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**Testimony of Marcia Argust
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Before the Senate Committee on Energy and Natural Resources
March 21, 2017**

**On Opportunities to Improve and Expand Infrastructure Important to Federal Lands, Recreation,
Water, and Resources**

Chairman Murkowski, Ranking Member Cantwell, and Members of the Committee, thank you for inviting me here today to discuss infrastructure within our national park sites. I would like to submit my full written testimony for the record.

The Restore America's Parks campaign at The Pew Charitable Trusts seeks to conserve the natural and cultural assets of the National Park System by providing common sense, long-term solutions to the deferred maintenance challenge facing the National Park Service (NPS).

Established in 1916, today the NPS manages more than 400 nationally significant sites in all 50 states and several territories. The Park System encompasses wild landscapes, historic and cultural sites, scenic byways, trails, military parks, and iconic monuments that celebrate and commemorate the remarkable people, heritage, and ongoing story of America.

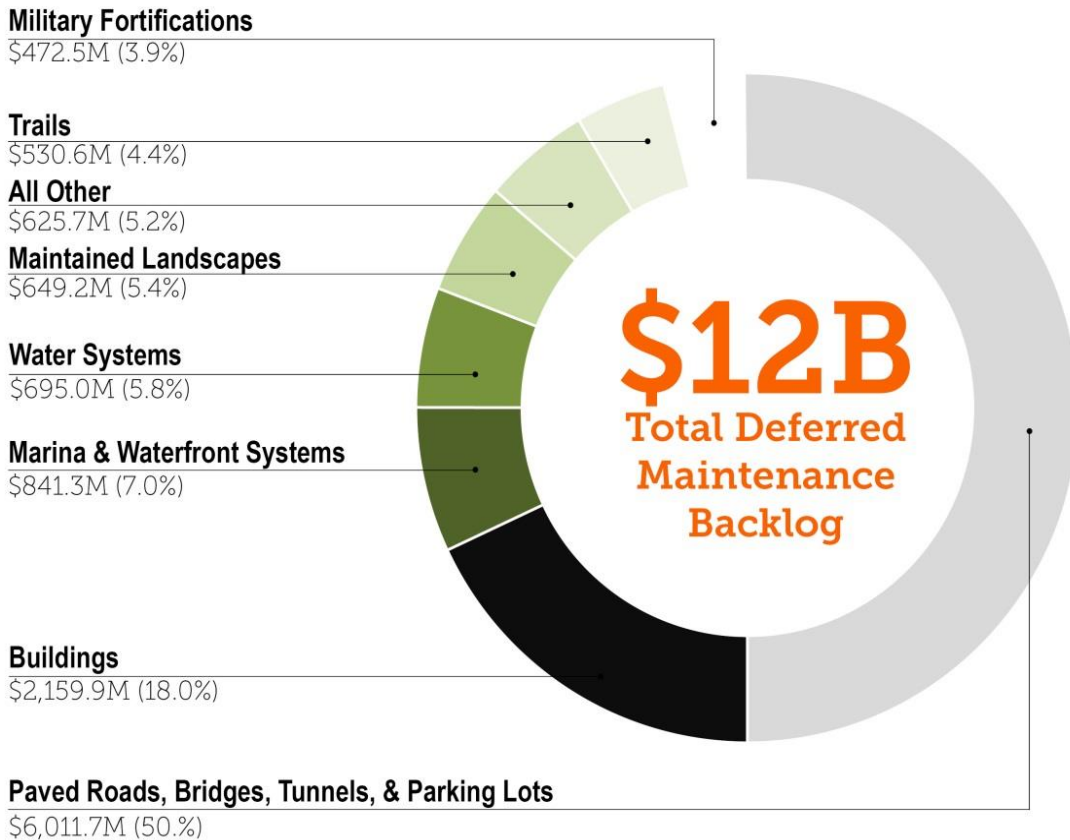
Our parks also encompass infrastructure. NPS maintains 10,000 miles of roads (over 5,000 of which are paved), nearly 1,500 bridges and 60 tunnels, 18,000 miles of trails, more than 24,000 buildings, and over 2,000 sewage systems, as well as former military installations, parking lots, waterfronts, campgrounds, electrical and water systems, interpretive facilities, and iconic monuments and memorials.

