:** The Service has not done an analysis of this issue.

h. **Has the FWS performed any analysis of the direct or indirect impacts of the new border wall on the experience of visitors to the refuges? If yes, can you please provide me with a copy of this analysis?**

**Response:** No analysis has been conducted in Texas. However, the Service has provided CBP information regarding potential impacts to visitor use. Additional information on this issue can be found in the August 12, 2019, attached response. No similar review has been conducted for Arizona refuges.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Cramer**

***Director's Order***

**Question 20: According to the Director's Order on January 3rd, throughout 2020 the FWS will be sending updated, modern maps to landowners who have pre-1976 easements. These maps will be accompanied by the first-ever appeals process so landowners can make sure the maps are done right. Please describe the quality of the pre-1976 maps and briefly explain why they need to be replaced?**

**Response:** The pre-1976 maps did not clearly identify the location of protected wetlands. The updated maps now clearly depict the protected wetland areas, overlaid on a high-quality aerial image, and list the acreage of each wetland area that is subject to the wetland easement.

**Question 21: Why is it important to indicate the acreage limits on the maps you will be releasing?**

**Response:** Clearly identifying acreage limits on the maps will provide certainty to the landowner concerning the location of protected wetlands as well as the size of each covered wetland.

**Question 22: Will the listed acreage in the new maps be limited to the easement summary acreage consistent with the 1996 Johansen case?**

**Response:** Yes.

**Question 23: The December 23, 2019 Director's Order says the new maps and appeal instructions will be delivered by certified mail. Once a landowner signs for the package, they have 40 days to reach out to the FWS. Is it accurate to state even the simplest or most basic question to the FWS would stop the 40-day shot clock and the FWS would be obligated to work with them toward a resolution?**

**Response:** Yes, the Service is committed to working with landowners to resolve questions they may have in a timely, fair manner.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 24: If a landowner brings comparative wetland documentation from the NRCS or a hydrologist for example, will the FWS take a comprehensive approach and look at all the available documentation to reach an informed decision that aligns with the original easement contract?**

**Response:** Yes, the Service will consider all relevant data when making easement determinations.

**Question 25: If a landowner accidentally misses a deadline or the FWS misses their inquiry, the FWS will not use the appeal process deadline as an excuse to not work with property owners?**

**Response:** The Service is committed to working with landowners to resolve any issues in a timely, fair manner.

**Question 26: Further, the appeals process is more about reaching consensus than enforcing a deadline?**

**Response:** The appeals process provides an objective, fair forum for all parties to work toward resolution.

**Question 27: Should a landowner file an appeal and the refuge manager, regional director, or director does not make a decision within the time allotted to them, will the agency defer to the landowner or will it automatically progress to the next stage in the appeal process or otherwise?**

**Response:** The Service is committed to meeting established timelines in a fair manner.

**Question 28: Please confirm that the final decision of the Service Director will be considered a final agency action and therefore judicially reviewable under the Administrative Procedure Act?**

**Response:** We believe a final decision by the Director of the Service would be considered a final agency action and therefore eligible to be reviewed by a federal court pursuant to the Administrative Procedure Act.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 29: Regarding the timing of the release of the new maps and appeals process, will they be released as soon as all the maps are completed for each landowner or will they be released on a more regional basis or otherwise?**

**Response:** To facilitate a timely release, maps will be sent to landowners on an individual basis.

**Question 30: Further, if there are instances where the FWS and/or the landowner could utilize these updated maps in a current legal dispute or other imminent situation, would the FWS be able to expedite those maps?**

**Response:** Yes, maps can be expedited upon request.

***J. Clark Salyer National Wildlife Refuge***

**Question 31: The FWS has a policy to allow for grazing on lands at the J. Clark Salyer National Wildlife Refuge. It's my understanding that historically, the FWS would simply contact ranchers in the area they believed would be interested and capable of grazing the land. More recently, the FWS has instituted an open, competitive process where local ranchers apply and are awarded the opportunity to receive a five-year grazing permit. However, the first two questions on the scored application seem skewed to those already grazing and participating in FWS refuge management. The questions are as follows: "Question 1: Within the last year, have you participated in the planning, infrastructure maintenance, or grazing management of this refuge unit? Question 2: Within the last three years, have you been the permittee of record on other FWS lands?" The FWS has stated these questions "help gauge the potential cooperator's familiarity with the refuge and the FWS; [they're] aimed to help streamline the application process and identify potential cooperators that might be suitable for the refuge's grazing program based on experience with refuge lands and/or other Service lands." Service policy (620 FW 2 Cooperative Agricultural Use) outlines objective criteria that may be used in a cooperative agriculture and use application which includes experience in the type of agricultural (i.e. grazing) opportunity posted, especially personal experience on National Wildlife Refuge System lands or comparable land. However, this approach provides preference for those who have prior experience while potentially barring those who are trying to get approved for the first time. Would you agree that these scored questions can disadvantage many ranchers who may otherwise be just as capable of meeting objective grazing criteria?**

**Response:** The cooperative grazing program is designed to support the Service's habitat management objectives while also providing benefits to the ranching community. The Cooperative Agricultural Use policy provides objective criteria by which we evaluate applications for grazing privileges, and prior experience is only one of ten criteria used during the selection process; it does not prevent other capable ranchers from meeting the criteria.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 32: Will you commit to reviewing and revising these questions, even removing them, for future applications to ensure a fair, open, and competitive process?**

**Response:** Yes, the Service commits to reviewing and revising the grazing program scoring sheet as appropriate. We will also complete our commitments to current cooperators who hold special use permits.

***CARPE***

**Question 33: The Central African Regional Program for the Environment (CARPE) has provided U.S. government funds to protect wildlife throughout the Congo Basin since 1995. On September 30, 2019, the Department of the Interior (DOI) placed a hold on $12.3 million in obligated funds that were transferred to the U.S. Fish and Wildlife Service (FWS) by the U.S. Agency for International Development (USAID) to implement CARPE. DOI cited a lack of internal controls, the need for a substantial program audit, and a delay in receiving the funds from the USAID as reasons for the hold on the funds. What is the status of the audit, timing for implementation of internal controls and expected timeframe for the release of the hold on these funds?**

**Response:** The Department and the Service take the allegations of human rights violations very seriously. We continue to review the $12.3 million in pending grants and are working to develop appropriate safeguards and processes to minimize the risk of U.S. taxpayer funds being used for illegal activities.

**Question 34: On May 6, 2019, House Natural Resources Committee Chairman Grijalva and Ranking Member requested the Government Accountability Office (GAO) review whether federal funding of anti-poaching efforts has supported human rights abuses following reports that rangers raped and tortured villagers inside the DRC's Salonga National Park. What is the status of the GAO report, is FWS fully complying with the investigation and does the FWS plan to release the funding before the GAO report and recommendations are completed?**

**Response:** The Service and the Department are cooperating fully with the Government Accountability Office (GAO) on their investigation. The Department's entrance conference was held on October 9, 2019. The Department is reviewing pending grants and developing appropriate safeguards and processes concurrently with the GAO investigation.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 35: FWS delivers wildlife protection funds as a grant or cooperative agreement recipients outside the FWS organization. Other than the original notice of award that outlines terms and conditions, is it possible to verify taxpayer dollars are not misused by recipients and subrecipients for human rights violations?**

**Response:** All awards with funds appropriated under the Foreign Assistance Act via the transfer from USAID to implement CARPE are subject to Leahy Vetting and sanctions related to the Trafficking Victims Protection Act, which guard against the risk of human rights violations. In addition, the Service conducts compliance monitoring for awards, such as evaluation of technical and financial reports, site-based monitoring to ground truth reports and verify indicators of compliance/noncompliance, and third-party project evaluations. Should grantees be found to be out of compliance with our terms and conditions, including legal violations, the Service can withhold payments, and initiate suspension or debarment proceedings. Other remedies are available as well. Additionally, the Department and the Service are working to develop additional, appropriate safeguards and processes to minimize the risk of U.S. taxpayer funds being used for illegal activities, including human rights violations.

**Question 36: Both the Department of the Interior, Environment, and Related Agencies Appropriations Act, 2020 and the Department of State, Foreign Operations, and Related Programs Appropriations Act, 2020 direct the Department of State, DOI, and USAID to implement policies and procedures designed to protect human rights and indigenous communities in order to utilize the obligated funds transferred between the departments for implementation of CARPE. The report language for the bill also requires that the agencies report to the Committees within 45 days on the status of these policies and procedures. What is the status of implementing these policies and procedures?**

**Response:** The Department is coordinating with USAID to discuss safeguards and potential regulatory changes.

***Perpetual Conservation Easements***

**Question 37: Last year, President Trump signed S. 47 into law, the John D. Dingell, Jr. Conservation, Management, and Recreation Act. Included in this law is a section to create a conservation incentives landowner education program, which requires the U.S. Fish and Wildlife Service (FWS) to disclose to landowners all Federal conservation options available to them on their property, not only perpetual easements. Unfortunately, the FWS only offers perpetual easements, while only USDA offers termed conservation easement options. Currently, landowners interested in taking an easement out on their property are only offered perpetual easement agreements that permanently limit the land's production practices, even when ownership changes hands. Does FWS have the authority to offer termed easements?**

**Response:** The Service has periodically tested short-term wetland easement projects and concluded that generally, short-term easements merely delayed drainage of wetlands and thus are of limited value for securing a stable habitat base over the long term. Repeatedly paying for the same habitat conservation through short-term easements would not allow the Service to achieve the long-term habitat goals and objectives needed to sustain healthy migratory bird populations and would not be a prudent expenditure of taxpayer funds. Several less-than-perpetual conservation options are available through other Federal and State programs and conservation partners, so landowners can pursue a full suite of easement options.

**Question 38: Would you consider developing a FWS termed-easement option, similar to USDA conservation programs?**

**Response:** Several less-than-perpetual conservation easement options are already available to landowners through other Federal and State programs and conservation partners. The purpose of the Service's perpetual easements is to provide long-term landscape-scale protection as authorized by 16 U.S.C. §718d. Short-term easements would not allow the Service to achieve the long-term habitat goals of sustaining healthy migratory bird populations. In addition, a continual backlog of approximately 900 landowners interested in the Service's perpetual easements demonstrates the ongoing support for the use of perpetual easements.

**Question 39: What is the status of the development of the conservation incentives landowner education program?**

**Response:** The Service is continuing to develop conservation incentives landowner education program materials per the requirements of the Dingell Act.

**Question 40: Will the conservation incentives landowner education program include termed USDA conservation easements as viable options for landowners to consider?**

**Response:** Yes, the Service's conservation incentives landowner education program materials plan to reference conservation programs offered by the U.S. Department of Agriculture.

**Question 41: Will the conservation incentives landowner education program include any preferred options for landowners or will all options be presented in an equal fashion?**

**Response:** All options will be presented in an equal fashion in the Service's conservation incentives landowner education program materials.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 42: Other than FWS perpetual easement, what other Federal easements will be covered in the conservation incentives landowner education program?**

**Response:** The Service's conservation incentives landowner education program materials will include information on other Service programs that provide technical and financial assistance to private landowners. The materials will also reference conservation programs offered by the U.S. Department of Agriculture.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Duckworth**

**Question 43: The U.S. Fish and Wildlife Service plays a critical role in protecting and enhancing wildlife and their habitats for the benefit of the American people. However, many Americans are not able to use public lands due to a lack of infrastructure or programming that would create accessibility in the National Wildlife Refuge System. I am interested in what the Fish and Wildlife Service has done to help individuals with disabilities access nature.**

a. **How are differently abled individuals taken into account for allocation of funding for programming and infrastructure to create accessibility in the National Wildlife Refuge System?**

**Response:** The Service incorporates Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) with all major infrastructure renovation and new construction projects. The Service is committed to making information available to all audiences. We continue to revise our websites and social media platforms to be compliant with Section 508 of the ADA. Exhibit designers use Smithsonian Guidelines for accessible exhibits. We are piloting orientation signage that addresses needs for people with low English proficiency.

The most effective interpretation and education programs involve approaches to reach the largest number of participants. We welcome all individuals on Service lands and try to meet individual needs to our best ability – from providing sleds for students with disabilities to participate in snow-based activities at Fergus Falls Wetland Management District in Minnesota to working with the National Park Service to provide beach-accessible wheelchairs on Chincoteague National Wildlife Refuge.

b. **Will you report back to my Subcommittee Fisheries, Water and Wildlife with specific steps the Fish and Wildlife Service will take to expand accessibility infrastructure and programming?**

**Response:** Yes.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Markey**

**Question 44: In a letter sent to you and Fish and Wildlife Service Director Aurelia Skipwith on January 23, 2020, I asked you to fulfill the commitments you made to me to meet with the Town of Chatham to discuss the management of the Monomoy National Wildlife Refuge. I have not received a response to this letter or to my previous inquiries as to your plans to schedule this meeting, which is important to state interests. Director Skipwith reportedly visited the refuge in September 2019 as part of a trash clean-up event—unfortunately, neither my office nor town officials were notified about this visit, and no meeting on the Monomoy National Wildlife Refuge took place. Will you fulfill your commitment and schedule a meeting with the Town of Chatham in Massachusetts before March 1, 2020?**

**Response:** Director Aurelia Skipwith and I remain fully committed to fulfilling the promises we made to you during our confirmation hearings. In the meantime, refuge staff will continue to work with the Town of Chatham on projects of mutual benefit to ensure a quality experience for visitors and management of resources.

**Question 45: The Department of Interior has discounted the concerns of U.S. Fish and Wildlife Service officials on how oil and gas leasing will affect polar bears in the Arctic National Wildlife Refuge. This is reflective of a broader overall trend in which the Department of the Interior does not always give the Fish and Wildlife Service a seat at the table when discussing public land management proposals, even when those proposals have clear Endangered Species Act implications.**

a. **As Assistant Secretary for Fish, Wildlife and Parks, what steps have you taken to ensure that the science produced by Service employees is given proper consideration in public land management decisions that involve multiple Department of the Interior agencies?**

**Response:** Science plays a vital role in the Department's mission, and the Service's science related to fish, wildlife, and habitat plays an important role in land management decisions. The Service's regulatory analyses to fulfill statutory responsibilities—including those related to the Endangered Species Act, Marine Mammal Protection Act, and Migratory Bird Treaty Act—rely on the best available scientific information. I have supported and will continue to support a full and open analysis of proposed activities and the use of the best available scientific information to avoid, minimize and mitigate impacts to ensure we meet our statutory mandates.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 46: In a February 2018 memo, the U.S. Fish and Wildlife Service identified "Priority Information Needs for the Arctic National Wildlife Refuge 1002 Area," identifying a studies needed to inform the Bureau of Land Management's Environmental Impact Statement. Among its priority information needs, the Service included FY 2018 activities related to studying Human-Polar Bear Interactions and Polar Bear Den Detection and Monitoring, the latter of which can be used to assess the effectiveness of den detection survey methods.**

**a. Have these studies been conducted?**

**Response:** The Service continues making progress in addressing the priority research needs, including those related to human-polar bear interactions. A study was recently published in the peer-reviewed Journal of Wildlife Management (https://doi.org/10.1002/jwmg.21800) that identifies how seismic surveys can be designed to minimize impacts to denning polar bears, considering regions of high density polar bear denning habitat in the 1002 Area. The Service is also currently evaluating existing mitigation measures and considering potential new ones that can be applied to polar bears in the 1002 Area. The USGS has an ongoing study to understand movement patterns of polar bears around industrial facilities based on existing movement data.

The Service has also made significant progress in developing new science to inform the issue of monitoring and detecting polar bear dens. The Service and USGS conducted a re-analysis of data on the efficacy of aerial survey methods for detecting dens, and that re-analysis was recently published in the same article in the Journal of Wildlife Management described above. The Service is also collaborating with other Federal, state, and industry partners on an additional study designed to determine how effective new aerial infrared equipment is at identifying polar bear dens and factors affecting detection (e.g., snow depth, weather conditions). This study was conducted in the winter of 2019/2020, and data analysis is currently ongoing.

**b. If not, why not or by when will they be conducted? If yes, what were the main conclusions of these studies?**

**Response:** The study evaluating the relative impact of seismic survey designs on denning polar bears found that seismic surveys that provide explicit temporal and spatial information on their activities and explicitly consider avoiding areas with the highest density of polar bear dens until late in the denning season significantly reduced potential disturbance to denning bears. There are currently no results available for the den detection study conducted this winter because those data are still being analyzed. Similarly, the work to assess mitigation measures has just begun so no results are available yet.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Merkley**

**Question 47: We see the impacts of climate chaos all around us. The recent floods in the heartland, drought in other areas, wildfires in my home state of Oregon, and on and on. Meanwhile, greenhouse gas emissions in the United States continue to rise.**

a. **Do you believe it is important to quickly address and mitigate the underlying factors driving climate chaos?**

**Response:** The Department's role is to follow the law in carrying out our responsibilities using the best science. Congress has not directed us to regulate carbon emissions. The laws governing Interior require us to manage our onshore federal resources on the basis of multiple use and sustained yield, which includes energy development. We are carrying out that statutory mission and will do so until Congress directs us differently. The Service has energy efficiency programs to reduce energy usage in vehicles and buildings and employs management actions such as tree planting and water management that create and restore wildlife habitats with the additional benefit of reducing carbon in the atmosphere.

b. **Do you think that the Department of the Interior's choice to pivot away from addressing climate chaos puts our lands, waters, and wildlife further at risk?**

**Response:** The Service is working to safeguard the lands, waters, and wildlife under its jurisdiction for the American people and the communities that depend on them, in a changing climate. The Service works through many partnerships to guide adaptation on National Wildlife Refuges and other lands across the country. We are working to safeguard coastal Refuges from sea level rise and extreme weather and working with private landowners to restore streams and wetlands that reduce flood impacts. We work hand-in-hand with the USGS Climate Adaptation Science Centers, which are fully integrated with both the Service and States across the country.

**Question 48: Under this Administration (since January 20, 2017), has there been any direction from any political appointees within the Department of the Interior to remove the words "climate change" from any U.S. Fish and Wildlife Service documents including, but not limited to, the Service Manual?**

a. **If so, please indicate the specific documents from which those words were removed, and provide the rationale for their removal.**

**Response:** The Service has not been directed to remove the words "climate change" from any documents, including the Service Manual.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 49: In your testimony, you stated: "Fish, wildlife, plants, and their habitats face many stressors and threats across the nation and around the globe, including habitat loss, invasive species, wildlife disease, wildlife trafficking, and a changing planet."**

a. **When you use the phrase "a changing planet," do you also acknowledge that the vast majority of scientists across the globe believe humans, and particularly fossil fuels, are the major drivers behind that change?**

**Response:** Yes, I acknowledge that the climate is changing, and man is contributing to that change.

b. **How is that fact informing your decision-making in your role as Assistant Secretary for Fish and Wildlife and Parks?**

**Response:** Fish, wildlife, and plants and their habitats provide jobs, food, clean water, storm protection, and many other benefits to people, communities and economies across the nation. The Service and the Department are working to safeguard these valuable natural resources for the American people and the communities that depend on them, in a changing climate.

**Question 50: Climate chaos is leading to the destruction of enormous swaths of key wildlife habitat, both around the globe and here in the United States. This scale of destruction, and the likelihood that we will continue to see similar events due to our changing climate, should be a wake-up call that we must proactively preserve as much habitat as possible for imperiled species.**

a. **How do you reconcile this increasingly urgent imperative with the Department of the Interior's recent regulatory changes that greatly restrict the amount of critical habitat that can be designated for an ESA-listed species?**

**Response:** The recent regulatory changes do not greatly restrict the amount of critical habitat that can be designated for listed species. As the Act requires, we designate critical habitat based on the best scientific data, after taking into consideration the economic impact, the impact on national security, and any other relevant impacts. The recently revised regulations did not change the process for designating occupied critical habitat. For unoccupied critical habitat as required by the ESA, we designate unoccupied areas when they are essential to the conservation of the species. In circumstances where the best scientific data available indicate that a species may be threatened by climate change, we will consider this information in determining what areas meet the definition of "critical habitat."

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 51: We know that sage grouse populations are increasingly threatened by both human and non-human changes to their environments, including the ever-present threat of uncharacteristic fires.**

**a. How does the Department of the Interior view those threats and how has the agency prepared to preserve sage grouse populations and their habitats?**

**Response:** Working with our partners across the West, we seek to preserve rangeland integrity for the benefit of wildlife and people, which includes addressing the threat of invasive annual grasses and the resulting wildfires on the sagebrush landscape. The Department of the Interior's Sagebrush Ecosystem Science Framework includes guiding principles to address multiple threats to sagebrush and sage-grouse, including wildland fire.

**Question 52: Being from a coastal state, marine issues are vital to the economy and well-being of my state and others.**

**a. How is the Department of the Interior contributing to any new or ongoing efforts to protect marine and coastal areas?**

**Response:** The Service's Coastal Program works with communities to voluntarily restore and protect habitats that benefit fish, wildlife and people. Often collaborating with other federal and state agencies and conservation partners, we primarily provide technical assistance to communities to protect marine and coastal habitats.

Since 2015, the Service has helped local communities in Oregon to protect nearly 880 acres of coastal habitats. For example, Service worked with The Wetlands Conservancy to protect salt marshes in the Poole Slough in Lincoln County, Oregon. These marshes have a high conservation priority due in part to the loss of 70% of this habitat.

The Service worked with the Hawaii Department of Land and Natural Resources to help a local community on Kaua'i to develop a management plan and train residents to oversee and manage the Hā'ena Community-Based Subsistence Fishing Area. The first of its kind in Hawaii, this community-managed fishing area serves as a model for other local communities to co-manage their marine resources with their state governments.

The Service also participates in inter-governmental working groups, allowing each agency to contribute within their mandates to benefit the coastal environment. Some examples of this collaboration are the Marine Protected Area Center, Coral Reef Task Force, and inter-agency working groups on biodiversity, coastal wetlands, marine debris, ocean acidification, and harmful algal blooms.

The Service also administers the John H. Chafee Coastal Barrier Resources System (CBRS), which Congress established in 1982 through the Coastal Barrier Resources Congress Act. This non-regulatory, map-based program identifies undeveloped coastal barriers and removes federal incentives to build in these fragile areas that are subject to hurricanes and erosion. These important ecosystems are not only home to vital natural resources such as coastal wetlands, diverse wildlife, and flyways for migratory birds; they also protect public safety and the substantial investments within coastal communities that are vulnerable to intense storms and hurricanes.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Rounds**

**Question 54: Mr. Wallace, in March 2019, President Trump signed into law the John D. Dingell, Jr. Conservation, Management, and Recreation Act, which permanently authorized the Land and Water Conservation Fund.**

**Included in this law is a provision to create a conservation incentives landowner education program, which requires the U.S. Fish and Wildlife Service to disclose to landowners all conservation options available to them on their property, not only perpetual easements.**

**Unfortunately, the U.S. Fish and Wildlife Service does not offer any termed easement options to landowners interested in participating in conservation practices. Currently, landowners interested in taking an easement out on their property are only offered perpetual easement agreements that permanently limit the land's production practices, even when ownership changes hands.**

**Would you consider developing additional conservation options for landowners who do not want to permanently take land out of production—such as a termed-easement of 20 or 30 years?**

a. **If so, what would you suggest be the ideal term of such easement?**

**Response:** The Service has determined that repeatedly paying for the same habitat conservation through short-term easements would not allow the Service to achieve the long-term habitat goals and objectives needed to sustain healthy migratory bird populations.

b. **Conversely, if you oppose developing a termed easement as an option for landowners, could you expand on your concerns?**

**Response:** Several less-than-perpetual conservation easement options are already available to landowners through other Federal and State programs and conservation partners. The purpose of the Service's perpetual easements is to provide long-term landscape-scale protection as authorized by 16 U.S.C. §718d. Short-term easements would not allow the Service to achieve the long-term habitat goals of sustaining healthy migratory bird populations.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Sullivan**

**Question 55: Despite the listing of the polar bear under the ESA, the State of Alaska retains a trust responsibility over polar bears and their habitats. Despite this, the State of Alaska has been excluded for participating in discussions regarding the incidental take application for seismic work in the Arctic National Wildlife Refuge. This ensures that information and expertise the State has is not incorporated into the decision processes the Service is making regarding polar bears. What steps will you take to ensure a more cooperative engagement occurs between your agency and the State of Alaska?**

**Response:** The Service views the State of Alaska as an important partner and welcomes information from them that could inform the promulgation of regulations under discussion. The promulgation of incidental take regulations for seismic operations in the Arctic National Wildlife Refuge was put on hold at the request of the applicant. However, the Service's staff met with the State several times to discuss the analytical approach for considering the potential impact of the proposed seismic operation on polar bears.

The Service is currently working with the Alaska Oil and Gas Association on development of a new set of five-year Incidental Take Regulations for the Southern Beaufort Sea, which the State of Alaska has joined. Additionally, Service staff are looking for ways to help the State of Alaska conduct a priority project that would inform future regulatory decisions involving polar bears in the Southern Beaufort Sea. I will support and encourage the Service's continued cooperation and collaboration with the State of Alaska on these and other issues.

**Question 56: The global population of polar bears are listed under the Endangered Species Act as threatened. Under this act the threat of extinction is the appropriate measure for recovery. Yet the recovery plan developed by the U.S. Fish and Wildlife Service calls not for the removal of the threat of extinction, but for recovery to an optimal population number, which is much higher than required to remove the risk of extinction. Can you explain how this recovery goal was established and how it is being used as a factor in determining allowed takes?**

**Response:** The Polar Bear Conservation Management Plan was developed by a wide group of stakeholders, including the State of Alaska, Alaska Nanuuq Commission, the North Slope Borough, the Service, USGS, the Marine Mammal Commission, conservation organizations, and representatives from the oil and gas industry. Because polar bears are managed under the Marine Mammal Protection Act (MMPA) and also listed under the Endangered Species Act (ESA), the Conservation Plan addresses the requirements and criteria of both laws. The Plan contains ESA recovery criteria for delisting that are distinct from the management actions under the MMPA. Under the ESA, anticipated levels of incidental take are evaluated for their impact on survival and recovery of the listed species. Under the MMPA, anticipated levels of incidental take are evaluated to determine if they will impact more than small numbers of marine mammals in a

stock or have more than a negligible impact on that stock of marine mammals.

**Question 57: Why if polar bears were listed under the Endangered Species Act as a "global population" is the Service discretionally managing takes assuming there are 19 subpopulations? Wouldn't a better approach be to manage takes at the listing level?**

**Response:** Because polar bears are protected under both the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA), they are subject to the requirement of both acts. Under the ESA, polar bears are listed as a single species and are managed accordingly. Under the MMPA, the two U.S. subpopulations are identified as stocks for management purposes under that law. While both laws use the term "take," the term is applied at the appropriate spatial scale based on the act in question. Management actions and associated "take" determinations are made under the ESA at the listed entity level (i.e. globally) while "take" determinations made under Marine Mammal Protection Act are made at the stock level (i.e. subpopulations).

**Question 58: In Southeast Alaska, we have a growing problem of Sea Otters impacting fisheries. The sea otter population in Southeast has been growing exponentially and is not threatened or endangered under the ESA. I have worked with the FWS to discuss potential management options as well as current data gaps regarding the population, which make using existing authorities difficult to utilize. In particular, the Service seems to not have enough data to set the optimal sustainable population under the Marine Mammal Protection Act to authorize more intensive management by the FWS or the State of Alaska of the Southeast otter population. What funding and mandate from Congress does the Service need to close these data gaps?**

**Response:** As you stated, sea otters are protected under the Marine Mammal Protection Act (MMPA). The MMPA sets a management goal of maintaining marine mammal stocks within their Optimal Sustainable Population (OSP) range. A recent analysis of sea otter survey data collected from Southeast Alaska between 1960 and 2011 suggests that the population had grown substantially over this time frame but had not yet reached the lower threshold of its OSP range. The current population size is unknown, but a new survey of this population is being planned for 2021 or 2022, contingent upon funding.

The Service understands concerns about the recolonization of sea otters across Southeast Alaska and the resulting conflicts with commercial and subsistence shell fisheries. In November 2019, the Service convened a workshop in Juneau to solicit ideas from affected stakeholder groups about how best to address fisheries conflict issues while still providing for the continued protection of sea otters under the MMPA. The Service received many recommendations from stakeholders and will be capturing those in a forthcoming report.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

The Service uses marine mammal conservation funds provided by Congress to address needs related to the polar bears, sea otters, and Pacific walrus. The Service allocates available funds to obtain information on population status, implement incidental take provisions of the ESA and MMPA, and provide for co-management of subsistence use by Alaska Natives.

**Question 59: Back in April of 2008, 40 hunters were on the ice in northern Canada legally hunting polar bear. These hunters wanted to experience and enjoy one of the world's few remaining adventures—a dog-sled hunt north of the Arctic Circle. Besides the adventure, these hunters knew that their participation in this hunt would help conserve the bear population and provide sorely needed funds and food to the Inuit people. While on the ice in Canada and completely out of communication, the Fish and Wildlife Service moved forward and listed the polar bear as "threatened." Unbeknownst to the 40 hunters was that this ruling was enforced immediately—making the importation of their legally harvested bear impossible. There was no typical 30, 60- or 90-day period before the rule was enforced. The Canadian government still issues permits for polar bear. With no monetary value attached to them, the native population will have little incentive to take only mature males, as is common practice. The hunting will be solely for subsistence, younger bears and females will be taken more often. This issue is not about hunting. It's a simple matter of returning property that was effectively taken by regulatory action. It makes no sense with regards to conservation or science. What can be done at the Fish and Wildlife Service to correct this problem? Does the Fish and Wildlife Service support an effort to lift the importation restriction for these 41 polar bears?**

**Response:** In addition to being threatened under the Endangered Species Act (ESA), the polar bear is a marine mammal species protected under the U.S. Marine Mammal Protection Act (MMPA). With the listing of the polar bear under the ESA in 2008, the status of the polar bear under the MMPA was automatically changed to "depleted". As such, otherwise prohibited activities under the MMPA, such as importation, can be authorized by permit for only the purposes of enhancement or scientific research. Under the MMPA the U.S. Fish and Wildlife Service may not issue permits for importation of hunted "depleted" species, including hunted polar bears, for personal purposes. Should Congress consider legislation to address this issue, we welcome the opportunity to work with you.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Questions from Senator Wicker**

**Question 60: Farmers and landowners are required to obtain an annual depredation permit from the U.S. Fish and Wildlife Service (USFWS) in order to remove black vultures, a predatory bird, from their property. USFWS is in the process of evaluating the success of statewide black vulture depredation permits administered by organizations in Kentucky and Tennessee. What is the status of this evaluation, and does the agency plan to expand statewide depredation permits to other areas impacted by the black vulture?**

**Response:** The Service is currently in the process of reviewing a final evaluation of the pilot permitting programs in Kentucky and Tennessee established in 2016. Under this pilot program, the Service issued depredation permits to the Kentucky and Tennessee Farm Bureaus, which designated livestock producers as sub-permittees for take of up to three vultures per producer without any additional permit fee. The Service is currently evaluating the possible expansion of the pilot program to other states. The Service is also completing a programmatic Environmental Assessment (EA) for the issuance of black vulture depredation permits, which we understand would provide a strong biological and legal basis for increasing the lethal take of black vultures.

**Question 61: Double-crested cormorants, black vultures, and Canada geese continue to be a serious problem for production agriculture. These birds are protected under the Migratory Bird Treaty Act, but they are not migrating as frequently. There are significant populations of resident double-crested cormorants that roost in nearby wetlands and cause losses to aquaculture producers. Resident black vultures attack livestock and cause significant damage to houses, buildings, and communication towers. What is USFWS's plan to address migratory birds that have adapted to an area and are no longer migratory?**

**Response:** The Service is actively working on multiple conflict issues with migratory birds, such as double-crested cormorants and black vultures. To respond to these conflicts, the Service is identifying management options that could be implemented to resolve conflicts, including identifying whether lethal take is necessary, and, if so, to identify the appropriate level of lethal take to reduce the conflict. We have regular contact—via workshops, phone calls, face-to-face meetings—with stakeholders including private property owners, farmers, states, tribes and federal partners with the goal of collecting data and information. The process is designed to be biologically defensible and to promote efficiency, effectiveness, and transparency in finding solutions to these conflicts.

For black vultures, the Service is currently in the process of reviewing a final evaluation of the pilot permitting programs in Kentucky and Tennessee established in 2016. Under this pilot program, the Service issued depredation permits to the Kentucky and Tennessee Farm Bureaus, which designated livestock producers as sub-permittees for take of up to three vultures per producer without any additional permit fee. The Service is also completing a programmatic Environmental Assessment (EA) for the issuance of black vulture depredation permits, which we

understand would provide a strong biological and legal basis for increasing the lethal take of black vultures.

For cormorants, the Department has recently taken the following actions to address depredation of both aquaculture and wild fish stocks. In December 2019, the Department submitted a Federal Register Notice informing the public that Service is increasing the amount of lethal take authorized for managing cormorant conflicts, using the existing 2017 Environmental Assessment as the basis for the change. On June 5, 2020, the Service published a proposed rule and associated draft Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act to consider comprehensive alternatives to managing cormorant conflicts. The proposed rule was a formal invitation to participate in shaping the final rule and EIS. Any interested individuals and/or groups could respond to the proposed rule by submitting comments aimed at developing and improving the draft proposal, recommending additional management alternatives, or by recommending against issuing a rule. The proposed rule comment period ended on July 20, 2020. These actions are also in accordance with Executive Order 13921, Promoting American Seafood Competitiveness and Economy Security, which establishes the policy of the Federal government to "identify and remove unnecessary regulatory barriers restricting American fishermen and aquaculture producers."

**Question 62: USFWS recently published an advanced notice of proposed rulemaking regarding management options for double-crested cormorants. The agency proposed for consideration a national aquaculture depredation order to address the significant damages producers face from these predatory birds. In addition, USFWS proposed a permit for state wildlife agencies to address cormorant management issues on public resources. However, USFWS did not include for consideration a national depredation order specifically for public resources. Why did USFWS choose not to seek comments on issuing a new national depredation order for public resources?**

**Response:** On June 5, the Service published a proposed rule and associated draft Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act. The proposed rule was a formal invitation to participate in shaping the final rule and EIS. Any interested individuals and/or groups could respond to the proposed rule by submitting comments aimed at developing and improving the draft proposal, recommending additional management alternatives including a national depredation order, or by recommending against issuing a rule. The proposed rule comment period ended on July 20, 2020. The Service is committed to ensuring that any management alterative is biologically defensible and will help achieve desired objectives.

Questions for the Record
Senate Committee on Environment and Public Works
Oversight Hearing entitled, "Oversight of the U.S. Fish and Wildlife Service"
February 5, 2020

**Question 63: In 2014, USFWS issued a memo banning the use of genetically engineered crops on national wildlife refuges, which severely limited the ability of producers to farm on these lands. Although this memo was withdrawn in 2018, farmers were unable to plant their crops on national wildlife refuge land in 2019. With the 2020 planting season quickly approaching, what action is USFWS taking to ensure that farmers can plant genetically modified crops on national wildlife refuges this year?**

**Response:** To provide adequate forage for migratory birds, many refuges maintain farming practices that produce a variety of crops to support wildlife, and genetically modified (GM) crops have proven effective in contributing to the maximization of crop production. In August 2018, former Principal Deputy Director Greg Sheehan signed a memo directing the Service to determine the appropriateness of use of GM crops on a case-by-case basis in compliance with all relevant legal authorities, existing court orders and settlements, NEPA, and Service policies. A programmatic environmental assessment was completed in June 2020 and a final decision was issued to allow the use of APHIS evaluated and deregulated GM crops on wildlife refuges.

**GENERAL INFORMATION**

Conservation Action Title: Texas Land Acquisition

Bureau: U.S. Fish and Wildlife Service

Project Manager(s): Mitch Sternberg, Zone Biologist, South Texas Gulf Coast

Project Location: South Texas Refuge Complex

Initial Budget: $110,371

**PROJECT DESCRIPTION**

***200K-Texas Land Acquisition:*** We proposed an additional task to expend remaining funds that had been intended for land acquisition in South Texas for the endangered ocelot. We proposed a project to evaluate the effects of Tactical Infrastructure (TI) on bobcats (as a surrogate for ocelots), using GPS radio-telemetry collars and sensor-cameras in the Lower Rio Grande Valley of Texas.

**DESCRIPTION / DISCUSSION OF ACCOMPLISHMENTS / IMPLEMENTATIONS**

We monitored movements of bobcats on lands managed by Lower Rio Grande Valley National Wildlife Refuge (LRGVNWR) in proximity to TI, and movements of ocelots on Laguna Atascosa National Wildlife Refuge (LANWR). Work on LRGVNWR was to inform us of the movements of wild cats relative to native habitats and TI. Work on LANWR assisted in assessing the size of the ocelot population, and movements of ocelots relative to wildlife corridors and large areas of thornscrub.

**Task 1. Assess wild cat use of habitat in relation to TI**

**Background**

Development of border security infrastructure has the potential to interrupt natural wildlife movement and dispersal of wildlife (Flesch *et al.* 2009) and the Border Fence/Wall, hereafter referred to as Tactical Infrastructure (TI), has already begun to do just that (Abhat 2011). Monitoring the movements of wildlife prior to the completion (i.e., complete closure; installation of gates across all roads) of the TI is vital for pre- and post-construction comparison. The study of bobcat (*Lynx rufus*) movement is especially useful, as bobcats can serve as surrogates for studies intending to investigate the implications of development and habitat fragmentation on the endangered ocelot (*Leopardus pardalis)*, which is found in the U.S only in Texas (41 individuals [Hilary Swarts, USFWS, pers. comm.]) and in Arizona (5 individuals recorded since 2009 [Erin Fernandez, USFWS, pers.comm.]).

To monitor wildlife movement with respect to existing wildlife habitat and the TI in south Texas, trapping for bobcats was conducted on a tract of the Lower Rio Grande Valley National Wildlife Refuge that contains a segment of border fence. Within this segment of TI, there are currently four road openings that are planned to be closed when large gates are installed which would further deteriorate the connectivity of the wildlife populations in the area.

