Statement of Michael Black
Director, Bureau of Indian Affairs
Before
The Committee on Indian Affairs
United States Senate
On
S.2717, Dam Repairs and Improvements for Tribes Act of 2016

April 13 2016

Good afternoon Chairman Barrasso, Vice Chairman Tester, and members of the Committee. My name is Michael Black and I am the Director for the Bureau of Indian Affairs. Thank you for inviting the Department of the Interior (Department) to provide testimony on S.2717, the Dam Repairs and Improvements for Tribes Act of 2016. We appreciate the Committee's leadership in addressing dam safety concerns on Indian lands.

The intent of S. 2717, the DRIFT Act of 2016, is to improve the safety and address the deferred maintenance needs of Indian dams to prevent flooding on Indian reservations. The Department supports this intent.

The Act authorizes the establishment of two special funds -- one for a maximum of $22,750,000 a year for twenty years (2017-2037) and the other for $10,000,000 each year for the same time period -- for a total allocation of $655 million to the Bureau of Indian Affairs (BIA) Safety of Dams special funds. Any subsequent expenditure from these funds would be subject to appropriations. The Act would allow the Bureau of Indian Affairs to improve maintenance of high-hazard potential dams in the Safety of Dams Program, establish a program for inspecting and maintaining low-hazard potential dams, establish a Tribal Safety of Dams Committee for recommending updates to the Indian Dam Safety Act of 1994 (P.L. 103-302), and run a four-year floodplain management pilot program.

Within the discretionary spending caps set by Congress, the President's Budget has emphasized the mission of the Safety of Dams Program, including a $2 million increase for the program in the President's FY 2017 Budget. The Department believes that discretionary funding is the appropriate mechanism to improve the safety of BIA dams, because it considers federal investments in such projects within the context of current fiscal constraints and other Departmental priorities. The Department supports the goals of improving the safety of BIA dams and allowing tribal communities to realize the full benefits of dams on their reservations, and we look forward to working with you to address the best means of doing so given current budget constraints.

Bureau of Indian Affairs Safety of Dams Program Background

Many BIA dams are vital to the tribes and local communities where they are located. The BIA is responsible for maintaining and rehabilitating all of the dams on Indian lands per the Indian Dams Safety Act of 1994. The BIA Safety of Dams Program's mission is to reduce the potential loss of human life and property damage caused by dam failure. The Safety of Dams Program

contracts or compacts with Indian Tribes to perform many aspects of the Program. The BIA retains ultimate responsibility for Program dams. The Safety of Dams Program has approximately $23 million in annual funding, of which $10 to $12 million is allocated for the rehabilitation of Program dams, and the remainder of funds are allocated to activities such as security, emergency management systems and inspections and evaluations. The estimated current value of deferred maintenance costs is $556 million. Since 2010, the cost of deferred maintenance has increased approximately 6 percent per year.

The Safety of Dams Program also has the responsibility for determining the hazard potential classification of all dams located on tribal lands. Many known dams have not had a hazard potential classification assigned, and it is likely that there are more dams on tribal land that have not been identified. Additionally, hazard potential classifications may change with new downstream developments. Continued monitoring of low-hazard structures may be necessary to confirm their classifications. The BIA is responsible for more than 700 low-hazard or unclassified dams across the United States. The Safety of Dams Program currently administers 137 high- or significant-hazard potential dams on 41 Indian reservations. Under current policy only high- and significant-hazard dams are inspected, evaluated and maintained by the BIA Safety of Dams Program.

Currently, activities for all high- and significant-hazard potential dams in the BIA Safety of Dams Program include:

- Dam evaluation, design, construction, operations, and maintenance;
- Dam security;
- Early warning systems;
- Emergency management; and
- Floodplain management downstream of BIA dams.

Each of these program areas is described in detail below.

BIA Safety of Dams Program Activities and Funding Impacts

<u>Dam evaluation, design, construction, operations, and maintenance</u>

As noted, the primary goal of the BIA Safety of Dams Program is to protect downstream residents from risks associated with dam failures. Dam safety projects are identified through an established evaluation process, whereby the agency evaluates each dam facility through inspections, and reviews to understand the risks presented by each dam. These evaluations lead to recommendations around future design, construction, and operations and maintenance. The Program utilizes a risk-informed decision process to prioritize dam repairs, reduce deferred maintenance, and conduct associated dam safety actions. This approach is consistent with that of other federal agencies responsible for dam safety, including the Bureau of Reclamation, the U.S. Army Corps of Engineers, and the Federal Energy Regulatory Commission. As hazard classification potentials are updated, the number of high- and significant-hazard potential dams may increase, if that happens, maintenance and evaluation requirements will also increase.