What Is Deferred Maintenance?

National parks often have the same infrastructure as a city or town, and as a result face the same deterioration and maintenance needs. In total, the agency is responsible for protecting and managing over 75,000 assets, while also ensuring that visitors can safely access and enjoy these resources. NPS assets are tangible properties that serve a specific park function and can include: roads and bridges, trails, historic buildings, employee housing, wastewater and electrical systems, military fortifications, monuments and memorials, and seawalls.

Maintenance is required at regular intervals to ensure acceptable park facility conditions; when this maintenance is delayed for more than a year, it's considered to be "deferred."

NPS Deferred Maintenance by Asset Type



The Causes of Deferred Maintenance

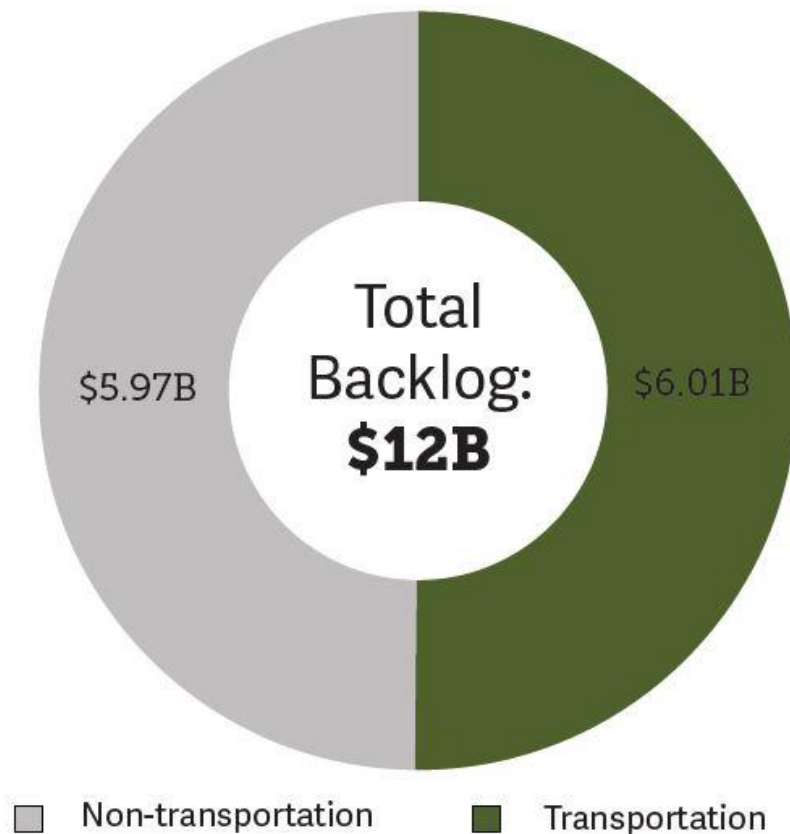
Due to aging facilities, strain on resources caused by increased visitation, and unreliable funding, NPS has been unable to keep pace with necessary infrastructure repairs. Based on 2015 data, the agency estimates it would cost \$11.9 billion if it were to fix all of the items on its deferred maintenance list.

Aging Infrastructure. Last year the National Park Service celebrated its 100th anniversary. Many units of the National Park System are older than 50 years, and their facilities and infrastructure are showing their age. According to a December 2016 Government Accounting Office (GAO) report, most of the NPS maintenance backlog is attributed to older park sites, stating specifically that “about \$10.5 billion in deferred maintenance was for park units established more than 40 years ago.” Most infrastructure has a finite lifespan, due to factors such as material longevity, weather, use, and design.

For example, at Grand Canyon National Park, more than \$150 million is needed to repair the Trans-Canyon Pipeline, an essential piece of infrastructure that brings water from a spring located in the North Rim to the South Rim. Built in the 1960s, the 16-mile pipeline is the sole potable water supply for five million park visitors, local residents, and concession operations. Its reliability is therefore an issue of public health and safety, as well as the maintenance of park assets since it is the only water source should a fire break out and threaten any of the park’s hundreds of historic structures. Annual fixes are costly and inconvenient. A 1995 flash-flood caused significant damage to the pipeline, requiring that it be shut down for 28 days; emergency measures were employed and 23 million gallons of water per day (85

trucks) had to be hauled in, at an expense of approximately \$5 million. In 2013, multiple breaks required the closure and evacuation of guests and employees from Phantom Ranch on the Canyon floor.