Our objectives were to: 1) determine locations where bobcats cross the alignment of the TI, and 2) monitor bobcat use of any wildlife corridors.

**Methods**

Wildlife monitoring along the border fence infrastructure was implemented on a U.S. Fish and Wildlife Service tract of land known as La Coma Tract, located south of Highway 281 in Hidalgo County, Texas. La Coma tract is part of the Lower Rio Grande Valley Wildlife Refuge (LRGVNWR). The tract provides a variety of open to dense woodland habitat (Sternberg 2003).

La Coma tract is bordered on the north by Highway 281 and on the south by the Rio Grande, and surrounded on the east and west by private land developed for agricultural use. The tract is bisected by a 5.21 km segment of incomplete TI and associated concrete flood-retention wall in a segment of infrastructure known as "Segment O-08". Segment O-08 consists of about 6 m tall steel bollard-style fencing with 12 cm gaps between each bollard. The fence sits atop a concrete levee wall with a sheer 4-4.5 m tall concrete face along the south side. Each landowner/roadway opening is roughly 12 m wide, two of which lie within habitat patches used by an abundance of wildlife near the Refuge and therefore are relevant to the current study.

Live-trapping was implemented from 10 December 2014 to 17 December 2014 using standardized USFWS protocols. Seven Tomahawk box-traps attached to live-animal bait-cages containing Eurasian collared doves were deployed along likely bobcat travel routes. Traps were checked at 0800h each morning, closed for the day, and reopened at approximately 1600h. USFWS staff and volunteers were responsible for all chemical immobilizations and handling of trapped bobcats. An intramuscular injection of a combination of Ketamine, Dexmedetomidine and Butorphanol was used for sedation. Sedated bobcats were weighed, sexed, aged, and examined for condition of coat, body, and dental condition. Each bobcat was fitted with a Tellus Ultralight GPS collar. Atipamezole and Naltrexone were used to reverse the initial injection following a period of at least 30 minutes to allow Ketamine to metabolize. Following the reversal injection, bobcats were placed inside an animal carrier and monitored for at least one hour prior to release to ensure a full recovery from anesthesia.

Tellus Ultralight GPS Collars were initially programmed to take a GPS location every three hours; collars would email GPS locations daily. Collars data were monitored daily and

*Figure 1. Trapping locations for the three bobcats captured on La Coma tract of Lower Rio Grande Valley National Wildlife Refuge, near Runn, Hidalgo County, Texas, in December 2014.*

occasionally remote updates were sent to the collars altering the GPS schedule when a collared animal came in proximity with the TI, to facilitate a fine-scale understanding of bobcat movement around the fence. Collars were, at times, altered to fix a GPS location every 15 minutes at the cost of expending more of the battery. Consecutive locations that crossed the TI were determined to be crossing events, and crossing events that occurred within an hour were used to assign a likelihood of where the TI was crossed by the bobcats.

**Results**

In December 2014, we conducted a total of 31 trap-nights on La Coma tract of LRGVNWR. Three bobcats were captured, collared and released in the same area (Figure 1). Bobcat trapping success was 9.6% and total trapping success was 42%. A total of 8,150 GPS locations were recorded for all three bobcats. Bobcat female 01 (BF01) provided 2,488 locations. Bobcat male 02 (BM02) provided 3,325 locations. Bobcat female 03 (BF03) provided 2,337 locations.

BF01 was trapped and collared 12 December 2014 near the edge of mesquite thorn scrub and agricultural land north of the TI and levee wall, and south of State Highway 281. After 193 days the collar was triggered to drop-off by technicians remotely, due to signaling to us that it had a low battery and it was recovered shortly thereafter. BF01 crossed the TI 111 times. Within the hourly limit that we applied, she is suspected of crossing in roadway openings 5 times and around the eastern end of the TI 21 times, and across State Highway (SH) 281 a total of 14 times (Figure 2).

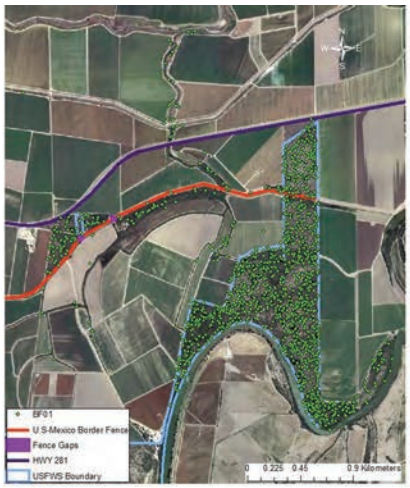


*Figure 2. Locations of adult female bobcat BF01 from December 2014 to June 2015 with respect to the Tactical Infrastructure, near Runn, Hidalgo County, Texas.*

BM02 was trapped and collared 16 December 2014 along a road created by U.S. Border Patrol, on the Refuge, south of the TI. After 165 days the collar was intentionally dropped remotely due to low battery and successfully recovered shortly thereafter. The collar recorded a total of 3,325 locations (Figure 3), many of which were north of the border fence on Las Palomas Wildlife Management Area, managed by the Texas Parks and Wildlife Department. BM02 crossed into Mexico on 4 January 2015 between the hours of 1700-2000h and returned to the U.S. on 7 January 2015 between the hours of 0500-0800h. BM02 crossed the TI 45 times. Within the hourly limit that we applied, he was suspected of crossing in roadway openings 24 times and around the eastern end of the TI 3 times, and across State Highway (SH) 281 a total of 33 times (Figure 2). BM01 moved across a larger area and often at a greater pace than the females, so his collar was programmed to provide additional GPS location data when he was near the TI, which provided very fine-scale evidence (i.e., 15-minute intervals) of use of two of the roadway openings.

*Figure 3. Locations of adult male bobcat BM02 from December 2014 to May 2015 with respect to the border wall infrastructure, near Runn, Hidalgo County, Texas.*

BF03 was trapped and collared 16 December 2014 along the east side of the property south of the border infrastructure. After 179 days the collar was intentionally dropped remotely due to low battery and successfully recovered shortly thereafter. The collar recorded a total of 2,337 locations (Figure 4). BF03 crossed the TI 137 times; at least four times at roadway openings and at least 25 times around the eastern end of the TI. BF03 also crossed SH 281 30 times, including following the same route, but not quite arriving at the same Wildlife Management Area, as did BM02 on numerous occasions.

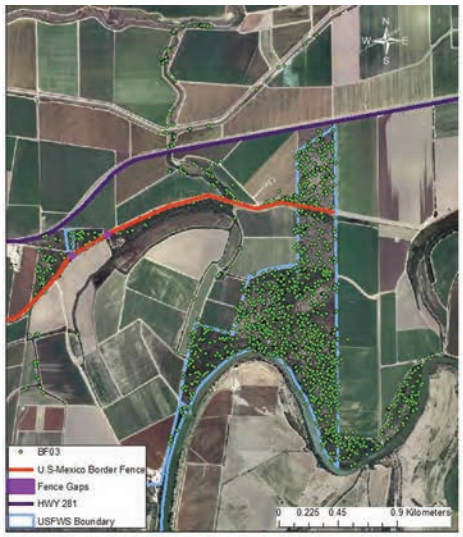


*Figure 4. Locations of adult female bobcat BF03 from December 2014 to June 2015 with respect to the border wall infrastructure, near Runn, Hidalgo County, Texas.*

**Discussion**

Like much of the remaining natural landscape in the Lower Rio Grande Valley, the La Coma tract is a stand of viable habitat segmented and isolated by roads, development, and other barriers. The likelihood of the closure of all openings in the Tactical Infrastructure to additionally fragment and degrade the use of the remaining habitat for wildlife, especially in areas used by the endangered ocelot, makes it important to study the impacts of the fence infrastructure on wildlife movement before, during, and following completion of the TI (Abhat 2011).

The preservation of wildlife corridors and critical habitat patches along the border fence is essential for preserving viable habitat for wildlife, including the endangered ocelot (Grigione and Myrkalo, 2004). The three collared bobcats in our study often crossed the TI at roadway openings on the levee. The home ranges of the females centered on the larger patch of habitat on the eastern portion of the Refuge and therefore they did not cross at the roadway openings often. This aligns with previous findings that female bobcats tend to remain within a single fragment while males more often range between multiple fragments (Tigas *et. al.* 2002). The same movement patterns are found in ocelots (Laack 1991), highlighting the need for large, connected patches of habitat.

The roadway opening to the west (1.08 km from the closest thornscrub patch) was never used by the bobcats, likely as it was so far removed from any significant patch of habitat. The movements of BM02 and BF03 between the USFWS Refuge tract and the TPWD Wildlife Management Area, as well as findings in Abhat (2011), are direct evidence of the need to protect wildlife corridors to maintain connectivity between larger tracts of preserved habitat for the benefit of wildlife. Specific to the current study, roadway openings in the TI near habitat remain critical to maintaining wildlife connectivity.

**Other Lessons Learned**

Theft of FWS game cameras on nearby refuge tracts, presumably by traffickers of illegal goods or undocumented immigrants, did affect our decision to place game cameras in more useful locations for ocelot monitoring (i.e., at LANWR). Trapping of bobcats was very successful and provided valuable input regarding wild cat movement relative to TI. Based on input we received during the monthly inter-agency conference calls, we re-aligned our efforts to more directly impact ocelot conservation and recovery by applying more of our resources towards actions on LANWR than along the Rio Grande. Through the Borderlands Management Taskforce, the Refuge has begun reviewing photos from the Texas Department of Transportation's cameras in the Drawbridge Program for wildlife occurrences in these areas along the Rio Grande. The GPS collars will be reused repeatedly for ocelot conservation. The battery and drop-off mechanism will be replaced at the Refuge's cost and they will be used for ocelot or bobcat monitoring in subsequent years.

**Task 2. Assess the size of the population of ocelots and their movements on LANWR**

**Background**

The endangered ocelot (*Leopardus pardalis*) is found in the U.S only in Texas (41 ocelots [Hilary Swarts, USFWS, pers. comm.]) and in Arizona (5 individuals recorded since 2009 [Erin Fernandez, USFWS, pers. comm.]). The final rule listing the ocelot as endangered in the U.S. (47 FR 31670, July 21, 1982) stated that the present or threatened destruction, modification, or curtailment of its habitat or range posed the greatest threat to the survival of the ocelot in the U.S. The ocelot's range and distribution in the U.S. have been drastically reduced in the last two centuries. Over 90% of the dense thornscrub habitat that supported the ocelot in the Lower Rio Grande Valley of Texas has been altered for agricultural and urban development (Jahrsdoerfer and Leslie 1988, Tremblay *et al.* 2005).

Our objectives were to: 1) determine the size of the ocelot population on and around LANWR, and 2) document ocelot use of any wildlife corridors, specifically those crossing roadways.

**Methods**

To assess the ocelot population status as well as their movements on and around LANWR, ocelots were live-trapped, as well as photographed using remote game cameras. IAA funds were used to accomplish the monitoring of ocelots from December 2014 to September 2015. Live-trapping was implemented from December 2014 to June 2015 using standardized USFWS protocols as described briefly under Task 1 above. All larger adult ocelots were fitted with a Tellus Ultralight GPS collar, or an Advanced Telemetry Systems VHF radiocollar, if a juvenile ocelot. GPS data was provided by email or downloaded from the field, as per bobcats under Task 1.

**Results**

We live-trapped for a total of 2,344 trap-nights from December to June 2015 and captured six ocelots, some multiple times (Figure 5). Significantly more VHF-tracking was needed by staff as smaller, juvenile ocelots are not appropriate carriers for the larger GPS collars, although several GPS collars were used on ocelots (Figure 6). Staff collected 148 VHF locations for three ocelots, and 3,059 GPS locations for three ocelots.

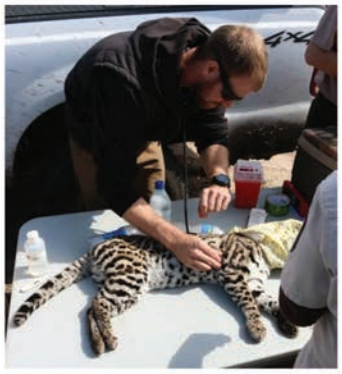

*Figure 5. Ocelot that was live-trapped in January 2015 as part of the population monitoring conducted each year at Laguna Atascosa National Wildlife Refuge, Cameron County, Texas. Refuge Intern is observing heartrate as part of health-monitoring during sedation of the ocelot. Photo credit, Eric Hope for USFWS.*

During the fall trapping season, the known ocelots varied from month to month, from 11-14 individuals, depending on newly-discovered (young) ocelots and the death of some ocelots, most of the latter, while crossing roadways. Game cameras were used to identify and monitor the movements of 14 ocelots during the season, including cameras funded through the current project, as well as cameras funded by Refuges and partners. Cameras photographed numerous

ocelots during the season and greatly assisted us in efficiently targeting where to trap for certain ocelots, and cameras provided data about the status of some more elusive ocelots that we had not been able to trap previously.

*Figure 6. Male ocelot 263 photographed by a game camera within the hog-proof pen of a rainwater catchment at Laguna Atascosa National Wildlife Refuge, Cameron County, Texas. Note the black GPS collar that was attached to the ocelot during population monitoring in 2014-15.*

**Discussion**

The accuracy of GPS collar data is important for the monitoring of wild cats for many reasons. One reason is that we are lacking specific information about ocelot denning and kitten survival. GPS collar data provide the added ability of resource managers to accurately depict when and where a female ocelot may have kittens based on the limited movement seen typically around a den. A second reason is the added ability to recognize and map areas where ocelots traverse the landscape of linear habitat (i.e., corridors) and roadways, sometimes successfully. This example is best illustrated by the movements of a (typically) young male ocelot when it leaves LANWR and begins exploring the area, looking for a new territory. Similar movements have been noted for female ocelots in the 1990s when the population was slightly larger (USFWS unpubl. data). These ocelot movement data are analyzed and form the basis for USFWS assisting state and federal departments of transportation in maintaining wildlife connectivity in the area for ocelots.

These movements inform us as to what habitat conditions ocelots are able and willing to use to traverse in a mostly unfriendly landscape on their way to establish a new territory of their own as an adult. The GPS data for all of these ocelots will be the basis for a model being developed by USFWS Region 2 Biologists in FY16 that will predict movements of ocelots across the landscape, and modelling ocelot recovery based on their predicted movements of ocelots across the landscape, as well as soils that can or currently do sustain ocelot habitat, and a strategic land acquisition and landowner partnership plan.

Discovery of three new (young) ocelots, some observed by cameras previously, and then by trapping, demonstrated that the LANWR ocelot population is still reproducing, and given previous years' estimates of ocelots on LANWR, the population is relatively stable. This does not diminish the fact that ocelots are at extreme risk of extinction in Texas in the next 50 years (Haines *et al.* 2006) given that the vast majority of habitat formerly used by ocelots has been converted or severely fragmented (Tremblay *et al.* 2005) and that vehicles strikes are the major factor in the death of ocelots in Texas still today (Haines *et al.* 2005; Hilary Swarts, USFWS, pers. comm.). USFWS and its partners need to cooperatively manage, acquire, protect, and restore areas that are or could be used by ocelots, and corridors between Texas populations, and between populations in Texas and Mexico (Grigione *et al.* 2009, Abhat 2011), however highly fragmented, must be functional if the ocelot is ever to be removed from the Endangered Species List.

**Funds Expended**

| | |
|---|---|
| Living stipends for Refuge Interns | $12,070.40 |
| Field supplies | $15,604.45 |
| Game cameras and camera supplies | $23,549.40 |
| Tellus Ultralight GPS collars | $59,146.75 |
| Total funding expended | $110,371.00 |

**ACKNOWLEDGEMENTS**

Thank you to Dave Kuhn and Greta Schmidt for significant contributions to data analysis and the report. We thank Ondina Diaz, Roy Reyna, Boyd Blihovde, Bryan Winton, and Jonathan Moczygemba for supporting this project on the National Wildlife Refuges. Thanks also to Heather Frederick, Eric Hope, Becca Thomas-Kuzilik, Pat McGovern, and Hilary Swarts for incorporating this project into the ocelot population monitoring work. Thanks to those responsible for the Inter-agency Agreement that made this study possible; namely, Mary Anderson, Larisa Ford, Grant Harris, Rob Jess, Kelly McDowell, John Petrilla, Ernesto Reyes, Liz Trujillo, and Customs and Border Protection.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE

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In Reply Refer To:
FWS/R2/NWRS/070578

AUG 12 2019

Mr. Paul Enriquez
U.S. Customs and Border Protection
U.S. Border Patrol Headquarters
1300 Pennsylvania Ave. 6.5E Mail Stop 1039
Washington, DC 20229-1100

Dear Mr. Enriquez:

This is in response to your letter dated June 27, 2019, in which U.S. Customs and Border Protection (CBP) requested U.S. Fish and Wildlife Service (Service) input on the proposed construction of a levee/border wall system in Rio Grande Valley, Texas. The proposed project involves the construction of approximately 95 miles of new border and levee wall system in the Lower Rio Grande Valley to consist of 19 miles in Cameron County, 52 miles in Hidalgo County, and 52 miles in Starr County. This project may also include associated impacts such as a 150-foot "enforcement zone" adjacent to the constructed border walls. The Service's concerns and recommendations are outlined below.

**Federally and State Listed T&E species and other Species of Concern**

The Lower Rio Grande Valley National Wildlife Refuge (LRGV NWR, Refuge) was established in 1979 to conserve the biodiversity of the Lower Rio Grande Valley of Texas (Valley). The Refuge also protects, manages for, and provides important habitat for federally-listed species and those listed as threatened, endangered, or species of concern by the Texas Parks and Wildlife Department (TPWD). Enclosure A identifies the Federally-listed species, particularly endangered plants, that may occur within the some of the areas of proposed fencing/wall construction.

As the proposed alignments, particularly in Starr County, will result in habitat destruction, the Service recommends CBP utilize a botanist(s) knowledgeable of local plant communities to conduct surveys for federally-listed endangered plants to avoid impacts to these species.

The border wall/barrier and associated infrastructure will result in a reduction of habitat connectivity in portions of the natural wildlife corridor that exists along the Rio Grande. This will adversely affect wildlife movement north and south of the proposed fencing/walls that would include federally-listed species such as the ocelot. Adverse effects include inhibiting access to traditional water sources, ability to move about in response to prey, intra or inter-specific competition, floods, finding

mates/loss of genetic diversity, or simply colonizing additional habitat which ultimately can result in a reduction of long-term population trends.

One of the primary purposes of the LRGV NWR, is to create a corridor for wildlife along the Rio Grande. The Service has long envisioned contiguous forested areas along the Rio Grande in support of endangered species and bird conservation and management. Unfortunately, as a result of development, numerous ports of entry, and border wall/fence infrastructure, the concept of a functioning wildlife corridor along the Rio Grande River is compromised. Without connections, the fragmented nature of remaining habitats along the river may act as sinks or traps for such species as ocelots. This is a particular concern for all wildlife that depend on the Rio Grande itself as a water source. Overall, a total of 37 LRGV NWR river tracts are affected; 8,839 acres (36 $km^2$) to be separated (on north side) by proposed border wall route. This eliminates access by wildlife on the north side to the adjacent brush and water sources at the river. Attachment B further defines the Service's concerns and recommendations.

**Socioeconomics and Recreational Activities**

One of the largest and fastest growing industries is tourism, particularly nature-based or ecotourism (Mathis and Matisoff 2004). Ecotourism in the Lower Rio Grande Valley generates between $100 million and $170 million annually, and creates several thousand jobs (Mathis and Matisoff 2004, *after* Chapa 2004). In fact, the Valley is considered one of the top bird-watching destinations in North America (TX A&M 2012). National wildlife refuges in the Valley protect most of the unique biodiversity and wildlife habitats that attract thousands of visitors annually engaged in ecotourism.

Approximately 6,000 acres of LRGV NWR are open to public hunting; however, the Service has not made many of the areas behind the current border wall/fence available to the public for hunting and fishing due to concerns for visitor safety. Additional border wall and/or barrier construction could further limit future opportunities to open these areas to hunting and fishing and other public uses. This is particularly apparent at La Casita East tract, as this area is proposed for opening to dove hunting but may be bisected by the proposed alignment.

Therefore, continued cumulative direct and indirect impacts from border construction activities on refuge habitats involving fragmentation, degradation, or alteration likewise directly impact the health of wildlife and their numbers which in turn will negatively impact the Valley's ecotourism economy. Therefore, consideration must be given to ensure that development is tempered by an adequate concern for protection of the Valley's unique wildlife and habitats. We recommend continued early and close coordination with the Service to help reduce or eliminate adverse impacts to important fish and wildlife resources here.

**Cultural Resources**

The LRGV NWR includes many parcels along the Rio Grande extending to western Starr County with identified cultural resource sites. These sites include an early historic rancho, a road associated with the Mexican-American War, historic military camps, twentieth-century residences, a shipwreck, prehistoric burned rock scatters and middens, burned rock "hearth" features, lithic quarries, deeply stratified sites along terraces of the Rio Grande, surficial artifacts scatters, and a unique rock art site (USFWS 2018). For example, an archeological reconnaissance along the Rio Grande resulted in the discovery of an historic site, identified as the "Yankee site" in 1976 on the northeastern portion of the Refuge's Las Ruinas tract, on a terrace. At least three structures and evidence of a fourth site occur here (O' Malley 1976) which were used as a trading post between the Spanish and Native Americans (USFWS 2018). These are sandstone dwellings that indicate it was inhabited around 1820 and in the

1840s to 1850s (O' Malley 1976). Due to the location along the Rio Grande, many of the lands on LRGVNWR were used during the Civil War battles (1861-1865), particularly in/adjacent to Palmito Ranch tract and Boca Chica tracts. Many artifacts and historic battle sites remain. The Palmito Battlefield historic district is bounded by State Highway 4 to the north and the Rio Grande to the south extending to Boca Chica Beach (USFWS 2018).

Therefore, before any construction and earth moving activities are planned, appropriate cultural resources surveys should be conducted (both on and off the Refuge) to ensure these and unknown cultural resources are not impacted by the proposed activities.

**Studies and Data Available on Environment Impacts**

Very little data is available about construction of a physical barrier across the landscape. We know of few examples of such an action in modern times. There are text books written on the value of connectivity and the science and practice and importance of linking landscapes for biodiversity (Hilty et al. 2006)

Currently, the Service manages 79 forested parcels along the river, totaling 130 $km^2$. The border wall will isolate or separate 37 properties (about half of all major parcels), totaling 36 $km^2$ (Table 2). Research shows that forested areas must reach at least 1 $km^2$ to support breeding birds at decadal scales, while areas of >10 $km^2$ support breeding birds at century scales. (Ferraz et al. 2003, Burke and Nol 2000).

The USGS publication titled, *An international borderland of concern: Conservation of biodiversity in the Lower Rio Grande Valley*, can be found at the following website: https://pubs.er.usgs.gov/publication/sir20165078. This publication has a number of appropriate citations to use for habitat fragmentation, barriers to wildlife movement, and biogeographical comprehensive assessment of risk to species. Additionally, the draft Environmental Impact Statement for Construction, Maintenance, and Operation of Tactical Infrastructure prepared in 2007, particularly a table on page 538, outlines all the environmental impacts. Enclosure C provides further references for review.

Thank you for the excellent communication and information sharing that has occurred through our existing relationship with the Rio Grande Valley Sector. We appreciate your efforts to engage stakeholders and look forward to continuing to work together to minimize the proposed projects' potential impacts to trust species and the LRGV NWR. If you have any questions or concerns, please contact me at 505-248-6282.

Sincerely,

Regional Director

Enclosures

**Attachment A.**

**Species descriptions for Federally and State listed threatened and endangered species and other species of concern within the area of border wall/barrier construction on Lower Rio Grande Valley NWR tracts.**

This attachment identifies the Federally-listed species, particularly endangered plants, within the Rio Grande riparian areas and uplands within the area of border wall/barrier construction on LRGV NWR tracts.

**Table 1. Federally and State listed T&E species and other species of concern* proposed border wall/barrier construction on LRGV NWR tracts****

| Common Name | Scientific Name | Fed/State Status |
|---|---|---|
| Ocelot | *Leopardus pardalis* | FSE |
| Jaguarundi | *Herpailurus yaguarondi* | FSE |
| Zapata bladderpod | *Lesquerella thamnophila* | FSE |
| Walker's manioc | *Manihot walkerae* | FSE |
| Texas Ayenia | *Ayenia limitaris* | FSE |
| Gray Hawk | *Asturina nitida* | ST, RD |
| Northern beardless tyrannulet | *Camptostoma imberbe* | ST, RD |
| Tropical parula | *Parula pitiayumi* | ST, RD |
| Black-spotted newt | *Notophthalmus meridionalis* | ST |
| Texas horned lizard | *Phrynosoma cornutum* | ST |
| Texas tortoise | *Gopherus berlandieri* | ST |

* List based on the presence of appropriate habitat, species survey info, and/or refuge staff knowledge. Included are state-listed species that regularly occur on the refuge. Species that occur accidentally or could occur are not included for the purposes of this document. See species descriptions below.
** ST = State Threatened, SE = State Endangered, FSE=Federally and State Endangered, RD=Riparian Habitat Dependent. *Source: FWS CCESFO County List 2017; TPWD Annotated County Lists of Rare Species, 2016.*

The **ocelot** (*Leopardus pardalis*) is a medium-sized spotted cat that ranges from southern Texas to northern Argentina occurring in humid tropical and subtropical forests, coastal mangroves, swampy savannas, and semi-arid thornscrub (USFWS 1990). The ocelot was listed as endangered (without critical habitat designation) in 1972 due primarily to over-collection for the fur trade and habitat loss (37 FR 2589). These primarily nocturnal cats usually feed on small mammals and birds and require large home ranges. The ocelot prefers dense thornscrub or brush occurring along riparian areas,

*Rare ocelot in South Texas*

drainages, lomas, and other uplands, but it has also been found in other dense habitats such as live oak forest with brushy understory. Optimal habitat consists of dense thornscrub with 95 percent or more canopy cover (USFWS 1990). Currently, road kills are the primary cause of direct mortality to the remaining ocelot population as urbanization, road construction, and other development in the Valley has recently increased. Habitat loss and fragmentation was and still is a major reason for their endangered status. Long-term survival of this species depends not only on the protection of large densely-vegetated brushlands or other suitable habitats and safe wildlife corridors between them, but also on addressing the small population sizes, population isolation, and loss of genetic diversity.

The **Gulf Coast Jaguarundi** (*Herpailurus yagouaroundi cacomitli*) is a small, exceedingly rare wildcat in the United States weighing between 8 and 16 pounds, with a relatively long tail and short legs. Coloration is widely variable ranging from blackish to brownish-gray or reddish-yellow to chestnut (Hall, 1981). The last known record of a jaguarundi in the United States was along State Highway 4, just east of Brownsville, Texas, when one was found road-killed in 1986 near an old resaca or river channel crossing. There have been several reported sightings of jaguarundis in the Valley in recent years but despite recent efforts to document the existence of these cats, researchers have so far been unable to photograph or trap one. It is now estimated that less than 15 cats may possibly exist in South Texas (Klepper 2005). Just like the ocelot, brush clearing activities in the Valley have eliminated much of their habitat leading to their endangered status. Efforts aimed at preserving and restoring native brush are necessary in order to support any remaining cats, particularly along watercourses such as resacas and the Rio Grande.

Since the 1920s, more than 95 percent of the original native brushland in the Valley has been converted to agricultural or urban use (Jahrsdoerfer and Leslie, 1988). The remaining native habitat and narrow connecting corridors or brushlines are therefore extremely important for the continued existence of species such as the ocelot and jaguarundi. Ocelots and jaguarundis are area-sensitive species which occur in dense shrubland habitat, but will move between adjacent brush tracts along canals, drainages, fencelines, natural watercourses, or other areas containing native vegetation as protected corridors of travel. Jaguarundis also occur in dense grasslands associated near dense brush (Caso 1994).

The **Gray Hawk** (*Asturina nitidia*) is state threatened and is considered rare to locally uncommon occurring in and nesting in riparian habitats along the lower Rio Grande River (Oberholser 1974).

**Northern beardless tyrannulet** (*Camptostoma imberbe*) is a state threatened species and one of the rarest breeders in Texas, limited to the Valley. These birds breed within the riparian forests along the Rio Grande building nests almost exclusively of ball or Spanish moss.

The **tropical parula** (*Parula pitiayumi*) is a state threatened species whose breeding range in the U.S. is limited to extreme southern Texas. This small bird is found in the riparian forest. It makes its nest from such epiphytes as Spanish moss.

The **Black-spotted Newt** (*Notophthalmus meridionalis*) is one of three salamander species native to Gulf Coast prairies of Texas and Mexico, with respective state and Federal protections (Bare 2018). This state threatened species "has been neglected by the scientific community despite concerns of dramatic population declines and a globally endangered status" (Bare 2018).

Typically found in the vicinity of resacas (historic channels of the Rio Grande) or ephemeral ponds, black-spotted newts are associated with thick vegetation, especially Chara algae, but have also been described as residents of " lagoons, and swampy areas" (Conant & Collins, 1998, after Bare 2018). This species may become considered for federal protection in the future. Activities affecting the hydrology or filling of wetland in and near the Rio Grande and in the resaca systems in Cameron County may adversely affect this species.

The **Texas horned lizard** (*Phrynosoma cornutum*) is a rare, state threatened species occurring within loose sand or loamy soils both within and outside of the Rio Grande riparian corridor. They are uncommon and susceptible to land clearing and development activities.

The **Texas tortoise** (Gopherus berlandieri) is a state threatened species occurring both within and outside of the Rio Grande riparian corridor. Texas tortoises occur in open brush habitats with a grass understory and tend to avoid open areas. The Texas Tortoise may be adversely affected by border barriers since this would restrict the species' movements related to breeding, feeding, and sheltering.

*Texas Ayenia*
Photo: Chris Best

**Texas ayenia** (*Ayenia limitaris*) is a thornless shrub about two to five feet tall with teardrop (cordate) leaves with small green, pink, or cream colored flowers and prickly five-celled globose fruits. The species was known from a single population in Hidalgo County when it was listed as endangered in 1994. Texas ayenia has now been documented at five sites in Hidalgo, Cameron, and Willacy counties, as well as a separate meta-population in the Municipio of Soto la Marina, Tamaulipas, Mexico. The known populations occur in a range of sandy to clayey alluvial soils in association with native trees and shrubs; however, the species appears to reproduce effectively where it is not completely shaded. The species occurs on the Phillips Banco tract of the LRGV NWR.

**Walker's manioc** (*Manihot walkerae*) is a perennial, many-branched, reclining to erect herb from the Spurge family, reaching up to five feet in height. Walker's manioc, which grows from a carrot-like root, flowers from April to September following rains but above-ground vegetation can disappear during drought. Walker's manioc was listed as endangered in 1991 has been documented at nine locations in Hidalgo and Starr counties, including three LRGV NWR tracts (La Puerta, Yturria Brush, and Chicharra Banco. Threats to the species primarily include habitat loss from developments such as road building, oil and gas pad site development, caliche mining, or other habitat destruction within western Hidalgo and Starr counties, as well as competition from buffelgrass. Herbicide use in areas where the species occurs may also pose a threat.

*Walker's manioc* Photo: Chris Best

The 1991 recovery plan criteria for downlisting are to establish or maintain 15 distinct, self-sustaining populations of Walker's manioc in the U.S.
Each population should consist of at least 100 reproductive individuals and have an age class structure reflecting that

which exists in the natural population. The 1991 plan also recommends, but is not limited to: 1) protecting existing populations of Walker's manioc from destruction of individual plants as well as habitat loss or degradation; 2) conducting studies to gather biological information needed for effective management and recovery; 3) search for new populations; 4) establishing a botanical garden and seed bank; and 5) conducting a reintroduction program on the LRGV NWR.

**Zapata bladderpod** (*Lesquerella thamnophila*) is a silvery-green herbaceous perennial with sprawling stems up to 34 inches long (although usually much shorter). The species occurs on sandy or gravelly loams of the Zapata-Maverick soil associations in Starr and Zapata counties. More specifically, this species occurs at or below the interface areas where sandstone strata are overlain by Eocene marine deposits (fossil oyster shell) and where there is high gypsum content. These are highly erodible soils, usually yellowish to orange in color. On the Refuge, this species currently occurs on the Cuellar, Arroyo Ramirez, and Arroyo Morteros tracts. Threats to the species include habitat destruction, modification, and subsequent invasion by non-native grasses such as buffelgrass and soil erosion.

*Zapata bladderpod* Photo: Chris Best

Recovery plan downlisting criteria call for maintaining or establishing 12 fully-protected, geographically distinct, self-sustaining populations. The recommended population size is a minimum of 2,000 plants at each site. Action items called for in the recovery plan include, but are not limited to, protecting known Zapata bladderpod populations in the U.S., searching for new populations, conducting studies to gather information about management and recovery, establishing a botanical garden and seed bank, and establishing new populations to meet downlisting criteria. The following LRGV NWR tracts that may serve as re-introduction sites include: Cuellar, Arroyo Ramirez, Arroyo Morteros, Los Negros Creek, Chapeño, and Las Ruinas tracts.

**Attachment B.**
**Wildlife and Habitat Concerns and Recommendations**

To address fragmentation issues and to retain the integrity of the natural hydrological patterns of water drainage into and away from the Rio Grande, design gaps or crossings and/or areas that permit flood flows along natural watercourses may allow wildlife to move north and south of the fencing/walls. This may alleviate some of Service's concerns related to wildlife movement while addressing the needs of border security. Additionally, the Service strives to protect relatively un-fragmented acreages of forested habitat for many species of neotropical migratory birds. Currently, the Service manages 79 forested parcels along the river, totaling 130 km². The border wall will isolate or separate 37 properties (about half of all major parcels), totaling 36 km² (Table 2). Research shows that forested areas must reach at least 1 km² to support breeding birds at decadal scales, while areas of >10 km² support breeding birds at century scales.

**Table 2. LRGV NWR River Tracts from East to West by County; Severed Acreage to the North Bisected by Currently and Proposed Border Wall/Fence Infrastructure Based on proposed CPB Border Wall System alignment (As of 2019).**

| **Cameron County** | Bisect Acreage Remaining on North Side (approx.) |
|---|---|
| Southmost | 177 |
| Boscaje de La Palma | 52 |
| Jeronimo Banco | 39 |
| Phillips Banco | 309 |
| Palo Blanco | 1 |
| Garza-Cavazos | 260 |
| Tahuachal Banco | 86 |
| Ranchito | 3810 |
| La Gloria | 123 |
| **Total Tracts** | **Total Ac.** |
| **9** | **4,857** |

| **Hidalgo County** | Bisect Acreage Remaining on North Side (approx.) |
|---|---|
| Santa Maria | 1 |
| Rosario Banco | 12 |
| La Coma | 36 |
| Champion Bend WMA | 2 |
| Monterrey Banco | 2 |
| Marinoff | 100 |
| Pharr Settling Basin (Mgt Agr.) | 11 |
| Tortuga Banco | 17 |
| El Morillo Banco | 73 |
| La Parida Banco | 166 |
| Kiskadee WMA | 1 |
| Peñitas | 4 |
| La Joya | 445 |
| Havana North | 45 |
| Havana South | 27 |

| | |
|---|---|
| Sam Fordyce North | 129 |
| Sam Fordyce South | 111 |
| Los Ebanos | 266 |
| Cuevitas | 200 |
| **Total Tracts** | **Total Ac.** |
| **19** | **1,648** |

| **Starr County** | Bisect Acreage Remaining on North Side (approx.) |
|---|---|
| Chicharra Banco | 249 |
| San Francisco Banco | 714 |
| La Casita East | 678 |
| Los Velas | 400 |
| Los Velas West | 9 |
| Los Negros Creek | 99 |
| Arroyo Ramirez | 57 |
| Las Ruinas | 78 |
| Arroyo Morteros | 50 |
| **Total Tracts** | **Total Ac.** |
| **9** | **2,334** |

The construction of the cleared enforcement zones will directly remove wildlife habitat. The enforcement zones will also create barriers and restrict wildlife movements especially for species like ocelots, which require dense brush to travel through. As a result, we recommend reduction of the proposed 150-foot enforcement zones in areas with brush and on refuge lands to the minimum distance necessary to maintain a road. We also recommend CBP reduce the 150-foot wide enforcement zone when the fence alignment is near the river bank and leave a minimum 33-foot wide corridor on top of the river bank. This will provide a corridor for wildlife and will reduce erosion. Once the enforcement zones are established, a bollard-cable type fence should be installed to replace refuge fencing originally designed to prevent vehicular access into the tract itself. We recommend CBP construct a border barrier with additional openings so that ocelots and other wildlife may move through the border barrier to maintain their connection across the landscape. We recommend CBP replace all cleared brush by restoring brush in un-impacted areas on protected lands to eliminate the net loss of valuable thornscrub habitat. We recommend that wildlife openings matching the width of a gate opening, be maintained in an open condition 24 hours per day with brush corridors leading to openings. We specifically recommend openings on LRGV NWR at Ranchito Tract (Tahuachal Gap negotiated in 2007) in Cameron County, Chicharro Banco in Starr County, La Parida Banco, and Madero Tract in Hidalgo County, and on Bentsen Rio Grande Valley State Park in Hidalgo County. Also, in Starr County, the current proposed alignment appears to begin halfway through the Los Negros Creek unit of LRGV NWR. This alignment would pass through a million-year-old oyster bed geological feature and through designated critical habitat for the Zapata bladderpod. This area also regularly floods and has very unstable soils. We recommend beginning the alignment to the east of the Los Negros Creek tract or aligning on the north end of the unit with a gap at the arroyo.

The proposed alignment in Hidalgo County appears to run through the Sam Fordyce South and La Joya Tracts creating another road south of Old Military Hwy 281 and an abandoned railroad. This alignment will significantly fragment over 5000-acres of thornscrub habitat by adding another road and fence to the existing roads and right-of-ways. We propose that the alignment follow south of the Old Military Highway 281 and railroad right-of-way to reduce fragmentation impacts. We also request there be gap through these segments so these large tract of refuge and private thronscrub remain intact.