The BIA Safety of Dams Program adopted the aforementioned updated evaluation and prioritization system in 2012. Since then, 34 of the identified 137 high- and significant-hazard dams have been evaluated. Of those 34, 14 (approximately 42%) have been identified as presenting unacceptable risks. These facilities will require risk reduction measures, which often include construction modifications. Costs for these construction modifications vary widely, but are generally between $1 and $25 million per facility. Current funding allows for modification of the highest priority of the known high-hazard potential, high risk facilities. Typically, one to three facilities undergo construction modifications each year.

Many BIA dams present risks that exceed the tolerable risk guidelines established by the federal dam safety community. Additional construction modifications would reduce deferred maintenance and improve the safety of BIA dams.

Dams, if they are low hazard, can provide significant value to the communities they serve, including irrigation, livestock watering, flood mitigation, wildlife habitat and recreation. The Act would initiate an inspection, review, prioritization, and maintenance program for low-hazard potential dams. The BIA establishes temporary risk reduction measures at identified high risk facilities with deferred maintenance which reduce risk, but the intended benefits of these facilities are often lost. Reducing the deferred maintenance allows for realization of the benefits provided by these facilities without unacceptable risk of loss of life.

For example, one facility in the program that provides irrigation and fishery benefits presents unacceptably high risk. To mitigate short term risk, the water level was lowered significantly. This restriction reduced the irrigation storage by approximately half and reduced the productivity of the fishery. Many facilities have similar operational restrictions.

Dam Security

The BIA Safety of Dams Program is in the process of conducting a review of the security measures in place at all high- and significant-hazard potential dams in the Program. Security reviews have resulted in many recommendations to increase or modify the existing security measures based on analysis of the risk, vulnerability, and consequences at each dam. Funding provided by this Act would allow the Program to implement these recommended security measures at the highest risk dams, further protecting the Indian communities downstream of these dams.

Early Flood Warning Systems

It is well documented from historical dam failures and hazardous flood events that loss of life due to flooding is highly dependent on the amount of warning time received by downstream residents. The BIA currently operates a network of approximately 300 real-time early flood warning system sites for 120 Program dams located on 37 reservations. The current system is designed to address unique data and communication challenges for BIA dams, which are often located in rural, mountainous areas with unique access, power, and telemetry issues. In the event of a dam failure, this system increases the time available to evacuate communities downstream of BIA dams.

The effectiveness of an early warning system in providing critical response time in the event of a dam failure depends on continual system maintenance and investment. Despite extensive system upgrades in recent years, there are high-hazard potential dams currently using outdated technology and others without early warning systems. . For example, significant improvements could be made within the web-based data network to make it more user-friendly and applicable to specific tribes' monitoring and flood warning needs.

Emergency Management

The Indian Dam Safety Act requires that all high- and significant-hazard dams have current updated Emergency Action Plans in the event of an incident that may jeopardize the integrity of the dam. These Emergency Action Plans outline procedures for notifying the downstream jurisdictions in the event of a potential dam failure so that warning and evacuation can be effectively performed to minimize loss of life and property. Practical exercises are conducted every five years to train the dam safety staff and local emergency response staff to act swiftly and effectively in the event of a dam failure.

These exercises may meet the minimum requirements of Department of Homeland Security and Department of Interior directives, but this timeframe is often insufficient to meet tribal needs. Within tribal departments, there is often a high staff turnover rate, therefore more frequent training regarding emergency procedures would provide additional opportunities to prepare and equip these communities to effectively respond to potential dam safety and other emergency incidents. The Emergency Action Plans and procedures rely on accurate flood zone mapping. Modern technologies have improved flood zone mapping to more effectively guide emergency response procedures.