Mirroring the infrastructure problems of both urban and rural areas across the country, transportation needs comprise half of the backlog, roughly \$6 billion, and represent some of the most costly infrastructure projects.



Denali National Park in Alaska—one of our national jewels—just celebrated its 100th birthday. The park has \$53 million in deferred maintenance and its most pressing need is the 92 mile Denali Park Road, the only way to access the heart of the park. The harsh freeze-and-thaw cycles of the Alaskan climate have caused the paved and non-paved sections to deteriorate, requiring \$26 million in repairs.

Similarly, in Olympic National Park in Washington, the most visited park in the Northwest, the park has \$140 million in deferred maintenance and one of the highest cost needs is \$30 million in repairs to a section of Highway 101 (the primary route through the Olympic Peninsula) around the popular Lake Crescent area of the park.

Denali and Olympic National Parks are both national jewels that provide spectacular recreation opportunities and generate significant economic benefits for local communities in Alaska and Washington. It's critical to ensure that these parks and others like them are safe and well-maintained.

Rising Visitation Pressures. In addition to aging infrastructure, the NPS is experiencing visitation at record levels. According to data released this month by Secretary of the Interior Zinke, the National Park

System had 331 million visits in 2016, a seven percent increase from 2015. The National Park System must continue to be welcoming to visitors, providing unmatched recreation, wildlife viewing, and educational experiences. But, we must acknowledge and prepare for the increased wear that rising visitation can put on resources that are often already showing signs of deterioration.

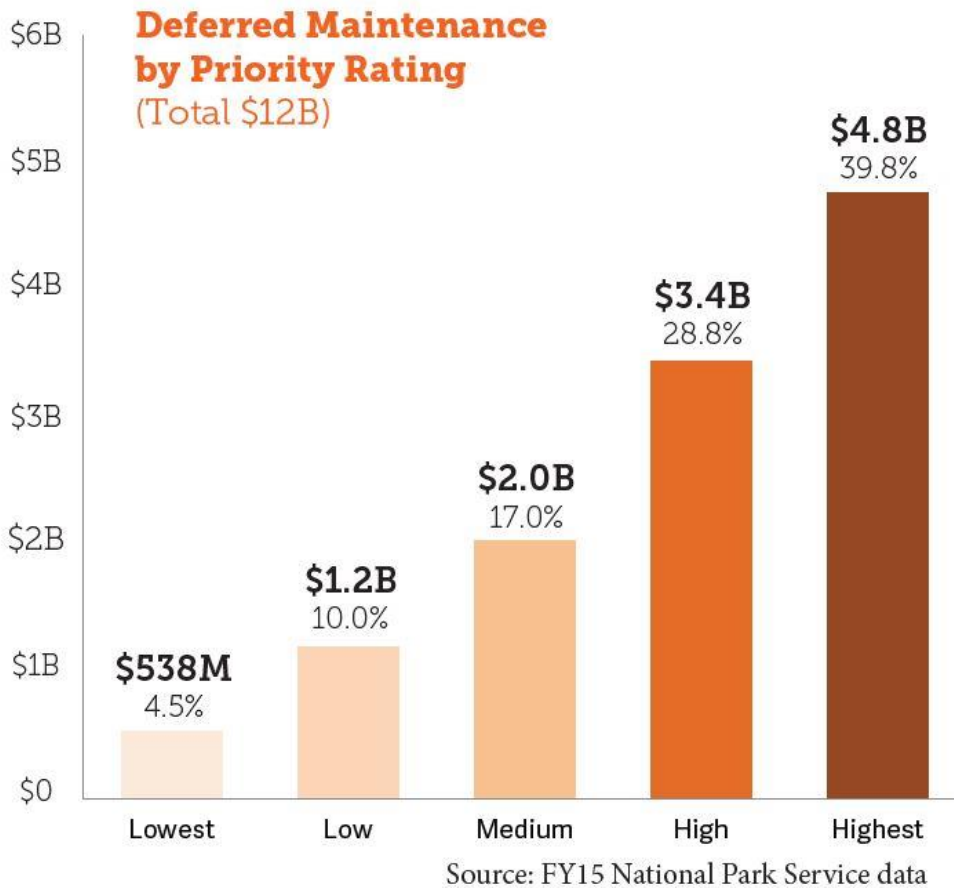
Unreliable Funding. Years of underfunding compound the challenges of preserving the physical integrity of NPS assets. From FY2006-FY2015, federal funding for the repair and rehabilitation, cyclic maintenance, and line-item construction portions of the NPS budget declined by 33 percent; this number increases to 43 percent when inflation is taken into account. The agency is typically \$250 - \$320 million short of the \$800 million it estimates it needs each year to maintain transportation and non-transportation assets at existing conditions.