A massive flooding event occurred in the Valley in July 2010, along with a release of floodwaters from Falcon Dam due to hurricane-induced rain in Mexico. Floodwaters overtopped the existing Rio Grande levees both at Santa Ana NWR and LRGV NWR as well as on neighboring State and private lands. Approximately 16,850 acres were flooded on LRGV NWR alone impacting numerous native and reforested areas. Floods reached as high as 20 feet above the river bank at Santa Ana NWR and the impounded water remained for about six months before receding. The Service is concerned the total existing and proposed levee wall (up to 52 miles) in Hidalgo County will exacerbate such catastrophic events in the future and leave terrestrial wildlife trapped behind levee walls/fencing. This project is likely to result in loss of life and wildlife during floods since approximately 85percent of Refuge lands are along the Rio Grande, south of the International Boundary and Water Commission levee. We recommend that all gates be open during any significant flooding events and propose construction of elevated berms with associated pads or ramps containing 4:1 slopes around roads and gate gaps south of the levee to allow terrestrial animals to retreat from rising waters during catastrophic flooding events.

Additional CBP activities, particularly dragging tires on roads to check for footprints, contribute to erosion and direct loss of wildlife, particularly reptiles, as well as the establishment of exotic grass species, salt cedar, and other invasive plant species. The proposed enforcement zone includes an improved all-weather road capable of high speed use that would pose a concern for public safety and increased wildlife mortality. Vehicle traffic and especially dragging roads will increase dust impacts on visitors, wildlife, and impacts to vegetation along the enforcement zone. Tactical infrastructure lighting also impacts nighttime wildlife activity, causing habitat to be unusable by ocelot and other nocturnal species. In this case, the Service recommends lighting be focused away from habitats, using motion sensors, and only illuminating the enforcement zone. We recommend the CBP coordinate with the Service to address localized impacts of roads, lights, dragging, and other activities.

To prevent entrapment of wildlife species (particularly birds) during placement of vertical posts/bollards; all vertical fence posts/bollards that are hollow (i.e., those that will be filled with a reinforcing material such as concrete), should be covered to prevent wildlife from becoming trapped inside. Caps should be installed on the posts or hollow bollards when they are erected and remain until they are filled with reinforcing material. Additionally, all construction activities involving vegetation clearing should avoid the general bird nesting season extending from March through August to avoid impacting resident and migratory birds protected under the Migratory Bird Treaty Act.

**Attachment C.**
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Senator BARRASSO. Thanks so very much.

We do have a number of Senators here, and some will come and go due to other requirements of their time.

I wanted to start with a couple of questions on issues that we are facing, and one is the U.S. Fish and Wildlife Service determined that the grizzly bear in the Greater Yellowstone ecosystem has already met its recovery goals. The U.S. Fish and Wildlife Service said that in 1998, which was more than 20 years ago.

The Bush administration, the Obama administration, the Trump administration each has agreed, determined that the grizzly bear is recovered, and that the Endangered Species Act protections are no longer warranted. That is bipartisan agreement; now we are at over 20 years.

The grizzly bear was delisted by the Service in 2007, only to be relisted by an activist judge in 2009. It was again delisted by the Service in 2017, only to be relisted again by another activist Federal judge in 2018.

Do you agree that the grizzly bear is fully recovered and should be delisted?

Mr. WALLACE. Yes, Senator, we do. I think the Service believes that the grizzly bear is biologically recovered.

Senator BARRASSO. I guess the next step is where we go from here, but we don't have enough time in the questioning, so let me get to another question. But I appreciate the comment there, and we will visit it additionally.

I wanted to get to that the Committee and the full Senate has passed America's Conservation Enhancement Act, the ACE Act, with unanimous support. The ACE Act would provide the U.S. Fish and Wildlife Service with additional tools to conserve wildlife. As mentioned in my opening statement, these include provisions to help the Service address challenges like chronic wasting disease, invasive species, wetlands conservation.

Can you please speak about some of these challenges from the Service's perspective and what the agency is doing to help address them?

Mr. WALLACE. Senator, we have not taken a position on the ACE Act, but we are certainly aware of the leadership that you and Senator Carper and the Committee members have taken in trying to address some of the Nation's most complicated and challenging conservation issues, everything from the Genius Prize that you have focused on, Senator, to reauthorizing some very important partners in the Chesapeake and the National Fish and Wildlife Foundation.

So I think on behalf of the Service, thank you for the leadership in that role, and we look forward to working with you going forward.

Senator BARRASSO. On Monday, February 3rd, the Washington Post published an article entitled "Hunting Is Declining, Creating a Crisis for Conservation." "Hunting Is Declining, Creating a Crisis for Conservation." The article describes how sportsmen play such a significant role across the country in funding the wildlife conservation efforts of States. They do it through the Pittman-Robertson Act.

It notes that a decline in hunting is cutting into some of the funding for conservation.

Last year, this Committee passed and got signed into law two bills to strengthen Pittman-Robertson, the Target Practice and Marksmanship Training Support Act, and then also the Modernizing the Pittman-Robertson Fund for Tomorrow's Needs Act.

How will these legislative changes help State fish and wildlife agencies that rely on this Pittman-Robertson funding, and what is the status of this implementation?

Mr. WALLACE. We saw that same article, Senator, and it is something that the Service has talked about for quite a while. The decline in hunting and fishing on public lands, or hunting and fishing in general, has a direct impact on the ability of State fish and wildlife agencies to be funded every year. So it is an area that we are paying close attention to.

The Urban Refuge Program that we are starting is a good first step. I had the privilege of being at the Blackwater National Wildlife Refuge in Eastern Maryland in the fall, where there is a Freedom Hunters Program going on that gets people from the inner city area around Baltimore and Philadelphia to come to the refuges and learn not only about hunting, but cooking, and the culture of dressing animals.

They even told me they are getting some vegetarian hunters down there. I looked at them, and I thought they were gaming the Assistant Secretary, but no, there is a number of people that donate the organic meat to their friends and use the hooves for making soap and the bones for wind chimes. It is an interesting group of people that are coming together on refuges.

We are aware of it, and we are doing what we can, thanks to your help, to increase that.

Senator BARRASSO. You mentioned the Genius Prize, that is the Wildlife Innovation and Longevity Driver Act, the WILD Act, enacted into law in March 2019. It established Theodore Roosevelt Genius Prizes. These cash prizes are meant to stimulate technological innovation in several different categories for the benefit of wildlife.

Can you tell us a little bit about how far along we are in implementing these prizes, and when we can reasonably expect the first prizes to be awarded?

Mr. WALLACE. We are now, at the Interior Department, looking at that Act and trying to understand how best to stand up the prizes. Do we have to, for example, have a Federal advisory committee for each of the prizes, or could we stand that up with our own internal advisory committee? We are working very diligently on that, but I don't have the exact answer to you yet, sir.

Senator BARRASSO. Senator Carper.

Senator CARPER. Thanks, Mr. Chairman.

Mr. Secretary, several of our colleagues and I sent a letter recently to Secretary Bernhardt, in November, actually, inquiring about the status of the Conservation Agreement for the Monarch Butterfly. Utilities and transportation departments from Delaware to Wyoming, or Delaware to Texas, or Delaware to Oklahoma, stand ready to undertake conservation measures that could preclude the Service from needing to list the monarch later this year. But this agreement must be finalized before they can act.

The Fish and Wildlife Service has delayed—I am told—delayed finalization of the agreement for more than 6 months. I understand that the Service wants to resolve concerns raised by farmers; that is understandable. However, the proponents of the agreement believe that stakeholders' needs have been accommodated, and there are no outstanding legal issues that should hinder the agreement's effectiveness.

My question is a brief one. What precludes the Service from finalizing this agreement now and working with agricultural stakeholders separately to develop an additional agreement for their continued engagement?

And I would just ask that you would work with us on this issue. Any comments, please.

Mr. WALLACE. Senator, I did see your letter, and I will commit to you to putting that on my list of things I will personally drive at the department.

The good news here is this CCAA for monarch butterflies has created a lot of very positive interest from people that have an opportunity to participate in that CCAA. The number of people that have come in to express interest may be one of the reasons that it has slowed down a little bit.

But please be assured that I am aware of your concern, and I will keep you and your team, your staff, appraised of it on a very routine basis.

Senator CARPER. Thank you so much. My second question, Mr. Secretary, deals with the duck stamp. During your confirmation process, I asked if you would ensure that any changes to the duck stamp are designed to increase participation in the program.

In your response, you acknowledged the importance of the Duck Stamp Program and conserving migratory bird habitat and committed to studying the program. Since that time, the Fish and Wildlife Service unveiled a new rule that will require the duck stamp to reflect the theme "celebrating our waterfowl hunting heritage."

However, sportsmen are not the only participants in the Duck Stamp Program, as you may know. In fact, the American Birding Association, which is headquartered, believe it or not, in Delaware, encourages birding enthusiasts to purchase duck stamps as well, and they do.

Here is my question. How exactly does this proposed rule seek to increase sales and participation in the program? What was the impetus for the change, and what type of research did the Service conduct to study the potential impacts of this rule on duck stamp sales and user participation?

Mr. WALLACE. Senator, I will answer this in a broad question with a commitment to come back to you again with a more detailed explanation. We are looking at the same thing that Senator Barrasso mentioned earlier about the decline in sportsmen on public lands, and what that means to Pittman-Robertson and Dingell-Johnson revenues.

We looked at a way to try to increase that revenue through duck stamp sales by celebrating the hunting heritage. It was a focus on trying to get more people, open more lands to hunt and get more people into the refuges.

That is the general emphasis on that. But the idea is that to keep your constituents buying duck stamps and hopefully expand into other groups that don't necessarily think about even ducks, but they care about wildland conservation to also participate because it goes directly into habitat conservation.

Senator CARPER. All right. I look forward to hearing from you further on this, please.

Last, I was pleased that the fiscal year 2020 omnibus included a $2.9 million increase in funding for refuge system law enforcement over the 2019 enacted level. As you know, lack of a dedicated full-time law enforcement officer is a challenge at Delaware's refuges, particularly given the Trump administration's emphasis on expanding access within the refuge system. I know this is a concern at other refuges as well.

My question is how well the Service determined which regions or refuges receive new law enforcement officers with this additional funding, and will you continue to work with us to ensure adequate law enforcement at Delaware's two refuges?

Mr. WALLACE. The Service has a priority system about how to identify most urgent law enforcement needs and trying to allocate funds for law enforcement in those refuges. I hope to be up in Delaware in the next couple of months to be able to sit down with the refuge managers up there, understand the needs of Prime Hook and Bombay Hook, and have a more detailed explanation about how that specifically affects the refuges you care most about. But they do, within limited resources, try to spread that money forward to where is most urgently needed.

Senator CARPER. All right. Thanks, we look forward to welcoming you to the First State.

Thank you.

Senator BARRASSO. Thank you, Senator Carper.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

Mr. Wallace, in Oklahoma, we have two of the endangered species where there is activity going on right now that is meaningful, not just for our developers and roads people, our farmers, it is very important to them.

One is the American burying beetle, and we understand that now that they are, due to the resurgence of the beetle, that they are proposing a down listing of the species from endangered to threatened. That is my understanding, that is supposed to be some time around June of this coming year, this year.

The second thing is the prairie chicken. We have had Oklahoma, Texas, Kansas, Colorado, and New Mexico very active in promoting and helping Fish and Wildlife out on this issue, and I think that we are in the position now where a decision is going to be made as to whether or not to list the prairie chicken.

I would kind of like to have you respond to this question as to, where are we now on the burying beetle. I think we are in good shape on that.

But is there anything else that we can do during the decision that is going to be made on the prairie chicken? We are now talking about five States trying to work cooperatively with you that might impact that decision.

Mr. WALLACE. Senator, as to your first question about the American burying beetle, we are working on down listing from endangered to threatened, with a tailored 4(D) rule, which provides more flexibilities in how to manage that to the States. We feel like we are working cooperatively with organizations that are impacted by that.

Senator INHOFE. Do the dates still look good in terms of June 2020?

Mr. WALLACE. We are still on track, yes sir.

Senator INHOFE. Good. Good. And then on the prairie chicken?

Mr. WALLACE. The prairie chicken, I believe, we are under consent decree for spring of 2021 to make a listing decision. I know there has been a lot of work with the Western Association of Fish and Wildlife Managers to stand up some conservation areas that may go toward providing some assurance about the long term health of the lesser prairie chicken.

Senator INHOFE. And the other question was that, is there anything that we can do, our stakeholders, the five States that are involved in this, that would be of assistance in helping with this decision?

Mr. WALLACE. Oh, thank you, I am sorry, I misunderstood. Let me come back to you on that. When I talked to the Service in preparation for this hearing, I got the sense that things were working pretty well with the affected parties.

Senator INHOFE. I think that is right. In my remaining time, I am concerned also about the Migratory Bird Treaty Act. The new interpretation of the rule inserts the word "unintentional," damage that is done unintentionally. I think about if you are doing a bridge project some place and by accident, something happens, that you would not find yourself in a situation where you are in a criminal situation.

So I am concerned about that, and I just know that in our State, our State Highway 3 Bridge rehab project ended up taking a number of months longer than it would have otherwise, in order to comply with this. So I am concerned about that.

Can you speak to the length of delays in projects that happened as a result of criminalizing the incidental take? Now hopefully, that is going to be changed. Any comments on the change of that rule?

Mr. WALLACE. As you are aware, Senator, there was a Solicitor's opinion shortly at the beginning of this Administration that said that incidental take under the Migratory Bird Treaty is not a prohibited activity, which goes to your concern about your constituents.

There is a regulation that has been proposed, that was issued I think earlier this week. It is proposed regulation asking for 45 days of public comment on that proposed rule, but it basically puts into regulation what the Solicitor said back in December 2017.

Senator INHOFE. Yes, I am hoping you support that rule.

Thank you very much, Mr. Wallace.

Senator BARRASSO. Thank you very much, Senator Inhofe.

We will now turn to Senator Van Hollen.

Senator VAN HOLLEN. Thank you, Mr. Chairman, and thank you, Mr. Secretary. Thanks for being here and also for your remarks about the Chesapeake Bay and the ACE Act, the bipartisan bill

that includes something called the Chesapeake Wild Act, which will strengthen the cooperation between the Fish and Wildlife Service and Chesapeake Bay Conservation Partners. So we are looking forward to passing that.

The Blackwater Wildlife Refuge, you mentioned that. As you know, that is a very important habitat for migratory birds, right? Do you agree it is a very important habitat?

Mr. WALLACE. I do agree. I was just there.

Senator VAN HOLLEN. Now, Senator Inhofe raised this issue about the so called M opinion, the Solicitor's opinion, which actually predated your coming on board. Under your leadership, it has now migrated from a Solicitor's opinion to proposed regulation.

Now, you remember that BP Deepwater Horizon disaster, right? Do we all remember that?

Mr. WALLACE. I do remember.

Senator VAN HOLLEN. Massive killing of birds.

But isn't it a fact that the new interpretation of the Migratory Bird Treaty would now prevent us from getting the $100 million in damages against BP for the mass killing of migratory birds, moneys that went into the Wetland Conservation Fund? Isn't it a fact that the new interpretation would mean that we could not go after BP on violations to the Migratory Bird Treaty?

Mr. WALLACE. The total settlement, if I recall for the BP spill, is around $18 billion or $19 billion.

Senator VAN HOLLEN. Mr. Secretary, this is a very simple question. I am not asking whether you could have gotten damages under other laws. I am asking you, isn't it true that you would not be able to seek the $100 million damages under the Migratory Bird Treaty? Isn't that a fact?

Mr. WALLACE. Unintentional taking, that is correct.

Senator VAN HOLLEN. Even though it was a massive killing. We are not talking about one bird that got killed while building a bridge. Obviously, that is not the intent of the Migratory Bird Treaty.

But it is to protect migratory birds, is it not? How does it further the mission of the Fish and Wildlife Service to take away the ability to fine a company like BP when its disasters kill masses of birds? How does that further the goal?

Mr. WALLACE. If you would indulge me for a couple of minutes to maybe understand our thinking about this issue, and hopefully assuage your concerns that we care deeply about the health of wildlife, too, and migratory birds.

The Solicitor's opinion that was issued by the last Administration was issued on January 10th, 2017, exactly 7 years, 11 months, and 20 days into that Administration.

Here is what it said. It said that the incidental take prohibited under the Migratory Bird Treaty Act interpreted the MBA's prohibition and penalties as applying regardless of a violator's intention or state of mind.

That creates a couple of concerns for those of us that have to allocate resources. First of all, under the Migratory Bird Treaty, there is no civil penalty. Like you have done with all the other environmental statutes you have passed here, Clean Water, Clean Air, Bald Eagle Protection——

Senator VAN HOLLEN. Mr. Secretary, I am sorry. Because of our limit, if the Chairman wants to give me additional time——

Senator BARRASSO. I would be happy to do that, if there is no objection, it would be fine. Then you would still have 3 minutes remaining for your questioning as well.

Senator VAN HOLLEN. OK. That is fine. I appreciate that.

Senator CARPER. I object.

[Laughter.]

Mr. WALLACE. It was a concern about that strict liability, that criminal statute is the only option of enforcement that that Act provides. You don't get a chance to have a written warning; you don't get a chance for a civilian fine. Your first indication you are in trouble under the Migratory Bird Act is a grand jury.

So it was a tool that had—I understand what you are saying about the oil spilled in the Gulf, but it is a tool that is applied across the board. I saw you having other discussions about this. There are about a million birds unfortunately killed by wind turbines and oil ponds a year, about a million. That is too many. Two hundred-fifty to 350 by automobiles. Half a billion by plate glass windows.

So all of those are potentially under the purview of that interpretation of that Act, so that is where we are.

Senator VAN HOLLEN. Mr. Secretary, look, I understand that nobody intends for that provision to apply to someone who unintentionally kills a couple birds, right? But the way you revised it means that in the case of massive killing of birds, unless it is intentional, and obviously BP didn't set out to kill millions of birds, but under your interpretation, you can't collect the $100 million against BP.

Here is the problem that is having in the Chesapeake Bay region. I just want to read you an article, a New York Times article. It says, is the State of Virginia prepared for a major bridge and tunnel expansion in the tidewaters of the Chesapeake Bay last year. Engineers understood that the nesting grounds of 25,000 gulls, black skimmers, royal terns, and other sea birds were about to be plowed under.

So we are not talking about a few birds, we are talking about the nesting grounds for 25,000 birds. The State began to develop an artificial island as an alternative habitat because their understanding was, they had an obligation to do so under the Migratory Bird Treaty Act, but that is when the Trump administration stepped in.

The Federal Government said it "appreciates the State efforts, but that new rules in Washington have eliminated penalties for 'incidental migratory bird deaths that came in the course of normal business.'" So even though they were plowing under the nesting grounds for 25,000 migratory birds, because obviously that wasn't their purpose, they didn't have to come up with an alternative habitat.

So my question to you, as somebody who is responsible for protecting migratory birds and habitat, how does that opinion further your mission?

Mr. WALLACE. Keep in mind, Senator, that there are a number of environmental laws that are still going to apply to migratory birds, and we are committed to that.

Senator VAN HOLLEN. If you could just, Mr. Secretary, does the State of Virginia have any obligation under those other laws to build an alternative habitat?

Mr. WALLACE. The permitting process, whether it is under NEPA or any other State organization, should, if the people are doing their job, incorporate best practices. Best practices do not go out the window because of the Migratory Bird Treaty. There is still going to be very much applicable to any ELM permit.

Senator VAN HOLLEN. Mr. Secretary, I know you inherited this. I know the opinion predated your service. I understand that, but you are now in the process of turning that M opinion into regulations, and I think you are going to get a lot of pushback on those. I certainly hope so.

I think that there is a way to address the issue you raised about not wanting to have people face criminal penalties for killing a few birds in the course of their business compared to plowing under the nesting grounds of 25,000 birds or what happened in BP.

I would just like to ask you a question on another issue, and if you need more time to answer, you can get back to me in writing.

The Fish and Wildlife Service has programs to protect international iconic species, like elephants and gorillas, including programs in Central America. Last year, there were some very serious problems with some of the contracting partners with the Fish and Wildlife Service. I understand why the Fish and Wildlife Service put that on hold back in September of last year in order to try to get rid of the bad actors.

My question to you is, have you made progress getting rid of the bad actors? It is been many months now. Do you intend now to allow that funding to go forward for those important programs to protect these species?

Mr. WALLACE. I had the privilege, Senator, right after I was confirmed, to lead the U.S. delegation to CITES in Geneva, where I got to see first hand the incredible respect that the men and women of the Fish and Wildlife Service are held in that international community that is trying to stop that wildlife trafficking. So these programs are a very important part of that.

The issues you refer to about human rights abuses, about potential sub-grantees of that money is something the Department Secretary takes very seriously. We are implementing auditing programs with the hope of getting those programs back and fully functioning. But if I could come back and see you and brief you in some more detail?

Senator VAN HOLLEN. I would appreciate that, because I think it is important to get those programs up and running. Get rid of the bad actors, of course, but to get them up and running again. So thank you. I appreciate that.

Mr. WALLACE. Just a parish note, I had the privilege of being with the Blackwater Refuge just a couple of months ago. What a terrific resource that is. Combined with the Harriet Tubman site, the sum is more than the parts.

Senator VAN HOLLEN. And thank you for your focus on that and visiting it, and for the great work in the Fish and Wildlife Service.

Mr. WALLACE. They are great people. Thank you, sir.

Senator VAN HOLLEN. Thank you.

Senator BARRASSO. Before turning to Senator Cramer, I point out that the Department of Interior's proposed rule with regard to the Migratory Bird Treaty Act is going to provide regulatory certainty about the scope of that Act. This proposed rule is based on a legal opinion issued by the Solicitor's Office, the Department Solicitor's Office.

In December 2017, the Solicitor reviewed the Migratory Birds Treaty Act's texts, history, purpose, and concluded that the Act take prohibitions apply only to the conduct of intentionally injured birds.

I know, Assistant Secretary Wallace, you are bound by that conclusion.

The Department, I think, was correct in codifying it. I am asking unanimous consent that at least the Solicitor's opinion be admitted to the record, without objection, it will be.

[The referenced information follows:]

United States Department of the Interior

OFFICE OF THE SOLICITOR
Washington, D.C. 20240

IN REPLY REFER TO

DEC 22 2017

M- 37050

Memorandum

To: Secretary
Deputy Secretary
Assistant Secretary for Land and Minerals Management
Assistant Secretary for Fish and Wildlife and Parks

From: Principal Deputy Solicitor Exercising the Authority of the Solicitor Pursuant to Secretary's Order 3345

Subject: The Migratory Bird Treaty Act Does Not Prohibit Incidental Take

## I. Introduction

This memorandum analyzes whether the Migratory Bird Treaty Act, 16 U.S.C. § 703 ("MBTA"), prohibits the accidental or "incidental" taking or killing of migratory birds. Unless permitted by regulation, the MBTA prohibits the "taking" and "killing" of migratory birds. "Incidental take" is take that results from an activity, but is not the purpose of that activity.

This issue was most recently addressed in Solicitor's Opinion M-37041 – *Incidental Take Prohibited Under the Migratory Bird Treaty Act*, issued January 10, 2017 (hereinafter "Opinion M-37041"), which concluded that "the MBTA's broad prohibition on taking and killing migratory birds by any means and in any manner includes incidental taking and killing."[1] Opinion M-37041 was suspended pending review on February 6, 2017.[2] In light of further analysis of the text, history, and purpose of the MBTA, as well as relevant case law, this memorandum permanently withdraws and replaces Opinion M-37041.

Interpreting the MBTA to apply to incidental or accidental actions hangs the sword of Damocles over a host of otherwise lawful and productive actions, threatening up to six months in jail and a $15,000 penalty for each and every bird injured or killed. As Justice Marshall warned, "the value of a sword of Damocles is that it hangs—not that it drops."[3] Indeed, the mere threat

[1] 2017 DEP SO LEXIS 6, *2.

[2] Memorandum from K. Jack Haugrud, Acting Secretary, to Acting Solicitor, Temporary Suspension of Certain Solicitor M-Opinions Pending Review, 2017 DEP SO LEXIS 8 (Feb. 6, 2017).

[3] *Arnett v. Kennedy*, 416 U.S 134, 231 (1974) (Marshall, J., dissenting).

of prosecution inhibits otherwise lawful conduct. For the reasons explained below, this Memorandum finds that, consistent with the text, history, and purpose of the MBTA, the statute's prohibitions on pursuing, hunting, taking, capturing, killing, or attempting to do the same apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs.[4]

## II. The Evolution of the Migratory Bird Treaty Act

### a. The Historical Context of the Treaty

In the late 19th and early 20th centuries, bird hunting devastated migratory bird populations. According to the U.S. Fish and Wildlife Service ("FWS"), "[b]y the late 1800s, the hunting and shipment of birds for the commercial market (to embellish the platters of elegant restaurants) and the plume trade (to provide feathers to adorn lady's fancy hats) had taken their toll on many bird species."[5] The scope of commercial hunting at the turn of the century is hard to overstate. One author, describing hunters descending upon a single pigeon nesting ground, reported "[h]undreds of thousands, indeed millions, of dead birds were shipped out at a wholesale price of fifteen to twenty-five cents a dozen."[6] Director of the New York Zoological Society and former chief taxidermist at the Smithsonian William Hornaday estimated that "in a single nine-month period the London market had consumed feathers from nearly 130,000 egrets"[7] and that "[i]t was a common thing for a rookery of several hundred birds to be attacked by plume hunters, and in two or three days utterly destroyed."[8] Further, commercial hunting was not limited to traditional game birds—estimates indicated that 50 species of North American birds were hunted for their feathers in 1886.[9] Thus, largely as a result of commercial hunting, several species, such as the Labrador Ducks, Great Auks, Passenger Pigeons, Carolina Parakeets, and Heath Hens were extinct or nearly so by the end of the 19th century.[10]

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[4] This memorandum recognizes that this interpretation is contrary to the prior practice of this Department. As explained below, the past expansive assertion of federal authority under the MBTA rested upon a slim foundation—one that ultimately cannot carry its weight. Neither the plain language of the statute nor its legislative history support the notion that Congress intended to criminalize, with fines and potential jail time, otherwise lawful conduct that might incidentally result in the taking of one or more birds.

[5] U.S. Fish and Wildlife Service, Other Relevant Laws *available at* https://www.fws.gov/birds/policies-and-regulations/laws-legislations/other-relevant-laws.php (last updated Oct. 17, 2016).

[6] Andrew G. Ogden, *Dying for a Solution: Incidental Taking Under the Migratory Bird Treaty Act*, 38 WM. & MARY ENVLT. L. & POL'Y REV. 1, 5 n.12 (Fall 2013) (quoting PETER MATTHIESSEN, WILDLIFE IN AMERICA 159-60 (1987)).

[7] William Sounder, *How Two Women Ended the Deadly Feather Trade*, SMITHSONIAN MAGAZINE, Mar. 2013, *available at* http://www.smithsonianmag.com/science-nature/how-two-women-ended-the-deadly-feather-trade-23187277/?all.

[8] *Id.*

[9] *Id.*

[10] Jesse Greenspan, *The Evolution of the Migratory Bird Treaty Act*, AUDUBON, May 22, 2015, *available at* http://www.audubon.org/news/the-evolution-migratory-bird-treaty-act.

Congress adopted the "first federal law protecting wildlife"—the Lacey Act of 1900[11]—in part in response to the threat that commercial hunting posed to wild birds.[12] The Lacey Act sought to limit the damaging effects of commercial hunting by prohibiting game taken illegally from being transported across state lines.[13]

Unfortunately, "the [Lacey] Act was ineffective in stopping interstate shipments."[14] Thus, in 1913 Congress followed the Lacey Act with two legislative actions. First, Congress included language in an appropriations bill directly aimed at limiting the hunting of migratory birds.[15] Better known as the "Weeks-McLean Law,"[16] this language gave the Secretary of Agriculture authority to regulate hunting seasons nationwide for migratory birds:

> All wild geese, wild swans, brant, wild ducks, snipe, plover, woodcock, rail, wild pigeons, and all other migratory game and insectivorous birds which in their northern and southern migrations pass through or do not remain permanently the entire year within the borders of any State or Territory, shall hereafter be deemed to be within the custody and protection of the Government of the United States, and shall not be destroyed or taken contrary to regulations hereinafter provided therefor.
>
> The Department of Agriculture is hereby authorized and directed to adopt suitable regulations . . . prescribing and fixing closed seasons . . . and it shall be unlawful to shoot or by any device kill or seize and capture migratory birds within the protection of the law during said closed season . . . .[17]

Second, the Senate adopted a resolution on July 7, 1913, requesting that the President "propose to the Governments of other countries the negotiation of a convention for the protection and preservation of birds."[18]

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[11] U.S. Fish and Wildlife Service, Lacey Act, *available at* https://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/lacey-act.html (last visited Oct. 18, 2017). *See generally* 16 U.S.C. §§ 3371–3378; 18 U.S.C. §§ 42–43.

[12] *See* U.S. Fish and Wildlife Service, Other Relevant Laws *available at* https://www.fws.gov/birds/policies-and-regulations/laws-legislations/other-relevant-laws.php (last updated Oct. 17, 2016).

[13] *Id.*

[14] *Id.*

[15] Act of March 4, 1913, ch. 145, 37 Stat. 828, 847–48 (repealed 1918).

[16] U.S. Fish and Wildlife Service, Other Relevant Laws *available at* https://www.fws.gov/birds/policies-and-regulations/laws-legislations/other-relevant-laws.php (last updated Oct. 17, 2016).

[17] Act of March 4, 1913, ch. 145, 37 Stat. 828, 847–48 (repealed 1918).

[18] SENATE JOURNAL, 63rd Cong. 1st Sess. 108 (Apr. 7, 1913).

For its time, this was an expansive assertion of federal authority over activities previously viewed as the exclusive purview of the states. Less than 20 years earlier, the Supreme Court declared that states owned wild game within their territories.[19] As a result, the Weeks-McLean Law came under Constitutional challenge almost immediately. Little more than a year after its passage, the district court for the Eastern District of Arkansas in *United States v. Shauver* ruled that "[t]he court is unable to find any provision in the Constitution authorizing Congress, either expressly or by necessary implication, to protect or regulate the shooting of migratory wild game when in a state, and is therefore forced to the conclusion that the act is unconstitutional."[20] The district court for Kansas echoed the same less than a year later.[21] By 1917, the Weeks-McLean Law had been declared unconstitutional by two state supreme courts and three federal district courts, with an appeal pending before the Supreme Court of the United States.[22]

**b. The Migratory Bird Treaty of 1916**

In light of the Constitutional cloud hanging over Weeks-McLean Law, proponents of nationwide hunting regulations turned to a novel Constitutional theory: under the Treaty Power, the federal government acted with the authority of the United States in a way that Congress, acting on its own accord, could not, placing treaties and accompanying implementing legislation on a different Constitutional footing than traditional laws.[23] This theory was invoked by Senator Elihu Root in proposing the 1913 Senate resolution calling for a migratory bird treaty:

> [I]t may be that under the treaty-making power a situation can be created in which the Government of the United States will have constitutional authority to deal with this subject. At all events, that is worthy of careful consideration, and for that purpose I open it by the offer of this resolution.[24]

As described by the Solicitor's Office for the Department of Agriculture:

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[19] *Geer v. Connecticut*, 161 U.S. 519 (1896).

[20] *United States v. Shauver*, 214 F. 154, 160 (E.D. Ark. 1914).

[21] *United States v. McCullagh*, 221 F. 288 (D. Kan. 1915).

[22] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 25 (1917) (statement of R.W. Williams, Solicitor's Office, Department of Agriculture) ("There were three Federal courts, two State supreme courts; the Maine and Kansas supreme courts have declared [the Weeks-McLean Law] unconstitutional. In the eastern district of Arkansas Judge Trieber declared it unconstitutional; in the district of Kansas Judge Pollock declared it unconstitutional; and in the district of Nebraska Judge Lewis, of Colorado, who was sitting in place of one of the regular judges, sustained a motion in arrest of judgment. . . . They all followed the first decision in the eastern district of Arkansas. . . . The government removed the Arkansas case—the Shauver case—to the Supreme Court direct.").

[23] *See generally Missouri v. Holland*, 252 U.S. 416 (1920) (using this reasoning to uphold the MBTA's constitutionality).

[24] 51 Cong. Rec. 8349 (1914).

> Text-writers assert this doctrine, that the President, and the Senate, exercising the treaty making power, have a right to negotiate a treaty, and Congress has the right to pass an act to fulfill that treaty, although Congress, acting without any such treaty, would not have the power to legislate upon that subject. That is what text-writers say.[25]

In this way, proponents of hunting restrictions contended that Congress could overcome the Constitutional concerns that had derailed the Weeks-McLean Law and pass legislation asserting federal authority over wild game founded upon an international treaty.[26]

Against this backdrop the United States and the United Kingdom—acting on behalf of Canada—entered into the "Convention between the United States and Great Britain for the protection of migratory birds."[27] With the stated intent of "saving from indiscriminate slaughter and of insuring the preservation of such migratory birds as are either useful to man or are harmless,"[28] the Convention specified groups of birds to be protected,[29] and obligated the parties to:

- Establish "close[d] seasons during which no hunting shall be done except for scientific or propagating purposes under permits issued by proper authorities" that would serve "as an effective means of preserving migratory game birds;"[30]

- Prohibit the "taking of nests or eggs of migratory game or insectivorous or nongame birds . . . except for scientific or propagating purposes;"[31]

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[25] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 25 (1917) (statement of R.W. Williams, Solicitor's Office, Department of Agriculture).

[26] *See* William S. Haskell, *Treaty Precludes Further Question as to Constitutionality of Migratory Bird Law*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, Oct. 1, 1916, at 4 ("The Canadian treaty precludes further question as to the constitutionality of the federal migratory bird law. It therefore makes it unnecessary to bring the case now pending in the United States Supreme Court to argument."). Consistent with this new approach, when the *Shauver* case was called on the Supreme Court's docket in October 1916, "the Attorney General moved that the case be passed." Hearings Before the Committee on Foreign Affairs, House of Representatives, Sixty-Fourth Congress, Second Session, on H.R. 20080 (Statement of R.W. Williams, Esq., Solicitor's Office, Department of Agriculture) at 25 (Feb. 3, 1917).

[27] Convention between the United States and Great Britain for the Protection of Migratory Birds, 39 Stat. 1702 (Aug. 16, 1916) (ratified Dec. 7, 1916) (hereinafter "Migratory Bird Treaty").

[28] *Id.*, chapeau.

[29] *Id.*, art. I.

[30] *Id.*, art. II.

[31] *Id.*, art. V.

- Prohibit during a closed season the "shipment or export of migratory birds or their eggs" except for scientific or propagating purposes;[32]

- Establish a "continuous close[d] season" for a series of specific, enumerated birds for a period of ten years;[33]

- Establish a continuous closed season of five years, refuges, or other appropriate regulations for the protection of certain types of duck;[34] and

- Provide for the issuance of permits to kill the specified birds.[35]

Under Article VIII of the Convention, the parties agreed to "take, or propose to their respective appropriate law-making bodies, the necessary measures for insuring the execution" of the Convention.[36]

**c. Implementing the Treaty**

**1. The Migratory Bird Treaty Act of 1918**

In order to fulfill the United States' obligations under Article VIII, Congress in effect reenacted a stricter version of the 1913 Weeks-McLean Law by passing what came to be known as the "Migratory Bird Treaty Act."[37] As originally passed, the MBTA provided:

> That unless and except as permitted by regulations made as hereinafter provided, it shall be unlawful to hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time or in any manner, any migratory

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[32] *Id.*, art. VI.

[33] *Id.*, art. III.

[34] *Id.*, art. IV.

[35] *Id.*, art. VII.

[36] *Id.*, art. VIII.

[37] Migratory Bird Treaty Act, ch. 128, 40 Stat. 755 (1918) (codified as amended at 16 U.S.C. § 703–12). When asked to compare the terms of MBTA with those of the 1913 Weeks-McLean Law, Mr. E.W. Nelson, the Chief of the Bureau of Biological Survey at the Department of Agriculture, noted that the main difference was that the Weeks-McLean Law did not give the Biological Survey power to arrest violators. Hearings Before the Committee on Foreign Affairs, House of Representatives, Sixty-Fourth Congress, Second Session, on H.R. 20080 (Statement of Mr. E. W. Nelson, Chief Bureau of Biological Survey, Department of Agriculture, Washington, D.C.) at 5 (Feb. 3, 1917). He went on to note that "[t]he second paragraph, I think, is practically the same as exists in our federal law." *Id.* at 9.

> bird, included in the terms of the convention between the United States and Great Britain for the protection of migratory birds concluded August sixteenth, nineteen hundred and sixteen, or any part, nest, or egg of any such bird.[38]

Violation of MBTA was a misdemeanor criminal offense, punishable by a fine of no more than $500 and/or up to six months in jail.[39] This time, relying in part on the federal treaty power, the legislation survived constitutional scrutiny.[40]

**2. The Migratory Bird Conservation Act**

Subsequently, in 1929, Congress sought to "more effectively meet the obligations of the United States under the migratory bird treaty with Great Britain" by adopting the Migratory Bird Conservation Act.[41] The Migratory Bird Conservation Act created a commission to make recommendations to the Secretary of Agriculture, who was authorized to purchase or rent lands approved by the commission "for use as inviolate sanctuaries for migratory birds."[42] Thus, by the late 1920s, Congress had adopted two laws to implement the Migratory Bird Treaty: the MBTA, which protected birds from the specific acts described in that statute, and the Migratory Bird Conservation Act, which protected birds by establishing protected habitats.

**d. Additional International Treaties and Implementing Legislation**

In 1936, the United States entered into another international agreement to "protect the said migratory birds . . . in order that the species may not be exterminated," the "Convention between the United States of America and Mexico for the protection of migratory birds and game mammals."[43] As with the Migratory Bird Treaty, the Mexico Treaty focused primarily on hunting, calling for the establishment of "close[d] seasons, which will prohibit in certain periods of the year the taking of migratory birds,"[44] in addition to explicitly mandating the establishment of refuges, limiting hunting to a maximum of four months, prohibiting hunting from aircraft, establishing special protections for insectivorous birds and wild duck, enumerating a list of

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[38] MBTA § 2 (codified as amended at 16 U.S.C. § 703).