Floodplain Management Downstream of BIA Dams

Flooding is one of the most common and destructive natural hazards confronting tribal communities. Despite this, natural flood risks throughout most tribal lands are poorly understood. In 2013 the Government Accountability Office (GAO) published a report to Congressional Committees titled Flood Insurance: Participation of Indian Tribes in Federal and Private Programs (GAO-13-226). This report stated that "as of August 2012, just 37 of 566 federally recognized tribes (7 percent) were participating in the National Flood Insurance Program (NFIP)." It was noted that "FEMA has not placed a high priority on mapping rural areas, including many Indian lands, for flood risk, and most tribal lands remain unmapped." GAO-13-226 continued, "Without flood-hazard maps, tribal communities may be unaware of their flood risk, even in high-risk areas." The Safety of Dams Program has attempted to supplement tribal understanding of flood risks through the development of Non-Dam-Failure Advisory Flood maps. These maps have been created with tribal community input to depict flooding scenarios downstream of BIA dams that can be used by community leaders for land-use planning and increased public awareness of natural flood risks. To date, the Safety of Dams Program efforts to support tribal floodplain management have been confined to waterways directly downstream of BIA dams. With the implementation of the Flood Plain Management Pilot Program in this proposed Bill, the Safety of Dams Program would be able to assist tribes in

developing enhanced understanding of local flood risks in the natural floodplains within tribal communities.

S. 2717

S. 2717 would create two funds, a "High-Hazard Indian Dam Safety Deferred Maintenance Fund, and a "Low-Hazard Indian Dam Safety Deferred Maintenance Fund" in the Department of the Treasury from the reclamation fund that was established in the Act of June 17, 1902 (32 Stat. 388, chapter 1093). The High Hazard Dam Fund would be authorized to receive a maximum of $22,750,000 per year for 20 years for a total allocation of $455 million. The High Hazard dams eligible for funding under section 201 (b) (1) are current and all future dams covered under the Indian Dam Safety Act (P.L. 103-302). S. 2717 would also establish a Low-Hazard Indian Dam Safety Deferred Maintenance Fund which would be authorized to receive $10,000,000 each year for the same time period, for a total allocation of $200 million. The Low Hazard Potential dams eligible for funding under section 201(b)(2) are all dams covered under the Indian Dam Safety Act (P.L. 103-302).

S. 2717 would expand the BIA Safety of Dams Program by providing mechanisms to address low-hazard potential dams and for the Tribal Safety of Dams Committee to study and recommend updates to the Indian Dam Safety Act of 1994.

Opportunity exists for the Tribal Safety of Dams Committee to update the Indian Dam Safety Act of 1994 to better align with current standards of practice within the Federal dam safety community. These updates might include changes in the definition of hazard potential classification to align with the guidelines published by the Federal Emergency Management Agency (FEMA) titled "Federal Guidelines for Dam Safety: Hazard Potential Classification System for Dams" (FEMA Publication Number 333) and changes in action prioritization of the Maintenance Action Plan to better align with the methodology of the "Federal Guidelines for Dam Safety Risk Management" (FEMA Publication Number P-1025). The Tribal Safety of Dams Committee should also consider updates to allow funds to be used, where appropriate and requested by Tribes, for the removal of dams in order to eliminate the safety hazards posed by deteriorating dams, reduce the long-term costs to tribes and the Federal government for maintenance and repair, restore ecosystem health, and improve opportunities for economic development and recreation.

Aside from our policy stance on the bill, there are a number of technical imperfections within the current draft of S. 2717. For example, Section 214 would amend the Water Resources Development Act of 2000 such that the Secretary would be required to issues guidance 180 days after the enactment of the Water Resources Development Act of 2014. The Department would be happy to work with the committee to correct such imperfections.

Conclusion

The mission of the Safety of Dams Program is to protect, to the extent practicable, people who reside in or who otherwise occupy land downstream from the risk BIA dams pose. Enacting certain sections of S. 2717 would advance this mission by enabling the BIA Safety of Dams

Program to better fulfill its trust responsibility to tribes. S. 2717 would improve dam safety regulation and floodplain management on Indian lands.

The overall intent of S. 2717, the DRIFT Act of 2016, is to improve the safety and address the deferred maintenance needs of Indian dams to prevent flooding on Indian reservations. The Department supports the intent of this legislation and would be happy to work with the committee to amend S. 2717 such that we could support the amended bill.

This concludes my prepared statement. I will be happy to answer any questions you may have.