The scenario of increased visitation at the same time that infrastructure is declining is not new to NPS. During the 1950s, there was significant visitor surge to our national parks. At 50 years old, early park infrastructure was showing signs of disrepair and the public noticed. There was a public outcry over the state of the parks, including the lack of visitor centers, inadequate bathrooms, and poor roads. Congress responded with an initiative referred to as Mission 66 and, from 1956 to 1966, invested a total of \$900 million to improve facilities within the National Park System. That figure is the equivalent of \$7.4 billion (1966) to \$8.8 billion (1956) in today's dollars (based on <http://www.dollartimes.com/inflation/inflation.php?amount=1&year=1985>).

Prioritizing Deferred Maintenance

Executive Order 13327, issued in 2004 by President G.W. Bush, required agencies to identify and categorize assets with the goal of improving overall operations and financial management. In compliance with this Executive Order, NPS began to develop a system to review its more than 75,000 assets, resulting in a deferred maintenance figure that is updated annually to reflect on-the-ground data.

Based on 2015 data, 41,000 of the National Park System's assets have deferred maintenance. As noted previously, the cost to address these repairs is estimated at \$11.9 billion. Approximately \$4.8 billion of the \$11.9 billion backlog is attributed to highest priority assets, or assets NPS deems critical to its mission.



Highest priority assets include memorials, historic buildings, visitor centers, key infrastructure, and other properties that a park unit may have been established to preserve. Specific examples include items like President Lincoln’s boyhood home, the portico at the Jefferson Memorial, the main entry road to Mt. Rainer NP, and Martin Luther King’s birth home. Maintenance shops, administrative buildings, and warehouses are examples of assets that typically serve a secondary role in supporting park facilities with a direct agency mission.

Using an approach referred to as the *Capital Investment Strategy*, the NPS prioritizes assets by looking at the overall importance a park facility or property has to the agency mission, in addition to other considerations, such as an asset’s importance to resource protection, visitor experience, safety, and accessibility. By identifying its priority assets and projects, NPS is able to more strategically allocate limited resources to areas of greatest need.

The Path Forward

Preventing the escalation of the NPS maintenance backlog is not an insurmountable feat. But Congress and the Administration must pursue multiple approaches to ensure success, including federal funding, policy reforms, and increased opportunities for public-private partnerships. Focusing limited resources on priority assets must continue to be part of common sense solutions.

With the enactment of the NPS Organic Act in 1916, Congress mandated the agency “to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of

the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” So while collaboration must be a part of the equation to resolve deferred maintenance, it should complement, not replace Congress’s responsibility to fund park infrastructure needs.

Pew recommends a multi-pronged approach to addressing deferred maintenance that includes:

Congressional Appropriations. Reliable annual appropriations for transportation needs and NPS park maintenance—specifically, line-item construction, cyclic, and repair and rehabilitation—are needed, as well as adequate staff capacity to implement projects. This would provide more certainty for planning and integration of projects, allowing for more cost-effectiveness. We appreciate initial recommendations in the President’s budget blueprint to ensure “that the National Park Service assets are preserved for future generations by increasing investment in deferred maintenance projects.”

Dedicated Annual Federal Funding. The establishment of a dedicated federal fund that would direct resources to the NPS maintenance backlog each year, both for non-transportation and transportation needs, is crucial. We propose federal funding of \$500 million per year over a period of 10 years. This fund should not be used to supplant annual appropriations. Piggybacking on the successful Centennial Challenge program, public-private matches would be encouraged by allowing maintenance projects with a non-federal match to be expedited.