[39] *Id.* § 6 (codified as amended at 16 U.S.C. § 707).

[40] *See Missouri v. Holland*, 252 U.S. 416 (1920).

[41] Migratory Bird Conservation Act, ch, 257, 45 Stat. 1222 (1929) (codified as amended at 16 U.S.C. § 715–715s).

[42] *Id.* § 5 (codified as amended at 16 U.S.C. § 715d). The Migratory Bird Conservation Act has since been amended several times. *See* Wetlands Loan Extension Act of 1976, Pub. L. No. 94-215, 90 Stat. 189; Act of Oct. 30, 1978, Pub. L. No. 95-552, 92 Stat. 2071; Fish and Wildlife Improvement Act of 1978, Pub. L. 95-616, 92 Stat. 3110; Act of Dec. 2, 1983. Pub. L. No. 98-200, 97 Stat. 1378; "An Act to extend the Wetlands Loan Act," Act of Oct. 26, 1984, Pub. L. No. 98-2772, 98 Stat. 2774; Emergency Wetlands Resources Act of 1986, Pub. L. 99-645, 100 Stat. 3582.

[43] Convention between the United States of America and Mexico for the Protection of Migratory Birds and Game Mammals, chapeau, 50 Stat. 1311 (Feb. 7, 1936) (ratified Mar. 15, 1937) (hereinafter "Mexico Treaty").

[44] *Id.*, art. II(A).

specific migratory birds, and limiting the transport of migratory birds across the U.S.-Mexico border.[45]

In order to implement the Mexico Treaty, Congress adopted legislation amending the MBTA.[46] Among other changes, these amendments:

- Added the word "pursue" to the list of operative actions;
- Moved the phrase "by any means" to the beginning of the clause; and
- Moved the phrase "at any time or in any manner" to follow "by any means."[47]

The United States entered into two additional treaties concerning migratory birds. The first, in 1972 with Japan, prohibited the "taking of migratory birds or their eggs" and called for the establishment of refuges, provided for the exchange of research data, and set criteria for hunting seasons.[48] Implementing legislation extended restrictions on any part, nest, or egg of any bird to include "any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest, or egg thereof."[49]

Second, in 1978 a U.S.-Soviet treaty prohibited the "taking of migratory birds, the collection of their nests and eggs and the disturbance of nesting colonies," limited the sale of migratory birds or products derived from them, placed limits on hunting, and called for the protection of habitats.[50] Implementing legislation did not amend Section 2 of the MBTA.[51]

The treaties with Canada and Mexico were amended in the mid-to-late 1990s. First, in 1995, the United States and Canada signed the Protocol Amending the 1916 Convention for the Protection of Migratory Birds.[52] According to the Secretary of State, the goal of this protocol

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[45] *Id.*, arts. II-IV. The Convention specifically prohibits killing of insectivorous birds unless they are damaging agricultural crops. *See id.*, art. II(E). The Mexico Treaty also limited the transport of other game mammals. *See id.*, art. V.

[46] Act of June 20, 1936, ch. 634, 49 Stat. 1555 ("Mexico Treaty Act").

[47] *Compare* MBTA, 40 Stat. 755, § 2 *with* Mexico Treaty Act, 49 Stat. 1555, § 3.

[48] Convention Between the Governments of the United States of America and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction, and Their Environment, 25 U.S.T. 3329 (Sep. 19, 1974).

[49] Act of June 1, 1974, Pub. L. No. 93-300, 88 Stat. 190.

[50] Convention between the United States of America and the Union of Soviet Socialist Republics Concerning the Conservation of Migratory Birds and Their Environment, 29 U.S.T. 4647 (Oct. 13, 1978).

[51] *See* Fish and Wildlife Improvement Act of 1978, Pub. L. No. 95-616, sec. 3(h), 92 Stat. 3110.

[52] Protocol Between the Government of the United States of America and the Government of Canada Amending the 1916 Convention Between the United Kingdom and the United States of America for the Protection of Migratory Birds in Canada and the United States, 1995 WL 877199 (signed Dec. 14, 1995) *reprinted in* S. Treaty Doc. No.

was to "bring the Convention into conformity with actual practice and Canadian law" concerning traditional subsistence hunting by aboriginal people of Canada and indigenous people in Alaska and "to permit the effective regulation for conservation purposes of the traditional hunt."[53]

Second, in 1997, the United States and Mexico signed a corresponding Protocol to "permit the full implementation" of the Canada Protocol.[54] The Mexico Protocol "conform[ed] the Canadian and Mexican migratory bird conventions in a manner that [] permit[ed] legal and regulated spring/summer subsistence hunt in Canada and the United States,"[55] and was necessary in order to allow the Department of the Interior to adopt regulations permitting spring/summer hunts in Alaska without violating the Mexico Treaty.[56]

The Canada and Mexico Protocols were considered interrelated, and were generally considered jointly by the United States Senate.[57] Thus, ratification of both agreements was

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104-28 at 1. This Protocol was intended to replace a similar protocol between the United States and Canada that was signed in 1979 but never ratified. *See* Letter of Transmittal from William J. Clinton, President of the United States, to the Senate of the United States (Aug. 2, 1996), *reprinted in* S. Treaty Doc. No. 104-28 at iii ("The Protocol would replace a protocol with a similar purpose, which was signed January 30, 1979, (Executive W, 96th Cong., 2nd Sess. (1980)), and which I, therefore, desire to withdraw from the Senate.").

[53] Letter of Submittal from Warren Christopher, Secretary of State, to William J. Clinton, President of the United States (May 20, 1996), *reprinted in* S. Treaty Doc. No. 104-28 at v ("The 1916 Convention for the Protection of Migratory Birds in Canada and the United States ('the Convention') presently does not permit hunting of the migratory species covered under the Convention from March 10 to September 1 except in extremely limited circumstances. Despite this prohibition, aboriginal people of Canada and indigenous people in Alaska have continued their traditional hunt of these birds in the spring and summer for subsistence and other related purposes. In the United States, the prohibition against this traditional hunt has not been actively enforced. In Canada, as a result of recent constitutional guarantees and judicial decisions, the Canadian Federal Government has recognized a right in aboriginal people to this traditional hunt, and the prohibition has not been enforced for this reason. The goals of the Protocol are to bring the Convention into conformity with actual practice and Canadian law, and to permit the effective regulation for conservation purposes of the traditional hunt.").

[54] Letter of Transmittal from William J. Clinton, President of the United States, to the Senate of the United States (Sept. 15, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at iii; *see also* Protocol Between the Government of the United States of America and the Government of the United Mexican States Amending the Convention for the Protection of Migratory Birds and Game Mammals (signed May 5, 1997), *reprinted in* S. Treaty Doc. No. 105-26.

[55] Letter of Transmittal from William J. Clinton, President of the United States, to the Senate of the United States (Sept. 15, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at iii.

[56] *See* Letter of Submittal from Madeleine Albright, Secretary of State, to William J. Clinton, President of the United States (Aug. 27, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at vii ("The Mexico Protocol is needed in order for the United States to be able to implement the Canada Protocol. That Protocol, which similarly addresses the issue of the spring and summer hunt, is pending before the Senate. The spring/summer harvest provisions in the Canada Protocol as they apply to wild ducks cannot be implemented in the United States until the 1936 U.S.-Mexico Convention permits such a harvest of wild ducks. As a matter of U.S. domestic law, the Department of the Interior may not implement a provision of one convention that allows a hunt prohibited by the provision of another . . . .").

[57] *See, e.g.*, S. EXEC. REP. NO. 105-5 (1997), *available at* https://www.congress.gov/congressional-report/105th-congress/executive-report/5/1 (discussing the Canada Protocol and Mexico Protocol together in the same document).

advised by the Senate on October 23, 1997 and ratified by the President September 9, 1999.[58] In both cases, the Secretary of State advised that no additional statutory authority was required to implement the protocols,[59] and none was adopted.[60]

**e. Additional Legislative Developments**

Separately from implementation of the United States' treaty responsibilities, in 1960 Congress amended the MBTA to make the taking of any migratory bird with the intent to sell or barter such bird, to sell or barter any migratory bird, or to attempt to do the same a felony, punishable by a fine of up to $2,000 and/or imprisonment of up to two years.[61] Congress also provided for the forfeiture of all "guns, traps, nets and other equipment, vessels, vehicles, and other means of transportation used by any person" when violating the MBTA with the intent to offer for sale or barter any such migratory bird.[62]

Over the next several decades, Congress made several revisions to the MBTA in response to judicial decisions. In 1985, the Court of Appeals for the Sixth Circuit in an appeal of the dismissal of an MBTA indictment held that the felony provision adopted in 1960 was an unconstitutional violation of the defendant's due process rights.[63] As a result, Congress amended the felony provision, limiting it only to "knowing" violations.[64]

In 2002, the district court for the District of Columbia held that live-fire military training exercises that unintentionally killed migratory birds within the training area violated the

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[58] *See* CHRISTIAN L. WIKTOR, TREATIES SUBMITTED TO THE UNITED STATES SENATE: LEGISLATIVE HISTORY, 1989-2004 at 172–74, 226–27, *available at* https://books.google.com/books?id=0IUBb901Uq8C&pg=PA226&lpg=PA226&dq=ratification+of+protocol+migratory+bird+and+game+treaty+with+mexico&source=bl&ots=kwIMRSkB28&sig=PmNXa6WM4PzbI7mtMbk7F_C2e4c&hl=en&sa=X&ved=0ahUKEwjO5-bh6LnWAhWJ24MKHZyjB_MQ6AEIVTAJ#v=onepage&q=ratification%20of%20protocol%20migratory%20bird%20and%20game%20treaty%20with%20mexico&f=false.

[59] Letter of Submittal from Warren Christopher, Secretary of State, to William J. Clinton, President (May 20, 1996), *reprinted in* S. Treaty Doc. No. 104-28 at ix ("No additional statutory authority would be required to implement the Protocol."); Letter of Submittal from Madeline Albright, Secretary of State, to William J. Clinton, President of the United States at VI (Aug. 27, 1997), *reprinted in* S. Treaty Doc. No. 105-26 at vi ("No additional statutory authority is required to implement the Mexico Protocol.").

[60] *See* WIKTOR, *supra* note 58 ("No additional statutory authority was required to implement the protocol.").

[61] Act of Sept. 8, 1960, Pub. L. No. 86-732, 74 Stat. 866.

[62] *Id.*

[63] *United States v. Wulff*, 758 F.2d 1121 (6th Cir. 1985).

[64] Emergency Wetlands Resources Act of 1986, Pub. L. No. 99-645, sec. 501, 100 Stat. 3582, 3590–91. Congress also subsequently eliminated strict liability for baiting, limiting the MBTA's ban on taking migratory birds with the aid of bait to instances where "the person knows or reasonably should know that the area is baited." *See* Migratory Bird Treaty Reform Act of 1998, Pub. L. No. 105-312, sec. 102(2), 112 Stat. 2956. This Act also increased the maximum fine for misdemeanor violations from $500 to $15,000. *Id.* § 103.

MBTA.[65] Following the court's ruling, Congress adopted legislation, though it was not an amendment of the MBTA itself, excluding "the incidental taking of a migratory bird by a member of the Armed Forces during a military-readiness activity authorized by the Secretary of Defense or the Secretary of the military department concerned" from the MBTA's restrictions on killing or taking migratory birds.[66]

## III. The Current State of the Law

### a. The Migratory Bird Treaty Act

Section 2 of the MBTA provides:

> Unless and except as permitted by regulations made as hereinafter provided, *it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill*, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, *any migratory bird, any part, nest, or egg of any such bird*, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916, the United States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936, the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972[,] and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976.[67]

U.S. Fish and Wildlife Service general wildlife regulations, promulgated to implement a number of statutes, including the MBTA, define the term "take" as: "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect."[68] For purposes of the MBTA, this definition subsumes a number of actions in the statute under the umbrella of "take."

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[65] *Ctr. for Biological Diversity v. Pirie*, 191 F. Supp. 2d 161 (D.D.C. 2002), *vacated on other grounds sub nom. Ctr. for Biological Diversity v. England*, 2003 App. LEXIS 1110 (D.C. Cir. 2003).

[66] Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, Div. A, Title III, § 315, 116 Stat. 2509 (2002), *reprinted in* 16 U.S.C.A. § 703, Historical and Statutory Notes; *see also* 50 C.F.R. § 21.15 (authorizing take incidental to military-readiness activities).

[67] 16 U.S.C. § 703 (2017) (emphasis added); *see also* 50 C.F.R. § 10.13 (list of applicable migratory birds).

[68] 50 C.F.R. § 10.12.

The phrase "incidental take" does not appear in either the MBTA or regulations implementing the Act. The U.S. Fish and Wildlife Service Manual provision issued in response to the now-withdrawn Opinion M-37041 defines "incidental take" as "take of migratory birds that directly and foreseeably results from, but is not the purpose of, an activity."[69] The manual further defines the term "kill" to include "any action that directly and foreseeably causes the death of a migratory bird where the death of the migratory bird is not the purpose of the action."[70] Due to the overlap of these definitions as they pertain to take, as used herein, the term "incidental take" refers to both takings and/or killings that directly and foreseeably result from, but are not the purpose of, an activity.[71]

Violations of the MBTA are criminal offenses. In general, violations of the MBTA are misdemeanor offenses, punishable by imprisonment of no more than six months, a fine of no more than $15,000, or both.[72] However, a felony offense arises by knowingly (1) taking a migratory bird with the intent to sell, offer to sell, or barter the bird, or (2) selling, offering to sell, bartering, or offering to barter a migratory bird; a felony is punishable by imprisonment for no more than two years, a fine of no more than $2,000, or both.[73] Taking a bird with the aid of bait if the person knows or reasonably should know that the area is baited is punishable by a fine, up to one year in prison, or both.[74] "All guns, traps, nets and other equipment, vessels, vehicles, and other means of transportation" used when violating the MBTA with the "intent to offer for sale, or sell, or offer for barter, or barter such bird" are to be forfeited to the United States.[75]

Courts have held that misdemeanor violations of the MBTA are strict-liability offenses.[76] Accordingly, if an action falls within the scope of the MBTA's prohibitions, it is a criminal

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[69] U.S. FISH AND WILDLIFE SERVICE MANUAL, part 720, ch. 3, *Incidental Take Prohibited Under the Migratory Bird Treaty Act* (Jan. 11, 2017).

[70] *Id.*

[71] This interpretation covers a nearly limitless range of otherwise lawful conduct as well as actions that may be crimes under other environmental statutes.

[72] 16 U.S.C. § 707(a).

[73] *Id.* § 707(b).

[74] *Id.* § 707(c).

[75] *Id.* § 707(d).

[76] *See, e.g.*, *United States v. CITGO Petroleum Corp.*, 801 F.3d 477, 488 (5th Cir. 2015) ("The act imposes strict liability on violators, punishable by a maximum $15,000 fine and six months imprisonment."); *United States v. Apollo Energies, Inc.*, 611 F.3d 679, 686 ("As a matter of statutory construction, the 'take' provision of the Act does not contain a scienter requirement."); *United States v. Boynton*, 63 F.3d 337, 343 (4th Cir. 1995) ("Since the inception of the Migratory Bird Treaty in the early part of this century, misdemeanor violations of the MBTA, including hunting in a baited area, have been interpreted by the majority of the courts as strict liability crimes, not requiring the government to prove any intent element."); *United States v. Engler*, 806 F.2d 425, 431 (3d Cir. 1986) ("Scienter is not an element of criminal liability under the Act's misdemeanor provisions."); *United States v. Catlett*, 747 F.2d 1102, 1104 (6th Cir. 1984) ("The majority view, and the view of this circuit, is that . . . the crime is a strict liability offense."). *But see United States v. Sylvester*, 848 F.2d 520, 522 (5th Cir. 1988) ("Unique among the

violation, regardless of whether the violator acted with intent. Felony violations, however, require knowledge.[77] As one court noted, "[l]ooking first at the language of the MBTA itself, it is clear that Congress intended to make the unlawful killing of even one bird an offense."[78] At times the Department of Justice has taken the position that the MBTA permits charges to be brought for each and every bird taken, notwithstanding whether multiple birds are killed via a single action or transaction.[79]

**b. Judicial Decisions Regarding Incidental Take**

This Opinion is not written on a blank legal slate. Beginning in the 1970s, federal prosecutors began filing criminal charges under the MBTA against persons, including oil, gas, timber, mining, and chemical companies, whose activities "incidentally" resulted in the death of migratory birds.[80] In response, courts have adopted different views on whether Section 2 of the MBTA prohibits incidental take, and, if so, to what extent. Courts of Appeals in the Second and Tenth Circuits, as well as district courts in at least the Ninth and District of Columbia Circuits, have held that the MBTA criminalizes some instances of incidental take, generally with some form of limiting construction. By contrast, Courts of Appeals in the Fifth, Eighth, and Ninth Circuits, as well as district courts in the Third and Seventh Circuits, have indicated that it does not.[81]

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Circuits, we require a minimum level of scienter as a necessary element for an offense under the MBTA."). As noted above, there is language in *CITGO* suggesting that the Fifth Circuit now considers the MBTA to be a strict-liability statute.

[77] *See* 16 U.S.C. § 707(b); *see also United States v. Wulff*, 758 F.2d 1121 (6th Cir. 1985).

[78] *United States v. Corbin Farm Serv.*, 444 F. Supp. 510, 529 (E.D. Cal. 1978), *aff'd*, 578 F.2d 259 (9th Cir. 1978).

[79] Robert S. Anderson & Jill Birchell, *Prosecuting Industrial Takings of Protected Avian Wildlife*, U.S. ATT'YS' BULL. July 2011, at 65, 68 ("Prosecutors and agents are often left to decide how many separate charges should be filed—one per bird, one per species, one per incident, one per site? Virtually all of these parsings have been used in past cases. *See, e.g.*, *United States v. Apollo Energies*, 611 F.3d 679, 683 (10th Cir. 2010) (one count per inspection that discovered dead birds); *United States v. Corbin Farm Services*, 578 F.2d 259, 260 (9th Cir. 1978) (one count per transaction that resulted in bird deaths); *United States v. FMC Corp.*, 572 F.2d 902, 903 (2d Cir. 1978) (one count per species per day); *United States v. Rogers*, 367 F.2d 998, 999 (8th Cir. 1966) (one count per day); *United States v. Fleet Management, Ltd.*, No. 3:08-CR-00160 (N.D. Cal. 2010) (one count per discharge); *United States v. Exxon Corp.*, No. A90-015 CR (D. Alaska Feb. 27, 1990); *United States v. Equity Corp.*, Cr. No. 75-51 (D. Utah Dec. 8, 1975) (one count per bird). Most of these cases are resolved by plea agreement, without litigation regarding the unit of prosecution."). *But see Corbin Farm Serv.*, 444 F. Supp. at 527–31 (E.D. Cal. 1978) (dismissing nine out of ten counts against the defendants on multiplicity grounds), *aff'd*, 578 F.2d 529 (9th Cir. 1978).

[80] Jesse Greenspan, *The Evolution of the Migratory Bird Treaty Act*, AUDUBON, May 22, 2015, *available at* http://www.audubon.org/news/the-evolution-migratory-bird-treaty-act; *see also United States v. FMC Corp.*, 572 F. 2d 902 (2d Cir. 1978); *Corbin Farm Serv.*, 444 F. Supp. 510.

[81] The Court of Appeals for the Ninth Circuit distinguished without explicitly overturning an earlier district court decision concerning incidental take.

### i. Courts Extending the MBTA to Include Incidental Take

Cases that have applied the MBTA to the incidental taking of migratory birds generally rely upon a combination of two courts of appeals and two district court cases, beginning with *United States v. FMC Corporation*. In *United States v. FMC Corporation*, the Second Circuit upheld a conviction of a corporation stemming from the death of a number of birds after coming into contact with water tainted by that corporation's manufacture of pesticides.[82] The court found that "[i]mposing strict liability on FMC in this case does not dictate that every death of a bird will result in imposing strict criminal liability on some party."[83] The court further stated that the application of criminal liability to all instances of incidental take "would offend reason and common sense."[84] Nevertheless, analogizing FMC's criminal liability under the MBTA to the imposition of strict liability for the manufacture of dangerous products in civil tort law,[85] the court reasoned that FMC violated the MBTA because it "engaged in an activity involving the manufacture of a highly toxic chemical; and FMC failed to prevent this chemical from escaping into the pond and killing birds."[86]

At about the same time, the Eastern District of California reached a similar result by applying the MBTA to the deaths of birds resulting from pesticides.[87] According to the court, "[w]hen dealing with pesticides, the public is put on notice that it should exercise care to prevent injury to the environment and to other persons."[88] The court went on to adopt a *de facto* negligence standard, noting "[i]f defendants acted with reasonable care or if they were powerless to prevent the violation, then a very different question would be presented."[89]

In *United States v. Moon Lake Electric Association, Inc.*, the federal district court for Colorado held that the MBTA extended beyond conduct associated with hunting and poaching to criminalize the deaths of birds resulting from contact with Moon Lake's power lines.[90] In doing so, the court acknowledged that "[w]hile prosecutors necessarily enjoy much discretion, proper construction of a criminal statute cannot depend upon the good will of those who must enforce it."[91] The court went on to identify "an important and inherent limiting feature of the MBTA's

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[82] 572 F.2d 902 (2d Cir. 1978).

[83] *Id.* at 908.

[84] *Id.* at 905.

[85] *Id.* at 907.

[86] *Id.* at 908.

[87] *Corbin Farm Serv.* 444 F. Supp. 510.

[88] *Id.* at 536.

[89] *Id.*

[90] 45 F. Supp. 2d 1070, (D. Colo. 1999).

[91] *Moon Lake*, 45 F. Supp. 2d at 1084.

misdemeanor provision: to obtain a guilty verdict under § 707(a), the government must prove proximate causation," where proximate cause "is generally defined as 'that which, in a natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury and without which the accident could not have happened, if the injury be one which might be *reasonably anticipated or foreseen as a natural consequence of the wrongful act*.'"[92]

The Tenth Circuit in *United States v. Apollo Energies, Inc.* followed a similar proximate-cause analysis in upholding a conviction under the MBTA for birds that were killed after becoming lodged in oil-drilling equipment.[93] According to the court, "[c]entral to all of the Supreme Court's cases on the due process constraints on criminal statutes is foreseeability – whether it is framed as a constitutional constraint on causation and mental state or whether it is framed as a presumption in statutory construction."[94] In context, the court clarified that "[w]hat is relevant . . . is what knowledge the defendants had or should have had of birds potentially dying in their heater-treaters."[95] Thus, for the court in *Apollo Energies*, incidental take is within the scope of the MBTA when defendants have or should have knowledge that their conduct may kill or injure migratory birds, and it does so.

### ii. Courts Limiting the MBTA to Exclude Incidental Take

Courts holding that the MBTA does not extend to incidental take generally trace their roots to the Ninth Circuit's ruling in *Seattle Audubon Society v. Evans.* The court in *Seattle Audubon* held that the MBTA did not criminalize the death of birds caused by habitat destruction.[96] According to the court, the regulatory definition of "take" "describes the physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918."[97] The court went on to compare "take" under the MBTA, and its applicable regulatory definition, with the broader statutory definition of "take" under the Endangered Species Act, which includes "harm":

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[92] *Id.* (quoting BLACK'S LAW DICTIONARY 1225 (6th ed. 1990)) (emphasis in original).

[93] 611 F.3d 679 (10th Cir. 2010). Prior to the court's ruling in *Apollo Energies*, at least one district court in the Tenth Circuit ruled that the MBTA did not apply to incidental take. In *United States v. Ray Westall Operating, Inc.*, 2009 U.S. Dist. LEXIS 130674 (D.N.M. 2009), the district court for the District of New Mexico held that the death of migratory birds resulting from contact with a pit containing overflow discharge from an oil-production site was not a criminal act under the MBTA. According to the court, "[t]here is no language in the MBTA expressly extending the prohibition against killing migratory birds to acts or omissions that are not directed at migratory birds but which may indirectly kill migratory birds." *Id.* at *17–18. Rather, the court found "that it is highly unlikely that Congress intended to impose criminal liability on every person that indirectly causes the death of a migratory bird" and concluded "that Congress intended to prohibit only conduct directed towards birds and did not intend to criminalize negligent acts or omissions that are not directed at birds, but which incidentally and proximately cause bird deaths." *Id.* at *19.

[94] *Apollo Energies*, 611 F.3d at 690 (citations omitted).

[95] *Id.* at 690 n.5.

[96] 952 F.2d 297, 303 (9th Cir. 1991).

[97] *Id.* at 302.

> We are not free to give words a different meaning than that which Congress and the Agencies charged with implementing congressional directives have historically given them . . . . Habitat destruction causes "harm" to the [birds] under the [Endangered Species Act] but does not "take" them within the meaning of the MBTA.[98]

The court further distinguished actions leading "indirectly" to the death of birds, such as habitat destruction, from actions that lead directly to the death of birds, such as exposing birds to a highly toxic pesticide, leaving open whether the law reaches the later conduct.[99]

Building upon *Seattle Audubon*, the district court in *Mahler v. United States Forest Service* held that the cutting of trees by the U.S. Forest Service that could destroy migratory bird nesting areas did not violate the MBTA,[100] ruling "[t]he MBTA was designed to forestall hunting of migratory birds and the sale of their parts" and "declin[ing] [the] invitation to extend the statute well beyond its language and the Congressional purpose behind its enactment."[101] In response to plaintiff's motion to alter or amend judgment, the court reaffirmed that the MBTA did not reach the Forest Service's activity, holding "[p]roperly interpreted, the MBTA applies to activities that are intended to harm birds or to exploit harm to birds, such as hunting and trapping, and trafficking in bird and bird parts. The MBTA does not apply to other activities that result in unintended deaths of migratory birds."[102]

The Eighth Circuit in *Newton County Wildlife Association v. United States Forest Service* likewise rejected a claim that the destruction of forests containing migratory birds violated the MBTA.[103] Citing to *Seattle Audubon* and *Mahler*, among other cases, the *Newton County* court held:

> [I]t would stretch this 1918 statute far beyond the bounds of reason to construe it as an absolute criminal prohibition on conduct, such as timber harvesting, that *indirectly* results in the death of migratory birds. Thus, we agree with the Ninth Circuit that the ambiguous terms "take" and "kill" in 16 U.S.C. § 703 mean "physical conduct of the sort engaged in by hunters and poachers . . . ."[104]

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[98] *Id.* at 303.

[99] *Id.* at 303 ("Courts have held that the Migratory Bird Treaty Act reaches as far as direct, though unintended, bird poisoning from toxic substances. . . . The reasoning of those cases is inapposite here. These cases do not suggest that habitat destruction, leading indirectly to bird deaths, amounts to the 'taking' of migratory birds within the meaning of the Migratory Bird Treaty Act.").

[100] 927 F. Supp. 1559 (S.D. Ind. 1996).

[101] *Id.*

[102] *Mahler v. United States Forest Service*, 927 F. Supp. 1559, 1579 (S.D. Ind. 1996).

[103] 113 F. 3d 110 (8th Cir. 1997).

[104] *Id.* at 115 (quoting *Seattle Audubon*, 952 F.2d at 302) (emphasis in original). Contemporaneously, *Newton County* was echoed by the district court for the Western District of Pennsylvania in *Curry v. United States Forest*

Following *Newton County* as "controlling precedent," the court in *United States v. Brigham Oil & Gas, L.P.* held that the MBTA did not impose criminal liability on an oil company for the deaths of several migratory birds after coming into contact with a "reserve pit."[105] In doing so, the *Brigham Oil* court concluded "as a matter of law, that lawful commercial activity which may indirectly cause the death of migratory birds does not constitute a federal crime."[106] In addition to relying on the *Newton County* decision, the court in *Brigham* examined the text of the MBTA, concluding that the text "refers to a purposeful attempt to possess wildlife through capture, not incidental or accidental taking through lawful commercial activity."[107] The court also noted that "to extend the Migratory Bird Treaty Act to reach other activities that indirectly result in the deaths of covered birds would yield absurd results,"[108] potentially criminalizing "driving, construction, airplane flights, farming, electricity and wind turbines . . . and many other everyday lawful activities."[109]

Most recently, the Fifth Circuit in *United States v. CITGO Petroleum Corporation* examined "the statute's text, its common law origin, a comparison with other statutes, and [a] rejection of the argument that strict liability can change the nature of the necessary illegal act" and "agree[d] with the Eighth and Ninth circuits that a 'taking' is limited to deliberate acts done directly and intentionally to migratory birds."[110] The court further noted that "[t]he scope of liability under the government's preferred interpretation is hard to overstate," and "would enable the government to prosecute at will and even capriciously (but for the minimal protection of prosecutorial discretion) for harsh penalties."[111] *CITGO* is the most recent decision on this topic and triggered the Department's further evaluation of the question.[112]

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*Service*, which ruled in the alternative that "the loss of migratory birds as a result of timber sales . . . do not constitute a 'taking' or 'killing' within the meaning of the MBTA." 988 F. Supp. 541, 549 (W.D. Penn. 1997).

[105] 840 F. Supp. 2d 1202 (D.N.D. 2012). A "reserve pit" is defined under state law as "an excavated area used to contain drill cuttings accumulated during oil and gas drilling operations and mud-laden oil and gas drilling fluids used to confine oil, gas, or water to its native strata during the drilling of an oil and gas well" and is subject to state regulation. *Id.* at 1204 (quoting N.D.C.C. § 38-08-02).

[106] *Id.* at 1214.

[107] *Id.* at 1209.

[108] *Id.* at 1212.

[109] *Id.* at 1213.

[110] 801 F.3d 477, 488–89 (5th Cir. 2015).

[111] *Id.* at 493–94.

[112] Some courts have suggested that the Eighth and Ninth Circuit decisions are limited to merely cases involving habitat destruction, rather than the direct taking or killing of birds, which could be viewed as "indirect take." *See Apollo Energies*, 611 F.3d at 686 (distinguishing the Eighth Circuit decision in *Newton Country* on the grounds that it involved logging that modified bird habitat in some way); *Moon Lake*, 45 F. Supp. 2d at 1075–76 (suggesting that the Ninth Circuit's ruling in *Seattle Audubon* may be limited to habitat modification or destruction). This limited interpretation seeks to cabin the Eighth and Ninth Circuit opinions to the narrow facts at issue in those cases, consistent with the government's own position that habitat destruction was not criminalized under the MBTA, while

## IV. Analysis of Incidental Take Under the MBTA

Based upon the text and purpose of the MBTA, as well as sound principles of constitutional avoidance, this memorandum concludes that the MBTA's prohibitions on pursuing, hunting, taking, capturing, killing, or attempting to do the same only criminalize affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs.

### a. The Relevant Text of the MBTA is Limited to Affirmative Actions that Have as their Purpose the Taking or Killing of Migratory Birds

The Supreme Court has counseled "[t]he starting point in statutory interpretation is 'the language [of the statute] itself.'"[113] Thus, consistent with the ancient maxim *a verbis legis non est recedendum* ("do not depart from the words of the law"), the text of the law is the necessary starting point to determine the scope of conduct prohibited by the MBTA.[114] As described below, the relevant text indicates that the MBTA only criminalizes purposeful and affirmative actions intended to reduce migratory birds to human control.

The relevant portion of the MBTA reads "it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill . . . any migratory bird, [or] any part, nest, or egg of any such bird."[115] Pursuant to the canon of *noscitur a sociis* ("it is known by its associates"), when any words "are associated in a context suggesting that the words have something in common, they should be assigned a permissible meaning that makes them similar."[116] Section 2 of the MBTA groups together five verbs—pursue, hunt, take,

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disregarding the broad language and logic of the legal interpretations compelling the disposition of each case. *See, e.g.*, *Newton County*, 113 F.3d at 115 ("[W]e agree with the Ninth Circuit that the ambiguous terms 'take' and 'kill' in 16 U.S.C. § 703 mean 'physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918.'" (citing to *Seattle Audubon*, 952 F.2d at 302)). The disposition of those cases led logically to the Fifth Circuit's decision in 2015 holding that the MBTA reaches only affirmative and purposeful acts. *CITGO*, 801 F.3d at 488–89 ("[W]e agree with the Eighth and Ninth circuits that a 'taking' is limited to deliberate acts done directly and intentionally to migratory birds."). The Fifth Circuit went on to interpret this limitation to preclude the application of the MBTA to the death of birds as a result of contact with uncovered equalization tanks. *Id.* at 493–94; *see also Brigham Oil*, 840 F. Supp. 2d at 1209, 1211 (noting that "[t]he Eighth Circuit found that the ambiguous terms 'take' and 'kill' mean 'physical conduct of the sort engaged in by hunters and poachers, conduct which was undoubtedly a concern at the time of the statute's enactment in 1918'" and was "controlling precedent" in case involving uncovered oil reserve pits).

[113] *United States v. James*, 478 U.S. 597, 604 (1986) (quoting *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 756 (1975) (Powell, H., concurring); *see also* Felix Frankfurter, *Some Reflections on the Reading of Statutes*, 47 COLUM L. REV. 527, 535 (1947) ("Though we may not end with the words in construing a disputed statute, one certainly begins there.").

[114] *See* ANTONIN SCALIA & BRYAN A. GARNER, READING THE LAW: THE INTERPRETATION OF LEGAL TEXTS 56 (2012) (quoting DIGEST 32.69 pr. (Marcellus)).

[115] 16 U.S.C. § 703(a) (2017) (emphasis added); *see also* 50 C.F.R. § 10.13 (list of applicable migratory birds).

[116] SCALIA & GARNER, *supra* note 114, at 195; *see also Third Nat'l Bank v. Impac, Ltd.*, 432 U.S. 312, 321 (1977) ("As always, '[t]he meaning of particular phrases must be determined in context' . . . ." (quoting *SEC v. Nat'l Sec.,*

capture, and kill. Accordingly, the canon of *noscitur a sociis* counsels in favor of reading each verb to have a related meaning.[117]

Of these five verbs, three—pursue, hunt, and capture—unambiguously require an affirmative and purposeful action. To wit, according to the first entry for each word in the 1934 edition of Webster's New International Dictionary of the English Language:

- Pursue means "[t]o follow with a view to overtake; to follow eagerly, or with haste; to chase."[118]
- Hunt means "[t]o follow or search for (game or prey) for the purpose, and with the means of capturing or killing;"[119]
- Capture means "[t]o take captive; to seize or take possession of by force, surprise, or stratagem; to overcome and hold; to secure by the exercise of effort, skill, or ingenuity against competition or opposition;"[120]

Thus, one does not passively or accidentally pursue, hunt, or capture. Rather, each requires a deliberate action specifically directed at achieving a purposeful goal.

By contrast, the verbs "kill" and "take" may refer to active or passive conduct, depending on the context.[121] When read together with the other active verbs in Section 2 of the MBTA,

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*Inc.*, 393 U.S. 453, 466 (1969)); *Babbitt v. Sweet Home Chapter of Cmtys. For a Greater Or.*, 515 U.S. 687, 720–21 (1995) (Scalia, J., dissenting) (referring to a similar list in the Endangered Species Act: "I would call it *noscitur a sociis*, but the principle is much the same: The fact that 'several items in a list share an attribute counsels in favor of interpreting the other items as possessing that attribute as well.'" (quoting *Beecham v. United States*, 511 U.S. 368, 371 (1994))).

[117] *See* SCALIA & GARNER, *supra* note 114, at 195 ("The canon especially holds that 'words grouped in a list should be given related meanings.'" (quoting *Third Nat'l Bank*, 432 U.S. at 322)).

[118] WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY at 2018-19 (1934). The 1934 edition is referenced because it is close in time to the adoption of the relevant language, and may provide greater insight into the commonly understood meaning of the terms at the time the MBTA was enacted. *See South Carolina v. United States*, 199 U.S. 437, 448 (1905) (The meaning of written instruments "does not alter. That which it meant when adopted it means now."). *See generally District of Columbia v. Heller*, 128 S. Ct. 2783, 2791-95 (2008) (examining 18th century dictionary definitions to assess the meaning of the phrase "keep and bear Arms" in the Second Amendment); *Molzof v. United States*, 502 U.S. 301, 307 (1992) (examining legal dictionaries in existence when the operative statute was drafted and enacted to interpret its meaning). *See also generally* SCALIA & GARNER, *supra* note 114, at 415–24 (2012) (describing principles for the use of dictionaries in statutory interpretation, noting that dictionaries are often lagging indicators of contemporary meaning); *id.* at 419 (identifying WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY (1934) as one of the "most useful and authoritative" sources "[a]mong contemporaneous-usage dictionaries—those that reflect meanings current at a given time").

[119] WEBSTER'S SECOND NEW INTERNATIONAL DICTIONARY at 1215 (1934).

[120] *Id.* at 400.

[121] *See id.* at 1362 ("kill" may mean the more active "to deprive of life; to put to death; to slay" or serve as "the general term for depriving of life"); *id.* at 2569 ("take" has many definitions, including the more passive "[t]o lay or

however, the proper meaning is evident. The operative verbs ("pursue, hunt, take, capture, kill") "are all affirmative acts . . . which are directed immediately and intentionally against a particular animal—not acts or omissions that indirectly and accidentally cause injury to a population of animals."[122] This conclusion is also supported by the U.S. Fish and Wildlife Service's implementing regulations, which define "take" to mean "to pursue, hunt, shoot, wound, kill, trap, capture, or collect" or attempt to do the same.[123] The component actions of "take" involve direct and purposeful actions to reduce animals to human control.[124] As such, they "reinforce[] the dictionary definition, and confirm[] that 'take' does not refer to accidental activity or the unintended results of other conduct."[125] This interpretation does not render the words "take" and "kill" redundant since each has its own discrete definition; indeed, one can hunt or pursue an animal without either killing it or taking it under the definitions relevant at the time the MBTA was enacted.[126]

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get hold of with arms, hands or fingers" or "[t]o get possession or control of" or the more active "[t]o catch, seize, or attack through the effect of a sudden force or influence").