Infrastructure Package. Any potential national infrastructure package, such as the one proposed by the Administration, must include deferred maintenance provisions specific to the parks, recognizing that national park buildings, roads, trails, aging electrical and water systems, and monuments need significant updating.

User Fees. The Federal Lands Recreation and Enhancement Act (FLREA), the law which authorizes the government to charge user fees on public lands, is due for reauthorization in 2017. Its reauthorization is an opportunity to consider user fee increases (including park entry fees, filming fees, and commercial buses fees). FLREA might also consider more efficient ways for NPS to collect fees, making it more cost-effective for a greater number of park units to collect entry fees.

Volunteerism. NPS’s largest volunteer initiative, the Volunteer in the Park (VIP) program, had over 330,000 participants who contributed over eight million hours of volunteer work, with over 1.16 million of those hours spent on maintenance in 2016. This translates to a savings of \$27.3 million to NPS, based on an independent sector model of \$23.56 per hour for each volunteer hour contributed. NPS could benefit from one to two volunteer coordinators in each of its seven regions, enabling the agency to better leverage and coordinate its growing volunteer force.

Programs like the Student Conservation Association (SCA) should be encouraged. The SCA is modeled after the federal Civilian Conservation Corps program, which built much of our national park infrastructure in the 1930s and 1940s. SCA student crews repair and enhance federal lands, particularly parks, while receiving job training. In 2016, 9,638 SCA participants contributed 1.3 million hours of service. In Alaska, SCA placed 250 young adults at national parks throughout the state, where they learn stewardship skills while undertaking maintenance work.

Partnerships.

NPS currently has authority to enter into various types of partnerships and agreements, which has led to alliances with Park Friends Groups, corporations, and non-governmental organizations. These

opportunities need to occur more broadly throughout the National Park System, achieving a cost-savings while reducing the maintenance backlog.

Job Training for Veterans

There are several examples of programs in national parks that provide job training for veterans or active duty service members while drawing down deferred maintenance—these initiatives are a win-win and need be replicated in more park units.

The *Mission Continues* is a new partnership with NPS, the National Park Foundation and Boeing that is aimed at protecting, restoring, and rebuilding America's natural and cultural resources by working with veterans. The program is intended to expand opportunities for volunteer service and career development for post-9/11 veterans within national parks across the country. Veterans have recently worked on projects such as improving accessibility at Fort Ricketts in Washington, DC, clearing trails at Ebey's Landing National Historical Reserve in Washington State and tending the hallowed grounds at Battleground National Cemetery in Washington, DC.

The Concrete Preservation Institute (CPI) is a non-profit that partners with the Department of Defense and the NPS to train soon-to-be-discharged active duty military personnel for careers in the construction industry. CPI currently operates in Golden Gate National Recreation Area (CA) and World War II Valor in the Pacific National Monument Pearl Harbor, where participants undergo a 12-week, hands-on program acquiring skills and training in the concrete and construction industry while they do deferred maintenance work on historic assets within the park sites. CPI receives financial and material support from some of the largest construction firms in the country. These firms recognize the desperate need for skilled labor in the concrete industry and work closely with CPI to place program alumni after they complete training and military service. CPI is a win for parks, veterans, and companies; investments in programs such as this should be strongly encouraged—with businesses, foundations, philanthropists—so there is capacity to provide training to more service members as well as address park maintenance.

Corporate Partnerships. Pew supports opportunities for appropriate corporate partnerships that enable NPS to reduce deferred maintenance costs. There are numerous examples of successful partnerships and more should be encouraged.

One example of a successful partnership is that with Musco Lighting, a company known for lighting major sporting events such as the Olympics and the Super Bowl. Musco has partnered with NPS to light some of the country's most iconic landmarks, such as the White House and Washington Monument, the Statue of Liberty, and Mount Rushmore. The updated lighting systems enhance visitor experience, improve resource protection, preserve the dark sky environment, and reduce costs. At Mount Rushmore, the lighting system installed by Musco reduced energy consumption by 90 percent resulting in major sustainability achievements and cost savings for the park.

Another example occurs in Yellowstone National Park, our nation's first national park. The Lamar Buffalo Ranch Battery Project is a partnership with Toyota, Indy Power Systems, Sharp USA SolarWorld, Patriot Solar, Yellowstone Forever, and the NPS. Initiated in 2014, the project reuses hybrid vehicle car batteries to sustainably power a remote field station in the park. Solar panels are used to generate energy and the renewable energy is then stored in the re-purposed battery packs and used to power the ranger station and environmental education center at the Ranch. Previously, the remote field station relied on noisy, polluting diesel and propane generators for electricity. The Yellowstone-Toyota partnership is the type of innovative corporate collaboration we should be encouraging to address deferred maintenance projects.

Community Collaboration. Communities adjacent to park units are benefactors of park tourism; in 2015, park visitors spent nearly \$17 billion in local communities, translating to tax revenue and jobs. Most gateways recognize this benefit and want to ensure that their park neighbors continue to provide a safe, positive visitor experience. In the case of Bandelier National Monument in New Mexico, Los Alamos County has stepped up to address a safety issue facing the monument. NPS is in the process of replacing the primary electrical system at Bandelier National Monument; the electrical lines are over 50 years old and severely deteriorated, leading to safety-risks for visitors and fire-risks for the park and surrounding community including the Los Alamos National Laboratory.

NPS and the staff at Bandelier negotiated with Los Alamos County, their current power provider, to replace the electrical system to the County's standards. NPS is in the process of burying these upgraded power lines, using specialized sleeves that make repairing and replacing more efficient and less costly. Once replaced, Los Alamos County will assume ownership and maintenance for the lines. Historically, a "burn-out" on a section of the line would cost approximately \$10,000 for a repair; in the future, the County will be responsible for identifying and fixing any power issue, typically within 24 hours, providing a cost-savings for NPS, as well as increased safety for visitors and community members. Collaboration between individual parks and local communities should be considered more frequently, where feasible.

Historic Leasing Credit

Over 46 percent of the assets on the deferred maintenance list are considered historic. We support the increased use of historic leasing to repurpose and reuse park sites. One successful example is the block of historic houses within the Martin Luther King, Jr. National Historic Site in Atlanta. NPS funds the maintenance for all of the federally-owned houses within the park unit with revenue generated by leasing 29 of the federally-owned historic buildings for private residential purposes. These structures include apartments, duplexes and single family homes and the leasing program has proven to be very popular.

New Technologies. As NPS enters its second century, the agency should be a showcase for smart technology and sustainable practices. Implementation of new technologies provide an opportunity for more efficient management and cost savings, as well. Examples might include sensor technologies that provide real-time data on road conditions, trash collection, and electrical outages. The opportunity to purchase park passes online should be implemented on a large-scale, and user-friendly technology to allow for more efficient collection of fees at park entrance booths should be considered. While remaining consistent with historic preservation requirements, when designing or repairing facilities, NPS should consider using materials and techniques that prolong an asset's lifespan.

The Importance of Improving Infrastructure Within the National Park System

Restoring the infrastructure and physical integrity of our national park assets is a common sense investment:

- **Preservation.** Our national park units document our nation's history—both the high and low points. This history must be protected and preserved for current and future generations to experience and learn from.
- **Accessibility.** Park resources can only be experienced by visitors if they are accessible. Park roads, bridges, trails, and historic resources need to be routinely maintained to ensure accessibility and safety.
- **Revenue.** Parks are proven economic generators. Local gateway communities received \$16.9 billion in direct park visitor spending in 2015 with a cumulative nationwide boost of \$32 billion and 295,000 jobs. It's critical that parks continue to be destinations that provide a positive experience for visitors and sustain neighboring communities.

- Cost Savings. Repairs become more costly with delay.
- Job Creation. Addressing park maintenance has the potential to create a significant number of infrastructure-related jobs in the U.S.

Conclusion

Our National Park System showcases America’s spectacular natural resources and documents our heritage. From stories that are important to Native American tribes and military veterans, to sites that capture the painful history of the Civil War, Japanese internment, and the Civil Rights movement, to iconic landscape parks, we must invest in the maintenance of park infrastructure, ensuring the integrity of America’s “best idea” for generations to come.

I appreciate the opportunity to share these views and am happy to answer any questions the Committee may have.