[122] *Sweet Home*, 515 U.S. at 719–20 (Scalia, J., dissenting); *see also CITGO*, 801 F.3d at 489 n.10 ("Even if 'kill' does have independent meaning [from 'take'], the Supreme Court, interpreting a similar list in the [Endangered Species Act], concluded that the terms pursue, hunt, shoot, wound, kill, trap, capture, and collect, generally refer to deliberate actions. *Sweet Home*, 515 U.S. at 698 n.11, 115 S. Ct. at 2413. Accordingly, there is reason to think that the MBTA's prohibition on 'killing' is similarly limited to deliberate acts that effect bird deaths."); *Newton County*, 113 F.3d at 115 ("MBTA's plain language prohibits conduct directed at migratory birds . . . . [T]he ambiguous terms 'take' and 'kill' in 16 U.S.C. § 703 mean 'physical conduct of the sort engaged in by hunters and poachers . . . .'" (quoting *Seattle Audubon*, 952 F.2d at 302)); *Bingham Oil & Gas*, 840 F. Supp. 2d at 1208 ("In the context of the Act, 'take' refers to conduct directed at birds, such as hunting and poaching, and not acts or omissions having merely the incidental or unintended effect of causing bird deaths.").

[123] 50 C.F.R. § 10.12.

[124] In this same regard, the U.S. Fish and Wildlife Service's *Federal Register* notice adopting the current definition of "take" includes "Subpart C – Taking," which consists of four regulations addressing:

- Hunting methods;
- Shooting hours;
- Daily limit; and
- Wanton waste of migratory game birds (requiring hunters to make a reasonable effort to include crippled game birds in their daily bag limit).

Migratory Bird Hunting: Miscellaneous Amendments, 38 Fed. Reg. 22015, 22022 (Aug. 15, 1973). Notably, these regulations make no mention of incidental take, even though they were adopted the same year the government brought the known first criminal case alleging incidental take violated the MBTA. *See id.*; Meredith B. Lilley & Jeremy Firestone, *Wind Power, Wildlife, and the Migratory Bird Treaty: A Way Forward*, 38 ENVTL. L. 1167, 1181 (2008) ("In the early 1970s, United States v. Union Texas Petroleum [No, 73-CR-127 (D. Colo. Jul. 11, 1973)] marked the first case dealing with the issue of incidental take.").

[125] *Brigham Oil & Gas*, 840 F. Supp. 2d at 1209.

[126] The regulations governing exceptions to the prohibition contemplate permits for an array of activities that are affirmative and purposeful actions directed at protected birds, such as permits allowing for control of injurious birds,

Furthermore, the notion that "take" refers to an affirmative action directed immediately and purposefully against a particular animal is supported by the use of the word "take" in the common law. As the Supreme Court has instructed, "absent contrary indications, Congress intends to adopt the common law definition of statutory terms."[127] As Justice Scalia noted, "the term ['take'] is as old as the law itself."[128] For example, the Digest of Justinian places "take" squarely in the context of acquiring dominion over wild animals, stating:

> [A]ll the animals which can be taken upon the earth, in the sea, or in the air, that is to say, wild animals, belong to those who take them. . . . Because that which belongs to nobody is acquired by the natural law by the person who first possesses it. We do not distinguish the acquisition of these wild beasts and birds by whether one has captured them on his own property [or] on the property of another; but he who wishes to enter into the property of another to hunt can be readily prevented if the owner knows his purpose to do so.[129]

Likewise, Blackstone's Commentaries provide:

> A man may lastly have a qualified property in animals feroe naturoe, propter privilegium, that is, he may have the privilege of hunting, taking and killing them in exclusion of other persons. Here he has a transient property in these animals usually called game so long as they continue within his liberty, and may restrain any stranger from taking them therein; but the instant they depart into another liberty, this qualified property ceases.[130]

Thus, under common law "[t]o 'take,' when applied to wild animals, means to reduce those animals, by killing or capturing, to human control."[131] When used as part of a regulatory plan,

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scientific collecting permits, and rehabilitation permits—all activities well within the scope of Section 2. 50 C.F.R. part 21.

[127] *United States v. Shabani*, 513 U.S. 10, 13 (1994). The fact that Congress in other statutes later expanded "take" beyond its common-law meaning confirms that Congress intended to adopt the common-law definition for the MBTA. *See, e.g.*, 16 U.S.C. § 1532(19) (defining "take" under the Endangered Species Act (ESA) to include the terms "harass" and "harm"); 16 U.S.C. § 1362(13) (defining "take" under the Marine Mammal Protection Act (MMPA) to include the term "harass"); *see also Sweet Home*, 515 U.S. at 701 n.15 (suggesting that the definition of "take" in the ESA is broader than the definition of "take" at common law); *Seattle Audubon*, 952 F.2d at 303 (holding "that the differences in the proscribed conduct under ESA and the MBTA are 'distinct and purposeful,'" and that prohibitions under the ESA are broader than those under the MBTA).

[128] *Sweet Home*, 515 U.S. at 717 (Scalia, J., dissenting).

[129] *Geer v. Connecticut*, 161 U.S. 519, 523 (1896) (quoting DIGEST, Book 41, Tit. 1, De Adquir. Rer. Dom.).

[130] *Id.* at 526–27 (1896) (quoting 2 BLACKSTONE COMMENTARY 410).

[131] *Sweet Home*, 515 U.S. at 717 (Scalia, J., dissenting); *see also CITGO*, 801 F.3d at 489 ("Justice Scalia's discussion of 'take' as used in the Endangered Species Act is not challenged here by the government, nor was it criticized by the majority in *Sweet Home*, because Congress gave 'take' a broader meaning for that statute.").

such as that in Section 2 of the MBTA, "[t]he taking prohibition is only part of the regulatory plan . . . which covers all stages of the process by which protected wildlife is reduced to man's dominion and made the object of profit," and, as such, is "a term of art deeply embedded in the statutory and common law concerning wildlife" that "describes a class of acts (not omissions) done directly and intentionally (not indirectly and by accident) to particular animals (not populations of animals)."[132]

A number of courts, as well as the prior M-Opinion, have focused on the MBTA's direction that a prohibited act can occur "at any time, by any means, in any manner" to support the conclusion that the statute prohibits any activity that results in the death of a bird, which would necessarily include incidental take. However, this language does not change the nature of those prohibited acts and simply clarifies that activities directed at migratory birds, such as hunting and poaching, are prohibited whenever and wherever they occur and whatever manner is applied, be it a shotgun, a bow, or some other creative approach to deliberately taking birds.[133]

**b. Interpreting Strict Liability as Dispositive Conflates *Mens Rea* and *Actus Rea***

In reaching a contrary conclusion, Opinion M-37041 assumed that because Section 703 is a strict-liability provision, meaning that no *mens rea* or criminal intent is required for a violation to have taken place, *any* act that takes or kills a bird must be covered as long as the act results in the death of a bird. This assumption conflates two separate questions: (1) the definitions of the prohibited acts—arrived at using traditional tools of statutory construction; and (2) the mental state, or lack thereof, required to establish a violation. The relevant acts prohibited by the MBTA are purposeful and voluntary affirmative acts directed at reducing an animal to human control, such as when a hunter shoots a protected bird causing its death. In this example, strict liability would arise even though the hunter did not know that the bird he took was protected under the MBTA or if the hunter shot protected birds when meaning to shoot game birds under a permit. The key remains that the actor was engaged in an activity the object of which was to render an animal subject to human control.[134]

By contrast, liability does not attach to actions the plain object of which does not include rendering an animal subject to human control. Classic examples of such actions include: driving

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[132] *Sweet Home*, 515 U.S. at 718 (Scalia, J., dissenting). We note that this language makes clear that the sort of "human control" referred to by Justice Scalia includes the act of intentionally killing even in the absence of further intent to reduce the particular animal to human *possession*. Thus, intentional killing is itself a form of "human control."

[133] *See generally CITGO*, 801 F.3d at 490 ("The addition of adverbial phrases connoting 'means' and 'manner,' however, does not serve to transform the nature of the activities themselves. For instance, the manner and means of hunting may differ from bowhunting to rifles, shotguns, and air rifles, but hunting is still a deliberately conducted activity. Likewise, rendering all-inclusive the manner and means of 'taking' migratory birds does not change what 'take' means, it merely modifies the mode of take.").

[134] *See* WAYNE R. LAFAVE, CRIMINAL LAW 5.2(e) (5th ed. 2010) ("[W]here the definition of a crime requires some forbidden act by the defendant, his bodily movement, to qualify as an act, must be voluntary. To some extent, then, *all crimes of affirmative action require something in the way of a mental element*—at least an intention to make the bodily movement that constitutes the act which the crime requires.") (emphasis added) (citations omitted). Thus, even strict-liability crimes may involve some element of intent.

a car, allowing a pet cat to roam outdoors, or erecting a windowed building. All of these actions could directly and foreseeably result in the deaths of protected birds, and all would be violations of the MBTA under the now-withdrawn M-Opinion, yet none of these actions have as their object rendering any animal subject to human control. Because no "take" has occurred within the meaning of the MBTA, the strict-liability provisions of the Act are not triggered. A comparison with other strict-liability crimes underscores this point. For example, selling alcohol to minors is generally a strict-liability crime—no *mens rea* is required to establish a violation and a crime is committed even if the seller did not know that the buyer was underage. This is true despite the fact that the act itself, the selling of alcohol, is an affirmative and purposeful act that requires a voluntary intentional act.

The prior M-Opinion posited that amendments to the MBT A that imposed mental state requirements for certain specific offenses were only necessary if no mental state is otherwise required. Again, this mixes separate questions—the definition of the prohibited acts and the *mens rea*, if any. The conclusion that the taking and killing of migratory birds is a strict-liability crime does not answer the separate question of what acts are criminalized under the statute.

The Fifth Circuit explained in *CITGO*:

> [W]e disagree that because misdemeanor MBTA violations are strict liability crimes, a "take" includes acts (or omissions) that indirectly or accidentally kill migratory birds. These and like decisions confuse the *mens rea* and the *actus rea* requirements. Strict liability crimes dispense with the first requirement; the government need not prove the defendant had any criminal intent. But a defendant must still commit the act to be liable. Further, criminal law requires that the defendant commit the act voluntarily. WAYNE R. LAFAVE, CRIMINAL LAW § 5.2(e) (5th ed. 2010). "To some extent, then, all crimes of affirmative action require something in the way of a mental element—at least an intention to make the bodily movement that constitutes that act which the crime requires." *Id.* Here, that act is "to take" which, even without a *mens rea*, is not something that is done unknowingly or involuntarily. Accordingly, requiring defendants, as an element of an MBTA misdemeanor crime, to take an affirmative action to cause migratory bird deaths is consistent with the imposition of strict liability. *See, e.g.*, *United States v. Morgan*, 311 F.3d 611, 616 (5th Cir. 2002).
>
> There is no doubt that a hunter who shoots a migratory bird without a permit in the mistaken belief that it is not a migratory bird may be strictly liable for a "taking" under the MBTA because he engaged in an intentional and deliberate act toward the bird. *Cf. Sweet Home*, 515 U.S. at 722, 115 S. Ct. at 2425 (Scalia, J., dissenting) (hunter's mistaken shooting of an elk is a "knowing" act that renders him strictly liable under the ESA); *United States v. Kapp*, 419 F.3d 666, 673 (7th Cir. 2005) (holding Kapp liable under the ESA over objection that the exotic cats he killed were unprotected hybrids). A person whose car accidentally collided with the bird, however, has committed no act "taking" the bird for which he could be held strictly liable. Nor do the owners of electrical lines "take" migratory birds who run into them. These distinctions are inherent in

> the nature of the word "taking" and reveal the strict liability argument as a non-sequitur.[135]

The *Mahler* court further described the interplay between activities that are "intended" to harm birds and the strict liability standard of the MBTA:

> [A comment in the legislative history] in favor of strict liability does not show any intention on the part of Congress to extend the scope of the MBTA beyond hunting, trapping, poaching, and trading in birds and bird parts to reach any and all human activity that might cause the death of a migratory bird. Those who engage in such activity and who accidentally kill a protected migratory bird or who violate the limits on their permits may be charged with misdemeanors without proof of intent to kill a *protected* bird or intent to violate the terms of a permit. That does not mean, however, that Congress intended for "strict liability" to apply to all forms of human activity, such as cutting a tree, mowing a hayfield, or flying a plane. The 1986 amendment and corresponding legislative history reveal only an intention to close a loophole that might prevent felony prosecutions for commercial trafficking in migratory birds and their parts.
>
> Thus, there appears to be no explicit basis in the language or the development of the MBTA for concluding that it was intended to be applied to any and all human activity that causes even unintentional deaths of migratory birds.[136]

The use of the words "affirmative" and "purposeful" serve to limit the range of actions prohibited under the MBTA to activities akin to hunting and trapping and exclude more attenuated conduct, such as lawful commercial activity that unintentionally and indirectly results in the death of migratory birds.

**c. The Legislative History Is Limited to Discussion of Affirmative Actions that Have as their Purpose the Taking or Killing of Migratory Birds**

**i. The Original Purpose of the MBTA was to Regulate Overhunting**

Even if the text of the statute were ambiguous, the history of the MBTA and the debate surrounding its adoption illustrate that the Act was part of Congress's efforts to regulate the hunting of migratory birds in direct response to the extreme over-hunting, largely for commercial purposes, that had occurred over the years.[137] Testimony concerning the MBTA given by the Solicitor's Office for the Department of Agriculture underscores this focus:

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[135] 801 F.3d at 492–93 (footnotes omitted).

[136] *Mahler*, 927 F. Supp. at 1581 (referencing S. REP. NO. 99-445, at 16 (1986), *reprinted* in 1986 U.S.C.C.A.N. 6113, 6128).

[137] *See Moon Lake*, 45 F. Supp. 2d at 1080 ("the MBTA's legislative history indicates that Congress intended to regulate recreational and commercial hunting"); *Mahler*, 927 F. Supp. at 1574 ("The MBTA was designed to forestall hunting of migratory birds and the sale of their parts.").

> We people down here hunt [migratory birds]. The Canadians reasonably want some assurances from the United States that if they let those birds rear their young up there and come down here, we will preserve a sufficient supply to permit them to go back there.[138]

Likewise, the Chief of the Department of Agriculture's Bureau of Biological Survey noted that he "ha[s] always had the idea that [passenger pigeons] were destroyed by overhunting, being killed for food and for sport."[139]

Statements from individual Congressmen evince a similar focus on hunting. Senator Smith, "who introduced and championed the Act . . . in the Senate,"[140] explained:

> Nobody is trying to do anything here except to keep pothunters from killing game out of season, ruining the eggs of nesting birds, and ruining the country by it. Enough birds will keep every insect off of every tree in America, and if you will quit shooting them they will do it.[141]

Likewise, during hearings of the House Foreign Affairs Committee, Congressman Miller, a "vigorous fighter, who distinguished himself in the debate" over the MBTA,[142] put the MBTA squarely and exclusively in the context of hunting:

> I want to assure you . . . that I am heartily in sympathy with this legislation. I want it to go through, because I am up there every fall, and I know what the trouble is. The trouble is in shooting the ducks in Louisiana, Arkansas, and Texas in the summer time, and also killing them when they are nesting up in Canada.[143]

Outside interest groups also expressed a more specific view of the MBTA. For example, the American Game Preservation Association described the 1916 Migratory Bird Treaty as "an important part of federal law" that:

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[138] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 22–23 (1917) (statement of R.W. Williams, Solicitor's Office, Department of Agriculture).

[139] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 11 (1917) (statement of E. W. Nelson, Chief Bureau of Biological Survey, Department of Agriculture).

[140] *Leaders in Recent Successful Fight for the Migratory Bird Treaty Act*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, July 1918, at 5.

[141] 55 CONG. REC. 4816 (statement of Sen. Smith) (1917).

[142] *Leaders in Recent Successful Fight for the Migratory Bird Treaty Act*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, July 1918, at 5.

[143] *Protection of Migratory Birds: Hearing on H.R. 20080 Before the House Comm. on Foreign Affairs*, 64th Cong. 7 (1917) (statement of Rep. Miller).

> [P]rovides in effect four principal things:
>
> 1. That no bird important to agriculture because of insect-destroying proclivities shall be shot at any time.
> 2. That no open season on any species of game birds shall extend for a longer period than three and one-half months.
> 3. That both countries shall so restrict open seasons on game birds as to prevent their being taken during the breeding season.
> 4. That there shall be no shipment from one country to the other of birds which are taken contrary to law.[144]

Upon passage of the MBTA, the American Game Preservation Association noted that "[t]he Enabling Act closely follows the provisions of the treaty."[145] Thus, since, as described by the American Game Preservation Association, the Migratory Bird Treaty only regulated hunting and the shipment of birds from one country to another and the MBTA "closely follow[ed]" the treaty, it follows that the MBTA itself was also limited to regulating hunting and the shipment of birds.

In seeking to take a broader view of congressional purpose, the *Moon Lake* court looked to other contemporary statements that cited the destruction of habitat, along with improvements in firearms, as a cause of the decline in migratory bird populations. The court even suggested that these statements, which "anticipated application of the MBTA to children who act 'through inadvertence' or 'through accident,'" supported a broader reading of the legislative history.[146] Upon closer examination, these statements are consistent with a limited reading of the MBTA.

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[144] *Success Crowns the Canadian Treaty Campaign*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, Oct. 1, 1916, at 1.

[145] William Haskell, *Invincible Legislation*, BULLETIN – THE AMERICAN GAME PROTECTIVE ASSOCIATION, July 1918, at 4.

[146] *Moon Lake*, 45 F. Supp. 2d at 1080–81. The court also noted that "the MBTA protects many species that are not considered game birds" and that "[m]any Congressmen also suggested that the true purpose of the MBTA was a desire to maintain a steady supply of game animals for the upper classes." *Id.* at 1081–82. These arguments are also unavailing.

The extension of the MBTA to birds that are not considered "game" birds does not suggest a broader reading of the MBTA. Plume birds are often not game birds. *See* KRISTINA ROZAN, DETAILED DISCUSSION ON THE MIGRATORY BIRD TREATY ACT, Animal Legal & Historical Ctr., Mich. St. Univ. Coll. of Law (2014), https://www.animallaw.info/article/detailed-discussion-migratory-bird-treaty-act. ("The MBTA was passed in 1918 to combat over-hunting and poaching that was decimating bird populations. At that time, the market for birds was dominated by the enormous demand not for food but for feathers by the millinery industry to adorn women's hats."). *See generally* Ogden, *supra* note 6, at 5–6 (discussing the plume trade). Given that one of the major purposes of the MBTA was to limit the danger to migratory birds posed by the commercial plume hunting industry, it would make no sense for Congress to have limited the MBTA to just game birds.

The court also cited to floor statements indicating that "[m]any Congressmen also suggested that the true purpose of the MBTA was a desire to maintain a steady supply of game animals for the upper classes." *Moon Lake*, 45 F. Supp. 2d at 1082. This argument was primarily advanced by opponents of the bill, and does not have clear implications one way or the other for the scope of conduct within the ambit of the MBTA.

One such contemporary statement cited by the court is a letter from Secretary of State Robert Lansing to the President attributing the decrease in migratory bird populations to two general issues:

- Habitat destruction, described generally as "the extension of agriculture, and particularly the draining on a large scale of swamps and meadows;"[147] and

- Hunting, described in terms of "improved firearms and a vast increase in the number of sportsmen."[148]

These statements were referenced by Representative Baker during the House floor debate over the MBTA, implying that the MBTA was intended to address both issues.[149] However, Congress addressed hunting and habitat destruction in the context of the Migratory Bird Treaty through two separate acts:

- First, in 1918, Congress adopted the MBTA to address the direct and intentionally killing of migratory birds;

- Second, in 1929, Congress adopted the Migratory Bird Conservation Act to "more effectively" implement the Migratory Bird Treaty by protecting certain migratory bird habitats.[150]

The Migratory Bird Conservation Act provided the authority to purchase or rent land for the conservation of migratory birds, including for the establishment of inviolate "sanctuaries" wherein migratory bird habitats would be protected from persons "cut[ting], burn[ing], or destroy[ing] any timber, grass, or other natural growth."[151] If the MBTA was originally understood to protect migratory bird habitats from incidental destruction, enactment of the Migratory Bird Conservation Act nine years later would have been largely superfluous. Instead, the MBTA and the Migratory Bird Conservation Act are complimentary: "Together, the Treaty Act in regulating hunting and possession and the Conservation Act by establishing sanctuaries and preserving natural waterfowl habitat help implement our national commitment to the protection of migratory birds."[152]

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[147] *Moon Lake*, 45 F. Supp. 2d at 1080–81 (quoting H. REP. NO. 65-243, at 2 (1918) (letter from Secretary of State Robert Lansing to the President)).

[148] *Id.* at 1081 (quoting H. REP. NO. 65-243, at 2 (1918) (letter from Secretary of State Robert Lansing to the President)).

[149] *Id.*

[150] Migratory Bird Conservation Act, ch, 257, 45 Stat. 1222 (1929) (codified as amended at 16 U.S.C. §§ 715–715s).

[151] *Id.* § 10, 45 Stat. at 1224. Congress also enacted the Neotropical Migratory Bird Conservation Act of 2000 to specifically provide funding for nongame migratory bird conservation. *See* 16 U.S.C. §§ 6101–6109.

[152] *United States v. North Dakota*, 650 F.2d 911, 913–14 (8th Cir. 1981), *aff'd on other grounds*, 460 U.S. 300 (1983).

Some courts have attempted to interpret a number of floor statements as supporting the notion that Congress intended the MBTA to regulate more than just hunting and poaching, but those statements reflect an intention to prohibit affirmative and purposeful acts directed at birds—whether accomplished through hunting or some other means intended to directly kill birds. For example, some Members "anticipated application of the MBTA to children who act 'through inadvertence' or 'through accident:'"

> What are you going to do in a case like this: A barefoot boy, as barefoot boys sometimes do, largely through inadvertence and without meaning anything wrong, happens to throw a stone at and strikes and injures a robin's nest and breaks one of the eggs, whereupon he is hauled before a court for violation of a solemn treaty entered into between the United States of America and the Provinces of Canada.[153]

"[I]nadvertence" in this statement refers to the boy's *mens rea*. As the rest of the sentence clarifies, the hypothetical boy acted "without *meaning* anything wrong," not that he acted unintentionally or accidentally in damaging the robin's nest. This is reinforced by the rest of the hypothetical, which posits that the boy threw "a stone *at* and strikes and injures a robin's nest." The underlying act is purposeful and affirmatively directed specifically at the robin's nest.[154] In other statements various members of Congress expressed concern about "sportsmen," people "killing" birds, "shooting" of game birds or "destruction" of insectivorous birds, and whether the purpose of the MBTA was to favor a steady supply of "game animals for the upper classes."[155] One Member of Congress even offered a statement that explains why the statute is not redundant in its use of the various terms to explain what activities are regulated: "[T]hey cannot hunt ducks in Indiana in the fall, because they cannot kill them. I have never been able to see why you cannot hunt, whether you kill or not. There is no embargo on hunting, at least down in South Carolina . . . .'"[156] That Congress was animated regarding potential restrictions on hunting and

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[153] *Moon Lake*, 45 F. Supp. 2d at 1081 (quoting 56 CONG. REC. 7455 (1918) (statement of Rep. Mondell)).

[154] A fuller examination of the context shows that these concerns were dismissed as absurd hyperbole:

> I can not see why we should take two whole days in summoning bogies from the depths, in seeing fantastic dreams of the liberties of the Republic sacrificed because of the fact that we are enacting a migratory-bird law. Gentlemen conjure up the idea that a bureaucracy will be created, and that every innocent boy who goes out to play upon the streets and breaks a bird's egg through accident is to be haled 500 miles away and punished as if he were committing an offense of the highest degree, and with all the rigors of the criminal law. Gentlemen, to imagine such things as that and to spend time in talking about them here would be bad enough if it were done in sport. It is worse when it is seriously suggested.

56 CONG. REC. 7456 (1918) (statement of Rep. Dempsey). Far from "anticipating the application of the MBTA to children who act 'through inadvertence' or 'through accident,'" Representative Dempsey was dismissing such applications as "fantastic dreams" that need not be "seriously suggested."

[155] *Moon Lake*, 45 F. Supp. 2d at 1080–81.

[156] *Id.* at 1081 (quoting 56 Cong. Rec. 7446 (1918) (statement of Rep. Stevenson)).

its impact on individual hunters is evident from even the statements relied upon as support for the conclusion that the statute reaches incidental take.

Finally, in 1918, federal regulation of the hunting of wild birds was a highly controversial and legally fraught subject. Taken together with the history of the Act, these factors make it highly unlikely that the MBTA was intended to criminalize a broad array of conduct that might incidentally take or kill birds. For example, on the floor of the Senate, Senator Reed proclaimed:

> I am opposed not only now in reference to this bill [the MBTA], but I am opposed as a general proposition to conferring power of that kind upon an agent of the Government. . . .
>
> . . . .
>
> . . . Section 3 proposes to turn these powers over to the Secretary of Agriculture . . . to make it a crime for a man to shoot game on his own farm or to make it perfectly legal to shoot it on his own farm . . . .
>
> When a Secretary of Agriculture does a thing of that kind I have no hesitancy in saying that he is doing a thing that is utterly indefensible, and that the Secretary of Agriculture who does it ought to be driven from office. . . .[157]

Federal regulation of hunting was also legally tenuous. As discussed in section II(a), whether the federal government had any authority to regulate the killing or taking of any wild animal was, at best, an open question in 1918. Just over 20 years earlier, the Supreme Court in *Geer* ruled that the states exercised the power of ownership over wild game in trust, implicitly precluding federal regulation.[158] When Congress did attempt to assert a degree of federal jurisdiction over wild game with the 1913 Weeks-McLean Law, it was met with mixed results in the courts, leaving the question pending before the Supreme Court at the time of the MBTA's enactment. It was not until *Missouri v. Holland* in 1920 that the Court, relying on authority derived from the Migratory Bird Treaty, definitively acknowledged the federal government's ability to regulate the taking of wild birds.[159]

Given the legal uncertainty and political controversy surrounding federal regulation of intentional hunting, it is highly unlikely that Congress intended to confer authority upon the executive branch to regulate all manner of economic activity that had an accidental or unintended impact on migratory birds.

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[157] 55 CONG. REC. 4813 (1917) (statement of Sen. Reed).

[158] *Geer v. Connecticut*, 161 U.S. 519 (1896).

[159] 252 U.S. 416 (1920). We note that the reason behind this decision has remained controversial. *See, e.g.*, *Bond v. United States*, 134 S. Ct. 2077, 2109 (2014) (Thomas, J., concurring) (noting that the court in *Holland* "upheld a statute implementing [the Migratory Bird] treaty based on an improperly broad view of the Necessary and Proper Clause").

### ii. The Original Meaning of the MBTA Has Not Changed

Subsequent legislative history further supports a limited interpretation of the MBTA. General canons of statutory construct direct that "[w]ords must be given the meaning they had when the text was adopted."[160] The meaning of written instruments "does not alter. That which it meant when adopted it means now."[161]

The operative language in Section 2 of the MBTA has changed little since its adoption in 1918. The current iteration of the relevant language—making it unlawful for persons "at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess" specific migratory birds—was adopted in 1935 as part of the Mexico Treaty Act and has remained unchanged since then.[162] There is no indication that the Mexico Treaty Act was intended to broaden the scope of the MBTA beyond deliberate and purposeful actions, nor was it used to do so at the time.

It was not until more than fifty years after the initial adoption of the MBTA and twenty-five years after the Mexico Treaty Act that federal prosecutors began applying the MBTA to incidental actions.[163] This newfound federal authority was not accompanied by any corresponding legislative change. The only contemporaneous changes to Section 2 of the MBTA were technical updates recognizing the adoption of a treaty with Japan.[164]

Opinion M-37041 posits that broad language in the later conventions aspiring to preservation of bird populations, protection of their environments, and protection from pollution lends credence to the conclusion that the MBTA prohibits incidental take. However, the historical record is bereft of any discussion of specific protective mechanisms beyond regulation of hunting and preservation of habitat.[165] Furthermore, no changes were made to the section of

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[160] SCALIA & GARNER, *supra* note 114 at 78. Scalia and Garner note a caveat: "Proper application of the fixed-meaning canon requires recognition of the fact that some statutory terms refer to defined legal qualifications whose definitions are, and are understood to be, subject to change." *Id.* at 89. In the MBTA, the term "migratory bird" is an example of a legal qualification whose definition is understood to be subject to change. The terms "pursue," "hunt," "capture," "kill," and "take" are not.

[161] *South Carolina v. United States*, 199 U.S. 437, 448 (1905).

[162] *Compare* Mexico Treaty Act, 49 Stat. 1555, § 3 *with* 16 U.S.C. § 703(a).

[163] *See* Lilley & Firestone, *supra* note 124, at 1181 ("In the early 1970s, United States v. Union Texas Petroleum [No, 73-CR-127 (D. Colo. Jul. 11, 1973)] marked the first case dealing with the issue of incidental take.").

[164] *See* Act of June 1, 1974, Pub. L. No. 93-300, 88 Stat. 190. Implementing legislation for the treaty with the Soviet Union did not amend Section 2. *See* Fish and Wildlife Improvement Act of 1978, Pub. L. No. 95-616, sec. 3(h), 92 Stat. 3110.

[165] In 2008, Canada stated in a diplomatic note to the United States that the parties agreed that regulation of incidental take is consistent with the Canada Convention. *See* Note No. 0005 from Canadian Embassy to United States Department of State at 2 (July 2, 2008). The United States did not respond. The fact that Canada may view regulation of incidental take as consistent with the Canada Convention says nothing about the legal definition of the terms in the MBTA under United States law.

the MBTA at issue here following the later conventions except that the Act was modified to include references to these later agreements. Certainly many other federal laws may require consideration of potential impacts to birds and their habitat in a way that furthers the goals of the Conventions' broad statements.[166] Given the overwhelming evidence that the purpose of the Treaty and Act was to control over-hunting, these references do not bear the weight of the conclusion reached by the prior Opinion.

Thus, the only legislative enactment concerning incidental activity under the MBTA is the 2003 appropriations bill that explicitly exempted military-readiness activities from liability under the MBTA for incidental takings.[167] There is nothing in this legislation that authorizes the government to pursue incidental takings charges in other contexts. Rather, some have "argue[d] that Congress expanded the definition of 'take' by negative implication" since "[t]he exemption did not extend to the 'operation of industrial facilities,' even though the government had previously prosecuted activities that indirectly affect birds."[168]

This argument is contrary to the Court's admonition that "Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes."[169] As explained above, the MBTA as originally enacted did not reach incidental take. Thus, Congress would have to affirmatively act to expand the reach of the MBTA.

As the Fifth Circuit explained, "[a] single carve-out from the law cannot mean that the entire coverage of the MBTA was implicitly and hugely expanded."[170] Rather, it appears Congress was acting in a limited fashion to preempt a specific and immediate impediment to military-readiness activities. "Whether Congress deliberately avoided more broadly changing the MBTA or simply chose to address a discrete problem, the most that can be said is that Congress did no more than the plain text of the amendment means."[171] It did not hide the

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[166] *See, e.g.*, *Mahler*, 927 F. Supp. at 1581 ("Many other statutes enacted in the intervening years also counsel against reading the MBTA to prohibit any and all migratory bird deaths resulting from logging activities in national forests. As is apparent from the record in this case, the Forest Service must comply with a myriad of statutory and regulatory requirements to authorize even the very modest type of salvage logging operation of a few acres of dead and dying trees at issue in this case. Those laws require the Forest Service to manage national forests so as to balance many competing goals, including timber production, biodiversity, protection of endangered and threatened species, human recreation, aesthetic concerns, and may others.").

[167] *See* Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, Div. A, Title III, § 315, 116 Stat. 2509 (2002), *reprinted in* 16 U.S.C.A. § 703, Historical and Statutory Notes.

[168] *CITGO*, 801 F.3d at 490-91.

[169] *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001).

[170] *CITGO*, 801 F.3d at 491.

[171] *Id.*

elephant of incidental takings in the mouse hole of the negative implications of a narrow appropriations provision.[172]

### d. The MBTA Should be Interpreted Narrowly to Avoid Constitutional Doubt

The Supreme Court has recognized that "[a] fundamental principle in our legal system is that laws which regulate persons or entities must give fair notice of conduct that is forbidden or required."[173] "No one may be required at peril of life, liberty or property to speculate as to the meaning of penal statutes."[174] Accordingly, a "statute which either forbids or requires the doing of an act in terms so vague that men of common intelligence must necessarily guess at its meaning and differ as to its application, violates the first essential of due process of law."[175] Thus, "[a] conviction or punishment fails to comply with due process if the statute or regulation

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[172] Some commentators have argued that a 2001 Executive Order issued by President Clinton, entitled "Responsibilities of Federal Agencies to Protect Migratory Birds," altered the definition of "take" to include incidental take. *See, e.g.*, Lilley & Firestone, *supra* note 124, at 1186 ("President Clinton's issuance of Executive Order 13186, in tandem with existing FWS regulations, solidified the MBTA's reach over incidental take. The Order clarifies the 'take' definition as including both 'intentional' and 'unintentional' take, thereby eliminating confusion over whether the MBTA, in fact, governs incidental take." (footnotes omitted)). This interpretation misreads the scope of the Executive Order. Executive Order 13186 is limited to the management of the federal government. Thus, to the extent it defined "take" to include incidental take, it was "for purposes of this order," which was "intended only improve the internal management of the executive branch." Exec. Order No. 13186, 66 Fed. Reg. 3853, §§ 2, 5(b) (Jan. 17, 2001). It did not, and, without further legislative or regulatory action, could not, change the underlying law or regulations. *See id.* § 5(b). Thus, the only responsibility Executive Order 13186 directly places on federal agencies concerning incidental take is to:

> [I]dentify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the [Fish and Wildlife] Service. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of agency actions on migratory bird populations. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts.

*Id.* § 3(e)(9). In addition, the Executive Order implicitly addresses incidental take by directing each agency to "provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds," *id.* § 3(e)(12), given the Executive Order's broad definition of "take," which includes both intentional and unintentional take, *id.* § 2(a). The Executive Order does not redefine "take" for purposes of assigning criminal liability under the MBTA.

[173] *FCC v. Fox Television Stations, Inc.*, 567 U.S. 239, 253 (2012).

[174] *Lanzetta v. New Jersey*, 306 U.S. 451, 453 (1939); *see also Dunn v. United States*, 442 U.S. 100, 112 (1979) ("[F]undamental principles of due process . . . mandate that no individual be forced to speculate, at peril of indictment, whether his conduct is prohibited."). Unlike in the strict liability context, it matters not for due process that the MBTA is often a misdemeanor statute. "[A] violation of due process cannot be cured by light punishment." *United States v. Rollins*, 706 F. Supp. 742, 745 (D. Idaho 1989).

[175] *Fox Television*, 567 U.S. at 253 (quoting *Connally v. General Constr. Co.*, 269 U.S. 385, 391 (1926)).

under which it is obtained 'fails to provide a person of ordinary intelligence fair notice of what is prohibited, or is so standardless that it authorizes or encourages seriously discriminatory enforcement.'"[176]

Assuming, *arguendo*, that the MBTA is ambiguous, the interpretation that limits its application to affirmative and purposeful conduct is necessary to avoid grave constitutional infirmities. As the Court has advised, "where an otherwise acceptable construction of a statute would raise serious constitutional problems, the Court will construe the statute to avoid such problems unless such construction is plainly contrary to the intent of Congress."[177] Here, an attempt to impose liability for acts that are neither affirmatively nor directly aimed at migratory birds raises just such constitutional concerns.

Further, if the MBTA is ambiguous, a narrower construction of the MBTA is consistent with the rule of lenity. The rule of lenity requires the resolution of any ambiguity in a statute defining a crime in a defendant's favor.[178] The rule comes into play in "those situations in which a reasonable doubt persists about a statute's intended scope even *after* resort to 'the language and structure, legislative history, and motivating policies' of the statute."[179]

#### i. The Scope of Incidental Taking Liability Under the MBTA is Virtually Unlimited

The "scope of liability" under an interpretation of the MBTA that extends criminal liability to all persons who inadvertently or accidentally kill or take migratory birds incidental to another activity is "hard to overstate"[180] and "offers unlimited potential for criminal prosecutions."[181] "The list of birds now protected as 'migratory birds' under the MBTA is a long one, including many of the most numerous and least endangered species one can imagine."[182]

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[176] *Id.* (quoting *United States v. Williams*, 553 U.S. 285, 304 (2008)).

[177] *Edward J. DeBartolo Corp. v. Fla. Gulf Coast Bldg. & Constr. Trades Council*, 485 U.S. 568, 575 (1988); *see also* TREVOR W. MORRISON, THE CANON OF CONSTITUTIONAL AVOIDANCE AND EXECUTIVE BRANCH LEGAL INTERPRETATION IN THE WAR ON TERROR 1, (2006), *available at* https://www.acslaw.org/sites/default/files/Morrison_-_Constitutional_Avoidance.pdf (noting "the validity of the avoidance canon is typically taken as 'settled,' its accepted status in the courts treated as sufficient to justify its use in the executive branch as well." (footnote omitted) (citing 20 Op. Off. Legal Counsel 253, 265 (1996) (referring to the courts' use of the avoidance canon and stating that "[t]he practice of the executive branch is and should be the same.")).

[178] *See* SCALIA & GARNER, *supra* note 114, at 296 (2012).

[179] *Moskal v. United States*, 498 U.S. 103, 108 (1990) (emphasis in original) (quoting *Bifulco v. United States*, 447 U.S. 381, 387 (1980)).

[180] *CITGO*, 801 F.3d at 493.

[181] *Brigham Oil*, 840 F. Supp. 2d at 1213.

[182] *Mahler*, 927 F. Supp. at 1576.

Currently, over 1000 species of birds—"nearly every bird species in North America"[183]—are protected by the MBTA.[184] According to the U.S. Fish and Wildlife Service, the top "human-caused threats to birds" are:

- Cats, which kill an estimated 2.4 billion birds per year;
- Collisions with building glass, which kills an estimated 303.5 million birds per year;
- Collisions with vehicles, which kill an estimated 200 million birds per year;
- Poisons, which kill an estimated an estimated 72 million birds per year;
- Collisions with electrical lines, which kill an estimated 25 million birds per year;
- Collisions with communications towers, which kill an estimated 6.5 million birds per year;
- Electrocutions, which kill an estimated 5.4 million birds per year;
- Oil pits, which kill an estimated 750 thousand birds per year; and
- Collisions with wind turbines, which kill and estimated 174 thousand birds per year.[185]

Interpreting the MBTA to apply strict criminal liability to any instance where a migratory bird is killed as a result of these "human-caused threats" would be a clear and understandable rule.[186] It would also turn every American who owns a cat, drives a car, or owns a home—that is to say,

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[183] Anderson & Birchell, *supra* note 79, at 67 ("The MBTA protects nearly every bird species in North America, including waterfowl, songbirds, shorebirds, and raptors . . . .").

[184] *See* 50 C.F.R. § 10.13 (list of protected migratory birds) *see also* Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Fed. Reg. 30032, 30033 (May 26, 2015) ("Of the 1,027 currently protected species, approximately 8% are either listed (in whole or in part) as threatened or endangered under the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq.*) and 25% are designated (in whole or in part) as Birds of Conservation Concern (BCC)".).

[185] U.S. Fish and Wildlife Service, Threats to Birds: Migratory Birds Mortality—Questions and Answers, *available at* https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php (last updated May 25, 2016). While reliable numbers are difficult to determine, other forms of alternative energy, such as solar farms, also kill migratory birds. *See* Sammy Roth, *How Many Birds are Killed by Solar Farms*, THE DESERT SUN, Aug. 17, 2016, *available at* http://www.desertsun.com/story/tech/science/energy/2016/08/17/how-many-birds-killed-solar-farms/88868372/ (last updated Aug. 18, 2016). For example, Thomas Dietsch of the Migratory Bird Division of the Fish and Wildlife Service noted 3,545 reported bird deaths at seven Southern California solar farms from 2012 to April 2016. *See* Thomas Dietsch, Update on Solar-Avian Interactions in Southern California at 9 (May 10, 2016), *in* Multiagency Avian-Solar Collaborative Working Group: Stakeholder Workshop, *available at* http://blmsolar.anl.gov/program/avian-solar/docs/Avian-Solar_CWG_May_2016_Workshop_Slides.pdf.

[186] *See Apollo Energies*, 611 F.3d at 689 (concluding that under an incidental take interpretation, "[t]he actions criminalized by the MBTA may be legion, but they are not vague.").

the vast majority of Americans[187]—into a potential criminal.[188] Such an interpretation would lead to absurd results, which are to be avoided.[189]

These absurd results are not ameliorated by limiting the definition of "incidental take" to "direct and foreseeable" harm as some courts have suggested.[190] The court in *Moon Lake* identified an "important and inherent limiting feature of the MBTA's misdemeanor provision: to obtain a guilty verdict . . . , the government must prove proximate causation."[191] Quoting Black's Law Dictionary, the court defines proximate cause as "that which, in a natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury and without which the accident could not have happened, if the injury be one which might be *reasonably anticipated or foreseen as a natural consequence of the wrongful act*."[192] The Tenth Circuit in *Apollo Energies* took a similar approach, holding "the MBTA requires a defendant to proximately cause the statute's violation for the statute to pass constitutional muster" and quoting from Black's Law Dictionary to define "proximate cause."[193]

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[187] *See, e.g.*, Robin Chase, Does Everyone in America Own a Car?, U.S. Department of State, *available at* https://photos.state.gov/libraries/cambodia/30486/Publications/everyone_in_america_own_a_car.pdf ("It is true that 95 percent of American households own a car, and most Americans get to work by car (85 percent).").

[188] As at least one court has noted, this would also place a greater duty on to protect the lives of migratory birds than are currently exists for people. *See Mahler*, 927 F. Supp. 1577-78 ("[T]he criminal law ordinarily requires proof of at least negligence before a person can be held criminally liable for causing the death of another human being. [The plaintiff's] approach to the MBTA would impose criminal liability on a person for the death of a bird under circumstances where no criminal liability would be imposed for even the death of another *person*." (emphasis in original)).

[189] *See Griffin v. Oceanic Contractors*, 458 U.S. 564, 575 (1982) ("interpretations of a statute which would produce absurd results are to be avoided if alternative interpretations consistent with the legislative purpose are available"); *see also K Mart Corp. v. Cartier*, 486 U.S. 281, 324 n.2 (1988) (Scalia, J. concurring in part and dissenting in part) ("it is a venerable principle that a law will not be interpreted to produce absurd results"). Several courts that have interpreted the MBTA to include incidental takings have recognized that its literal application would be inappropriate. *See FMC*, 572 F.2d at 905 ("Certainly construction that would bring every killing within the statute such as deaths caused by automobiles, airplanes, plate glass modern office buildings or picture windows in residential dwellings into which birds fly, would offend reason and common sense."); *Corbin Farm Serv.*, 444 F. Supp. at 535 ("Obviously, prosecution would not be justified in the hypothetical presented by the defendant; the hypothetical car driver . . . .").

[190] *See* U.S. FISH AND WILDLIFE SERVICE MANUAL, part 720, ch. 3, *Incidental Take Prohibited Under the Migratory Bird Treaty Act* (Jan. 11, 2017).

[191] *Moon Lake*, 45 F. Supp. 2d at 1085.

[192] *Id.* (quoting BLACK'S LAW DICTIONARY 1225 (6th ed. 1990)) (emphasis in original). Based on this reasoning, and with no analysis, the court asserted "[b]ecause the death of a protected bird is generally not a probable consequence of driving an automobile, piloting an airplane, maintaining an office building, or living in a residential dwelling with a picture window, such activities would not normally result in liability . . . even if such activities would cause the death of protected birds." *Id.* This passage subtly shifts the standard from merely "reasonably anticipated or foreseen as a natural consequence" to a "probable consequence."

[193] *Apollo Energies*, 611 F.3d at 690.

Contrary to the suggestion of the courts in *Moon Lake* and *Apollo Energies* that principles of proximate causation can be read into the statute to define and limit the scope of incidental take, the death of birds as a result of activities such as driving, flying, or maintaining buildings with large windows is a "direct," "reasonably anticipated," and "probable" consequence of those actions. As discussed above, collisions with buildings and cars are the second and third most common human-caused threat to birds, killing an estimated 303.5 million and 200 million birds per year, respectively. It is eminently foreseeable and probable that cars and windows will kill birds.[194] Further, when cars kill birds, it is by virtue of a machine under the direct control of an individual physically striking a bird. An activity could hardly be any more "direct" and not be the intended purpose of the action. Thus, limiting incidental take to direct and foreseeable results does little to prevent absurd outcomes.

**ii. Prosecutorial Discretion is Insufficient to Cure an Otherwise Vague Law**

To avoid these absurd results, the government has historically relied on prosecutorial discretion.[195] Yet, the Supreme Court has declared "[i]t will not do to say that a prosecutor's sense of fairness and the Constitution would prevent a successful . . . prosecution for some of the activities seemingly embraced within the sweeping statutory definitions."[196] For broad statutes that may be applied to seemingly minor or absurd situations, "[i]t is no answer to say that the statute would not be applied in such a case."[197] Although "[p]rosecutors necessarily enjoy much discretion and generally use it wisely," they are still human; "the liberty of our citizens cannot rest at the whim of an individual who could have a grudge or, perhaps, just exercise bad judgement."[198]

Recognizing the challenge posed by relying upon prosecutorial discretion, the *FMC* court sought to avoid absurd results by limiting its holding to "extrahazardous activities."[199] The term

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[194] And it is at least as foreseeable as the electrical lines at issue in *Moon Lake*. Electrocutions kill approximately 5.4 million birds per year—vehicles kill approximately 56 times more birds, while windows only kill approximately 37 times more. In *Moon Lake*, "[t]he government allege[d] that Moon Lake has failed to install inexpensive equipment on 2,450 power poles, causing the death or injury of 38 birds of prey during the 29 month period commencing January 1996 and concluding June 1998." *Moon Lake*, 45 F. Supp. 2d at 1071. This equates to approximately 1.3 dead or injured birds per month, spread over 2,450 power poles.

[195] *See* Ogden, *supra* note 6, at 29 ("Historically, the limiting mechanism on the prosecution of incidental taking under the MBTA by non-federal persons has been the exercise of prosecutorial discretion by the FWS.") *See generally FMC*, 572 F.2d at 905 (situations "such as deaths caused by automobiles, airplanes, plate glass modern office buildings or picture windows in residential dwellings . . . properly can be left to the sound discretion of prosecutors and the courts").

[196] *Baggett v. Bullitt*, 377 U.S. 360, 373 (1964); *see also Mahler*, 927 F. Supp. 1582 ("Such trust in prosecutorial discretion is not really an answer to the issue of statutory construction" in interpreting the MBTA.).

[197] *Keyishian v. Bd. of Regents*, 385 U.S. 589, 599 (1967).

[198] *United States v. Wells*, 519 U.S. 482, 512 n.15 (1997) (Stevens, J. dissenting).

[199] *FMC*, 572 F.2d at 907. The court in *Corbin Farm* adopted a similar rationale. 444 F. Supp. at 536 ("When dealing with pesticides, the public is put on notice that it should exercise care to prevent injury to the environment

"extrahazardous activities" is not found anywhere in the statute, and is not defined by either the court or the Fish and Wildlife Service.[200] Thus, it is unclear what activities are "extrahazardous." In *FMC*, the concept was applied to the manufacture of "toxic chemicals," *i.e.*, pesticides. But the court was silent as to how far this rule extends, even in the relatively narrow context of pesticides.[201] What other activities outside the production of pesticides may be "extrahazardous?" The U.S. Fish and Wildlife Service reported that poisons alone kill an estimated 72 million birds per year. Are all of these deaths potential crimes under the MBTA? Even with this judicial gloss, ordinary people must necessarily guess at what is prohibited on pain of incarceration. This type of uncertainty is not permitted under the Supreme Court's due process jurisprudence.[202]

While the MBTA does contemplate the issuance of permits authorizing the taking of wildlife, it requires such permits to be issued by "regulation."[203] No permit scheme is generally available to permit incidental take, so most potential violators have no mechanism to ensure that

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and to other persons; a requirement of reasonable care under the circumstances of this case does not offend the Constitution.").

[200] *See Mahler*, 927 F. Supp. at 1583 n.9 (noting that the *FMC* court's "limiting principle . . . of strict liability for hazardous commercial activity . . . . ha[s] no apparent basis in the statute itself or in the prior history of the MBTA's application since its enactment."). *See generally United States v. Rollins*, 706 F. Supp. 742, 744–45 (D. Idaho 1989) ("The statute itself does not state that poisoning of migratory birds by pesticide constitutes a criminal violation. Such specificity would not have been difficult to draft into the statute."). Congress could have written the MBTA to explicitly apply to "extrahazardous activities." It did not. Relying on the judiciary to recast the MBTA in this manner is contrary to the longstanding guidance of the Supreme Court:

> It would certainly be dangerous if the legislature could set a net large enough to catch all possible offenders, and leave it to the courts to step inside and say who could be rightfully detained, and who should be set at large. This would, to some extent, substitute the judicial for the legislative department of the government.

*United States v. Reese*, 92 U.S. 214, 221 (1876).

[201] The court in *Corbin Farm* held that use of pesticides resulting in the deaths of migratory birds could constitute violations the MBTA. 444 F. Supp. at 532–36 (E.D. Cal. 1978). *But see Rollins*, 706 F. Supp. at 744–45 (holding that the MBTA was unconstitutionally vague as applied to a farmer who used due care in applying pesticides that subsequently killed migratory birds).

[202] *See Rollins*, 706 F. Supp. at 745 (dismissing charges against a farmer who applied pesticides to his fields that killed a flock of geese, reasoning "[f]armers have a right to know what conduct of theirs is criminal, especially where that conduct consists of common farming practices carried on for many years in the community. While statutes do not have to be drafted with 'mathematical certainty,' *Boyce Motor Lines, Inc. v. United States*, 342 U.S. 337, 340, 96 L. Ed. 367, 72 S. Ct. 329 (1952), they must be drafted with a 'reasonable degree of certainty.' *Id.* at 340. The MBTA fails this test. . . . Under the facts of this case, the MBTA does not give 'fair notice as to what constitutes illegal conduct' so that [the farmer] could 'conform his conduct to the requirements of the law.' *United States v. Dahlstrom*, 713 F.2d 1423, 1427 (9th Cir. 1983).").

[203] 16 U.S.C. § 703(a) ("Unless and except as permitted *by regulations* made as hereinafter provided . . . ." (emphasis added)). FWS published a notice of intent to develop a programmatic environmental impact statement that analyzed alternatives for developing an incidental take permit regulation under the MBTA in 2015. 80 Fed. Reg. 30,032 (May 26, 2015). Neither the statement nor regulations were issued.

their actions comply with the law.[204] There are "voluntary" Fish and Wildlife Service guidelines issued for different industries that recommend best practices to avoid incidental take of protected birds; however, these guidelines do little to cure infirmities in the law. First, as a preliminary matter, the degree to which such guidelines are truly "voluntary" when non-compliance is accompanied by a credible threat of prosecution is, at best, debatable.[205] Second, Fish and Wildlife Service's MBTA Guidelines rarely go through the formal Administrative Procedure Act processes to be considered "regulations," and are not issued under the permitting authority of Section 3 of the MBTA.[206] Unlike other statutes, the MBTA is an all-or-nothing proposition. In the absence of a permit issued pursuant to Department regulation it is not clear that there is any authority to require minimizing or mitigating actions that balance the environmental harm from the taking of migratory birds with the other societal goals, such as the production of wind or solar energy.[207] Accordingly, the guidelines do not provide enforceable legal protections for

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[204] Anderson & Birchell, *supra* note 79, at 69 ("FWS has not, to date, perceived authority to issue permits for 'non-purposeful' takings that are incidental to conducting a lawful activity such as operating energy or mining facilities. Thus, each incidental taking of a bird protected only by the MBTA is a potential criminal violation of the Act."). For example, *compare* 16 U.S.C. § 703(a) *with* 30 U.S.C. § 225 (2017) ("All leases of lands containing oil or gas, made or issued under the provisions of this Act, shall be subject to the condition that the lessee will, in conducting his explorations and mining operations, *use all reasonable precautions* to prevent waste of oil or gas developed in the land, or the entrance of water through wells drilled by him to the oil sands or oil-bearing strata, to the destruction or injury of the oil deposits." (emphasis added)); 43 U.S.C. § 1732(b) ("In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."); 54 U.S.C. § 306107 (2017) ("Prior to the approval of any Federal undertaking that may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall *to the maximum extent possible* undertake such planning and actions as may be necessary to minimize harm to the landmark." (emphasis added)).

[205] *See* Anderson & Birchell, *supra* note 79, at 75 ("The *Apollo* decision supports the government's approach to industrial avian takings that has developed over the past two decades: provide notice to industry of the risks posed by facilities and equipment, encourage compliance through remediation, adaptive management and, where possible, permitting, and *reserve for prosecution those cases in which companies ignore, deny, or refuse to comply with a [Best Management Practices] approach to avian protection in conducting their business*." (emphasis added)); Ogden, *supra* note 6, at 29 ("[D]iscretion has been used in conjunction with efforts to obtain the voluntary cooperation of certain parties and industries whose activities have caused, or have the potential to cause, incidental taking by consulting with the agency and taking steps to mitigate such taking. Indeed, prosecutorial discretion is the primary incentive for such cooperation, as reflected in various non-regulatory 'guidelines' that FWS has created as applicable to specific industries or activities . . . .").

[206] *See* Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Fed. Reg. 30,032 (May 26, 2015) (seeking comment on the prospect of establishing a regulatory program to permit certain incidental takings). *See generally* Ogden, *supra* note 6, at 29 (characterizing Fish and Wildlife guidelines as "non-regulatory"). *But see* 50 C.F.R. § 21.15 (authorizing take incidental to military-readiness activities).

[207] Anderson & Birchell, *supra* note 79, at 69 ("FWS has not, to date, perceived authority to issue permits for 'non-purposeful' takings that are incidental to conducting a lawful activity such as operating energy or mining facilities. Thus, each incidental taking of a bird protected only by the MBTA is a potential criminal violation of the Act."). For example, *compare* 16 U.S.C. § 703(a) *with* 30 U.S.C. § 225 (2017) ("All leases of lands containing oil or gas, made or issued under the provisions of this Act, shall be subject to the condition that the lessee will, in conducting his explorations and mining operations, *use all reasonable precautions* to prevent waste of oil or gas developed in the land, or the entrance of water through wells drilled by him to the oil sands or oil-bearing strata, to the destruction or injury of the oil deposits." (emphasis added)); 43 U.S.C. § 1732(b) ("In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."); 54 U.S.C. § 306107 (2017) ("Prior to the approval of any Federal undertaking that may directly and

people and businesses who abide by their terms. To wit, the guidelines themselves disclaim that "it is not possible to absolve individuals or companies" from liability under the MBTA.[208] Rather, the guidelines make explicitly clear that, while the Fish and Wildlife Service and the Department of Justice will take compliance into consideration in exercising their prosecutorial discretion, they retain the ability to prosecute individuals and companies, even if they fully comply with the terms therein.[209]

This is the epitome of vague law. Under this approach, it is literally impossible for individuals and companies to know what is required of them under the law when otherwise lawful activities necessarily result in some accidental bird deaths. Even if they comply with everything requested of them by the Fish and Wildlife Service, they may still be prosecuted, and

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adversely affect any National Historic Landmark, the head of the responsible Federal agency shall *to the maximum extent possible* undertake such planning and actions as may be necessary to minimize harm to the landmark." (emphasis added)).

[208] Even if incidental takings were authorized by a regulatory permit process, the 2015 proposal would not have met the due process standards described above. For example, the Fish and Wildlife Service's notice of proposed rule states: "We note that should we develop a permit system authorizing and limiting incidental take, we would not expect every person or business that may incidentally take migratory birds to obtain a permit, nor would we intend to expand our judicious use of our enforcement authority under the MBTA." Migratory Bird Permits; Programmatic Environmental Impact Statement, 80 Fed. Reg. 30,032, 30,034 (May 26, 2015). The notice further provides "our permit program, if implemented, will focus on industries and activities that involve significant avian mortality and for which reasonable and effective measures to avoid or minimize take exist." *Id.* Under this scheme, it seems that favored industries and persons would likely be exempted from enforcement by negative implication and the "judicious" use of prosecutorial discretion, while others might be subject to stringent mitigation regimes and prosecutions. Further, individuals outside of those specific regulated industries would be in the same position they are today, left to rely on the discretion of the Fish and Wildlife Service and Department of Justice to avoid prosecution. Even if some of these issues could be addressed, crafting any sort of permit program within Constitutional confines would be a challenge given the sheer breadth of actions that result in incidental takings of birds covered by the MBTA.

[209] *See, e.g.*, U.S. FISH AND WILDLIFE SERVICE, LAND-BASED WIND ENERGY GUIDELINES 6 (Mar. 23, 2012) ("The Service urges voluntary adherence to the Guidelines and communication with the Service when planning and operating a facility. While it is not possible to absolve individuals or companies from MBTA or BGEPA liability, the Office of Law Enforcement focuses its resources on investigating and prosecuting those who take migratory birds without identifying and implementing reasonable and effective measures to avoid the take. The Service will regard a developer's or operator's adherence to these Guidelines, including communication with the Service, as appropriate means of identifying and implementing reasonable and effective measures to avoid the take of species protected under the MBTA and BGEPA. The Chief of Law Enforcement or more senior official of the Service will make any decision whether to refer for prosecution any alleged take of such species, and will take such adherence and communication fully into account when exercising discretion with respect to such potential referral." (footnote omitted)); Memorandum from Jamie Rappaport Clark, Director, Fish and Wildlife Service, to Regional Directors, Regions 1-7, Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers 2 (Sept. 14, 2000), *available at* https://www.fws.gov/habitatconservation/com_tow_guidelines.pdf ("While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.").

still found guilty of criminal conduct.[210] The absence of clear, public, and binding standards effectively authorizes or encourages discriminatory enforcement, particularly against disfavored industries or persons.[211] In sum, due process "requires legislatures to set reasonably clear guidelines for law enforcement officials and triers of fact in order to prevent 'arbitrary and discriminatory enforcement.'"[212] Current governmental practice suggests that the application of the MBTA to incidental activities fails to satisfy this requirement. As the Supreme Court has recognized, "[w]ell-intentioned prosecutors and judicial safeguards do not neutralize the vice of a vague law."[213]

Reading the MBTA to capture incidental takings casts an astoundingly large net that potentially transforms the vast majority of average Americans into criminals. Rather than relying on clear standards that are known in advance, prosecutors are asserting authority to bring cases where individuals and companies are not taking the precautions that the government and the court deem "reasonable."[214] This approach effectively substitutes the judgment of the court

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[210] *See generally* Anderson & Birchell, *supra* note 79, at 70 ("At trial, the jury [in *FMC*] was instructed not to consider the company's [Avian Protection Plan] efforts as a defense: 'Therefore, under the law, good will and good intention and measures taken to prevent the killing of the birds are not a defense.'" (quoting *FMC*, 572 F.2d at 904)).

[211] As some commentators have noted, "the lack of prosecutions of wind energy developers or operators creates a strong inference that prosecutorial discretion is being exercised unevenly to favor wind energy over other activities such as the oil and gas industry." Ogden, *supra* note 6, at 37; *see also* Alexander K. Obrecht, *Migrating Towards an Incidental Take Permit Program: Overhauling the Migratory Bird Treaty Act to Comport with Modern Industrial Operations*, 54 NAT. RESOURCES J. 107, 120 (2014) ("To date, the FWS has focused its prosecutions of MBTA violations on a handful of industries: wastewater storage, oil and gas, electricity transmission, and pesticide application." (footnotes omitted)). *See generally* Benjamin Means, Note, *Prohibiting Conduct, Not Consequences: The Limited Reach of the Migratory Bird Treaty Act*, 97 MICH. L. REV. 832, 836 (1998) (expressing concern that "prosecutorial discretion is less than ideal," particularly in a "pro-environment climate where, 'each year the Department of Justice announces "record levels" of fines imposed, persons indicted, and jail time served for infractions of environmental regulations." (quoting Timothy Lynch, *Polluting Our Principles: Environmental Prosecutions and the Bill of Rights*, 15 TEMPLE ENVTL. L. & TECH. J. 161, 161 (1996)); Gregory A. Zafris, Comment, *Limiting Prosecutorial Discretion Under the Oregon Environmental Crimes Act: A New Solution to an Old Problem*, 24 ENVTL. L. 1673, 1674 (1994) ("The breadth and complexity of environmental law further combine with its unique political nature to increase the chance that prosecutors will abuse their discretion if left completely unchecked."); Timothy Lynch, *Polluting Our Principles: Environmental Prosecutions and the Bill of Rights*, 15 TEMPLE ENVTL. L. & TECH. J. 161, 168, 170 (1996) (noting that "[o]wners and executives of small businesses are particularly vulnerable to prosecution when the law is unclear" and that some prosecutors "might allow public opinion and potential media coverage to affect their charging decisions"). Since Ogden's article was published in 2013, there have been at least two prosecutions of wind-energy companies. *See* E. Lynn Grayson, *Another Criminal Convention Under the Migratory Bird Treaty Act for Wind Farms*, LexisNexis Legal Newsroom (Mar. 3, 2015), *available at* https://www.lexisnexis.com/legalnewsroom/criminal/b/criminal-law-blog/archive/2015/03/03/another-criminal-conviction-under-the-migratory-bird-treaty-act-for-wind-farms.aspx.

[212] *Smith v. Goguen*, 415 U.S. 566, 572–73 (1974).

[213] *Baggett v. Bullitt*, 377 U.S. at 373.

[214] *See Apollo Energies*, 611 F.3d at 691 (upholding the conviction of Apollo Energies because "the record shows [Apollo] had notice of the heater-treater problem for nearly a year-and-a-half before the bird death resulting in its conviction. Indeed, Apollo admitted at trial that it failed to cover some of the heater-treaters' exhaust pipes *as Fish and Wildlife had suggested* after the December 2005 inspection. In effect, Apollo knew its equipment was a bird trap that could kill.").

for that of the Congress, which made the MBTA a strict-liability offense and did not provide for mitigation measures. Such an approach presents precisely the sort of recipe for arbitrary and discriminatory enforcement that the Supreme Court has cautioned against.

## V. Conclusion

The text, history, and purpose of the MBTA demonstrate that it is a law limited in relevant part to affirmative and purposeful actions, such as hunting and poaching, that reduce migratory birds and their nests and eggs, by killing or capturing, to human control. Even assuming that the text could be subject to multiple interpretations, courts and agencies are to avoid interpreting ambiguous laws in ways that raise grave Constitutional doubts if alternative interpretations are available. Interpreting the MBTA to criminalize incidental takings raises serious due process concerns and is contrary to the fundamental principle that ambiguity in criminal statutes must be resolved in favor of defendants. Based upon the text, history, and purpose of the MBTA, and consistent with decisions in the Courts of Appeals for the Fifth, Eighth, and Ninth circuits, there is an alternative interpretation that avoids these concerns. Thus, based on the foregoing, we conclude that the MBTA's prohibition on pursuing, hunting, taking, capturing, killing, or attempting to do the same applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control.

Daniel H. Jorjani

Senator BARRASSO. Senator Cramer.

Senator CRAMER. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for being here.

I was going to resist the temptation for this North Dakotan to get into the Migratory Bird Treaty Act proposed rule, but I am going to, to this degree, to simply tell you I applaud the decision. I really don't think you had a lot of choice on this, because it is not just a matter of one Solicitor's opinion versus the next Solicitor's opinion, and the back and forth. That is part of the problem in our regulation.

But there are also mixed rulings in court, district courts. In North Dakota, we didn't have a BP spill, but we did have three oil companies that were zealously prosecuted by the U.S. Attorney's Office over 28 birds that flew into a pit some place, in various pits over the course of months, and died.

Clearly that wasn't intentional; clearly it was a lawful commercial activity, and it was more of a representation of the hatred for the industry than it was the love of birds, the way that the U.S. Attorney's Office at the time went after these companies, and consequently, the workers.

Fortunately, there was one willing to stand up to them, and it was thrown out, for all the reasons that this new rule, this proposed rule, States—and I have great sympathy for what Senator Van Hollen is talking about, but there has got to be a better way than simply punitive zealous prosecution of lawful commercial activity, regardless of the magnitude of it. Hopefully we can find a balance in all of this, find a balance that is not so punitive, but rather cooperative and collaborative.

And so with that, with my remaining minutes, I want to spend this time to flesh out a little bit your views on the waterfall production area easements that you have been active in, and start off by saying, first of all, thank you again to Secretary Bernhardt for first of all coming to Hope, North Dakota, last year touring on a very chilly day, some wetlands, and then coming up with the recent director's order just earlier this, or I guess, last month that really demonstrates, again, once again, that the Trump administration cares about rural America.

As you know, the enforcement of these pre-1976 WPAs has been confusing, and in many cases it has been a longstanding issue for landowners, oftentimes resulting in both unnecessary and far too often, again, zealous enforcement measures, excessive confrontation with law enforcement.

More to the point, the Federal footprint in the WPAs only grows with time, even though there are very specific purchased acres in these pre-1976 easements that oftentimes this results in the de facto rule, what I call regulatory taking, or a land grab.

According to the January 3rd director's order, throughout 2020, the Fish and Wildlife Service will be sending updated modern maps—thank you very much—to landowners who have these pre-1976 easements. And they will be accompanied by the first ever appeals process—again, thank you very much—so that landowners can make sure that the maps are done properly.

The most fundamental protection for a landowner is an accurate map, and clearly the technology in 1976 and previously doesn't

match what we have today, and consequently, a lot of this confusion.

To that end, I want to just ask a few fundamental process related questions so that the public knows what to expect. Because once the letters go out, and I expect they are going to go out soon, landowners will only have a short time to respond to them to sort of put the stake in the ground.

So first of all, Mr. Chairman, what I would like to do is ask unanimous consent to submit the director's order and a recent op-ed that I wrote and was published this week in North Dakota newspapers.

Senator BARRASSO. Without objection.

[The referenced information follows:]

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240

In Response Reply to:
FWS/ANRS/BP35142

DEC 23 2019

Memorandum

To: Regional Directors Interior Regions 3 and 5

From: Principal Deputy Director

Subject: Template for a Revised Format for Pre-1976 Wetland Easement Maps

The Department of the Interior Secretary's Fiscal Year 2020 priorities for the U.S. Fish and Wildlife Service (FWS) stipulate that pre-1976 wetland easements will be mapped and mailed to landowners in a new format. Effective immediately, correspondence sent to owners regarding lands encumbered by pre-1976 wetland easements will include a map depicting the protected wetland areas, overlaid on a high-quality aerial image (example attached), and shall be sent via certified mail. These maps shall:

1. Be created by Section (1 mile x 1 mile) and produced on a 6" scale;
2. List the easement number, county, and legal description of the easement tract above the upper left corner of the image;
3. Include a legend that identifies Section Boundary, Easement Boundary, and Wetland Areas Covered by Provisions of the Easement;
4. Include a clarifying statement that reiterates the provisions of the wetland easement and limitations of the map;
5. List the map data sources and map creation date;
6. Include a scale immediately below the image, and a map direction symbol on the lower right side of the image; and
7. List the acreage of each wetland area that is subject to the wetland easement.

The correspondence will also include a copy of the wetland easement agreement and identify the servicing wetland management district office, which the landowner should contact with any questions.

Finally, the correspondence shall inform them of their right to appeal these mapping determinations to the FWS Regional Director and FWS Director. The following language shall be inserted into all initial correspondence from the FWS to landowners transmitting pre-1976 wetland easement maps:

"Please review the enclosed contract and map carefully. You may contact me at the address listed above within the next 40 calendar days from the date you received this letter via certified mail if you have objections with the map. I am willing to discuss and/or meet with you and review your concerns and correct any errors. If we cannot agree on the boundaries and location depicted on the map within 30 calendar days of our initial contact, you may appeal the map as follows:

- Submit your appeal and any supporting materials or explanation in writing within 30 calendar days of the date of the decision from the Refuge Manager to the Regional Director at the address listed below. Include a detailed explanation of why you are appealing the map.

| | | |
|---|---|---|
| Regional Director<br>C/O: Map Appeal<br>U.S. Fish and Wildlife Service<br>P.O. Box 25486<br>Denver, Colorado 80225 | or | Regional Director<br>C/O: Map Appeal<br>U.S. Fish and Wildlife Service<br>5600 American Blvd. West<br>Suite 990<br>Bloomington, MN 55437-1458 |

- The Regional Director will review and make a decision on your appeal within 45 calendar days from receipt of your letter. The Regional Director is willing to discuss and/or meet with you and review your concerns. If the Regional Director grants your appeal, the wetland map will be revised and a new copy of the map, with an explanation of the decision, will be sent to you and the local U.S Fish and Wildlife Service office.

- If your appeal is not granted, you may submit your appeal to the Director of the U.S. Fish and Wildlife Service. Submit your appeal and any supporting materials or explanation in writing within 30 calendar days of the date of the decision from the Regional Director to the Director of the U.S. Fish and Wildlife Service at the address listed below. Include a detailed explanation of why you are appealing the map.

  Director
  C/O: Map Appeal
  U.S. Fish and Wildlife Service
  U.S. Department of the Interior
  1849 C Street, NW
  Washington, D.C. 20240

- The Director of the U.S. Fish and Wildlife Service will review and make a decision on your appeal within 45 calendar days of receipt of your letter. If the Director grants your appeal, the wetland map will be revised and a new copy of the map, with an explanation of the decision, will be sent to you and the local U.S. Fish and Wildlife Service office.

- If your appeal is not granted, a copy of the final wetland map and an explanation of the decision will be sent to you and the local U.S. Fish and Wildlife Service office. The decision of the Director will be considered the final agency action on the determination and, at this point, your administrative appeals will have been deemed exhausted.

Please be advised that if you choose to appeal your wetland easement map, no action will be taken against you, based on the map, until you have exhausted your appeal within the FWS."

All future correspondence with the landowner in which the Service provides wetland easement maps and wetland easement contracts are to include a map that displays the protected wetland areas over an updated aerial image.

Minot Daily News

# New maps are coming to many ND landowners, so here's what they need to know:

In the coming weeks, many North Dakota landowners are going to receive new maps from the Fish and Wildlife Service's (FWS), and they will have 40 days to do something about it. I wanted to take a moment to explain what they are, how they can affect their life, and what they can do about it.

Last October, I was pleased to host Interior Secretary David Bernhardt in Hope, North Dakota, to discuss FWS enforcement of its Waterfowl Production Area program. Since the program's inception, FWS has been sloppy and heavy-handed, often leading to the infringement of private property rights and unnecessary confrontation for North Dakotans.

The fundamental problem lies with poorly-crafted maps lacking definition between a WPA wetland interest and landowner property. Pre-1976 maps displayed no wetland acreage limits and were rudimentary. Landowners were often incapable of making confident decisions without the fear of retribution from FWS.

After hearing directly from stakeholders, Secretary Bernhardt implemented a new FWS Director's Order and promised to address drain tile setback determinations soon. If you are a landowner with a pre-1976 FWS WPA, here is what to expect.

During 2020, the FWS will release modernized GIS-capable maps delineating WPA boundaries. These maps will contain acreage limits that ought to align with the original easement descriptions landowners signed. FWS' new maps should not claim ownership of anything beyond the acreage they originally purchased. These new maps will be delivered via certified mail, accompanied by detailed instructions for an appeals process. This is the first time FWS has established a formal appeals process for landowners; its success hinges on participation. When the maps are received, landowners should compare them with all their relevant documents to identify any potential discrepancies. If any questions exist, the landowner has 40 calendar days to reach out to the local FWS Refuge Manager.

The appropriate point-of-contact for FWS will be identified in the appeals instructions sent by FWS. A 40-day timer is in place once the certified mail is received, but if landowners reach out during the allotted time, FWS is obligated to work with them. If a solution is not possible, the landowner has 30 days to appeal the decision to the FWS Regional Director, who then has 45 days to review the appeal. Finally, if a resolution is not reached, the landowner will have 30 days from the date of the Regional Director's decision to file the appeal to the FWS Director. This will have exhausted the administrative appeals process, and the maps would be considered a final agency action under the Administrative Procedures Act. At this point, the landowner can decide whether or not to pursue action outside the administrative process.

These updated maps and the subsequent appeals process are a step in the right direction for landowners to make their voices heard. The Secretary made it clear: the days of FWS obstinance are over. I thank him for it and expect FWS bureaucrats to follow his lead. Landowners should prepare to receive the new maps, and I encourage them to constructively engage with FWS to make sure property rights are preserved. No question or concern is too insignificant. These maps must be done right. If you have any questions, my office stands ready to help any way we can.

Senator CRAMER. So could you maybe just help me in the last minute, or help the people watching this, by describing the quality of the pre-1976 maps, and why this is even important at all, to provide some clarity to our landowners?

Mr. WALLACE. Could you ask that second—that last question, sir?

Senator CRAMER. Yes. Could you explain why it is important that we do this at all, and talk about the quality of the pre-1976 maps versus today in light of this?

Mr. WALLACE. We have made, I hope that you will agree, good progress with your constituents on trying to provide some transparency. A lot of those wetlands protection areas that were signed up pre-1976 did not have complete maps.

There was disagreement handed down from generation to generation about just what we had committed to do. I think we have 5,000 pre-1976 maps we have committed to get out to your constituents in the coming years, with 1,000 this year.

We also have an appeals process that is going to help them have some peace of mind that they are going to get a fair hearing if they disagree with what the Service has said. I also think that we are looking at the way we approach your landowners in terms of trying to represent to them that there may be a disagreement about the wetlands protection area.

So those three are, I think, already underway, and we are not looking at a tile setback regulations and appeals process for drainage tiles.

Senator CRAMER. To that, I would say amen, amen, amen, and amen to all, and thank you for doing that. That is a lot of amens, but it is a lot of good news.

I think it gets to the point though, that all of us have been talking about, that the best way to do conservation is collaboratively, cooperatively, whether it is with sportsmen, landowners, oil companies, whatever the case might be, so let's amen.

Thank you.

Senator BARRASSO. Senator Gillibrand.

Senator GILLIBRAND. Mr. Wallace, now that the EPA has issued General Electric a certificate of completion for the Hudson River PCB cleanup, the focus on addressing the damage caused to the Hudson River is with the natural resource damage assessment that has been led by the Fish and Wildlife Service.

My first set of questions relates to that process. What are the next steps and timeframe for moving forward with natural resource damage assessment? When do you expect that there will be additional opportunities for public input?

Mr. WALLACE. Senator, the trustees are working diligently to complete the injury determination phase of the assessment, having documented injuries in several natural resources thus far. So we share with our trustees the goal of successful recovery on the Hudson, and look forward to coming back to visit with you and update you on that progress.

Senator GILLIBRAND. OK. When quantifying the injuries to the Hudson River, how does your agency consider the fact that far more contamination still remains in the Hudson River?

Mr. WALLACE. Again, I don't know, I will have to come back again and brief you and your staff in detail on that. Sorry.

Senator GILLIBRAND. Thank you, sir.

I would like to briefly mention another issue related to you, your role in overseeing the National Parks Service. The Jamaica Bay Marsh Islands, which are located in the Gateway National Recreation Area in New York, are in dire need of restoration.

I have worked with the Army Corps to support including the restoration of the Marsh Island as part of the Hudson-Raritan Estuary ecosystem restoration project. The islands are critically important for migratory bird habitat, and their erosion harms the Jamaica Bay ecosystem as a whole.

I hope that we can count on your commitment to work cooperatively with the Corps and with all the relevant stakeholders in New York to help move this project forward once it is been authorized.

Mr. WALLACE. We do, and again, I would like to come back and talk to you in detail about that.

Marshland, wetland restoration resiliency strategies, I think, are imperative. It is not only in the Jamaica Bay, but it is in all of them, the refuge properties that we have to pay close attention to that. So we will be back and talk to you.

Senator GILLIBRAND. Thank you.

My next topic is the gray wolf delisting. The Fish and Wildlife Service commissioned an independent expert peer review of the Agency's proposed rule to delist gray wolves from the Endangered Species Act.

Released last May, the peer review detailed shortcomings with both the proposal and its accompanying biological report. The independent reviewers found numerous factual errors and questioned the Service's interpretation of scientific information.

The reviewers were not alone in their critique of the proposed rule; many other scientists and scholars have weighed in against removing protections for the gray wolves.

How will the Service incorporate this study into its final rule? It is clear that in its current form the proposal to remove Endangered Species Act protections for the wolves is not in line with the best available science.

Mr. WALLACE. Senator, in regard to the amendments to ESA that were released, there are three major pieces to that. The first is trying to separate the distinction between an endangered species and a threatened species. Under previous interpretation, there was very little daylight between the two.

In other words, if you had a threatened species, you still had very tight limitations on take, both the species and the habitat.

So the most probably consequential piece of this is to have the ability to issue a tailored 4(D) rule for specific species. It may have specific habitat needs, and it may require taking some habitat to increase the species down the road.

The other that has received a number of discussions has been the doctrine of the foreseeable future, what do you do with the foreseeable future standard. I can simply say that we are still committed to looking at climate change as a decision on listing. We have two stone fly listings, I believe one in Montana, one in Wyoming that

had a climate change consideration to it. So climate change is still going to remain an important part of listing decisions.

The third one is the economics associated with the listings decision. We are prohibited by law from using economics to make a listing decision.

Senator GILLIBRAND. Great.

Mr. WALLACE. But we are not prohibited from being transparent in telling the public what the cost could be, but they are separated in the decisions.

Senator GILLIBRAND. That makes sense. My last question is about migratory bird projection. One of Fish and Wildlife Service's key mandates is to conserve America's migratory bird species. Although the National Audubon Society recently published a report that found that two-thirds of North American birds are at increased risk of extinction due to climate change, the Service appears to be focusing its efforts on developing policies that undermine protections for birds.

Would you please explain what the Service is doing to improve protections for migratory birds, and address the existential threat they face due to the impacts of climate change? What action is the Service taking to address the current and anticipated climate change impacts on the migratory bird habitat?

Mr. WALLACE. Well, a very general answer to that is we have best practices working groups that are committed to working all sorts of industries, whether it is oil and gas industry, the wind energy industry, on developing best practices to give to them to operate and minimize the amount of take on migratory birds.

We are very committed to bird health populations, and regardless of the controversy around this last decision, we are not going away anywhere when it comes to a strong commitment to wildlife and migratory birds.

Senator GILLIBRAND. Thank you.

Thank you, Mr. Chairman.

Senator BARRASSO. Thank you very much.

Senator Braun.

Senator BRAUN. Thank you, Chairman Barrasso.

General observation, because I remember back 35, 40 years ago where in southern Indiana, there were no beavers. The deer population was very low, I think turkeys had to be re-introduced. We are also a State that at one time had 20 million acres, 19 million acres were wooded. That got cut down to just a million acres.

So what Fish and Wildlife does, I think, is so important. I think you always err on the side of anything that is endangered or threatened, giving it the benefit of the doubt.

I am a conservationist from way back. I think it is important and including bringing climate into the discussion. I was proud to be the first Republican to join the Climate Caucus, and six others have since joined, so it is a big, I think, general area of discussion.

Pivoting now to, beavers are everywhere. Otters have been re-introduced very successfully. Bobcats; I am a hunter and an outdoorsman.

I have a question in terms of the cross-jurisdiction between U.S. Fish and Wildlife and the reflective State agencies. Specifically, if you know anything about the bobcat population, because that is

currently an issue throughout all of southern Indiana, where we have got some cases more of them showing up on trail cams than we do the prey that most folks pay a hunting license fee for.

So when it does ebb and flow, and you get into a situation like we are dealing with, with bobcats, where is the U.S. Fish and Wildlife Act on that particular kind of issue? How do you work with your corresponding State agencies, that, you know, probably have the same point of view in mind?

Mr. WALLACE. I think it may be a broader answer to your question, but we are committed to working with—it goes to Secretary Bernhardt's commitment to work with State game agencies to manage wildlife and be of support in whatever way we can to do that.

We have lots of success stories around the country now about recovering the wildlife species. Senator Barrasso's frustration, I know about, the grizzly bear. There are bears everywhere in Wyoming right now. They are back.

Senator BRAUN. Bobcats as well, in southern Indiana.

Mr. WALLACE. Maybe to be more specific, if I could come back to your office with a more detailed explanation about that.

Senator BRAUN. That would be great; please do that.

Generally, would you give most of that latitude to the State agency in terms of what they would do, and you are just kind of a source of information? I would like to know, because currently, that is a big issue there.

We have come back to where we have reforested, we have a much broader array of fish and wildlife, compared to what it was just 40 years ago, and that is so good; that is great.

But occasionally, you do run into issues where you at least need to discuss when it has maybe come back too far the other way, so that is something, if you could—I would love to know more about how U.S. Fish and Wildlife weighs in vis-à-vis, especially, the Indiana Department of Natural Resources.

Mr. WALLACE. We will come back in detail about that. But the default position is we want the States to be managing as much wildlife as they can handle with our support.

Senator BRAUN. Thank you.

Senator BARRASSO. Thank you, Senator Braun.

Senator Cardin.

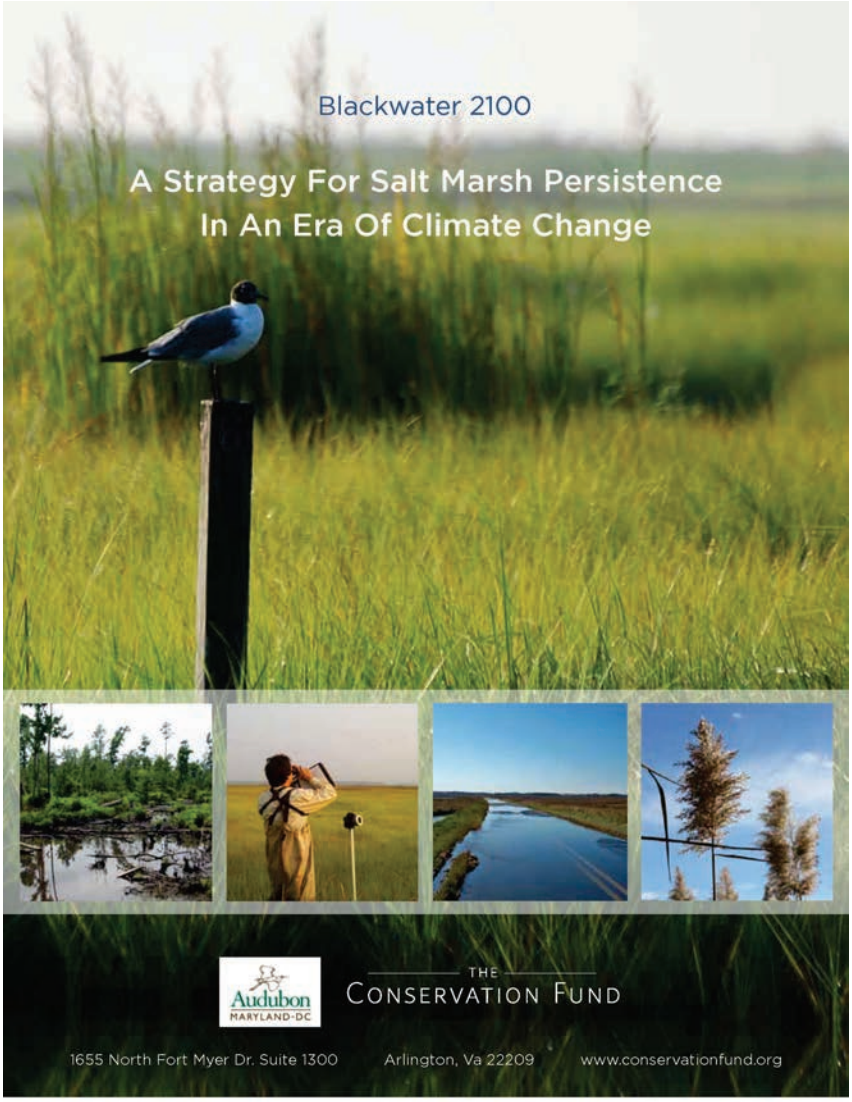
Senator CARDIN. Thank you, Mr. Chairman, and thank you, Mr. Wallace for your service.

I want to follow up on Senator Gillibrand's point in regard to our wildlife refuges. I am going to refer specifically to Blackwater, which of course is located in the great State of Maryland.

First, Mr. Chairman, I am going to ask unanimous consent to submit the Blackwater 2100 Strategy for Salt Marsh Persistence in an Era of Climate Change.

Senator BARRASSO. Without objection, so ordered.

[The referenced information follows:]


Blackwater 2100
A Strategy For Salt Marsh Persistence
In An Era Of Climate Change
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For Chesapeake Conservancy (assessment phase): Joel E. Dunn and David G. Burke

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Maryland Department of Natural Resources and U.S. Fish and Wildlife Service

The Project Team thanks the following advisors who generously shared their views and expertise; however, we take sole responsibility for the contents of this report including any errors.

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Communications Advisory Committee:
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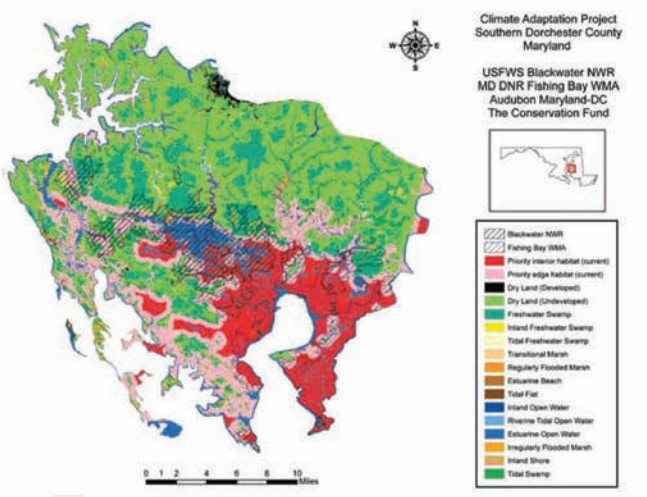
# Blackwater 2100: The Purpose and Project at a Glance

The vast tidal marshes of the Chesapeake Bay region are an ecological treasure. Nowhere in the Bay are these marshes more abundant and dominant on the landscape than in southern Dorchester County, Maryland, especially at the Blackwater National Wildlife Refuge. They provide essential habitat to a suite of specialized, at-risk birds that evolved in this landscape, such as saltmarsh and seaside sparrows, clapper rail and black rail. Migratory waterfowl, other birds and terrestrial species, including the iconic American bald eagle and the endangered Delmarva Fox Squirrel also make their homes in the marshes and bordering mixed pine and hardwood forests. For generations, people have also made homes and livelihoods in or nearby the marshes, creating a uniquely rich culture and history that is integral to our Nation's story. People and wildlife continue to share this unique, dynamic landscape where land and water come together.

But this region faces new peril from rising sea levels. Worldwide sea levels have risen approximately six inches over the past century, but a combination of factors including land subsidence and erosion has doubled the Chesapeake's relative sea level rise during the same period. Scientists forecast accelerating rates of sea level rise as a result of the continuing build-up of carbon dioxide and other greenhouse gases in the earth's atmosphere. These gases trap heat, causing thermal expansion in the oceans and melting glaciers and polar ice at increased rates. Bottom-line: The best available recent science indicates that Chesapeake waters are very likely to rise by more than three feet by the end of this century.



Within the boundaries of the Blackwater National Wildlife Refuge, 5,000 acres of marsh have been lost since the late 1930's, from a combination of factors including destruction by nutria, an introduced species, land subsidence, and rising sea levels. Sitting low in the landscape, Dorchester's tidal marshes are at the epicenter of our changing climate's impact on the Bay. The deposition of new sediment, growth of root systems, and other processes help marshes build elevation. Unfortunately, Dorchester's marshes do not appear to be building elevation at a rate that will keep today's tidal marsh above the rising level of the Bay. The predicted loss of tidal marsh poses a threat to the region's human inhabitants as well as to salt marsh-dependent birds and other wildlife. Change on a substantial scale is virtually certain.

Fortunately, there is time to act. Steps can be taken to slow the rate of loss of Dorchester's tidal marshes and improve their health. We can also ensure the marsh has room to move and re-establish as the tide rises. For two years, The Conservation Fund and Audubon Maryland-DC have collaborated with the U.S. Fish and Wildlife Service, Maryland Department of Natural Resources and many other agencies and individual experts. Together we have assessed the process of sea level rise and set forth key strategies to enable Dorchester's tidal marshes to persist for the benefit of people and the special birds that need this habitat for survival. We propose "no regrets" strategies firmly based on today's best science and predictive tools to ensure that future generations will enjoy the same benefits of the region's tidal marshes as we do today.

The time for action is now.

## Current Marsh Habitat Suitability 2010

## Southern Dorchester County Tidal Marshes

Making up nearly half of Dorchester County, wetlands dominate the landscape. They include a great diversity of types, from tidal flats and emergent marshes to forested wetlands, reflecting a wide range of salinity and tidal influence. The county's tidal marshes (including salt and brackish estuarine emergent wetlands) are the focus of this project and total over 77,000 acres in major aggregations. The majority occurs in a single block extending from the Blackwater River to the Nanticoke River centered on Fishing Bay. This is one of the most extensive contiguous blocks of tidal marsh in the northeast United States. On the western side of the project area, other tidal marshes surround the Honga River, and smaller marshes are located at Slaughter Creek and Little Choptank River. Due to a narrow tidal range in the Chesapeake Bay, Dorchester's tidal marshes have developed with little variation in elevation.

Two different vegetation zones determined largely by flooding frequency dominate tidal marshes. "Low" marsh is tidally flooded twice daily, while "high" marsh is irregularly flooded at a less than daily rate. Smooth cordgrass (Spartina alterniflora) dominates low marsh. High marsh, depending on salinity, may have meadow cordgrass (Spartina patens), spike grass (Distichlis spicata), smooth cordgrass (Spartina alterniflora/short form), black needlerush (Juncus roemerianus), or Olney three-square (Scoenoplectus americanus). High marsh vegetation is essential nesting habitat for birds that breed only in salt marsh. We also consider transitional marsh (the upper boundary of tidal marshes that includes woody vegetation) important since rising sea levels are actively transforming it into high marsh.

Tidal marshes are home to a unique assemblage of birds that evolved in this habitat and are found nowhere else. These species include four birds on the American Bird Conservancy's and Audubon Society's Watch List: Black rail, saltmarsh sparrow, and seaside sparrow, in the highest category, and clapper rail, just below. We selected these and three other salt marsh specialists—American black duck, coastal plain swamp sparrow, and willet—as focal species for the project as their presence is a prime indicator of tidal marsh health.

Southern Dorchester County is identified as an Important Bird Area for these salt marsh birds because it supports significant breeding populations of all seven species. During 2011 and 2012, Audubon carried out a survey of salt marsh nesting birds in Maryland as part of the Saltmarsh Habitat and Avian Research Project (SHARP – www.tidalmarshbirds.org). The survey collected data on the seven focal bird species at 88 points in Dorchester County, providing a valuable snapshot of salt marsh bird distribution and abundance across the project area, and the project team used the survey results to identify the marshes of highest conservation value.

## Rising Sea Levels In The Chesapeake

Maryland is particularly vulnerable to sea level rise because of its geographic location, elevation and geology. With thousands of miles of coastline and acres of low urban and rural areas, the State is highly vulnerable to sea level rise and coastal storms. The Chesapeake Bay region is frequently subjected to tropical storms and nor'easters. These major storms can produce high tidal surges, heavy wave action, and torrential rainfall. Land subsidence also affects the relative rate of sea level rise. The Chesapeake region is still sinking as the surface of the northern part of the continent rebounds as result of being released from the massive glaciers that covered much of the Northern Hemisphere 10,000 years ago. Other factors contribute to the region's faster relative sea level rise compared with global levels. However, the greatest factor in future decades will be the warming global climate.

Tide gauges show that sea levels rose in Maryland by a foot or more during the last century, a rate which is twice the global average. In the Blackwater NWR losses of tidal marsh have been documented by aerial photography dating back to the 1930's. Between 1938 and 2006, the Refuge lost 5,028 acres of its marsh to open water, an average of 74 acres per year. During the same period, the refuge gained 2,949 acres of new marsh at the upland edge, presumably through upslope migration of tidal marsh as sea levels rose. In the Nanticoke estuary, marsh loss has followed a similar pattern and timeline. While these observations indicate new tidal marsh is forming, the data confirm that the area of new marsh is not keeping pace with losses.

## Forecasting Accelerating Change

Recent projections by the Maryland Climate Change Commission show an accelerating rate of sea level rise through the 21st Century. They predict 1.4 feet of sea level rise by 2050, and 3.7 feet by the end of the century. To examine what such increases in relative sea level would mean for Dorchester's tidal marshes, the Project Team used the same predictive model for sea level rise, the Sea Level Affecting Marshes Model or SLAMM, that the State uses for its planning and adaption purposes.

Changes in tidal marsh area and habitat type in response to sea-level rise may be modeled using the Sea Level Affecting Marshes Model (SLAMM) that accounts for the dominant processes involved in wetland conversion and shoreline modifications, including information on land elevation, cover, tidal range, land subsidence, sedimentation and erosion rates and sea level rise to provide a model of future marsh habitat. Each site is divided into units or "cells" of equal area. Within the contiguous United States, most required data are readily available from the Web, including NOAA tidal data, U.S. Fish & Wildlife Service National Wetland Inventory data and USGS Digital Elevation Models (DEM) data. If Light Detection and Ranging (LIDAR) optical scanning DEM data are available, they can also be utilized by the model. Such high-quality elevation data was used by the Project Team. Relative sea level change is computed for each site for each time step. In the SLAMM equation, five primary processes affect wetland fate under different scenarios of sea-level rise:

- **Inundation:** The rise of water levels and the salt boundary are tracked by reducing elevations of each cell as sea levels rise, thus keeping mean tide level (MTL) constant at zero. Spatially variable effects of land subsidence or isostatic rebound are included in these elevation calculations. The effects on each cell is calculated based on the minimum elevation and slope of that cell.

- **Erosion:** Erosion is triggered based on a threshold of maximum fetch and the proximity of the marsh to estuarine water or open ocean. When these conditions are met, horizontal erosion occurs at a rate based on site-specific data.

- **Overwash:** Barrier islands of under 500 meters width are assumed to undergo overwash at a user-specified interval. Beach migration and transport of sediments are calculated.

- **Saturation:** Coastal swamps and fresh marshes can migrate onto adjacent uplands as a response of the fresh water table to rising sea level close to the coast.

- **Accretion:** Sea level rise is offset by sedimentation and vertical accretion using average or site-specific values for each wetland category. Accretion rates may be spatially variable within a given model domain.

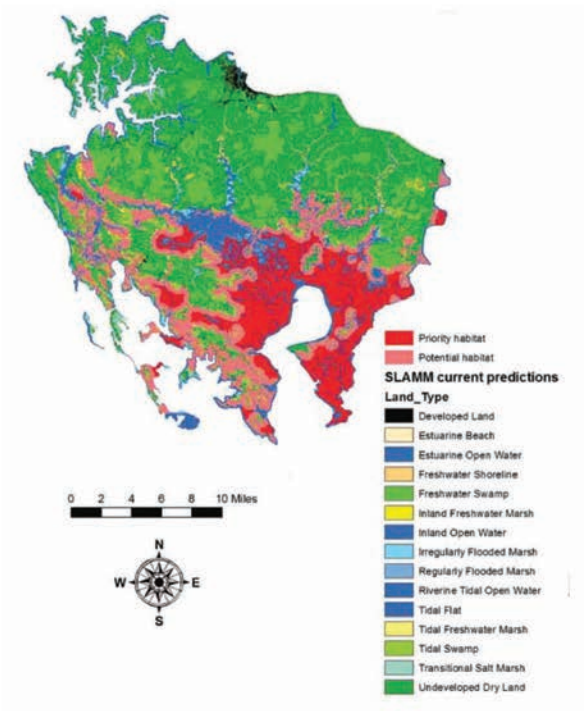
Our objectives were to identify which areas of current tidal marsh are most resilient to sea level rise and also to identify locations that may support tidal marsh in the future, areas we refer to as "marsh migration corridors." Another objective of the assessment phase of the project was to identify the current marshes of highest value to the seven focal salt marsh bird species. These objectives were based on the rationale that conservation strategies to extend the life of marshes in the face of sea level rise should be targeted on the best habitat for salt marsh birds and the marshes with the greatest likelihood of persistence.

We used the SLAMM model to map predicted areas of tidal marsh suitable for the focal marsh bird species under today's conditions and at four future elevations (indicated as approximate time intervals through the present century). Because the seven focal salt marsh bird species breed in high marsh and transitional marsh, we focused on these wetland categories, combining them as "priority bird habitat" on our maps. SLAMM results are aggregated and mapped only in patches of priority bird habitat of 160 acres or larger. [Field studies—the SHARP surveys cited previously—indicate birds are not present in smaller patches.]

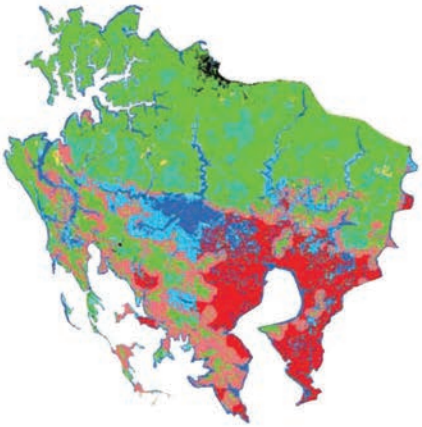
Further, we divided priority bird habitat into interior habitat and edge habitat. SHARP bird survey revealed that our focal species preferred habitat at least a quarter mile (or 500 meters) from the upland, forested edges of the Dorchester marshes.

Our maps emerged from this extensive analysis. The dates are approximate and based on global climate science translated into our regional model. The maps illustrate expected marsh loss and migration of new marsh across Dorchester County in the future. With 16.5 inches (42 centimeters) of sea level rise, loss of marsh bird priority habitat is extensive. With 3 feet (1 meter) of sea level rise, virtually all current tidal marsh is inundated. Under our predicted scenarios, much less priority habitat will be available in the future. Our strategies for tidal marsh climate adaptation, then, are geared to respond to these projections. They are calculated to slow the rate of loss, conserve upland areas where new priority marsh habitat can form, and help in the transition from upland to marsh ecosystems.

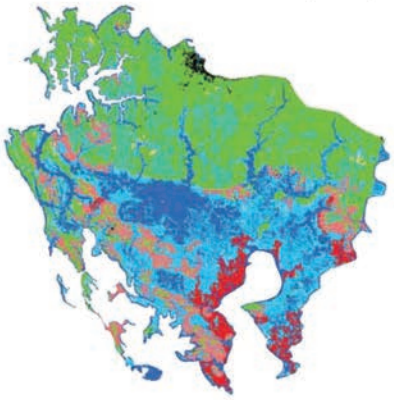
## 2010 Modeled Marsh Bird Habitat



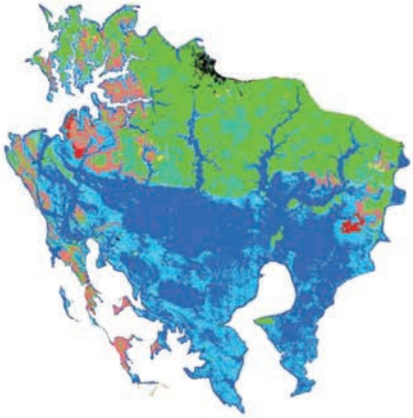
2025 Modeled Marsh Bird Habitat



2050 Modeled Marsh Bird Habitat



2075 Modeled Marsh Bird Habitat



2100 Modeled Marsh Bird Habitat

To complement SLAMM projections of future marsh area, the Project Team incorporated additional factors in designating desirable marsh migration "corridors" or areas where extensive tidal marsh could re-emerge upslope from its current locations. These additional "suitability" factors include road network density, land use (extent of development), future land use (the amount of land area located in state growth zone), water flow and ponding information, and protection status.

## Forecasting Accelerating Change

We approached the challenge of assuring tidal marsh persistence on several fronts: One, we propose adaptively managing today's marshes. Next, we advocate securing areas for marsh migration. Third we believe assisting the transition of uplands into marsh will be necessary. As we explain in the following text, we recommend several adaptation management strategies to enable existing priority tidal marsh—those areas with the most favorable characteristics for salt marsh birds—to remain healthy and above advancing tides for as long as possible. At the same time, we recommend conservation protection for the most favorable locations for future tidal marsh. And where tides are pushing higher into upland fields and forests, we recommend using adaptive management techniques to provide a smoother transition of these upland habitats into productive high salt marsh. Deploying this combination of strategies will require not only the collaboration of policymakers and state and federal agencies but the active engagement of private landowners and the public as well.

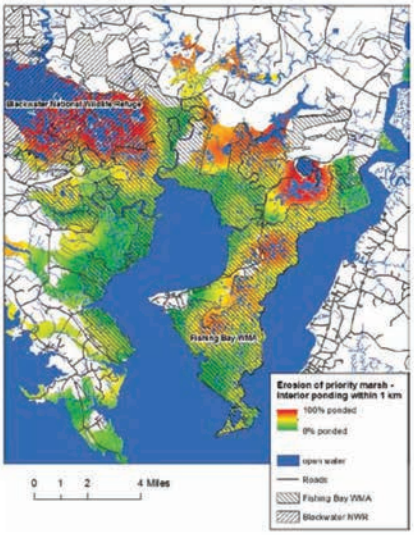
## Adaptation Management To Slow Marsh Losses

Our assessment concluded that the projected loss of high tidal marsh across the Dorchester County project area would greatly exceed the potential gains in new high marsh from upslope marsh migration. However, changing the status quo in marsh management should help existing tidal marsh to persist longer. Among key conservation actions that can increase marsh resilience to sea level rise are increasing surface elevation, reducing the amount of interior ponding, and eliminating invasive plants.

Considering cost and logistical challenges of marsh restoration, it is infeasible to attempt preserving all tidal marsh in the project area. Instead we identified a key area of existing marsh where management actions are likely to yield the greatest long-term conservation benefits. The proposed Blackwater NWR-Fishing Bay Marsh Conservation Zone includes approximately 20,000 acres of high marsh in a continuous arc surrounding Fishing Bay.

**Selection criteria included:**

- **Greatest predicted longevity under sea level rise scenarios.**
- **Most intact current condition, defined by lack of interior of ponding.**
- **Highest abundance of seven focal salt marsh birds, measured by SHARP surveys.**
- **Extensive area of contiguous interior**




We recommend using the following techniques in this Marsh Conservation Zone to improve marsh health and longevity:

**Sediment Enhancement**

In the Project area, marsh erosion occurs from prolonged water logging of the root zone of marsh plants. This condition reduces plant vigor and produces open areas. Under these conditions, the process of marsh accretion slows down due to lack of new dead plant material (peat substrate). Since Blackwater NWR marshes receive little mineral sediment, decaying organic matter from dead plants is the primary source of elevation for the marsh grasses and the decline in marsh grass health accelerates inundation rates. We propose adding thin sediment layers through hydraulic pumping in the Marsh Conservation Zone to increase the marsh surface elevation and fill in eroded areas. Local navigation projects or, possibly, onsite locations could be used as sediment sources. The additional sediment will be particularly helpful in maintaining the health of meadow cordgrass and black needlerush, both plant species preferred by the salt marsh birds.

Although prior restoration projects at Blackwater NWR targeted large areas of eroded marsh, we believe enhancing largely intact marsh should be more logistically feasible, ecologically beneficial and cost effective. The current nutria eradication program is critical to marsh health to avoid a return to the days when these invasive rodents from Latin America consumed significant amounts of Refuge's tidal marsh vegetation following their introduction in the mid-20th century.

### Shallow Drainage

Some areas in the Marsh Conservation Zone appear to be ponding instead of shedding water regularly, despite an elevation above daily tidal flooding. The result is a waterlogged plant root zone. This condition is leading to the type of marsh erosion observed in other areas of this marsh system. If hydrological surveys in these areas indicate that the pooled water can be released through shallow drainage, etching shallow channels could connect the failing marsh areas to existing tidal creeks, and by lowering their water levels, revitalize marsh vegetation.

The Project Team also recommends studying the effect of restoring improved hydrological flows past the Maple Dam Road. Experts currently have mixed opinions about whether restoring flow would improve or exacerbate levels of marsh loss. Further study is needed to develop greater certainty

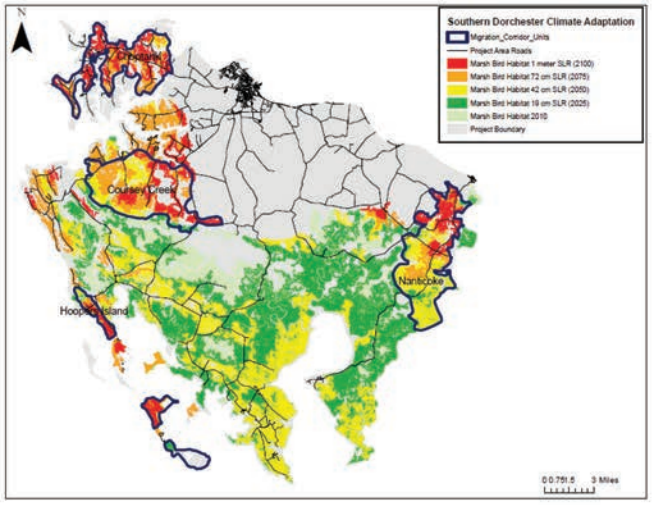
### Control Invasive Plants

When the common reed, Phragmites australis, becomes established in large stands, it can prevent growth or crowd out more desirable native grasses favored by salt marsh birds. We recommend mapping current stands of phragmites, using herbicides to eradicate the plants to the extent possible, and monitoring results.

These management techniques will help keep existing tidal marsh healthier and persist longer than if current processes are simply allowed to run their course. The longer existing marsh can be kept in place and healthy, then the more likely that the salt marsh bird population will remain healthy and the other ecosystem services will continue. However, our predictive model indicates management alone will be insufficient to enable sufficient priority tidal marsh to persist in the face of accelerating sea levels.

## Identifying The Key Marsh Migration Corridors

Using SLAMM to forecast sea level rise combined with other factors to identify the most suitable areas for new marsh, we found that some of the most important marsh climate adaptation effort must occur outside of the existing Blackwater WR and Fishing Bay WMA protected areas. Our analysis identified four areas with potential as marsh migration corridors. We identified the corridors using SLAMM and examination of such landscape factors influencing the transition of upland areas into new tidal marsh as road density, compatible land use, and likelihood of development. The Nanticoke River corridor north of Fishing Bay and Coursey's Creek corridor to the northwest of the Blackwater Refuge are the primary identified corridors. We predict the primary corridors would support the largest new marsh blocks in the future; plus they are adjacent to conservation lands, allowing for consistent management of continuous large blocks of tidal marsh.

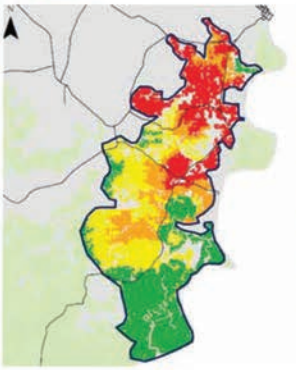



## Southern Dorchester Marsh Migration Corridor Units

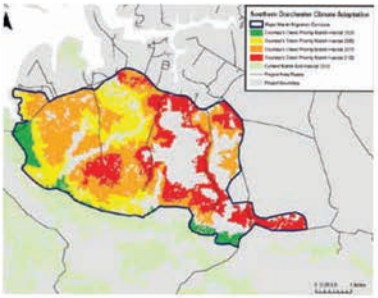
| Predicted future extent (acres) of Priority Marsh Habitat in Marsh Migration Corridors in Dorchester County | | | | | | |
|---|---|---|---|---|---|---|
| | Total Acres | Present (2010)marsh Acreage | 19cm SLR (2025) marsh acreage | 42cm SLR (2050) marsh acreage | 72cm SLR (2075) marsh acreage | 103cm SLR (2100) marsh acreage |
| **Study Area** | 267,000 | 77,617 | 67,809 | 34,119 | 16,607 | 12,289 |
| **Corridors Units** | | | | | | |
| Nanticoke | 12,607 | 2,949 | 3,285 | 4,654 | 1,739 | 2,325 |
| Coursey Creek | 13,948 | 458 | 232 | 2,318 | 4,014 | 3,596 |
| Hooper's Island | 3,663 | 1,612 | 174 | 225 | 136 | 1,091 |
| Little Choptank | 9,891 | 0 | 0 | 158 | 412 | 3,492 |
| **Main Marsh Units** | | | | | | |
| Blackwater NWR | 26,376 | 9,197 | 6,091 | 2,917 | 929 | 512 |
| Fishing Bay WMA | 29,508 | 25012 | 22,858 | 7,530 | 300 | 0 |

The Nanticoke marsh migration corridor includes 12,607 acres on the west side of the Nanticoke River in Dorchester County. With one meter of sea level rise, marshes will shift across the corridor and some will convert to open water, but our model predicts approximately 2,300 acres of new priority habitat will persist. Currently three quarters of the area is forested or farmed, a quarter is wetlands. More than half the acreage has some form of conservation protection, including lands managed by the MD Department of Natural Resources as part of the Fishing Bay WMA. Another 2,500 acres is protected currently through conservation easements. Most of the easements are for agricultural preservation through the MD Rural Legacy Program and MD Agricultural Land Preservation Foundation (MALPF). Other easements are held by the Maryland Environmental Trust (MET). This corridor also connects with the southern boundary of the Nanticoke Unit of Blackwater NWR, an area authorized for future conservation acquisitions by the U.S. Fish and Wildlife Service.

Nanticoke migration corridor target marsh habitat at different levels of sea level rise



Coursey's Creek migration corridor target marsh habitat at different levels of sea level rise



The Coursey's Creek migration corridor on the northwest side of the Refuge contains nearly 14,000 acres, mostly forested or farmed. While presently only 500 acres are tidal marsh, our model indicates the corridor will support approximately 4,000 acres of priority marsh habitat during the latter half of the present century in a dramatic reformation of the landscape.

A quarter of the corridor's acreage already has some form of conservation protection, including federal and state ownership, and conservation easements on private lands. Although sea level rises are forecast to advance gradually over coming decades, the corridor is ideally suited to continuing current productive forestry and farm uses for decades. These uses would be better protected from land development with more agricultural or similar conservation easements. This corridor is also adjacent to the recently dedicated Harriet Tubman Underground Railroad National Monument and State Park, a nationally significant cultural and historical landscape within the Blackwater Refuge and source of increasing tourism in the County.

## Conserving The Key Marsh Migration Corridors

Dorchester County has long been a success story for land conservation in the state of Maryland. Between the Blackwater NWR and Maryland's Fishing Bay Wildlife Management Area, more than 57,000 acres are protected. This complex of protected land is the largest area dedicated to wildlife conservation in the state of Maryland. The lands that have been conserved to date will continue to provide valuable terrestrial wildlife habitat through the middle of the century. Conservation easements for agricultural or forestry purposes have been placed by landowners on thousands of acres of privately owned lands in the two primary migration corridors. Strategic additions to these types of suitable land uses are recommended for successful adaptation to continue.

Within the identified marsh migration corridors, opportunities exist to increase the level of conservation protection consistent with the interests of private landowners in using their land for productive economic returns. Land conservation can be accomplished through a variety of approaches ranging from the willing sale of land to a conservation buyer to the granting or sale of partial ownership rights, known as conservation easements. Conservation easements involve a landowner willing to sell or donate some potential development or use interests in his or her land to a public agency or non-profit land trust. For example, a landowner interested in continuing farming might get additional income or tax savings by selling or donating development rights he does not expect to use. Some governmental agricultural support programs provide payments for specified conservation uses or practices. Whether for full ownership or partial, these land conservation measures depend upon voluntary agreements between private landowners and public agencies or private, non-profit land conservation groups. Since a mix of these forms of conservation protection already exists in Dorchester, we recommend exploring opportunities to secure the continued open space use or conservation protection of land in the key migration corridors.

### Tools For Land Conservation

**The federal Land and Water Conservation Fund (LWCF)** provides funding to federal, state and local agencies to acquire conservation interests in land and water property, including easements. Funds for the LWCF come from off-shore oil and gas development, and projects are generally for recreation, parks and refuges. LWCF is divided into state grants and federal acquisition funds. Federal allocations are changing, with more emphasis on landscape scale collaboration among several agencies. Other amounts are directed to "core" programs, such as the National Wildlife Refuge System acquisition needs.

**Maryland's Program Open Space (POS).** The MD Department of Natural Resources (DNR) operates Program Open Space (POS) which provides state funds for recreation and open space acquisition. The Program administers funds made available to local communities for open and recreational space through the State real estate transfer tax and the federal Land and Water Conservation Fund. The Program coordinates the acquisition of lands for the use of all units of DNR. The state employs a Targeting System which uses the best scientific information available, first to conduct an ecological screen that selects high value Targeted Ecological Areas (TEAs), followed by criteria to identify annual focus areas, and a Community Scorecard system at a site level.

**Maryland's Rural Legacy Program.** The Rural Legacy Program provides the focus and funding necessary to protect large, contiguous tracts of land and other strategic areas from sprawl development and enhances natural resources, agriculture, forestry, and environmental protection through cooperative efforts among state and local governments and land trusts. Protection is provided through the acquisition of easements and fee estates from willing landowners. The Nanticoke RLA is located in the heart of the Nanticoke watershed in Dorchester County linking Fishing Bay Wildlife Management Area and Blackwater.

Other programs that could help support conservation protection include the Agriculture Department's **Wetlands Reserve Program, Farm and Ranch Land Protection Program**, and **Maryland Conservation Reserve Enhancement Program** is a federal-state natural resources conservation program that addresses state and nationally significant agricultural related environmental concerns related to agriculture. Easements can also be donated to the **Maryland Environmental Trust**.

## Strategies For Managing The Transition Of Uplands Into Marsh

Onsite investigations of areas within Blackwater NWR and Fishing Bay demonstrate that the transition of former agricultural fields and forested areas into tidal marsh is already occurring as rising Bay waters inundate or turn soils saline. Cordgrass mixes in with new stands of common reeds in wet fields, and "ghost" trees stand in open marsh areas once part of a pine or mixed hardwood forest. In this changing landscape, we see opportunities to "smooth" the transition for earlier and greater benefit to saltmarsh birds and the environment generally. If sea levels accelerate as climate scientists forecast and recent measurements around the Bay validate, techniques that help former upland habitat transform more rapidly and effectively into functioning tidal marsh will be vital. We are demonstrating several promising techniques within the project area. Briefly summarized, these techniques include:

**Phragmites control**
Management work in the transition zone will focus on preventing the establishment of new populations of phragmites Using targeted herbicide applications to control small new stands of common reed in former agricultural fields and in dying wooded areas will prevent this invasive plant from out-competing desirable marsh grasses preferred by salt marsh birds.

**Removing dead trees**
Salt marsh birds prefer at least 500 yards (the distance of five football fields) between their nesting areas and the tall edges of bordering forests, since tall objects represent areas where predators might roost. On the edges of transitioning uplands and rising tides, trees are either dead or declining due to increased salinity and soil saturation. Cutting down dead or dying trees will increase the effective habitat area for salt marsh birds.

**Planting a transition crop**
The project area includes significant areas of active farming, but again increasing salinity and saturation can make formerly productive fields infeasible for growing traditional crops like corn or grains. However, a salt tolerant grass species such as switchgrass will grow and is an effective means of l keeping nutrients and sediment from getting into Bay waters. Markets may also emerge for using switchgrass in the poultry industry. Switchgrass readily gives way to cordgrass and other native salt marsh grasses as salinity and tidal effects increase.

These techniques have been used previously for purposes other than facilitating tidal marsh transition into former upland landscapes. Their application in Dorchester will provide a laboratory for study and learning on how to enable this landscape to continue to provide high value tidal marsh supporting people and wildlife.

## Community Adaptation—Another Frontier

Our project has focused on the transformation of Dorchester's landscape in response to sea level rise driven by climate change. The high ecological value of the region's tidal marshes prompted the Service, Fund and Audubon to collaborate on assessing the impact of projected sea level rise and develop a comprehensive set of strategies to shape the best possible future. Each of our organizations cares deeply about conserving and protecting wildlife habitat, such as the habitat required by our focal salt marsh birds. At the same time, we recognized the multiple values that generations of human inhabitants have enjoyed from this now rapidly changing landscape. Strategies and plans for protecting this tidal marsh ecosystem cannot be fully realized without the involvement and understanding of those who live, work and recreate in this region. With more community understanding and engagement, we are confident the region will be up to the challenge of its longer term persistence.

We enlisted a set of community advisers to help us describe the value of tidal marshes in human terms from the aesthetic, cultural and economic, to the ecosystem services such as clean air and water, storm buffering, and recreation. County residents have joined with us in wetland stewardship activities, such as replanting marsh grasses in the Refuge, and we will continue to engage local communities in wetland stewardship and championing climate adaptation of Dorchester's marshes. We are seeking opportunities to integrate these community values into our strategy development. We see opportunities to enhance eco- and cultural tourism, identify replacement crops and markets for them, and implement interim forestry strategies. These are opportunities to align human economic and social needs with the changing regional ecology.

While our efforts on community adaption have not yet been fully developed, we are taking steps to build greater understanding of the value of tidal marshes, the forces that are changing the Eastern Shore landscape more rapidly than ever, and the opportunities to influence that change for the better.

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## Acknowledgements

The Conservation Fund and Audubon Maryland-DC wish to acknowledge with special appreciation the Town Creek Foundation, which provided generous financial support for the Project, and to its Executive Director, Stuart Clarke, who helped us broaden our vision and refine our project.

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We also thank the following institutions and agencies for their financial support of the Project: Audubon Society of Central Maryland, The Bancroft Foundation, Chesapeake Audubon Society, Friends of Blackwater National Wildlife Refuge, Maryland Department of Natural Resources, Maryland Ornithological Society, Toyota Together Green, and the U.S. Fish and Wildlife Service. We appreciate the in-kind support supplied by the Maryland Department of Natural Resources, U.S. Fish and Wildlife Service, USFWS Chesapeake Bay Field Office, U.S. Army Corps of Engineers, Duke University and the Chesapeake Bay Program.



Audubon MARYLAND-DC

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Senator CARDIN. And I do that because I have been to Blackwater many times, and I have seen first hand the erosion of the wetlands that is taking place as a result of sea level rises and climate change.

This report spells out "no-regret strategies firmly based on today's best science and predictable tools to ensure that future generations will enjoy the same benefits of the region's tidal marshes as we do today."

So I would like to get your response to what we could do at Blackwater. We have some novel ideas for looking at using dredged material to restore wetlands, and it works. It costs some money to do that, but that is one idea.

But if we are going to preserve these tidal marshlands for the future, we are going to have to be very aggressive. This is a real treasure for wildlife and for our community.

So are you committed to using best science and innovative approaches to deal with the challenges that have been brought out in this report?

Mr. WALLACE. Senator, I absolutely am, and I hope you are pleased to know that Blackwater has helped inform me on my opinion on this.

I had the pleasure of going out there in October and spending a day with Marcia Pradines, who is the refuge manager out there. Also went over to the new Harriet Tubman Visitor's Center.

Talk about a marvelous one-two combination where the visitor center that interprets her life, you can walk out the door, and thanks to the Blackwater Wildlife Refuge, get an understanding of what it must have looked like back there in the 1800s. It is a great resource for your State, and you should be very proud of it.

They also, we talked about invasive species down there. They have a pretty good handle on nutria, I understand, they don't have a handle on snakeheads.

But they also have a machine that Marcia showed me where they are digging up from the Blackwater River, trying to build up some of the refuge area to preclude that creeping saltwater from getting into some of those hard pines, thinking if they can build up the base, it is almost like a mini-dike.

So you are doing some creative things down there that the entire Service can learn from, so you have my commitment, absolutely.

Senator CARDIN. Well, I really appreciate that answer, and thanks for giving the plug for the Harriet Tubman National Park and Visitor Center. It is relatively new. It is one of the new additions to the National Park Service, and it has been very, very popular as an educational tool in regard to Harriet Tubman.

Thank you for mentioning that, because that is all part of the area where she was a slave and later helped conduct the Underground Railroad, all part of this pristine area of the Eastern Shore of Maryland that we are trying to preserve.

Let me ask one more question. I want to follow up on a point that Senator Van Hollen raised in regard to migratory birds.

I appreciate what you just said a little bit earlier in response to Senator Gillibrand, as to working with the utilities in order to mitigate the loss of migratory birds.

But I am concerned—I want this to go on record—that changing the Migratory Bird Treaty Act by the opinion on intentional taking, it does open the door for irresponsible corporate action. I just hope that you will be vigilant in this regard and recognize that you don't want to give a legal footing to irresponsible corporate action as it relates to migratory birds.

Mr. WALLACE. I totally agree with you. I think we need to be in the forefront of it as leaders on best practices to inform industries about how we believe they can be responsible on public and private lands, and we are all in on that commitment, sir.

Senator CARDIN. Thank you.

Thank you very much, Mr. Chairman.

Senator BARRASSO. Senator Sullivan.

Senator SULLIVAN. Thank you, Mr. Chairman, and Secretary Wallace, welcome.

I am going to begin by just mentioning, I am going to submit a number of questions for the record on polar bears and sea otters in my State. A lot of questions for you and your team.

I am going to start, it is kind of a broken record for me in this Committee that my State, my officials, my people, my constituents, the native people of Alaska, have so much knowledge about protecting our species, protecting our environment, building our economy. These are challenging issues, but my State is really, really good at it.

You have been to Alaska, right?

Mr. WALLACE. Many times.

Senator SULLIVAN. Pristine, beautiful, one of the most beautiful environmentally protected, gorgeous places on the planet.

Mr. WALLACE. Right up there with Wyoming, sir.

[Laughter.]

Senator SULLIVAN. No comment.

[Laughter.]

Senator SULLIVAN. But then you travel up the East Coast corridor on a train, and you see a chemical environmental wasteland. And yet, many of my colleagues, and I am going to be a little partisan here, because it is always coming from the Democrats, seem to always want to tell me and my State how to manage Alaska's environment. And then you take the train, and you are like, holy crap. You are telling me how to manage my environment? Look at this environmental wasteland.

So we have it again, just recently 16 of my colleagues sent a letter, several letters to the top 15 heads of the biggest banks in America, essentially saying, don't invest in Alaska's North Slope. They lose a vote on opening ANWR, and now they are pressuring the banks not to invest in my State.

Unprecedented. I have been here 5 years. Over one-third of the Democrats in this Senate sent a letter to some of the top bankers in America to further impoverish my constituents. Unprecedented.

A lot of times in this Committee, I get steamed, because when I see Senators from Oregon or whatever, Massachusetts, telling me how to run my State, it just makes me a little mad. I don't go to Delaware or Oregon and say, hey, do this or do that. But it always seems to happen here.

I am beyond steamed on this one, I am just disappointed. It is sad. It is sad. One-third of the Senate Democrats are telling the biggest banks in America, don't invest in this part of Alaska.

So I am going to send a letter to all these Senators, just expressing my sadness, in attaching, and I would like to submit it for the record, Mr. Chairman, a recent op-ed in the Wall Street Journal from the Mayor of the North Slope Borough.

Senator BARRASSO. Without objection.

[The referenced information follows:]

THE WALL STREET JOURNAL.

# OP-ED: Goldman Sachs to Native Alaskans: Drop Dead

*The bank claims to value 'stakeholder engagement' but dropped Arctic drilling without consulting us.*

By Harry Brower Jr.
Jan. 24, 2020
https://on.wsj.com/37ZMBQl

As the mayor of Alaska's North Slope Borough, I represent about 10,000 people in an area larger than most states. Beneath our lands are some of the largest oil and gas reserves in the world, including Prudhoe Bay and the coastal plain of the Alaska National Wildlife Refuge.

Since the 19th century, when our Inupiat ancestors made initial contact with the West, we have worked to maintain a balance between the modern world and our rich cultural inheritance. Largely because of the oil and gas under our lands, which are developed using the highest environmental standards, we have come far. My biggest fear is that we will be set back in our quest—this time by those who claim to care about us but are using my lands and my people as symbols for a larger political goal.

Last month, Goldman Sachs announced it will no longer fund oil and gas development in the Arctic region. The announcement came as a shock to me and my constituents, particularly because the New York-based investment bank claims "stakeholder engagement" and "consultation" with indigenous peoples are core business principles. No one will be more affected by Goldman Sachs's decision than the people of Alaska's North Slope, yet we learned about it in the media.

By ignoring the concerns of Alaska Natives and basking in positive publicity, Goldman Sachs demonstrated the condescending, subtly racist attitude that too often has been the hallmark of the way Westerners deal with indigenous people. Had anyone at Goldman Sachs bothered to ask us what we thought about funding energy plays on the North Slope, here's what we would have said:

From the time of Western contact until we were able to claim the rights to our lands, the people of the North Slope and other indigenous Alaskan communities suffered and lived under horrific conditions. In 1953, researchers from the University of Pittsburgh traveled throughout rural Alaska conducting a health survey. The visitors were shocked by what they found.

"The indigenous peoples of Native Alaska are the victims of sickness, crippling conditions and premature death to a degree exceeded in very few parts of the world," the team wrote. "Among them, health problems are nearly out of hand." They documented "the large numbers of the tuberculosis [sufferers], the crippled, the blind, the deaf, the malnourished and the desperately ill."

These were my direct forbears—including my mother—and the ancestors of many who still live on the North Slope. In the face of such desperate poverty, our ancestors—some still alive—organized to get access to our lands and resources. Elders, including my father, helped organize Alaska Natives throughout the state. They formed associations. They started a newspaper.

They traveled to Washington in large numbers, some even sleeping in tents outside, to lobby Congress for the Alaska Native Claims Settlement Act of 1971, the largest lands claim act in history. The act transferred ownership of what had been federal land to the indigenous people who lived there and paved the way for North Slope oil production as well as logging, mining and fishing rights in other areas of the state.

I'm proud that Prudhoe Bay has produced 18 billion barrels of oil since 1977, contributing billions of dollars to state coffers and funding development in Native Alaskan communities. Today I see fellow residents becoming doctors, lawyers, teachers and engineers. Some, like me, have become whaling captains.

We have a long way to go to enjoy the amenities that most people in the "lower 48" take for granted. But thanks to oil production, our children are no longer forced to live hundreds of miles away from their families simply to attend high school. We are able to eat our native foods, practice our native ceremonies and speak in our native tongues. Many of us now live near a cutting-edge medical clinic. We can heat our homes, turn on our lights with a flick of the switch, and in some cases we even have indoor plumbing. We are no longer one whaling hunt from starvation.

We are able to have all this because we treasure and protect our land and wildlife—the resources that executives and environmental groups in cities thousands of miles away claim to care about. The way we see it, caring about the land and wildlife should also mean caring about the indigenous people who inhabit the land—and that means knowing us, which Goldman Sachs hasn't bothered to do. We aren't hungry for oil, we are hungry for progress and understanding from those on the East Coast and beyond. We don't need your protection or judgment. We need your respect. We need to be treated like fellow Americans.

Goldman Sachs says its decision to forgo participation in Arctic drilling projects was born of a desire to fight climate change. But given its business interests in oil-producing states around the world, including involvement in last year's initial public offering of Saudi Arabia's oil company, Aramco, that can't be true.

Goldman executives are simply looking to curry political favor with powerful green interests. The cost of Goldman Sachs's hypocrisy will be paid by my people, who may soon be on a path back to the deprivation and hardship our ancestors worked so hard to leave behind.

*Mr. Brower, a whaling captain, was elected mayor of Alaska's North Slope Borough in 2016.*

Senator SULLIVAN. He is an Inupiat leader, Native leader who has been in this part of Alaska for generations. It is entitled "Goldman Sachs to Alaska Natives: Drop Dead."

It is all about how these ideas from my Senators are impoverishing some of the poorest people in America, and they don't care, because I guarantee the letter that was written by the 16 Senators was from extreme environmental group that they are probably going to do a lot of fundraising off of, but it is sad.

I mention that, Mr. Secretary, because right now, you are developing an incidental take authorization for 2021 through 2026. I have had concerns about some of the issues that have been raised here, and what is happening is it looks like the model you are using, particularly as it relates to the polar bear, has not been validated by peer review. It is reportedly based on a few recent papers that have not been peer reviewed.

What I want to get a commitment from you on is that—your commitment is very important to me that—this is going to be a huge impact on my State and the economy and my constituents. It is essential that my constituents have a voice in this process because by the way, they are some of the most knowledgeable people on the planet, more than your people, no offense. Especially more than this recent paper that has not been peer reviewed.

Can you commit to me that you will include State and local stakeholders, including some of the people I just talked about, not only making the final decision on the incidental take, but on participating in the incidental take application for seismic work in the Arctic National Wildlife Refuge right now? None of them have even been invited to be at the table. It is remarkable, and it is really upsetting.

So can I get that firm commitment from you right now? I am going to have a whole bunch of other issues, similarly on the sea otter in southeast Alaska. You need additional data, we understand that, but we need to move on that, too.

This is really frustrating to me, but it really hurts the people I represent. With all due respect to my Senate colleagues here, I know a hell of a lot more about representing Alaska than they do, and in some ways, the people under your command.

So can I get that commitment from you, Mr. Secretary, and perhaps you would like to talk about this?

Mr. WALLACE. I do have a comment, Senator.

Senator SULLIVAN. First, I need the commitment that you are going to include my experts, my knowledge. Right now my State is telling me they are not involved.

Mr. WALLACE. We have a commitment for total and transparent system on how we evaluate the ITR.

Senator SULLIVAN. You did not answer my question.

Mr. WALLACE. Ask it again, please.

Senator SULLIVAN. I need a commitment from you that the State of Alaska, with all its expertise and indigenous knowledge on issues like polar bears will be at the table, not only on the ITR for '21 through '26, but the seismic program that is being looked at now, which, I am being told by State of Alaska officials, they are not being included. And I need a commitment also on peer review of this paper.

Point Thomson was just developed in Alaska. I oversaw that. That is right next to ANWR. The impacts on polar bear denning was almost minimal or zero. These are experiences that you need to take into account, and right now your people are not doing that.

I need a commitment that you are going to work closely with Alaskan experts on all of this. I just need a yes.

Mr. WALLACE. You have that commitment, yes. And with another footnote, I met with your commissioner yesterday in my office, and told her the same thing.

Senator SULLIVAN. Thank you. And I will have many, many more questions for the record.

Thank you, Mr. Chairman.

Senator BARRASSO. Thank you, Senator Sullivan.

Senator Merkley.

Senator MERKLEY. Thank you very much. Good to have you here.

My colleague has identified a major debate here in the United States, and the Senate is a place we should debate these issues. He has raised a question, why is it that folks outside Alaska have concern about oil production, which can certainly be an economic activity that creates jobs, creates prosperity for a local community?

I would invite you to come and tour Oregon with me, to my colleague, because we are seeing the impacts in rural Oregon. These are very Republican counties very concerned about dramatic transformations that they are witnessing from the increasing carbon levels in the air. Our Cascade snowpack is melting earlier, which means that our irrigation water for our farmers is deeply compromised. It has a huge impact on our ranchers, as well.

The richer carbon dioxide is promoting, it is a beneficial fertilizer, if you will, for an invasive grass that is damaging the grasses important for ranching. We are seeing our lakes impacted by algae, toxic algae. Not only is it toxic, but when it dies, it strips the oxygen out of the lake. So it is having a big impact.

We have smaller, warmer salmon and trout streams, which our rural fisherman care a great deal about.

We have a forest fire season that is 2 months longer than it was, and it doesn't have to do with raking the forest, it has to do with how dry the forests are for how long.

Our groundwater supplies for our farmers are dropping because we are getting less rainfall to re-enrich the groundwater, restore the groundwater. And off our coast, we have the most acidic water that human civilization has ever experienced in the Pacific Ocean, having a dramatic impact on the ecosystem off the coast from which our fisheries depend.

So we do have a stake. Everyone one this planet has a stake in whether we produce and burn fossil fuels. So that is why we are all in this conversation, and this is the place to debate it and wrestle with it.

Alaska is seeing even a bigger impact, proportionally, than is Oregon, the changing climate. That is something for us all, as Senators fighting for the best future for our Nation and for the planet, have to be engaged by.

I am certainly struck, Mr. Wallace, that we have seen a change in the language. In your testimony, you talked about fish, wildlife, plants, and habitats face many stressors and threats across the Na-

tion and around the globe, including habitat loss, invasive species, wildlife disease, wildlife trafficking, and a changing planet.

What are you trying to encompass with "a changing planet?"

Mr. WALLACE. Trying to accomplish what, Senator?

Senator MERKLEY. What are you trying to address when you say a changing planet?

Mr. WALLACE. As you think of the authority of the Fish and Wildlife Service, National Parks Service in terms of the broader issue that you just discussed, the changes you are seeing in Oregon in lots of different areas, there are sort of three things that I think we can move the needle on, to be helpful on in that regard.

One is healthy forest management. Years ago, when I started in this business, that was a pejorative, you talked about healthy forest management, it meant so many things to so many people.

Now, it is communities from all over the country and to say, what do we do to minimize the possibility of a catastrophic wildfires in our lands?

The second thing we see, and especially after the Hurricane Dorian came through on the East Coast, is beach re-nourishment strategies about whole areas on Cape Paterson, Point Lookout.

The third is invasive species. If I had a preference, I would like to see invasive species mentioned in the national dialogue as much as any other comment.

In those three areas, the Fish and Wildlife Service and the National Park Service can take a leadership role.

Senator MERKLEY. I am struck how you talk about forest fires without mentioning the underlying causes, the greater storms and the impact those storms are having on our States without addressing the underlying issue, invasive species dramatically affected by the changing carbon in the atmosphere and the warming temperatures.

Can we just have an honest discussion? Why is it that you have to dodge around the issue, and you are afraid to use the words carbon pollution, climate change? This is the most serious threat facing humanity.

Don't you feel some responsibility as a public servant to actually get to the real issue and recommend and wrestle with real strategies to address this challenge?

Mr. WALLACE. I think those are real strategies. I think adoptive management and teaching a generation of people how to prepare for changes, as Senator Cardin just mentioned, in the Blackwater Refuge in Maryland. We see it on the coast of the Carolinas and Alaska. You want people that are caring for public resources to understand what is changing around them and have tools in place. That is where we, at my position at Interior, can help.

Senator MERKLEY. Well, I will wrap up and just say I disagree that addressing the impact from these changes, which are devastating and saying, let's restore some beach sand, and we will all be happy, and not address the underlying cause is, it is pretty much addressing the issue after the horses are out of the barn, and we need to get the horses back in the barn.

Senator BARRASSO. Senator Carper.

Senator CARPER. Senator Merkley, before you arrived, in response to an earlier question, the words climate change came out

of his mouth a number of times. Our colleague, Senator Braun over here, raised his hand and acknowledged he was the first Republican to join the Climate Change Caucus. Senator Barrasso tells me he has been joined by six other Republicans. I am urging him maybe to summon up his I don't know what, and join as well.

So I think the interest in going at root causes is growing, and we need to grow it some more.

Senator MERKLEY. Well, I will note those words did not appear in your testimony, and they don't appear in the most recent report. But I am heartened by your observation. Thank you.

Senator CARPER. Secretary Wallace, two questions if I could. Fish and Wildlife Service estimates that oil fuel waste pits kill between 500,000 and 1 million birds every year. That is bird mortality that is equivalent to practically one Deepwater Horizon spill every year.

These pits, as you may know, are especially harmful for waterfowl. One Fish and Wildlife Service study found that 57 percent, almost 60 percent of the birds killed at these sites are waterfowl.

These bird deaths are problematic for many constituencies, including the hundreds of thousands of sportsmen and women who hunt waterfowl. The Migratory Bird Treaty Act has been the most important tool for cleaning up these pits, including throughout the George W. Bush administration.

The Trump administration has essentially eliminated this tool through its unprecedented interpretation of this Act. Here is my question. How does this Administration reconcile its position on the Migratory Bird Treaty Act and cleaning up these sites with its position to expand opportunities for sportsmen?

I will say that again. How does the Administration reconcile its position on the Migratory Bird Treaty Act with cleaning up these sites with its position to expand opportunities for sportsmen? Please.

Mr. WALLACE. Senator, regardless of this particular Migratory Bird Treaty issue that you asked me about, we have a large quiver of environmental statutes, thanks to your Committee and others, to enable us to protect and preserve species. The Clean Water Act, for example, the Bald and Golden Eagle Protection Act, Endangered Species Act, Oil Spill Act.

In addition to that, we have working groups with all of these industry groups about best practices, about netting your pond, about flagging it, about putting louvers over heater treaters so a bird doesn't crawl into a warm vent and it is turned on. So we are not going away from this debate.

We just could not criminalize such a broad activity of actions under the Migratory Bird Treaty and understand how to implement it. Who do you pick, and who do you choose from? We would invite, if you have ways of putting sidebars on that, we would look to the legislative branch to tell us how to enforce that treaty.

Senator CARPER. All right, thank you.

One last question. Last year, news investigations raised several important questions about whether or not U.S. funding for international wildlife conservation supported activities that violated human rights; both the Fish and Wildlife Service and the implicated conservation organizations, should continue to take these issues very seriously and ensure that such abuses do not occur.

However, I understand that the Department of Interior has frozen about $12 million for international wildlife conservation activities that are unrelated to human rights abuse allegations, unrelated to human rights abuse allegations. Congress appropriated this funding, I think for fiscal year 2018, 2018.

The question: when do you expect the Department of Interior to release these obligated funds? When do you expect your department to release these obligated funds, the $12.3 million that has been frozen?

Mr. WALLACE. Senator, we had an issue where they were held at the Department of Interior because of allegations that were coming forward about potential abuse to second and third generation grantees in range countries where we were trying to curtail wildlife. We don't want to be a part of any of that, if it were true.

We have set up audits. We are working with the USAID on best practices from them. We know it is an important part of our diplomacy and wildlife trafficking, and it is an issue that I talk about with our team weekly.

So I am going to put that on my list to come back and talk to you and the Committee about. But please be assured that it is not in some shoebox at the Department of Interior; it is a high priority.

Senator CARPER. All right, we will continue to focus on it with you, and thank you for joining us today.

Thank you.

Senator BARRASSO. Senator Whitehouse.

Senator WHITEHOUSE. Thank you very much, Chairman.

Welcome back, Mr. Wallace. It is good to see you again.

I have two topics with you today. One is that from the Department of Interior's very name, right down through its focus, what we coastal States see as an organization that is heavily focused on western, inland, and upland issues, and that pays very little attention to coastal concerns.

I raised this with you during the confirmation hearing, and I would like to ask you to, perhaps in a response, a written response, take this as a question for the record if you would like, because I don't want to put you on the spot or just get a 1 minute answer to a longer question.

What are the ways that you have undertaken to make sure that your organization pays attention to coastal areas, and that we get fair treatment up against upland, inland, and western areas?

I know that this will distress our Chairman from his upland, inland, and western State, but I do think it is fair that coastal States like mine and Senator Carper's are not left out of the Department of Interior's attention.

The second question is much more local to us. We have had the chance to discuss this, you and I, offline, and that is the park that is being developed along the Blackstone River in Rhode Island and in Massachusetts.

Unlike the West, where you can draw big squares on big chunks of territory and call them parks, we have been developed since the 17th century, in some places, and certainly since the 18th century. So trying to carve out park areas is complicated.

What we are able to do is in the Blackstone Park, treat the Blackstone River as sort of the bracelet, and attach to it a variety

of charms of historic significance. Then we have the question of, how do you link it all up. By road, by the river itself, by bike paths, and all of that, and that requires a whole different and more complicated regime of looking for easements and put ins, and take outs, and all of that.

I would like to invite you to come to Rhode Island at a convenient time, once we have a meeting set up for you, and sit down with Senator Reed and myself, and go through where we are on concluding that park and get your attention to getting this done for once and for all.

Mr. WALLACE. I would answer the second question first. Yes, absolutely, I look forward to coming up to Rhode Island to see you and learn more about Blackstone. I think we have talked about it. There may be some lessons learned with the Cuyahoga Project.

Senator WHITEHOUSE. Cuyahoga. Fortunately, the Blackstone never caught fire.

Mr. WALLACE. Yes. I look forward to coming to see you.

As to your question, is the Interior going to get into the exterior of the country, I think we already are there. If you look at the coastal areas that we have under management either as refuges or parks in Florida, Cape Hatteras, Point Lookout, the Texas gulf coast, we are in the business of understanding these big changes that are happening.

Dorian re-carved some of the North Carolina coast right now. What does that mean for us as an agency on how we look at beach restoration?

So we are being challenged by today's times to understand those questions that you have asked me. We are in the business, and we are going to be in it even a bigger way in the future.

Senator WHITEHOUSE. When we drill down into your accounts, and into the Army Corps of Engineers' accounts, we very often see huge discrepancies in where funding ends up, with the vast majority, in some cases, 80 percent, 90 percent of funding and accounts going to inland and upland uses and not to coastal uses. So I will take you through those accounts, and we will see if we can get them to be balanced a little bit more fairly in favor of the coastal States that have so long been not the Department of Interior's focus.

Thank you.

Mr. WALLACE. I look forward to that, Senator. Thank you, and it is nice to see you again.

Senator WHITEHOUSE. Nice to see you again.

Senator BARRASSO. I would point out to the Senator from the coastal State on the East Coast that we previously during this hearing today, had quite a bit of a discussion debate, and some division and disagreement among coastal States on the western part of our country, with the Senator from Oregon and the Senator from Alaska having somewhat diverging views on issues of resources and coastal activities.

Senator WHITEHOUSE. That is what happens when you have so little to fight over along the coast, whereas you all are just choking with Federal money to the extent that you have sage brush rebellions to drive it away.

[Laughter.]

Senator BARRASSO. I did have a final question before we close down this hearing.

There was a discussion earlier about migratory birds, and deaths related to those. Somewhere I was reading a list of the things that cause bird deaths. You mentioned a few, vehicles, plate glass windows, wind turbines, animals that can cause death.

Is there a listing somewhere of a proportionality of those sorts of things? I mean, you mentioned some different numbers for different things, but I wasn't able to get them all down.

Mr. WALLACE. We do have a list at the Fish and Wildlife Service. The No. 1 issue, not surprisingly, is cats, about 2.4 billion estimated. And it goes down into oil, it comes down. Cell towers, transmission towers, plate glass windows, even cars. There is a big list of things that happen in America that kill birds. We will get that to the Committee.

Senator BARRASSO. Thanks so much.

If there are no further questions, and we had quite a turnout; I think we have had questions from 11 different Senators. Others were here and had to leave before having a chance to offer questions. But they may be able to write to you questions. So I would ask that we keep the hearing record open for another 2 weeks.

I want to thank you for your time and your testimony. We look forward to seeing you back in the Committee and all your thoughtful comments. Thank you, Mr. Wallace.

The hearing is adjourned.

[Whereupon, at 11:40 a.m., the hearing was adjourned.]

[Additional material submitted for the record follows:]

# Hunting is 'slowly dying off,' and that has created a crisis for the nation's many endangered species

By Frances Stead Sellers

Feb. 2, 2020 at 7:06 p.m. EST

STEVENS, Pa. — They settled, watchfully, into position — a retired couple armed with a long-nosed camera and three men with shotguns.

Tom Stoeri balanced the hefty lens on his half-open car window, waiting to capture the Canada geese as they huddled on the frozen lake, fluttering up in occasional agitation before they launched into flight.

A little more than a mile away, John Heidler and two friends scanned the skies from a sunken blind, mimicking the birds' honking and hoping their array of decoys would lure them within range — until, Pachow! Pachow! Pachow! Two geese dropped in bursts of grey-black plumage, and a third swung low across the snow-streaked landscape before falling to the jaws of Heidler's chocolate lab.

Public lands such as these at the Middle Creek Wildlife Management Area are a shared resource, open to an unlikely mix of hunters and hikers, birdwatchers and mountain bikers.

"It's a symbiotic thing," said Meg Stoeri, Tom's wife and fellow photographer.

But today, that symbiosis is off kilter: Americans' interest in hunting is on the decline, cutting into funding for conservation, which stems largely from hunting licenses, permits and taxes on firearms, bows and other equipment.

Even as more people are engaging in outdoor activities, hunting license sales have fallen from a peak of about 17 million in the early '80s to 15 million last year, according to U.S. Fish and Wildlife Service data. The agency's 2016 survey suggested a steeper decline to 11.5 million Americans who say they hunt, down more than 2 million from five years earlier.

"The downward trends are clear," said Samantha Pedder of the Council to Advance Hunting and the Shooting Sports, which works to increase the diversity of hunters.

The resulting financial shortfall is hitting many state wildlife agencies.

In Wisconsin, a $4 million to $6 million annual deficit forced the state's Department of Natural Resources to reduce warden patrols and invasive species control. Michigan's legislature had to dig into general-tax coffers to save some of the state's wildlife projects, while other key programs, such as protecting bees and other pollinating creatures, remain "woefully underfunded," according to Edward Golder, a spokesman for the state's natural resources department. Some states, including Missouri, are directing sales tax revenue to conservation.

Here in Pennsylvania — where the game commission gets more than 50 percent of its revenue from licenses, permits and taxes — the agency had to cancel construction projects, delay vehicle purchases and leave dozens of positions vacant, according to a 2016 report, even as it tackled West Nile virus and tried to protect rare creatures such as the wood rat.

"That's what keeps me up at night," Robert Miller, director of the Governor's Advisory Council for Hunting, Fishing and Conservation, said of the inadequacies of the user-pay, user-play model that has funded conservation for decades.

A national panel has called for a new funding model to keep at-risk species from needing far costlier emergency measures. The crisis stands to worsen with as many as one-third of America's wildlife species "at increased risk of extinction," according to a 2018 report published by the National Wildlife Federation. In December, environmentalists and hunters united in Washington behind two bipartisan bills aimed at establishing new funding sources and facilitating the recruitment of hunters.

The needs are becoming more urgent as development eats into habitats and new challenges crop up, such as climate change and chronic wasting disease, a neurological condition infecting deer. The Trump administration's recent rollback of pollution controls on waterways will put a greater burden on states to protect wetland habitats.

The financial troubles are growing as baby boomers age out of hunting, advocates say, and younger generations turn instead to school sports and indoor hobbies such as video games.

"Hunting and fishing are slowly dying off," said Heidler, who described himself as "a fourth-generation waterfowler."

While his children enjoy the lifestyle, he said very few of their friends do.

"They say there's not time between school and after-school activities," he said, adding that even archery rarely leads children into hunting anymore.

The sport is booming at Lancaster Archery Supply, where Kevin Sweigart takes his 14-year-old daughter for lessons. Sweigart said he grew up hunting, but the culture has changed and he hasn't passed on the tradition to the next generation.

"My dad always told me stories about hunting," said Norah Sweigart. "But for me it's just target shooting."

Many states are devising ways to reinvigorate hunting culture and expand the sport's appeal to women, minorities, and the growing number of locavores — people who seek locally sourced food.

Colorado has a Hug a Hunter campaign to raise awareness of wildlife management and outdoor recreational opportunities. Pennsylvania, where the number of licensed hunters has dropped from 927,000 to 850,000 over the past decade, is trying to stall the decline with "R3 activities" — efforts to recruit, retain and reactivate hunters.

The state is relaxing its ban on Sunday hunting this year to increase opportunities for working families. The game commission plans to bring a food truck to community gatherings to familiarize people with eating wild game. And it will expand on mentored outings for young people and first-time female hunters.

In October, Derek Stoner, the commission's hunter outreach coordinator, helped arrange a deer hunt for 20 newcomers, many from the city, with 14 trained mentors at the John Heinz National Wildlife Refuge in Tinicum, just south of Philadelphia.

Elena Korboukh, a teacher from South Philadelphia, recognized the event was "a kind of PR campaign to promote hunting," but said she welcomed the chance to connect with nature — an opportunity she wishes she could offer her students.

"I had hiked the refuge for close to 20 years, but you don't see a lot when you are moving," said Korboukh, who killed a deer with a crossbow during the October event. "When you are sitting still, you see a lot, and it's very, very exciting."

Pat Oelschlager, one of the mentors at the Heinz hunt, continues to take out inexperienced hunters. On a dank January afternoon in Evansburg State Park, Oelschlager set out to stalk deer with Lenny Cohen, who said he wanted to get closer to his hunter-gatherer roots, which he felt distant from, growing up in the Philadelphia suburbs.

Neither targeted a deer that day but Oelschlager fielded Cohen's questions about animal behavior, hunting etiquette and the names of native plants.

A flock of geese fly over the Middle Creek Wildlife Management Area in Stevens, Pa. (Kyle Grantham/For The Washington Post)

A flock of geese fly over the Middle Creek Wildlife Management Area in Stevens, Pa. (Kyle Grantham/For The Washington Post)

A few states are bucking the trend. New Mexico, where the number of licensed hunters grew nearly 10 percent over the past four years, credits its successes to R3 strategies such as making license applications available online and reaching out to Latino residents.

Many national hunting advocacy groups, such as Backcountry Hunters and Anglers, have made cultivating interest among people who have had little exposure to the outdoors key to their missions. The National Shooting Sports Foundation is seeking to turn what its research suggests is about two and a half million "aspiring hunters" into actual hunters.

Other groups aim to create experiences that appeal to women, including BOW (Becoming an Outdoors Woman) and the National Wildlife Federation's Artemis.

"I have had more dance parties in the field with women," said Artemis's leader Marcia Brownlee. "And laughed more."

But revamping the federal funding model has proved tough. A proposed tax on outdoor gear, for example, was killed by resistance from retailers and manufacturers.

The link between hunting and conservation dates back more than a century to when trigger-happy gunmen all but blasted the bison population to oblivion and finished off North America's most abundant bird, the passenger pigeon. (Martha, the hapless final specimen, died in 1914 in the Cincinnati Zoo before being shipped, on ice, to Washington and put on display at the Smithsonian.)

Small wonder that hunters were asked to curb — and pay for — their excesses. Avid outdoorsmen such as Theodore Roosevelt put their stamp on an enduring ethos that combined sport with conservation and led to the 1937 passage of the Pittman-Robertson Act, which imposed an 11 percent excise tax on the sale of firearms that is apportioned annually to state agencies for conservation.

While critics say the system puts too much emphasis on hunted animals and birds, it has turned the tables for many species including the now-ubiquitous Canada goose and whitetail deer, which had been in decline.

"The species that we have funded have done very well," said National Wildlife Federation President Collin O'Mara, "which means it's a fixable problem."

In December, Congress modernized Pittman-Robertson as part of the Omnibus Appropriations Act, giving states greater discretion in their use of federal dollars for recruitment. House legislators also took bipartisan steps to advance the Recovering America's Wildlife Act, which would provide states and tribes with $1.4 billion annually from the general fund to restore habitats and implement key conservation strategies. The bill now heads to the House floor for a full vote.

"It's exciting to see sportsmen's groups working with greener groups," O'Mara said.

Still, at Middle Creek and beyond, conservation remains a constant balancing act — not only among the plentiful waterfowl, the returning bald eagles and rare bog turtles — but also among the people.

In a month or so, busloads of tourists will park along the lake, many having flown in specially from Asia, to see tens of thousands of snow geese stop over on their route north to their breeding grounds.

It's a miraculous sight, free and open to everyone, that has inspired Tom and Meg Stoeri, the wildlife photographers, to bring along their grandchildren.

Tom Stoeri noted that the otter on their special license plate reflects their support of the state's wild resources.

"I would pay more," he said. "But I don't know if the general population would."

https://www.washingtonpost.com/national/hunting-is-slowly-dying-off-and-that-has-created-a-crisis-for-the-nations-public-lands/2020/02/02/554f51ac-331b-11ea-a053-dc6d944ba776_story.html

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